

TORINO PROCESS 2014

SERBIA



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EXECUTIVE SUMMARY

The Strategy for the Development of Education in Serbia to 2020 describes purposes, goals, objectives, directions, instruments and mechanisms for the development of the education system, including vocational education and training (VET).

Even though the Strategy correlates closely to other national strategies (e.g. economy and employment), there are concerns that the vision behind the Strategy has not been sufficiently shared among all stakeholders (especially among employers, teachers, students and parents) two years on from adoption.

A number of laws related to education and student standards were adopted in 2013: the Law on Amendments to the Law on the Foundations of the Education System (LoFE), the Law on Primary Education, the Law on Secondary Education, the Law on Adult Education, the Law on Amendments to the Law on Higher Education and the Law on Amendments to the Law on Pupils' and Students' Standards.

Evidence-based policy making processes have improved, but the data management and research aspects have not yet been fully systematised, with some methodological incompatibilities or unreliability, with information communicated in a way that is not policy-friendly.

Labour market statistics indicate that most of the inactive and unemployed people, as well as discouraged jobseekers, are graduates from secondary education. This situation reveals that the labour market and secondary education, including VET, are not harmonised and that there is a lack of communication between those two systems. It is also indicative of wider issues with the structure and situation of the Serbian economy.

In the last two years, the strategic, legal and policy documents adopted by the various national institutions have led to some significant improvements in the effectiveness and efficiency of measures to address social and inclusion demands and in those promoting better educational access, participation and attainment for children from vulnerable groups. Direct outcomes of these measures include: higher numbers of students from vulnerable groups at all levels of education system, higher levels of school attendance and better academic achievement.

Better coordination is needed between the various initiatives to ensure accumulated experience and synergetic effects are used to best advantage.

Deepening disparities between the regions in Serbia are problematic. There is a need to develop well-targeted, multi-dimensional and locally-designed approaches to interconnected problems in disadvantaged regions, such as out-migration resulting in depopulation and population ageing, a diminishing economic base with limited employment opportunities, low income levels and dependence on social welfare, poor infrastructure and quality of education.

A National Qualifications Framework (NQF) for pre-university education has been approved by the Council for Vocational Education and Adult Education (CVEAE), but a unified document covering qualifications at all levels of education, the defined descriptors and lists of occupations have yet to be developed.

Important elements for quality assurance have been adopted and implemented, but the overall quality of VET education is still not at a satisfactory level. There is also some room for improvement in the learning environment (school buildings, equipment, etc.) and the learning content, where the curricula of some VET profiles should be improved.

There are currently no specific provisions for monitoring the effectiveness and efficiency of the relationship between the VET and the labour market, despite the fact that indicators on long-term unemployment place the Republic of Serbia unfavourably in comparison with the European Union (EU) average on this issue.

In July 2014, some Amendments and Supplements to the Law on Labour were adopted. The new law increases labour market flexibility in line with labour market reforms recommended by the Europe 2020 Strategy; but it is too early to say what the effects of these measures will be.

Short and long-term integration of employment creation and economic policy making is a basic need within the labour and employment sector in Serbia. This leads to the conclusion that economic and education policy should both have complied with and been firmly linked to economic growth projections and that continued cooperation is needed between the various relevant ministries and departments.

VET governance and practices have improved in recent years, but further actions should be implemented to achieve the VET development vision of a functional, cost-effective, flexible, open-to-all system in line with labour market needs.

INTRODUCTION

The Torino Process is a participatory process leading to an evidence-based analysis of VET policies in a given country. It is conducted to reach a consensus on possible ways forward in VET policy and system development. This includes the determination of the state of affairs and vision for VET and an assessment of the progress in achieving the desired results. The European Training Foundation (ETF) launched the first round of the Torino Process in 2010 and 22 partner countries participated. The second round in 2012 was implemented by 27 of 31 ETF partner countries, including Serbia, which completed a self-assessment.

A group of 30 participants with extensive experience and knowledge of VET in Serbia, representing a diverse group of institutions and backgrounds, participated in a series of five focus group discussions in July and September 2014. The purpose of these meetings was to discuss and summarise progress and experience with respect to the Torino Process in Serbia. In addition, significant support was given in the form of data collection, analyses and feedback by the VET and Adult Education Centre (Tatijana Glišić Milutinović), the Council for VET and Adult Education (Iskra Maksimović), the Statistical Office of the Republic of Serbia (Nadežda Bogdanović and Mile Prole), the Ministry of Labour, Employment, Veteran and Social Policy (Katarina Denčić), the National Employment Service (Ljiljana Lutovac and Svetlana Aksentijević), the Ministry of Education, Science and Technological Development (Mirjana Bojanić and Marija Krneta), the Social Inclusion and Poverty Reduction Unit Government of the Republic of Serbia (Jelena Marković) and independent economy and education experts Kristina Đuric, Jelena Radišić and Tamara Ikononov.

The development of the 2014 Torino Process report and the national self-assessment was coordinated by the Centre for Education Policy (Jasminka Čekić Marković and Nevena Adžić).

The draft report was presented in December 2014 and a validation workshop was organised to present and endorse the findings, to highlight possible developments and next steps and to discuss how this evidence might influence key policy making in the VET sector. The report was also discussed during the CVEAE meeting of 11 February 2015. Responses, comments and explanations provided during the workshop and the Council meeting contributed substantially to the content of the final report, which was adopted by the CVEAE on 10 March 2015.

The report was produced in accordance with the ETF updated Analytical Framework for the 2014 round of the Torino Process. It is the outcome of the process described and it incorporates responses to the analysis of the developments in secondary vocational education and training (SVET) and adult education and training from a broad range of stakeholders and actors.

The report describes the vision for the national VET system and concepts behind the strategic and policy documents currently in place. It details a range of measures and potential context and intervention factors that are considered to influence the effectiveness and efficiency of the system in addressing economic and labour market demands, as well as demographic, social and inclusion demands. It explains the internal efficiency of the VET system and the potential benefits of better governance and policy practices. Each section of the report finishes with a sub-section on policy action and assessment of progress in the period since 2010. The annexes to this report include more detailed explanation of some parts of the report and statistical data related to some of the indicators within each particular section.

The added value of the Torino Process lies in embedding VET within the socio-economic context, ensuring that analysis is informed by relevant evidence and that this takes place through structured dialogue. Accordingly, the data provided within this report are accurate and some of the content provided by the Statistical Office of the Republic of Serbia (SORS), the Ministry of Education, Science and Technological Development (MoESTD), the Ministry of Labour, Employment, Veteran and Social Policy, and the National Employment Service (NES) has been released pre-publication on request, exclusively for the purpose of report development. Also, indicators, after each of the sections, are selected in accordance to available data.

1. VISION FOR THE NATIONAL VET SYSTEM

1.1 Introduction to the VET system

The Serbian education system consists of four levels of education: preschool (to the age of seven); primary, consisting of eight grades (ages 7–14); secondary education lasting three to four years, and; higher education, from three to six years in length. Upon completion of primary education students receive a school diploma with the grades awarded by the school and all students are obliged to take a national three-part final exam that tests: competence in the Serbian language (or an L1 language for national minorities); Mathematics and; a combination of competences in social and natural sciences. The programme for the final exam is specified in accordance with the expected competences for students completing primary education (*Official Gazette* Nos 1/2011, 1/2012 and 1/2014). Secondary schools enrol graduates from compulsory primary education aged 15 to 19 years.

TABLE 1.1 A SCHEMATIC OVERVIEW OF THE EDUCATION SYSTEM IN SERBIA

ISCED levels ¹	EQF levels	Education level	Structure			
8	8	Higher	III cycle	PhD students (180 ECTS)		
7A	7		II cycle	Graduate academic studies (60-120 ECTS) Master professional studies ² (120 ECTS)	Specialist academic studies (60 ECTS)	Specialist professional studies (60 ECTS)
6A	5, 6		I cycle	Basic academic studies (180-240 ECTS)		Basic professional studies (180 ECTS)
3C 3D	4	Secondary	Secondary four-year education (secondary vocational schools and grammar schools)			
3B	3		Secondary three-year education (secondary vocational schools)			
2	2	Primary (compulsory)	Grades 5-8 (different subject teachers)		Total duration eight years	
1	1		Grades 1-4 (one general teacher)			
0		Pre-school	Preschool preparatory programme (min. six months)			

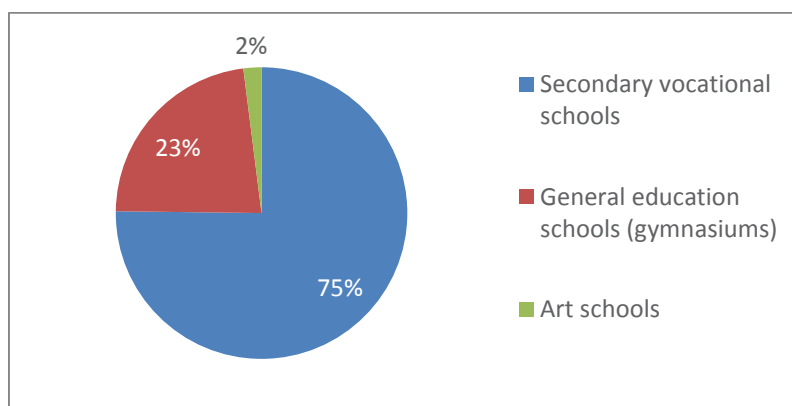
Notes: (1) ISCED (International Standard Classification of Education) 2011 classification, see www.uis.unesco.org/Education/Pages/international-standard-classification-of-education.aspx; (2) Masters level professional studies were introduced by amendments to the Law on Higher Education (2014). The right to enrol on a Master of Professional Studies is restricted to students who have previously completed basic professional studies (minimum 180 credits). Although legally validated, these courses have not yet been implemented although development of the initial study programmes is ongoing.

Secondary education is provided in the following types of educational institutions: (a) general education schools – general and specialised; (b) secondary vocational schools; (c) secondary artistic schools; (d) combined schools – general education schools and secondary vocational or artistic schools; (e) secondary schools for adult education; and (f) secondary schools for education of persons with developmental difficulties and/or disabilities.

According to MoESTD data for the 2013/14 school year, secondary vocational schools offered 278 profiles grouped into 15 sectors (166 of these were four-year profiles including 42 pilots, and 121 were three-year profiles including nine pilots). Four-year programmes and profiles (general education and four-year VET) offer the possibility for direct continuation of studies to higher education.

Secondary schools enrol graduates of compulsory primary education. According to SORS data for the 2013/14 school year: 203,312 pupils (out of a total of 270,356) were enrolled in secondary vocational schools, with an equal representation of boys and girls. The same source shows the overall share of pupils attending secondary vocational schools was 75.2% (**FIGURE 1.1**).

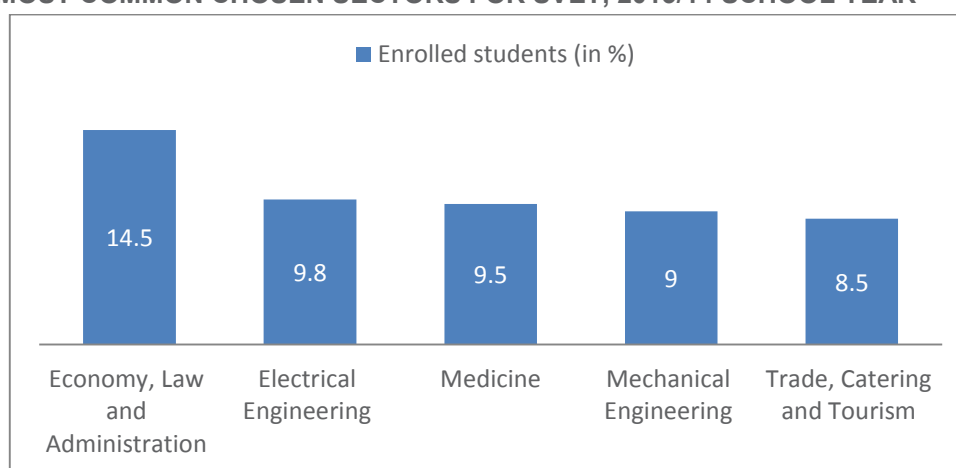
FIGURE 1.1 OVERALL SHARE OF PUPILS ATTENDING SECONDARY EDUCATION, 2013/14 SCHOOL YEAR



Source: SORS

More than half of all primary school graduates opting for SVET enrol in just five educational sectors (**FIGURE 1.2**).

FIGURE 1.2 MOST COMMON CHOSEN SECTORS FOR SVET, 2013/14 SCHOOL YEAR



Source: SORS

Fulfilment of quotas is continually high in the Medicine, Economy, Law and Administration, Trade, Catering and Tourism sectors, while numbers for Construction are in decline, and Textile and Leather Processing, Forestry and Wood Processing, and Personal Services tend to fluctuate (internal MoESTD data). It should be noted that the representation of each sector is limited by the number of places open for enrolment, meaning some sectors have been 100% filled for years, while there are a significant number of places unfilled in certain other educational profiles.

For the last three years, 81.5% of students enrolled in secondary education completed their programmes within the regular term for the course (internal MoESTD data). Data provided from SORS for the last five years show that completion rate is highest in general secondary education, followed by the four-year VET programmes, while it is lowest for students enrolled in the three-year VET programmes (internal SORS database).

In 2013, 19.5% of young people aged 15-24 were unemployed or not in any kind of education or training, with a comparative figure of 25.3% for the 18-24 age group (Labour Force Survey, 2013). In contrast, the data for adults for 2011 show only 16.5% of those aged 25-64 in training, retraining and further training (Adult Education Survey 2011, 2013).

1.2 Vision for the VET system

Educational reform in Serbia, and VET reform in particular, will conform with EU tendencies and local needs to create an educational system that is inclusive, decentralised, effective and transparent. It will aim to: engage educated, reflective, creative and motivated professionals; offer a high-quality curriculum; promote a culture of evaluation/self-evaluation and continual school development; foster equity, tolerance and constructive communication; be capable of satisfying special educational needs, as well as those of minority and marginalised groups, and; include a lifelong learning perspective.

The previous Torino Process country report states that the Strategy for the Development of Education in Serbia to 2020 (*Official Gazette* No 107/2012) adopted in 2012 contained a medium-term vision for the development of education including the VET system. This Strategy describes the purposes, goals, directions, instruments and mechanisms for the development of the Serbian education system. The Strategy also outlines development directions for pre-university and university education, as well as for adult and teacher education.

The main objectives are to increase the quality of processes and outcomes, coverage and attainment at all levels of education, to maintain the relevance of the content and to increase efficiency. The Strategy implementation is primarily focused on the development of human capital in Serbia.

The Strategy document contains a section related to SVET, while adult education, including VET for adults, is addressed in the separate part of the Strategy. The SVET section clearly supports strong links between VET, economic development and the labour market, the acquisition of relevant qualifications within the comprehensive NQF and orientation to lifelong learning.

Other key features include the formation of an optimised network of vocational schools, social partnership as a basis for SVET and revised curricula to be implemented through a variety of teaching and learning forms and methods. The Strategy also stresses that the Serbian SVET should support the development of creativity, innovation and an entrepreneurial spirit. The document correlates with other national economic and employment strategies, but, even though public debates were organised prior to adoption of the Strategy, there is still some concern that the vision behind the Strategy was not sufficiently shared among all stakeholders (especially employers, teachers, students and parents).

The section of the Strategy related to adult education mentions that this should be approached via the concept of lifelong learning with a form of delivery that would enable everyone to acquire the key competences necessary for inclusion in society under the same conditions. A main strategic goal is for at least 7% of the adult population in the Republic of Serbia to be covered by adult education programmes by 2020; with VET explicitly mentioned as one of the appropriate measures for accomplishing this goal (VET programmes for adults are set within one of the planned measures).

TABLE 1.2 PRIORITIES AND MEASURES TO PROMOTE CHANGE IN SVET ACCORDING TO THE STRATEGY FOR EDUCATION DEVELOPMENT IN SERBIA TO 2020

Strategic objectives of SVET development to 2020	Strategic measures to be implemented by 2020
Ensure relevance and availability of SVET qualifications	<ul style="list-style-type: none"> ■ Establishment of the NQF for lifelong learning ■ Standardisation of examination for qualifications ■ Establishment of a system for prior learning certification/recognition of non-formal and informal learning
Improve SVET quality and efficiency	<ul style="list-style-type: none"> ■ Introduction of education for craftspeople ■ Improvement of skill development system for teachers ■ Motivational professional advancement of teachers ■ Development of education programmes based on standards of qualifications ■ Flexible organisation of teaching ■ Matching the network of vocational schools and educational programmes offered with the needs of the economy
Ensure SVET is comprehensive and increase its contribution to reducing the school dropout rate	<ul style="list-style-type: none"> ■ Reduction of school dropout rate
Establish a sustainable system of social partnership in SVET	<ul style="list-style-type: none"> ■ Inclusion of employers in the SVET programming, development and implementation process
Establish an effective SVET management system at all levels	<ul style="list-style-type: none"> ■ Establishment of SVET monitoring and evaluation system ■ Defining a clear division of responsibilities, roles and tasks of all stakeholders in SVET management

1.3 Innovations and change

1.3.1 Legal framework

A number of laws regulating issues related to education, pupil and student standard were passed in 2013 following adoption of the Strategy for Education Development in Serbia to 2020: the Law on Amendments to the Law on the Foundations of the Education System (LoFE) (*Official Gazette* Nos 72/09, 52/11 and 55/13); the Law on Primary Education (LPE) (*Official Gazette* No 63/10); the Law on Secondary Education (LSE) (*Official Gazette* No 55/13); the Law on Adult Education (*Official Gazette* No 55/13); and the Law on Amendments and Supplements to the Law on Student Standards (*Official Gazette* No 55/13).

The Law on Amendments and Supplements to the LoFE in 2013 introduced the following amendments related to SVET: access to education at all levels - children, students and adults with disabilities and persons placed in social care institutions, persons in hospital or at home; reducing the dropout rate from the education system, and; the development of key competencies. The National Education Council (NEC) and the CVEAE were made responsible for monitoring, analysis and provision of recommendations to reduce student dropout at all levels, as well as the determination of continuing education measures for those who have left the system.

The LSE regulates secondary education, which is free and not mandatory and an opening has been created for the organisation of distance learning within secondary education. The LSE provides additional support for students and adults with disabilities who attend mainstream school under which the school will develop an individual educational plan for such student where needed. Where classes are organised for an ethnic minority in their mother tongue language, the LSE stipulates that parallel Serbian language and literature classes must also be organised. Students complete secondary education by passing a final exam as part of the graduation process. The LSE obliges the Minister to adopt the final exam programme within the vocational schools' system by the end of the 2016/17 school year and by the end of 2017/18 for general, vocational and fine arts graduation. Adoption of this graduation programme will provide the preconditions for students to enrol in higher education institutions without the need to sit an entrance examination.

The LSE governs education and lifelong learning for adults as part of a unified education system in Serbia. Adult education includes formal and informal education and informal learning that can be delivered by elementary and secondary schools or other organisations registered for educational activities with the approval of the MoESTD.

This new legal framework ensures the compatibility of strategic objectives and regulations, and creates the formal conditions needed to facilitate implementation of innovation and change in the education system.

1.3.2 Teachers as agents of innovation and change

For many teachers working within the system (classroom teachers and principals) the true meaning of the new legal obligations is unclear and occasionally unknown, meaning they may not be ready for changes in working practice. Teachers still largely view their role in the education system as restricted to the subject they teach inside the classroom and nothing further. Thus, they implicitly perceive only what is encompassed with this role, excluding themselves from broader knowledge of the education system and participation in this (Pantić and Čekić Marković, 2012). Meeting and overcoming these challenges is an important factor in further reform for all areas related to teachers and teaching, especially in view of the low status of the teaching profession in Serbia (Golubeva, 2014).

Incentives for change currently include the formal opportunity for promotion to pedagogical advisor, independent pedagogical advisor, higher advisor or senior pedagogical advisor, as defined in the Rulebook on Continuous Professional Development and Career Advancement of Teachers, Educators Professional Associates (*Official Gazette* No 85/13). Teachers must meet some conditions in order to apply for these higher professional ranks, such as: the acquisition of a specific level of foreign language knowledge or participation in international conferences and research.

Teachers are offered a choice of training programmes from a list approved by the MoESTD and the school principal and school board prioritise the requests. Provision of funding for professional development is the responsibility of the school managerial body (the board and the principal), although funding is ultimately down to local government where limited and insufficient resources are available in practice. The Rulebook stipulates that higher career ranks of teaching are linked to a salary increase, but the percentage of salary increase related with rank is not specified, causing a particular problem in the implementation of Rulebook provisions.

While there are no precise data on the number of teachers who have been granted a higher rank, experience indicates this occurs only at an anecdotal frequency and there is not a single case in which obtaining higher rank was followed by a salary increase. The problem of the missing percentage for the salary increase is compounded by budgeting issues in the republic where insufficient resources are earmarked for this purpose. More specifically, the fact that the professional advancement of teachers can occur at any point throughout the fiscal year would increase pressure on expenditure and make it impossible to predict the overall fiscal impact of professional development of teachers for the next fiscal year during the budget planning process.

However, goodwill and stakeholder participation could lead to a solution on the basis of maximum value, where the expense incurred by increasing the salaries of eligible teachers who have earned a higher rank is considered on an annual basis. In such a system, decision makers in the education sector would be able to define the necessary percentage increase of the education budget for this purpose. Depending on the level of resources available in the budget, it may be necessary to either provide additional resources or to implement additional optimisation measures in order to adequately fund the professional development of teachers.

1.3.3 Availability of innovations and examples of good practice

The MoESTD also runs registers of innovative activities. The register forms part of the electronic and publicly available databases and contains all legal subjects and natural persons engaged in activities related to innovation research, creation, development and implementation¹.

Also, for the last eight years the Institute for Improvement of Education (IIE) has been involved in the Microsoft 'Partners in Learning' programme and has therefore run the 'Creative school' competition on a yearly basis, presenting the outcomes as the best and most prominent examples of innovation in education on the 'Creative school' portal².

VET professionals working in the system mostly gain exposure to international influences and best practice through participation in donor projects and project-organised study visits. Only a minority of VET schools have established partnerships with foreign schools and companies, but cooperation on this front occurs exclusively as a result of individual school initiatives.

1.3.4 Donor support as driver for innovation and change

Most reform activities in VET in Serbia have been donor-driven, mainly by the EU and the German Agency for International Cooperation (GIZ).

Several important projects wholly or partly related to vocational education were completed within the Instrument for Pre-accession Assistance (IPA) I budget period of 2007–13, including: Modernisation of the VET System in Serbia – IPA 2007; Quality Assurance within the Examination System in Primary and Secondary Education – IPA 2008, and; Second Chance – Development of Functional Elementary Education of Adults in Serbia – IPA 2008.

Further modernisation of vocational education is proposed within IPA 2012, along with better equipment for practical work in vocational schools. This EUR 3.8 million project was initiated in April 2014.

Over the past 10 years, the GIZ has supported the MoESTD with VET reform for the economy, law and administration sector, in order to improve youth employment possibilities in Serbia through harmonisation of VET to economic needs. GIZ expanded support to the technical vocational education sector from April 2013.

The Republic of Serbia participates in the EU Lifelong Learning Programme and it has the right to use centralised programmes, i.e. programmes managed by the European Commission, until it becomes a permanent member.

Over the past two years, a series of activities have been launched in cooperation with various partners, including a model for dropout prevention and intervention developed within the 'Combating Early School Leaving in Serbia through effective dropout prevention and intervention measures at the school level' project, implemented by Unicef and the Centre for Education Policy, in cooperation with the MoESTD. The model is being piloted in 10 primary and vocational secondary schools from all regions of Serbia before it can be presented to the National Education Council and the CVEAE for possible implementation at national level.

Serbia participated in thematic groups for the Open Method of Coordination from 2014, and the MoESTD appointed representatives to work with six thematic groups, one of which is directly related to vocational education. This contributes significantly to inclusion in the international vocational education flows and is a valuable source of information on international best practices.

¹ www.mpn.gov.rs/nauka/inovaciona-delatnost/63-registar-inovacione-delatnosti

² www.kreativnaskola.rs

1.3.5 Evidence-based policy making

Solid networks exist for national VET research capacity, but entities in the non-governmental sector suffer from greater financial instability than those that enjoy continual government support. This means they are more likely to follow donor policies and align these with their own goals, rather than with government needs at any particular juncture. Where communication between these entities and decision makers is irregular or disrupted, they are likely to be even less aware of the needs of policy makers.

Much of the evidence needed for application in monitoring and evaluation processes in education is currently unavailable as a full information system is not yet operational. Data from the MoESTD and SORS sometimes vary, and there are no official figures for Roma children, children with disabilities and refugee children. Some of the indicators are still not comparable to European equivalents.

It could be concluded that evidence-based policy making processes have improved, but most participants in the process claim the data and research are not systematic, sometimes being methodologically incompatible or unreliable, that they may be scattered or not communicated in a policy-friendly manner. Conversely, evidence providers are aware that the government is the prime user of their work; they state that their research and evaluations are having insufficient impact on the policy process. It would be logical, therefore, to develop the capacity of the education system, institutions and partners for more efficient data use and analytical practice in decision making with ex-ante and ex-post analysis in the assessment of adopted and planned new measures.

In addition, there is a lack of accurate data on the number of adults within the VET training, retraining and additional training system, with improvement needed in this area.

1.4 Action and assessment of progress since 2010

Assessment of the feasibility, relevance and timing of the strategic goals and objectives for the Serbian VET system has assigned an average score of 2.5 on a scale from 1 to 5. The final score reflects the fact that while all the goals and objectives are relevant, and significant progress has made in defining strategic vision and legal regulation in Serbia, challenges still exist in implementation of the measures and priorities needed to drive change in SVET forward.

The assessment also reflects the fact that there is no linked costing for Strategy implementation within the Action Plan, coupled with low investments in VET and VET reform (donors who intervene in rather narrow areas cannot replace local actors driving the overall reform agenda).

With this in mind, the main priority areas for VET reform in this area should be:

- revision of the Action Plan for Implementation of the Strategy³ including a budget, distribution of responsibilities among main stakeholders and plan of financial burden for implementation between central and local governments;
- continued adjustment of human capital in Serbia in line with labour market needs and development of innovation capacity in order to enhance the competitiveness of the Serbian economy;
- promotion of successful examples of innovative companies investing in the growth and development of new products and services, encouraging the transfer of good practices in the SME sector. The official SORS Register and MoESTD Register of innovative entities in Serbia should be used for this purpose.

³ Action Plan adopted by the Government of Serbia on 31 January 2015 but with no linked budget or financial plan for implementation between central and local governments.

INDICATORS – SECTION 1

Indicator	Current state	Main source
Tertiary educational attainment of population aged 30–34	■ 25.3%	Eurostat (data reference year: 2013)
Literacy rates by sex, region and urban/rural	■ Total: 98.04% ■ Female: 96.8%	UIS (data reference year: 2011)
Net enrolment rates per level of education, including IVET and CVET	■ Primary: 91.4% ■ Secondary: 90.4%	World Bank (data reference year: 2012)
Gross enrolment rates per level of education, including IVET and CVET	■ Primary: 92.1% ■ Secondary: 86.3%	World Bank (data reference year: 2012)
Early leavers from education and training	■ 25.3%	LFS (data reference year: 2013)
Number of VET students as a proportion of the total number of pupils and students by level and sex	■ Share of pupils attending secondary vocational schools: 75.2% ■ Almost equal number of boys and girls	SORS (data reference year: 2013/14 school year)
Performance in PISA (ET2020), PIRLS and TIMSS by school type	■ TIMSS 4 – mathematics 516 and science 516 ■ PISA – mathematics literacy 449, reading literacy 446 and science literacy 445; share of low achievers in reading (33.1%), maths (38.9%) and science (35%)	OECD (data reference year: 2012)
Public expenditure on education, as share of GDP	■ 4.3%	SORS (data reference year: 2013)
Public expenditure on education by level of education	■ Pre-primary: 1.3% ■ Primary: 45.0% ■ Secondary: 22.6% ■ Higher: 29.5% ■ Other (unclassified educational services): 1.6%	SORS (data reference year: 2013)
Public expenditure on education as share of total public expenditure	■ 10.6%	World Bank (data reference year: 2011)

Note: According to data from National Census 2011 this percentage is 18 (SORS, 2013). The reason for this discrepancy could be related to methodological differences.

2. EFFECTIVENESS AND EFFICIENCY IN ADDRESSING ECONOMIC AND LABOUR MARKET DEMAND

2.1 Economic and labour market factors shaping the demand for skills

2.1.1 Economic development

Structural changes and the transition period from 2000 have altered the basic characteristics of the Serbian economy, reducing the share of agriculture and industry while favouring the services sector. As in the previous period, unemployment remains a key issue, while new productive jobs have been created through economic growth and investment. In 2011, the National Employment Strategy targeted an employment rate of 66% for the population aged 20-64 by 2020 (*Official Gazette* No 16/11). The employment rate for ages 20-64 was 49.2% in 2011, 48.9% in 2012 and 51.2% in 2013 (calculated on 2011, 2012 and 2013 Labour Force Surveys – SORS 2012, 2013 and 2014), so it would seem that the 2020 target is rather ambitious.

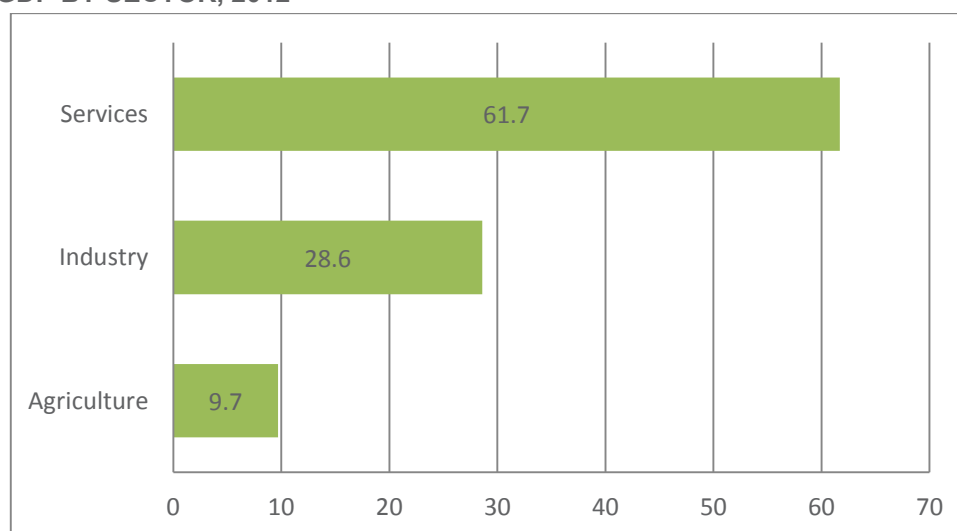
The second wave of the economic crisis that swept Europe in 2011 led to a reduction in investment activity. At the close of 2012, Serbia was marked by a decline of 3.4% and industrial and agriculture output increased through 2013, contributing to economic growth of 2.4% for that year⁴.

Serbia's economy depends on manufacturing and exports driven by foreign direct investment. The highest positive contribution to the 1.5% increase in gross added value derives from the ICT subsectors and industry, while the main negative contribution originates from the wholesale and retail trade sub-sector (ETF, 2014).

The Strategy and Policy Development for Industry from 2011 to 2020 aims to foster a dynamic industrial sector able to compete in the EU single market (*Official Gazette* No 09/14). The industrial policy presented in this strategy involves the revitalisation, restructuring, development and competitiveness of industry in order to increase production, productivity and exports in all areas of manufacturing. Priority for skills development should be given to five strategic economic sectors: agriculture and food processing; transportation; ICT; metals and the pharmaceutical industry (ETF, 2014).

GDP by sector and GDP by region are given in **FIGURES 2.1** and **2.2**.

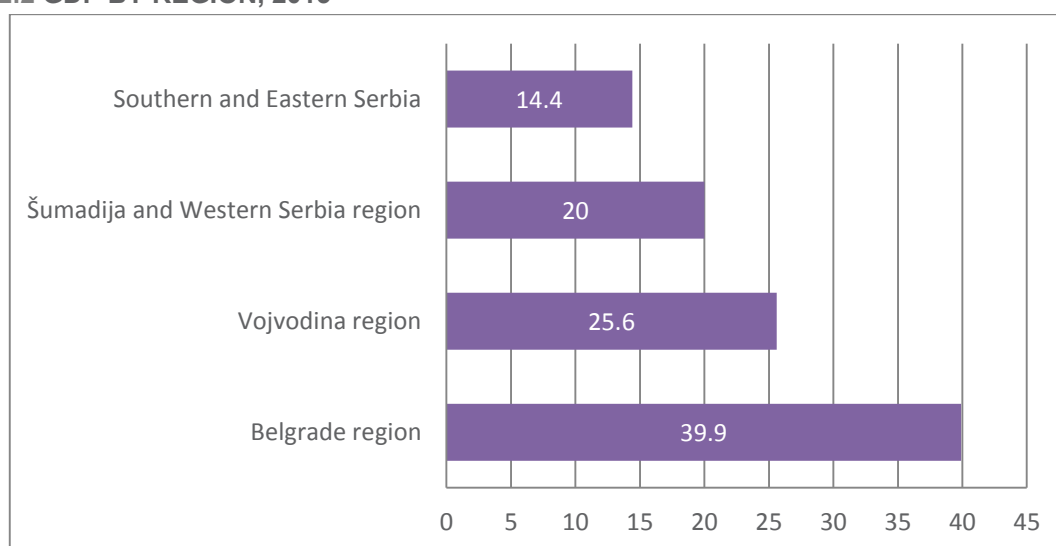
FIGURE 2.1 GDP BY SECTOR, 2012



Source: World Bank data set

⁴ www.srbija.gov.rs/vesti/vest.php?id=202630

FIGURE 2.2 GDP BY REGION, 2013



Source: SORS

2.1.2 Employment and unemployment

General characteristics of the labour market include disparity between labour supply and demand (a number of vacancies announced by employers remain vacant, while on the other hand many people have occupations for which there is no demand in the labour market); high share of long-term unemployment and high influx of redundant employees from enterprises in restructuring and privatisation; unfavourable workforce structure in terms of age and qualifications; high youth unemployment; huge disparities between regional labour markets and low workforce mobility (the situation is worse in the South than in the North of the country and rural areas are worse off than their urban equivalents); high numbers of employees with difficulties in finding employment (persons with disabilities, Roma, women, youth, etc.); and a large number of workers in the informal economy.

According to the 2013 Labour Force Survey (LFS) (SORS, 2014), the number of employees (aged 15+) in Serbia rose to 2.311 million people, while employment for adults (15+) stood at 37.7%. The employment rate was 47.5%, higher for men (54.9%) than for women (40.1%) among the working age population (15-64) in 2013. Rates were especially low for youth aged 15-24 in the third quarter of 2014 at 16.8% (LFS III quarter 2014, SORS 2014).

The 2013 LFS (SORS, 2014) also reports that the number of unemployed persons aged 15-64 totalled 655,000 people and the corresponding unemployment rate for the same age group was 23%. In the third quarter of 2014, the unemployment rate was 18.4% for the working age population (17.9% for men and 19.1% for women; LFS III quarter 2014, SORS 2014). The largest share of unemployed in the total pool of unemployed (15+) was for persons between 25 and 34 years (28.9%), followed by persons 35-44 years (22.8%). According to Eurostat data, monitoring of long-term unemployment consistently shows very high rates of long-term unemployment, as well as a tendency to increase during the economic crisis, up from 16.9% in 2011 to 18.6% in 2012, and back to 16.8% in 2013.

On the basis of Eurostat data, Serbia has more than three times the rate of long-term unemployment in the EU-28 and EU-15, both of which amounted to 5.1% in 2013. The share of long-term unemployed in total unemployment is very high at about two-thirds. Very long-term unemployment, which is higher for women than for men, is also high and has increased recently to 13.1% in 2013 (2013 Labour Force Survey, SORS 2014).

Fundamental changes in the structure of the working age population were reflected in the shift from the active to the inactive population in 2011. However, the trend has changed more recently, and the number of active working age population began to grow, up by more than 16,000 people in the 2011-13 period. In 2013, the activity rate of women was 53.2% and men 70.1% (2013 Labour Force Survey, SORS 2014).

If we look at employment in Serbia according to type, then the share of employment (15+) is highest among those in waged employment (67.6%), with self-employed at 24.8% and unpaid family households at 7.7% (2013 Labour Force Survey, SORS 2014). The largest percentages of workers (15-64) are in the service (54.8%) and industrial (27.1%) sectors, while the agricultural sector accounts for only 18.1%. Self-employment, employment in agriculture and informal employment grew faster than average, in significant contrast to the previous five years when these forms of employment had continued to fall relative to waged employment, employment in sectors outside agriculture and informal employment. Also, the expanding services sector in Serbia is currently offering better opportunities for jobs or self-employment. In 2013, the percentage of employees in less than full-time work was 11% (2013 Labour Force Survey, SORS 2014).

Informal employment in Serbia is relatively high. Work in the 'grey' economy is associated with low wages, insecurity, low productivity, low level of safety at work, poor working conditions and no paid health care and social security. The share of informal employment of persons older than 15 years was 19.3% in 2013. With regards to age, the share of informal employment is the largest (30.8%) among the young (15-24) and decreases with age and work experience, except for the group of workers aged 55-64 (26.6%).

The youth unemployment rate is very high (49.4% in 2013 and 41.7% in the II quarter of 2014). Employers regularly highlight dissatisfaction with education programmes and the resulting skills as well as the lack of practical knowledge among young people. Young people with university degrees have also been hit by the crisis, and from 2008 to 2012 the unemployment rate of young people with university degrees doubled to 55% (Second National Report on Social Inclusion and Poverty Reduction in Serbia, 2014). In addition to being unemployed, a significant number of young people are also out of education and training. The number of young people not employed, in education or involved in other forms of training amounted to 19.5% of all those aged 15-24 years in 2013 (and 25.3% of those aged 18-24) (NES, 2014). Adults included in the training, retraining and further training system are in a minority, showing participation for only 16.5% of adults aged 25-64 in 2011. The unemployment rate for older workers doubled from 8.2% to 15.2% in the 2008 to 2013 period (Adult Education Survey 2011, 2013).

2.2 Mechanisms to identify demand for skills and match skills supply

From November 2012 to June 2014, Serbia participated in the ETF coordinated FRAME – Skills for Future initiative through which Serbia was supported in the development of coherent policy approaches for human resource development in line with the EU 2020 Strategy. The first component of foresight within FRAME was dedicated to providing a clear overview of the main priorities for Serbia in the human resources development sector in order to produce a coordinated action plan for key stakeholders and a linked monitoring instrument to assess later progress. The foresight process produced a vision document (Skills 2020 – Serbia), a capacity development plan for institutions in charge of human resources development and a monitoring instrument. These will help align the education and training system better with economy and labour market needs, also strengthening institutional capacities and inter-institutional cooperation.

This process highlighted the fact that Serbia does not have an established permanent, systemic and multi-sectoral mechanism for forecasting and monitoring labour market demands in terms of the knowledge and skills required by the workforce. Also, there is still a significant shortfall in the administrative capacity to analyse the current situation and produce forecasts on the required occupations, with most of the current analyses being random and funded by donors (ETF, 2014).

The IIE in cooperation with the Serbian Chamber of Commerce and the Council for Vocational and Adult Vocational, with the support of the EU Quality Assurance – Examination System in Primary and Secondary Education (IPA 2008) and Modernisation of the Vocational Education and Training System project (IPA 2007) established four pilot Sector Skills Councils (SSC) in 2012. These councils were established as mechanisms to ensure that education and training better meet current and future labour market needs. In 2014, the ETF provided support to the Serbian authorities to explore the development of a sustainable structure for the establishment of SSCs (see Section 5.1).

Enrolment in secondary education is centrally planned on the basis of predetermined places for each school and specific profiles. Educational profiles offered in most cases do not correspond to either the preferences of students or the needs of the economy, but there is no feedback mechanism in place to correct enrolment trends which generate unemployment (ETF, 2014).

One of the good practice examples is the national programme for Serbia under the IPA 2011 'Further integration of forecasting, monitoring and evaluation in the development and implementation of active labour market policies and the harmonisation of the National Classification occupations with occupational standards ISCO08' which uses special methodology in its design to improve the forecasting of labour market trends.

The importance of career guidance and counselling is recognised as a key specific mechanism in ensuring that skills and competences are matched to economic requirements (career guidance and counselling in education is described in more details in Section 3.2.).

An active labour market policy (ALMP) was defined explicitly within the National Employment Strategy 2005-10. The active labour market measures implemented by the National Employment Service were divided into four groups: career guidance and counselling (measures including active job-seeking training, work clubs, provision of information on job fairs, counselling, employability assessment, individual employment plans, selection and classification); additional education and training (including the 'First Chance' programme); employment subsidies (including self-employment schemes), and; public works. Other mechanisms, such as VET graduate tracer studies, school-to-work transition surveys of young people, are not used at the system level.

There is also a lack of coordination between ministries in general, and the present level of social dialogue for policy design should be increased encouraging more intensive engagement on the part of employers. There is also a need for strengthening of capacities at local level in order to establish fully functional Social and Economic Councils. The CVEAE is an outstanding example of good practice representing all VET stakeholders that could serve as a model for other new institutions and forms of organisation.

Serbia has been confronted with a 'brain-drain' process for more than a decade. This can be attributed partly to the fact that highly qualified workers are better paid abroad, and also to the better conditions for research and development work in some foreign countries. This means that incentives will have to be offered to the best graduate students and researchers if they are to remain in the country and a long-term plan should be made for attracting Serbian scientists back home from abroad.

There is no data on regional mobility, but trends in internal migration indicate migration from economically underdeveloped regions to regions with greater employment opportunities.

2.3 Entrepreneurial learning

Programmes and projects have continued in the field of entrepreneurial learning. Entrepreneurship was introduced as a subject in pilot profiles for secondary vocational schools through various donor-funded projects and work on entrepreneurship education has continued through organisations such as Norwegian BIP (Business Innovation Programmes), the Centre for Entrepreneurial Learning in South-eastern Europe - SEECEL and Junior Achievement (Junior Achievement Serbia). The Advisornet cross-border network of business advisors is being implemented within Component 2 of the IPA 2011 programme, although the strategies for lifelong entrepreneurship education have not yet been adopted.

The National Employment Service and the MoESTD continue to successfully organise professional orientation fairs in order to create the conditions for direct communication between schools, students, parents and employers. To date, the Centre for Career Guidance and Counselling for young talents has organised over 60 workshops on professional development with the participation of more than 800 scholarship holders in Belgrade, Novi Sad and Niš, as part of the Fund for Young Talents of Serbia. More than 1000 scholars receive information on a weekly basis about scholarships for studying abroad, open competitions for

professional development programmes and work practices in local companies. Unfortunately, there is no evidence available on self-employment and business creation by those who have followed a VET pathway.

2.4 Action and assessment of progress since 2010

Assessment of progress in this area stands at a modest 2 out of 5 as the indicators on long-term unemployment in Serbia compare extremely unfavourably to the EU average. This may be partly due to the fact that most of the forecasting, monitoring and evaluation analyses are donor-funded and are not completely within the regular system at the national level.

Several analyses of business knowledge and skills, the most recent and comprehensive of these by the Serbian Chamber of Commerce, indicate that employers face a lack of skills among staff and lack of skilled workers in certain modern professions. They also claim that schools do not develop students' key competencies, such as language skills and skills related to information and communication technologies (ICT) to a sufficient level⁵. Employers want employees with well-developed communication skills, negotiation and persuasion abilities, who are willing to learn and grow, be motivational and show willingness to work within a team (i.e. with developed 'soft' or transversal skills). Education and training delivery should be more closely linked to economic growth projections, but there is still a poor coordination between the various ministries (e.g. Economy and Education) and their agencies.

With this in mind, the main priority areas for VET reform should be:

- continuing work to encourage entrepreneurship, innovation and development of the knowledge-based economy, improve the business environment and strengthen links between education and entrepreneurship;
- continuing work for further improvement of career guidance and counselling in view of the fact that the highest unemployment rate is among the population aged between 24-35 years;
- redesign of existing training programmes to shift the emphasis from classroom to on-the-job training (training at the request of the employer) in combination with a greater number of significant youth programmes (such as 'First Chance') for young people still in secondary school;
- greater involvement of the Ministry of Economy in the work of different VET working groups, committees, bodies and projects.

⁵www.pks.rs/SADRZAJ/Files/Biro%20za%20saradnju%20sa%20EU/Analiza%20rezultata%20istra%C5%BEivanja%20o%20potrebama%20privrede%20za%20znanjima%20i%20ve%C5%A1tinama.pdf

INDICATORS – SECTION 2

Indicator	Current state	Main source
Net migration	■ -99,999	World Bank (data referred to 2010-14)
Social burden	■ 1.37	LFS (data reference year: 2013)
GDP growth rate	■ 2.5%	World Bank (data reference year: 2013)
GDP per capita	■ USD 6,354	World Bank (data referred to 2010-14)
Competitiveness Index	■ 3.9	World Economic Forum 2014/15 report
Proportion of micro and small companies among active businesses	■ 85.4% micro ■ 10.6% small	SORS (data reference year: 2012)
Foreign direct investment (net inflows as a percentage of GDP)	■ 3.24%	World Bank (data reference year: 2013)
Trade openness (average of total exports and imports as a percentage of GDP)	■ 84.5%	European Commission (data reference year: 2013)
Public employment as a percentage of total employment	■ 35%	SORS (data reference year: 2013)
Number of first job seekers and long-term unemployed as a proportion of the total unemployed (aged 15+)	■ 76% of long-term unemployed ■ 31.6% first-job seekers	LFS (data reference year: 2013)
Expenditure on ALMPs as a percentage of GDP, 2013	■ 0.1%	NES (data reference year: 2012)
Percentage of registered unemployed covered by ALMPs, 2013	■ 13%	NES (data reference year: 2013)
Number of unemployed (15-64)	■ 655,045	LFS (data reference year: 2013)
Small Business Act Entrepreneurial Learning Index	■ SME share of businesses of registered entities: 98.8% ■ SME share of employment: 65.9% ■ SME share of value added: 56.3%	Western Balkans and Turkey 2012 – Progress in the Implementation of the Small Business Act for Europe (data reference year: 2012)
Enterprise start-up rates	■ Approx. EUR 10	Serbian Business Registers Agency (data reference year: 2014)

3. EFFECTIVENESS AND EFFICIENCY IN ADDRESSING DEMOGRAPHIC, SOCIAL AND INCLUSION DEMAND

3.1 Demographic and social factors shaping demand for VET

Statistical Office data show a negative natural increase in population, with natural growth negative in all four regions of the country (Belgrade region -1.4%; Vojvodina -5.0%, Šumadija and Western Serbia -5.2% and the Southern and Eastern Serbia -8.0%)⁶. In 2013, a negative natural growth rate was recorded in 160 of the 168 cities and municipalities measured nationally.

This trend has directly influenced the number of students in the education system, with a continuous decrease of about 2% each year. According to SORS data, projections of the 2011 trend to 2014 will see Serbia with 157,642 fewer children under the age of 19 years (Population projections, SORS, 2014).

Serbia is a country of economic emigration. In addition to Germany, Austria, Switzerland and Sweden, 'popular' new destinations include Italy, the UK, Slovenia and Hungary. Immigration to Serbia in recent years consists mainly of Serbian nationals returning from abroad as pensioners or those who wish to continue their work at home (International Migration Office – Mission in Belgrade, 2012).

Regional disparities in Serbia are highest in Europe and visible between regions, cities and municipalities, and rural-urban settings).

Unemployment is a key economic and social problem in all regions of Serbia, with the highest unemployment rate for those aged 15-64 years in the region of Southern and Eastern Serbia at 25.3% (2013 Labour Force Survey, SORS 2014). The same source shows that employment rate of the population (15-64) to be largest in the Belgrade region (50.8%). Such trends could indicate immigration growth, while feeding the risk of an even higher outflow of talents and experts, coupled with an inability to attract foreign experts without some form of shift in the production system, social environment and culture. Fundamental changes to the labour market, in particular lower numbers of younger workers, will result in a new employment structure that will need to attract and retain older employees. The intensity of this change will directly depend upon the level and quality of education obtained, greater gender equality, the social inclusion of all marginalised groups and more widespread adult education as mechanisms for structural adjustment within the workforce.

Information from the Survey on Income and Living Conditions (2013) shows 42.1% (3 million) of the population in Serbia at risk of poverty (the highest rate of poverty risk for all 28 EU countries is 16.9%). The percentage of poor population is twice as high in rural areas than in the urban equivalents, with 12% of the population in rural areas 'absolutely poor' compared to 6.3% in urban areas (Second National Report on Social Inclusion and Poverty Reduction, 2014).

Formal and informal education and the availability of information are at a very low level in rural areas and 67.2% of the total number of illiterate individuals in Serbia live in rural areas (National Census 2011, SORS 2013). Moreover, 70.7% of individuals with incomplete primary education and 54.7% of those with primary education live in rural areas and there is very low participation of the rural labour force in activities that require higher education. Rural areas are characterised by having one-third as many highly-educated individuals in the working age population than urban areas (6.8% compared to 23.4% for urban inhabitants - 2013 Labour Force Survey, SORS 2014).

Integration of the employment policy process and economic policy making is sorely needed in Serbia, both in the short and long term. This should be complemented by additional education and training in order to meet the needs of less-educated users. Previous analysis suggests that the educational level of the inactive

⁶ Data available at SORS online database, section population, subsection vital events.

population is extremely low and their participation in the labour market would be increased if they were offered better additional education and training programmes.

Other limiting factors also hamper efficient use of the country's talent pool. Worker productivity and creativity has little influence on salary and managerial positions are rarely held by professional managers chosen for their qualifications and merit. Other major weaknesses in Serbia's competitive position include an inefficient anti-monopoly policy and a lack of domestic competition, political cronyism in decision making, the issue of property rights, etc. The population's educational structure is also a great concern as data from the 2013 Labour Force Survey (SORS, 2014) indicate 12.9% did not graduate from elementary school and 21.7% of the population to have elementary school as their highest educational attainment.

3.2 Delivering to the individual demands and aspirations of learners: access, participation, progression

Identification of the needs and aspirations of individual learners is supported by the production of an annual newsletter for admission to secondary school which contains all relevant data and information about educational profiles, the number of available places and the number of points required for entry into each of the schools or secondary school profiles. Given that these newsletters must be paid for and appropriate decisions on future studies will require parental support, it is clear that students from marginalised groups are most exposed to risks of miscalculation that could have far-reaching effects.

Career guidance and counselling are formalised within the LPE and the Law on Secondary Education, while career orientation and career guidance also forms a regular part of the school programme for professional orientation. In addition, the MoESTD and the Ministry of Youth and Sports, with GIZ support, introduced a programme of vocational guidance in all primary schools from the 2013/14 school year.

Also, the United States Agency for International Development (USAID) has launched a programme for development of the workforce up to the age of 30. This programme was initiated in 2013, in cooperation with 32 local governments, to support business in hiring and training new employees. Many training programmes, working practices and career guidance sessions are provided for prospective employees under this scheme.

Despite these steps forward, there is no established system for recognition and validation of non-formal and informal learning as yet. Also, the lack of financial resources for funding ALMP measures is characteristic of the national budget and adoption of the Law on Adult Education in 2013 was expected to lead to more regulated and secured provision of incentives for adult learning and training.

At-risk students and low achievers are supported by the revised legal framework that recognises the need to address the specific educational needs of vulnerable groups, with various types of measures introduced: local inter-sectoral committees, pedagogical assistants and individual education plans in schools, provision of material support for marginalised groups, affirmative action on the admission of children from vulnerable groups, reporting on dropout in school development planning, creating a national framework for monitoring of inclusive education, etc.

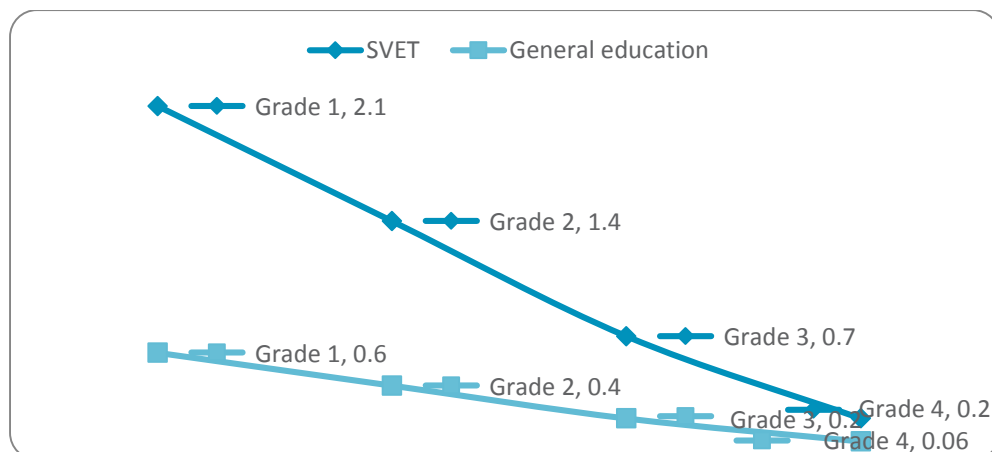
Remedial teaching is planned and paid for as part regular teacher salaries as part of their required weekly workload, it is free of charge for the students and it is recorded in school documentation. However, further guidelines, quality assurance and monitoring and reporting procedures related to remedial teaching are not available, and there is still a lack of disaggregated data on the education of at-risk students and low achievers (particularly children with disabilities and Roma), which creates challenges to efficient planning and monitoring.

According to the national census (2011), the completion rate in Serbia is generally high, standing at around 96.6% in 2011/12 schools year (SORS, 2013). However, the figures hide a large disparity between the general population and children from vulnerable groups – especially those living in Roma settlements, where

only 35% finish their studies (MICS, 2010). As was mentioned above, completion rates are lowest in the three-year VET profiles.

Differences in completion rates for the various secondary education programmes may be explained by variations in the socio-economic background of students, as some studies state that a higher proportion of students from poorer, less-educated families are in three-year VET programmes (Fund for Open Society, 2010; Institute of Psychology, 2013; OECD, 2012). Also, repetition rates in SVET and in general education are different (**FIGURE 3.1**).

FIGURE 3.1 REPETITION RATES BY TYPE OF SECONDARY EDUCATION BY GRADE, 2013/14 SCHOOL YEAR



Source: SORS

VET can be described as an attractive option in Serbia, with 75% of all secondary students enrolled in the VET track. Internal SORS data shows interest in four-year profiles has increased slightly in the last three years, while a more significant decline has occurred in the three-year VET profiles. It should be noted that MoESTD measures the attractiveness of high schools by the ratio of number of applicants per place in a school and the number of empty spaces in schools or profiles for the school year in question.

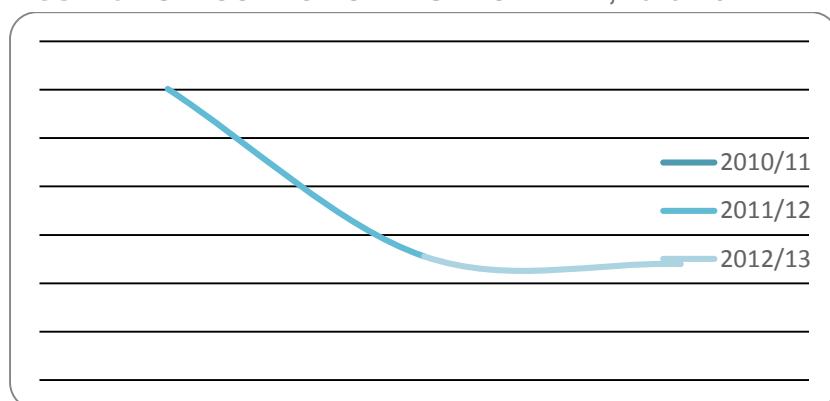
Internal data from SORS and the MoESTD show that the attractiveness of individual schools has not changed significantly in the last few years, with the leading 100 schools in the “traditionally” popular areas of medical, economic, tourism and catering, and law. Interest in general education schools continues to be high, but they remained overshadowed by some vocational schools in the last period. Unique schools such as the pharmacy and physical therapy school and aviation-technical school in Belgrade are very highly ranked. Pilot profiles usually rank highly on the list of the 50 most attractive four-year profiles (MoESTD internal data). (Section 4.3.2 provides more information on conclusions related to the modernised pilot profiles).

Student mobility is a key issue, as pathways between vocational education and general education at secondary level are almost non-existent. This is particularly important when we consider that young people are tracked into different vocational streams very early in their educational career (normally at age 15). No data is available on student mobility among the different tracks or between general and vocational education - horizontal mobility, but the curriculum structure and anecdotal evidence from the secondary education system also suggest this is not happening on any extensive scale. This implies that young people are made to choose a future career at an early age, without having appropriate opportunity to revise the decision later on.

Vertical mobility also requires consideration. At the moment, secondary vocational education in Serbia provides for four-year vocational programmes with a positive opportunity for direct access to higher education, while the three-year programmes only allow this to students sitting additional exams. The high schooling continuation rate (**FIGURE 3.2**) indicates that secondary school graduates largely choose to continue their

education rather than to enter to labour market⁷. This could be due to the fact that students are aware of the disparity between the outdated content offered by schools and actual employment possibilities.

FIGURE 3.2 SCHOOLING CONTINUATION RATE, 2010–13



Source: SORS

It is also worth mentioning that the merit-based higher education financing system does not compensate for lower socio-economic status, in essence awarding well-off general education graduates from the higher social strata in terms of economic potential and cultural capital.

3.3 Delivering to socio-economic and inclusion demand

The key tasks in Serbia's EU accession process (Government of the Republic of Serbia, 2012) include active participation in the European social inclusion process and poverty reduction. 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. In education in particular, the issue of social inclusion was raised when the Law on the Foundations of the Education System (LoFE) came into force, promoting inclusive education and adhering to the principles of equal opportunities and accessibility based on non-discrimination. Also, the Strategy for the Development of Education in Serbia to 2020 points out that reducing child poverty is key contributor to lower social exclusion, particularly for the future, as investing in children creates a better, more flexible workforce able to meet the needs of a productive economy.

Absolute poverty is defined as the number of people whose income is below the national poverty line⁸, but since 2006 this indicator has been accompanied by an estimate of relative poverty in line with the EU 'at-risk-of-poverty' indicator which includes everybody with an income per consumption unit of less than 60% of the median national income⁹. The most vulnerable population lives in rural areas, mostly made up of children and youth with uneducated, unemployed or inactive heads of households (Second National Report on Social Inclusion and Poverty Reduction, 2014). The Survey on Income and Living Conditions figures for 2012 showed children under 18 years and young people aged 18 to 24 are more at risk of poverty than other age groups (30% and 27.3% respectively). The population with primary school education or lower has the highest risk of poverty, at 41.8%, while those with college or university education have the lowest risk at 7.1% (Second National Report on Social Inclusion and Poverty Reduction, 2014).

In the past few years, efforts have been made to include adults in the further training and retraining system and a further 12 regional training centres for adults have been developed in addition to the existing five. The new regional training centres for adults are vocational schools that educate and train adults alongside their

⁷ The data presented are for students from both tracks – general and VET, but the conclusion is the same as most secondary schools students in Serbia are VET students.

⁸ The poverty line is defined in relation to the basic consumer basket.

⁹ Persons at risk of poverty have an equivalised disposable income below 60 % of the national median equivalised disposable income after social transfers – as defined by Eurostat.

primary field of work with young students. So far, these centres have implemented 40 adult training programmes accredited by the Ministry of Education and recognised by the National Employment Service.

The 'Second Chance' project (Development of functional elementary education of adults in Serbia – IPA) 2008 was designed to develop the Functional Elementary Education for Adults system in Serbia. After the project ended in September 2013, the MoESTD decided to introduce the functional elementary education of adults into the regular education system. Elementary adult education now lasts three educational cycles (three years), of which the last part of the third cycle includes vocational training for simple jobs.

Recent studies relating to Roma pupils suggest that policy tools for increased coverage, reduced attrition and absence, and increased school success have made a positive impact (Jovanović, 2013). Research on the effects of measures to introduce teaching assistants in 22 primary schools shows positive impacts on the educational achievement and attendance rates for Roma students, increasing the number participating in extracurricular school activities and promoting cooperation with their parents (Institute for Education Quality and Evaluation, 2010).

3.4 Action and assessment of progress since 2010

Progress in this area is assessed as significant (4 out of 5) due to the implementation of many education initiatives aimed at ensuring better access to education, participation and attainment for vulnerable children, although better coordination is needed to ensure synergy and impact.

Progress has been made in adult education and with Roma populations, but further efforts should be made to strengthen inter-ministerial cooperation and introduce integrated education, social protection, employment and youth care services with support from the Employment and Social Reform Programme (ESRP). Application of the ESRP will be a strategic process, following the model used in the Europe 2020 strategy applied to monitor the European integration process by Member States. The outcomes will be used as the main mechanism for dialogue on Serbia's priorities for social policy and employment in the EU accession process. The ESRP primarily covers labour and employment, human capital and skills, social inclusion and social protection, with a particular focus on youth employment.

Although delayed, per capita formula for educational funding is still being considered. The formula includes calculations of appropriate additional weighting unit costs for groups of vulnerable children in a way that will provide funding for extra support staff or smaller class sizes.

Educational institutions are not available to everyone, with a particularly acute problem in rural areas and around Roma settlements, hitting poor children the hardest. Furthermore, students from vulnerable groups are often unable to access education in the schools they wish to attend as they are unable to pay the travel costs (for more on the school network see Section 4.4.).

The MoESTD has implemented a number of initial measures, but the use, effectiveness and possible broader introduction of these at system level are still to be explored.

In summary, the main priority areas for VET reform in this area should be:

- development and provision of support measures for poor students and families in order to increase education coverage and to prevent student dropout;
- development of well-targeted, multi-dimensional, locally-designed approaches to the interconnected problems in disadvantaged regions, such as out-migration resulting in depopulation and population ageing, diminishing economic base with limited employment opportunities, low income levels, dependence on social welfare and poor infrastructure;

- consideration of geographical imbalance, unfavourable demographic and economic situation in the south of Serbia in particular, in comparison with the relatively strong development of the Belgrade and Vojvodina regions during implementation of VET reform;
- prompt adoption of the bylaws following adoption of the Law on Adult Education, in order to establish a system for the recognition of non-formal education and prior learning.

INDICATORS – SECTION 3

Indicator	Current state	Main source
Total population	■ 7.146,769	SORS (data reference date: 1 January 2014)
Population growth rate	■ -0.46%	SORS (data reference year: 2013)
Dependency ratios	<ul style="list-style-type: none"> ■ Total dependency ratio: 44.3% ■ Youth dependency ratio: 23.2% ■ Elderly dependency ratio: 21.1% ■ Potential support ratio: 4.7 	SORS (data reference year: 2013)
Proportion of 15–24 year-olds in the total population	■ 11.6%	SORS (data reference year: 2013)
Life expectancy at birth (15+)	<ul style="list-style-type: none"> ■ 77.3 for women ■ 72.2 years for men 	SORS (data reference year: 2013)
Ethnic composition of the population	<ul style="list-style-type: none"> ■ Serbs 83.3% ■ Hungarians 3.5% ■ Roma 2.1% ■ Bosniak 2% ■ Other 0.2% ■ Undeclared or unknown ethnicity 3.3% 	SORS (data reference year: 2011)
Proportion of people aged 15–24 not in employment, education or training (NEETs)	■ 21.5%	LFS (data reference year: 2012)
Poverty rate	■ 8.6%	SORS (data reference year: 2013)
Gini index	■ 33	Second National Report on Social Inclusion and Poverty Reduction (data reference year: 2010)
Average household income	■ RSD 52,359 (Serbian dinar)	SORS (data reference: III quarter 2014)
Rate of participation in adult education and training	■ 16.5%	Adult Education Survey (data reference year: 2011)

4. INTERNAL EFFICIENCY OF THE VET SYSTEM

4.1 Quality assurance

4.1.1 Planning

No precise definition has been given to VET quality for young people or adults in Serbia, but the National Education Council has created indicators for the quality of education in general, and a section of these indicators are dedicated exclusively to VET.

The following bylaws were adopted to ensure and enhance the overall quality of education: general standards of achievement for the end of compulsory education; educational standards for the end of the first cycle of compulsory education; quality standards for textbooks; competency standards for the teaching profession and their professional development; quality standards for schools and kindergartens, and; standards and competencies for principals of educational institutions. In November 2013, the National Education Council also adopted a standard of achievement for general subjects at the end of secondary education along with general and cross-curricular competencies based on the European framework of key competences.

However, the lack of any unified information system for education hampers planning, transparency and objectivity in the quality monitoring system.

4.1.2 Assessment and evaluation

Quality monitoring of the education system began with the adoption of indicators and the application of standards of achievement for three key points in the process: completion of the first cycle of compulsory education, general subjects at the end of secondary education and adult education. External evaluation of quality of school work has also been initiated. No data is available on the number of VET providers applying internal quality assurance systems, either as defined by law or on their own initiative, and data on external evaluation of schools in Serbia do not yet allow for such comparisons.

A national quality assurance framework has been established for all formal institutions, including the VET school system, allowing for both self-assessment and external assessment. External assessment is conducted by the Institute for Education Quality and Evaluation (IEQE) and MoESTD educational advisors using standardised procedures and tools to monitor elements such as teaching performance.

The VET Centre and the IEQE recently developed a proposal of additional standards for VET schools and adult education providers based on the European Quality Assurance Reference Framework for VET which will be included in the National quality assurance framework after approval and adoption by the CVEAE and the MoESTD.

School inspection is organised at local level, controls the fulfilment of prescribed norms for VET curricula implementation, such as equipment and teacher qualification. Further quality assurance mechanisms have been developed within the Continuous Professional Development of Teachers thread in the form of teacher portfolios that encourage ongoing improvement of teacher competences.

Rulebooks on Student Assessment in Primary Education and Secondary School provide the assessment criteria, methods and procedures for individual subjects in these schools as well as other important aspects of the issue. Teachers have discretionary power to adapt assessment criteria, but they receive no knowledge or training on this topic during initial teacher education. Assessment methods form part of the curricula.

There is a centralised final exam at the end of primary education as stipulated by the LoFE. This serves as a certificate proving the acquisition of basic knowledge, skills and competences during elementary education. Results of the centralised final exams are disseminated to teachers, but it is not clear whether these are given any systemic consideration. The mode of implementation of the final exam in primary education in Serbia is currently being revised and the impact of any change will be the subject of discussion in coming years.

External testing only currently exists at the end of primary education, but it is to be introduced for three-year secondary VET profiles in the 2016/17 school year and for four-year courses in the 2017/18 school year, while the MoESTD regional administration offices will undertake performance evaluation of teachers and principals. In the 2013/14 school year, the IEQE led a unified external evaluation of schools as part of a contribution to overall quality assurance. All schools are obliged to perform regular self-evaluation as part of the school development plan and these reports are reviewed annually by the school board. There are no specific provisions for monitoring the effectiveness and efficiency of the relationship between the VET and the labour market.

The quality of VET learning outcomes is not measured separately but PISA results showed student at low levels of achievement, below OECD and regional averages in reading, mathematics and science. Another worrying fact is that about third of students in Serbia can be considered functionally illiterate by the criteria of OECD countries (i.e. short of the second level of achievement on the PISA scale).

4.1.3 Accreditation of VET providers and programmes

The MoESTD has a mandate to approve VET school programmes and providers for formal education. This is regulated by the Law on the Foundations of the Education System (LoFE) and the Law on Secondary Education.

Accreditation of VET programmes is dependent upon a programme structure in keeping with legislation and approval of a programme proposal by the MoESTD. Each proposal is reviewed by the IIE (the VET Centre) before being submitted for approval by the CVEAE. The MoESTD grants official approval once both of these entities are satisfied with the proposal.

The VET Centre is responsible for the development of norms and standards (teacher qualification, space and equipment, etc.) for VET programmes. The MoESTD and the CVEAE draw up the methodological framework for the development, implementation, monitoring and evaluation of pilot programmes, thus ensuring transparency, clarity and compliance with programme accreditation procedures¹⁰. A VET curricula development framework containing a detailed description of the procedure and quality assurance mechanisms was also prepared and submitted to the IIE in May 2014, but a response is still pending.

CVET is regulated under the 2013 the Law on Adult Education that cannot be fully implemented until certain still undrafted bylaws are passed. Separate bylaws are envisaged on conditions and standards for adult education providers.

The accreditation process contains no self-assessment element, with inspection used to ensure the fulfilment of the norms prescribed on issues such as equipment and teacher qualification in VET in order to gain approval for programme implementation. However, the regulations on space and equipment date from the 1990s and there is no evidence of any school losing accreditation for programme implementation.

4.1.4 Qualifications

The VET Centre is responsible for the development of qualification standards and this process is still ongoing in Serbia. Qualification standards are to be used as the basis for curricula development, assessment methodology and criteria as well as for assessing the quality of learning outcomes.

At present, the link between evaluation and the assessment of outcomes exists only in a small section of the formal system that has experienced reform, mainly in the modernised pilot profiles that have been systematised and mainstreamed.

¹⁰ www.mpn.gov.rs/dokumenta-i-propisi/dokumenta/1279-metodoloski-okvir-za-razvoj-ostvarivanje-pracenje-i-vrednovanje-programa-ogleda-u-srednjem-strucnom-obrazovanju

4.2 Policies for VET trainers and directors

Amendments to the LoFE stipulate that teacher education should be implemented within an accredited degree or lifelong learning programme in a higher education institution dedicated to the education of future teachers. The programme must deliver content on the psychological, pedagogical and methodological aspects of teaching. In practice, however, the system continues to face significant challenges in implementing these regulations, especially in relation to training vocational teachers from industry.

The professional development of school principals is another focus of teaching policies, with the LoFE stipulating that school principals must meet the standard conditions for the election of directors and that they must attend training and pass an examination for institution principals or licensed managers. The Rulebook on Standards of the Competences for Principals of Education Institutions states that a principal is responsible for development and for ensuring the quality of the teaching process in the school and for managing the quality assurance system of the institution (*Official Gazette* No 38/13).

Principals are responsible for the evaluation of teacher performance, school self-evaluation, quality assurance, attaining achievement standards and the improvement of educational work. To secure high-quality administration of schools, The Rulebook, further defines six areas the principals must supervise, relating to: management of the educational process in the school; planning, organisation and control of the institution; monitoring and improvement of employees; development cooperation with parents, authority management representative unions and the wider community; financial and administrative management of the Institution, and; ensuring the legality of the institution.

Each standard comes with a brief description and a list of indicators. These standards place special emphasis on the leadership of principals. These standards form the backbone of the procedure for licensing principals. Even though the programme for the professional development of principals has not yet been adopted, they are able to attend professional development programmes, just as are teachers.

There is no information available on shortages of trainers in VET and there are no specific policies in place for the attraction and retention of effective VET trainers¹¹. However, it can be presumed that more resources might be required to update the skills, knowledge and motivation of those who have been teaching for many years. Unless appropriate action is taken to train and recruit more teachers, teacher shortages are likely to increase as current professionals reach retirement age.

4.3 Teaching and learning

4.3.1 Teaching and learning environment

Local self-governments are responsible for covering maintenance costs on school buildings, the cost of teaching materials and equipment and the professional development of teachers, but the legislative framework for education does not address provision of learning materials to schools. At present, parents are expected to provide all of the learning materials for their children, including the textbooks.

Serbia has no clear policy on school libraries. These became impoverished during the 1990s and several rounds of donations to school libraries during the 2000s have not led to major improvement. There is no data

¹¹ There is no unified accurate data on teachers in Serbia (e.g. MoESTD and SORS report different data), but there are data for the time period between 2007 and 2010 calculated on the basis of data provided by State Treasury. This could be considered the most appropriate source as teacher salaries are paid directly from the Treasury. Data on the total number of teachers in secondary education between January 2007 and January 2010 indicates that 77.22% of the overall increase in the total number has been in VET schools. Technical schools have the largest percentage of increase in the total number of teachers (29.12%). At the same time, schools specialising in personal services and administration have seen less than 1% of the increase in the total number of teachers. Analysis of the increase of teaching and non-teaching staff shows there was an increase of 975 FTE teachers and 273 FTE non-teachers in the same time period and that most of that increase occurred in VET secondary education sectors (78% of the teacher FTE increase). The increase is mostly explained by changes in the VET school curriculum in (pilot profiles) which increased the teaching norm for many teachers and therefore had significant fiscal impact (World Bank & Centre for Education Policy, 2010).

on book stacks, or the condition of library stock, professional school librarians have frequently been replaced by redundant teachers with short-term training and no updated guidelines on library operation have been developed. The lack of access to an open, attractive, well-equipped and well-run library mostly affects students from families in the lower socio-economic strata (Unicef and SIPRU, 2014).

IT equipment has been distributed and renewed in all schools under government initiative since 2008, meaning that each school now has at least one computer classroom and broadband internet access has been secured throughout the entire education system. However, IT equipment is used almost exclusively for IT classes and students do not have free access during breaks or after school, putting children from families in the lower socioeconomic strata in particular into a disadvantaged position (Unicef and SIPRU, 2014).

Although EUR 10.63 million was invested in the equipment of vocational schools through EU funds alone between 2003 and 2014 (more than EUR 5 million for vocational equipment), vocational schools in Serbia are largely still characterised by poor and outdated vocational equipment. This conclusion is based on the fact that although the various donor project supplied specialised vocational equipment to about 100 vocational schools¹² in total (71 school from the EU funds), this number represents less than a third of all vocational schools in Serbia. In addition, some classrooms and workshops within each school were not completely equipped, and most of the equipment provided by 2005 is now at least partially obsolete.

In work-based learning, more hours of practical teaching are incorporated into the curricula of the modernised VET profiles. The regulations and curricula requirements allow student practice to be conducted in school workshops as well as in companies.

Both LoFE and the Law on Secondary Education allow partnerships between vocational schools and businesses, along with the involvement of employers in the organisation of practical teaching and professional practice, but actual experiences vary from one VET school to another and this involvement is regulated at the level of individual initiatives rather than at the system level. Work practice offers the most immediate opportunity for the meeting of school students and employers, but practical teaching and practice is often performed inappropriately, such that it does not produce the expected results in terms of skills adoption and competency development.

It could therefore be concluded that there is an unresolved issue of quality assurance on practical teaching outside the school, accredited work places and instructors for the delivery of working practice do not exist. Furthermore, there are no incentives for enterprises to provide quality practice to students and an insufficient number of enterprises are interested in this form of cooperation with educational institutions (ETF, 2014). Unfortunately, the changes needed for more efficient organisation and implementation of the work-based learning options have yet to be implemented.

LoFE outlines the teaching load in secondary schools, replacing the previous norm on the number of lessons per week with an alternative that reflects all forms of direct work with children and students. In a full-time working week, a teacher is expected to deliver 20 taught lessons and 4 sessions of other direct educational work with students (remedial teaching, extra teaching for gifted students and other forms of work, in line with the special law). A teacher of practical subjects is expected to deliver 26 lessons. This means that teachers in Serbia deliver around 666 hours of teaching per year – a figure almost identical to that of annual teaching time in OECD countries (where there is an average 667 hours of teaching per year in upper secondary schools).

The trend for a decreasing number of students combined with the already noted increase of teachers has created an opportunity for smaller class sizes and a student to teacher ratio that should promote a positive and efficient learning environment.

¹² Data provided by donors.

4.3.2 Learning content

The draft the National Curriculum Framework (NCF)¹³ focuses on learning and students as subjects (rather than objects) of teaching, the development of general and cross-curricular competencies and achievement standards and outcomes, rather than learning content. The NCF is built upon a new competencies approach (general, cross-curricular and subject) that will be piloted in 165 elementary, general education and vocational schools across Serbia, with 13,000 teachers trained in the application of this.

According to the LoFE, VET curricula are implemented through subjects, modules, practical teaching and professional practice, of varying durations in the course of a school year. The LoFE outlines as 30:65 balance between general and vocational subjects in three-year VET profiles and a 40:55 balance in four-year profiles. Practical learning forms an integral part of the curricula and syllabuses of all educational profiles with the actual volume of practical learning based on standards for specific qualifications adopted in line with each sector.

Number of hours per week allocated to science, mathematics and reading in SVET varies and depends on the vocational profile and year of schooling. Mathematics is usually allocated a minimum of 2 hours per week, while science is delivered through various subjects that differ significantly between profiles and reading is delivered in language classes and as a cross-curricular competence. The number of hours allocated to practical instruction in SVET also varies dependent upon the vocational profile.

Analysis of the Serbian VET curricula (excluding the modernised/pilot profiles) leads to the conclusion that little attention has been paid to key competences. The curricula for secondary schools have been developed on long-outdated principles following a pyramidal structure that moves from general subjects in the first year to more vocational subjects in the final years.

One of the main challenges associated with the introduction of modernised curricula at the system level is the necessity for the comprehensive, systematic and continuous professional development of teachers. Teachers in the pilot schools received intensive training in preparation for the implementation of the pilots, mainly donor-driven.

The systematisation of modernised vocational education pilot profiles into the regular system has continued. Good evaluation results have helped kick-start replacement of the traditional profiles by equivalent modernised profiles: nine pilot profiles in three sectors during the 2010/11 school year; five pilot profiles in two sectors during the 2012/13 school year; and nine pilot profiles in five sectors during 2013/14. Further systematic inclusion of pilot profiles is planned over the next few years.

It should be noted that the most popular profiles for enrolment in secondary schools in recent years were the four-year systematised profiles (internal MoESTD data). Increased interest in these profiles leads to the conclusion that the new concept fits well with student desires and labour market needs. This fact could lead to conclusion that faster evaluation of pilot profiles and pilot profiles incorporation (systematisation) into regular/mainstream education is needed.

4.3.3 Parental involvement

Parental involvement is stipulated by the LoFE at all levels of pre-university education. All schools, irrespective of level, have parents' councils and three representatives of the parents' council are members of the School Board. In the past decade, the need for the school to be involved and visible in the local community has been recognised, which also leads to a somewhat different perception of the manner of parental involvement in school life. School practices on this front show many differences and there no available data allows any in-depth analysis of this issue.

¹³ www.razvionica.edu.rs

4.4 Efficiency of resource use

Insufficient material and financial resources are invested in the VET system. Vocational schools are therefore under-funded, meaning that many operate with old equipment or staff with outdated technical and didactic skills. The Strategy for the Development of Education in Serbia 2020 stressed that one goal of vocational education is to enable individuals to enter the labour market but the declining effectiveness is clearly reflected in unemployment figures where 73% of the long-term unemployed have secondary education as their highest level of education.

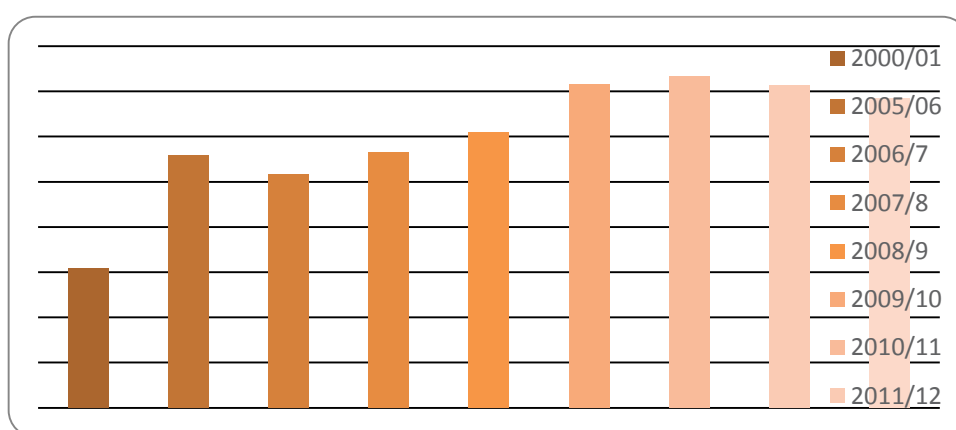
The draft 'National Qualifications Framework in Serbia – System of National Qualifications from the First to Fifth Level' was approved by the CVEAE and presented to a professional audience. A Working Group was then formed to draft a unified NQF for all education levels in the Republic of Serbia as no current document outlines the details of qualifications on all levels. The Working Group consists of the same representatives from higher and secondary education who participated in the development of the existing NQF documents¹⁴.

The school network in Serbia is unevenly distributed and has not adapted to demographic changes. At secondary education level, the school network is facing the additional challenge of adaptation to labour market needs and economic change. Extending stalling on the reform of secondary education and VET schools has led to a lack of change in the inherited network to the extent that many VET schools no longer reflect labour market needs.

Youth in certain parts of the country are therefore forced to choose between enrolling in courses at local schools that will not lead to employment or moving to more attractive schools further away from home. Another important feature of the school network in Serbia is the double-shift school day. This organisational structure severely restricts opportunities for adequate special needs support teaching, extracurricular activities, etc. (Unicef and SIPRU, 2014).

So far, optimisation of the schools system has been implemented only through a reduction in the number of classes and increases in class size (for demographic projections see Section 3.1). Despite this, SORS data shows the number of classes in secondary education to have remained relatively stable in recent years at between 10,700 and 11,100 classes (**FIGURE 4.1**). As the average number of pupils per class is higher in secondary schools than in primary schools, the application of this optimisation method would not result in a significant decrease in the number of classes.

FIGURE 4.1 NUMBER OF CLASSES IN SECONDARY EDUCATION 2000/01–2012/13 SCHOOL YEARS



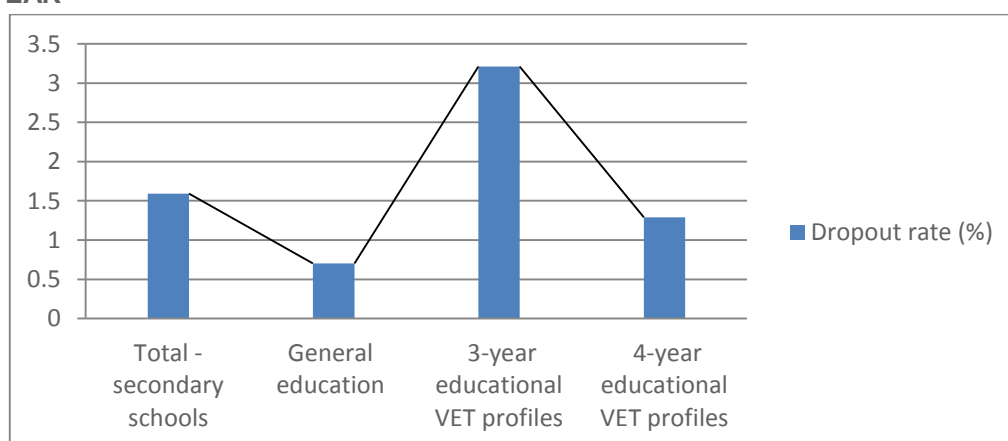
Source: SORS

¹⁴ www.zuov.gov.rs/nacionalni-okvir-kvalifikacija/

This decrease in student numbers was not accompanied by a corresponding reduction in the number of teachers (see 4.2) or any change to their working-hours, nor has enrolment policy been updated. This has resulted in reduced system efficiency. Issues relating to optimisation of the school system need prompt attention, with evaluation and updating of enrolment policies and resolution of teacher redundancies. The experiences of other countries, especially those within the EU, could be useful in defining measures related to school network optimisation.

Efficiency loss is also visible in dropout rates, especially in VET (**FIGURE 4.2**), and in completion and repetition rates (Section 3.2). Unfortunately, there are still no nationally defined and established mechanisms for the recognition and prevention of dropout and early school leaving. The involvement of a broad range of stakeholders at local and national level is essential given the strong impact of these elements in the development of efficiency mechanisms.

FIGURE 4.2 DROPOUT RATES IN SECONDARY EDUCATION BY EDUCATIONAL PROFILE, 2013/14 SCHOOL YEAR



Source: SORS

4.5 Action and assessment of progress since 2010

The assessment mark for this area stands at a moderate 3 out of 5 as some important elements of quality assurance and processes for monitoring the quality of vocational education have already been adopted and implemented (internal and external evaluation, teaching standards, employer participation in the development of qualification standards, development of curricula and exams, etc.) but VET quality can still not be classed as 'high' given the poor outcomes in national and international testing and low employer opinion as described in Section 2.4.

Progress is hampered by those elements of the teaching and learning environment that have not been reformed, and these jeopardise the development of a modern, well-functioning and effective VET system. The most significant of these include: outdated curricula of some VET profiles; lack of modern school equipment for practical learning; difficulty in provision of quality practical experience outside of schools, and, in most cases; weak social partnership between schools, local employers and companies.

Implementation of the pilot profiles has been supported by donors, especially in terms of procurement of the equipment needed for adequate delivery of vocational education. The LoFE states that local governments are responsible for the purchase of equipment for schools, although in reality local funds are rarely available. Given the current economic system, however, it is not realistic to expect some local authorities to fund the purchase of very expensive specialised equipment for VET schools.

Effective management of the supply and demand of teachers in the labour market enables countries to anticipate teacher shortages and, at the same time, improves attractiveness of the teaching profession as a career choice, but Serbia has no teacher management system in place.

In summary, the main priority areas for VET reform should be:

- optimisation of the school network and school operational organisation in accordance with demographic trends, the economy and student needs, considering the possibility that the opening of vocational schools could have a positive impact on demographic trends;
- faster evaluation of pilot profiles and mainstreaming into the education system;
- establishment and implementation of effective mechanisms for coordination and cooperation between all stakeholders;
- encouragement for the development of craft education, professional internships in companies and increases in the financial resources for the equipping of secondary vocational schools and for operational costs;
- development of the quality assurance system for practical teaching outside of school;
- additional training and financial resources for teacher training in schools not involved in the various projects but that will need to implement the modernised profiles (following systematisation). Training should address: (i) vocational and specialised training to update teachers on new technologies as the knowledge they gained at universities becomes outdated; and (ii) methodological and didactic content, as the concept of the new curricula and competence-based curricula require teachers to change the way they teach, work with students and produce teaching materials;
- close monitoring of the number of teaching staff and monitoring of trends showing increasing or decreasing teaching workforce and student to teacher ratios. Effective management of supply and demand for the teaching workforce is essential and when combined with data on the status of teachers and teaching as a profession, this could be used to increase the attractiveness of teaching as a career choice.

INDICATORS – SECTION 4

Indicator	Current state	Main source
Total number of trainers (teachers) employed in the VET system	■ 23,665	SORS (data reference year: 2013/14 school year)
Number of schools with broadband internet connection	■ 80% of all schools in Serbia	MoESTD data (data reference year: 2013)
Expenditure per student from public sources per level of education, including VET	<ul style="list-style-type: none"> ■ EUR 2,449 PPS in primary education ■ EUR 2,224 PPS in secondary 	SORS (data reference year: 2012)

5. GOVERNANCE AND POLICY PRACTICES IN THE VET SYSTEM

5.1 Defining vision and strategy for VET

VET governance involves three key institutions – MoESTD, CVEAE and National Education Council.

The MoESTD duties are governed by the Law on Ministries (*Official Gazette* No 16/11), which states that the MoESTD shall be in charge of research, planning and development of preschool education, primary, secondary and higher education and the living standards of learners; inspection in preschool, primary, secondary and higher education; participation in the development, equipping and maintenance of facilities; practical implementation; inspection and other issues. Other MoESTD responsibilities include the professional evaluation and inspection of skills upgrade of staff at education establishments; recognition and equivalence of public certificates acquired abroad; improvement of social security for talented pupils and students; improvement of social security for pupils and students with special needs; and other duties provided for by the Law.

The CVEAE was set up by the Government in May 2010. It has 21 members, including representatives of the Serbian Chamber of Commerce, craftspeople, employers' association, vocational education experts, representatives of labour, employment and social policy institutions, VET schoolteachers and members of representative trade unions. The Council aims to secure the development of a VET system that will permit the type of human resources development needed for the creation of a knowledge-based economy and society built on principles of lifelong learning. The Council involves all stakeholders in the development of vocational education and adult education, connecting education and the world of work and participating in the development and governance of the vocational education and adult education system in line with the labour market needs and expectations.

The National Education Council is responsible for development and improvement of pre-primary, primary, secondary general and artistic education in the Republic of Serbia. As such, the entity: monitors and analyses the state of education and its conformity with European principles and values; determines development directions and participates in the creation of the education development strategy; establishes standards prescribed by the Law. Other obligations include: the adoption of curricula and programmes, as well as the final exam programme, general and art-school final exam; recommendations for the approval of textbooks, determination of the need for new textbooks and the planned adoption of textbooks, along with; passing opinions on any laws and other regulations governing education.

In addition to these three structures, the Institute for Improvement of Education (IIE) and the Institute for Education Quality and Evaluation (IEQE) also contribute to the definition of educational standards, evaluation of learning outcomes and evaluation of final exams. IIE, and the VET Centre as an organisational unit within IIE, play a key role in the drafting of technical documents for VET implementation.

Regional School Administrations (RSA) are involved in the monitoring and evaluation of schools (including the VET schools), coordination of the in-service training of teachers and the control of financial management in schools. The entity also provides support for data collection and strategic planning, and participates in the development and implementation of the regional education plans. In organisational terms, they form part of the MoESTD rather than any regional or local government.

Municipal and local governments are involved only in financing specific aspects of secondary education, and they have no other competences in this field. The LoFE does not even explicitly foresee any consultations relating to the future secondary schools network.

Although the MoESTD bears the main responsibility for education, other ministries such as the Ministry of Finance (financing), the Ministry of Youth and Sports (career guidance, grants and scholarships for disadvantaged students) and the Ministry of Labour are involved in certain aspects. However, cooperation between the ministries is not firmly institutionalised, meaning that some cross-sector issues are not addressed in a timely or appropriate manner.

The idea of sectoral involvement in VET governance is not new to Serbia, where there is sector representation at all levels, from the national level (in areas such as curriculum development), down to the school level (with employer involvement in the *Matura* exams). The idea of Sector Committees is not entirely new either in the European context, and there have been ongoing attempts to involve industry at all levels of VET governance through a variety of models (ISOR Committees, Sector Committees, SSC, etc.).

This cooperation has led to several advances over the years, for instance the IPA 08 project enabled the VET Centre and the Serbian Chamber of Commerce to establish four pilot SSCs for ICT, agriculture, food Processing and tourism and catering.

Experiences in piloting have shown that the membership of the SSCs is broad, consisting of eight company representatives, and seven other members including from Higher Education, trade unions, relevant ministries and school associations. A number of problems became evident at an early stage, including definitions of committee formation processes, the scope of their work, the competency of committee members and the work methodology; the (ir)regularity of participation in meetings, and; various technical and organisational issues. However, the fact that such issues were openly acknowledged and discussed was a good sign, indicating openness to improvement.

A change in legislation has now placed the responsibility for the establishment of the Serbian Chamber of Commerce directly under the VET Council mandate. Discussions with the VET Council indicate that it may well be necessary to reconsider all aspects of SSC operation, starting with their remit and composition. Although it would be appropriate to build on previous experience, it would inevitably mean that a great deal of preparatory work would have to take place even just to arrive at the starting position again.

Once established, SSCs will eventually take a leading role in identifying gaps, redundancies and duplications in the educational offer. This will be facilitated by the use of an NQF against which qualifications can be referenced. Unfortunately, the established SSCs are no longer fully functional now that the piloting phase has been completed, and they no longer have sufficient resources to guarantee their sustainability. The establishment new SSCs is not definitely planned although they may be 'revitalised' under future IPA projects.

MATRIX 1 DISTRIBUTION OF RESPONSIBILITIES

	Objective setting	Implementation	Monitoring
MoESTD	x		
CVEAE	x		
NEC	x		
RSA			x
IEQE	x		x
IIE	x	x	x
VET schools		x	

MATRIX 2 MODE OF ACTION/DECISION MAKING OF THOSE RESPONSIBLE

	Objective setting	Implementation	Monitoring
Full autonomy/unilateral	MoESTD, CVEAE, NEC		
After (obligatory) consultation ¹	IIE, IEQE	VET schools	
If consultation, with whom?			IIE with MoESTD and CVEAE (and NEC)

(1) Consultation could be both because of an obligation to involve and for accountability purposes.

5.2 Effectiveness and efficiency in addressing economic and labour market demand

Central and organisational goals are set by the Ministry, along with the content and performance standards for student learning. The CVEAE is in charge of forming links and establishing cooperation with different stakeholders in the development of VET in line with labour market needs and expectations. General secondary education and general subject in VET fall under the responsibility of the NEC.

5.3 Effectiveness and efficiency in addressing social and inclusion demand

Strategic, legal and policy documents adopted by the national institutions in recent years have led to some significant improvements in the effectiveness and efficiency of addressing social and inclusion demands (e.g. *Official Gazette* Nos 63/2010, 76/2010 and 11/2010). Some studies show higher numbers of students from vulnerable groups at all levels of education system, a higher level of school attendance and better academic achievements as direct effects of these measures (e.g. Multiple Indicator Cluster Survey (MICS) – Serbia 2010; MICS 5 preliminary data, 2014; Tempus EQUI-ED, 2013).

5.4 Internal efficiency and effectiveness of the VET system

There is a good distribution of responsibilities for setting quality standards in the VET system and for monitoring compliance. One potentially difficult issue lies in the fact that the general subjects in VET are currently the responsibility of the NEC, meaning there could be some delay in the adoption or rejection of particular VET curricula if the NEC disagrees with the curricula already adopted by CVEAE.

MATRIX 3 DISTRIBUTION OF RESPONSIBILITIES FOR QUALITY STANDARDS

	Responsible for setting	Accountable for compliance	Monitoring and assessment
Quality standards: learning environment	MoESTD, CVEAE, NEC	VET schools	IEQE, IIE
Quality standards: learning outcomes	MoESTD, CVEAE, NEC	VET schools	IEQE, IIE
Quality standards: teaching	MoESTD, CVEAE, NEC	VET schools	IEQE, IIE, MoESTD
Standards for provider ¹ accreditation	MoESTD	VET schools	MoESTD

(1) This can also refer to individual programmes.

MATRIX 4 MODE OF DECISION MAKING WHEN SETTING QUALITY STANDARDS

	Unilateral	Obligatory consultation	If consultation, with whom
Quality standards: learning environment			MoESTD, CVEAE, NEC
Quality standards: learning outcomes			MoESTD, CVEAE, NEC
Quality standards: teaching			MoESTD, CVEAE, NEC
Standards for provider ¹ accreditation	MoESTD		

(1) This can also refer to individual programmes.

MATRIX 5 RESPONSIBILITY FOR CURRICULUM CONTENT AND TEACHING STANDARDS

	Responsible for determining	Obligatory consultation	If consultation, with whom
Curriculum content	MoESTD, CVEAE, NEC		
How curriculum is taught		MoESTD, CVEAE, NEC, IIE	

Public secondary education in Serbia is funded from diversified sources, which can be grouped into three main streams: central government funding, funding by local municipalities and own income of secondary education schools. The vast majority of all secondary education institutions are public and the 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 and the professional development of teachers, is funded by the local governments.

Investment in education in Serbia is below the level of most EU countries.

The current division of power in steering the secondary education system, however, shows several discrepancies between decentralised decision making and the centralised funding system. The lack of assessment procedures for the fiscal impact of curriculum changes seems to be the most prominent problem.

5.5 Assessment of progress since 2010

Over the course of the past four years, governance in VET has seen a number of positive developments (the establishment of the CVEAE), as well as some unfulfilled promises (the failure to establish a VET Agency). Overall, progress has been made across the board, with the essentials of an NQF agreed, the initial SSCs piloted, and the VET Council approving several VET pilot profiles to be systematised.

However, the general impression is that the capacities and abilities needed to manage reforms are still not at satisfactory level, with a decade-long situation in Serbia characterised by elements such as: the adoption of many strategies that have not been implemented, delays in the adoption of important documents and occasionally negative attitudes toward vocational education (the CVEAE does not have prefix 'national'). Progress remains hampered by the limited or non-existent budget and the lack of institutional capacity for further evaluation of pilot profiles and modernisation of VET curricula, compounded by the inactivity of the SSCs following closure of the pilot phase. Greater compliance is required between the two councils responsible for secondary education in order to establish a good systemic approach to secondary education policy and to avoid non-harmonious implementation of existing policies.

Further actions should be taken to achieve the vision of VET development toward a system that is functional, cost-effective, flexible, open-to-all, and in line with labour market needs. Further clarification is needed in particular on the roles and responsibilities of the various VET participants and a major push must be made to strengthen the responsibility of all decision makers for implementation of strategic goals and consistency in the implementation of these.

CONCLUSIONS

Since the last Torino Report, Serbia has made significant progress in defining its strategic vision. Progress has been made in achieving greater social inclusion in the education system and in the introduction of a quality assurance system in education. The evaluation and systematisation of modernised profiles in secondary vocational education is ongoing and all existing pilot profiles should be systematised in the next two years.

A National Qualifications Framework has been created for pre-university education and it has been approved by the CVEAE, however, the development of a unified document for all education levels has yet to be addressed.

Serbian education authorities recognised that changing global economic conditions have increased the demand for new and more flexible skills meaning that there is a growing demand for better and more highly-educated citizens and workers. They therefore developed new education strategies and legislation to emphasise investment in training to equip the labour force with better and more relevant competences. In other words, Serbia embarked on reform of the VET system as a part of the overall political and economic transition and VET reform has received strong donor interest in supporting such activities. However, these initiatives have not always been followed with support at the national level and there is plenty of room for better coordination of activities between the relevant bodies and institutions.

While VET coverage of the student population is high, the relatively low levels of quality and relevance are in need of urgent reassessment and attention. In its efforts to promote higher economic growth and increase employment, Serbia faces a major challenge in aligning education systems to changing skills needs. Accelerated reform of the vocational education sector would help improve effectiveness and compliance with labour market needs.

The education system continues to face a number of serious challenges including: an inadequate school network not optimised in accordance with labour market needs and demographic trends; poor equipment and outdated curricula in those schools that do not offer modernised pilot profiles; a partial lack of adequate teacher training programmes for VET teachers; a lack of financial resources and funds for the implementation of such teacher training activities; an inadequate secondary education enrolment plan, and; a mismatch between educational profiles, the economic structure and its requirements.

Further clarification of the roles and responsibilities of all participants in VET is required and the responsibility for the implementation of strategic goals requires strengthening for all decision makers, as well as consistency in the implementation of those goals. Changes are needed in the VET environment to increase sector relevance alongside close cooperation and support from both employers and other economic interests on a whole range of measures. Ongoing cooperation between the relevant ministries is required in order to establish an adequate VET governance system and the SSCs should be re-established. If the economic sectors are unable to participate in planned activities, the pace of change will continue to be determined by the inflow of foreign funds.

The three most important priorities for VET in Serbia should therefore be:

1. development of the vocational education concept focused on modernisation of the existing VET structure and on the development of skills as a key outcome of VET;
2. development of a unified system for the NQF and its legal basis;
3. increased availability of VET through the school networks, optimised to ensure equal access to everyone and corresponding to demographic trends and labour market needs.

ANNEXES

Annex 1. Indicators per section

TABLE A1.1A EDUCATIONAL ATTAINMENT OF POPULATION 15+ BY SEX (%) – LFS, 2014

	Total	Men	Women
No schooling	2.3	0.9	3.6
Incomplete primary	10.6	7.9	13.1
Primary (ISCED 1 and 2)	21.7	20.1	23.3
Upper secondary (ISCED 3)	49	54.6	43.9
Tertiary (ISCED 5-6)	16.3	16.6	16.1

TABLE A1.1B EDUCATIONAL ATTAINMENT OF POPULATION 15+ BY AGE (%) – LFS, 2014

	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+
No schooling	1	1	0.7	0.7	0.9	0.5	0.4	0.7	0.9	1.1	1.1	3.6	12.8
Incomplete primary	3.6	1.8	0.4	2.4	2	1.3	1.9	3.8	6.2	9.4	18.1	32.8	40
Primary	74	7.6	11.6	12.6	14.7	17.6	18.4	18	25.7	26.6	24.9	22	15.5
Upper secondary	21.4	83.2	61.3	59	61.4	63.4	62.5	57.9	51.8	44.7	38.2	25.6	19.1
College	0	1.5	5.8	8	6.9	5.1	5.9	8.6	6.2	7.6	8.2	6.9	5.5
Higher education	0	5	19.2	17.3	14.1	12.1	10.9	10.9	9.3	10.7	9.5	9.1	7.2

TABLE A1.2 ILLITERATE PERSONS AGED 10+ BY AGE AND ADMINISTRATIVE REGION (%) – LFS, 2014

	Total	10-14	15-19	20-34	35-49	50-64	65+
Republic of Serbia	1.96	1.50	2.04	7.70	7.01	11.23	70.52
Belgrade region	0.83	3.36	4.17	14.84	9.72	11.13	56.78
Vojvodina region	1.59	2.16	3.04	11.27	10.3	16.31	56.91
Šumadija and Western Serbia region	2.38	0.79	1.04	4.11	4.66	9.38	80.02
South and East Serbia region	3.05	1.27	1.78	6.98	6.51	9.86	73.60

TABLE A1.3 EMPLOYMENT (15-64) BY OCCUPATION AND SEX (%) – LFS, 2014

Occupations	Total	Men	Women
Executive positions	3.7	4.3	2.7
Professionals and artists	12.8	8.9	18
Engineers, associates, technicians	12.9	10.8	15.7
Administrative employees	7.6	5.5	10.3
Service and sales workers	16	13.1	20
Agriculture, forestry, fishing	16.2	17	15.1
Craft workers	12.8	18.6	5.1
Machine operators and plant	8.9	13.8	2.3
Simple occupations	8.5	16.9	10.7
Military	0.6	1	0.1

TABLE A1.4 EMPLOYMENT (15-64) BY ECONOMIC SECTOR AND SEX (%) – LFS, 2014

Economic sectors	Total	Men	Women
Agriculture, forestry and fishing	18.1	19.3	16.4
Mining	1	1.4	0.4
Manufacturing	17.9	20.5	14.3
Supply of electricity, gas and steam	1.7	2.3	0.9
Water supply and waste waters	1.5	1.9	0.9
Construction	5	7.6	1.3
Wholesale and retail trade, repair of motor vehicles	13.5	11.2	16.5
Transport and storage	6.1	8.7	2.5
Accommodation and food services	2.7	2.1	3.5
Information and communication	2.2	2.5	1.7
Finance and insurance	1.9	1.5	2.6
Real-estate	0.1	0	0.2
Professional, scientific, innovation and technical activities	2.8	2.1	3.6
Administration and support service activities	2.2	2.6	1.6
Public administration, defence, social security	6	6.2	5.7
Education	6.8	3.3	11.4
Healthcare and social protection	5.9	2.4	10.7
Art, entertainment and recreation	1.7	1.8	1.7
Other services	2.1	1.6	2.8
Activities of households as employers	1	0.8	1.3
Activity of extraterritorial organisations and bodies	0	0	0

TABLE A1.5 EMPLOYMENT (15-64) BY STATUS IN EMPLOYMENT AND SEX (%) – LFS, 2014

Age groups	Total	Men	Women	Employment status			
				Self-employed with employees	Self-employed without employees	Employed	Helping household member
15-19	0.7	0.8	0.5	0.1	0.7	0.4	4
20-24	4.4	5.2	3.3	1.1	3.5	4.6	6.8
25-29	8.8	9.3	8.2	5.7	5.7	10	7.5
30-39	25.5	25.1	26.1	24.5	19.7	27.6	20.7
40-49	27.2	25.7	29.1	31.9	25.7	28	20.5
50-59	26.7	25.9	27.7	27.9	31.2	25.4	26.7
60-64	6.6	7.8	5	8.8	13.6	4	13.8

TABLE A1.6 EMPLOYMENT (15-64) BY ECONOMIC SECTOR COMPARED TO GDP BY ECONOMIC SECTOR, 2013 (%) – LFS, 2014

Economic sectors	Employment	GDP by sector
Agriculture, forestry and fishing	18.1	8.3
Mining	1	1.7
Manufacturing	17.9	14.4
Supply of electricity, gas and steam	1.7	3.3
Water supply and waste waters	1.5	1.2
Construction	5	4
Wholesale and retail trade, repair of motor vehicles	13.5	9.5
Transport and storage	6.1	4.7
Accommodation and food services	2.7	1
Information and communication	2.2	4.4
Finance and insurance	1.9	3.2
Real-estate	0.1	10
Professional, scientific, innovation and technical activities	2.8	3.6
Administration and support service activities	2.2	1.5
Public administration, defence, social security	6	3.8
Education	6.8	3.9
Healthcare and social protection	5.9	5.4
Art, entertainment and recreation	1.7	0.9
Other services	2.1	1.2
Activities of households as employers	1	0.1
Activity of extraterritorial organisations and bodies	0	

TABLE A1.7 UNEMPLOYMENT STRUCTURE (15-64) BY SEX, ADMINISTRATIVE REGION AND EDUCATION LEVEL (%) – LFS, 2014

Total	Men	Women	Region				Education level					
			Belgrade region	Vojvodina region	Šumadija and West Serbia region	South and East Serbia region	No school	Incomplete primary	Primary education	Secondary education	College	Higher education
23.0	21.7	24.6	18.1	24.3	23.8	25.3	0.6	2.2	15.5	64.1	6.2	11.4

TABLE A1.8 YOUTH UNEMPLOYMENT STRUCTURE BY SEX, ADMINISTRATIVE REGION AND EDUCATION LEVEL (%) – LFS, 2014

Age groups	Total	Men	Women	Region				Education level					
				Belgrade region	Vojvodina region	Šumadija and west Serbia region	South and East Serbia region	No school	Incomplete primary	Primary education	Secondary education	College	Higher education
15-19	3.8	4.5	3	4.1	5	2.7	3.5	7.1	6	4.5	4.6	0	0
20-24	12.8	13.1	12.5	9	13.8	12.8	14.6	29.8	8.1	8.7	15	4.3	10.4

TABLE A1.9 INTERNAL MIGRATION BY ADMINISTRATIVE REGION – SORS, NATIONAL CENSUS 2011

Region	Total	From other town in the same municipality	From different municipality in the same region	From different region
Republic of Serbia	7 186 862	697 442	536 161	1 231 494
Belgrade region	1 659 440	40 071	105 385	440 035
Vojvodina region	1 931 809	153 635	139 106	268 871
Šumadija and West Serbia region	2 031 697	297 605	157 940	275 731
South and East Serbia region	1 563 916	206 131	133 730	246 857

Annex 2. Benchmarking – EU/Serbia

	EU 28 2013	EU 2020 targets	Serbia 2012
Employment rate (20-64)	68.4	75.0	51.2 (2013)
Tertiary educational attainment	36.9	40.0	24.7
Early school leavers	12.0	10.0	8.1
Lifelong learning	10.5	15.0	3.6
Percentage of pupils with low performance in the reading scale (Level 1 or below) – PISA*	17.8 (2012)	<15.0	33.2
Percentage of pupils with low performance in the mathematics scale (Level 1 or below) – PISA*	22.1 (2012)	<15.1	38.9
Percentage of pupils with low performance in the science scale (Level 1 or below) – PISA*	16.6 (2012)	<15.2	35.0

Notes: (*) EU average refers to the 27 countries participating into the 2012 survey (EU 28 except Malta).

Sources: Eurostat 2014; (*) PISA: OECD 2013

ACRONYMS

ALMP	Active labour market policy
CVEAE	Council for Vocational Education and Adult Education
ESRP	Employment and Social Reform Programme
ETF	European Training Foundation
EU	European Union
EUR	Euro
Eurostat	Statistical Office of the European Union
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Agency for International Cooperation)
GDP	Gross domestic product
ICT	Information and communication technology
IEQE	Institute for Education Quality and Evaluation
IIE	Institute for Improvement of Education
LFS	Labour Force Survey
LoFE	Law on the Foundations of the Education System of the Republic of Serbia
MoESTD	Ministry of Education, Science and Technological Development
NEC	National Education Council
NES	National Employment Service
NQF	National Qualifications Framework
PPS	Purchasing power standard
SSC	Sector Skills Councils
SVET	Secondary vocational education and training
Unicef	United Nations Children's Fund
VET	Vocational education and training

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CONTACT US

Further information can be found on the ETF website:

www.etf.europa.eu

For any additional information please contact:

European Training Foundation
Communication Department
Villa Gualino
Viale Settimio Severo 65
I – 10133 Torino

E info@etf.europa.eu

F +39 011 630 2200

T +39 011 630 2222

