

TORINO PROCESS 2014

BOSNIA AND HERZEGOVINA



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Contents

Introduction.....	2
Executive summary	4
1. Vision for the VET system	10
2. Effectiveness and efficiency in addressing economic and labour market demand.....	19
3. Effectiveness and efficiency in addressing demographic, social and inclusion demand.....	27
4. Internal efficiency of the VET system.....	34
5. Governance and practice related to policy in the VET system	44
6. Overall progress and key priorities.....	50
Annexes.....	52
Abbreviations and acronyms	66
Bibliography.....	67



INTRODUCTION

In 2010 and 2012 the European Training Foundation (ETF) launched the first two rounds of the Torino Process, in which most of its partner countries participated. In May 2013 the ETF organised a conference entitled 'The Torino Process: Moving skills forward', which was attended by some 200 policy makers, experts and practitioners of vocational education and training (VET) from ETF partner countries, the EU and international organisations. The Torino Process is perceived as a useful tool for policy analysis and the identification of priorities and challenges in the sector, and as an important step on the road towards evidence-based policy making. It has been inspired by policy assessment processes at EU level, notably the Copenhagen Process in VET and the 2010 Bruges Process. Following a similar biennial format to that of the Bruges Process, the Torino Process entered its third edition in 2014.

In early 2014, the Ministry of Civil Affairs of Bosnia and Herzegovina (BA) was invited to launch the third cycle of the Torino Process by appointing a national coordinator, agreeing with the ETF on the implementation modality, mobilising the evidence needed for the analysis, and identifying the key stakeholders who would take part in the process. The Agency for Pre-primary, Primary and Secondary Education (APOSOS), which has an instrumental role in the VET reform process, has been invited to take active part and to ensure adequate support in the provision and selection of evidence. The Ministry of Civil Affairs, as the coordinating institution, took the initiative and ensured evidence collection in direct cooperation with APOSOS, the ministries of education of Republika Srpska and the Federation of Bosnia and Herzegovina, and the Department of Education of Brčko District. ETF-supported assessment is the appropriate modality for Bosnia and Herzegovina, since the country is defining the approaches for improved evidence-based policy making that require a stronger lead and greater support in the organisation of the process and the preparation of the country report.

The 2014 Torino Process overlaps with the preparation of the country's new VET strategy, which will cover the period 2015–20. The added value of the process lies in the fact that it helps the country to develop evidence and foster policy dialogue on key challenges that VET is facing. It embeds VET in the socioeconomic context, and ensures that the analysis is informed by relevant evidence and takes place through structured dialogue. The key questions addressed in the 2014 Torino Process are structured around five dimensions of policy analysis.

- **Vision for the national VET system:** What is the national vision for VET development? Is it shared among all stakeholders, and how is it expected to contribute to competitiveness and the broader national development objectives?
- **Effectiveness and efficiency in addressing economic and labour market demand:** What are the main economic and labour market factors that shape the demand for skills in the country? What mechanisms are in place to identify this demand and match the skills supplied by the VET system accordingly?
- **Effectiveness and efficiency in addressing demographic, social and inclusion demand:** What are the demographic and social factors that shape the demand for VET? How well equipped is the VET system to address these factors, to be inclusive, and to deliver to the aspirations of learners?
- **Internal efficiency of the VET system:** How is the quality of learning outcomes in VET defined and safeguarded? Who takes care of its continuous improvement, and how is this achieved?
- **Governance and practice related to policy in the VET system:** What decisions are taken at what level in the VET system, and how? Who is accountable to whom, and how is accountability related to improvement?

Since it took part in 2010 and 2012, Bosnia and Herzegovina has been invited to update its 2012 report, in line with the principles of the Torino Process. This entails including reference to policy progress or developments

that have occurred since the last report, in particular in areas previously identified as priorities for action; updating the analysis with the most recent data and references; and improving, where possible, the quality of the analysis across the report. On 18 November 2014, a workshop convening about 80 different institutions in the country was organised with the objective of consulting key stakeholders in VET on the preliminary findings of the 2014 Torino Process review and discussing the key priorities in VET. In addition, and with the aim of contributing further to the policy dialogue, key stakeholders related to the internal efficiency of VET, ETF explored in greater detail the country's quality assurance policies in VET. The results of the consultation event and the findings of ETF analyses are integrated into this report. As a participatory instrument for VET analysis and policy assessment that is implemented every two years, the Torino Process has documented a strong commitment to policy dialogue and very relevant VET reform challenges in the country. The goal is to take this policy dialogue forward by enhancing long-term capacity and the quality and relevance of policy making.

EXECUTIVE SUMMARY

Pressure is growing to implement reforms that will ensure EU integration for Bosnia and Herzegovina. A European partnership agreement was signed in February 2008 and a Stabilisation and Association Agreement was signed in June 2008¹, providing for wide-ranging cooperation to foster integration into EU programmes and structures. VET and human resources development are an integral part of the process. Major longer-term priorities as expressed in the EU Integration Strategy² are as follows: the adoption of European reference lists and principles with regard to compulsory education, teacher qualifications, mobility, recognition of skills acquired out-of-school, improvement of VET quality, the introduction of the European Credit Transfer and Accumulation System (ECTS), the establishment of a comprehensive framework for qualifications recognition, and the enhancement of governance and funding for educational institutions.

Between 2010 and 2014, Bosnia and Herzegovina implemented three cycles of Torino Process analyses. The findings indicate that the policy makers and key stakeholders in VET have invested effort in improving the overall performance of the VET systems. The most important achievements can be summarised as follows.

- In March 2011 the Council of Ministers adopted the Baseline Qualifications Framework (BQF) to cover all levels of education, providing important directions for lifelong learning and linking education and the labour market in a meaningful way. In 2013 a Commission for a Qualifications Framework was established, with a mandate to prepare an action plan for the development of a qualifications framework in Bosnia and Herzegovina, within a one-year period. This has been drafted and, following a regular process of consultation with the relevant political entity and the cantonal authorities, it was adopted by the Council of Ministers in February 2015. Important elements of the VET reform process are included in the Action Plan, and include, among others, developing curricula with learning outcomes to promote more effective cooperation between employers and VET providers, supporting vertical and horizontal progression, and aligning different segments of the education and training systems together in a single framework so as to ensure lifelong learning.
- An Entrepreneurial Learning Strategy for 2012–15 targeting all levels of education was adopted by the Council of Ministers in March 2012. Its primary goal is to foster and promote entrepreneurial mindsets that impact positively on social and economic development, in line with existing strategic commitments and taking into account global economic progress, the challenge being to deliver along the defined action lines. Implementation of the strategy is partially supported by the EU project ‘Entrepreneurial learning in Bosnia and Herzegovina education systems phase II’ (IPA national programme 2011) that started in January 2014.
- In 2014 the Council of Ministers adopted two important documents: ‘Principles and standards in the field of adult education in Bosnia and Herzegovina’ and ‘Strategic adult education development platform in the context of lifelong learning for the period 2014–20’. These documents constitute the prerequisites for regulating the field of adult learning and development of lifelong learning in the country.
- In 2013 and 2014, the VET Department of the Agency for Pre-primary, Primary and Secondary Education (APOSO) led and completed the process of designing the standards for 10 VET qualifications, using a participatory approach that enabled all key stakeholders, including the private sector, to have a voice. The process had four phases: design of methodology, instruments and a template for the standards; analysis of the standards in selected companies; drafting the standards; and their verification within companies

¹ The Stabilisation and Association Agreement (SAA) signed in 2008 and ratified in 2011 has not yet entered into force as Bosnia and Herzegovina has not yet fulfilled the required conditions; see EU progress report 2014 for Bosnia and Herzegovina, DG Enlargement.

² BA Council of Ministers, EU Integration Strategy of Bosnia and Herzegovina, Directorate of EU Integration.

whose business is relevant to the selected qualifications. The implementation of the standards now needs to be discussed in the framework of the qualifications framework reform process.

VET reform in Bosnia and Herzegovina relies on the premise that the VET system should provide broad-based education that not only covers vocational skills and knowledge but also offers access to further and higher education and good opportunities for personal development and social integration. VET is a complex policy area, nonetheless, at the intersection of education, training, social, economic and labour market policies. It is expected to address the present and future skill demands of the economy, the requirement for personal development and for active citizens, and individual needs for short- and long-term employability. Important findings in these respects were revealed by the Torino Process 2014, and are described below.

What is the vision for VET development and does this vision comply with broader socioeconomic development objectives?

The document 'Strategic directions for the development of education in Bosnia and Herzegovina, with Implementation Plan 2008–2015' (*Official Gazette of Bosnia and Herzegovina*, hereafter *Official Gazette*, No 63/08), hereinafter 'Strategic directions for the development of education', provides guidelines for the development of education up to 2015. The document stresses the need for education policies to be rooted in the concept of lifelong learning: 'Lifelong learning implies continued acquisition of knowledge. It consists of formal, non-formal and informal education/learning. Lifelong learning implies that schools are not the only place where people can learn. It calls for support to other places and modes of learning [...]' (p.11). The document 'Strategy for the development of vocational education and training in Bosnia and Herzegovina for the period 2007–13' (*Official Gazette*, No 65/07), hereinafter the VET Development Strategy 2007–2013, which represents an explicit endorsement of the Copenhagen policy framework on VET and European employment policy, defines general guidelines for the development of upper secondary VET, including strategic directions and goals related to lifelong learning.

VET reform is moving ahead and a range of stakeholders in the country are taking on board a number of commitments. By May 2014, the Republika Srpska, the Brčko District and seven out of 10 cantons in the Federation (Zenica-Doboj, Sarajevo, Posavina, Bosnian Podrinje, Una-Sana, Tuzla, and West Herzegovina) have adopted new VET legislation, harmonising it with the state-level VET Framework Law adopted in 2008. Mainstreaming VET legislation across the rest of the cantons is an important milestone ahead. However, the adoption of legislation needs to be followed up with support for implementation, and the inclusion of social partners, pedagogical institutes, education inspectorates and vocational schools in the process is imperative. Policy dialogue is needed at different levels of governance in order to identify and respond to potential operational constraints on adopted legislation.

In order to facilitate the implementation of the Law on Adult Education of the Republika Srpska, seven by-laws/rulebooks³ have been enacted on the form and content of public documents concerning adult education, on examination boards and the administration of exams, on the selection of adult education providers, and so on. In 2014 the Institute for Adult Education within the Ministry of Education in Republika Srpska continued to work on the adoption of new training programmes for adults. The Federal Ministry of Education and Science established a working group for the development of a framework law on adult education. The Federation of Bosnia and Herzegovina's Law on Principles of Adult Education was adopted in the form of a proposal by the House of Representatives of the Federation Parliament in July 2014.

The most recent period saw the proposal and establishment of a significant number of changes, amendments and supplements to the laws that directly or indirectly regulate different aspects of VET; also, new laws were adopted and bylaws developed for adult education. The bulk of the changes relate to systemic issues such as the introduction of the qualifications framework, the development of curricula based on learning outcomes, the introduction of advisory councils in vocational schools, etc. The credibility of all changes, including strategies

³ www.mpoo.org/index.php/rs/obrazovanje/2010-07-15-07-01-01

and actions, depends on the way they are linked with the needs of BA citizens at the local level and how they are operationalised in Republika Srpska, Brčko District and in the 10 cantons of the Federation.

Do the skills offered by the VET system match those required by the labour market and economic development?

Unfavourable trends can be observed in Bosnia and Herzegovina since the 2010 Torino Process which will have a long-lasting negative impact on the country's economic and social situation. As an example, in July 2010 the Council of Ministers adopted the country's Employment Strategy 2010–2014, which recognises the importance of further training for adults and of developing skills and knowledge among various target groups (young people, the long-term unemployed, informal labour market workers, older people, etc.). A benchmark target set was to reduce, through active labour market measures, the youth unemployment rate from approximately 47% in 2008 to 30% by the end of 2014. However, the youth unemployment rate is still high.

In 2013, the total youth population (15–24 age group) was 14.6% of the overall population. Among the youth population, 28.3% were active on the labour market, but the percentage of active young men was almost 17 percentage points above that of their female counterparts. Based on their previous negative experiences, young people assess their chances of obtaining employment as highly unfavourable: only 11.6% were employed, with a huge gender discrepancy. One in four young people holds employment which is unrelated to their field of study, and youth with vocational education have a particularly hard time finding work. According to estimations, young people in general are more likely to find work in the informal labour market, doing menial jobs in poor working conditions and with almost no security. According to an ILO country brief on youth employment and migration in Bosnia and Herzegovina, many young people have a contract for an undetermined (54%) or fixed (18%) period of time and their wages are only partially declared.

There are indications of a skills gap, as the education system is still not sufficiently aligned to the needs of the labour market. In addition, most educational streams are exclusively theoretical in approach, and therefore are not providing youth with the opportunity to gain practical experience during their formal education. This situation prolongs the transition from school to work for youth in a context where job creation is not capable of absorbing new labour market entrants. This leads to long spells of unemployment and high levels of informality. It appears there is also a lack of training, internship and job placement programmes which could support youth in this transition. Many young people who complete vocational or tertiary education are not able to find a job in a relevant profession, while many others turn to low-quality jobs in the informal, or shadow, economy.

Since 2010 a number of reintegration measures have been included in the action plans of the employment strategies of the Federation of Bosnia and Herzegovina and Republika Srpska, aimed at providing young people with the possibility to re-enter education and training programmes (often combined with practical training in the companies) or at facilitating their entry into the labour market. Measures such as tracking services to identify, support and monitor inactive young people, second chance opportunities, distance learning opportunities and validating informal learning are not very well integrated, and mostly focus on particularly vulnerable and excluded groups. Under the latter approach, efforts have been put in place to improve vocational guidance and enhance skills matching; in some cases at the canton level the number of staff in public employment services – job counsellors in particular – have been increased. Although some programmes have been developed to reintegrate youth into the system, the coverage and scope of the actions are evidently not sufficient for the actual needs.

On the other hand, as a general rule, BA enterprises currently have only a limited understanding of the joint nature of training. All enterprises suffer the impact of insufficient skills – lost markets, inability to face new challenges, lack of investors – but the same enterprises are striving to resolve their training needs themselves. Most enterprises are carrying huge costs in training (according to information from the employers' association, the introduction of new staff takes three months but only a minimum of companies even know their training costs). Almost no attempts are made to resolve problems jointly, and those enterprises that are

successful in the market take training as costs and are generally buying training services abroad⁴. Urgent systemic measures are needed to bridge this gap.

Do VET programmes and skills offered by the VET system match the aspirations of individual learners and the needs of vulnerable groups?

With a population of around 3.8 million according to the census of October 2013, Bosnia and Herzegovina is an upper middle-income economy. With a Human Development Index value of 0.735 in 2012, it was ranked 81st out of 186 countries by the UNDP in its Human Development Report 2013; thus it belongs to the group of countries with a high HDI. Demographic projections show that the labour force will shrink considerably in the next 40 years. Society is ageing at the fastest rate in the region, with the dependency ratio expected to rise to 55% by 2050. The country is ranked 13th in the world for outbound migration, with an emigration rate of 25%, according to the UNDP.

Two opposite trends characterise migration in Bosnia and Herzegovina, and both have a negative impact on labour market development. The first is the significant emigration of the workforce, with high rates of brain drain. The second is the low mobility of the workforce within the country, which hampers faster labour market adjustments, particularly where there is a significant mismatch between the skills produced by the education system in the country and the needs of the labour market. For this reason, despite very high unemployment rates, the country tends to experience a lack of specific skills in one region while having registered unemployed people in another (BA Directorate for Economic Planning, 2011). Substantial gender differences exist, as the educational attainment of women is generally lower than that of men: according to the national Agency for Statistics (BHAS), figures for 2013, 51.5% of women have primary education or less compared to only 31.5% of men.

The term 'early school leaving' refers to young people who have, at most, primary or lower secondary education and are not currently receiving education or training. Estimates of the rate of early school leaving vary. The Directorate for Economic Planning, in close cooperation with the BHAS, has calculated on the basis of Labour Force Survey data that the rate of early school leaving or non-attendance for the 18–24 age group was 14.5% in 2010. However, a different picture is provided by Unicef's Multiple Indicator Cluster Survey (2011–12), according to which the transition rate to secondary school was 96.9%, showing that almost all those children who had successfully completed the last grade of primary school during the previous year were attending the first grade of secondary school at the time of the survey.

Several measures have been taken to improve the system so as to match the individual needs of learners. Another aspect of the reform process relevant for individual learners is curriculum updating and modernisation. The aim is to develop teaching and learning suitable for different learners. The focus is on achieving the learning objectives and responding to the needs of different groups of learners through improved teaching and learning methods, the use of modern technologies, better management, and the evaluation and improvement of initial and ongoing professional training of teachers at all levels.

What further reforms are necessary to continue to improve the internal efficiency of the VET system?

Policy measures to increase the internal efficiency of VET include sustained attempts since 1998 by different stakeholders at various levels of the system to improve vertical and horizontal mobility, through the gradual introduction of modular curricula in VET, the introduction of modern and flexible qualifications based on a qualifications framework that integrates all education levels, ongoing reforms to adult education and training, and higher education reform aligned with Bologna requirements.

The quality of teaching and learning in VET pilot schools has greatly improved. Some 96 VET pilot schools have undergone extensive capacity development and around 3,000 teachers have been trained to design and

⁴ Information based on the interviews and findings of the ETF FRAME Review of Institutional Arrangements, November 2014.

work with VET modular curricula. The 2007 legislation on APOSO (operational since January 2009 and steadily growing in capacity) defined its role in quality in education and its responsibilities for VET, realised through a VET Department located in Banja Luka. Its Development Concept 2012–2016, which is its main long-term strategic document, states that each child is entitled to a quality upbringing and education; consequently, progress in the country's education system, in both efficiency and mobility, calls for joint efforts in adapting curricula, establishing self-evaluation and external evaluation, and joining international assessment surveys.

The legal basis for quality assurance in VET urgently needs examination to ensure that appropriate measures are elaborated to support vocational schools. VET practitioners and policy makers in education need to be introduced to the principles and implications of major initiatives such as the European Quality Assurance Reference Framework (EQARF) and the European Quality Assurance in VET (EQAVET). Policy makers at either national or cantonal level need to be aware of the legal and practical implications of the importance of EU instruments for a successful pre-accession stage. The EU's commitment to strengthening the rule of law through the Instrument for Pre-accession Assistance (IPA) also implies the creation of clear and consistent policies at different levels and in various realms, of which education and training is a crucial one.

Are institutional arrangements and capacities adequate for bringing about the desired governance and improved practice on policies in the VET system?

The gradual establishment of country-level institutions is a support to improving system governance and making VET more efficient. Securing basic governance modes is no longer sufficient, as all citizens aspire to sustained economic and social development in a competitive and promising economy. There is long way to go to make social partners real partners in VET development in Bosnia and Herzegovina. Commitment must be maintained through joint efforts by all partners in the process to develop a knowledge-based society, where BA citizens will acquire and apply fresh knowledge and skills in their activities. Without formal networks, active participation by the social partners and active civic sector engagement, progress in VET reforms may suffer.

Apart from giving social partners a concrete and formal role in VET development, it is also important to note that gaps in the coherence and comprehensiveness of the VET strategy remain. The development of the VET system, located as it is at the intersection between education and work, requires multi-level systems of relationships to be strengthened, including those with ministries and employment services. VET policies, if they are to be successfully implemented, depend on a whole range of people and institutions. At the same time the impact of strategic decisions on VET depends on how different partners organise the feedback process and how key stakeholders are involved in VET policy monitoring and evaluation.

Last but not least, the VET policy process is developing along the lines of the qualifications framework. Common core curricula across different levels of education are being reformed, entrepreneurship and entrepreneurial learning and a comprehensive adult education and training system is in development. As a potential EU candidate, Bosnia and Herzegovina has been invited to consider the priorities set out in the Europe 2020 strategy and to adapt the main challenges to its own context. The EU enlargement policy also supports the Europe 2020 strategy by extending the internal market and enhancing cooperation in areas where cross-border cooperation is a key objective. The Europe 2020 agenda also offers an important inspiration for reforms; therefore, it could be useful for the country to continue considering those education and training sector instruments and tools that are available at the EU level.

Epilogue

In 2014 the BA Ministry of Civil Affairs demonstrated improved capacity for the coordination of processes related to EU accession. A good example is the coordination undertaken in the FRAME Skills 2020 project⁵. The work started in September 2013, and the 'pre-foresight' component has been efficiently used by the Ministry of Civil Affairs to coordinate the process of establishing an interministerial working group involving

⁵ FRAME: Skills for the Future, IPA 2012 Multi-beneficiary programme, see information on the ETF website: www.etf.europa.eu/web.nsf/pages/Frame_project (last accessed 27 March 2015).

30 different institutions from the entity, canton and state levels. In April 2014, the Council of Ministers adopted a Decision to establish an interministerial working group with the mandate to prepare the strategic document 'Vision for Skills 2020: Bosnia and Herzegovina'. This paved the way for mutual commitment in a continuous policy dialogue and, based on policy foresight methodology under the leadership of the departments of Education and Labour, in cooperation with the Directorate for EU Integration, a commitment to achieving a shared 'Vision for Skills 2020'. Methodological support and facilitation of the process has been provided by the ETF within different components of the future FRAME initiative.

The 'Vision for Skills 2020' paper is awaiting further discussion by the key stakeholders. It includes a 'Vision, Priorities and Roadmap' for the human resources development sector, and is a preparatory input to IPA II programming. The aim is to apply what the European Commission refers to as a sector-wide approach to human resources development, which links all policy initiatives related to education and training in a lifelong learning perspective to employment and social inclusion in a single unified framework. A significant proportion of the objectives and measures are directly linked and should further strengthen the VET reform process.

As the EU accession process has been almost at a stalemate in the last few years, it is important to note that following the Conclusions of the EU Foreign Affairs Council call for a broader EU–BA agenda, in May 2014 the EU Delegation organised a major conference aimed at helping the economic recovery of the country. The Forum for Prosperity and Jobs convened interested parties and the broader citizenry to identify a package of concrete and urgent measures that would re-ignite the process of modernisation of the economy. Proposals are now part of the *Compact for Growth and Jobs* (2014), outlining the necessary economic reform measures, such as reducing taxation to make it less of a burden to hire new workers, increasing openness and competition in the labour market to make it easier for young and unemployed people to find jobs, etc. The measures in the Compact are endorsed by the European Union, the International Monetary Fund, the World Bank and the European Bank for Reconstruction and Development (EBRD), as well as by the United States of America and other nations that sought to encourage a fresh socioeconomic start for the country. In December 2014 the EU Foreign Affairs Council confirmed the importance of the Compact for the country and the need to shift the focus towards reforms and issues of direct concern to citizens (Council of the EU, 2014). The implementation is expected to start after the new governments elected in the general elections of 12 October 2014 take office⁶. In this expected upcoming focus on growth and jobs, VET reform and the roles of key actors in VET are becoming even more important.

⁶ In the general elections, the people of Bosnia and Herzegovina elected the national Presidency and House of Representatives, as well as the presidents and legislatures of the Federation of Bosnia and Herzegovina and Republika Srpska.

1. VISION FOR THE VET SYSTEM

Section 1 provides a brief introduction to the VET system, provides information on the strategic goals, topics, principles and orientation for its future development, and assesses its capacity for reform. Throughout this and all subsequent sections of the Torino Process Analytical Framework, 'VET' refers to both initial VET (IVET) and continuing VET (CVET) delivery systems. According to Cedefop definitions, initial vocational education and training (IVET) is VET delivered in the initial education system, usually before entering working life; continuing vocational education and training (CVET) is VET delivered after initial education and training or after entry into working life, and aims to help individuals to improve or update their knowledge and/or skills, to acquire new skills for a career move or retraining, and to continue their personal or professional development.

1.1 Introduction to the VET system

The VET system is regulated and implemented at several levels. Republika Srpska, the 10 Federation cantons and Brčko District each has an education ministry. The Education Department of the Ministry of Civil Affairs at BA state level plays a networking and coordinating role and is responsible for the adoption of framework laws. Secondary VET is provided by art schools, vocational and technical secondary schools and religious schools. Students graduating from ISCED 3A secondary technical, art or religious programmes of four years' duration obtain a diploma of secondary vocational education and can continue in any higher education institution. ISCED 3C-type vocational programmes, lasting three years, are designed to provide direct access to the labour market. Students graduating from ISCED 3C programmes obtain a certificate of vocational qualification and cannot continue in a higher education establishment. In principle such students can continue in vocational training programmes at ISCED 4 (post-secondary non-tertiary education)⁷. Secondary general education is provided by general secondary schools and religious schools, and schools for students with special educational needs. Students graduating from secondary general education obtain a diploma and can enrol in any higher education faculty or academy by passing the qualification examination prescribed by the institution. These general education programmes last for four years.

In the ISCED system, educational programmes at level 4 (post-secondary non-tertiary education) are designed mainly for the vocational training of adults who have already completed secondary education. Such programmes exist in Bosnia and Herzegovina (at present in Republika Srpska only) and are provided in vocational and technical secondary schools or in centres for professional training. Students graduating from these one- or two-year programmes (ISCED 97, level 4C) in vocational and technical schools obtain a certificate of vocational qualification (specialist or craftsman). According to the UIS/OECD/Eurostat (UOE) methodology, in order to become subjects of education statistics, these programmes should have a duration equivalent to at least one full-time semester⁸. (Non-formal education in courses lasting less than one semester full-time equivalent as defined nationally is a subject of the Adult Education Survey (AES), which is held in the EU in according to a common methodology of Eurostat.) Training programmes which lead to the acquisition of a specialist, craftsman or other relevant qualification should be classified as ISCED level 4 because they meet the criteria for this level. Furthermore, these programmes are designed specifically for adult education and under UOE methodology participants should be reported separately in the UOE annual questionnaire. Therefore, statistical coverage of these programmes is required and for this purpose it is necessary to identify the training providers.

⁷ For details on present education statistics, reporting lines, shortcomings identified and possible remedial actions, see the report of the EU IPA Programme for Bosnia and Herzegovina 'Strengthening capacity in Bosnia and Herzegovina for human resources development', EuropeAid/129633, December 2013.

⁸ UOE data collection on education systems, Manual 2011, p. 6.

1.2 Overview of primary and secondary legislation⁹ pertinent to the VET system

The organising principle of secondary vocational education and training, as an integral part of the education system, which includes vocational training of children and adults, is defined in the Framework Law on Secondary Vocational Education and Training in Bosnia and Herzegovina (*Official Gazette*, No 63/08). In the chapter dealing with the organisation of secondary VET and the responsibilities of the competent education authorities, the Law (Article 4) foresees that laws and by-laws shall particularly include conditions for adult education and training for the purpose of professional training, additional training, retraining and other activities ensuring lifelong learning, also including rules of the establishment of an official register of diplomas and certificates issued. In order to adapt VET to the demands and requirements of the labour market, the Law foresees the establishment of the tripartite advisory councils comprised of the representatives of all relevant partners. The competent education authorities are obliged to ensure that the establishment and organisation of institutions for vocational education reflects the demands of the labour market (Article 5).

The Law on the Agency for Pre-primary, Primary and Secondary Education (APOS0) (*Official Gazette*, No 88/07) established APOS0 as a legal entity and an independent administrative organisation. Its responsibilities are defined in this and other laws governing the issues falling within the scope of work of the agency. The Law on the Agency (Articles 5 and 6) and the Framework Law on Secondary VET (Articles 2, 9, 10 and 11) define the jurisdiction of this institution as the establishment of standards of knowledge and the assessment and design of the common core curricula. APOS0 is also responsible for monitoring, evaluation, advancement and development of the common core curricula and proposing modular curricula for vocational subjects, and for overseeing the achievement of standards and the quality of secondary VET, 'including adult education and training'.

The Framework Law on Primary and Secondary Education in Bosnia and Herzegovina (*Official Gazette*, No 18/03) defines the principles of organisation of primary and secondary education in the country, and also the principles for the establishment and functioning of the institutions providing education services. The law recognises the importance of lifelong learning from the point of view of an individual and a society. In Article 20, the law defines adult education as education in specific subjects necessary for professional and individual development, including professional training, upskilling, reskilling and other lifelong learning activities. Based on the principle and the standards defined in the Law, adult education is further regulated by the entity laws, and the laws passed in the cantons and the Brčko District¹⁰. In the Framework Law on Higher Education in Bosnia and Herzegovina¹¹ (Article 4), the concept of lifelong learning, interaction with the social community through openness towards the public, citizens and the local community, and the obligation of universities to develop social responsibility among students and other members of the academic community, are defined as key principles on which higher education is founded. Higher education may be undertaken full time, part time, by distance learning or in any combination of these modes of study, as provided in the statute of the institution awarding the higher education qualification (Article 9).

The Law on Adult Education of the Republika Srpska (*Official Gazette of Republika Srpska*, Nos 59/09 and 1/12) provides the organisational and institutional framework for implementation of the strategic goals foreseen in the development documents of this entity, in particular the strategies enacted by different social sectors which closely correlate with the specific educational needs of the adult population. In order to facilitate

⁹ Primary legislation is law made by the legislative branch of the government (i.e. Parliament). In most countries the law on education would be an example of primary legislation. Secondary legislation is law made by an executive authority (i.e. line ministries) in order to implement and administer the requirements of the primary legislation. Examples of secondary legislation include for instance, rules and regulations issued by a minister of education on recruitment and remuneration of trainers/teachers, accreditation of programmes and institutions.

¹⁰ For an analysis of the current institutional, strategic and legislative frameworks for adult education in Bosnia and Herzegovina, with recommendations for further development, see 'Strengthening capacity in Bosnia and Herzegovina for human resources development', EuropeAid/129633, December 2013.

¹¹ *Official Gazette of Bosnia and Herzegovina*, Nos 59/07 and 57/09. Last accessed 27 March 2015 at: www.erisee.org/downloads/library_bih/Framework%20Law%20on%20HE%20in%20BiH.pdf

the implementation of the Law on Adult Education of the Republika Srpska, seven by-laws/rulebooks¹² have been enacted, covering the form and content of public documents in adult education, examining boards and the administration of exams, selection of adult education providers, and other subjects. In 2014 the Institute for Adult Education within the Ministry of Education of Republika Srpska continued to work on the adoption of new training programmes for adults.

In 2013, the Federal Ministry of Education and Science established a working group for the development of a framework law on adult education. The Federal Ministry of Education and Science coordinated activities with the cantonal educational authorities, resulting in the development of a Law on Principles of Adult Education, which was adopted in the form of a proposal by the House of Representatives of the Federation of Bosnia and Herzegovina's Parliament in July 2014. The results of the IPA 2009 'Strengthening Capacity in Bosnia and Herzegovina for Human Resources Development' have been used. The aims of the law are, among other things, to create the basis for sustainable social and economic development at the local, cantonal, entity and state levels, to increase professional mobility and flexibility among the working population, to improve the quality of life, and to enable integration into the European social and economic space by respecting the European educational framework¹³.

In April 2014 the Council of Ministers adopted the principles and standards for adult education and training, which are relevant for all the education authorities, as a framework for the development of strategies, plans and guidelines in that field. Furthermore, in October 2014 the Council of Ministers adopted the strategic platform for the development of a lifelong learning concept (2014–20). Both documents confirm the commitment of all education authorities to lifelong learning as an important part of education in the country.

1.3 Vision for the VET system

The document 'Strategic directions for the development of education in Bosnia and Herzegovina, with Implementation Plan 2008–2015' (*Official Gazette*, No 63/08), hereinafter 'Strategic directions for the development of education'¹⁴, provides guidelines for the development of education up to 2015. This document is the basis for the development of adequate strategies and action plans in the area of education at the levels of entities, cantons, and the Brčko District, and is the framework for the development of the specific (subsectoral) strategies for different levels and types of education. It focuses on the economic and social dimensions of education through goals and priorities identified as reflecting the common interest in the further development of education and society in Bosnia and Herzegovina in general: increasing the level of education among the population and strengthening the competences of the labour force; enhancing the efficiency of the education and training system; prevention of social exclusion among children and youth; increased opportunities for adult education and training; and quality-assured and more comprehensive research in education.

The strategic directions document defines lifelong learning as a top priority and underlines the need for a systematic approach to its development: 'As adult education and training in the context of lifelong learning contributes to social and economic revitalisation, creates more opportunities for employment, boosts competitiveness on the labour market, increases mobility and professional flexibility of individuals, it needs to be developed systematically [...] Adult education and training is therefore an integral part of the education system, built upon the principle of availability and accessibility to all [...]' (p. 35). The document also stresses the importance of a harmonised approach to the provision and management of adult education so that it is 'available at all levels and in all areas and regions of the country. The criteria and the standards, however, will be developed at the state level [...]' (p. 35).

¹² See www.mpoo.org/index.php/rs/obrazovanje/2010-07-15-07-01-01

¹³ Data collection and analyses for Torino Process 2014, prepared by the Federal Ministry of Education and Science.

¹⁴ Ministry of Civil Affairs of Bosnia and Herzegovina

www.mcp.gov.ba/org_jedinice/sektor_obrazovanje/dokumenti/strateski_doc/Archive.aspx?template_id=19&pageIndex=1

The short-, medium- and long-term strategic goals of adult education to be achieved by 2015 include:

- introduction of a register of existing institutions/providers of adult education and training;
- adoption of the framework law on adult education in Bosnia and Herzegovina;
- introduction of standards and procedures for certification of adult education and training institutions;
- development of the adult education and training model and evaluation of programmes;
- adoption of the strategy for literacy in Bosnia and Herzegovina;
- development of a qualifications framework for adult education;
- creation of networks of institutions and centres for providing education, information and counselling to adults; and
- reduction of the illiteracy rate.

The priority target groups defined in the document are adults without primary or secondary education, adults with secondary school qualifications which do not match labour market demand; persons with special needs, the Roma population, returnees, persons who would like to advance in their career and profession and develop entrepreneurial and managerial skills, and others.

As far back as 2007, BA key stakeholders, through broad-based consultation and policy dialogue, shaped a vision of VET for the country. The VET Development Strategy 2007–2013 (*Official Gazette*, No 65/07), which represents an explicit endorsement of the Copenhagen policy framework on VET and European employment policy, defined general directions for the development of upper secondary VET (including strategic directions and goals related to lifelong learning), stating that:

‘The economic development of Bosnia and Herzegovina depends on the quality of its human resources. The use of such resources and investing in their quality are the primary factors for development. The lifelong learning system is a precondition for growth and development and it becomes necessary at a time of quick changes in the skills and knowledge required. The education system must be adapted and must offer opportunities for retraining and supplemental training. In a reformed vocational school, the education of young people shall significantly differ from the previous system, in which youth prepared for one profession only or for one qualification only. The principle of lifelong learning pushes those limits away and allows generations of all ages to enrich their knowledge and skills based on the credit system, increasing their competencies and their employment opportunities.’ (p. 12)

Although this document does not identify specific objectives and implementation deadlines, it gives comprehensive guidelines and recommendations for the implementation of long-term reforms and aspirations in VET. It reflects upon the global trends and specific needs of the countries in transition, and stresses the importance and value of education for society and the importance of investing in human resources. The document calls for recognition of new demands as regards knowledge and skills, new forms of education (formal, non-formal and informal), innovations in adult learning and teaching, the goals and methods of assessment and certification, the development of standards, and the monitoring of the quality of adult education. The strategy refers to education as one of the most important projects in the country, which includes the following strategic and operational goals:

- the development of a society in which the education of children and adults is equally important;
- the introduction of stable and socially relevant financing of adult education;
- formal adult education adjusted to the learning needs and capacities of adults;

- recognition of qualifications and abilities acquired through professional development;
- upskilling, reskilling and specialisation.

The strategy singles out VET for adults within a wider lifelong learning concept. Some of the key recommendations of this document related to the improvement and further development of education of adults in the light of the lifelong learning concept are:

- continued monitoring and analysis of conditions and trends in the labour market in relation to employment and education;
- development of flexible curricula which reflect the demands of the labour market;
- promoting an active role for the employment institutes in job mediation;
- securing incentives for employers to hire persons from certain groups (disabled persons, returnees, etc.) by arranging additional training and preparation for work;
- development of the certification system;
- analysing the effects of increased investments in lifelong learning and creation of the 'learning society', and introduction of the financing system for lifelong learning;
- creating conditions for the establishment of adult education institutes;
- identifying networks of schools and training centres and issuing accreditation to such networks for adult vocational education; and
- development of the national qualifications framework.

The Republika Srpska Education Development Strategy 2010–2014¹⁵ foresees:

The baseline of this strategy is the lifelong learning concept, or more specifically the learning society concept. These are two complementary concepts recommended by UNESCO, the OECD, the World Bank, the ILO and other international organisations as a basis of modern policy in education and reform of the education system. Lifelong learning implies adaptation of one's knowledge (or upbringing) throughout all stages of life. It consists of three main forms of education: formal (schooling), non-formal and self-education. Development of the lifelong learning concept was motivated by the rapid technological and social changes which make the existing knowledge obsolete and encourage the acquisition of new. Therefore, one needs to learn throughout his/her life, not only during childhood and young age' (p. 3).

The document defines as one of its strategic goals the increased participation in education 'by ensuring full participation of population in primary education, and increasing the percentage of secondary education and participation in lifelong learning' (p. 33).

In the Federation of Bosnia and Herzegovina, the focus has been placed on higher education, and a document entitled 'Strategic university education development guidelines: synergy and partnership' for the period 2012–22 was adopted by the Federal government in its 72nd session, held on 24 January 2013. The document outlines a series of measures needed to achieve comprehensive implementation of the goals set. They are defined within the scope of good and comprehensive objectives, in compliance with the European higher education sector, consisting of 24 goals relevant for implementation based on the principles of the Bologna Declaration.

¹⁵ <http://ebookbrowse.com/strategija-razvoja-obrazovanja-republike-srpske-2010-2014-pdf-d69690893>

1.4 Capacity for innovation and change

The latest SIGMA Bosnia and Herzegovina assessment report (OECD, 2012) describes the challenges in interministerial coordination and stakeholder engagement in a very direct way. According to the report, there are major problems related to inadequate human resources, overlapping competences, lack of coordination between institutions and across levels of government, absence of a cooperative or even consensual administrative culture, and continual political interference in the hiring and management of civil servants. The country's institutional complexity makes reform a challenging and slow process. The complex and inefficient administrative structure slows down decision-making processes and consumes a disproportionate amount of public spending.

Therefore, it is obvious that the VET environment in the country is a complex web of political and administrative structures that shape the legal and financial environment covering education, lifelong learning and skills acquisition, which are closely linked to the labour market. As stated in the VET Development Strategy 2007–2013, 'Strategy for the development of vocational education and training in Bosnia and Herzegovina for the period 2007–13', successful policies can be attained only by developing institutional partner networks and establishing appropriate social dialogue. Each institutional network basically implies the cooperation of government (state), its ministries, employee representatives, employer representatives and other interested parties.

Partnership is a specific development process with a social emphasis, in which the various active participants involved are motivated by a common purpose to achieve a certain goal. This purpose governs the process. Social partnership enables the harmonisation of different points of view and the formation of a broad basis for negotiation geared towards resolving key problems in employment and the labour market. Social dialogue is a social process, occurring at a certain level of political and economic development of a society, in which, through a different mechanism, collective decision making works towards universal values. In Bosnia and Herzegovina, there is no practice of forming tripartite councils composed of representatives of employees, employers and state; neither has dialogue been established as a mode of negotiation. By establishing dialogue between partners, it will be possible to start initiatives for introducing new VET qualifications, reviewing the existing categorisation of professions and occupations, and modernising the existing VET qualifications.

An important driver for innovation and change is the daily use of information and communication technologies in schools. The education sector took a major step forward, particularly with regard to the student–computer ratio in primary and secondary schools, which stood at 57:1 in 2010. The number of teachers with information technology qualifications is growing steadily. All 10,799 teachers in Republika Srpska, for instance, were scheduled for computer skills training before the beginning of the school year 2010/11 (UNDP, 2010). The percentage of schools with a computer classroom/laboratory with internet connection has increased, and now nearly all schools have this kind of classroom. The World Economic Forum's Global Information Technology Report 2014 ranked the country 61st out of 148 economies worldwide in relation to the indicator 'Internet access in schools', with value of 4.5 on a scale of 1–7 (WEF, 2014a).

1.5 Drivers for innovation and change

In Bosnia and Herzegovina, research and development jobs are unattractive because salaries are low, social security coverage is scanty, and career incentives and employment opportunities are poor. The country has suffered from the departure of its most expert and highly qualified young people. Scientists who stayed in the country left the research and development sector for better-paid jobs in the private sector. This has resulted in a shortage of experienced middle-aged researchers. The resources for funding longer-term research or researcher mobility are almost non-existent and donor assistance is often short-term and small, and targets concrete investments in certain key areas, such as science and technology infrastructure and modernisation of laboratories (Deloitte, 2013).

As part of the BAMONET Project (BA Researchers' Mobility Network), the EURAXESS Centre has created a portal for online delivery of information and services to the wider academic community, especially to mobile researchers (incoming and outgoing). The BA EURAXESS Network consists of one bridgehead organisation, four EURAXESS service centres and a number of local contact points at all major universities in the country. The portal is a unique, free web service providing access to updated and complete information and services. The portal provides information and online tools designed for foreign researchers interested in visiting one of the scientific and research institutions in Bosnia and Herzegovina and for national researchers who plan to develop their scientific career either in Bosnia and Herzegovina or in the wider European Research Area (ERA) (Deloitte, 2013).

There is little or no systematic research into the relations between the education and labour sectors, the educational demand, supply and participation in adult education, or other aspects of adult education. Certain fields of adult education are usually researched within international projects and other activities undertaken by the international community in adult education in Bosnia and Herzegovina, or in specifically designed research and analysis by different international organisations or expert associations. Some research on the links between education policies and the labour market in Bosnia and Herzegovina was conducted in 2010 by the Centre for Policy and Governance (CPU). A self-assessment analysing progress in the development of VET policies and systems in the country was conducted as part of the 2012 Torino Process, under the auspices of the ETF¹⁶. Lately, by joining the FRAME Initiative: Skills for the Future, Bosnia and Herzegovina (central level and entities) underwent an innovative process of policy visioning that entailed a qualitative assessment of future context and scope in the area of skills development and scenario building for the future. This process, which took place in 2013/14, led to the development of a shared vision and roadmap in the 'Vision for Skills 2020' document and the identification of development needs to enhance the country's capacity to deliver the right mix of skills more efficiently.

Bosnia and Herzegovina has adopted a Framework Law on Science and a Strategy for Science Development, aimed at stimulating research and innovation. In 2013, there was no increase in the level of participation in the EU framework programme for research (FP7). The overall success rate is 12.3% compared to the EU average of 21.6% (European Commission, 2014).

In March 2012, the Council of Ministers adopted the Entrepreneurial Learning Strategy for 2012–15, targeting all levels of education. It builds on the Small Business Act for Europe and on regular assessment of BA's performance by the European Commission. The primary goal of the strategy is to foster and promote entrepreneurial mindsets that have a positive impact on social and economic development in the country in line with existing strategic commitments and taking into account global economic progress. The Partnership for Entrepreneurial Learning network, part of the Entrepreneurial Learning Strategy, brings together representatives of education, business and employers at state level (BA), entity/district level (Federation of BA, Republika Srpska and Brčko District), and the level of the 10 cantons of the Federation; it also incorporates a wider advisory structure representing civil society, donor initiatives, and public and private education providers involved in entrepreneurial learning initiatives at different levels.

In June 2014 Bosnia and Herzegovina signed a Memorandum of Understanding for partial participation in the Erasmus+ Programme. At this stage the country can take part partially in Erasmus Mundus and Jean Monnet activities. Institutions may take part as partners in a consortium with a limited budget, if their participation lends an added value to a particular project. For the Jean Monnet programme, institutions may apply or become a partner in a project's consortium. Besides the actions listed, the country has joined and started activities in European education networks such as Eurydice, Euroguidance, Europass, European Qualifications Framework (EQF), and EPAL (the European platform for adult education).

¹⁶ EU IPA Programme 'Strengthening capacity in Bosnia and Herzegovina for human resources development', EuropeAid/129633.

The agreement associating Bosnia and Herzegovina with the new EU research and innovation programme Horizon 2020 (covering 2014–20) was signed in July 2014 and allows for BA's retroactive participation as of 1 January 2014. The first necessary administrative measures for participation (nomination of national contact points and representatives in the programme committees) have been put in place. As regards integration into the ERA, no new actions were implemented and the level of investment in research, a key EU target, is still very low (less than 0.20% of GDP, compared to the EU 28 average of 2.02% in 2013). The country did not nominate a representative in the ERA Committee. With respect to the Innovation Union, the Framework Law on Science and the Strategy for Science Development aim at stimulating research cooperation between the private and public sectors, but no concrete actions have yet been adopted. The country has been active in cooperating at the regional level and co-signed the Western Balkans Regional R&D Strategy for Innovation adopted in October 2013 (European Commission, 2014).

1.6 Actions and assessment of progress since 2010

The credibility of all the strategies and actions implemented depends on the way they are linked with the needs of BA citizens at the local level and how they are operationalised in Republika Srpska, Brčko District and the 10 cantons of the Federation. The capacity of the authorities to target resources, and their capacity to mobilise institutions and stakeholders at all levels of the VET system, depend on the capacity of all stakeholders to engage in a meaningful policy dialogue that will strengthen the likelihood that the policies identified in the VET strategy will be implemented.

It is difficult to document, at state level, progress made in implementation of the VET vision as stated in the VET strategy, mainly because action plans, and deadlines and performance indicators are missing and the associated budgets are non-existent. In 2014, on the expiry of the VET Development Strategy 2007–2013, the Ministry of Civil Affairs, in cooperation with KulturKontakt Austria, embarked on the preparation of summary information on implementation of the VET Development Strategy in Republika Srpska and the 10 cantons of the Federation. To overcome the obstacle imposed by the absence of up-to-date information on progress related to the achievements mentioned in the strategic documents, a methodology for the development and collection of information was developed, and two workshops with all relevant stakeholders in VET were held in September and November 2014. The Department of Education in the Ministry of Civil Affairs is currently preparing the summary information on strategy implementation; this is expected to be considered and adopted by the Council of Ministers in the first quarter of 2015. The proposed summary information will serve as the basis for a new strategic document on VET covering the period 2015–20.

Several IPA projects have contributed or are contributing to the vision for VET. The project 'Strengthening capacity in Bosnia and Herzegovina for human resources development' (IPA National Programme 2009), which started in September 2011 and ended in October 2013, contributed to the strategic and legal framework for adult education, as well as to improving educational statistics to ensure evidence-based education planning. The twinning project 'Strengthening the institutional capacity of the Agency for Pre-primary, Primary and Secondary Education (IPA National Programme 2009) started in June 2012 and ended in September 2013. The project supporting institutional and capacity building in VET, with focus on Baseline Qualification Framework and the Implementation of the Framework Law on VET, ended in March 2013. The project 'Entrepreneurial learning in Bosnia and Herzegovina education systems' (IPA National Programme 2011), which started in January 2014, aims to integrate entrepreneurial learning as one of the key competences in primary, general secondary and vocational education, including more specific entrepreneurship skills in secondary and vocational education (ISCED 2 and 3) in selected subjects. November 2014 saw the opening of two projects dealing with the Development of Qualification Framework in All Forms of Education (IPA National Programme 2012), which are designed to support the establishment of the qualification framework, in-service teacher training and capacity building to improve the quality of VET.

The German cooperation agency GIZ also contributes significantly towards improvements in VET. The ongoing GIZ 'Promoting adult education' project (total budget EUR 4 million for the period 2010–16) aims to improve formal, non-formal and informal adult education in the country and link it to economic and social needs. Advice is provided to public and private adult training actors at regional level and 'second chance'

education is improved for adults who did not complete primary education. Competency-based instruments for employment are introduced and career counselling strengthened.

Policy dialogue in the framework of European integration should act as a catalyst in consolidating a more systematic approach to strategic planning in VET. Continued joint efforts to develop a modern VET system are crucial, both in relation to the needs of young people but also vis-à-vis economic growth and labour market developments. Policies and measures are needed for initial VET (at upper secondary education level) and for adult education and training, as provided by a wide set of institutions ranging from non-governmental organisations to VET secondary schools and private VET providers. Although the VET reform process is under way within an international donor framework, there are clear signs of success in the engagement over the years of key stakeholders in the consultation and policy dialogue process. The Department of Education clearly demonstrates improved capacity in the last few years for improved coordination of the processes related to EU accession. The crucial next step is to design a solid new VET strategy that will be a basis for consolidation of the progress achieved so far and will indicate the way to move forward in the spirit of the European Education Agenda 2020.

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

Sections 2 and 3 reconstruct the broader socioeconomic context in which VET takes place in order to determine how well the VET system responds to the needs and expectations determined by factors in its external environment. Section 2 focuses on the demand for VET from the economic and labour market perspective and in particular collects information on economic and labour market factors that shape the demand for skills, mechanisms for identifying that demand and matching the skills supply to it, and the influence of the VET system on skills demand, in particular through the promotion of entrepreneurship.

2.1 Economic and labour market factors that shape demand for skills

The economy¹⁷ of Bosnia and Herzegovina faces serious structural obstacles to growth. The main growth bottlenecks are considered to be:

1. the large government sector, characterised by low spending efficiency and sizeable interference in the economy, which distorts market signals;
2. the unfavourable business environment, which hampers private sector development;
3. the low quality of the human capital, combined with a dysfunctional labour market;
4. the low production capacity and export base (European Commission, 2013a).

After a mild recovery in 2011 (GDP growth rate 1.3%), the economy re-entered negative territory in 2012 (-0.7%), due partly to the deterioration of the external environment and partly to severe climatic conditions in both winter and summer. In 2013, a slight growth in GDP (0.36%) was registered, according to the World Bank's online indicators. Tight lending conditions, falling employment and the implementation of fiscal consolidation measures had negative repercussions on domestic demand. At the same time, the worsened external environment – due to the EU sovereign debt crisis – resulted in falling exports, which, albeit accompanied by shrinking imports, led to a negative contribution of net exports to growth. The gradual recovery targeted by the different programmes in the medium term is based on progressively strengthening domestic demand, while the negative contribution of net exports is set to increase (European Commission, 2013a). The devastating floods of 2014 had a negative impact on the country's growth prospects.

An annual growth rate of 7.4% in the industrial production index was recorded in December 2013. After an extremely poor performance in 2012, industrial production has now recovered and the trend characteristic of the period following 2008 has been restored. Activities in the manufacturing industry, which recorded an uncommonly high growth in production volume at the end of 2013 and thus had a significant impact on the level of industrial production index in 2013, are as follows: manufacture of fabricated metal products, except for machines and equipment; manufacture of food products; manufacture of beverages; and production of machines and devices. Due to the extremely poor weather conditions in 2012, early 2013 was marked by a significant annual growth in the production and supply of electricity and gas (CBBH, 2013).

Privatisation and enterprise restructuring is a largely unfinished task, particularly in the Federation of Bosnia and Herzegovina, where the privatisation process stalled during the crisis period. It is relatively well advanced in Republika Srpska, as about two-thirds of the enterprises intended for privatisation have already been sold, while the bulk of the remaining companies is to be transferred to local government or is likely to be liquidated. The Federation is lagging behind: slightly over 40% of the initial stock of state-owned capital intended for privatisation had been sold by the end of 2012. Looking for some efficiency gains, the authorities aim to

¹⁷ In February 2015, the Council of Ministers adopted the 2015 National Economic Reform Programme. Last accessed 27 March 2015 at: www.dep.gov.ba

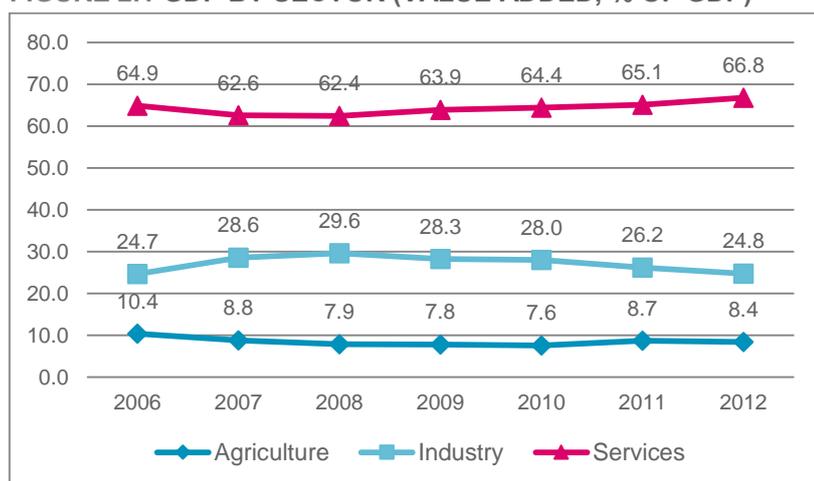
relaunch the privatisation process. Against the background of a largely unfinished privatisation agenda, the privatisation programme is far from ambitious, but decisive actions need to be taken to allow for more efficient allocation of resources (European Commission, 2013a).

Bosnia and Herzegovina has huge potential resources, including a strong human resource base, supporting infrastructure, an abundance of production facilities, but if they are to be materialised, the economy must seek increased capital investments, new technologies and access to new markets. These goals could be met in partnership with strong strategic partners and large international companies, especially in the sectors of tourism, agriculture and food processing, energy, wood, mining and metal processing, and the automotive and construction industries. Large-scale development programmes and huge investment projects have been prepared in the energy, transport and tourism sectors in particular, requiring significant capital investments which the country cannot afford by itself. The involvement of strategic investors and the application of various business and investment models, such as concession arrangements, various public–private partnership models, financing from specialised institutions such as the World Bank and the EBRD, represent possible solutions leading towards the achievement of these ambitious goals (FIPA, 2012).

The tourism sector is perceived to be among the sectors with the highest competitive potential, given its economic significance: it accounts for 10% of GDP, both directly and indirectly generated, 16% of export earnings and over 8% of total employment. There also have been encouraging institutional developments, notably at the state level: a special department has been created in the Ministry for Foreign Trade and Economic Relations and a functional working group for coordination, reporting directly to the Council of Ministers, has been set up. Additionally, the sector offers potential for fostering entrepreneurship and foreign investment and constitutes a good example of cross-sectoral cooperation (with environment, transport, rural development, etc.). According to a travel and tourism competitiveness report, the country was ranked 107th out of 133 countries profiled in 2009. Improving the education and training of tourism staff is one of the issues that, if addressed, could help enhance the performance of the sector (FIPA, 2012).

According to data from the BHAS 2012 Labour Force Survey and the World Bank, economic output in 2012 was dominated by the services sector, which accounted for 66.8% of GDP, followed by the industrial sector (24.8%) and agriculture (8.4%); the constant decline in the share of industry since 2008, with a loss of 4.8% during 2008–12, is noticeable.

FIGURE 2.1 GDP BY SECTOR (VALUE ADDED, % OF GDP)



Source: World Bank Development Indicators

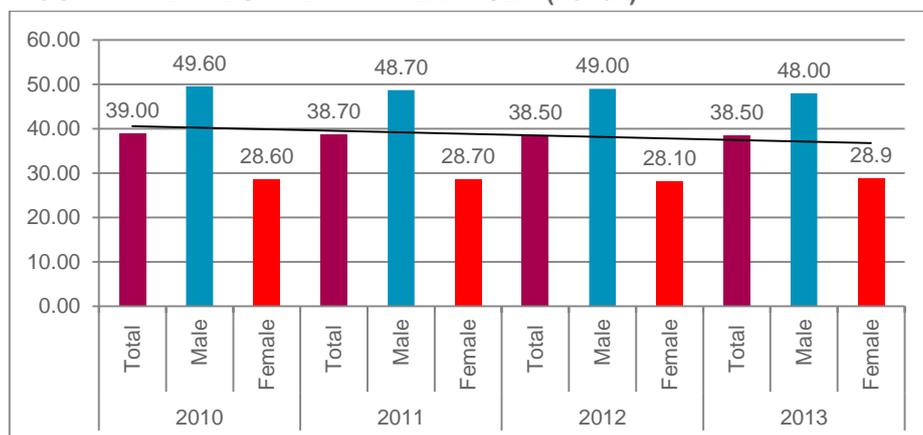
The employment structure by sector reveals a falling trend in agricultural employment (from 20.5% in 2006 to 18.9% in 2013), while the opposite is happening with the services sector (from 48.7% in 2006 to 51.3% in 2013). According to the 2013 BHAS Labour Force Survey, in 2013 slightly more women than men were employed in the agricultural sector (19.2% and 18.7%), whereas in the services sector the gender discrepancy is prominent (64.7% women vs 43.4% men, respectively). The difference between the sexes was significant also for industry, with only 16.2% women compared to 38% of men employed in the sector in 2013. More men

than women were represented in the category of self-employed (24% vs 15.2%); while in the category of employed the situation was more balanced (73.8% men vs 75.9% women). Women were more highly represented in the category 'unpaid family workers' (8.9% women vs 2.2% men). There are no consistent trends indicating the narrowing of these gender gaps, and the overall situation points to a rather precarious status for women in the labour market, in terms of both participation and job quality.

Educational attainment is a key predictor for individuals' performance on the labour market in Bosnia and Herzegovina. Those with higher education face the lowest risk of unemployment (16.8%) and have the highest employment rate (61.11%); also, the gender gap is almost non-existent. A key challenge for the country's chances of future growth based on knowledge, skills and increased competitiveness is the high proportion of people (over 40%) with only primary school educational level or lower. Gender gaps are prominent, with a difference of around 20 percentage points between the educational attainment of males and females at low (primary school or less) and mid (secondary school) levels.

The labour market continues to be characterised by low activity, high unemployment (especially among youth) and high informality. The financial crisis worsened labour market conditions and widened existing gaps, especially between men and women (European Commission, 2011). According to 2013 LFS data, the activity rate for age group 15–64 decreased slightly (53.5%) compared to 2012 (53.9%). Women's participation in the labour market is persistently low (41%), compared to that of men (65.7%). This means that roughly only two in five women of working age participate in the labour force. Youth (15–24) have the lowest activity rate of all age groups (28.3%), and there are marked gender differences in this age group (females 19.4%; males 36.3%). The employment rate (15–64) decreased very slightly, from 39% in 2010 to 38.5% in 2013, but discrepancies remained between men and women (48.0% and 28.9% respectively). Differences in the employment rate by educational level remained stable over the period: around 60% for those with higher education, around 40% for those with secondary education (only 31.6% for women) and around 15% for those with primary education (only 9.6% for women). With reference to the EU 2020 employment target for the 20–64 age group, Bosnia and Herzegovina registers a significant gap (42.8% against the EU28 average of 68.4% in 2013). Almost 20 percentage points separate the male and female employment rates (compared to about 11 percentage points in EU28).

FIGURE 2.2 EMPLOYMENT RATE BY SEX (15–64)

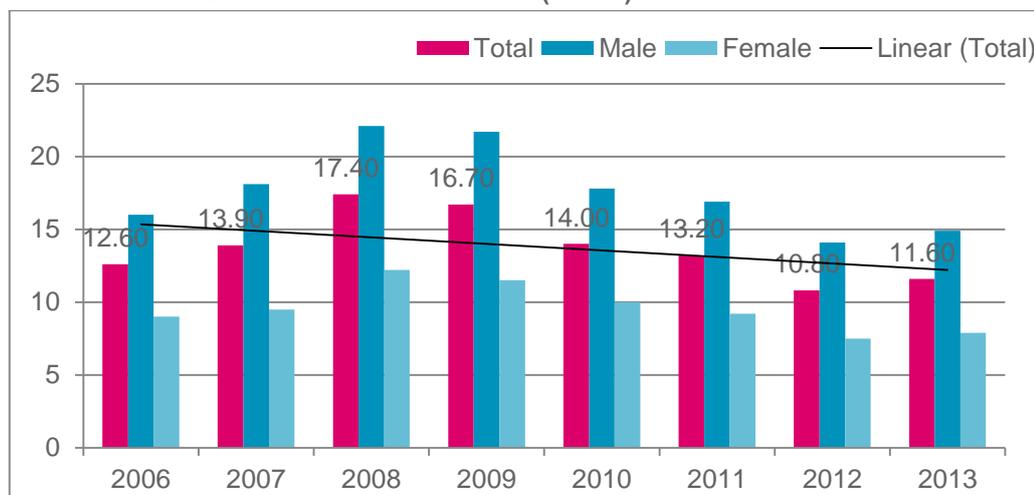


Source: BHAS, LFS 2010–13

The unemployment rate (15+) dropped very slightly from 28% in 2012 to 27.5% in 2013, with some disparities between men and women (26.5% and 29% respectively). It is possible that active labour market policy measures implemented contributed to a slight decrease in the unemployment rates for youth (15–24) with a total of 59.1% (59.1% for males and 59.2% for females) in 2013 compared to the peak of 63.1% in 2012 (62.6% for males and 64% for females), yet it remains among the highest in the Western Balkan region. The share of long-term unemployment remains very high, even increasing from 81.9% in 2012 to 83.1% in 2013 of all registered unemployed people.

The youth employment rate (15–24) has fluctuated slightly but has always been at a very low level (**FIGURE 2.3**). In 2013 it dropped to 11.6%, around the same level as in 2006 (12.6%), mainly driven by the performance for women (7.9%).

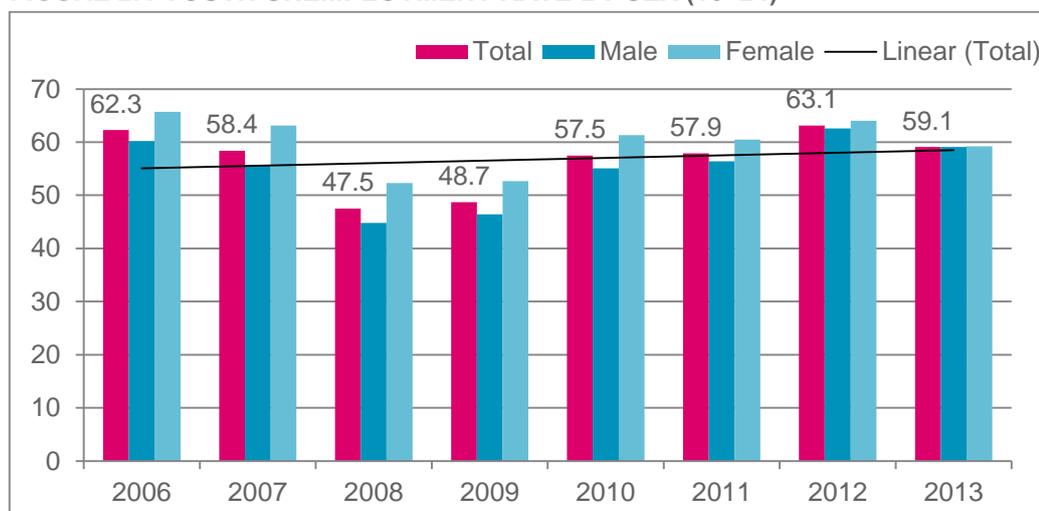
FIGURE 2.3 YOUTH EMPLOYMENT RATE (15–24) BY SEX



Source: BHAS, LFS 2008–13

The unemployment rate for the youngest workers (15–24) has slightly increased, but still youth unemployment remains at a very high level (59.1% in 2013). The gap between sexes, 5.5 percentage points in 2006, has nevertheless almost disappeared in 2013 (as illustrated in **FIGURE 2.4**).

FIGURE 2.4 YOUTH UNEMPLOYMENT RATE BY SEX (15–24)



Source: BHAS, LFS 2008–13

The BA Agency for Labour and Employment, the Employment Agency of the Federation of Bosnia and Herzegovina, the Employment Agency of Republika Srpska, and the Employment Office of Brčko District have adopted some active labour market measures in 2013, which target vulnerable groups – mainly youth, the long-term unemployed people and war veterans. Expenditures on these measures remained very low, however, dropping from 0.14% of GDP in 2010 to 0.09% of GDP in 2012, according to the latest available data. As stated before, more than 80% of unemployed people face a spell of long-term unemployment.

2.2 Mechanisms for identifying the demand for skills and matching skills supply

Evidence from firm-level surveys suggests that firms in Bosnia and Herzegovina continue to have an unmet demand for workers, despite the challenging global business environment. In an online survey from May 2009

of 933 firms that advertise on the job brokerage portal posao.ba, 83% of firms answered that they had an unfilled need for workers. Of these, 48% of firms responded that they needed university graduates, 33% needed workers with secondary education, 4% needed skilled labour and 2% needed unskilled labour. A similar survey is conducted annually by the Federal Employment Institute (FZZZ). According to the results of a survey of 2,158 firms in 2008, firms in the Federation of Bosnia and Herzegovina increased their existing employee base by 5% during 2008; 39% of firms expressed a continued shortage of employees, and 49% of firms planned to increase the number of their employees during 2009. Of these firms, 39% were in need of low-educated but skilled labour, 19% needed employees with secondary education and 25% needed employees with higher education. We can note from the two surveys that the posao.ba sample, which included fewer public-sector enterprises, tended to be more optimistic about growth prospects in 2009 and more biased towards hiring highly skilled people compared to the FZZZ sample. Although both samples suffer from selection biases and neither is representative of the economy overall, both provide data points suggesting that firms have an unmet demand for skills.

In 2013, the total youth population (15–24 age group) was 14.6% of the overall population. Of these, 28.3% were active on the labour market, while the proportion of active young men was almost 17 percentage points above that of their female counterparts. Based on their previous negative experiences, young people assess their chances to obtain employment in the country as highly unfavourable (only 11.6% were employed, with a huge gender discrepancy). One in four young people holds employment which is unrelated to their field of study, and youth with vocational education have a particularly hard time finding work. According to estimations, young people in general are more likely to find work in the informal labour market, doing menial jobs in poor working conditions, and with almost no security. Many young people have a contract for an undetermined (54%) or fixed (18%) period of time and their wages are only partially declared (ILO and MDG-F, undated).

There is an indication of a skills gap because the education system is still not sufficiently well aligned to the needs of the labour market. In addition, most educational streams are exclusively theoretical in approach, and therefore are not providing young people with the opportunity to gain practical experience during their formal education. This situation prolongs the transition from school to work for youth in a context where job creation is not capable of absorbing the new labour market entrants. This leads to long spells of unemployment and high levels of informality. It appears there is also a lack of training, internship and job placement programmes which could support youth in this transition (ILO and MDG-F, undated). The BA 2015 National Economic Reform Programme also underlines that, overall, the education system – and VET in particular – does not meet the needs of the economy.

Many young people who complete vocational or tertiary education are not able to find a job in a relevant profession, while many others turn to low-quality jobs in the informal, or shadow, economy. Less than half of all employed people below the age of 29 have managed to find work in the field in which they were educated, leading to a high rate of youth migration from the country. According to the World Bank's online indicators, the net migration of Bosnia and Herzegovina was -18,789 in 2007 and -5,000 in 2012.

The ICT sector contributed USD 277 million to the BA economy in 2012. Measured by the web portal plata.ba, which compares salaries across jobs, the ICT sector was one of the most productive in the country's economy in 2013, registering an average of BAM 43,200 per job, almost four times the national average for all sectors. SMEs in ICT reported that, in line with global trends, their competitiveness was completely reliant on the skills and knowledge of advanced methods and programming held by their technical staff. Related to this point, almost two-thirds of SMEs (64%) reported that more than half of their technical staff were not currently skilled enough to be competitive in EU and global markets. Software developers represented 36% of the ICT-related jobs in the country; other technical jobs (network engineers, web designers, data base developers, quality assurance etc.) represented an additional 29% of the total staff of SMEs in ICT. Only 14% of this group of employees were non-technical, non-project staff. Most SMEs reported that their staff in software development and project management positions were those in the greatest need of improvement and updating in skills and industry certifications. The next most serious skills shortage was in web designer and network administrator positions (USAID, 2014).

The country possesses a growing labour force skilled in various aspects of ICT design, management, and applications. Young, educated and innovative workers are participating in international projects and companies. The country's indicator for 'Quality of mathematics and science education' in 2012 was 4.5, in the WEF's Global Information Technology Report 2012, giving Bosnia and Herzegovina a ranking of 41st out of 142 countries for which comparable data exist. According to the WEF's Global Competitiveness Report the country's 2013 result for the indicator 'Availability of scientists and engineers' was 4.7, ranking the country 27th out of 148 countries with comparable data – the best ranking in South Eastern Europe.

According to the same report, whose pillars comprise higher education and training, Bosnia and Herzegovina ranked the highest (13th out of 148 countries) among South Eastern European countries for the indicator on quality of education in mathematics and science in schools – with Croatia ranking 22nd, Montenegro 23rd, Macedonia 51st, Albania 54th and Serbia 55th.

2.3 Potential of the VET system to influence economic and labour market needs

The quality of the business environment in the country remains problematic and the country continues to lag behind other economies in South Eastern Europe, according to various cross-border surveys. It also continues to fare poorly as regards business start-ups. Some measures have been taken to facilitate business start-ups and construction permits; however, the World Bank's *Doing Business 2015* report ranks Bosnia and Herzegovina 107th out of 189 countries (World Bank, 2014), a figure which reflects its deep-rooted problems. Its performance is particularly weak in indicators such as starting a business, dealing with construction permits and obtaining access to electricity. Its Global Competitiveness Index ranking improved slightly – from 100 out of 133 countries, with a score of 3.8, in 2012 to 88 out of 144 countries, with a score of 3.9, in 2013.

The adoption at state level of an entrepreneurial learning strategy covering all levels of education is an important development in the area of human capital. An important factor in the strategy formulation drive has been the creation of a comprehensive state-wide Strategic Working Group comprising policy officials and practitioners from both formal and non-formal education areas with excellent stewardship by the Ministry of Civil Affairs. The Entrepreneurial Learning Strategy for 2012–15¹⁸, which addresses entrepreneurial learning in education systems in the country and contains an action plan for implementation, defines activities for all competent bodies and institutions that aim to ensure the inclusion of entrepreneurial learning in the curriculum 'at all levels of the lifelong learning process' (p. 2). The primary goal of the strategy is 'to render support to the process of vitalisation of human capital in Bosnia and Herzegovina, the creation of a competitive economy with small and medium-sized companies as its pillars, and sustainable economic growth, all aimed at meeting the needs of Bosnia and Herzegovina as a society with the EU perspectives' (p. 7). It aims to do this through entrepreneurial learning from the earliest stages of education through further education and lifelong learning. The strategy identifies the objectives and priorities for entrepreneurial learning and defines activities for their implementation at all levels of education.

The Entrepreneurship Development Centre (EDC) ran a comprehensive business training programme for existing and potential entrepreneurs who had contracted loans at the Partner Microcredit Foundation in 2009. The participants were young adults who had small businesses or who were developing new enterprises. The EDC developed a curriculum around the basics of running a business and required participants to complete a strategic plan. A randomised control trial was designed, with the evaluation aiming to understand better the effects of business training on emerging entrepreneurs. The evaluation found that, while the EDC training programme did not influence business survival, it significantly improved business practices, investments, and loan terms for surviving businesses (Valerio et al., 2014).

¹⁸ See www.mcp.gov.ba/org_jedinice/sektor_obrazovanje/dokumenti/strateski_doc/default.aspx?id=3790&langTag=en-US (last accessed 27 March 2015).

2.4 Actions and assessment of progress since 2010

Following the crises affecting the whole of Europe, important unfavourable trends could be observed in Bosnia and Herzegovina since the 2010 Torino Process, which will have a long-lasting impact on the economic and social situation in the country. As an example, in July 2010 the Council of Ministers adopted the Employment Strategy in Bosnia and Herzegovina 2010–2014¹⁹, which recognises the importance of further training for adults and of developing skills and knowledge among various target groups (young people, the long-term unemployed, informal labour market workers, older people, etc.). A benchmark target was to reduce the youth unemployment rate, through active labour market measures, from approximately the 47% in 2008 to 30% by the end of 2014. The analyses of the youth unemployment rate indicate that this issue will remain huge concern for the country policies in years ahead.

Since 2010 a number of reintegration measures have been incorporated into the action plans of the employment strategies of the Federation of Bosnia and Herzegovina, Republika Srpska and Brčko District, including measures aimed at providing young people with the possibility to re-enter education and training programmes (often combined with practical training in companies) or at facilitating their entry into the labour market. Measures such as tracking services to identify, support and monitor inactive young people, second-chance opportunities, distance learning opportunities and validating informal learning are not very well integrated, and mostly focus on particularly vulnerable and excluded groups. Under the latter approach, efforts have been put in place to improve vocational guidance and enhance skills matching. In some cases in the cantons, the number of staff in public employment services – job counsellors in particular – has been increased. In other cases attempts are being made to target active labour market policies better, so as to benefit more marginalised groups too. Reintegration measures tend to be directed towards the unemployed, while interventions targeting other subgroups are more likely to remain peripheral measures. Although some programmes have been developed to reintegrate youth into the system, the coverage and scope of the actions evidently do not meet the actual needs.

As regards strengthening competitiveness and job creation, the IMF Stand-by Arrangement review of February 2014 indicates that the authorities continue to move ahead with reforms aimed at improving the business environment and making Bosnia and Herzegovina a more attractive place to invest and create jobs (IMF, 2014). To help achieve a lasting reduction in the high rate of unemployment, efforts are under way.

- **Making it easier to start and operate a business.** In the Republika Srpska, the one-stop shop for business registration became operational in December 2013, and the process will be further streamlined by introducing online e-registration by mid-2014. With the same objectives, in the Federation of Bosnia and Herzegovina new laws on Companies and Inspections, and amendments to the Law on Business Registration, which were prepared with the assistance of the World Bank as part of a development policy loan, have been submitted to Parliament for approval.
- **Consulting with the social partners on new labour market legislation that would foster job creation.** Both the Federation of Bosnia and Herzegovina and the RS have prepared working drafts of new labour laws that aim to improve the process of collective bargaining; give the government a larger role in determining the level of minimum wages (including for young workers); promote differentiated wage setting based on skills and performance; reduce disincentives for hiring; and allow more opportunities for temporary jobs. The new laws also aim to protect workers' rights better, consistent with ILO labour standards and EC labour directives, including by increasing the penalties for labour law violations.

An issue that calls for significant attention is that in general, enterprises fail to grasp the joint nature of training. All enterprises suffer the impact of the shortage of sufficient skills in lost markets, inability to face new challenges, and a lack of investors, but these same enterprises are striving to resolve their training needs themselves. Most enterprises are carrying huge training costs: according to information from the employers'

¹⁹ See www.arz.gov.ba/files/akti/strategije/Strategija_zaposljavanja_2010-2014_en.pdf (last accessed 27 March 2015).

association, the introduction of new staff takes three months but only a very few companies know their training costs. There is little attempt to resolve problems jointly, and those enterprises that are successful in the market assume training as costs and are generally buying training services abroad. Workers and their organisations (trade unions) focus mainly on the protection of current workplaces, and only recently have efforts been devoted strategically to a forward-looking development of competences. The academic world is not really involved in the discussions on the notion of VET and its impact on society and economy. Limited research is carried out in the areas of labour market development, skills development, efficient training, training impact and assessment. But skills are seen as a marginal part of the enterprises' agenda, training provision is discussed only occasionally, and competences are still to become a priority²⁰. Measures to resolve this gap are urgently needed.

Whatever its strong and weak points, the skills system has evolved to what it is today through hard work undertaken in difficult circumstances (a succession of crises, most recently the financial crisis of 2008). The ETF FRAME initiative implemented in 2013 and 2014 has provided an opportunity to stand back and explore ways of performing better in the future and helping the system adjust to changing circumstances, both positive (growth in global market opportunities) and negative (the challenge of managing increasingly rapid change). Improvements can be achieved through the introduction of new practices, the development of new mechanisms for cooperation, and building up the capabilities of individuals and the organisations for which they work. In the longer run this kind of project will affect each citizen of the country. If the objective of 'Vision for Skills 2020' is to turn the country into a prosperous and competitive modern society with an effective, flexible and inclusive system, providing all its inhabitants with a safe and happy place to live in the EU, this puts the entire skills system at the centre of the construction of a dynamic, prosperous and burgeoning modern economy.

²⁰ Based on the interviews and findings of the ETF FRAME Review of Institutional Arrangements, ETF internal summary reports, November 2014.

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

Section 3 focuses on the demand for VET education as determined by demographic and social developments and collects information on the efficiency of the VET system from a social inclusion perspective. The section is intended to identify demographic and social factors that shape demand for VET; the equity of VET provision in terms of access, participation and progression; and the ability of the VET system to reach out to the weakest segments of the population and provide them with targeted training.

As the ETF Torino Process analytical framework states, an efficient and inclusive VET system is built on how well VET meets the aspirations of individual learners in facilitating their transition to higher levels of education or to the labour market, and how successful VET is at the state/regional and local levels in providing learning opportunities for citizens so that they can enhance their labour market prospects or upgrade their skills.

3.1 Demographic and social factors that shape demand for VET

In October 2013, Bosnia and Herzegovina conducted its first post-war census of population, households and dwellings (*Official Gazette*, Nos 20/12 and 18/13). Based on the preliminary results²¹, the total number of persons enumerated ('number of enumerated persons' does not refer to the total BA resident population) is 3,791,622 – in the Federation of Bosnia and Herzegovina 2,371,603; in Republika Srpska 1,326,991, and in Brčko District 93,028. With a population of around 3.8 million, therefore, the country is an upper middle-income economy. With a Human Development Index value of 0.735 in 2012, it ranked 81st out of 186 countries, thus belonging to the group of countries with high HDI (UNDP, 2013a). Demographic projections show that the labour force will shrink considerably in the next 40 years. BA society is ageing at the fastest rate in the region, with the dependency ratio expected to rise to 55% by 2050. The country is ranked 13th in the world for outbound migration, with an emigration rate of 25%, according to the UNDP's Human Development Report 2009. Highly skilled workers are keen to look for further and better work possibilities abroad, and this adds to the problem of brain drain: 20% of people from Bosnia and Herzegovina with tertiary education in the 25+ age group are currently estimated to be living in OECD member states. Like many developed and transition countries, Bosnia and Herzegovina is facing population growth stagnation, with estimated annual growth of –0.2% in 2010²². The age-dependency ratio (non-working-age population as a percentage of the working-age population) showed a slight downwards trend to 45.5% in 2013, compared to 48.0% in 2007²³.

Some 45% of the total population dwells in urban areas and 55% in rural ones. The general net migration trend at the municipal level (number of people moving into a municipality minus number moving out) is that people are moving into Sarajevo and other larger cities at a slightly lower rate, and moving out of other urban and rural municipalities. Urban municipalities other than the largest cities are losing population faster than either the semi-urban or the mainly rural areas, but the very rural municipalities are shrinking almost as fast as the other cities are growing. These findings would appear to support the widely held view of rural-to-urban migration. However, an analysis of the variability of the data reveals a considerable difference in the migration rate, with 30% of rural municipalities gaining population and 70% losing. Within greater Sarajevo (Republika Srpska and Federation of Bosnia and Herzegovina), two municipalities (Centar and Stari Grad) are losing population, whilst others are gaining. It therefore appears that there is no significant difference in the net migration rate between urban and rural areas, but the difference between the cities (Sarajevo and others) and

²¹ Preliminary results of the 2013 Census of population, households and dwellings in Bosnia and Herzegovina, BHAS, 5 November 2013, No 1.

²² World Bank development indicators, *Population growth*, see: <http://data.worldbank.org/indicator/SP.POP.GROW>

²³ The total dependency rate shows the relationship between the number of persons of non-working age (younger than 15 and older than 64) and the number of persons in the working-age band (15–64). The higher the number, the higher the burden of supporting the non-productive population borne by the productive population.

the highly rural municipalities is very significant. Indeed, a genuine population shift seems to be taking place, with Sarajevo and the other large cities growing, and the most rural municipalities shrinking. The pace of migration is relatively slow, however: each year urban areas are growing at the rate of 0.2% and rural areas shrinking at around 0.15%. At the two extremes, Sarajevo is growing at 0.4% per year whilst the most rural municipalities are shrinking at 0.3% (UNDP, 2013b).

According to estimates by the Ministry of Human Rights and Refugees reported in the BA Migration Profile for 2011, at least 43.4% of the total BA population (or 1,669,000 people) reside abroad. The largest number of emigrants live in the United States today (350,000), Croatia (300,000), Germany (240,000), Serbia, Austria and Slovenia (150,000 each). All these countries were traditionally destination countries of emigrants, receiving particularly large inflows of refugees during the Balkan wars in the 1990s and thus having already established strong diaspora communities in these countries. It is expected that these countries will remain the main destinations in the future (GVG, 2012).

Two opposite trends characterise migration to and from Bosnia and Herzegovina, and both have a negative impact on labour market development. The first is the significant emigration of workers, involving high rates of brain drain. The second is the low mobility of the workforce inside the country, which hampers faster labour market adjustments, particularly where there is a significant mismatch between the skills produced by the country's education system and labour market needs²⁴. For this reason, despite very high unemployment rates, the country experiences a lack of specific skills in one region while having registered unemployed people in another (BA Directorate for Economic Planning, 2011). Substantial gender differences exist, as educational attainment for women is generally lower than for men: according to the BHAS Labour Force survey for 2013, 51.5% of women have primary education or less compared to only 31.5% of men.

Literacy is high, at a rate of 98% in 2011 (99.5% for men and 96.7% for women, according to UIS figures). BHAS LFS figures from 2012 show that most of the working-age population have primary or secondary school education (42.6% and 48.6%, respectively); while 8.8% have higher education. However, there is a lack of opportunity to upgrade skills, as seen by the fact that only a small proportion of the working-age population (3.3% of young people and 1.9% of adults) do so (ILO, 2010).

The term 'early school leaving' refers to young people who have at most primary or lower secondary education and are not currently receiving education or training. Estimates of the rate of early school leaving vary. The Directorate for Economic Planning, in close cooperation with the BHAS, has calculated on the basis of Labour Force Survey data that the rate of early school leaving or non-attendance for the 18–24 age group was 14.5% in 2010. However, a different picture is provided by the Multiple Indicator Cluster Survey 2011–12, according to which the transition rate to secondary school was 96.9%, showing that almost all those children that had successfully completed the final grade of primary school during the previous year were attending the first grade of secondary school at the time of the survey (BHAS et al., 2013). Also, almost twice as many children from poor households fail to enrol in secondary education, compared to 23% of children from more affluent households. The Ministry of Civil Affairs expressed a special concern about the high rate of dropping out from the secondary education system. Roma children are those mostly affected. At the same time, poverty is the most important reason for early school leaving, followed by a lack of parental support, loss of motivation and interest in education, and conflict with the law (ILO and MDG-F, undated). Data from official sources seem to indicate a high rate of attrition of students as they pass through the secondary school system (Bartlett, 2013).

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

The efficiency and inclusiveness of VET can be assessed on the basis of the choices of young people who enrol and proceed through the education and training system. BA's gross enrolment rates are relatively high

²⁴ For more information on mismatches, especially at the cantonal level, see Section 5.2 below.

for primary and lower secondary education and drop slightly for upper secondary level. In 2012 the gross enrolment rates at upper secondary level stood at 73.5% (71.3% for men and 75.9% for women). Enrolment in upper secondary VET has remained high over the years, standing at 74.8% in 2010, according to UNESCO data. Four years of VET allow access to either the labour market or higher education. The actual quality of VET remains a challenge that will require attention over a longer period of time. The country has satisfactory enrolment rates at tertiary level (i.e. ISCED levels 5–6), showing a steady increase from 34.1% in 2007 to 37.7% in 2012. The time spent in education has also increased since 2007, signalling greater participation by students in all levels of education. Given adequate quality mechanisms, the overall educational attainment of the population is expected to rise.

The high rate of enrolment in upper secondary VET is an important tradition in Bosnia and Herzegovina; but, although upper secondary VET seems quite attractive to young people in comparison to general secondary education, its quality remains a challenge that will require attention in the long term.

TABLE 3.1 PARTICIPATION IN VET BY FIELD OF STUDY (%)

Field of study	2010/11	
	ISCED 3	ISCED 5
Education	m.d.	11.6
Humanities and art	3.0	8.3
Social sciences, business and law	23.1	39.4
Science, mathematics and computing	1.9	7.8
Engineering, manufacturing and construction	34.9	10.5
Agriculture and veterinary science	8.5	4.0
Health and welfare	10.6	13.4
Services	14.1	4.5
Unspecified	4.0	0.3

Notes: In ISCED 2 there is no VET in Bosnia and Herzegovina; data for ISCED 4 are not available; m.d.: missing data.
Source: BHAS, Education statistics (data received from BHAS)

After the Dayton Agreement, responsibilities for education were assigned to the entities, the cantons and Brčko District. This resulted in different curricula in different parts of the country. To ensure preconditions for the free movement of students, in 2003/04 Bosnia and Herzegovina set the objective of introducing common core curricula for primary and general secondary education, including upper secondary VET. Substantial work is under way in the country towards establishing these common core curricula. The reform efforts are being led by the APOSO, which has established a network of cooperating institutions composed of the education ministries and representative pedagogical institutes.

The situation with VET curricula is more diversified. A new classification of VET profiles has been adopted; the new list consists of about 100 broader VET profiles, a reduction from about 500 more specific profiles. The modular curricula need to ensure horizontal and vertical movement within any given VET profile but also between different VET profiles. Most of the VET curricula have been redesigned according to a modular approach. VET pilot schools have also received support in the form of new equipment funded by several EU VET projects and donors. Changing the balance between general and vocational subjects – 30% general versus 70% VET – makes it possible to provide more practical preparation for future employment and easier entry to the working environment. The first curriculum evaluation by the vocational schools indicated that the new curricula are better than the former ones, primarily because they are more flexible, more focused on vocational subjects and practical training and more appropriate for student needs and learning.

3.3 Delivering to the socioeconomic and inclusion demand

An important indication as to whether the VET system is inclusive given by the opportunities for requalification and renewal of knowledge and skills that are available to both young people and adults through differentiated pathways. Although the BA population has high adult literacy rates (98.0% in 2011: 99.5% for men and 96.7% for women), it is important to note that only a small proportion of the working-age population (3.3% of young people and 1.9% of adults) have the opportunity to upgrade their skills (ILO, 2010).

Ever since the 1990s and the aftermath of the recent war, adult education has been mostly provided within the formal school system, which limited availability and variety of educational programmes offered to adults. While the neighbouring countries (Serbia, Croatia, the former Yugoslav Republic of Macedonia and Montenegro) relied on the common educational system of adult education inherited from the past, despite its many deficiencies, as the basis for the development of new policies in adult education, Bosnia and Herzegovina has still a long way to go if it is to develop a new approach to adult education and training which will be based on the European principles. Adult education is organised and provided in different forms and different environments. The available statistics and research give no reliable or comprehensive indicators of the adults' participation in other segments of education. The ISCED 4 level statistical surveys on educational programmes (covering post-secondary, non-tertiary education programmes for adults who have attained secondary education but would like to improve or gain additional professional qualifications) are not being implemented. The Adult Education Survey (based on the Eurostat methodology, including non-formal education activities lasting from one day to five months) has never been conducted. According to data from the Agency for Labour and Employment of Bosnia and Herzegovina, as of 29 February 2012, 543,703 people were registered with the Employment Institute and the Employment Services, the majority of them being skilled (34.95%) and unskilled (30%) workers. Clearly, adults represent a vast but insufficiently recognised and utilised potential. The misplaced focus of different sectoral policies, and insufficient investments in the development of adults through adequate education and training in all stages of their lives, are evidence of an utter lack of understanding of the importance and role of this component of education in societal transformation in general.

Changes are under way in higher education, primarily inspired by the Bologna Declaration. A Law on Higher Education was adopted in 2007 as the basis for the organisation of higher education; it defines roles and authorities and specifically mentions quality assurance²⁵. This legislation makes provision for colleges, which could play a role in post-secondary VET. The Council of Ministers adopted a Decision on the Adoption of Documents for Further Implementation of the Bologna Process in Bosnia and Herzegovina (*Official Gazette*, No 13/08), including documents referring to the Higher Education Qualifications Framework and its Implementation, and also the National Action Plan for the Recognition of Qualifications (for higher education).

The Agency for the Development of Higher Education and Quality Assurance (HEA) performs state-level functions in connection with the Bologna Process. Up to May 2014, the agency had completed the process of accreditation of five universities in the country, and seven universities were undergoing the process of accreditation²⁶. The Centre for Information and Recognition of Qualifications in Higher Education, another state-level institution, continues to support the development of higher education in the country. As higher education development and quality assurance are embedded in the European context, the agency and the centre took a number of initiatives to share good European practices and get both institutions recognised in Bosnia and Herzegovina and Europe.

As regards inclusive policies in education, the document 'Strategic directions for the development of education' states that the key issues are the prevention of social exclusion amongst children and young people, coupled with the aim of raising general educational levels amongst the population and improving the

²⁵ IPA 2011 sector fiche for Higher Education project.

²⁶ Agency for the Development of Higher Education and Quality Assurance (HEA), http://hea.gov.ba/akreditacija_vsu

efficiency of the education system. The document advocates the right of everyone to at least the nine years of basic obligatory education.

Approximately three-quarters of all Roma in Bosnia and Herzegovina have never attended primary education, however. A Revised Action Plan for Roma Education was adopted in July 2010 and an expert group monitors its implementation. As a result of this revised plan, in 2011 there was an increase in the number of Roma children enrolled at primary and secondary schools and universities, and it was evident that the number of children who left education was lower. There were no budgetary resources at the state level in 2012 that could support the implementation of the measures and activities planned in the Revised Action Plan. At the level of the entities, the responsible ministries of education did allocated budgetary resources, but this has still been not enough to support Roma education significantly (Decade of Roma Inclusion 2005–2015, 2012).

The latest report on Roma education (2012/13) concludes that Roma participation has increased at all levels of education. In general, and based on an ETF study (Bartlett et al., 2014), progress has been made in making the country's education and training system more inclusive, although this commitment has been expressed more in legal frameworks and policy papers than in effective implementation, which remains a challenge. According to a report of the Ministry of Human Rights and Refugees, adopted by the Council of Ministers in April 2014, education authorities have allocated some BAM 326,000 to support Roma education (mainly supply of text books, and provision of scholarships). Some local communities provide funds to the Roma students enrolled in secondary and tertiary education (for example, Banja Luka and Prijedor).

The country has signed many international treaties which affirm the right to education. These include the International Covenant on Economic, Social and Cultural Rights (ICESCR) and the Convention on the Rights of the Child. The international community provides a great deal of support and some leadership in overall reforms to the national education system, and this is certainly the case with inclusive education, where the role of coordination is given to the Organisation for Security and Cooperation in Europe (OSCE). A number of other international organisations are involved in education in the country, including the Council of Europe, the EU Delegation to Bosnia and Herzegovina, Unicef, the Open Society Fund (OSF), Save the Children, and many others. A number of laws and documents relevant to inclusive education and teacher preparation have been adopted through various projects promoting inclusive multicultural education, by and large with the help of international organisations.

The country has joined the South Eastern Europe regional project 'Support to inclusive education', supported by the Council of Europe and the EU. The project started in 2013. Its aim is to improve social inclusion and cohesion in the region through the promotion of inclusive education and training. It is of great importance to promote the concept of inclusive education, relevant policies and inclusive practice in primary and secondary schools in Western Balkan countries. In 2013, the project's activities were focused on establishing a steering board for the project, drawing up operational plans for teams within the project, and selecting the schools which would take part in the project. The project comprises five components and objectives:

- establishment of tools for regional support and resources for inclusive pilot schools (each country has selected seven pilot schools);
- raising awareness about inclusive education among decision makers and the wider public;
- capacity building of decision makers and implementation of inclusive policies;
- development of teachers' competences and practice with teachers through a teachers' network; and
- establishing partnership to facilitate the inclusion of vulnerable groups in education and training.

The BA team for inclusive policy has 10 members: they are representatives from the ministries of education, APOSO, university staff and teachers.

TABLE 3.2 EU TARGETS AND BENCHMARKS, 2013 (%)

Benchmarking indicator	EU 2020 target	EU average	Worst EU performer	Best EU performer	BA	BA trend 2010–13
<i>Early leavers from education and training</i>	<10	12.0	23.6	3.9	6.7	decreasing
<i>Tertiary education attainment</i>	≥40	36.9	22.4	52.6	m.d.	–
<i>Early childhood education and care*</i>	95	93.9	71.7	100.0	m.d.	–
Students' low achievement in basic competences*						
▪ Reading	15	17.8	39.4	9.1	n.a.	–
▪ Mathematics		22.1	43.8	10.5	n.a.	
▪ Science		16.6	38.0	5.0	n.a.	
Share of ISCED 3 students in VET	–	50.4	11.8	75.3	74.8 (2012)	increasing
Adult participation in lifelong learning	15	10.5	1.7	31.4	m.d.	–
Employment rate of recent graduates	82	75.5	40.0	92.2	m.d.	–
<i>Employment rate (20–64 age group)</i>	≥75	68.4	52.9	79.8	42.8	increasing

Note: Indicators in italics are EU 2020 targets.

Source: Eurostat online indicators 2014; 'Students' low achievement in basic competences' – OECD/PISA.

3.4 Actions and assessment of progress since 2010

Until recently, the main focus of VET reform was upper secondary VET and the transition to working life. Particularly addressed were four-year curricula and VET programmes, with three-year curricula and VET profiles not yet subject to major revision. The framework legislation on secondary VET refers partially to the issue by setting, as one of its objectives, that of ensuring conditions for the development and promotion of traditional crafts. Beyond traditional crafts, however, there is a need to consider modernising the three-year VET profiles, ideally in close cooperation with the social partners and possibly in the context of apprenticeship schemes. Meanwhile, post-secondary VET offering training after upper secondary VET is very limited or even non-existent. This is particularly important in view of the demographic decline, which will increase the shortage of young qualified people in some professions.

Another aspect of the reform process relevant to inclusive education policies is curriculum modernisation, which aims to update and develop teaching and learning at all levels. The focus here is on teaching objectives, learning outcomes and responding to the needs of many groups through improved teaching and learning strategies; the use of modern technologies; better management; and the evaluation and improvement of initial and ongoing professional training of teachers at all levels. The BA Strategy for pre-school education and upbringing²⁷; the Action Plan for the inclusion of children with special needs into the regular classroom, which is currently awaiting adoption by the education ministers; and the strategy and operational guidelines for in-service training of teachers with a view to establishing standards and procedures for the licensing and certification of teachers in pre-school institutions, primary and secondary schools, including vocational schools; are all aimed to impact inclusive education policies.

A key priority for the country is to address the obstacle to early childhood education and increase attendance rates for pre-school children, including children from vulnerable groups. A good education is the precursor to a

²⁷ See www.unicef.org/bih/ba/education_4800.html

good life, and it is important to achieve the Millennium Development Goals (MDGs) as regards pre-school education. The proportion of children attending pre-school care was 13.1% in 2011/12, according to the latest available data, whereas the relevant MDG in 2015 is 25%, which is unlikely to be reached.

In 2012/13 the Ministry of Civil Affairs, with support from Unicef, prepared the Information on implementation of the Strategy for pre-school education and upbringing (2005–10). Information with conclusions was adopted in March 2013. On this basis, the Ministry of Civil Affairs, in cooperation with the education authorities and Unicef, started a process of design of a new strategic document in pre-school education. A working group for that purpose has been established.

The low level of participation in adult education and training and the long list of target groups in need of adult education and training to strengthen their employability constitute major challenges, requiring policy makers' integrated and firm attention. Although the concept and practice of accreditation of prior learning started to be explored recently in the framework of a GIZ project, the concept and practice of lifelong learning is still to be established, and adult education does not fully benefit from the modular provision that exists in some VET programmes.

4. INTERNAL EFFICIENCY OF THE VET SYSTEM

Section 4 discusses efficiency and effectiveness in the system of VET delivery. Note that VET, in this context, excludes the continuing vocational training of employees carried out by companies independently of the public VET system.

'System of IVET and CVET delivery' refers to all formal and non-formal VET provision in the country and all forms of (tangible and intangible²⁸) input into their operation. 'VET deliverables' are the knowledge, skills and attitudes of VET graduates. 'Efficiency' generally describes the extent to which the education system (and VET in particular) is delivering the maximum possible value with the minimum possible input²⁹. 'Effectiveness' denotes the ability of the VET system to deliver the intended results. Effectiveness is a fundamental element of quality.

The notion of 'quality' may vary according to the context of each national education and training system. Common to all is that quality is always about the extent to which VET meets the requirements of its context. For example, 'quality assurance' covers activities that are implemented to ensure that education and training meet the requirements expected by stakeholders (Cedefop, 2011).

Section 4 commences with an overview of quality assurance mechanisms and policies, and proceeds to examine a selection of key areas of VET policy intervention, such as trainers and directors, teaching and learning effectiveness, and efficiency of resource use.

4.1 Quality assurance

Quality in VET is a complex matter and there are a number of issues to be considered related to VET at the school level and VET at the system level. The VET Development Strategy 2007–2013 states that quality is crucial and is a main aspect in developing VET. Quality assurance plays a key role in the functioning and development of VET. The VET Development Strategy addresses four key concepts: quality assurance, quality improvement, quality evaluation and quality management. Quality in VET has the following functions and goals: it provides answers to critical questions for actors in vocational schools, social partners and those responsible for the VET system; it uncovers examples of good practices; it improves the education system; it reduces differences and facilitates comparison at all levels; it ensures that all interested parties including decision makers are part of the process; it offers an integral picture of all VET segments; it provides feedback for further planning; and, finally, it appreciates local and regional needs. The VET Development Strategy recognises that quality in VET is also relevant to modern, flexible curricula, new teaching methods, constant professional development for teaching staff, well-equipped vocational schools, and so on.

The 2007 legislation on APOSO (an agency operational since January 2009 and steadily growing in capacity) defined its role in quality in education and its responsibilities for VET, realised through a VET Department located in Banja Luka. Its Development Concept 2012–2016, which is its main long-term strategic document, states that each child is entitled to a quality upbringing and education; consequently, progress in the national education system, in both efficiency and mobility, calls for joint efforts in adapting curricula, establishing self-evaluation and external evaluation and participating in international assessment surveys. The VET Department has a number of responsibilities as regards VET quality. For example, Article 5 of APOSO's statutes, referring to curriculum development and certification, sets the following objectives: to develop a framework defining learning standards for related occupations, to apply a modular methodology in developing curricula, and to develop curricula in line with occupational standards agreed with representatives of

²⁸ Tangible inputs are financial and material resources. Examples of intangible inputs are teacher training, curricula, qualifications, educational standards, and assessments of learning outcomes.

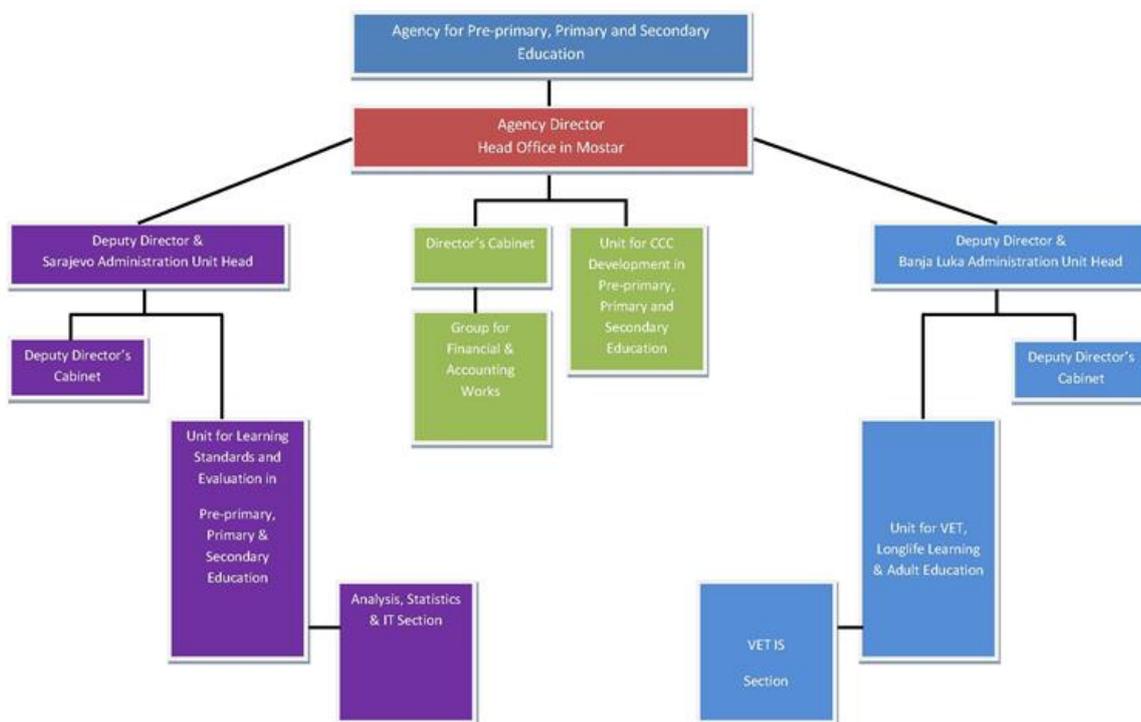
²⁹ Based on definitions provided by the European Commission in the in-depth report on Resource Efficiency Indicators, Issue 4, February 2013.

employers and the labour market. It is further specified that learning standards and curricula are to be comparable and compatible with EU requirements and that an external evaluation system should be established to evaluate the quality of secondary vocational education. APOSO's role in quality improvement in education is realised through joint efforts and partnerships with a network of pedagogical institutes, ministries of education and other partners in the reform.

The pedagogical institutes in the cantons and entities are responsible for a wide range of activities that have an impact on quality in VET, such as curriculum development, the introduction of new approaches and methods in the educational process, teacher training, and the supervision and evaluation of teachers and schools. Education inspectorates, distributed throughout the cantons and entities, also play a role: within the competent education ministries, they are responsible for supervision of the implementation of legislation, organisation and the work of the educational institutions. Their duties generally include reviewing student records, issues associated with school premises, permits and licences, the employment of teachers, teacher qualifications and certificates, disciplinary measures, and the appointment of school boards and school directors. Nevertheless, the pedagogical institutes and education inspectorates need substantial further support in order to be able to engage actively in the development of VET quality.

During 2010 and 2011, with know-how support from the EU, the VET Department evaluated curricula for 36 occupations from five occupational families: mechanical engineering and metal processing; economy, law, administration and trade; catering and tourism; forestry and wood processing; and geodesy and civil engineering. Efforts have been invested in the further development of the Vocational Education and Training Information System (VETIS) as the basis for an evidence-based approach, and also in creating and maintaining a VET Department website (www.vetbih.org/portal/) to raise awareness about VET reform among stakeholders in the country.

FIGURE 4.1 AGENCY FOR PRE-PRIMARY, PRIMARY AND SECONDARY EDUCATION (APOSO)



In 2014 the ETF conducted an exploration of quality assurance in VET, which reached some major conclusions. Although there are many existing reform elements that can contribute further to quality assurance in VET in the country, there are also threats. Discussion with key stakeholders reveals that, although there is a VET strategy, there is no comprehensive approach to guide the successful implementation of quality assurance in VET. Even though previous related project activities had some degree of success, there are few

signs of sustainability, and some schools have given up the modular curriculum despite having been project or pilot schools for many years. There is not much time to rectify this situation.

Perceptions of quality assurance vary between and within entities, between and within the various phases of education and training, between responsible authorities (ministries and other major bodies) and even between schools which had participated in major donor schemes designed to encourage a modern view of quality assurance. This is one of the main reasons why future interventions are necessary to provide a realistic view of what can be accomplished. There are indications that the process of planning such interventions may suffer from an underestimation of the extent to which most education professionals fail to understand the idea of comprehensive quality assurance³⁰.

The legal basis for quality assurance in VET urgently requires examination to ensure that appropriate measures are elaborated to support vocational schools. VET practitioners and policy makers in education need to be introduced to the principles and implications of major initiatives such as the European Quality Assurance Reference Framework (EQARF) and the European Quality Assurance in VET (EQAVET). Policy makers at either country or cantonal level need to be aware of the legal and practical implications of EU's instruments for a successful pre-accession stage. The EU's commitment to strengthening the rule of law through the Instrument for Pre-accession Assistance (IPA) also implies the creation of clear and consistent policies at different levels and in various realms, of which education and training is a crucial one.

There is some good practice to be found in schools, which could sustain further project activity. However, this good practice is rarely celebrated at the cross-entity, or even single-entity, level, making the sustainability of these examples, and the sustainability of major donor interventions, doubtful. The state-wide survey conducted in June 2014 reveals that about 50% of vocational schools use modular curricula. Several schools involved in projects which encourage modular provision have reverted to the old, inflexible curricula and syllabuses. Owing to the lack of continuity of approach and the episodic nature of donor interventions, some schools report that the differing expectations and bureaucratic requirements of these schemes is adversely affecting the willingness of school staff to continue in developmental roles.

4.2 Qualifications framework

The BA Qualifications Framework should be a tool to clarify the meaning of qualifications in the country and to explain how these qualifications are related and linked. It will be an instrument to promote the modernisation of qualifications, quality assurance at all levels of education, and improved links between education and employment. It is intended to improve mobility, transparency, progression and quality assurance. The framework plays an important role in overcoming the fragmentation within the country and supporting integration with the European Union and the neighbouring countries. The framework should also promote progression to higher education. A substantial number of BA citizens work abroad and the framework should support their mobility. For that purpose, the framework will be closely aligned with the European Qualifications Framework (EQF). This is also the tool for linkage with the proposed national qualifications frameworks in the neighbouring countries.

The BA Qualifications Framework is not just a technical tool, but should be linked with the reform and development of the education and training systems in the country. That is why it has been integrated in two strategic documents of the Council of Ministers: the 'Strategy for the development of vocational education and training in Bosnia and Herzegovina for the period 2007–13' (VET Development Strategy 2007–2013) and the 'Strategic directions for the development of education'.

³⁰ IPA National Programme 2012 will provide support to quality assurance issues and address EQARF and EQAVET principles.

Following several drafts prepared with local representatives in the framework of the EU VET III project, a proposal for a Baseline Qualifications Framework (BQF)³¹ was developed in 2010 by a working group of representatives from different entities under the coordination of the Ministry of Civil Affairs. The document conceptualises the background, purpose, and concepts of a BQF, including the proposed levels of qualifications. The Council of Ministers adopted the BQF on 24 March 2011 (*Official Gazette*, No 31/11). The act, passed by the Council of Ministers, now has the force of law. The idea of the BQF is to establish a clear basis from which to continue further the practical work of developing more relevant qualifications for different purposes and different groups of learners. It provides a skeleton for building more integrated qualifications systems.

The institutional capacities for the effective implementation of the qualifications framework remain an important challenge. The BQF stipulates that an intersectoral committee should be set up to establish a work plan for the implementation of the qualifications framework, including appropriate methods and tools. In the absence of a government, this committee met only in early 2013. It has 19 members representing the relevant agencies, ministries and the social partners, and is coordinated by the Ministry of Civil Affairs. Decisions on the implementation are made by majority vote. The intersectoral committee has been supported by the EU VET IV project, the EU project on adult learning and higher education and the ETF, and should build on the achievements of current VET and higher education initiatives. The committee developed an action plan for the period 2014–20 to implement the qualifications framework³² (hereinafter the Action Plan for the qualifications framework).

With the support of the EU and the Council of Europe, a guide to good practice has been developed for curriculum development in higher education, which has been tested for a number of profiles and could be used much more widely. The Rectors' Conference could play an important intermediate role in promoting the cooperation between universities. The existing agencies for Pre-primary, Primary and Secondary Education (APOSO) and Higher Education (HEA) could play a technical role in the implementation of the BQF. In order to ensure trust in the BQF it is important to find commonly shared principles and coherent procedures and processes for the development of relevant qualifications and the awarding processes.

The framework will have eight levels, which have been developed with reference to the EQF levels and are based on learning outcomes. No sublevels have been included, but the framework is a meta-framework for Bosnia and Herzegovina and therefore does not exclude the use of sublevels, given that both Montenegro and Croatia have defined sublevels in their frameworks. Learning outcomes have been introduced in new VET curricula since the late 1990s, as well as in higher education, but one cannot yet speak of a system-wide or system-deep use of learning outcomes.

The EU VET IV project was used to test and implement occupational standards, establishing a process to ensure that vocational qualifications and curricula will be based on identified needs in the labour market. This is not the only development on which the Qualifications Framework will be able to draw. Another important initiative, developed with support from GIZ, has been the introduction of 'competence profiles' to introduce the validation of non-formal and informal learning. So far 70 candidates have been involved in assessing their competences, in cooperation with the employment services. Progress in this area is, however, inhibited by the lack of appropriate standards, assessors, assessment approaches, quality assurance processes and competent bodies prepared to formally certify non-formal and informal learning. In higher education progress has been made with the implementation of the Qualifications Framework for Higher Education, including curriculum development processes and quality assurance. In Tuzla, Sarajevo and Banja Luka a Matura for secondary education is implemented, in which students from different schools undertake a single final examination process. The International Baccalaureate programme that has been running in Mostar, Sarajevo and Banja Luka offers another innovation in secondary education. Key competences have been introduced in

³¹ Ministry of Civil Affairs of Bosnia and Herzegovina,

www.mcp.gov.ba/org_jedinice/sektor_obrazovanje/dokumenti/strateski_doc/Archive.aspx?template_id=19&pageIndex=1

³² Action Plan for the development and implementation of the Qualifications Framework in Bosnia and Herzegovina for the period 2014–20.

different parts of the country. A major weakness remains the involvement of private sector representatives in education and training, but active cooperation exists in several sectors in Gorazde, in construction in Tuzla, and in wood processing in Sarajevo. In 2013 the International University of Sarajevo (IUS, a private university), through an EU-funded pilot project (IPA National Programme 2009) and in cooperation with vocational schools and the business sector in Zenica Doboje and Tuzla Canton, prepared a BA qualifications framework level V training curricula in wood processing. The vocational school teachers were also trained to deliver the new curricula.

In 2010 the Council of Europe also made progress in cooperating with a number of universities in developing subject area descriptors for a few priority subjects, which set a clear frame for university degrees. The EU VET IV project, which started in 2011, developed some vocational qualifications on the basis of occupational standards, which are a new development for VET in the country even after over 10 years of VET curriculum reform. The VET Department has shown a good understanding of the opportunities that these occupational standards offer in terms of more relevant qualifications and curricula.

There is a keen interest among stakeholders in the country in developing post-secondary vocational education, which is incorporated in the Action Plan for the qualifications framework. Given the number of adults who have been displaced and the current number of migrant workers, the recognition and validation of non-formal and informal learning are also seen as an aspect of the new framework that offers an important opportunity, but, again, the lack of standards has hindered the development of this so far³³.

The Framework for Higher Education Qualifications in Bosnia and Herzegovina, developed with the Council of Europe, became law in 2007. The law introduced the main concepts, but the secondary legislation enabling its effective implementation fully in line with Bologna requirements is lacking, hence referencing to the Qualifications Framework for the European Higher Education Area has not yet been possible. The BQF has been influenced by the EQF both in format and in process. The fact that a group of former Yugoslav countries is now involved in the EQF implicitly brings the EQF somewhat closer. The EQF is mentioned in the text of the BQF and it is intended to reference the qualifications framework to the EQF as soon as possible.

Progress is difficult, as the agreement of many stakeholders and entities is often required, but it is possible to advance by focusing on specific issues with achievable milestones, as was shown by the work with the Council of Europe on the subject area descriptors and the development of the BQF itself. This should result in the development of a more concrete, operational framework for implementation that includes the certification of adult learning, post-secondary VET, widening the development of occupational standards and vocational qualifications in priority sectors, developing outcomes-based higher education qualifications and curricula, putting in place the necessary steps to enable self-certification against the Qualifications Framework of the European Area for Higher Education, strengthening quality assurance, clarifying the roles and responsibilities of institutions, and piloting the validation of non-formal and informal learning in the context of adult learning.

APOSO continues to invest efforts in the reform process. The common core curriculum has been defined in terms of objectives and learning outcomes for the first, third, sixth and ninth grades of BA's nine-year compulsory primary education. In 2013, the document was completed for BA's mother tongues – Bosnian, Croatian, and Serbian – and also for foreign languages; and it is based on learning outcomes. The common core curriculum for natural science was finalised and the work related to social sciences, humanities and mathematics was completed in 2014. The common core curriculum was also defined for secondary education and VET. A common model for the Matura was developed for general and secondary vocational education and the respective legal framework was prepared within the IPA twinning project 'Strengthening the institutional capacity of the Agency for Pre-primary, Primary and Secondary Education'.

In 2014, the following developments related to the qualifications framework should be noted. In the GIZ project 'Promoting adult education'³⁴, validation of non-formal and informal learning in a number of different cities

³³ IPA National Programme 2012 will support the validation of non-formal and informal learning.

³⁴ See <https://www.giz.de/en/worldwide/21076.html>

using a 'Competence Pass', was tested. The Competence Pass is designed to support the employability of adults by identifying informally acquired competences. Appropriate skills can often be as important in professional life as formal education. However, such skills often go unrecognised when people are seeking jobs. The Competence Pass provides an instrument for systematically identifying and presenting a person's competences.

The joint EU–Council of Europe project is developing and interlinking higher education qualifications with occupations in five subject fields: economics, ICT, engineering, agriculture, and teacher education, and for a variety of professions. The project has been developing standards for selected qualifications and for corresponding occupations, facilitating a more transparent and cohesive approach to higher education qualifications and curricula in the country, based on learning outcomes.

The most important development has been the completion of the Action Plan for the qualifications framework in early 2014 by the intersectoral committee. The document was presented to stakeholders for final comments. The Action Plan governance arrangements were discussed, as they were not quite suitable for some levels. In autumn 2014 a compromise solution was found, proposing the establishment of a council to coordinate the work. The Action Plan was adopted by the Council of Ministers in February 2015 and the establishment of the council to coordinate the implementation of the Action Plan is expected to take place in 2015.

In the late autumn of 2014 Bosnia and Herzegovina became the 38th country to join the EQF advisory group, opening up the way to reference the BA qualifications framework to the EQF and providing an impetus to intensify the implementation.

Throughout the country initiatives have arisen during recent years to develop more relevant qualifications and curricula, based on identified needs and learning outcomes. The VET department of APOSO is promoting the development of occupational standards. A number of new qualifications have also been introduced. ETF has started to identify and analyse existing good practices in order to support the implementation of the qualifications framework. These focus on improving the relevance of qualifications (identification of skills needs, development of occupational standards, employers' engagement and links with private sector, examples of apprenticeship schemes, examples of school enterprise cooperation, examples of cross-sector cooperation in education and training issues), Improving trust in qualifications (quality assurance of qualifications, assessment based on competences, training for assessment based on competences, curricula relevance, guidelines on how to develop learning outcomes, external validation of certification) and improving the application of qualifications by creating new opportunities (mobility between universities, credits/European Credit Transfer and Accumulation System, validation of non-formal and informal learning, guidance/counselling for career opportunities).

The IPA project 'Development of qualifications framework for general education in Bosnia and Herzegovina', implemented by the British Council, started implementation in December 2014. This project should contribute to the comparability of education systems in Bosnia and Herzegovina with education systems in the EU, based on the Europe 2020 strategy. The project's purpose is to develop further the qualifications framework for primary and general secondary education. It will assist BA education authorities to develop further standards for pupils' and students' achievements in primary and secondary education and to elaborate documents for the implementation of the external Matura examination at the end of general secondary education. The assistance should be provided to pre-service and in-service teachers for pre-primary, primary and general secondary schools.

4.3 Policies for VET trainers and school directors, teaching and learning

The intake of VET students to upper secondary VET is very important. Knowing more about students' achievements at the end of their first nine years of education is vital to devising appropriate policy measures to boost knowledge and skills development. The Trends in International Mathematics and Science Study (TIMSS) 2007 was conducted in 181 classes in 150 BA primary schools to test some 4,300 leaving-grade

students in mathematics and science. The study revealed that class sizes, at 24 students, were relatively small compared to the international average of 29. Typically, students in classes with 25–40 students tend to perform better than those in a smaller class in many other countries; in Bosnia and Herzegovina, however, there is very little difference in student performance between small classes (score 454) and larger classes (score 458). According to APOSO, around half of the students (international average 23%) were taught by teachers over 50 years old, and 6% of students were taught by teachers aged 29 years or under.

The quality of teaching and learning in 96 vocational pilot schools that underwent extensive capacity development has significantly improved. Around 3,000 teachers have been trained to design and work with modular VET curricula (Corradini et al., 2012). The experience shows how, under certain circumstances, new and more effective learning environments can be created. It can also help close the gap between current realities and future aspirations. However, it is important to ensure that piloting does not become an end in itself and that schools labelled as vocational pilot schools do not create individualism but generate positive attitudes to change and emulation across vocational schools in the country. In this respect, one of the major concerns for Bosnia and Herzegovina could be a policy dialogue in relation to major lessons learned from the piloting process. A key issue in relation to pilot schools is that these are environments where policy implementation unfolds. Vocational pilot schools also attract donor resources and expertise, leading to significant capacity building of school managers and teachers.

A VET Department evaluation of the implementation of VET modular curricula, carried out in 2011 with the support of the EU VET IV project in Bosnia and Herzegovina, indicates that about 200 vocational schools are using the new curricula, available for about 70 VET profiles in upper secondary VET. Pilot vocational schools involved in a number of capacity building activities through different projects have managed to improve the quality of their education and training greatly. Schools that switched from regular VET curricula to modular VET curricula have encountered several challenges, related in particular to a lack of the equipment needed to carry out practical training, poor prior preparation of VET teachers, and other obstacles. Other challenges may be related to understaffing in the pedagogical institutes, but also to their more comprehensive involvement, together with the education inspectorates, in the VET reform process.

TABLE 4.1 VET CURRICULA IN USE IN BOSNIA AND HERZEGOVINA IN 2012/13

Number of secondary vocational and technical schools		208
Number of schools included in EU VET projects		93
Number of students in secondary and technical schools		108,543
Number of VET qualifications for which students were educated in secondary vocational and technical schools		259
Types of curriculum in use in secondary vocational and technical schools	EU VET qualifications	72
	Traditional (Bosnian)	148
	Traditional (Croat)	77
	Modular Republika Srpska occupations	84
	Danish VET curriculum	1
	GIZ (VET qualifications)	15
	KulturKontakt (VET qualifications)	2
	LMI (VET qualification)	1
Number of students following modular curricula		55,298 (51%)
Number of students following traditional curricula		53,245

Despite the challenges, many vocational schools are managing to improve the quality of their services and to incorporate innovative processes into their daily practice. The latest developments are related to the introduction of entrepreneurial learning³⁵ in the classroom. Teachers and school directors have a critical role to play in embedding entrepreneurial learning in schools. Pilot activities in entrepreneurial learning in some vocational schools show that encouraging and facilitating peer support is a pragmatic approach to the professional development of teachers.

A common feature of many VET curriculum reforms is that changes in programme content are not accompanied by training for teachers in using the new methods of teaching and learning. With developments in entrepreneurial learning, Bosnia and Herzegovina has a unique opportunity to ensure that VET teachers are gradually shifted to problem-based, student-centred teaching activities and creative risk-taking. Peer support among teachers and among vocational school directors is a key concept in the strategy that would significantly support quality development in schools and would mark an important milestone in the next stage of VET reform. In 2012 and 2013 a working group guided by Unicef, with APOSO in a key role, and representatives of official authorities, proposed a system-wide draft strategy for teachers' professional development. This deals with pre-service education, in-service training, quality evaluation, accreditation of the programme and certification of teachers. This document has not yet been adopted, as it remains to be further discussed at different levels of the system.

4.4 Efficiency of use of resources

In relation to financing, there is a need to distinguish between initial VET, at upper secondary level, and continuing VET, or adult education and training in a lifelong learning context. Decisions regarding initial VET are made by the education ministries and the financing comes mainly from the budgets of the two entities, the 10 cantons and Brčko District, that is, from a total of 13 separate education budgets. At all levels and across all jurisdictions responsible for education in the country, significant disparities in per student spending have been identified. The same applies to the salaries and allowances of education staff. In most of the cantonal budgets, education expenditure is the biggest budget line. However, in spite of these high percentages, the resources cannot be considered sufficient or significant, for the overall respective budgets of the entities, cantons and Brčko District are low and limited.

The resources allocated to education from the state-level budget are almost non-existent. Republika Srpska and the Federation of Bosnia and Herzegovina spend approximately 4% and 6% of their respective GDPs on education, whereas the budget of the Department for Education of Brčko District (with the divisions for pre-primary, primary, secondary education and joint affairs) amounts to 11.2% of the District's budget.

A World Bank review (2012a) confirms that the high public spending on education is not efficient. Overall budgetary spending on education is 6% of GDP, yet the results are rather modest, especially considering that this rate is higher than that of any other South Eastern European country or the 5.1% figure for the EU27 (Eurostat data 2012)³⁶. Of the total education budget, approximately 88% is earmarked for gross salaries and allowances, 8% for material expenditure and 4% for capital investments. Approximately 21% of total public spending on education goes to initial VET, three times the amount spent on general education but in line, in fact, with the level of enrolment in each. Although investment in education is adequate, the system is inefficient and inequitable and is characterised by low coverage and inadequate educational achievements.

Own sources of financing are gaining in importance for vocational schools. The schools, as public institutions, may by law generate other income from the provision of intellectual services and training services for adults; the sale of school services and products; legacies, gifts, endowments, donations and grants; parent contributions; and rental of school premises³⁷. The accountancy system that has been put in place has

³⁵ Council of Ministers, Strategy for Entrepreneurial Learning 2012–2015, March 2012.

³⁶ Council of Ministers of Bosnia and Herzegovina, 'Strategic directions for the development of education', Ministry of Civil Affairs, 2008.

³⁷ Financing of VET, 2006 report of EC VET II programme in Bosnia and Herzegovina.

increased transparency and accountability in spending both public budget allocations and own earnings. However, the system makes it impossible for a school to make immediate use of its own revenues; it also prevents savings made over and above the legally allowed level (10% of the total school budget) from being reallocated to other uses. Furthermore, VET reforms are not accompanied by adequate financial resources and the resources earmarked for the professional development of VET teachers and school management are also insufficient³⁸.

Learning programmes for adults are mainly funded through the public employment services as an active employment measure, are provided by employers for their employees or are paid for by individuals enrolling in programmes offered by private institutions. Participation rates are very low, however. While the goal of the employment services is to move from passive to active employment measures, their main function remains the provision of passive measures. The percentage of registered unemployed people engaged in training is on the low side. Funds for adult education in Republika Srpska are provided for in the budget of the entity and its local authorities (as public funds) and also by adults, employers and other sources in accordance with the Adult Education Plan. According to adult education legislation, tuition fees are not charged to adults who wish to acquire basic education or first-job training (EuropeAid, 2012).

There is an evident need to strengthen the links between policy decision making and budget preparation and allocation, especially bearing in mind that resources are stretched and have to be shared between several ambitious VET policy objectives. Discussion on VET financing has started as part of a number of donor-funded VET projects and will continue in some of the upcoming IPA programmes.

The ETF Review of Institutional Arrangements and its Medium-term Expenditure Framework (MTEF) element reveals important findings that will have an impact on policy planning and implementation in the education sector. Until recently the budget was prepared on an annual basis at both state and entity levels. Consequently, the country recorded a low Open Budget Index of only 50 in 2012, compared with 61 in Croatia and 74 in Slovenia (IBP, 2012). The main deficiencies derived from an insufficient link between government expenditure plans and the macroeconomic policy goals in the budget proposal, inadequate information on quasi-fiscal activities, and lack of comprehensive oversight of the budget's execution. Confronted with such difficulties, as well as with inefficient public spending, weak fiscal reporting of expenditures and structural rigidities (European Commission, 2013b), the government decided to adopt a number of reform measures for improving the public finance management of state and entities, which culminated with the legislative changes in 2013 and 2014. Those reforms allowed for the consolidation of the MTEF process. The first elements of the MTEF had begun to be implemented in early 2000, but they were insufficiently effective in linking the policy goals and strategies to the budget process.

The first important reform took place in 2008, when BA's Fiscal Council was created. In developed countries, fiscal councils are the most important institutions for setting fiscal rules (in terms of deficit and public debt) and for ensuring that those rules are enforced. In the particular case of Bosnia and Herzegovina the Fiscal Council is responsible for coordinating fiscal policy and setting the fiscal parameters to be adopted at the state and entity levels. Its members are the three prime ministers, the three ministers of finance, with the governor of the Central Bank and the president of the Brčko District government as observers. The Global Fiscal Framework covers a three-year period, reviewed each year at all government levels, and integrates the fiscal framework and policies of the state and the entities. The framework contains the fiscal objectives for the period concerned, a macroeconomic analysis, respectively the limits of the public debt in the form of an agreement between the governments of the entities and the State Council of Ministers. On the basis of the Global Fiscal Framework, a three-year MTEF has to be prepared for the state and each entity.

Another important reform towards the full implementation of the MTEF is the adoption of a functional classification of expenditures at all levels (state, entity and Brčko District) and for all state institutions. The

³⁸ Institutional and capacity building of BA education system, EU-ICBE project 'Technical Assistance to Education Reform in Bosnia and Herzegovina', final documents, February 2008.

standard 10-function classification will be in place by 2015, which allows for the future adoption of programme budgeting, the last stage of the MTEF. In fact, budgeting by programme had already begun to be implemented, with EU support, but the process is still ongoing and it is expected to be finalised in the coming years. To be completed, the process needs to be complemented by performance budgeting procedures that link government spending to predefined results and outputs, respectively by a mechanism of ex-ante and ex-post evaluation of policies.

4.5 Actions and assessment of progress since 2010

In March 2011 the Council of Ministers adopted the BQF to cover all levels of education, providing important direction for lifelong learning and linking the education and labour market in a meaningful way. In 2013 the Commission for the Elaboration of a Qualifications Framework in Bosnia and Herzegovina was established with a mandate to prepare an action plan for the development of a qualifications framework within one year. It was drafted and, as of November 2014, the Action Plan for the qualifications framework 2014–20 has been in the regular process of consultation with the relevant entity and cantonal authorities. The Action Plan was adopted by the Council of Ministers in February 2015; it includes important elements of the VET reform process: developing curricula based on learning outcomes so as to promote more effective cooperation between employers and VET providers; supporting vertical and horizontal progression; aligning different segments of the education and training systems in a single framework to ensure lifelong learning; and others.

In 2013 and 2014, the VET Department led and completed the process of designing the standards for 10 VET qualifications, using a participatory approach enabling all key stakeholders, including the private sector, to have a say. The process embraced four phases: design of methodology, instruments and template for the standards; analysis of the standards in selected companies; drafting the standards; and verification of the standards in companies whose type of business is relevant to the selected qualifications. The implementation of these standards now needs to be discussed in the framework of the qualifications framework reform process.

Actors in policy-making processes actively construct their understanding of policies in communities of practice and interpret policies on the basis of prior knowledge, beliefs and experience. Keeping in mind the role of different institutions at various levels of the VET system, efforts to improve the quality of VET should also include innovative approaches to creating links between the education ministries, pedagogical institutes and education inspectorates, and the VET Department of APOSO. This could be done by facilitating different types of policy dialogue in communities of practice. One such dialogue, which could be inspired by the European Quality Assurance Reference Framework for VET, could focus on exploring how to integrate quality better in VET, as a comprehensive approach following the best practices of EU Member States or candidate countries.

APOSO is becoming an important actor in the promotion of quality in education in the country. During 2011 it drew up a Development Concept 2012–2016, as a collaborative effort between its leadership and staff, articulating its mission and vision. The Development Concept is also an instrument for introducing changes and promoting the Agency's work. It is a dynamic guideline that aims to strengthen the Agency's role in assisting all relevant institutions in designing common core curricula, learning standards and evaluation procedures for all levels of education, also including lifelong learning. Thanks to higher staffing levels, the VET Department of APOSO has been able to engage significantly in the VET reform process. Its most important output is the evaluation study undertaken with the objective of systemising the use of modular VET curricula in the country.

A major focus for Bosnia and Herzegovina could be a policy dialogue on the principal lessons learned through the vocational school piloting process, with the goal of integrating those lessons further into the VET reform process. This renewed debate will provide significant support to policy makers and will ease the process of mainstreaming good results to other vocational schools. This can help vocational schools that are not part of these developments to learn from the experiences of others.

5. GOVERNANCE AND PRACTICE RELATED TO POLICY IN THE VET SYSTEM

Section 5 analyses the governance and practice in VET in the policy domains covered in the previous sections. 'Governance' refers to all institutionalised (as opposed to ad hoc) multi-level participation in VET management and policy making. 'Policy making' includes the setting of objectives and their implementation and monitoring in any given domain of VET policy and at any given governance level. 'Multi-level participation' refers to a model of VET policy making based on stakeholder involvement in any given domain of VET policy and at any given governance level. 'Participation' is determined by the level of responsibility of those involved: fully responsible for (setting) an agenda or objective in a VET policy domain; accountable for (complying with) an agenda; consulted about it; or simply informed about it. For the sake of simplicity, the Analytical Framework is limited to capturing participation and practice related to the relevant policies only at key governance levels: national, regional/local, and provider level.

VET is a complex policy area, existing at the intersection of education, training, social, economic and labour market policies. It is expected to address the present and future skill demands of the economy, the needs of individuals for short- and long-term employability and personal development, and society's need for active citizens. In recent decades VET systems have been under pressure to become a vehicle for lifelong learning – that is, building and permanently enhancing skills and knowledge for young people and adults alike – in rapidly evolving contexts involving economic and technological change, globalisation and uncertain labour markets. In Bosnia and Herzegovina the pressure on VET has been particularly intense, given the transition from a centrally planned to a functioning market economy, a large-scale economic restructuring process and a democratisation process coupled with post-war rehabilitation.

5.1 Defining vision and strategy for VET

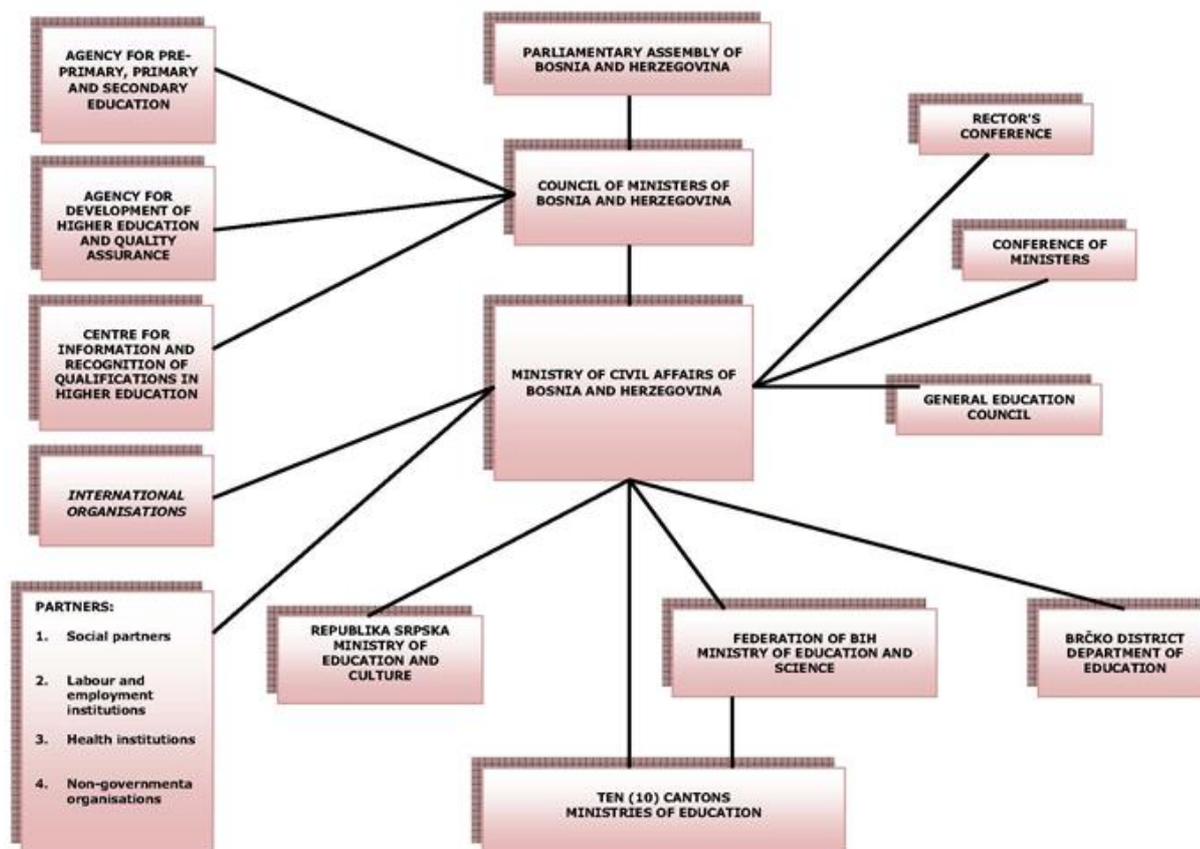
Constitutional responsibilities for upper secondary VET are concentrated at the level of Republika Srpska, the cantons of the Federation and Brčko District, not at the state level. It is important to note that the Department for Education in the Ministry of Civil Affairs has no executive power over upper secondary VET or adult education and training. However, it plays an important role in policy monitoring, ensures policy analysis and reporting on developments in education policy, coordinates activities of the entire educational sector in the area of EU integration and international level, and coordinates intersectoral cooperation at the national level. The policy-making network with which the Education Department works indicates particularly important roles for the Rectors' Conference, the Conference of Ministers for Education and the General Education Council (**FIGURE 5.1**). The approach represents an important effort actively to ensure the participation of a wide range of stakeholders in effective educational policy making and to ensure a partnership approach that links the various aspects of governance.

Over the last decade, the capacity of the VET system has grown as each level of government increasingly fulfils its responsibilities. This is evident from the legislative actions, the establishment of new and necessary institutions at the national, entity and canton levels and the implementation of different VET functions. The Ministry of Civil Affairs, which plays an important role in the education sector, has reported that, by June 2014, Republika Srpska, Brčko District and seven out of the ten Federation cantons (Zenica-Doboj, Sarajevo, Posavina, Bosnian Podrinje, Una-Sana, Tuzla and West Herzegovina) had adopted new VET legislation and harmonised it with the state-level VET Framework Law adopted in 2008. VET reform is moving steadily ahead as stakeholders take on board a range of commitments with the goal of making VET reform a reality for BA citizens.

Keeping in mind that comprehensive VET strategic documents are already in place, the country has a solid basis on which to build a sound VET system that is highly relevant to students and enterprises, with an employment service, moreover, that is capable of representing particular needs across the cantons, entities and Brčko District. VET governance currently covers VET management from a financial, legal and

administrative perspective and quality management with respect to curricula and teaching content, methods of working, evaluation of student achievements, and the like. These two subsystems are recognised in the functioning of the entity/canton-level education ministries and professional institutions (pedagogical institutes, education inspectorates, etc.)³⁹.

FIGURE 5.1 POLICY NETWORK, DEPARTMENT OF EDUCATION, BA MINISTRY OF CIVIL AFFAIRS



Source: Diagram provided by the Ministry of Civil Affairs

5.2 Effectiveness and efficiency in addressing economic and labour market demand

A study on social partners carried out by the ETF in 2007 to assess the role of social partners in VET revealed that trade unions are actively working with the corresponding education authorities in both the Federation and Republika Srpska, through participation in different VET working groups. The involvement of employers' associations in VET is marginal and is confined mostly to issuing opinions on enrolment before the start of the school year and on occupational needs. Although companies (e.g. Mittal, a large international steel company located in Zenica) used to provide on-the-job training, the financial crisis has reduced the investment in staff training. Nevertheless, ongoing VET reform has played an important role in encouraging social partners to come to the table and discuss a variety of issues that had previously been discussed only to a very limited extent. One good example is the development of modular curricula for initial VET, pointing the way towards a more decentralised, open and participatory approach to VET curriculum design. The involvement of employers in the development of demand-oriented curricula is increasingly being acknowledged and practised.

³⁹ Institutional and capacity building of BA education system, EU-ICBE project 'Technical Assistance to Education Reform in Bosnia and Herzegovina', final documents, February 2008.

Recent studies and analyses carried out by the Federal Ministry of Education and Science on the enrolment policy in different cantons vis-à-vis the situation on the labour market in each of the 10 cantons reveal interesting findings not only about the enrolment policy in initial VET, but also about the mode of cooperation with social partners (Federal Ministry of Education and Science, 2013), as the following examples show.

- In Una-Sana Canton, a new requirement was introduced for all vocational schools to include in the elaboration of the Enrolment Plan data from the records of the Employment Service on all the qualifications provided. No Tripartite Advisory Council was established at the cantonal level, but the development of an act that would enable the implementation of Article 5(2) of the Framework Law on Secondary VET in Bosnia and Herzegovina is under way (*Official Gazette*, No 63/08).
- Posavina Canton has established close cooperation with the Cantonal Employment Agency and data are regularly collected on demands from the labour market. The Ministry has observed that ‘there is such a small number of professions in which the labour market is interested that if they were to educate only those students the schools would not exist’. However, the employers are interested in certain professions, such as those of bakers, cooks, carpenters and tailors, but student interest in these professions is very low since these are very low-paid jobs.
- In Tuzla Canton, a Tripartite Advisory Council was established in April 2012. Its positive effects will be visible in the upcoming period. For now, the council has enabled the opening of a dialogue between the educational authorities and the local economy.
- In Zenica Doboј Canton, in the context of preparation of the Enrolment Plan, the vocational schools are discussing needs with all social partners in their municipalities before submitting the final proposal for the Enrolment Plan to the relevant ministry. Also, the Cantonal Employment Agency is an equal partner in developing the enrolment policy for students.
- Bosnian Podrinje Canton has established its Tripartite Advisory Council in accordance with the Framework VET Law and launched its activities in 2011/12. The canton claims that the positive effects of the Tripartite Advisory Council are reflected in the fact that they take part in proposing the VET qualifications to be made available in vocational schools. Each month, the Employment Agency of Bosnian Podrinje Canton submits information to the council on unemployed persons in the canton.
- In Central Bosnia Canton, comparative analysis of the numbers of unemployed people with VET qualifications vis-à-vis the Enrolment Plan for VET for the 2013/14 school year shows that the professions of carpenter and construction millwright are among the five professions most numerously represented in the unemployment records, but they were not provided for in the Enrolment Plan for the 2013/14 school year.
- Herzegovina-Neretva Canton is in its final stages of harmonisation with the BA VET Framework Law. The analyses indicates that the five most numerous third-level qualifications listed in the unemployment registers are also represented in significant numbers in the Enrolment Plan. A notable cause for concern is that the two VET qualifications listed most frequently in the unemployment register, those of sales assistant and hairdresser, are represented by only 11% of student places in the Enrolment Plan, in the section that relates to third-level vocational secondary education.
- In West Herzegovina Canton, analysis of data on the unemployed and the planned number of VET students indicates that all five qualifications possessed by the highest registered percentages of unemployed persons are also represented in the Cantonal Enrolment Plan. This Enrolment Plan has an exceptionally high number of places for general secondary school students; at over 50%, this is much higher than in other cantons. Another significant number of planned enrolment places is for students of VET qualifications in economics, particularly relevant since more than 20% of the total number of unemployed in the Cantonal Employment Agency are of this profession.

- Although the Ministry of Education, Science and Youth of Sarajevo Canton has several times initiated the establishment of a tripartite advisory council, this body has not been formed yet. However, all schools in the canton have advisory councils that include representatives of the local labour market in accordance with the law. According to the schools, the positive effects of the advisory councils are yet unknown. The measures undertaken to link the secondary vocational education and the local labour market mostly relate to additional qualifications and requalification.

In addition, the cantonal analyses make several further conclusions.

- The VET reform process is very slow 'in terms of modernising curricula, but there has been some rationalisation in the number of VET qualifications and new curricula have been designed for certain professions in line with the modular principle.
- By analysing enrolment policy by canton in the Federation of Bosnia and Herzegovina and the enrolment plans as the most viable indicators of enrolment policy, it can be concluded that some progress has been achieved in harmonising the enrolment policy with conditions on the labour market, but this progress is still insufficient.
- By analysing the data on unemployed people with the third and fourth grade of VET qualifications, on the one hand, and the percentage of student places for the same VET qualifications in the enrolment plans of vocational schools, on the other, it can be concluded that the smaller cantons such as Bosnian Podrinje and Posavina were more successful in modifying their enrolment policies in line with labour market trends. This is to be expected, as it is easier to modify enrolment plans for a smaller number of vocational schools.
- Also, VET is implemented in mixed secondary schools in the smaller cantons, which means that if some professions were to be revoked, this would not mean the closing of a school but rather the introduction of new departments in the mixed secondary schools and revocation of the ones which are superfluous on the labour market. Thus, it is clear that in creating the enrolment policy, in addition to objective factors such as the supply and demand on the labour market, it is important to take into consideration subjective factors such as the risk of job loss for a significant number of teachers in the schools that educate for VET qualifications which are superfluous on the labour market.
- For this reason, one of the biggest challenges in the future will be to establish a dialogue on quality between different social partners, including the ministries of education, ministries of labour, schools, employers, employment services, chambers of commerce and trade and other relevant institutions in order to develop better, higher-quality enrolment policies on various levels based upon needs. The coordination of enrolment policies at the level of the Federation is also necessary, since cantonal labour markets are too small to enable good harmonisation of the ratio of supply and demand with the labour force and the planning of staffing in the long term.

This kind of challenge cannot be resolved by the ministries on their own, nor only by the cantons. The social partners should play an important role at all levels of the VET system and should cooperate in policy design, implementation, budget planning and monitoring and evaluation of human resources development activities across the country.

In Republika Srpska, the needs of the local labour market are the basis for the enrolment plans as well as changes and updating of the curricula. A member of the school board is proposed by the local community and often they are companies/employers. Tripartite councils are being established. In 2013 and 2014, new VET qualifications were introduced in the transport category (logistics technician and forwarder) and the mechanical engineering and metal processing category (two VET qualifications – mechanical technician for

computer design and mechanical technician for engines and motor vehicles – and a third-level profession: mechanic for heating and cooling technology, where the demand in the labour market is evident)⁴⁰.

The Employers' Association of the Federation of Bosnia and Herzegovina has a variety of professional profiles and carries out additional human resources development-related activities, including financial support to the education of young people. Training is the organisation's frame of reference. In relation to skills development it carries out induction into work, skills training, and all types of professional development (on-the-job training). Both external and internal training providers are used. Its most important cooperation partners are a wide group consisting of education ministries, employment services, education and training providers, universities and vocational schools.

The Association of Employers of the Federation of Bosnia and Herzegovina represents approximately 4,100 private companies that employ around 90,000 workers mainly in central and western Bosnia and Herzegovina. The Association is organised geographically rather than by sector or branch of industry, and is a confederation of regional small business associations. It was established in 2002 and embraces about 2,000 individual members/enterprises and 14 branch members.

The Union of Employers' Associations of Republika Srpska (UUPRS) represents employers' interests in tripartite and bipartite economic and social dialogue. The organisation was invited by the Pedagogical Institute of Republika Srpska to participate in a working group for the revision of teaching plans and programmes. It also participates in designing enrolment policies in Republika Srpska. Currently it cannot intervene as an institution in relation to skills development. Its most important cooperation partner in skills development is the Ministry of Education and Culture of Republika Srpska.

The Employers' Confederation of Republika Srpska (SPRS) represents mainly private small and medium-sized enterprises (SMEs) and voucher-privatised former state-owned companies. Founded in September 2000, it is small compared to the Association of Employers and, while it represents more than 8,000 companies, only 180 companies are fee-paying members and together they employ only 6,000 people. SPRS's member companies are mostly active in manufacturing sectors such as wood, paper, food and drink, and the metal industry, and also in the ICT, services, construction and wholesale sectors.

Bosnia and Herzegovina also has a very dynamic civil society sector. According to the Technical Assistance for Civil Society Organisations (TACSO, 2011), at the end of 2008 there were about 12,000 registered civil society organisations distributed across the country. Over half of all such bodies (51.1%) operate from smaller towns in largely rural municipalities. About one in six operates in the capital, Sarajevo, and a further 23% are located in the larger towns (Banja Luka, Mostar and Tuzla), while those operating in very rural areas are few in number (7.7%). Such an extensive network of civil society organisations could be useful in implementing various measures in the VET sector. More importantly, a call in 2012 for proposals regarding the promotion of competitiveness is expected to pave the way for improved cooperation between the public sector and civil society organisations in the area of adult education and training⁴¹.

5.3 Actions and assessment of progress since 2010

An important step in promoting the harmonisation and coordination of education policies has been the establishment of the BA Conference of Ministers of Education (early 2008) as the permanent and highest advisory body for education. In accordance with recently adopted legislation, three agencies for education have been established at the national level: the Agency for the Development of Higher Education and Quality Assurance, APOSO (with a dedicated VET Department), and the Centre for Information and Recognition of Qualifications in Higher Education. During 2014 the Department of Education of the Ministry of Civil Affairs

⁴⁰ Information provided by the Republika Srpska Ministry of Education and Science for the Torino Process 2014.

⁴¹ Call for applicants, August 2012, Promoting competitiveness through higher employment capacity of human resources, EU Delegation in Bosnia and Herzegovina.

organised a Conference of Ministers of Education, at which major challenges and reform issues have been discussed.

The gradual establishment of state-level institutions is supportive of improvements in governance and efficiency. Ensuring mere basic governance is no longer sufficient, as all citizens aspire to sustained economic and social development in a competitive and promising economy. There is a long way to go towards making the social partners real partners in VET development. Their involvement is crucial, however, in striking a good balance between labour market demand and VET supply in the country, particularly in relation to the development of adult education and training. However, as yet there is no formal cooperation network that will ensure an active role for the social partners in VET and in the planned (but not yet operational) VET Council. Without formal networks and active participation by social partners in decision making, progress in VET reform may suffer.

It is important, then, to give the social partners a concrete and formal role in VET development. But it is also important to note that gaps in VET strategy coherence and comprehensiveness remain. The VET system, located as it is at the intersection between education and work, requires for its development the strengthening of multi-level systems of relationships, including those with ministries and employment services. VET policies, if they are to be successfully implemented, depend on a whole range of people and institutions. At the same time the impact of strategic decisions in VET depends on how different partners organise the feedback process and how key stakeholders are involved in VET policy monitoring and evaluation.

Last, but not least, the VET policy process is developing along the lines of the qualifications framework. Common core curricula across different levels of education are being reformed, entrepreneurship and entrepreneurial learning are being introduced across different levels of education, and a comprehensive adult education and training system is in development. As a potential EU candidate, Bosnia and Herzegovina has been invited to consider the priorities set out in the Europe 2020 strategy and to adapt the main challenges to its own context. The EU enlargement policy also supports the Europe 2020 strategy by extending the internal market and enhancing cooperation in areas where cross-border cooperation is a key objective. The Europe 2020 agenda offers the enlargement countries an important inspiration for reforms. Therefore, it could be useful for the country to continue to consider instruments and tools in the education and training sector that are available at the EU level.

6. OVERALL PROGRESS AND KEY PRIORITIES

This is the third round of the Torino Process in which Bosnia and Herzegovina has participated. The Ministry of Civil Affairs, as the coordinating institution, took the initiative and ensured the collection of evidence in cooperation with APOSO, the ministries of education of Republika Srpska and the Federation of Bosnia and Herzegovina, and the Department of Education of Brčko District. On 18 November 2014, a workshop convening some 80 institutions was organised, with the aim of consulting with key stakeholders in VET on the preliminary findings of the 2014 Torino Process review and discussing the key priorities in VET. The discussions confirmed the following conclusions.

- Over the past 15 years a reform of secondary vocational education in compliance with EU standards has been in implementation. The EU programmes Phare and IPA, together with the EU VET I, II, III and IV projects, have produced important results and have had an impact not only on VET but also on the overall reform of the education system. The results and achievements are based on key European documents and European cooperation policy in the field of VET, such as the Lisbon Strategy and the Copenhagen Declaration, the strategic framework 'Education and Training 2020', the European Employment Strategy, the European Qualification Framework, and others.
- The most important developments include the adoption of the Framework Law on Vocational Education and Training, the VET Development Strategy for the period 2007–13 and the Law on the Establishment of the Agency for Pre-primary, Primary and Secondary Education (APOSO). APOSO, and particularly its VET Department, have significantly improved the conditions for further development of VET, especially the segment related to modular curricula, the development of professional standards, and also the creation of a database and VET information system (VETIS, see Annex 2 below), which would make it possible to gather together the relevant data for secondary vocational education in one place and to exchange such information with all interested parties.
- Since the last Torino Process in 2012, several important achievements can be noted. In 2014 the Council of Ministers adopted the documents 'Principles and standards in the field of adult education in Bosnia and Herzegovina' and 'Strategic platform for development of adult education in the context of lifelong learning in Bosnia and Herzegovina for the period 2014–20', which are prerequisites for regulating lifelong learning. An intersectoral committee developed the Action Plan for the Qualifications Framework, to be implemented over the period 2014–20, and adopted by the Council of Ministers in February 2015. In addition, implementation of the entrepreneurial learning strategy in education systems, where the EU has provided project support, is ongoing. The Ministry of Civil Affairs, with the support of KulturKontakt Austria, initiated the compilation of information on the status of the VET Development Strategy (2007–13) implementation progress; this work is ongoing.
- The development and implementation of the qualifications framework and quality assurance system are certainly priorities in the education and training reform, and these topics will be the focus of future projects supported by the EU through IPA funds (IPA 2012). Developing a qualifications framework for education and training provision is a very effective way to reform and modernise education and training. The elements that are now part of the Action Plan for the qualifications framework include developing curricula based on learning outcomes so as to promote more effective cooperation between employers and providers and facilitate comparison of qualifications both within a country and between countries, and aligning different parts of the education and training systems in a single framework so as to ensure the concept of lifelong learning and establish mechanisms to recognise non-formal and informal learning. Keeping in mind the role of different institutions at various levels of the VET system, efforts to improve quality in VET should also include innovative approaches to creating links between different actors and APOSO. As regards the expected and upcoming policy dialogue on quality in VET, EQARF could focus on exploring how to integrate quality better in VET as a comprehensive approach following the best practices of EU Member States or candidate countries. The role of teachers will be an integral part of this,

coupled with targeted measures to continue to integrate entrepreneurial learning into all levels of education.

- VET is a complex policy area, situated at the intersection of education, training, social, economic and labour market policies. It is expected to address the present and future skills demands of the economy, the requirement for personal development and active citizenship, and individuals' needs for employability. Issues that will continue to be central to VET reform include the new and important role for the social partners in focusing on labour market needs and demand, the new role of vocational schools with greater autonomy in terms of the needs of the economy, and diversification of the offer of trainings for new target groups, including adult learners. As a participatory instrument for VET analysis and policy assessment that is implemented in the country every two years, the Torino Process has documented the strong commitment of key stakeholders in the country to policy dialogue about the challenges of VET reform in the country. The goal is to take this policy dialogue forward by enhancing long-term capacity and the quality and relevance of policy making.

ANNEXES

Annex 1. Torino Process indicators

Note: In the following tables, m.d. = missing data.

TABLE A1.1 POPULATION OF BOSNIA AND HERZEGOVINA

	2006	2007	2008	2009	2010	2011	2012	2013
Total	3,875,157	3,868,665	3,861,201	3,853,446	3,845,929	3,839,322	3,833,916	3,829,307

Source: World Bank, World Development Indicators database, 2014

TABLE A1.2 ANNUAL POPULATION GROWTH (%)

	2006	2007	2008	2009	2010	2011	2012	2013
Total	-0.12	-0.17	-0.19	-0.20	-0.20	-0.17	-0.14	-0.12

Source: World Bank, World Development Indicators database, 2014

TABLE A1.3 DEPENDENCY RATES* BY SEX (%)

	Total 15–64	Old >64	Young <15
2006	47.6	20.1	27.5
2007	48.0	20.7	27.2
2008	48.3	21.4	26.9
2009	48.3	21.9	26.4
2010	48.1	22.3	25.8
2011	47.5	22.6	24.9
2012	46.6	22.7	24.0
2013	45.50	22.70	22.9

Note: (*) Number of people unable to work per 100 working-age people.

Source: World Bank, World Development Indicators database, 2014

TABLE A1.4 POPULATION BY AGE GROUP (%)

	2006	2007	2008	2009	2010	2011	2012	2013
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
0–14	18.5	18.2	18.0	17.7	17.4	16.8	16.2	15.7
15–24	14.8	14.8	14.7	14.6	14.7	14.7	14.6	14.6
25–54	42.7	42.6	42.4	42.2	42.1	42.2	42.3	42.3
55–64	10.4	10.5	10.6	10.7	10.8	11.1	11.4	11.8
65+	13.58	13.99	14.38	14.74	15.07	15.31	15.47	15.6

Note: 2006–10 data are estimates, 2011–13 data are based on medium fertility.

Source: ETF calculation, based on UN, 2014

TABLE A1.5 LIFE EXPECTANCY AT BIRTH (15+), BY SEX (YEARS)

	Total	Male	Female
2006	75.2	72.6	77.9
2007	75.4	72.8	78.1
2008	75.5	73.0	78.2
2009	75.7	73.1	78.3
2010	75.8	73.3	78.4
2011	76.0	73.5	78.6
2012	76.1	73.6	78.7
2013	m.d.	m.d.	m.d.

Source: World Bank, World Development Indicators database, 2014

TABLE A1.6 NET MIGRATION

	2006	2007	2008	2009	2010	2011	2012	2013
Net migration	m.d.	-18,789.0	m.d.	m.d.	m.d.	m.d.	-5,000.0	m.d.

Notes: 2007 data are five-year estimates for the period 1 July 2005–30 June 2010; 2012 data are five-year estimates for the period 1 July 2010–30 June 2015.

Source: World Bank, World Development Indicators database, 2014

TABLE A1.7 SOCIAL BURDEN* BY SEX (15+), %/3

	2006	2007	2008	2009	2010	2011	2012	2013
Total	1.9	1.8	1.7	1.7	1.7	1.8	1.8	1.8
Male	1.1	1.0	1.0	1.0	1.0	1.1	1.1	1.1
Female	3.45	3.33	2.96	2.87	2.87	2.92	2.99	2.93

Notes: * Social burden is the ratio between the number of inactive and the number of employed persons. Values higher than 1 mean that the number of inactive persons exceeds the employed population.

Source: ETF calculations, based on BHAS, LFS 2008–13

TABLE A1.8 GDP GROWTH RATE (%)

	2006	2007	2008	2009	2010	2011	2012	2013
GDP growth rate	6.20	6.84	5.42	-2.91	0.70	1.30	-0.70	0.36

Source: World Bank, World Development Indicators database, 2014

TABLE A1.9 GDP PER CAPITA (PPP, CURRENT INTERNATIONAL USD)

	2006	2007	2008	2009	2010	2011	2012	2013
GDP per capita	7,005.52	7,709.90	8,491.84	8,430.94	8,709.89	9,232.51	9,207.63	9,632.38

Source: World Bank, World Development Indicators database, 2014

TABLE A1.10 GDP BY SECTOR (VALUE ADDED, % OF GDP)

	2006	2007	2008	2009	2010	2011	2012	2013
Agriculture	10.4	8.8	7.9	7.8	7.6	8.7	8.4	m.d.
Industry	24.7	28.6	29.6	28.3	28.0	26.2	24.8	m.d.
Services	64.9	62.6	62.4	63.9	64.4	65.1	66.8	m.d.

Source: World Bank, World Development Indicators database, 2014

TABLE A1.11 GLOBAL COMPETITIVE INDEX

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
Score	3.8	3.6	3.6	3.5	3.7	3.8	3.9	4.0	n.a.
Rank	82.0	106.0	107.0	109.0	102.0	100.0	88.0	87.0	n.a.
Rank out of	148	131	134	133	139	142	144	148	144.0

Notes: Scores range from 1 to 7; n.a. = not applicable.

Source: WEF, Global competitiveness reports 2006/07–2014/15

TABLE A1.12 SMALL BUSINESS ACT ENTREPRENEURIAL LEARNING (EL) INDEX

	2006	2007	2008	2009	2010	2011	2012	2013
SME – EL Index	n.a.	1.8	n.a.	2.3	n.a.	n.a.	1.8	n.a.

Notes: This indicator is comparable only within the same region, for the same year; n.a. = not applicable.

Source: OECD et al. (2012), SME Policy Index, Western Balkans and Turkey 2012

TABLE A1.13 POVERTY HEADCOUNT RATIO AT \$2 A DAY (PPP) (% OF POPULATION)

	2006	2007	2008	2009	2010	2011	2012	2013
Poverty headcount ratio	m.d.	0.13	m.d.	m.d.	m.d.	m.d.	m.d.	m.d.

Source: World Bank, World Development Indicators database, 2014

TABLE A1.14 GINI INDEX

	2006	2007	2008	2009	2010	2011	2012	2013
Gini Index	m.d.	33.04	m.d.	m.d.	m.d.	m.d.	m.d.	m.d.

Source: World Bank, World Development Indicators database, 2014.

TABLE A1.15 FOREIGN DIRECT INVESTMENT (NET INFLOWS AS % OF GDP)

	2006	2007	2008	2009	2010	2011	2012	2013
FDI as % of GDP	6.822	11.806	5.419	0.811	2.6	2.6	2.1	1.8

Source: World Bank, World Development Indicators database, 2014

TABLE A1.17 EMPLOYMENT BY MAIN SECTOR AND SEX (15+), NACE REV.1.1 (%)

	2006			2007			2008			2009		
	Total	Male	Fe-male									
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Agriculture	20.5	19.8	22.0	19.8	19.0	21.3	20.6	19.6	22.3	21.2	18.6	25.8
Industry	30.8	37.7	17.8	32.6	40.2	18.1	32.5	40.2	18.5	31.5	40.4	16.4
Services	48.7	42.6	60.2	47.6	40.8	60.6	47.0	40.2	59.2	47.3	41.4	57.9
	2010			2011			2012			2013		
	Total	Male	Fe-male									
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Agriculture	19.7	17.9	22.8	19.6	18.8	20.9	20.6	19.3	22.7	18.9	18.7	19.2
Industry	31.0	39.5	16.4	28.9	36.3	16.3	30.4	38.3	16.7	29.8	38.0	16.2
Services	49.3	42.6	60.8	51.5	44.8	62.8	49.1	42.3	60.6	51.3	43.4	64.7

Note: Data since 2008 refer to NACE Rev.2.

Source: BHAS, LFS 2008–13

TABLE A1.18 EMPLOYMENT BY STATUS IN EMPLOYMENT AND SEX (15+) (%)

	2006			2007			2008			2009		
	Total	Male	Fe-male									
Employee	72.5	72.1	73.3	73.0	72.7	73.6	72.5	72.5	72.5	72.8	44.2	70.3
Self-employed	21.8	24.9	15.8	22.6	25.2	17.7	22.1	24.9	17.0	20.5	22.6	16.7
Unpaid family worker	5.7*	3.0*	10.9*	4.4*	2.0*	8.8*	5.4	2.6	10.5	6.8	3.1	12.9
Total	100.0											

	2010			2011			2012			2013		
	Total	Male	Fe-male									
Employee	73.5	74.3	72.1	74.7	74.9	74.4	72.6	72.7	72.4	74.6	73.8	75.9
Self-employed	20.8	23.2	16.8	20.0	22.8	15.3	22.7	25.1	18.6	20.7	24.0	15.2
Unpaid family worker	5.6	2.4	11.1	5.2	2.3	10.3	4.7	2.2	9.0	4.7	2.2*	8.9*
Total	100.0											

Note: (*) Less accurate estimation.

Source: BHAS, LFS 2008–13

TABLE A1.19 ACTIVITY RATES BY SEX (15+) (%)

	2006	2007	2008	2009	2010	2011	2012	2013
Total	43.10	43.90	43.90	43.60	44.60	44.00	44.00	43.6
Male	56.20	57.70	57.10	56.20	56.70	55.90	56.40	55.3
Female	30.8	31.00	31.60	31.90	33.20	32.80	32.60	32.5

Source: BHAS, LFS 2008–13

TABLE A1.20 ACTIVITY RATES BY AGE AND SEX (%)

	2006			2007			2008			2009		
	Total	Male	Fe-male									
15–24	33.40	40.10	26.30	33.40	40.80	25.70	33.20	40.00	25.60	32.60	40.40	24.30
25–49	66.00	81.90	50.00	67.00	84.00	50.20	68.60	85.10	52.40	69.10	85.20	53.20
50–64	36.60	53.40	22.10	38.90	55.40	23.70	40.50	57.20	25.70	40.80	55.30	27.60
65+	5.6*	7.9*	3.9*	5.90	9.00	3.6*	5.40	8.30	3.2*	4.2*	5.6*	3.1*
15–64	51.30	65.50	37.40	52.20	67.00	37.80	53.50	67.70	39.50	53.20	67.00	39.70

	2010			2011			2012			2013		
	Total	Male	Fe-male									
15–24	33.00	39.70	25.90	31.40	38.80	23.30	29.40	37.70	20.90	28.30	36.30	19.4
25–49	70.60	85.30	55.60	70.60	84.50	55.90	71.60	85.50	57.30	71.90	85.30	58.1
50–64	40.50	54.50	28.00	41.20	54.10	29.80	42.10	56.20	29.20	42.10	55.50	29.6
65+	4.60	6.3*	3.3*	3.60	4.9*	2.7*	5.00	7.00*	3.4*	4.2*	6.2*	2.7*
15–64	54.00	67.10	41.10	53.80	66.30	41.20	53.90	67.00	41.00	53.50	65.70	41.0

Note: (*) Less accurate estimation.

Source: BHAS, LFS 2008–13

TABLE A1.21 EMPLOYMENT RATES BY SEX AND EDUCATIONAL LEVEL (15+)

	2006			2007			2008			2009		
	Total	Male	Fe-male									
Primary school and less	15.31	24.71	9.65	15.42	25.88	9.09	16.97	27.78	10.98	16.33	25.23	11.23
Secondary school	40.43	51.84	30.33	42.49	50.20	31.66	45.73	52.95	35.20	44.08	50.97	34.44
Higher education	64.41	61.68	67.14	67.05	63.37	71.05	65.73	63.00	69.23	66.85	63.46	71.25
	2010			2011			2012			2013		
	Total	Male	Fe-male									
Primary school and less	15.43	24.44	10.45	14.92	23.69	11.57	15.37	23.99	10.47	14.87	23.56	9.6
Secondary school	42.51	49.13	33.21	41.38	47.63	40.53	41.01	48.48	30.92	40.14	46.26	31.6
Higher education	61.03	59.65	62.63	63.11	60.80	66.00	59.73	58.33	60.75	61.11	60.45	61.9

Source: ETF calculations, based on BHAS, LFS 2008–13

TABLE A1.24 EMPLOYMENT RATES BY AGE AND SEX (%)

	2006			2007			2008			2009		
	Total	Male	Fe-male									
15–24	12.60	16.00	9.00	13.90	18.10	9.50	17.40	22.10	12.20	16.70	21.70	11.50
25–49	46.50	60.00	33.00	48.80	63.60	34.20	53.40	68.80	38.40	53.50	67.40	39.90
50–64	30.60	44.30	18.70	31.90	45.20	19.70	34.40	47.90	22.40	34.00	45.40	23.60
65+	5.5*	7.7*	3.8*	5.70	8.60	3.6*	5.40	8.20	3.2*	4.2*	5.6*	3.1*
15–64	35.00	46.10	24.00	36.80	48.70	25.00	40.70	52.90	28.70	40.10	51.20	29.30
20–64	m.d.	m.d.	m.d.									
	2010			2011			2012			2013		
	Total	Male	Fe-male									
15–24	14.00	17.80	10.00	13.20	16.90	9.20	10.80	14.10	7.50	11.60	14.90	7.9
25–49	52.50	65.60	39.20	52.10	64.50	39.00	52.20	64.90	39.10	52.70	64.30	40.8
50–64	33.30	44.10	23.60	33.60	43.70	24.60	35.00	46.30	24.60	34.40	45.10	24.4
65+	4.60	6.3*	3.2*	3.60	4.9*	2.6*	4.80	6.7*	3.4*	4.1*	6.0*	2.7*
15–64	39.00	49.60	28.60	38.70	48.70	28.70	38.50	49.00	28.10	38.50	48.00	28.9
20–64	m.d.	m.d.	m.d.	42.50	53.70	31.40	42.50	54.20	31.10	42.80	53.30	32.2

Note: (*) Less accurate estimation.

Source: BHAS, LFS 2008–13

TABLE A1.25 UNEMPLOYMENT RATES (15+) BY SEX AND EDUCATION LEVEL (%)

	2006			2007			2008			2009		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Primary school and less	31.2	31.1	31.0	31.0	29.4	34.5	24.0	24.2	23.5	25.9	28.2	23.6
Secondary school	34.3	30.9	40.7	31.3	28.1	37.4	25.4	22.5	31.3	26.0	23.7	30.3
Higher education	12.3	10.8	14.3*	10.61*	9.9*	11.5*	10.0*	7.4	14.3	10.2*	9.59*	10.9*
	2010			2011			2012			2013		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Primary school and less	28.2	28.5	27.7	29.2	29.1	29.3	27.0	28.2	25.5	28.1	29.3	27.5
Secondary school	29.2	26.7	34.1	29.9	27.5	34.3	30.7	27.8	35.7	30.0	28.3	33.2
Higher education	15.6*	12.8*	18.4*	15.5	13.6*	17.7*	17.7	14.8*	20.7*	16.8	13.8*	19.8

Note: (*) Less accurate estimation.

Source: ETF calculations, based on BHAS, LFS 2008–13

TABLE A1.31.D UNEMPLOYMENT RATES BY AGE AND SEX (%)

	2006			2007			2008			2009		
	Total	Male	Female									
15–24	62.3	60.2	65.7	58.4	55.6	63.1	47.5	44.8	52.3	48.7	46.4	52.7
25–49	29.5	26.7	34.0	27.1	24.3	31.9	22.1	19.2	26.7	22.5	20.9	25.1
50–64	16.4	17.1	15.2*	17.8	18.4	16.6	15.1	16.3	13.0*	16.7	18.0	14.2*
65+	m.d.	m.d.	m.d.									
15–64	31.8	29.5	35.7	29.6	27.3	33.7	24.0	21.9	27.4	24.5	23.5	26.2
20–64	m.d.	m.d.	m.d.									
	2010			2011			2012			2013		
	Total	Male	Female									
15–24	57.5	55.1	61.3	57.9	56.4	60.5	63.1	62.6	64.0	59.1	59.1	59.2
25–49	25.6	23.1	29.5	26.2	23.7	30.3	27.2	24.1	31.9	26.6	24.5	29.8
50–64	17.8	19.0	15.8	18.6	19.3	17.5	16.9	17.5	15.7	18.2	18.6	17.5
65+	m.d.	m.d.	m.d.									
15–64	27.7.	26.1	30.4	28.0	26.5	30.5	28.6	26.8	31.4	28.0	27.0	29.6
20–64	m.d.	m.d.	m.d.	27.1	25.5	29.7	27.6	25.7	30.6	27.0	26.0	28.6

Note: (*) Less accurate estimation.

Source: BHAS, LFS 2008–13

TABLE A1.32 YOUTH UNEMPLOYMENT RATES (15–24) BY SEX (%)

	2006			2007			2008			2009		
	Total	Male	Female									
15–24	62.3	60.2	65.7	58.4	55.6	63.1	47.5	44.8	52.3	48.7	46.4	52.7
	2010			2011			2012			2013		
	Total	Male	Female									
15–24	57.5	55.1	61.3	57.9	56.4	60.5	63.1	62.6	64.0	59.1	59.1	59.2

Source: BHAS, LFS 2008–13

TABLE A1.35 EXPENDITURE ON ACTIVE LABOUR MARKET POLICIES (ALMPs) (% OF GDP)

	2006	2007	2008	2009	2010	2011	2012	2013
Activation rate (% of registered unemployed participating in ALMPs)	m.d.	0.2.	0.1	m.d.	0.1	m.d.	0.1	m.d.

Source: CPESSEC, 2008; 2009; 2011; and 2013

TABLE A1.38 NUMBER OF REGISTERED UNEMPLOYED (15+) BY SEX (000)

	2006	2007	2008	2009	2010	2011	2012	2013
Total	299	303	246	240	285	284	292	287
Male	172	175	141	142	165	164	168	170
Female	127	129	105	98	120	120	124	117

Source: BHAS, LFS 2008–13

TABLE A1.41B NUMBER OF LONG-TERM UNEMPLOYED AS PROPORTION OF TOTAL UNEMPLOYMENT, BY SEX (%)

	2006	2007	2008	2009	2010	2011	2012	2013
Total	85.9	86.5	86.2	83.2	82.0	80.8	81.9	83.1
Male	85.5	86.4	86.0	82.5	80.4	80.6	81.4	82.0
Female	86.6	86.4	86.6	84.3	84.1	81.0	82.7	84.6

Source: ETF calculations, based on BHAS, LFS 2008–13

TABLE A1.44 EDUCATIONAL ATTAINMENT OF POPULATION (15+) BY SEX (%)

	2006			2007			2008			2009		
	Total	Male	Female									
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Primary school and less	49.0	38.5	58.8	47.6	36.7	57.8	46.9	35.2	57.8	45.3	34.2	55.7
Secondary school	44.5	53.4	36.2	45.9	55.7	36.8	46.4	57.0	36.5	47.6	57.5	38.3
Higher education	6.5	8.1	5.0	6.5	7.6	5.4	6.7	7.8	5.7	7.1	8.3	5.9

	2010			2011			2012			2013		
	Total	Male	Female									
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Primary school and less	42.7	31.8	52.9	43.2	32.2	53.5	42.6	32.0	52.5	41.7	31.5	51.5
Secondary school	49.1	59.1	39.6	48.0	57.7	38.9	48.6	58.3	39.5	48.6	58.0	39.6
Higher education	8.2	9.0	7.4	8.8	10.1	7.6	8.8	9.7	8.0	9.7	10.5	8.9

Source: BHAS, LFS 2008–13

TABLE A1.47 ADULT LITERACY RATE (15+), BY SEX (%)

	2006	2007	2008	2009	2010	2011	2012	2013
Total	m.d.	m.d.	m.d.	m.d.	m.d.	m.d.	99.2	m.d.
Male	m.d.	m.d.	m.d.	m.d.	m.d.	m.d.	99.5	m.d.
Female	m.d.	m.d.	m.d.	m.d.	m.d.	m.d.	96.9	m.d.

Source: UIS, 2014

TABLE A1.51 PARTICIPATION IN VET BY FIELD OF STUDY (%)

Field of study	2010/11	
	ISCED 3	ISCED 5
Education	m.d.	11.6
Humanities and art	3.0	8.3
Social sciences, business and law	23.1	39.4
Science, mathematics and computing	1.9	7.8
Engineering, manufacturing and construction	34.9	10.5
Agriculture and veterinary	8.5	4.0
Health and welfare	10.6	13.4
Services	14.1	4.5
Unspecified	4.0	0.3

Notes: In ISCED 2 we do not have VET; data for ISCED 4 are not available.

Source: BHAS, Education statistics (data received)

TABLE A1.55 EARLY SCHOOL LEAVERS (18–24), BY SEX (%)

	2006	2007	2008	2009	2010	2011	2012	2013
Total	m.d.	m.d.	m.d.	m.d.	7.9	8.0	7.9	6.7
Male	m.d.	m.d.	m.d.	m.d.	7.7	8.2	5.8	6.6
Female	m.d.	m.d.	m.d.	m.d.	8.1	7.7	10.1	6.9

Source: Eurostat online data 2014

TABLE A1.37 ENROLMENT BY EDUCATION LEVEL/PROGRAMME, BY SEX

		2006		2007		2008		2009		2010	
		Total	Female								
Pre-primary (ISCED 0)	All	12,989	6,112	13,84	6,299	14,517	6,898	16,260	7,763	16,789	8083
Primary (ISCED 1)	All	m.d.	m.d.	198,800	96,961	181,917	88,536	173,647	84,933	175,271	85,636
Lower secondary (ISCED 2)	All	m.d.	m.d.	170,018	82,764	181,521	88,086	186,255	90,259	175,847	85,261
	Gen	m.d.	m.d.	170,018	82,764	181,521	88,086	186,255	90,259	175,847	85,261
	VET	m.d.	m.d.								
Share of VET (%)		m.d.	m.d.								
Upper secondary (ISCED 3)	All	162,434	80,976	163,286	81,252	157,450	77,998	148,100	73,387	146,919	72,842
	Gen	m.d.	m.d.	39,791	25,315	39,188	24,824	37,419	23,679	37,495	23,680
	VET	m.d.	m.d.	123,495	55,937	118,262	53,174	110,681	49,708	109,424	491,62
Share of VET (%)		m.d.	m.d.	75.6	68.8	75.1	68.2	74.7	67.7	74.5	67.5
Post-secondary (ISCED 4)	VET	m.d.	m.d.								
Tertiary (ISCED 5–6)	All	91,263	50,352	99,557	55,155	104,938	58,624	105,488	59,028	105,137	58,814
Tertiary (ISCED 5B)	VET	m.d.	m.d.								
Share of VET (%)		m.d.	m.d.								

TABLE A1.68C PERFORMANCE IN TIMSS

		2006	2007	2008	2009	2010	2011	2012	2013
Mathematics	4th grade	n.a.							
	8th grade	n.a.	456	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Science	4th grade	n.a.							
	8th grade	n.a.	466	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Note: n.a. = not applicable.

Source: TIMSS (Trends in International Mathematics and Science Study) and PIRLS (Progress in International Reading Literacy Study) International Agency Centre, 2014

TABLE A1.86–87 PUBLIC EXPENDITURE ON EDUCATION AS % OF GDP AND TOTAL GOVERNMENT EXPENDITURE

	2006	2007	2008	2009	2010	2011	2012	2013
Public expenditure on education as% of GDP	m.d.	6.00	m.d.	m.d.	m.d.	m.d.	m.d.	m.d.
Public expenditure on education as% of total government expenditure	m.d.							

Source: Council of Ministers, 2008

Annex 2. VETIS of the Agency for Pre-primary, Primary and Secondary Education

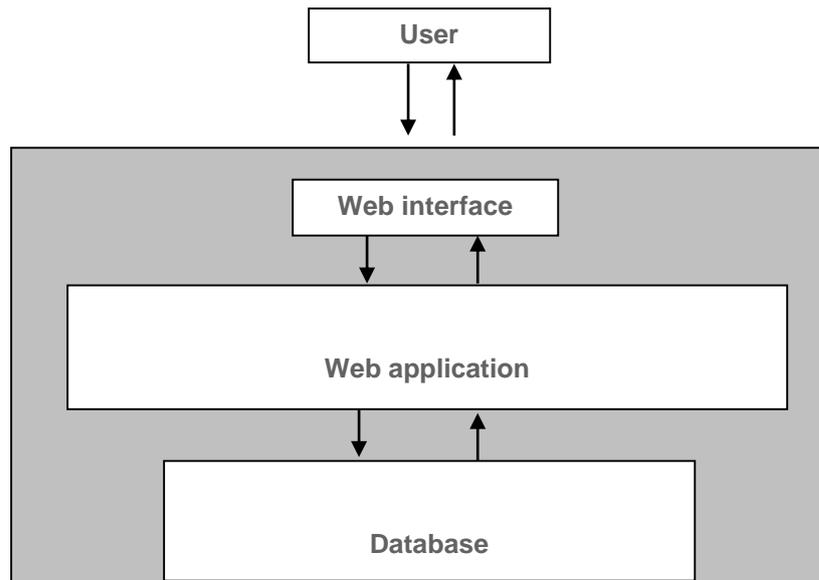
The Department for Secondary Vocational and Education and Adult Education in the Banja Luka Administrative Unit is one of the three regional departments of the Agency for Pre-primary, Primary and Secondary Education (APOSO). It is responsible for the collection and analysis of data on secondary vocational education in the country. In order to create optimum conditions for quality management in this area, both on the level of the Agency and that of entity and cantonal ministries and schools, a single, computer-aided information system, based on sophisticated information and communication technologies, is necessary. In addition to creating a solid basis for improved management in this field, this information system also provides better-quality information faster to schools, entity and cantonal ministries and the Agency.

VETIS is an information system for secondary VET located in the Department for Secondary Vocational Education. The system contains reports on the trends in secondary VET and in the labour market in Bosnia and Herzegovina. It also includes reports on schools, teachers, and students, and reports on employment trends for people with secondary vocational degrees in the country. The manual entry of data into VETIS is conducted through the data entry form or uploaded into Excel databases especially adapted for the application upload.

VETIS was developed on the model of the EMIS information system. It enables the recording of all joint data, but also specific data, relating to particular organisational (territorial) units at different levels such as entities, cantons/regions, municipalities and districts. The system uses sophisticated information and communication technologies to determine the best ways to fulfil the requirements of users working in this field.

The general structure of VETIS is presented in the diagram below.

VETIS general structure



The system allows:

- access to the application via internet; and
- communication with the users through email.

Requests directed to the system may be summarised as follows:

- scalability – the resistance of the system to the increasing number of users;
- error tolerance;
- flexibility to changes;
- ease of use; and
- safe transfer of data between the end user and the application.

The basic elements of the VETIS information system are:

- database;
- web application;
- web interface; and
- system users.

Some examples of rich data availability are presented in **TABLES A2.1–A2.4**.

TABLE A2.1 STUDENTS PER OCCUPATIONAL GROUP – CANTONS, ENTITIES, BRČKO DISTRICT AND BOSNIA AND HERZEGOVINA OVERALL, 2010/11

Canton/ occupational group	Una-Sana	Posavina	Tuzla	Zenica-Doboj	Bosnia Podrinje	Central Bosnia	Herzegovina Neretva	Western Herzegovina	Sarajevo	Cantons Ten	Federation (= 10 cantons)	Republika Srpska	District Brčko	Total
Agriculture and food processing	451	81	1 218	499	106	138	197	173	641	77	3 581	2 703	496	6 780
Forestry and wood processing	275	0	327	368	0	198	0	0	209	77	1 454	1 233	0	2 687
Geology, mining and metallurgy	0	0	687	188	0	29	0	0	0	0	904	87	0	991
Mechanical engineering and metal processing	1 609	119	3 044	1 965	160	1 063	565	229	1 812	78	10 644	5 160	278	16 082
Electrical engineering	718	206	2 279	2 014	28	1 223	1 106	319	1 489	472	9 854	4 804	320	14 978
Chemistry, metalloids and graphic industry	179	0	463	40	76	41	117	0	480	18	1 414	605	0	2 019
Textile and leather processing	288	18	435	545	23	190	31	0	358	0	1 888	188	68	2 144
Geodesy and constructing	333	0	661	647	74	228	489	92	655	0	3 179	1 594	93	4 866
Traffic	680	0	1 292	987	171	678	549	135	662	87	5 241	2 620	0	7 861
Catering and tourism	667	91	686	529	22	697	729	24	540	238	4 223	3 446	203	7 872
Economy, law, administration and trading	1 418	427	3 646	2 764	105	2 308	1 876	1 229	1 470	540	15 783	9 378	891	
Health care	448	151	2 009	964	60	1 223	1 036	27	2 397	0	8 315	3 393	347	
Other businesses	220	85	485	828	22	420	244	187	562	69	3 122	989	176	
Total	7 286	1 178	17 232	12 338	847	8 436	6 939	2 415	11 275	1 656	69 602	36 200	2 872	

Notes: Data include students in secondary vocational schools, technical and other secondary schools (excluding gymnasia) but not art, religious or special schools.

Source: APOSO, VET Department (data collected directly from schools)

TABLE A2.2 STUDENTS PER OCCUPATIONAL GROUP – CANTONS, ENTITIES, BRČKO DISTRICT AND BOSNIA AND HERZEGOVINA OVERALL, 2011/12

Canton/ occupational group	Una-Sana	Posavina	Tuzla	Zenica-Doboj	Bosnia Podrinje	Central Bosnia	Herzegovina Neretva	Western Herzegovina	Sarajevo	Canton Ten	Federation (= 10 cantons)	Republika Srpska	District Brčko	Total
Agriculture and food processing	521	129	1 435	616	108	143	225	150	695	46	4 068	2 978	543	7 589
Forestry and wood processing	324	0	78	483	0	256	0	0	358	35	1 534	1 299	0	2 833
Geology, mining and metallurgy	0	0	782	263	0	0	0	0	0	0	1 045	75	0	1 120
Mechanical engineering and metal processing	2 000	88	3 020	2 286	76	1 479	844	428	2 130	207	12 558	5 481	320	18 359
Electrical engineering	816	85	2 142	2 113	25	1 378	1 024	157	1 584	494	9 818	5 150	356	15 324
Chemistry, metalloids and graphic industry	184	0	532	145	19	31	124	0	560	16	1 611	678	0	2 289
Textile and leather processing	349	18	457	767	18	169	33	0	40	0	1 851	275	81	2 207
Geodesy and constructing	292	0	797	765	19	258	562	0	753	0	3 446	1 668	106	5 220
Traffic	793	0	1 433	1 173	18	740	605	163	663	0	5 588	2 562	52	8 202
Catering and tourism	732	88	779	748	31	721	712	0	552	286	4 649	3 640	301	8 590
Economy, law, administration and trading	1 644	150	3 668	2 998	89	2 373	1 829	1 050	1 541	585	15 927	9 819	832	26 578
Health care	535	110	2 294	978	0	1 037	1 090	0	1 596	34	7 674	3 493	366	11 533
Other businesses	228	14	494	825	70	460	220	178	548	58	3 095	929	187	4 211
Total	8 418	682	17 911	14 160	473	9 045	7 268	2 126	11 020	1 761	72 864	38 047	3 144	114 055

Notes: Data include students in secondary vocational schools, technical and other secondary schools (excluding gymnasia) but not art, religious or special schools. Of 207 public schools in total, data from 204 schools and two private schools from Republika Srpska are included.

Source: APOSO, VET Department (data collected directly from schools)

TABLE A2.3 STUDENTS WHO SUCCESSFULLY COMPLETED MATURA, BY CANTON, ENTITY, BRČKO DISTRICT AND BA OVERALL, 2010/11

Canton, entity or district	Students completing Matura
Una-Sana	1 900
Posavina	234
Tuzla	4 738
Zenica-Doboj	4 329
Bosnia Podrinje	146
Central Bosnia	3 665
Herzegovina Neretva	3 378
Western Herzegovina	569
Sarajevo	3 020
Canton Ten	389
Federation (= 10 cantons)	22 368
Republika Srpska	11 573
Brčko District	716
Total	34 657

Notes: Data include students in secondary vocational schools, technical and other secondary schools (excluding gymnasia) but not art, religious or special schools. Of 207 public schools in total, data from 204 schools and two private schools from Republika Srpska are included.

Source: APOSO, VET Department (data collected directly from schools)

TABLE A2.4 SCHOOLS AND STUDENTS IN SECONDARY 3RD AND 4TH YEAR EDUCATION BY CANTONS, ENTITIES, DISTRICT BRČKO AND BOSNIA AND HERZEGOVINA OVERALL, 2011/12

Students	Schools	Schools*	3rd year		4th year		Total
			Males	Females	Males	Females	
Una-Sana	14	14	2 169	1 065	2 566	2 618	8 418
Posavina	2	2	168	69	231	214	682
Tuzla	24	24	3 666	1 633	6 048	6 564	17 911
Zenica-Doboj	20	20	3 866	1 835	4 624	3 835	14 160
Bosnia Podrinje	3	3	165	61	90	157	473
Central Bosnia	21	21	2 074	892	3 161	2 918	9 045
Herzegovina Neretva	20	20	1 283	550	2 825	2 610	7 268
Western Herzegovina	4	3	424	253	756	693	2 126
Sarajevo	21	19	1 921	904	4 568	3 627	11 020
Canton Ten	6	6	334	211	666	550	1 761
Federation (= 10 cantons)	135	132	16 070	7 473	25 535	23 786	72 864
Republika Srpska	69	69+2 private	6 416	2 432	14 151	15 048	38 047
Brčko District	3	3	618	263	1 055	1 208	3 144
Total	207	204+2 private	23 104	10 168	40 741	40 042	114 055

Notes: (*) Processed data. Data include students in secondary vocational schools, technical and other secondary schools (excluding gymnasia) but not art, religious or special schools. Of 207 public schools in total, data from 204 schools and two private schools from Republika Srpska are included.

Source: APOSO, VET Department (data collected directly from schools)

ABBREVIATIONS AND ACRONYMS

APOSO	Agency for Pre-primary, Primary and Secondary Education
BA	Bosnia and Herzegovina
BAM	Bosnia and Herzegovina convertible mark
BHAS	Bosnia and Herzegovina Agency of Statistics
BQF	Baseline Qualifications Framework
EBRD	European Bank for Reconstruction and Development
EQARF	European Quality Assurance Reference Framework
EQAVET	European Quality Assurance in VET
EQF	European Qualifications Framework
ERA	European Research Area
ETF	European Training Foundation
EU	European Union
GDP	Gross domestic product
GIZ	Gesellschaft für Internationale Zusammenarbeit
ICT	Information and communication technologies
IPA	Instrument for Pre-accession Assistance
ISCED	International Standard Classification of Education
LFS	Labour Force Survey
MDG	Millennium Development Goal
MTEF	Medium-term Expenditure Framework
Phare	Programme of Community aid to the countries of Central and Eastern Europe
PPP	Purchasing power parity
SMEs	Small and medium-sized enterprises
TIMSS	Trends in International Mathematics and Science Study
UIS	UNESCO Institute for Statistics
UN	United Nations
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
Unicef	United Nations Children's Fund
UOE	UIS/OECD/Eurostat
VET	Vocational education and training
VETIS	Vocational Education and Training Information System
WEF	World Economic Forum

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