

# BOSNIA AND HERZEGOVINA

## IMPACT ASSESSMENT OF VOCATIONAL EDUCATION AND TRAINING REFORM



The contents of this paper are the sole responsibility of the ETF and do not necessarily reflect the views of the EU institutions.

© European Training Foundation, 2012.  
Reproduction is authorised provided the source is acknowledged.

# **BOSNIA AND HERZEGOVINA**

## **IMPACT ASSESSMENT OF VOCATIONAL EDUCATION AND TRAINING REFORM**

**WORKING PAPER PREPARED BY MILENA CORRADINI,  
AMIR SARAJLIC, BELMA ZIGA AND MIRZA KARIC  
June, 2011**

<b>PREFACE</b>	<b>3</b>
<b>1. EXECUTIVE SUMMARY</b>	<b>4</b>
<b>2. RESEARCH METHODOLOGY</b>	<b>6</b>
<b>3. RESEARCH FINDINGS</b>	<b>7</b>
3.1 Legislation	7
3.2 Institutional development	7
3.3 Classification of occupations, standards and curricula	8
3.4 Management and administration in vocational education and training	9
3.5 Teacher training	11
3.6 Adult education	11
3.7 Summary	12
<b>4. CONSTRAINTS TO THE REFORM</b>	<b>15</b>
4.1 Equipment	15
4.2 School autonomy	15
4.3 Enrolment policy	15
4.4 Apprenticeship schemes	16
4.5 Entrepreneurship	16
4.6 Curriculum evaluation	17
4.7 Links with the labour market	18
4.8 Teacher training	18
4.9 Rationalisation of the school network at local level	19
4.10 Adult education and training	19

<b>5. LOCAL CONTEXT</b>	<b>21</b>
5.1 Tuzla Canton	21
5.2 Herzegovina-Neretva Canton	24
5.3 Republika Srpska	27
<b>6. CONCLUSIONS AND RECOMMENDATIONS</b>	<b>32</b>
<b>ANNEXES</b>	<b>36</b>
Annex 1. List of EU-funded projects	36
Annex 2. Questionnaire	42
Annex 3. List of interviewees	51
Annex 4. EU assistance to education, training and employment	53
<b>ABBREVIATIONS AND ACRONYMS</b>	<b>56</b>
<b>BIBLIOGRAPHY</b>	<b>57</b>



# PREFACE

Bosnia and Herzegovina currently has the status of potential candidate country for membership of the European Union (EU) and EU accession is identified as a top priority in all public statements and policy documents. The process of European integration is expected to act as a catalyst in consolidation of a systematic approach to strategic planning at the state level. The Council of Ministers of Bosnia and Herzegovina is continuously working on improved institutional capacity and the operational strengthening of various bodies and institutions.

On 9 November 2010, the European Commission published the Regular Report on progress towards accession in Bosnia and Herzegovina. The report, published on an annual basis, provides an overall assessment of progress and states that poor institutional operation forms a major constraint to progress in the country.

Assessment of specified thematic areas in the report concluded that:

- Some progress has been made in aligning legislation, policies and capacity with European standards in areas such as the free movement of capital, intellectual property, education and research, transport, financial control, and a number of justice, freedom and security-related matters. Bosnia and Herzegovina now needs to step-up implementation.
- Progress remains insufficient in other areas, such as the free movement of goods, persons and services, customs and taxation, competition and state aid, public procurement, employment and social policies, agriculture and fisheries, environment, energy, information society and media. Sustained efforts in sensitive areas such as the fight against corruption and organised crime are also a priority.

From 1998 to 2010, education reform in Bosnia and Herzegovina was supported by key donors including the EU, and vocational education and training (VET) reform was approached through projects funded under Phare, CARDS and IPA. The German GTZ has also been very active in this field. A considerable number of key documents have been issued that give recommendations and can provide the basis for new legislative frameworks to transform VET in the country. Almost all have been produced with the support of technical assistance teams; they have been formally endorsed by the appropriate authorities and are consistent with the VET Development Strategy and Action Plan for 2007–13.

Actions undertaken within the reform include:

- strengthening VET system governance;
- strengthening VET relevance to the labour market through the involvement of social partners in research and production of training standards and competence-based curricula in line with the new classification of occupations;
- preparing a concept note on the adoption of a Baseline Qualifications Framework for lifelong learning;
- improving VET system management and administration;
- improving VET quality;
- combating marginalisation and promoting social inclusion through the provision of modern VET.

The European Training Foundation (ETF) is an EU agency specialised in the VET field. It has been closely involved in the VET reform process in Bosnia and Herzegovina since 1998, contributing to the promotion of dialogue, awareness-raising, capacity building and the exchange of experience.

Further projects for continued VET reform are planned in the short term with funding from the EU Instrument for Pre-Accession Assistance (IPA) 2008 and 2009, and additional support is foreseen under the Multi-annual Indicative Planning Document 2011–13. In order to build on previous experience and to optimise EU financial support, the ETF has launched this assessment, which has implied intensive work in the country to collect and analyse data on the main achievements, constraints and lessons learnt to date, with special focus on the impact in three locations – Republika Srpska, Tuzla Canton and Herzegovina-Neretva Canton. The ETF wishes to thank the Ministry of Civil Affairs, the EU Delegation, and the Agency for Pre-primary, Primary and Secondary Education for their support in completing this assignment and hopes that the outcomes will be used in planning and implementing future projects and interventions.

# 1. EXECUTIVE SUMMARY

The VET reform has been implemented since 1998 in Bosnia and Herzegovina, mainly through programmes financed by the EU, which has acted as the major donor and driver of innovation and modernisation in the sector. However, the complexity of the administrative structure of the country means the implementation and management of reform has met with intermittent obstacles and delays and the results achieved were unable to fulfil initial expectations. Governance at institutional level is a case in point, where ownership and sustainability have not been ensured in any consistent manner as a result of administrative fragmentation. Nevertheless, various activities linked to policy and strategy development, institution building, teacher training, skills need analysis and the revision and implementation of new curricula have been implemented under the reform. The EU has also provided financial support for employment policy reform, the promotion of social dialogue, entrepreneurial education and the strengthening of higher education through the Tempus programme.

Over the last decade, the education sector has been supported by various bilateral and multilateral international agencies. Annex 4 shows EU-financed projects with activities in 96 pilot schools that can be summarised as follows:

- secondary VET curricula drafted and in use for 62 professions and also for general subjects;
- institutional capacity-building through cooperation with social partners leading to the production and adoption of Green and White Papers, the development of a VET strategy, the formulation of a concept note for a Baseline Qualifications Framework and many other policy documents;
- a new classification of occupations adopted reducing the listings from 500 detailed occupations to 100 more general professions;
- purchasing of equipment for vocational schools;
- research into a new VET financing system;
- creation of a VET database;
- guidance manual on labour market research developed and in use;
- staff development through the training of mentors, teachers and school principals in the application of new curricula and modern teaching methods.

This report aims to assess the impact of VET reform in Bosnia and Herzegovina from 1998 to 2009 with particular focus on the VET Development Strategy and Action Plan for 2007–13 in terms of progress in six priority areas: legislation; institutional development; classification of occupations, standards and curricula and national qualifications framework; management and administration in VET; teacher training; and adult education.

The assessment aims particularly to answer the following questions:

- What progress has so far been made on implementation of the Action Plan identified by the VET strategy in terms of expected objectives for priority actions?
- What problems have been encountered?
- What contribution has been made by donors, in particular the EU?
- What lessons have been learned?
- Is the VET strategy as designed in 2007 still relevant to the socio-economic context?
- As a result, should the strategy and action plan be modified?
- How could the EU financial Instrument for Pre-Accession Assistance (IPA) contribute to future implementation of the strategy?

In addition to the overall review of national progress, three particular locations – Republika Srpska, Tuzla Canton and Herzegovina-Neretva Canton – have been selected for in-depth analysis in agreement with the Ministry of Civil Affairs of Bosnia and Herzegovina and the EU Delegation. The objective of the detailed focus on local areas was to assess the effectiveness of VET in meeting labour market requirements, ensuring the employability of VET pupils and examining any potential need for rationalisation of the system to increase efficiency and respond better to labour market needs. The local assessment is based on a series of meetings and interviews conducted with relevant institutions and organisations from the worlds of work and education as shown in Annex 3. In addition, the assessment included a review of key VET-related documents, progress reports and ex post evaluation reports produced since 1998.

The achievements of the various EU projects generally agreed with the expected outputs of project documents. These achievements were especially impressive at the very beginning of the process (1998–2001) in terms of promoting inter-institutional dialogue, capacity-building and harmonisation of the VET system to labour market needs. However, the process later lost momentum and the overall reform was unable to achieve the expected impact and sustainability for a number of reasons.

- The complexity of the administrative structure in the country and its fragmented and politicised context has led to a massive investment of effort into developing mutual understanding and consensus between the many educational stakeholders at canton, entity and state levels, not always successfully. This complexity has also reduced the effectiveness of the technical assistance provided.
- A backward-looking mentality and lack of real commitment to modernisation and innovation exists, particularly in public administration.
- Limited involvement of social partners in VET hampers the process. A national VET Council has never been established and there is no coordinating structure to represent education, the labour market and the state at entity level.
- There is a lack of ownership of reforms. Some schools are happy to be involved but have no real commitment to reform.
- The pace of reform implementation is slow because of heavy EC administrative rules and consequent delays in reaching objectives.
- The quality of technical assistance offered does not always satisfy the requirements.
- Fragmentation and a lack of coordination between donors in the field of education impose different methodologies and approaches that do not always take the current situation and needs of the country into consideration.
- Limited resources are devoted to staff development and there is inadequate involvement of pedagogical institutes.

Future projects should aim to further develop reform under the close coordination of the VET Department of the Agency of Pre-School, Primary and Secondary Education. In particular:

- The VET Development Strategy and related Action Plan should be reviewed. Strategic priorities for VET need review in line with the newly adopted Framework Law on Secondary VET. This will provide a realistic revised action agenda to put before the Conference of Education Ministers of Bosnia and Herzegovina.
- Adaptation and review of training standards and curricula should continue in order to cover all existing occupations.
- VET teachers, trainers and principals should be systematically involved in these processes. Attention should be paid to pre-service and in-service training through adequate involvement of pedagogical institutes, and support should be provided to continuing professional development throughout teaching careers in order to improve teacher status in society.
- The adoption of a Framework Law on Adult Education and Training should be promoted.
- Optimisation of the VET system should be promoted in order to improve efficiency and effectiveness, taking political and resource implications into consideration.
- The establishment of a VET Advisory Council should be promoted at state and entity levels.
- The work on the qualifications framework should be developed further.

It is important to be aware that the Ministry of Civil Affairs and the Agency for Pre-primary, Primary and Secondary Education play only a coordinating role while the real decision-making power lies with the 13 various education ministries. This forms a key constraint to progress in the country. The technical role of the Agency for Pre-primary, Primary and Secondary Education must be strengthened and adequate resources provided to ensure harmonisation of the reform process.

## 2. RESEARCH METHODOLOGY

Research was based on the review of existing documents, progress reports, ex post evaluation reports of EU programmes and one-to-one interviews with local stakeholders including the Ministry of Civil Affairs, the EU Delegation, education ministries, social partner institutions, vocational schools, employment services, pedagogical institutes and the Agency for Pre-primary, Primary and Secondary Education.

The interviews were based on a questionnaire specifically developed by the project team with ETF assistance to collect data on facts, figures, views, personal perceptions and expectations (see questionnaire in Annex 2). The questionnaire also aimed to collect information on progress made in the implementation of the VET Development Strategy and Action Plan 2007–13 in terms of:

- legislation,
- institutional development,
- classification of occupations, standards and curricula,
- national qualifications framework,
- management and administration in VET,
- teacher training.

The ETF participated in interviews during the pilot phase of the questionnaire, providing suggestions and recommendations on how to shorten the list of questions and make them more user-friendly.

Each interview took around two hours to complete and the sessions were generally held in an informal atmosphere. Appointments for the interviews were booked in advance via a faxed supporting letter prepared by the ETF explaining the purpose of the assignment. The interview was refused in only very few cases.

Three regions – Republika Srpska, Tuzla Canton and Herzegovina-Neretva Canton – were selected for local level research, particularly focused on labour market demand and supply needs. The selection criteria included socio-economic composition and entity representation.

The research was undertaken from June to August 2010 and encompassed 43 key stakeholders: 11 from Herzegovina-Neretva Canton, 14 from Tuzla Canton, 15 from Republika Srpska, 1 state level and 2 from the Federation of Bosnia and Herzegovina (see list in Annex 3).

The research findings are presented in Chapter 3.

## 3. RESEARCH FINDINGS

### 3.1 LEGISLATION

The most important steps in terms of legislation and strategies for VET reform during the implementation of EU projects included:

- adoption of the Framework Law on VET in Bosnia and Herzegovina (Official Gazette No 63/08);
- Strategy for VET Development in Bosnia and Herzegovina in April 2007 for 2007–13;
- Law on establishment of the Agency for Pre-primary, Primary and Secondary Education 2007.

The Framework Law tackles many aspects of VET including changes to many areas and requirements for improved institutional capacities. Available resources are, however, limited and therefore further development will require careful prioritisation by authorities and stakeholders.

The key features of the Framework Law on VET include:

- a new enhanced role for social partners and a focus on the needs and demands of the economy;
- a central role for vocational schools with increased autonomy in response to local economic needs and possibilities of mergers with other schools to form communities whilst retaining their autonomous legal status;
- diversification of training offer for new target groups, including adults, through the organisation of short education and training courses at any level and to meet any requirement as a tool for promoting income-generation activities for the schools.

All administrative units (entities, cantons and Brcko District) are under an obligation to harmonise or replace existing laws in accordance with the recommendations of the Framework Law within six months of its adoption.

In Tuzla Canton, the VET system is regulated by the Law on Secondary Education, which is not in line with the Framework Law on VET. The Ministry of Education, Science, Culture and Sport drafted a new harmonised law on primary and secondary education that was submitted for adoption at the canton Parliament. Unfortunately, the draft law has not yet been adopted although it was slated for late 2010.

The situation in Herzegovina-Neretva Canton is more or less the same. The Law on Primary and Secondary Education that regulates VET is still not harmonised with the Framework Law on VET and no new law has been adopted. The law in force in this canton dates from 2000 with later amendments in 2006. Draft amendments to the Law on Secondary Education are in preparation and were expected to be harmonised with the Framework Law on VET before the end of 2010.

In contrast with the other administrative entities in Bosnia and Herzegovina, Republika Srpska has harmonised its law with the Framework Law on VET. The harmonised law takes into consideration many aspects of VET including social partnership and the focus on local economic needs. Vocational schools play a central role in the harmonisation of enrolment policy, adult education and curricula. However, implementation capacities still need to be strengthened.

The law emphasises standards and places system efficiency and effectiveness high on the agenda. Unfortunately, only limited resources have been provided for application of the law and the required reforms and most regional authorities, especially at canton level, still need to adjust their legislation.

### 3.2 INSTITUTIONAL DEVELOPMENT

Data from the interviews show noticeable progress in terms of overall commitment to the reform since the strategy was adopted in 2007. The Ministry of Civil Affairs has become very active in helping to coordinate and promote the reform process, despite having no decision-making role. However, the level of commitment is uneven in the cantons and depends very much on the personal dedication of ministry staff.

The Conference of Education Ministers, which meets on a regular basis, has not been so effective in the promotion of education policy reform, harmonisation of educational legislation, strategic plans for development of education, or harmonisation with European and international standards. Unfortunately, the vast majority of agreed conclusions and recommendations issued by the Ministry of Civil Affairs or the Conference of Education Ministers are not implemented in practice, for while the Conference of Education Ministers is a state-level decision-making body, it is the constituent

entity and canton authorities that are actually responsible for taking decisions on actions to be implemented at the local level. The conference has advocated the adoption or harmonisation of canton and entity laws with the Framework Law on VET and the establishment of VET Councils at state and local levels, but no concrete actions have percolated through to the local level. It currently takes an average of two to three years for conference decisions to translate into local actions.

The Agency for Pre-primary, Primary and Secondary Education is a relatively new state-level institution that has played an important role since it came into operation in early 2009; two years after the related law was passed in 2007. The headquarters are in Mostar, with a deputy director in charge of standards and assessment in Sarajevo and another deputy director in charge of the VET Department in Banja Luka. The agency staff is very committed but the limited number of employees is reflected in the pace of the activities. It is important for the agency, in particular the VET Department, to be fully staffed and operational prior to the implementation of VET 4 (planned for January 2011) in order to ensure full support, involvement and sustainability for the activities.

In Tuzla Canton, the Ministry of Education, Science, Culture and Sport is responsible for the development of the education system. In addition to the ministry, there is a canton pedagogical institute that provides professional assistance to the ministry and schools. Currently, there are 33 secondary schools in Tuzla Canton, including two technical schools, 22 mixed vocational schools and a further nine gymnasiums, artistic and religious schools.

The Ministry of Education, Science and Sport and the associated pedagogical institute are responsible for education in Herzegovina-Neretva Canton. The minister is directly responsible for both entities and there are two other staff members, one each for general secondary and VET.

In Republika Srpska, the Ministry of Education and Culture and the three dependencies (the department for secondary education, the pedagogical institute and the adult education institute) are responsible for education. The pedagogical institute is responsible for: development of curricula; evaluation of the implementation of curricula; pedagogical advice, instruction and supervision; analyses and research; professional development of teachers; monitoring and assessment of quality in education and external evaluation, publishing, etc. The secondary education department of the Republika Srpska Ministry of Education has currently filled seven of the planned nine posts for general secondary and VET.

Regular tracer studies to monitor graduate employment according to the level of qualification are not completed and assessment of how learning attainment is used in enterprises is rare. System efficiency has not been improved although changes in local labour market demands are partially reflected in the system.

Most of those interviewed reported satisfactory cooperation with the Agency for Pre-primary, Primary and Secondary Education VET Department and the Ministry of Civil Affairs in line with established procedures. Representatives of the Federal Ministry of Education stated that the pedagogical institutions are not strong enough to implement the teacher-training required. They also stressed that the agency VET Department needs further support in order to meet the demands of VET reform.

### **3.3 CLASSIFICATION OF OCCUPATIONS, STANDARDS AND CURRICULA**

Positive assessments were provided in visits to pilot schools and meetings with teachers and principals in these schools. Some reservations were expressed on acceptance of the modular approach to development of outcome-based curricula due to the lack of alignment between curriculum frameworks and certification and qualification requirements.

In the Federation of Bosnia and Herzegovina, all vocational schools not covered by pilots are teaching the traditional curricula of narrowly specialised occupational profiles following the old classification, while pilot schools in Bosnia and Herzegovina use the modular and outcome-based curricula. The education ministries have failed to expand the pilot curricula into the regular education system.

As a result, 25 schools are still following the curricula approved for 1994/95. Also, some of these schools are still implementing curricula developed in EU VET or GTZ programmes but the Ministry of Education can provide no precise data as some of the schools abandoned the EU VET programme curricula immediately after they received the equipment. The curricula developed by EU VET and the GTZ for 1994/95 differ from the traditional model in a number of subjects and on curriculum content. Concurrently, schools in some cantons are following curricula developed in Croatia in 1997/98, which differ again from those developed within EU VET and GTZ projects in terms of the number of subjects, content and the number of hours of practical training.

According to the Agency for Pre-primary, Primary and Secondary Education the new classification of occupations and curricula is not complemented by adequate review and evaluation mechanisms. This means the curricula for new

occupations have not been evaluated and some of the curricula for occupations developed 10 years ago have not yet been revised or updated. Furthermore, the legislation required for curriculum implementation is not fully developed – especially the class registers. Principals, teachers and trainers interviewed during the research process complained that the failure to complete administrative procedures caused problems in issuing certificates.

The main outcomes of VET reform directly related to curriculum development and teacher training to date can be summarised as:

- modular curricula for 79 occupations developed and implemented;
- modular curricula database created and stored on the agency VET Department webpage;
- 60 mentors trained;
- 3,000 pilot vocational school teachers trained in new pedagogy and curriculum implementation;
- school principals trained in school management;
- two members of VET Department staff trained on strategic objectives of the VET reform in January-March 2009;
- handbook for teachers of secondary VET developed and delivered to schools, the VET Department, pedagogical institutes and ministries in printed and electronic form;
- equipment for modular curricula worth EUR 3.92 million (EUR 3.82 million under EU VET and EUR 100,000 from the GTZ) delivered to 96 pilot schools (87 EU VET and 9 GTZ);
- guidelines for modular curriculum development delivered to schools, the VET Department, pedagogical institutes and ministries in printed and electronic forms.

In 2004/05 the Ministry of Education of Republika Srpska introduced the modular curriculum approach in the first grade of all vocational schools learning from the experience of EU VET pilot programmes. However, the implementation process for new modular curriculum approaches in all schools has raised a number of questions and problems regarding compatibility both with EU VET policy pilots and with curriculum reform elsewhere in Bosnia and Herzegovina. The modular curriculum approach used in Republika Srpska is an adaptation of the experience of EU VET pilot programmes. The current nomenclature and descriptions of vocational profiles do not agree with given standards and the competency descriptors must be adapted to reflect international trends. The nomenclature is in need of revision with the systematic involvement of social partners especially in view of the need to introduce new economically prioritised profiles.

The overall attitude of schools during the visits was very positive. They understood the need for reform and expressed support for further VET modernisation. However, a vast majority of those interviewed complained of a lack of guidance and marking criteria for student assessment and the need for common registries of students, certificates and diplomas.

In comparison with the Federation of Bosnia and Herzegovina, Republika Srpska is more consistent in the implementation of the new classification of occupations but some new occupational profiles (such as telecommunications technician and banking technician) are not listed in the classification.

The revised classification of occupations is in use in Tuzla Canton but some schools issue certificates and diplomas with occupation titles that do not match those defined in the classification. The Ministry of Education of Republika Srpska and Brcko District government, the GTZ and pilot vocational schools developed a new occupation of mechatronic engineer shortly after the adoption of the revised classification by all canton ministries, which is not, therefore, on the list.

Herzegovina-Neretva Canton has adopted the new classification composed of 13 families with a total of 100 occupations, but according to information from the VET Department, training for occupations not included in the new classification is also provided here.

Also some Herzegovina-Neretva Canton schools are using different curricula. Some of the schools rely on the Bosnian language curriculum of 1994/95, while others apply the Croatian language curriculum updated in early 1992. A further ten schools (nine EU VET and one GTZ) follow curricula developed within VET and GTZ projects.

### **3.4 MANAGEMENT AND ADMINISTRATION IN VOCATIONAL EDUCATION AND TRAINING**

At present, very few initiatives are actively being implemented to meet the needs of the local labour market and communities in the VET network. The VET 2 and VET 3 projects supported the formation of the Advisory Council for VET at several levels and two documents have been adopted but not implemented at the lower levels: the rulebook for establishing and organising the vocational school network and a document on registration rules and procedures for the vocational schools' association. These documents regulate many issues of importance in efforts to establish professional cooperation and promote the exchange of experiences that can be used to reach agreement on curricula, teaching methods and other activities related to improving the teaching process and supporting the common interest of schools.

The action plan of the VET Development Strategy 2007–13 recognised rationalisation of the number of vocational schools as a priority for 2010, but the issue is still pending because the local education authorities have not officially adopted the strategy.

Information on rationalisation of the school network collected in the field suggests there are several motives for resistance to rationalisation in the existing school network that range from the lack of political will, through resistance in local communities to problems with existing school staff.

In 2010, the Federal Ministry of Education and Science that represents canton ministries of education initiated work on a network of secondary schools. This network aimed to rationalise the training offer in accordance with needs and to reduce the offer of profiles in fields with high levels of unemployment. Supply-driven methods combined with low levels of school autonomy provide little incentive for local creativity and initiatives for change. Most of school budgets are spent on salaries with no investment in infrastructure, buildings or educational materials.

In Republika Srpska, VET system management is characterised by:

- highly centralised decision-making with little room for innovation and creativity in human and material resource allocation;
- training offer not driven by the market economy;
- outdated equipment in most schools except for that donated by EU programmes;
- traditional teaching methods and limited management skills;
- a lack of external evaluation and quality assessment.

All vocational schools here are administered by the school boards and managed by school principals. The school board has the status and competences of an administrative body while the school principal has managing authority. Political parties continue to exercise influence in the election of school principals.

Another general point is that all administrative units at entity, canton and municipal levels have insufficient capacity and weak governance structures where just one or two canton-dependent employees are responsible for administration of education, including VET. The system is further hampered by the complex constitutional set-up and multiple layers of government, meaning there is heavy reliance on coordination capacities that are not currently in place. At the moment, none of the peripheral government structures receive adequate support from the fragmented central structures and the system, such as it is, consists of fairly independent units with little coordination.

Current functions are largely limited to the technical level, encompassing logistical management in preparation for government sessions and some limited capacity to assess the legal conformity of draft legal acts. Capacity for strategic planning, policy coordination and monitoring is very limited at all government levels.

Links and coordination across levels of government throughout the country are also limited, although formal requirements are being established. For instance, in the Federation of Bosnia and Herzegovina the government has only weak capacity to coordinate policy issues with its cantons even in those areas of shared and joint responsibility envisaged under the constitution. At ministry level, there is insufficient recognition of the importance of policy preparation and most ministries tend to proceed directly with the drafting of legislation, without sufficient prior analysis. This lack of impact assessment often results in shortcomings regarding the subsequent successful implementation of legislation and the objectives of public policies often remain unachieved. Another undesired effect is the potential for excessive legal regulation, which represents a real burden on society. Some improvements have been made in this direction at state level, where policy leadership and administrative skills have been improved in the Education Department of the Ministry of Civil Affairs and the Agency for Pre-primary, Primary and Secondary Education VET Department.

In general, there is a shortage of professionals with modern educational leadership skills (policy development, legislative and regulatory work, performance evaluation, resource management, organisation of transparent and accurate information systems) and good professional managers in public administration. These issues have been addressed through various donor-funded projects that have failed to bring about any systematic solution largely due to a widespread conservative mentality in public administration where there is strong resistance to change.

The establishment of VET Councils as advisory bodies in schools as planned in the Framework Law on VET is a crucial step in enabling labour market stakeholders to influence school policy and introduce positive impact. One particular vocational school in Tesanj (Ze-Do Canton, Federation of Bosnia and Herzegovina) has taken the first steps in forming a local advisory council and developing collaboration with social partners. This initiative currently offers enterprise-based practice for students, the delivery of education services to employed workers and the joint development of adult education to meet the needs of local enterprises.

### 3.5 TEACHER TRAINING

According to current legislation in Bosnia and Herzegovina, teachers holding positions in vocational schools are grouped into two main categories: teachers assigned to positions of general education subjects; and those assigned to positions in professional subjects (teachers and experienced assistants).

It seems that teacher training was, and still is to a certain extent, a considerably neglected component of VET reform in the country, particularly in relation to the education of VET teachers. National policies and international programmes currently focus on this second area as a top priority.

The Ministry of Education and the pedagogical institutes are responsible for provision of continuous training for teachers, but the feedback received during field visits reports capacities that cannot meet the requirements. In the Teslic school, there were complaints that the pedagogical institute in Republika Srpska was unable to respond to needs and alternative suppliers had to be sought. Assistance provided by the EU and other donors is very influential on this front.

One of the interviewees stressed that more attention must be given to improving the learning environment and learning process, where teachers must change from their traditional role of transmitters of knowledge and skills to become organisers of the learning processes. There is urgent need for review of the relative contribution of classroom and workplace input in the acquisition of vocational competences. During the research for this report the ministries were unable to identify any planning and strategic documents related to the introduction of innovative and interactive teaching methods in secondary education, demonstrating a complete lack of commitment to this issue and a failure in their duty to attend to it.

Under the current legal framework, pedagogical institutes are responsible for teacher training but the institutes are in a difficult position. Interviews conducted during the research phase revealed that the workload of institutes is excessive to the point that they can no longer fulfil even the basic functions of supporting schools to develop teacher competence and counselling, and supervision of teacher monitoring and performance management. The institutes are short-staffed and do not even have professional advisors available for every school subject. This means seminars and workshops are only organised for a reduced range of subjects, while teachers of other disciplines rarely get the opportunity for any training. The Education Development Strategy for Bosnia and Herzegovina confirms that pedagogical institutes are responsible for a wide range of tasks including: curriculum development, the introduction of new approaches and methods in the educational process, conducting teacher training, supervision and evaluation of teachers and schools, and many others. The work plans of most pedagogical institutes are dominated by supervisory work, while support for the development of quality in education is not a top priority. As the functions of the institutes are not clearly defined, they often overlap with the functions of education ministries.

There is an urgent need not only for thorough reform of pre-service teacher training but also for intensive in-service training. Bosnia and Herzegovina has a range of political, structural, administrative, organisational and educational peculiarities that mean the issue of teacher training must be approached differently from how it is tackled in other countries.

In Republika Srpska, teacher training is delivered by universities and other higher education institutes and it is based on a curriculum that is not sufficiently geared towards future work as a teacher. The training includes no cooperation with local companies, does not consider the needs of the modern labour process or coverage of modern learning processes. Even though most teachers have attended introductory courses on new methods of classroom organisation, consultant advice is still needed.

### 3.6 ADULT EDUCATION

In Bosnia and Herzegovina institutions are still working on the adoption of a strategy for adult education in the context of lifelong learning with the assistance of the international community. Vocational secondary schools continue to carry the main responsibility for adult education. Issues such as the accreditation of institutions engaged in the training and education of adults and their certification remain key problems for entities offering training such as NGOs, regional development agencies and private training providers. Vocational schools organise training for adults mostly in the form of formal education programmes for those who did not finish regular school and who want to increase their employment opportunities by acquiring qualifications and certificates. Training for adults takes place on the basis of the same curricula and methodology used in regular education in vocational schools. Hence, adult education does exist but it is not viewed as a separate education element within the institutions. While there are many education programmes and projects for adults in practice, the sector is not governed by any mutually defined standards and principles or legal regulations. This kind of education is usually funded by participants with occasional special cases of funding by companies or employment agencies.

Very few teachers in the public system have experience in supporting diversified learning requirements. Most schools have limited numbers of teachers with sufficient technical background and many lack sufficient equipment for teaching technical skills. Cooperation with private companies is also at a very low level.

Certification also presents a range of challenges as systems must be put in place to certify qualifications at a recognised level. Certificates must be issued by a recognised body on the basis of an assessment system that involves internal testing of the competences needed for the qualifications.

Institutions and providers must be given accreditation and the professional and pedagogical competences of trainers must be guaranteed. The entire system must be monitored and clear criteria defined in the selection of monitors, their level of qualification, the monitoring methods to be applied and final evaluations.

In Republika Srpska the June 2008 Law on Adult Education regulated the organisation, structure and management of the adult education system and lifelong learning. Funding for adult education is provided from Republika Srpska budget, local government budgets, directly from students, employers and other sources dependent on the interest of particular educational programmes.

Adult education in Herzegovina-Neretva Canton is regulated by a special rulebook that forms part of the Law on Secondary Education. Adult education in schools is based on part-time study programmes and pre-qualification. Pre-qualification is organised in one-year courses for other occupations at the same (three-year) level and two-year courses for pre-qualification from the three-year to the four-year level. One-year specialisation programmes (e.g. catering specialists) are organised for levels formerly known as highly-qualified workers.

Adult education in Tuzla Canton is regulated by the Law on Secondary Education. Although a new classification of occupations and new modular curricula exist, some schools still use the old curricula for adult education and training. The director of the Civil Engineering School in Tuzla stated that the school still applies the old curricula due to the lack of defined procedures on the education and examination of adults. Experience from the Tuzla Canton proves that timely educational reform has provided a solid base for further development but that, unfortunately, not all the possibilities for improvement were fully exploited.

Initiatives for the development of adult education in Bosnia and Herzegovina cannot be implemented exclusively by the donor community on the basis of positive experiences from other countries as they need to incorporate local understanding, ownership and willingness.

Initiatives cannot adequately be provided by the supply side either. Individuals in the world of education tend to overestimate the importance of their input with no clear vision of the output, particularly in terms of the knowledge and skills really required by the labour market. The active involvement of social partners, especially employers, is also essential, with clearer definition of the role they can play through direct participation in the promotion of lifelong learning in a modern education system.

It is equally important to remember the individual and social role of adult education provision. According to the latest data available from the Ministry of Education and Culture, 8.7% of Republika Srpska citizens did not complete primary school, 34.9% only completed primary school, 49.7% completed secondary school, 5.1% completed higher education and 4.3% have a post-graduate degree.

The leader of the Republika Srpska secondary education department pointed out that the main objective of the Adult Education Law of June 2009 is the retraining and education of people in keeping with the needs of the Republika Srpska labour market. According to this law, adult education programmes will cover people over the age of 15 who have not completed primary school and those over the age of 18 who didn't complete primary education. Training programmes for pre-qualification and additional skills will last up to six months.

## 3.7 SUMMARY

The research findings can be summarised as follows.

### Legislation

Overall implementation of legislation was seen to be partial due largely to the lack of harmonisation of entity, canton and Brcko District laws with the Framework Law on VET and the failure to adopt the Framework Law on Adult Education.

In Republika Srpska and Brcko District so far, only two of the ten cantons (Zenica-Doboj and Sarajevo) have come into line with the Framework Law on VET while the remaining cantons in the Federation of Bosnia and Herzegovina are

operating under laws enacted in 2000, 2001 and 2004, last amended in 2008. Harmonisation is not expected before mid-2011 in most cantons. In adult education, Republika Srpska has adopted its own law, establishing and operating the Institute for Adult Education to undertake specific activities in this field in 2009.

## **Institutional development**

Institutional development was fulfilled by the establishment of the Agency for Pre-primary, Primary and Secondary Education (Law enacted in 2007 and agency operational in 2009). Staff recruitment in accordance with the establishment plan is still on-going at the time of writing this report. A further strategy objective related to transformation of the pedagogical institutes from administrative organisations into professional institutions and the establishment of the Adult Education Department within the Agency for Pre-primary, Primary and Secondary Education are still pending political and legal decisions.

## **Classification of occupations, standards and curricula**

The classification of occupations, standards and curricula and the Baseline Qualifications Framework were the third priority. In 2004, the Council of Ministers of Bosnia and Herzegovina adopted a new classification of occupations composed of 13 sections with a total of 100 occupations. This classification is mostly viewed as an abstract formality in the Federation of Bosnia and Herzegovina because vocational schools in practice offer training for occupational profiles outside this classification. In Republika Srpska the new classification is in widespread use with additional occupations, such as bank technician.

The Baseline Qualifications Framework for Bosnia and Herzegovina is in the hands of a working group established and coordinated by the Ministry of Civil Affairs in 2010 to develop a concept note to be adopted by the Conference of Education Ministers and the Council of Ministers. The concept note has now been finalised and should be approved in spring 2011.

No common institutional agreement has yet been reached on the new occupational standards, as no unified catalogue of qualifications or curricula has yet been produced on the basis of the new classification of occupations. The education system suffers from fragmentation, with unbalanced quality criteria across the country. Over the last 12 years, modernised curricula based on learning outcomes were introduced through EU-supported VET projects, but the lack of monitoring mechanisms means there is no evidence-based system to evaluate implementation. Field visits revealed that some schools at both levels have abandoned implementation of curricula based on the EU VET methodology. There are considerable differences between the curricula developed by VET programmes and curricula used in other areas, such as the modular curricula developed by the Ministry of Education of Republika Srpska, in a number of subjects.

This lack of consistency led school teachers, trainers and school principals to claim they had abandoned VET programme reform in order to concentrate on other priorities. In actual fact, the true motivation for the suspension of change is that the reduction of subjects under the revised VET projects would have meant some teachers losing their jobs as a consequence of reduced class hours. Furthermore, once the VET programmes have completed the pilot phase, no one is in a position to force the school to continue with implementation.

## **Management and administration in VET**

No progress has been made on management and administration in VET. The VET Advisory Council was not established and no efforts were made to harmonise management and administration procedures such as: guidelines on assessment procedures, the issuing of diplomas and certificates, and class registers for evaluation of curricula. Many policy documents and strategies were produced during the implementation of EU-financed projects on input almost exclusively from the technical assistance teams, with the role of local authorities limited to formal endorsement of the strategies. All action came to a halt as soon as the technical assistance teams left the country. Most of the activities are project-driven and lacked any real local ownership and commitment to reform. The process was re-started from scratch for each project with the appointment of new members for steering committees and working groups that did not build on the experience of previous projects.

## **Teacher training**

Teacher training has been partially successful. Approximately 60 mentors and over 3,000 teachers have been trained in the implementation of modular curricula and new teaching methods. However, those interviewed during the research process pointed out that teacher training has also been mainly project-driven rather than systematically implemented. The offer has thus not been integrated into the regular offer of pedagogical institutes and no alternative system has

been developed for the dissemination of training through a network of teacher trainers. As a result these teacher-training activities have not achieved sustainability and the efforts have mainly contributed to individual professional development with no systemic effect. Also, the pedagogical institutes encounter many limitations in approaching tasks related to VET reform despite teacher training being one of their main institutional responsibilities with the organisation of regular teacher-training activities throughout the year.

## Adult education

Adult education is being stalled by delays in adoption of the Framework Law. However, some initial steps have been undertaken in Republika Srpska where the Law on Adult Education has been adopted and an Institute for Adult Education is now established.

The VET Department of the Agency of Pre-School, Primary and Secondary Education is supposed to have a database of adult education providers and a commission for qualifications in accordance with the catalogue of occupations, but these are not yet in place.

Employers are reluctant to accept vocational schools as service providers due to the questionable quality of provision and most companies do not value formal diplomas, preferring to give priority to real training outcomes in terms of acquired knowledge, skills and competences.

## EU projects

The research undertaken for this report in the local regions aimed to address VET within a local context and to assess the potential need for rationalisation of the system in order to ensure efficiency and effectiveness. Analysis was based on local VET offer, employment demand, local economic development perspectives and demographic trends, amongst other factors.

Between 1996 and 2007, 17 projects in the field of education, training and employment were financed and implemented within the framework of various EU financial instruments: Obnova, Phare, CARDS and IPA. A total of EUR 20,826,576 in aid was allocated to the education sector for VET, general education reform, strengthening of higher education, promotion of active employment measures and the promotion of social dialogue, amongst others.

The most significant results from the EU projects between 1998 and 2009 were:

- new modular curricula in 96 pilot schools out of the 206 vocational schools (46%) in Bosnia and Herzegovina – 8,500 of the 122,000 students (7%) attend EU VET programmes<sup>1</sup>;
- new nomenclature of occupational profiles – 100 occupational profiles in 13 families implemented from 2004 in Republika Srpska and from March 2006 in the Federation of Bosnia and Herzegovina;
- 79 profiles developed out of the 100 profiles for modular curricula;
- training completed for 60 mentors and over 3,000 teachers in the application of modular curricula and new teaching methods;
- database for VET established, combining data on students, teachers and curricula, on the VET Department web page and Vocational Education and Training Information System (VETIS).

## 4. CONSTRAINTS TO THE REFORM

The following issues can be identified as constraints to the reform.

### 4.1 EQUIPMENT

Educational reform has so far included the provision of appropriate equipment for around 96 pilot schools, out of the total 206 vocational schools in Bosnia and Herzegovina. All the pilot schools were offered equipment for new occupations to be implemented under both EU and GTZ-financed projects. However, the equipment supplied was not sufficient for complete and full implementation of the curricula in the pilot schools as the new curricula had not been fully developed before the equipment was supplied. As a result, the two processes occurred in parallel leaving some gaps in provision. However, the new equipment does meet most of the general professional demands.

Also, only those schools involved in pilot schemes received new equipment, meaning that the quality of education in vocational schools now varies significantly. Unfortunately, only a few schools took up this opportunity and made full use of the chance to organise income-generating activities. According to the data collected for this report, schools in Herzegovina-Neretva Canton are not in a position to update their equipment on a regular basis although 36 schools received the necessary equipment through the EU VET 3 programme. Information from the field supports these findings and suggests that much of the funding for practical training is spent on administration, leaving a shortage of funds for vocational school equipment.

### 4.2 SCHOOL AUTONOMY

Understanding of the term 'school autonomy' varied amongst participants in the reform process. Some participants understood the term to cover only financial autonomy with no increased responsibility for management, student success, etc.

Those interviewed in Herzegovina-Neretva Canton stated that central collection of income generated by schools through the treasury limits innovations to VET as the complex administrative process provides no opportunities for financial incentives and upgrading of equipment.

Under this centralised system, schools must obtain approval from the pedagogical institutes and education ministries for each activity they wish to undertake. The funds obtained through income-generating activities are treated in a similarly complex manner: in Herzegovina-Neretva Canton, 35% of funds obtained through income-generating activities are deposited in the central budget while the remaining 65% are used to pay teachers and taxes leaving very little if anything for investment in school infrastructure or equipment.

Schools in Republika Srpska also have limited interest in commercial activities because of the centralised financial system. They send funding proposals and requests for equipment, building maintenance and teacher training to the local municipality when there is any money left in the budget. A good example of the negative impact of the treasury system can be seen with the agricultural school that made EUR 156,000 from income-generating activities only to see the entire amount blocked within the system where they were unable to access it. The situation in poorer municipalities is likely to be far worse and the income-generation through commercial activities would be practically impossible.

Many of those interviewed were concerned about the impact of the existing treasury system which they viewed as an obstacle to innovation as it provides no opportunities for financial rewards or the purchase of new equipment. Most respondents stated that schools are not opened up sufficiently to the labour market precisely because of these limitations.

### 4.3 ENROLMENT POLICY

The Federal Employment Institute collects information and data on labour market needs on a quarterly basis and the findings are distributed to all of the education ministries, pedagogical institutes and schools, etc. Unfortunately, current enrolment policy depends more on the existing school network, the teachers and equipment available than on labour market designs. Enrolment plans are generally produced at the school level, but the final endorsement of enrolment policy occurs at a higher level.

In Tuzla Canton, decisions are made by the canton minister while ministries and schools are the main stakeholders in enrolment policy in Herzegovina-Neretva Canton with some participation from social partners. In some communities, local labour market analyses are prepared but pupils are still enrolled in accordance with existing resources, school premises, teachers and the traditional occupational profile of the region, irrespective of any real employment potential.

Some attempts have been made to improve enrolment policy and cooperation with social partners in Republika Srpska where trade unions, the Chamber of Commerce, the Small and Medium Enterprise Agency and Employment Services have been involved in enrolment policy-making alongside the Ministry of Education and Culture, the Ministry of Labour, the Ministry of Health and Social Welfare, the Ministry of Energy, the Ministry of Agriculture and the Ministry of Tourism and Trade.

In communities such as Derventa, local labour market analyses are prepared but students are not necessarily enrolled in those occupations that are in greatest demand in the labour market. The Derventa vocational school for shoe-making has trouble enrolling students in three-year VET education even though a local employer has offered scholarship and employment after graduation. Similar situations occur in other communities in Republika Srpska, where schools have insufficient demand for enrolment in three-year programmes such as upholsterer–decorator, welder, cook, stonemason, tiler, carpenter and painter.

The GTZ, in cooperation with the Ministry of Education and Culture and employment bureaus of Republika Srpska, has produced a career guide for pupils in the final year of primary school. The Federation of Bosnia and Herzegovina recently published new career guidance documents in cooperation with Republika Srpska and employment agencies. However, there is still little experience of this type of measure and for the time being enrolment policy is not adequately in tune with labour market needs meaning that schools and the ministry approve enrolment in professions that are oversupplied.

## 4.4 APPRENTICESHIP SCHEMES

Most interviewees reported inadequate organisation of apprenticeships in Bosnia and Herzegovina. Some positive examples can be identified but, in their opinion, these are heavily dependent on the interests of employers.

Schools often have partners for practical training and some interviewees stated that the organisation of practical training is mainly dependent on school managers. There are currently no incentives for companies to provide practical training and apprenticeship schemes and vocational schools therefore face difficulties in providing good quality education for students.

In Republika Srpska, there is insufficient apprenticeship in local companies coupled with poor communication between schools and employers and a lack of government incentives encouraging employers to provide apprenticeships in their companies. One employer in the catering sector said there had been an attempt to organise practical training for cooks, waiters, tourism technicians and receptionists in their hotel, but that the students were not interested in this type of work as they considered it too demanding in terms of number of hours, quality and commitment.

During the field visits, one school principal mentioned that there is no legal obligation for companies to organise apprenticeships. Practical training is mainly organised in schools but is inadequate because of the lack of equipment and poor professional development of teachers.

## 4.5 ENTREPRENEURSHIP

The current situation on the promotion of entrepreneurial learning includes many good and successful initiatives at national, regional and local levels but lacks any comprehensive plan for the thorough and coordinated implementation of entrepreneurship in education.

Some pioneering steps have already been taken to introduce entrepreneurship in secondary schools in Bosnia and Herzegovina and entrepreneurial studies are a compulsory subject in secondary schools following the Croatian curriculum in the Federation of Bosnia and Herzegovina. A subject entitled 'the basics of entrepreneurship' was introduced in all secondary schools in Republika Srpska from 2004/05 and entrepreneurship is a compulsory subject in the secondary school economics pathway in Brcko District.

The Norwegian government has financed entrepreneurial training in a number of secondary schools, but is now more determined to focus on economically sustainable efforts and job creation. The Ministry of Foreign Affairs<sup>2</sup>, NORAD and

<sup>2</sup> The Ministry of Foreign Affairs is one of the main founders of the International Finance Corporation (IFC) initiative Private Enterprise Partnership Southeast Europe (formerly Southeast Europe Enterprise Development (SEED)).

Norfund have together supported important initiatives by multilateral organisations, NGOs and private companies aimed at improving the business climate through institution-building, trade and private investments.

The Open Society Fund<sup>3</sup> has also sponsored a pilot entrepreneurial training programme in secondary schools introducing new entrepreneurial thinking and business awareness to the next generation of employees. Programme participants include students, teachers, entrepreneurs and members of the local community. The programme design involves the students and their teachers going through the entire life cycle of an enterprise (development of business idea, preparation of business plan, registration and organisation of the enterprise, fundraising, bookkeeping and liquidation), learning how to deal with the problems, obstacles and successes they will have to face.

An EU-financed project on entrepreneurial learning is under implementation with a strong focus on encouraging entrepreneurial spirit within primary and secondary education (gymnasium and vocational schools). The objective of the project is to develop a cross-curricular approach that can be introduced at all levels and into most subjects without the need for additional modules or changes in curriculum law. The project also aims to design an entrepreneurial learning policy.

A Youth Entrepreneurship Programme was run by the Business Innovation Programme (BIP), Norwegian non-profit organisation. This entrepreneurship project aimed to achieve curriculum development and instructor training but there was no coordination between the project and the world of education. BIP Norway supported the development of student enterprise activities in vocational schools in Bosnia and Herzegovina and the project is still running. In 2003 and 2004, student enterprise modules were developed and teacher training was provided alongside several student enterprise fairs to promote positive enterprise activities among VET students.

Although this never became a formal part of the education system, a great deal of interest was expressed by individuals and private organisations or companies, which can be read as a positive indicator in the field of entrepreneurial education, training and consultancy.

The entrepreneurial learning provided is mainly targeted on basic notions of how to set up and run a business. In Republika Srpska, vocational schools include a module on business start-up in the delivery of these modules whereas provision in the Federation of Bosnia and Herzegovina is not so systemic. BIP has done some good work with pilot schools in stimulating interest in business start-ups. The EcoNet Austria project is also working with pilot schools where they establish virtual businesses and have annual exhibitions that stimulate a lot of interest. This project will run until 2012.

Unfortunately, the lack of systematic approach means the results achieved have been isolated and uncoordinated and have since become unsustainable. It is now necessary for the government to take an active position on entrepreneurial education at all administrative levels.

## 4.6 CURRICULUM EVALUATION

There is no common evaluation of existing curricula or their relevance to the labour market. The Agency for Pre-primary, Primary and Secondary Education of Bosnia and Herzegovina is currently looking into implementation of modular curricula in the country within the perspective of assessing the impact of reform. The upcoming EU VET 4 programme should consolidate the outcomes of the previous programmes.

There has been no analysis of the effectiveness and efficiency of the modular approach or of the revised curricula implemented following the 1998 reform in either the Federation of Bosnia and Herzegovina or Republika Srpska.

Some schools in Republika Srpska abandoned the implementation of the EU VET curriculum immediately after the completion of VET projects. There were also problems with elements such as pedagogical documentation and guidelines and the new rules on assessment.

In Republika Srpska, the GTZ recently evaluated those curricula they had developed in the following occupational families: electrical engineering, wood processing, mechanical engineering and metalworking. The GTZ stated that the Ministry of Education and Culture of Republika Srpska is planning to start evaluation of the relevance, impact and delivery of the remaining curricula. The principal of the agricultural school in Banja Luka reported that his school is still working to implement curricula developed under the Phare programme, but while some training has been provided, this has not yet been deep and broad enough to secure any comprehensive impact on the system. The guidelines for curriculum development need review and modernisation to reflect the progress of the last ten years.

---

3 See [www.soros.org.ba](http://www.soros.org.ba).

## 4.7 LINKS WITH THE LABOUR MARKET

In Herzegovina-Neretva Canton, schools try to monitor the labour market through occasional meetings with Employment Offices, Chambers of Commerce, and Chamber of Trades and Crafts but enrolment policy is not modified accordingly. Some positive examples are available, such as the schools in Jablanica and Konjic that opened new courses for stonemasons and carpenters on the basis of labour market demands.

The biggest constraint for VET in general is the current situation on the labour market and the lack of opportunities for social partners and stakeholders to set up real connections with VET. An employer association in Republika Srpska, a trade union and individual employers interviewed for this research suggested the government shows little interest in formal involvement of entities like themselves in matching VET demand and supply sides. These factors, coupled with the Law on VET in Republika Srpska, mean there is an urgent need for a tripartite advisory council to play a guiding role as foreseen in the Framework Law on VET. According to the law, the Ministry of Education is responsible for coordinating these activities and enabling meetings of this council at least once a year.

On the whole, links are lacking and communication between schools and local companies in Republika Srpska is weak but VET advisory councils are sought throughout Bosnia and Herzegovina under the Framework Law even though there is little evidence of them being established and less feedback on their effectiveness. Contacts are mainly based on personal relationships between school principals and companies with cooperation more effective in the case of public companies. One of the employers interviewed mentioned that schools must change their focus and approach and become more market-oriented, flexible and responsive to local and regional needs in order to be considered relevant partners by private employers. The agricultural school in Banja Luka has very good cooperation with employers, not just in Republika Srpska but in other parts of the country, where they work together on fitting curriculum design to the needs of employers.

## 4.8 TEACHER TRAINING

The Ministry of Education and the pedagogical institutes provide regular in-service training for teachers, but there are problems with resources, quality, motivation, organisation and other issues. According to a representative from the Federal Ministry of Education, teacher training has not been systematically structured and trainers lack professional knowledge and experience.

All nine pedagogical institutes responsible for professional teacher training are struggling with the issue of limited human resources. The pedagogical institute in Bosnia Podrinje Canton has been running with only one employee-director for the last 12 years and although formally in existence, teachers in this canton are offered no seminars or in-service training on professional advancement or interactive teaching methods. Local teachers therefore apply for training in other cantons, making education and training more expensive.

The advantages of modern teaching methods over traditional techniques are well known in higher education, but secondary school teachers in Bosnia and Herzegovina rarely receive adequate training in modern pedagogical methods and are unable to reproduce such techniques. 'For years, teachers were taught this model on the basis of only symbolic knowledge of group work and interactive teaching methods and this is the effect.'

The low quality of theoretical teaching at university level in Bosnia and Herzegovina is accentuated by insufficient practical training for all students in terms of school visits and teaching practices. 'Practical work in faculties is generally very poor – in some places it does not even exist. Instead of universities being sources of good teachers, the incompetence of new teachers sometimes presents problems for school management.'

An additional problem for secondary schools is that many teachers of technical or specific disciplines come directly from non-teaching faculties into service in secondary vocational schools with no adequate preparation for professional teaching. Graduates of non-teaching departments (e.g., biology) wanting to teach in their field after graduation are required to pass a set of educational courses but these exams are usually a formality and the courses rarely provide quality teaching skills. New teachers therefore arrive unprepared to face students and unable to use modern teaching techniques.

The inadequate professional development of established teachers does little to improve the situation and information provided by a series of strategies and documents developed in Bosnia and Herzegovina in the last decade clearly underline a complex situation. Analysis of the strategic directions of education development from 2008 to 2015 shows a lack of standardised teacher training where teachers '...are not systemically licensed as professionals in their field, nor are there financial and other instruments to stimulate improvement of their quality of work based on competition'.

While there has been an attempt to introduce the licensing of teachers as a condition for career progression in Republika Srpska, the professional development situation in the rest of the country has remained unchanged for years.

## 4.9 RATIONALISATION OF THE SCHOOL NETWORK AT LOCAL LEVEL

Rationalisation of the school network is mainly a political issue. All the people interviewed for this report stated that none of the regions will be capable of developing their own plans and implementing them without a common state strategy on rationalisation of the school network.

Tuzla Canton has 33 secondary schools and offers agricultural and food-processing occupations in Tuzla, Kalesija, Sapna, Celic and Zivinice. None of the schools is well equipped or capable of providing good quality practical training either within the schools or in cooperation with local companies.

There has been little progress on rationalisation of the school network in Herzegovina-Neretva Canton either. Within the city of Mostar, which represents a fairly small percentage of the labour market in Bosnia and Herzegovina, there are two economic, medical, mechanical, transport, electrical-technical, construction and tourism schools. Some of the schools do not even fulfil the basic pedagogical standards required, which means that the education quality is questionable and that graduates face difficulties in inserting jobs.

Republika Srpska also has problems with the rationalisation of school networks within its current stock of 88 secondary schools including grammar and vocational schools. The head of secondary education in the Ministry of Education of Republika Srpska reported continuous work on the issue being hampered by teachers and trade unions. Many schools duplicate programmes, especially those operating in inter-entity situation.

No methodology has been established for rationalisation of the vocational school network and implementation is therefore a distant prospect.

There is no VET information system to collect and publish data on enrolment, graduation and drop-outs and the lack of information forms a serious constraint in the adoption and implementation of system rationalisation. This problem is directly linked to the general lack of an education information system at country level. A suitable system could be developed and managed by the Agency of Pre-School, Primary and Secondary Education VET Department with the provision of sufficient resources.

## 4.10 ADULT EDUCATION AND TRAINING

In answering the research questionnaire interviewees cited the following problems with adult education.

- Links between the training modules and the qualifications provided need clarification.
- Non-formal and informal education issues need clarification.
- Certification does not reflect subjects, modules and hours of learning.
- Teacher training is inadequate.
- Social partner relations are ineffective.
- Modern equipment is in short supply (the equipment available is considered of poor quality and inadequate, especially in the laboratories and workshops used for vocational subjects).

The agricultural school in Banja Luka was prepared to organise some adult education programmes (HACCP certificate) in cooperation with the agriculture faculty but they received complaints of slowness and rigidity in following up labour market demands from the Institute for Adult Education. One employer complained that adult education programmes organised within education institutions are too long but that those organised within companies are shorter and more effective but less attractive to employees because they do not lead to formal recognition and qualifications.

Most of the existing programmes were implemented in schools without the involvement of social partners in curriculum design. The practical training is often based on the use of outdated equipment making it irrelevant for employers. Also, companies are given no incentives to become involved in adult education and training by the government.

The Republika Srpska Employment Office has completed regular labour market analyses to identify training needs in all sectors since 2006 but the methodology is focused on professions rather than the skills, knowledge and competences needed. All of the institutions visited during the field mission were quite negative about adult education, underlining: lack of motivation of companies and individuals, quality of adult education providers, lack of resources/subsidies, low mobility of workers and limited employability.

Despite the obvious limitations, there are some positive examples in Banja Luka, such as continuing vocational training for welders and CNC operators, information technology (IT) training and language provision.

The Tuzla Canton and Brcko District Employment Services collect data on labour market trends. The data are provided to schools, ministries and other relevant institutions but the information is rarely used by schools when planning enrolment policy.

Some schools, such as the civil engineering and electrical-technical schools in Tuzla, have good cooperation with local companies when planning enrolment and providing practical training for students. One particularly good example is the Civil Engineering School where local companies provided 20 scholarships for students.

In addition to formal education, schools provide short training courses for adults, usually in cooperation with local companies.

In Herzegovina-Neretva Canton there are several examples of good practice in cooperation between vocational schools and employers that have produced new courses and curricula based on labour market requirements. In Jablanica and Konjic High Schools, two new courses were opened for the professions of stonemason and carpenter in 2010. The Jablanica stonemason course was established following requests from local employers who went on to provide stipends for pupils. The school responded to the request by developing the curricula and the pedagogical institute and Ministry of Education provided the required approvals.

Another example of good practice can be seen in the Association for Entrepreneurship and Business LINK in Mostar, a project that has coordinated vocational schools, the Dzemal Bijedic Mostar University, the Welding Institute and employers in the preparation of training programmes that have led to the employment of 138 people.

Regional development agencies are working on projects in accordance with changes in the regions, as part of their remit. The Herzegovina Regional Development Agency has initiated a significant number of agricultural and tourism projects including plans for training and pre-qualification.

# 5. LOCAL CONTEXT

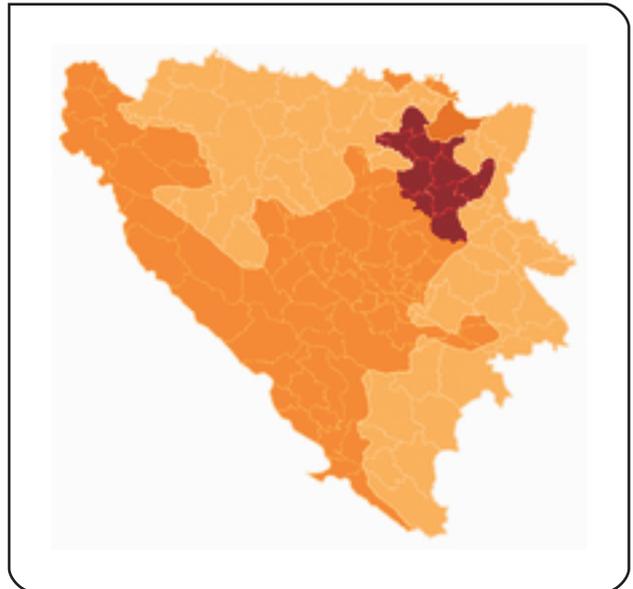
In order to assess the efficiency and effectiveness of the VET system in a more contextualised manner, three separate localities have been selected for closer analysis, namely Tuzla Canton, Herzegovina-Neretva Canton and Republika Srpska.

## 5.1 TUZLA CANTON

### 5.1.1 Economic development

In Bosnia and Herzegovina the private sector is growing and foreign investment is increasing at a very slow pace. According to the British Council, the gross domestic product (GDP) per capita was approximately USD 5,500 in 2007. Government spending was at 40% of GDP and only 6% of the GDP was allocated to education. The largest macroeconomic problems are high unemployment (40%) and a large national deficit.

The Tuzla Canton economy benefits from coal, salt and oil deposits. The hydroelectric plant in Tuzla is the largest in the country and provides most of the energy needed at national level. Recent developments have taken place in the IT sector and tourism.



### 5.1.2 Employment and unemployment

According to the Tuzla Canton Employment Service, at the end of June 2010, there were 81,882 people registered as employed: 61,718 people (75.37%) in the registered economy and 20,164 people (24.63%) in the non-registered economy.

In June 2010, there was a significant decrease in job offers on the previous month announced by the employment service.

The Tuzla Canton registered the highest unemployment rate of Bosnia and Herzegovina, with 89,610 registered unemployed at the end of May/beginning of June 2010. Qualified people represented 34.73% or 31,122 individuals and unqualified people represented 34.95% or 31,317 individuals. Women made up the largest unemployed group at 45,692 individuals. The largest shares of the registered unemployed consisted of unqualified workers (34.95%), qualified workers (34.73%) and workers with completed secondary education (23.64%).

The employment service states that people with training for sales or as mechanical technician, car mechanic, locksmith, economic technician, cook or joiner are the most frequently unemployed.

**TABLE 5.1 EMPLOYMENT BY ACTIVITY IN TUZLA CANTON**

Activity	Average*		Index
	2009	II 2010	II 2010/ 2009
A Agriculture, hunting and forestry	1,236	1,204	97.4
C Mining	8,002	7,970	99.6
D Manufacturing	18,426	18,161	98.6
E Electricity, gas and water supply	2,720	2,682	98.6
F Construction	5,503	4,840	88.0
G Trade	13,900	13,815	99.4
H Catering	2,670	2,679	100.3
I Transport, storage and communication	5,832	5,805	99.5
J Financial intermediation	1,202	1,338	111.3
K Real estate, renting and business services	2,225	2,293	103.1
L Public administration and defence	5,234	5,238	100.1
M Education	7,143	7,394	103.5
N Health and social care	5,733	5,762	100.5
O Other public, social services	1,797	1,853	103.1
P Private households with employed persons	2	2	100.0
00 Undeclared in accordance with standard classification	255	195	76.5
<b>Total</b>	<b>81,882</b>	<b>42,220</b>	<b>101.4</b>

\* These figures refer to the average number of employed persons for the whole year in 2009, and the average for the two first quarters of 2010.  
Source: Tuzla Canton Employment Service, Statistics Bulletin, June 2010

EU VET 1 and 2 contributed to the development of a system for continuous monitoring of labour market needs. A common methodology was developed by the Employment Service and representatives of pilot vocational schools. The methodology was implemented by the Employment Institute of the Federation of Bosnia and Herzegovina, including Tuzla Canton, Republika Srpska and Brcko District. The methodology was adapted to internal procedures within each Employment Institute, but the data provided can be useful to the government in planning active measures, enrolment policy for educational institutions, etc.

### 5.1.3 Education

Education definitely plays a big role in the economy of Bosnia and Herzegovina. **TABLE 5.2** shows that only 3.57% of the registered unemployed have university or higher non-university education whereas those who complete three-year vocational school or have only minimal education make up 61.48% of the unemployed. It is easier for people to find work and contribute to the economy with higher education or a university degree.

The employment services' monthly and annual information on labour market trends is provided to educational institutions, but most vocational schools only give the information partial consideration when working on enrolment policy as they give greater weighting to the composition of teachers, available premises and equipment. Vocational schools offer education for all those occupations required by the labour market but not all the occupations offered lead to actual employment. Those occupations offered most frequently by schools are also the most common on the canton Employment Service registry.

**TABLE 5.2 UNEMPLOYMENT BY EDUCATION LEVEL IN TUZLA CANTON, 2010**

Education level	Unemployed	
	Number	(%)
Unqualified workers	31,317	34.95
Semi-qualified	2,217	2.47
Qualified workers	31,122	34.73
Highly-qualified workers	538	0.60
Lower secondary education	38	0.04
Secondary school education	21,181	23.64
High school education	565	0.63
Faculty education	2,632	2.94
<b>Total</b>	<b>89,610</b>	<b>100.00</b>

Source: Tuzla Canton Employment Service, Statistics Bulletin, June 2010

Some teachers and school directors believe the occupations offered in the modernised or newly-developed form within EU and GTZ projects are better than the previous offer, but the lack of good quality practical training means students are unable to develop sufficient practical skills to ensure immediate employment after graduation.

The best way to improve the performance of schools would be to merge schools into school centres and rationalize the school network.

### 5.1.4 Examples of good practice

Some schools, such as the civil engineering and electrical-technical schools in Tuzla, have good cooperation with local companies when planning enrolment and providing practical training for their students, with the civil engineering school providing 20 scholarships for students with support from local companies.

In addition to formal education, schools provide short training courses for adults, usually in cooperation with local companies.

Financial support from employers is especially important where the training is expensive, for instance training for welders can cost more than EUR 3,500. However, the lack of government incentives for investment in education means companies are not always prepared to spend money on education and training for employees, preferring to seek out workers who are already experienced.

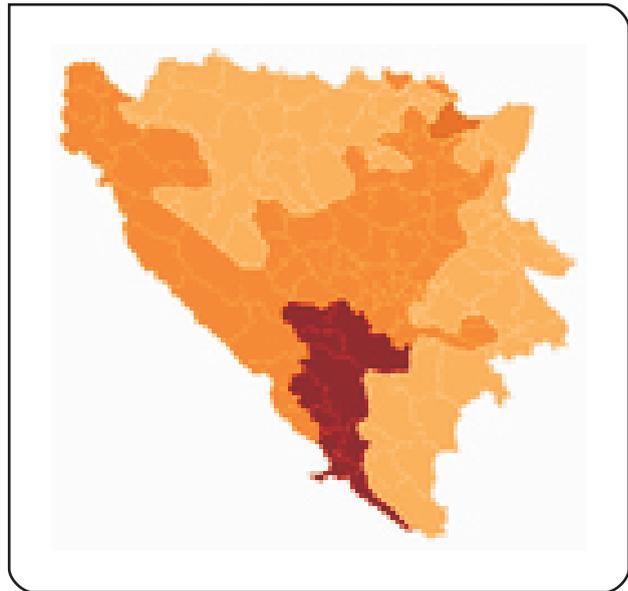
The Tuzla secondary civil engineering school has very good cooperation with local construction companies whereby students are introduced to new technologies and construction materials. Unfortunately, companies do not have sufficient workers to act as student mentors, so the amount of time for proper practical training is limited.

Clearly, more incentives must be introduced for companies prepared to provide practical training for secondary school students. Schools have insufficient equipment for the provision of practical training and there is a need for school rationalisation.

## 5.2 HERZEGOVINA-NERETVA CANTON

The population of the Herzegovina-Neretva Canton totals 226,000 grouped in 478 settlements in municipalities. The canton mainly comprises the Neretva river valley and parts of Herzegovina west of Mostar, the largest city and administrative centre. It is the only canton in Bosnia and Herzegovina with access to the sea via the municipality of Neum.

Before the war in the 1990s, the area around Mostar was the most economically developed in the Herzegovina region, with rich agricultural land and a favourable climate well suited to the production of wine, fruit and vegetables. Other economic sectors such as metal-working, textiles, tobacco and tourism were also well developed. The war completely destroyed infrastructure and production capacities and the economy still suffers from a lack of investment and business initiative although it is slowly being rebuilt.



### 5.2.1 Economic development

The post-war period led to significant changes in the structure of the country's economy and that of Herzegovina-Neretva Canton. The pre-war economy was marked by processing industries, textiles, electricity production and metal-working industries. The post-war economy is characterised by a much larger share of trade, catering and tourism, banking and services. The changes have had a massive impact on the structure of employment and revenues.

Agriculture and tourism are those sectors estimated to have the most potential for future growth in Herzegovina-Neretva Canton by the Regional Development Agency for Herzegovina (REDAH). The agency is developing many projects within those sectors with a special focus on entrepreneurship.

### 5.2.2 Employment and unemployment

The employment structure is: 17.1% in trade, 13.5% in manufacturing, 10.9% in public administration and defence, and 9.8% in education. These four services combined account for 51.3% of all the employed people in the canton.

**TABLE 5.3 EMPLOYMENT BY ACTIVITY IN HERZEGOVINA-NERETVA CANTON**

	<b>Activity</b>	<b>Average 2009</b>	<b>April 2010</b>	<b>May 2010</b>	<b>Index V 2010 Aver. 2009</b>	<b>Index V 2010 IV 2010</b>
A	Agriculture and forestry	753	800	802	106.5	100.3
B	Fishing	74	88	87	117.5	98.9
C	Mining	189	130	130	68.8	100.0
D	Manufacturing	6,086	5,652	5,681	93.3	100.5
E	Electricity, gas and water supply	2,367	2,353	2,384	100.7	101.3
F	Construction	2,185	2,295	2,293	105.5	100.2
G	Trade	7,225	7,114	7,193	99.6	101.1
H	Catering	2,045	2,118	2,120	103.7	100.1
I	Transport and communication	3,531	3,124	3,122	88.4	99.9
J	Financial intermediation	1,405	1,431	1,429	101.7	99.9
K	Real estate, renting	1,968	2,114	2,118	107.6	100.2
L	Public administration and defence	4,521	4,576	4,585	101.4	100.2
M	Education	4,008	4,142	4,141	103.3	100.0
N	Health and social care	3,204	3,321	3,340	104.2	100.6
O	Other public, social services	2,403	2,534	2,532	105.4	99.9
P	Private households with employed persons	4	1	1	–	100.0
Q	Extraterritorial organisations and bodies	2	–	–	–	–
00	Unallocated by activity	48	47	47	97.9	100.0
	<b>Total</b>	<b>42,018</b>	<b>41,840</b>	<b>42,011</b>	<b>100.0</b>	<b>100.4</b>

Source: Herzegovina-Neretva Canton Employment Service, Statistical Bulletin, July 2010

According to the Herzegovina-Neretva Canton Employment Service register, on 31 July 2010 labour force availability amounted to 29,808. Unemployment had increased 1% on the 2009 average.

**TABLE 5.4** shows how the best educated make up the lowest share of the unemployed, while qualified workers and secondary school graduates fare worst.

**TABLE 5.4 UNEMPLOYMENT BY EDUCATION LEVEL IN HERZEGOVINA-NERETVA CANTON, 2010**

Education level	Unemployed	
	Number	(%)
Qualified workers	11,485	38.5
Secondary school education	8,101	27.2
Unqualified workers	4,616	15.5
Semi-qualified	2,902	9.7
Higher education	1,685	5.6
High school education	855	2.9
Highly-qualified workers	164	0.6

*Source: Herzegovina-Neretva Canton Employment Service, Statistical Bulletin, July 2010*

The majority of the unemployed wait three to five years for employment. Mostar municipality has the most registered unemployed, accounting for 49.3% of the canton total.

In the structure of available labour force, 12,694 people are looking for a first job. The number of unemployed women amounts to 6,691 (22.6%). People under 30 make up 30.5% of the total unemployed, and more than half of the unemployed (54.24%) are under 40.

### 5.2.3 Education

Most of the unemployed have completed three-year secondary education in sales, locksmithing, car mechanics or catering. At present most students of three-year secondary education are trained in the mechanical, trade, catering and tourism sectors, followed by services and the electrical industry. Trade is therefore an obvious area of oversupply, and the same is largely true of the mechanical and catering sectors.

Some 80.38% of high school pupils complete four-year secondary school courses and they comprise 27.2% of the total unemployed. Most of the unemployed from this group have qualifications such as economic technician, grammar school baccalaureate, mechanical technician, medical and transport technician. Those not completing the four-year courses undertake training for the grammar school baccalaureate or occupations such as economic technician, medical technician, electrical technician, catering and tourism technicians. When comparing the lists of courses provided with records of education and unemployment, economic technician, grammar school baccalaureate and medical technician appear to offer the least promising future outlook.

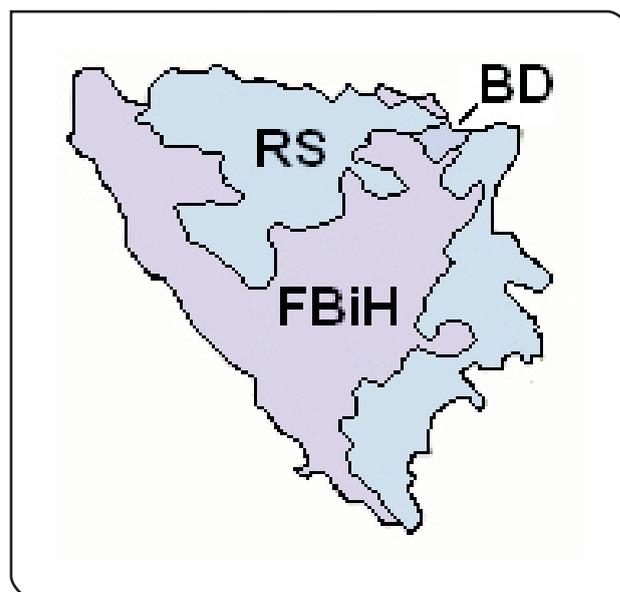
According to data from the Herzegovina-Neretva Canton Employment Service, despite labour market requests for the training of stonemasons, carpenters and welders the local Secondary Construction School in Mostar offers none of the listed occupations. The same situation is true of training for bakers and butchers that has been unavailable in this town for the last 30 years. The Chamber of Trades and Crafts has identified this problem and has prepared curricula for the missing occupations in cooperation with employers and the Catering and Tourism Secondary School. However, the City of Mostar failed to provide the premises for new courses and after a year of waiting this initiative has been abandoned.

The data presented here reveal wide discrepancies between VET provision and the labour market in Herzegovina-Neretva Canton. Pupils continue to be educated for occupations that top the unemployment lists and there are insufficient opportunities for education in some of the occupations required by the labour market. With the exception of some select examples of good practice, no structured adult education is offered and employers are forced to select poorly trained employees from the large number of unemployed.

## 5.3 REPUBLIKA SRPSKA

Republika Srpska comprises 49% of the land area of Bosnia and Herzegovina, covering an area of 25,053 km<sup>2</sup> divided into two main regions – North-Western Srpska (consisting of Banja Luka Krajina and Posavina) and Eastern Srpska (consisting of Semberija and Majevisa, Drina, Sarajevo and Romanija, and Herzegovina). It is made up of 62 municipalities. Some 55% of its territory is covered by forest and mountains. It has a continental climate with long snowy winters and hot dry summers. The Herzegovina region alone enjoys the benefits of a Mediterranean climate.

Home to 34% of the total population of Bosnia and Herzegovina, the population of Republika Srpska is estimated at 1,391,000 with some 50,000 migrant workers abroad, mainly in Germany, France, Austria and Sweden.



### 5.3.1 Economic development

The World Bank and the International Monetary Fund have identified forestry and wood processing, mineral processing, energy and textiles and leather processing as sectors with the a potential for future growth in Republika Srpska and the region also has highly significant possibilities for further investment in agriculture and tourism. The rich natural potential is definitely one of the key factors for present and future development and for economic and geographical shaping. The most important natural potential lies in agriculture, forests, hydro-climatic conditions, and ores and minerals.

The situation in Republika Srpska can be summarised as follows:

- relatively stable growth of GDP, with an average annual growth rate of 6% and low inflation;
- the average annual growth rate of industrial production was 12.5% until 2008 and increased to 16% in 2009;
- high foreign trade deficit;
- low labour productivity is both a causal factor and a consequence in elements such as lack of competitiveness of products; relatively low labour costs; and insufficient investment in economic development, science and human resources;
- a large grey economy;
- a small annual increase in total employment in recent years, with a decrease in 2009;
- many of the formally qualified registered unemployed are unskilled in practical terms;
- high unemployment rate;
- large proportion (30%) of poverty;
- regional disparities in the level of development;
- unfavourable demographic situation.

Some of the indicators given for the comparative five-year period in **TABLE 5.5** very clearly reflect the economic situation.

**TABLE 5.5 KEY ECONOMIC INDICATORS FOR REPUBLIKA SRPSKA**

	2005	2006	2007	2008	2009
Nominal GDP (BAM)	5,763	6,544	7,351	8,489	8,410
Nominal growth of GDP (%)	15.1	13.5	12.3	15.5	-0.9
Inflation rate	5.2	8.4	2.1	7.2	0.1
Real growth (%)	7.0	5.8	6.7	6.2	0.1
GDP per capita (BAM)	3,796	4,533	5,106	5,895	5,942
Rate of industrial production growth (%)	19.8	19.1	1.4	16.8	18.0
Trade balance (% of GDP)	-32.4	-18.8	-22.8	-26.2	-22.1
Average net salary (BAM)	465	521	585	755	788
Average gross salary (BAM)	707	793	875	1,132	1,204
Employment rate*	–	30.9	25.2	37.3	37.2
Unemployment rate (official)	38.7	35.8	34.3	33.9	35.9
Unemployment rate*	–	28.5	25.3	20.5	21.4

(\*) Labour market survey

### 5.3.2 Employment and unemployment

According to the Republika Srpska Employment Office, registered employment in March 2010 was 241,517 against registered unemployment of 149,687 for the same year.

**TABLE 5.6 EMPLOYMENT BY SECTOR IN REPUBLIKA SRPSKA**

	<b>Sector</b>	<b>III 2009</b>	<b>IX 2009</b>	<b>Aver. 2009</b>	<b>III 2010</b>
A	Agriculture, hunting and forestry	260,400	256,868	258,634	241,517
B	Fishing	8,754	8,984	8,869	8,472
C	Mining	322	311	317	294
D	Manufacturing	4,683	4,835	4,759	4,874
E	Electricity, gas and water supply	56,116	54,119	55,118	48,403
F	Construction	9,472	9,515	9,494	9,415
G	Trade, repair of vehicles, motorcycles and personal household goods	14,826	15,198	15,012	12,654
H	Hotels and restaurants	54,268	52,387	53,328	46,276
I	Transport, storage and communication	14,155	13,864	14,010	11,681
?	Banking	15,332	15,460	15,396	19,869
J	Financial intermediation	5,223	5,231	5,227	5,103
K	Real estate, renting, business activity	9,585	9,005	9,295	7,899
L	Public administration and defence, compulsory social security	22,938	22,656	22,797	22,324
M	Education	18,934	18,837	18,886	19,595
N	Health and social welfare	16,050	16,241	16,146	16,221
O	Other community, social, personal services	9,742	10,225	9,984	8,437

Source: Republika Srpska Institute of Statistics, calculation of Republika Srpska Investment Development Bank

The rate of registered unemployment in March 2010 in Republika Srpska was 38.26% while the unemployment rate according to the labour market survey conducted in 2010 was 23.6%.

**TABLE 5.7 REGISTERED UNEMPLOYMENT BY EDUCATION LEVEL IN REPUBLIKA SRPSKA, 2009**

<b>Education level</b>	<b>Number of unemployed</b>
Non-qualified	40,358
Semi-qualified	4,169
Qualified	52,262
Secondary education	34,429
Post secondary	1,758
Post secondary non tertiary	2,578
Higher education	3,943
Masters	38
PhD	1
<b>Total</b>	<b>139,536</b>

**TABLE 5.8 REGISTERED UNEMPLOYMENT BY EDUCATION LEVEL IN REPUBLIKA SRPSKA, 2010**

<b>Education level</b>	<b>Number of unemployed</b>
Non-qualified	40,607
Semi-qualified	4,096
Qualified	54,781
Secondary education	36,293
Post secondary	1,800
Post secondary non tertiary	2,583
Higher education	6,044
Masters	71
PhD	2
<b>Total</b>	<b>146,277</b>

Source: Republika Srpska Employment Office

### 5.3.3 Education

**TABLE 5.9 PLANNED ENROLMENT IN SECONDARY EDUCATION\*, UNEMPLOYMENT AND EMPLOYMENT BY OCCUPATIONAL SECTOR IN REPUBLIKA SRPSKA**

Occupational sector	Planned enrolment in 2010/11	Unemployed in 2009	Employed in 2009
Grammar school	2,976	4,733	840
Agricultural and food processing school	817	4,375	704
Forestry and wood processing	447	4,018	577
Geology mining and metallurgy	24	523	80
Mechanical engineering and metal processing	2,112	22,047	3,711
Electrical engineering	1,340	7,277	1,516
Chemistry, non-metals and graphic arts	168	5,429	770
Leather and textile	114	2,974	575
Geology and civil engineering	493	3,472	455
Transport	748	4,965	905
Catering and tourism	1,012	6,707	1,271
Economics, law and trade	2,634	20,269	3,116
Health	796	2,184	544
Other activities	264	2,521	605
Culture, art and public information	132	–	–
Religious schools	26	138	9
<b>Total</b>	<b>14,103</b>	<b>91,632</b>	<b>15,678</b>

(\* ) First grade of secondary school.

Source: Ministry of Education of Republika Srpska

## 6. CONCLUSIONS AND RECOMMENDATIONS

In conclusion, on the basis of the research and the results collected from the field study, it is clear that the legal and institutional bases for a more efficient and effective reform process already exist but that implementation is moving very slowly. The Conference of Education Ministers as a state-level coordinating body advocates the establishment of VET Councils at lower levels but local legislation has not yet been adapted in harmony with the Framework Law on VET that forms the legal basis for the establishment of VET Councils. Progress is therefore at a standstill.

In actual fact, some education ministries, especially those in the small cantons of the Federation of Bosnia and Herzegovina, lack either the capacity or political will to implement the agreed changes.

The impact of reform has been severely limited by the fragmentation of the education system. Current administrative divisions and the unclear structure of responsibilities among the various authorities in the decision-making and implementation process have led to an inefficient bottom-up approach so far.

The VET system is already largely in place but the problem lies with delivery. Many respondents stressed the difficulty of changing anything at macro-level within the political context of the Dayton-led constitution. The current situation presents a major problem in making practical and realistic moves to bring about results in the medium-term.

The proposal for VET coordinating bodies was initially very good, but their sustainability was not assured. Unfortunately, they have failed to accomplish their mission and tasks, being reinvented at the beginning of each new EU project only to vanish with completion of the project. It would be very useful if this function were established within schools, especially as the VET Department has been established and coordination could be better. The role of this entity is critical, especially in the Federation of Bosnia and Herzegovina where the capacities of the Ministry of Education are low.

The two key documents on VET in Bosnia and Herzegovina – VET Development Strategy and Framework Law on VET – clearly state that VET plays a key role in addressing the challenges facing the country today in a lifelong learning context.

This report uses analyses of recent reform processes to stress that educational reform is a very sensitive and critical issue that requires a long-term perspective. VET reform must continue as a part of the system if providers are to meet labour market requirements and promote access to education and social inclusion for all.

The basic purpose of the Strategy for VET Development in Bosnia and Herzegovina was to define general directions for the development of VET but it was unfortunately never complemented by an action plan or a big enough budget from the relevant authorities. The priorities and recommendations given in the strategy are in need of review, especially in important areas such as: legislative and institutional framework; labour market evolution; internationalisation of VET; quality and efficiency of VET; and attractiveness and relevance of VET. Adjustment of the strategy requires current achievements and future challenges to be taken into account, the adoption of a new action plan with short-term and long-term objectives and an appropriate budget.

There is currently substantial consensus on general strategic directions for education and the roles of ministries, institutions and individuals. The impetus of this and recent qualitative changes in the system should be maintained by transferring responsibility to newly established professional bodies like the Agency for Education and its VET Department in particular. Work could then continue on strengthening these entities through increased capacity building. The new priorities of the strategy should be stated in terms of concrete results to be achieved within a given period accompanied by implementation plans and sustainability measures.

Implementation of the revised strategy will require the production of ongoing annual action plans for the following year at the end of each calendar year, including nomination of the institutions responsible for monitoring implementation.

The priorities arising from the research are presented below.

### 1. Harmonisation

There must be harmonisation of existing laws on primary and secondary education with the Framework Law on VET, or adoption of new canton laws on VET in accordance with the Framework Law. Harmonisation or adoption of VET laws would improve relations between schools and the labour market, enable establishment of tripartite VET Councils and

facilitate the networking of schools and support them in income-generating activities. It would also facilitate development of curricula synchronised with the labour market and adult education. In addition, there is an evident need for development of guidelines for the establishment of VET advisory councils. The procedure can be set up by ministerial recommendation and does not require adoption of a new law.

## **2. Strategy and legislation for adult education (Framework Law, Article 21; Strategy Paper, Sections 8 and 9)**

Adult education provision requires the establishment of a national qualifications framework to issue certificates valued by employers. Stronger participation of social partners is needed in the preparation, adoption and implementation of a revised strategy if it is to be successful, and adult education programmes are of key importance.

There must be a clear division of tasks and responsibilities among social partners coupled with substantial rather than formal acceptance of tripartite decisions. Above all, the strategy must be developed in advance of the legislation with specific action focused on the establishment of pilot centres for adult training similar to those of neighbouring countries.

Recognition of prior formal and informal learning must form part of the system and issues such as screening of infrastructure, regulation of procedures, and methodology and methods of certification of prior learning will need resolution along with other issues. The first stage should include the introduction of a credit system for secondary education based on the European Credit Transfer and Accumulation System (ECTS) in Vocational Education and Training (ECVET). This operates in a manner similar to the way that the Bologna process regulates higher education.

Specific descriptors of learning must be produced for all occupations from a baseline framework and be coupled with curriculum reform at all levels of education. This will provide a useful tool for achieving defined learning outcomes.

Other issues in need of consideration include: modularisation of curricula in secondary education and training; redesign of existing qualifications and the introduction of new ones; and certification and recognition of partial qualifications (i.e. in the form currently available for verification of knowledge of foreign languages and IT).

## **3. Labour market-relevant curricula, including scaling-up of good practice (Framework Law, Articles 5, 8, 9 and 10; Strategy Paper, Sections 5, 6 and 7)**

In theory, the curriculum already provides flexibility for up to 30% of content, allowing it to be fitted to labour market needs, but the system is hampered by major constraints like the current labour market situation and the lack of opportunities for social partners and stakeholders to form real connections with VET. Employer associations interviewed in the summer of 2010 suggested the government is not particularly interested in formal involvement of the private sector in matching VET demand and supply sides. These factors combined with the Framework Law on VET in Bosnia and Herzegovina (Article 5) lead to an urgent need for a tripartite advisory council with representatives of employers, trade unions and responsible educational authorities. Under the Framework Law, the Ministry of Civil Affairs is responsible for the coordination of these activities and for enabling meetings of this Council at least once a year.

## **4. State Qualifications Framework**

The analysis provided in the Draft Baseline State Qualifications Framework suggests the framework (and its legislation) should provide the necessary umbrella for topics such as occupational requirements, assessment and validation of qualifications, institutional arrangements, implementation and maintenance, human resources and finance.

The process of establishing the State Qualifications Framework must be participatory and should unite the wide range of stakeholders involved in the provision of education and training. Although it is important to consider the special circumstances within which the framework must operate and to ensure that these unique demands are met, it is equally important to take into account trends in the international environment, as they reflect the global context and provide valuable perspectives and experiences against which local progress can be prudently measured.

The framework process entails the accreditation of all educational institutions offering qualifications. It is especially important that there is equal involvement of social partners, education and other relevant stakeholders in all activities. The ultimate goal is to build a system that will enable companies to obtain skilled workers and facilitate the mobility of workers from Bosnia and Herzegovina in the European market.

## 5. Curriculum, monitoring and evaluation

Evaluation must start in parallel in different subjects (students and trainees; teachers and trainers; programmes and courses; organisation and management). The relevance, delivery and impact of a subject or course must be considered in each case in order to:

- increase understanding of the current situation;
- demonstrate relevance and accountability;
- improve decision-making at institutional or political level;
- transfer good practice.

## 6. Occupational standards and classification of occupations

The new VET reform programme must attain initial understanding and agreement on an underpinning approach and then undertake appropriate training with actors involved from the institutional level (the agency VET Department), through social partners to local vocational schools if the 30% flexibility for labour market-related curricula is to be applied. It is critical that responsibility for drafting the methodology on occupational standards and vocational curricula is clearly attributed and that a clear time frame is set for harmonisation.

## 7. Cooperation, coordination and reporting mechanisms

Cooperation, coordination and reporting mechanisms must be developed and introduced in practice for the VET Department and other relevant institutions (schools, pedagogical institutes, education ministries, labour and employment ministries). Prior agreement will be required between the various levels (ministries, VET Department, institutions, schools) in order for them to develop transparent procedures for collaboration. All of the parties involved should be aware of the objectives and procedures of the envisaged cooperation and the roles, functions and required input of each party must be clearly defined to ensure proper and efficient information gathering at each level.

## 8. Capacity-building

Capacity-building must be reinforced for all VET stakeholders but particularly the VET Department and work must be done to ensure its sustainability. To further strengthen the capacities of the VET Department, it will be necessary to develop an overall working plan for one, three and five years alongside an organisational budget and staffing plan. A pool of experts must be created for the hiring of consultants on specific requirements to fill gaps in department capacities.

## 9. Information system

A flexible and extendible online-based management information system like VETIS (Vocational Education and Training Information System) would be required to receive data from various relevant resources. The system should be managed by the Agency for Education VET Department. A system known as EMIS (Education Management Information System) has already been introduced in schools with the support of the World Bank and although this is not compatible with Eurostat, VET stakeholders should decide whether to build on this foundation or to start a new information system.

It is assumed that VETIS would help reinforce the implementation of the existing education development strategy. This strategy is expected to: facilitate formal policy coordination mechanisms with strategic planning, financial planning and budgeting; provide a unified system for accreditation and certification at national level; ensure well-defined, transparent and compatible systems of education and learning standards for all levels of education; and help manage donor prioritisation and labour market information.

## 10. School autonomy (Framework Law, Articles 12–20; Strategy Paper, Section 3)

Despite positive practices in school autonomy, a bare minimum has been accomplished in the area of commercial school activities and the development of management capacities in schools. This issue needs reinforcement including improved participation of social partners in a revised strategy in accordance with the Framework Law.

All of the policy papers agreed at various times by representatives of the three constituent peoples of Bosnia and Herzegovina, two entities and ten cantons together with Brcko District, have argued for details of VET organisation, control and evaluation to be decentralised to the school level as far as possible.

The need for greater school autonomy in commercial activities and the development of local responsive curricula has been written into the legislation and heavily emphasised in the Strategy Paper.

The perceived inertia may perhaps stem from the existence of multiple, small centralised systems and the treasury-based financing system. Recommendations from the World Bank Financing Review (via the Organisation for Security and Cooperation in Europe (OSCE)) in the early 2000s and the 2006 ETF Peer Review involving Bosnia and Herzegovina suggest the problems are less legislative and more bureaucratic and administrative in nature. For instance, individual schools simply must have separate bank accounts for their commercial activities if they are to manage this element properly.

There is a need for specific legal instruments for the operation of organisations such as schools.

More autonomous schools would need relative freedom in administrative, financial and educational matters, meaning the individual school statute would enable the school board to determine:

- internal regulations for the school;
- methods of approving school accounts from the previous year;
- how to adopt a proposed budget drawn up by the school director on the basis of the financial support provided by the local authorities and, where appropriate, other sources;
- adoption of a draft programme of work.

# ANNEXES

## ANNEX 1. LIST OF EU-FUNDED PROJECTS

### Phare programme, 1998–2000 (EUR 570,000)

The Phare VET reform programme in Bosnia and Herzegovina began in March 1998 and was completed with the publishing of a Green Paper in April 2000. The programme consisted of three components.

Establishment of a working group with 40 key stakeholders, including 25 representatives from the Federation of Bosnia and Herzegovina and 15 from Republika Srpska, to develop a Green Paper<sup>4</sup>. The Green Paper provided recommendations for VET reform in accordance with European trends in the field of education and training. This Green Paper can be considered as the starting point for the development of draft strategies and policies for VET reform in the country. It included:

- a clear framework of principles discussed between entities, cantons and local authorities;
- a set of priorities for implementation.

The Green paper covered four areas:

- content – curriculum development, certification and qualifications, standards and assessment;
- capacity – teacher and management development;
- institutional development – including state, entity, canton and local development and the evolving profile of schools in the face of reform initiatives;
- structure – harmonisation of legislation and finance.

Important progress was made with the participation of key stakeholders and consensus was reached on the following priorities for VET reform: improved system management; decentralisation of VET; labour market needs assessment; curriculum development and teacher training; standards; legislation and institutional capacity building; and identification of the institutions responsible for implementing the reform process.

In May 1999, an integrated inter-entity delegation made successful common policy proposals to the European Commission's Directorate-General for External Relations and in April 2000, three wide conferences in Bosnia and Herzegovina endorsed the recommendations of the Green Paper.

As a result, the EU Delegation in the country agreed to a bridging programme towards a White Paper and legislation and to assist with the embedding of curriculum reform. The Green and White papers were used in setting the agenda for the EU 2001–06 funding programme. Recommendations from the Green Paper were accepted by ministries, agencies and institutions at all levels in entities and cantons in spring 2001.

Some 12 pilot schools in the Federation of Bosnia and Herzegovina and Republika Srpska were involved in the curriculum development process, working in pairs on the development of a modular curriculum for six occupational profiles (cook, electrician, baker, carpenter, tailor and administrative technician). They had the support of eight curriculum development experts and six schools from EU countries (one for each curriculum area) in the process.

Implementation of the curricula started in school year 2001/02, but the programme did not include the delivery of equipment to schools.

### Phare VET Bridging programme, 2000–01 (EUR 1.5 million)

This project was agreed in Brussels in spring 1999 as a logical continuation to support adoption of the White Paper finalised and published in December 2001. The White Paper formed the basis for the development of legislation throughout Bosnia and Herzegovina and the programme definitely provided valuable support for the continuation of VET reform. Key stakeholders who contributed to the Green and White papers have addressed major issues and questions arising in the development of legislation and institutions at state level.

---

4 A Green Paper is a set of policy recommendations presented for consultation. It represents a commitment on what is politically, technically and organisationally feasible.

## **EU VET 1, 2002–04 (EUR 2.4 million)**

The aim of EU VET 1 was to introduce the development of a lifelong learning system in Bosnia and Herzegovina through adjustment of the VET system to the socio-economic needs of the country. The specific objective was to develop a modern, flexible and high quality VET system that would meet the needs of the labour market based on the principles of lifelong learning.

The programme was implemented through three components: (i) labour market needs assessment and provision of relevant training to employment offices; (ii) continuation of reform of curricula; and (iii) political and strategic development, including pilot activities on related training standards and assessment.

The specific activities under each component include:

### ***Component 1***

Stakeholders engaged under the first component developed a methodology for the implementation of quantitative and qualitative labour market research and the establishment of closer cooperation between vocational schools and employment offices at the local, regional and entity levels. With the organisation of three seminars, 25 representatives from the employment office and 25 representatives of vocational schools were trained on how to prepare and implement quantitative and qualitative data collection with market research techniques. Initial findings confirmed mismatch between supply and demand for those skills required by the labour market, mainly due to technological changes in the economy and a lack of modernised VET curricula. Through this component, courses for adults were developed and implemented alongside the introduction of draft curricula for youth entrepreneurship.

Some 150 students nominated by EU vocational schools have been trained in youth entrepreneurship and two entrepreneurial modules were integrated into the curriculum and implemented in 53 vocational schools.

### ***Component 2***

EU VET 1 provided local stakeholders with assistance in the monitoring and evaluation of the six curricula developed by the Phare programme in 1998–2001. It also supported the establishment of a database of newly developed curricula, the updating of these and the distribution and dissemination of related educational materials to schools, pedagogical institutes and responsible ministries.

The results of the labour market needs assessment led to agreement for further work on the modernisation of the agricultural and food processing occupational profiles and 25 schools from across the country participated in this activity. The existing 48 occupational profiles from this industry sector were grouped into 10 occupational profiles and new modular curricula were developed. The new curricula were implemented in 25 pilot schools by the end of 2004. The newly developed curricula were entered into a database managed by the EU VET programme.

### ***Component 3***

Component 3 aimed to use the policy and strategy achievements, including pilot activities related to the transformation of the Standards and Assessment Agency (established at inter-entity level through a World Bank funded project), to help in the formation of a state-level institution: the Agency for Pre-primary, Primary and Secondary Education with a constituent VET Department. A working group of 23 key stakeholders nominated by relevant organisations and institutions prepared a first draft of the Framework Law on VET on the basis of the Green and White Papers. The whole process was completed in close consultation with the Ministry of Civil Affairs, responsible entities, districts, canton ministries of education and representatives of the international community and organisations (OSCE, Office of the High Representative, World Bank and Council of Europe).

The first draft of the Framework Law covered only specific provisions of VET as general provisions were already addressed under the 2003 Framework Law on Primary and Secondary Education. Unfortunately, there was no political will to support adoption of the law at that time. The project also prepared a proposal for the establishment of a VET department within the Standards and Assessment Agency. The last component this project involved the delivery of equipment to the value of EUR 1.52 million to 25 schools within the food processing and agriculture sectors.

## **EU VET 2, 2004–08 (EUR 2.2 million)**

This project included five components: (i) development of educational policy; (ii) institutional continuation of VET reform; (iii) new nomenclature of occupations; (iv) strengthening the links between the labour market and education; and (v) purchasing and delivery of equipment to vocational schools.

### ***Component 1***

A pilot VET Advisory Council was established under this component. This pilot tripartite advisory council based its work on recommendations given in the Functional Review of Public Administration of Education Sector in Bosnia and Herzegovina executed by IBF International Consulting and the British Council and the best practice of European countries. A 20 to 25-member tripartite advisory council was created to assist and advise responsible ministries and other relevant institutions on adjusting VET to labour market needs and it is this entity that deserves all the credit for the development of the VET strategy in Bosnia and Herzegovina, with technical assistance.

The strategy was developed through analysis of lessons learned from good and bad experiences and recommendations based on EU trends. The Lisbon strategy, the Copenhagen Declaration, the European Qualifications Framework (EQF), and the Green and White Papers were used to provide background for a Strategy for VET Development in Bosnia and Herzegovina that would define general trends in the development of VET in the country.

### ***Component 2***

Institutional development involved the EU VET project in close cooperation with the Standards and Assessments Agency and the Ministry of Civil Affairs' Education Department but the lack of any state-level agency hampers communication and the implementation of the activities, recommendations and conclusions agreed and planned.

The 2006 VET plan aimed to improve coordination in implementation of the activities by demanding all responsible ministries, pedagogical institutes and schools nominate 21 VET coordinators from among their staff. All of the ministries and pedagogical institutes responded positively and the first meeting of VET Coordinators was held in June 2006. The entity identified 36 pilot vocational schools to implement the activities and a comprehensive database was created of all the vocational schools nationwide. By the end of the project it was agreed that the Ministry of Civil Affairs would slowly take responsibility for the further maintenance and updating of the database but all activity ceased on completion of the project. The VET coordinator idea was reinstated under the VET 3 project, but their contribution to activities was inefficient and ineffective with coordinators complaining that there was no specific description of their duties and responsibilities within their ministries and institutions, or within the EU VET project.

All VET coordinators, during both VET 2 and VET 3 undertook capacity-building training and took part in a study visits to neighbouring and Western European countries. The training was delivered on the basis of a training needs analysis and the topics covered included: basic ideas on VET; modular curricula development and pilot implementation; quality assurance; monitoring and assessment; and VET reform.

### ***Component 3***

Activities here were related to the adoption of a new classification of occupations (nomenclature of occupations), the further development of modular curricula and strengthening capacities for the adoption and application of new methodologies of teaching and learning at school level. The old nomenclature from 1990 contained about 480 occupational profiles of level III and IV qualifications and the same applied to the curricula. In the 1990–98 period the number was increased to 500 profiles because some administrative units (entities and cantons) introduced new occupational profiles. Within the EU VET 2 Programme the 16-member working group of worked on rationalisation of the nomenclature of occupations. This resulted in a proposal for a new classification of occupations, divided into 13 occupational families with a total of 100 occupations.

In Republika Srpska the new nomenclature was adopted and implementation began in 2004. The new classification of occupations was officially adopted in the Federation of Bosnia and Herzegovina and Brcko District in March 2006 and its implementation began in 2006/07. This component contributed to strengthened capacities at school level in conjunction with new teaching and learning methodologies. The EU VET 2 project supported further VET reform through the development of curricula for 18 occupational profiles in four occupational families.

New curricula were developed for 36 occupational profiles within the Phare programme, EU VET 1 and EU VET 2.

The GTZ worked on the development of modular curricula for 23 occupational profiles in wood processing, textiles, electrical and mechanical engineering that came into operation in 2006/07.

The new classification has 100 occupations and 58 curricula (36+22) have so far been developed, meaning a further 42 programmes remained uncompleted. The Ministry of Education and Culture of Republika Srpska used its own staff and resources to develop modular curricula for all the missing profiles and implementation began in 2004/05. The missing curricula still need to be developed in the Federation of Bosnia and Herzegovina and Brcko District.

Local mentors trained 50 teachers and 27 directors from EU VET 2 pilot schools in teaching methods and assessment and developing modern curricula in four selected occupational families. Some 60 representatives from EU VET 1 pilot schools and pedagogical institutes attended the comprehensive programme for mentors and were trained to train teachers in modular methodology, curriculum development, teaching methodology, adult education, assessment and evaluation.

The EU VET database on the VET curriculum was further expanded to include programmes, details of vocational schools, documents and reports. The database and responsibility for its maintenance were taken over by the Ministry of Civil Affairs and a webpage was created<sup>5</sup> to store the curriculum database and other material produced under the project.

#### **Component 4**

This related to the strengthening of links between the labour market and adult VET and provided a thorough review of the current situation in continuous vocational education and training (CVET) in Bosnia and Herzegovina as a foundation for future development of this area. Furthermore, the employment agencies from both entities in finalised the first country-wide joint labour market review in June 2005.

The first joint survey of the labour market was initiated in February 2006. In June of the same year the main objectives of the annual labour market review were presented to coordinators in the education ministries.

#### **Component 5**

This related to preparation of the technical specifications needed for the supply of equipment to vocational schools to support further reform of the system. Around EUR 1 million was spent on supplies for 26 schools.

### **EU VET 3, 2007–09 (EUR 2.12 million)**

EU VET 3 was the last in a series of VET projects to develop VET in Bosnia and Herzegovina. The project started in April 2007 and ended in April 2009. The five major project components were: (i) governance and policy development; (ii) institutional development; (iii) modular curricula development for five occupational families (5+1) and teacher training; (iv) the financial model; and (v) technical specifications for equipment for vocational schools.

#### **Component 1**

This concerned governance and policy development but these issues were not adequately addressed due to the late adoption of the Framework Law on VET in August 2008, meaning the Advisory Council was not re-established although another steering committee and social partner committee were created to act as advisory boards.

The project produced a glossary of terminology based on the experience of the ETF and Cedefop. The glossary was endorsed by a working group and the project Steering Committee in 2008. It was distributed to all members of the Committee of Ministerial Coordinators, all pilot schools through their directors, and all VET teachers who participated in the training delivered by the project. The staff of the VET Department received hard copies and electronic versions in the spring of 2009. No feedback has been provided on whether or not it has been used.

#### **Component 2**

The plan was for the Agency for Pre-primary, Primary and Secondary Education to be established and operational by the time the project started in order to ensure institutional development. Unfortunately, the VET Department of the agency only came into operation in January 2009 with help from the project, meaning some activities were not implemented.

A reporting system known as VETIS was developed and implemented on a pilot basis with project support, producing reports on schools, teachers and students. It also reports employment trends among those with secondary education. The VETIS system (which is a concept partially based on the requirements of VET stakeholders in Bosnia and Herzegovina) must be further developed to:

- analyse the current situation of information exchange on the VET system;

- adapt to the information requirements implied in current regulations and the Copenhagen process;
- establish direct communication with key VET stakeholders on their needs and design possible solutions.

The website created under the VET 3 project ensured the storage of crucial materials such as core curricula and teaching materials, while the VETIS system mainly provided the basis for development of management information reports from school to country level.

This website was designed following a stakeholder interest approach, providing three different entry points for the student/parent, ministry/VET provider or social partner in four languages – Bosnian, Croatian, Serbian and English. Reports stored on the web page could then be used for analysis and management decisions at various levels. However, in the event, the schools and ministries did not provide sufficient information to the VET Department responsible for maintenance of the database and VETIS.

The website and VETIS were handed over to the Agency for Education VET Department but were still hosted by the company that developed the VETIS solution. The hosting was ensured until the end of January 2010 when the agency took over responsibility for the cost and maintenance of the two instruments.

### **Component 3**

Modular curricula development for occupational profiles in 5+1 occupational families (5+miscellaneous occupations) and teacher training.

The project identified 5+1 families to be targeted out of the 100 occupations in the nomenclature: health; transport; chemistry; geology and mining; textiles and leather; plus occupational profiles not categorised in a specific family (miscellaneous, such as hairdressing). Occupational profiles from these six families were discussed with around 50 enterprises countrywide and the most in-demand occupational profiles were selected for further development. A total of 16 occupations from six families were identified and the education ministries endorsed initiation of curricula development.

Social partners took responsibility for the design of EQF-style occupational requirements for the occupations and profiles using the concepts of knowledge, skills and competences systematically following training. Implementation of the newly developed curricula was trialled in 36 pilot schools selected from all cantons and both entities.

Three different methods for curricula development were in use prior to the project and the project Standing Committee for Curriculum Development and Training developed and endorsed the Standards for the Modular Curricula in VET in Bosnia and Herzegovina. New guidelines were adopted in line with the EQF and were used as a base reference for the development of the curricula until 2006. Those guidelines have been taken into consideration and revised in 2007 by the new project. The guidelines were piloted during the project, providing an opportunity for testing and improvement, and they were completed with the development of the Standards for the Modular Curricula in VET in Bosnia and Herzegovina.

The major difference in the present final form of the guidelines is that all the instructional and informative material related to modular curricula has been transferred into the standards leaving only the practical aspects to be used by working groups in the development of modular VET curricula. The standards are intended for use by a variety of groups of stakeholders and specialists including teachers, many of whom do not necessarily develop modular VET curricula whereas the guidelines are intended for those actually developing modular curricula. Thus, while the former do not necessarily need to study the guidelines, the latter are naturally expected to have read the text of the Standards before attempting to construct curricula. In the broadest terms, the standards and guidelines may be considered a single tool, in which the standards form the first part and the guidelines the second.

The content of the guidelines is organised into an introduction linking the standards with the guidelines and a main section consisting of a practical guide for the construction of modular VET curricula for working groups.

During the project, curricula were developed for 16 occupational profiles, consisting of 1,351 modules in total. The curricula were developed by trained curriculum groups assisted by experts from the project and, where necessary, by local and international experts. The content of the new curricula complied with the occupational requirements developed by social partners and professionals from the enterprise sector.

The curricula were developed on two levels, technicians (four years) and operators (three years) and each profile curriculum contains four separate but integrated major components divided into: general subjects; general subjects related to the profession; professional theory; and professional practice. The curricula produced are general core curricula and up to 30% of the content can be adjusted to local needs with agreement between schools and enterprises and ministry endorsement.

A package has been produced for each of the 16 occupations or profiles, comprising:

- profile curriculum planning, included in three tables;
- modules in each profile;
- instructions to teachers on how to organise the *matura* or final examinations;
- guidelines to teachers on how to implement the curricula;
- new rulebooks on the assessment of learning where modular curricula are used.

A database containing all the curricula developed under VET 3 has been created and delivered in electronic form to ministries and the Education Agency VET Department schools<sup>6</sup>. All the curricula developed in previous phases were also uploaded.

A group of mentor teacher trainers and curriculum development coaches was appointed from those teachers already trained as disseminators by previous VET projects. The project provided additional training on new modular curriculum design, the new manual, teacher training, learning materials, pedagogy and monitoring. The group of mentors had practiced during the project by training working group members and facilitating curriculum development. They also participated in delivery of the final teacher training in pilot schools.

The Working Group on Curriculum Development and Training produced a concept document on teacher training that was delivered to decision-makers. The document covers both pre-service teacher education and training and in-service teacher training and it was re-drafted in April 2009 ready for implementation. The concept document had not yet been officially adopted.

#### **Component 4**

Current VET financing was reviewed on the basis of earlier analyses by other projects. Common conclusions were that the system is too expensive and needs improved efficiency with per capita funding to replace the current course-based financing and greater freedom for individual schools to be involved in income-generation.

Three areas were identified for possible research and innovation within this project:

- research into why recommendations from various donors for changes in the financial system have not been implemented;
- delivery of training for schools on income-generating activities and project related works;
- development of an initiative to support schools in approaching income-generating activities.

A simulation and calculation model for unit costing known as the 'IT-based costing tool' (cost of education) was designed and presented under this project. The model was tested in several schools and the results were analysed within the perspective of application throughout the system. The costing tool was presented and well received by the Conference of Education Ministers as well as the finance ministries. The unit costing model delivers information on the actual costs per-student in VET, comparative cost per-student in VET and general secondary education, costs per-student generated by teaching, overheads and the cost of school maintenance.

#### **Component 5**

Technical specifications were developed for the six occupational families for vocational schools. A total of EUR 1.3 million was used to supply equipment to 36 schools. The supply of new equipment only partially covered the school needs as the budget was limited. The equipment was divided into general equipment and vocational equipment to for practical training purposes.

The EU VET 3 programme framework included a project aimed at introducing the certification of vocational qualifications to improve the competitiveness of companies and employability. The project was piloted in Gorazde, Bosnia-Podrinje Canton.

The specific objectives of the project were:

- introducing external certification of competences acquired in the workplace as a pilot project;
- improving and strengthening cooperation between local stakeholders and VET;
- labour market research in Gorazde companies;
- compiling basic labour market information in order to improve enrolment policy in vocational schools in Gorazde.

The pilot project ran from 31 October 2008 to 31 March 2009 and benefitted local employment offices, companies and vocational schools.

---

6 See [www.vetbih.org](http://www.vetbih.org).

## ANNEX 2. QUESTIONNAIRE

### INTERNAL IDENTIFICATION

Date of interview \_\_\_\_\_

#### Report identification

Country and place \_\_\_\_\_

Year of data \_\_\_\_\_

Name of the person interviewed \_\_\_\_\_

Institutional affiliation \_\_\_\_\_

E-mail address \_\_\_\_\_

Person conducting the interview \_\_\_\_\_

Methodology used to fill out this structured questionnaire \_\_\_\_\_

### PART A – LEGISLATION

1. Have you or your respective organisation been involved in VET in any way in 1998–2009 and in what role (financing of VET, participation in decision-making, VET provider, advisory role, etc.)?

Yes  No

2. One of the short-term objectives of the strategy was the adoption of the Framework Law on VET in Bosnia and Herzegovina. The Framework Law on VET has been adopted with the recommendation to canton authorities and Republika Srpska authorities to harmonise laws or to adopt new ones. To the best of your knowledge is that happening in your administrative unit?

Yes  No

3. Please describe what has been done so far in the field of harmonisation of the education legislation of Bosnia and Herzegovina with the EU directives and regulations related to the establishment of the European Education Area.

### PART B – INSTITUTIONAL DEVELOPMENT

1. Have the administrative procedures for cooperation and coordination between the Ministry of Civil Affairs and all educational authorities and other relevant bodies and institutions of Bosnia and Herzegovina in the field of education along with procedures for coordination and cooperation at the international level been adopted?

Yes  No

2. Are means and protocols of reporting established and are reporting lines defined across all levels of the education system?

Yes  No

3. Are all the necessary functions established for coordination of the education system in Bosnia and Herzegovina and monitoring of the implementation of the strategic education development document 2008–15?

Yes  No

4. Are the guidelines defined for data collection in line with Eurostat?

Yes  No

5. Are the roles, tasks and activities defined for entity and canton level authorities relating to cooperation with the Ministry of Civil Affairs Education Sector?

Yes  No

6. Are definitions available for mutual cooperation and coordination, cooperation with agencies and other expert institutions and bodies in the field of education?

Yes  No

7. Have action plans been adopted for institutional development of all education ministries and the Department for Education Brcko District of Bosnia and Herzegovina?

Yes  No

8. Have the education development plans of Republika Srpska, cantons and Brcko District of Bosnia and Herzegovina (adopted in line with the document on the strategic directions of education development 2008–15 in Bosnia and Herzegovina) been harmonised and adopted?

Yes  No

9. Are adequate education statistics for Bosnia and Herzegovina established through utilisation of the official statistical data of Republika Srpska, the Federation of Bosnia and Herzegovina and Brcko District of Bosnia and Herzegovina?

Yes  No

10. Is the existing EMIS and Gaudemus database updated and included in the data collecting system at relevant levels?

Yes  No

11. Is the network of institutions for cooperation with the Agency for Pre-primary, Primary and Secondary Education established?

Yes  No

12. Please describe the stage of establishment of the Adult Education Department that is supposed to form part of the Education Agency of Bosnia and Herzegovina:

---

## **PART C AND D – NATIONAL QUALIFICATIONS FRAMEWORK, CLASSIFICATION OF OCCUPATIONS, STANDARDS AND CURRICULA**

1. Is the national body for the coordination and preparation of development measures for the national qualifications framework established?

Yes  No

2. Has responsibility been attributed for development of qualifications and the validation and approval of both continued and initial vocational education and training?

Yes  No

3. If yes, who is responsible for each?

---

---

4. Has agreement been concluded between the main stakeholders on procedures for establishing occupational standards, curriculum development, competence-based qualifications, and a catalogue of qualifications?

Yes  No

If not please provide further details:

---

---

5. Is the methodology for the validation of non-formal and informal education developed and has it been integrated into the education system?

Yes  No

6. Are the key competences listed within the national qualifications framework accepted?

Yes  No

7. Is labour market research ongoing?

Yes  No

8. As far as you are aware, how many occupational profiles within the new classification of occupations still require the development of modular curricula?

---

---

9. As far as you are aware, is vocational education today less specialised and better adjusted to the needs of students and the labour market?

Yes  No

10. As far as you are aware, is practical training within the curricula organised in cooperation with employers and carried out in companies?

Yes  No

11. Are the companies in contact with employment agencies at all?

Yes  No

12. Do the companies register their vacancies with the employment agencies?

Yes  No

13. How often do the companies use the employment agencies in the hiring process to find new employees?

---

---

14. If they do not, what are the most important reasons for this? (Services are not offered? Services are unreliable? Too costly? Too bureaucratic?)

---



---

15. Are VET graduates from the renovated curricula in pilot schools (EU VET or GTZ) presented with different opportunities?

Yes  No

16. Do you know how many students find a job after six months and one year?

Yes  No

Provide a breakdown by field and state whether the job is in their field of training or another.

---



---

17. Are there any professions where VET graduates are more successful than other graduates?

Yes  No

---



---

18. Do employers develop continuing training for their employees? What kind of training facilities do they use?

---



---

19. Do employers make use of VET schools, CVET or any other provider?

Yes  No

20. Are VET schools ready to contribute to adult training? Do they develop this and which mechanisms do they use?

Yes  No

Provide a full description of the mechanisms used:

---



---

21. As a school representative, do you find adult education useful? Do you or did you get any (financial) advantages in terms of school equipment, teacher's salaries, etc.?

Yes  No

---



---

22. In your opinion what are the main obstacles, if any? Please provide details.

---



---

23. What elements prevent you from going further?

---



---

24. What sort of incentives would encourage you to develop more adult training?

---

---

## PART E – MANAGEMENT AND ADMINISTRATION IN VOCATIONAL EDUCATION AND TRAINING

1. Have any training centres been established in the network of existing VET schools since the Strategy for VET Development 2007–13 and strategic directions for development of education 2008–15 were adopted?

Yes  No

If yes, state where: \_\_\_\_\_

2. Are career development centres established to provide career guidance for primary school pupils in all vocational schools in Bosnia and Herzegovina?

Yes  No

3. Has the VET school network been rationalised?

Yes  No

4. Are certificates from VET schools and courses important to companies at all?

Yes  No

5. Do companies hire only people with work experience? If yes, would jobs in the informal sector count as work experience?

Yes  No

6. Do they rely more on personal recommendations from colleagues, co-workers, etc.?

Yes  No

7. Do companies hire people with no formal training when people they trust recommended them as skilled workers?

Yes  No

8. Do companies hire across the whole of Bosnia and Herzegovina or does hiring mainly take place within the canton or entity?

Yes  No

If the latter is common, why do you think this is?

---

---

9. Are links established between vocational education and the 'world of work'?

Yes  No

If yes, please provide a description:

---

---

10. In your opinion, where are public funds used inefficiently?

---



---

11. What are the main problems and how can these be solved?

---



---

## PART F – INITIAL AND LIFELONG LEARNING AND PROFESSIONAL DEVELOPMENT OF TEACHERS

1. Are students at non-pedagogical faculties given the chance to learn pedagogical subjects?

Yes  No

2. Are programmes prepared for the continued education and training of teachers and their professional development and advancement?

Yes  No

3. Are curricula defined for the training of teachers, associates and school management?

Yes  No

4. Are training courses established for managers in education?

Yes  No

## PART G – ADDITIONAL QUESTIONS

### Schools and companies

1. What is your assessment of the qualification of VET graduates (three and four years) and in general of the workforce of Bosnia and Herzegovina?

---



---

2. In your opinion, is there a difference between VET graduates from schools with renovated EU VET curricula and schools that teach from old curricula?

Yes  No

---



---

3. Do you know how many graduates find a job after six months and one year?

Yes  No

Give details: \_\_\_\_\_

4. As far as you are aware, are there any professions where VET graduates are more successful than others graduates?

---



---

5. Are certificates from VET schools and courses important to companies at all?

Yes  No

6. Do you know how many VET four-year programme graduates continue with higher education?

Yes  No

**Employment agencies/services and social partners**

1. Are companies in contact with employment agencies at all?

Yes  No

2. Do they register their vacancies with the employment agencies and do they – at least sometimes – use employment agencies in the hiring process to find new employees?

Yes  No

3. What are the most important reasons companies give for not using services provided by agencies?

- a) Services are not offered
- b) Services are unreliable
- c) Services are too costly
- d) Services are too bureaucratic
- e) Other (provide details): \_\_\_\_\_

4. Do companies hire only people with work experience?

Yes  No

If yes, would jobs in the informal sector count as work experience?

5. Do employers rely more on personal recommendations from colleagues, co-workers, etc.?

Yes  No

6. Do they hire people with no formal training when they come recommended as skilled workers by people they trust?

Yes  No

7. Do they hire across the whole of Bosnia and Herzegovina or does hiring mainly take place in the canton or the entity?

Yes  No

If the latter, why?

**Adult education**

1. Do employers provide continuing training for their employees or are they developing this? What type of training facilities do they have at their disposal?

Yes  No

---



---

2. As an employer, do you use VET schools for training or do you use another VET provider?

Yes  No

Please give details:

---



---

3. In your opinion, are VET schools ready to contribute to adult education?

Yes  No

If yes, what kind of training programmes do they develop and which mechanisms do they use?

---



---

4. How would you describe these programmes and what kind of benefit do you get from them? Does the school get any financial benefit and how are these resources used?

- Purchasing of school equipment
- Teachers salaries
- School building maintenance

---



---

5. Are definitions of commercial activities available to VET schools?

Yes  No

6. Have regulations been adopted on the allocation of funds raised through work in practical classes in schools?

Yes  No

7. Have any training centres been established in the network of existing VET schools since the Strategy for VET Development 2007–13 and strategic directions for development of education 2008–15 were adopted?

Yes  No

8. Where there are any obstacles? Please state the nature of these.

Yes  No

---



---

9. Could you describe anything that prevents you from going further?

---



---

10. In your opinion, what would be the best incentives that could be offered for developing more adult training programmes?

---

---

**Efficiency in VET**

1. In your opinion, where is public funding used inefficiently?

---

---

2. In your opinion, what are the main problems in VET efficiency? Can you give details of any past attempts to improve the situation?

---

---

3. What suggestions do you have for improving efficiency?

---

---

4. Have any attempts been made for the grouping or networking of schools?

---

---

5. Where a school network exists, does it need rationalisation to be more efficient and effective?

Yes  No

---

---

6. Has the rulebook on the enrolment of students been adopted for self-financing classes for occupations in which the state/entity/cantons have no interest?

Yes  No

---

---

7. Is training available for school for managers in education?

Yes  No

---

---

*Thank you for your time and cooperation.*

## ANNEX 3. LIST OF INTERVIEWEES

Name/title	Institution/organisation
<b>HERZEGOVINA-NERETVA CANTON</b>	
Enes Dzelilovic, Minister Emina Jusufbegovic	Ministry of Education, Science and Culture of Herzegovina-Neretva Canton
Marin Ivic Mirna Ajanic	Federal Ministry of Education and Science, Secondary Education Department
Ivan Pusic	Employment Service HNŽ/HNK, Mostar
Ivan Jurilj, Head of SME Department	Regional Development Agency for Herzegovina region
Branko Haubrih, Secretary	Chamber of Crafts and Trades of Federation of Bosnia and Herzegovina
Anita Bazina	Association for Entrepreneurship and Business LiNK, Mostar
Perko Pervan, Director	Mostar Secondary Tourism and Catering School
Zoran Landeka, Director	Secondary Transport School
Vesna Kasalo	Association of Employers of the Federation of Bosnia and Herzegovina
Jusuf Murtic	Sarajevo Secondary Tourism and Catering School
Sefik Gusic	Hotel Sarajevo, Sarajevo
Haris Huskic	Federal Employment Bureau
<b>TUZLA CANTON</b>	
Mirzeta Hadzic-Suljkic, Minister Mersija Jahic, Senior Advisor	Tuzla Canton Ministry of Education, Science, Culture and Sport
Faruk Vikalo, Minister Anto Ilijkic, Secretary	Ministry of Labour and Social Policy
Semso Berbic, Director	Tuzla Canton Employment Service Office
Mladen Nenadic, Director	Brcko Employment Service Office
Enes Drljevic, Director	Regional Development Agency
Sumedin Nisic	Srebrenik Mixed Secondary School
Elmir Mujkanovic, Director	Tuzla Mixed Secondary Electrical Technical School
Senada Cickusic	Tuzla Secondary Civil Engineering School
Mensura Kabil	Tuzla Secondary Mixed Vocational School
Director	Brcko Secondary Agricultural School
Director	Tuzla Welding Institute
Suad Huseinefendic, Director	Grogot d.o.o.
Nedim Hukic, Finance Director	Buscherhoff-Plastikal d.o.o.
Midhat Jasic (Ph.D.), Professor	University of Tuzla, Faculty of Technology

Name/title	Institution/organisation
<b>REPUBLIKA SRPSKA</b>	
Vesna Puratic	Ministry of Civil Affairs
Jadranka Mihic	EU Delegation
Slavica Kupresanin	Ministry of Education of Republika Srpska
Slavica Ivosevic/Danica Krunic	VET Department
Snjezana Borovcanin	Employment Service Office
Vildana Zulic	Regional Development Agency
Damir Miljevic	Republika Srpska Employers Association
Tane Peulic	Republika Srpska Trade Union
Ranka Kostresevic	Chamber of Commerce of Republika Srpska
Svjetlana Tadic, Manager	Hotel Atina
Marijan Mistic	Nova Forma Furniture Production
Zeljko Ubiparip	Jas-pot Furniture Company
Mirko Banjac	Pedagogical Institute
Spasoje Vasiljevic	Transport and Electrical School
Slobodan Janedzija	Derventa Secondary Vocational School for Worker Professions
Dragana Pozderovic, Teacher	Jovan Ducic Mixed Secondary Tourism and Catering School
Edi Hanes	Secondary Agricultural School

## ANNEX 4. EU ASSISTANCE TO EDUCATION, TRAINING AND EMPLOYMENT

Year	Project	Area	Budget (EUR million)	Beneficiary	Purposes	Components	Activities	ETF complementary activities	Period of implementation
1998	Obnova Phare CARDS	Education	13	Ministries of Education	Modern VET system	TA + equipment	Modernised curricula developed and in use in 60 of the vocational schools VET council established with representatives from education authorities, trade unions, employment offices 100 occupations identified based on 13 occupational families and curricula developed for all occupations Equipment upgraded	1996-97: joint World Bank/ETF diagnosis for future interventions in VET 2000: Green Paper for VET 2001: White Paper for VET 2003-04: Green Paper and White Paper for general education; peer review of curricula reform; financing of VET	1998-2006
	Phare CARDS	Education	6.67	Ministry of Education	Successor of EU VET 1 and VET 2 projects, continues to support VET system reform	TA + equipment		June 2003: ETF peer review of adult learning in Bosnia and Herzegovina 2005: ETF peer review of vocational curricula Provided basic information on the situation in the country and recommendations for the way forward	2007-09
2006	Employment policy reform and establishment of labour market information system	Labour		Ministry of Labour	Support national economic regeneration by increasing employment through effective labour market policies	TA	Draft: Framework Law on Labour National employment strategy and action plan developed Labour market information system and national (data) reporting system developed to collect employment and labour statistics		2007-09
2007	IPA 2007	Employment	1.2	Ministry of Civil Affairs, Labour and Employment Sector	Introduce active labour market policy development in Bosnia and Herzegovina	TA	Consultative process Legislative and non-legislative parameters Policy, training, capacity building developed at state/entity/sub-entity level Core promotion and communication strategy for activation measures Reports delivered		2009-11
2007	Improving the development and capacity of social dialogue and social partners	Social policy	0.5	Ministry of Civil Affairs, Employment Sector	Develop effective and active institutions and working practices in industrial and labour relations	TA	Assessment of roles and functions of social partners and Socio-economic Council Recommendation for engagement of partners, training, study tours, action plan		2009-11

Year	Project	Area	Budget (EUR million)	Beneficiary	Purposes	Components	Activities	ETF complementary activities	Period of implementation
2007	IPA – promoting entrepreneurial learning	Education	0.5	Ministry of Civil Affairs, Education Sector	Introduce entrepreneurial learning in the education sector in the context of lifelong learning	TA	Agreement on national strategy for lifelong entrepreneurial learning and implementation Adoption of the concept note for the introduction of entrepreneurial learning including curricula for ISCED 2 and 3 and proposal for teacher training based on clearly defined results of entrepreneurial learning at the specified level of education Agreement on model for social partnership for the introduction of entrepreneurial learning into informal education system		2010–11
2007	Strengthening Higher Education in Bosnia and Herzegovina III	Education	0.5 (EU 0.4)	Ministry of Civil Affairs, Education Sector	Strengthen state-level institutions that effectively coordinate and manage higher education institutes To develop and apply common standards and procedures for quality assurance	Direct agreement with an international institution	Organise project steering committee meeting Establish independent body for quality assurance, training, review Recommend legislation relevant to the National Higher Education Qualifications Framework		2010–12
IPA 2007		Education	1.1	Ministry of Civil Affairs, Education Sector	Increase academic mobility and labour force mobility through diploma recognition, introducing integrated university model	TA	Establish working group Organise training, study visits Identify training needs Prepare training modules		2009–11
2007	Upgrading of VET equipment	Education	1.3	Ministry of Civil Affairs, Education Sector	Provide equipment to vocational schools as complementary activity to the VET System Reform III project, Copenhagen Process in Bosnia and Herzegovina	Supply tender	Supply equipment to 36 vocational schools (min. 16 implementing new curricula and using the equipment) Teacher training		2007–09

Year	Project	Area	Budget (EUR million)	Beneficiary	Purposes	Components	Activities	ETF complementary activities	Period of implementation
2008	IPA – support to education reform in Bosnia and Herzegovina	Education	3	Ministry of Civil Affairs, Education Sector	Build an efficient and effective quality education system in line with EU trends and standards	TA	Develop a VET framework curriculum based on modules and common core curricula Design a national qualifications framework in line with the EQF Design a more efficient scheme for the allocation of public funds to higher education		2009–11
2009	IPA –strengthening human resource capacities and making the labour market work effectively	Education and employment	5,167 (5 EU – 2.5 education and 2.5 employment)	Ministry of Civil Affairs, Education and Labour Sectors	Support institutional development in education, labour market and employment sectors	TA for education TA for employment Grant scheme and twinning	<i>Education</i> Set up expert group, draft strategy for adult education and training and related action plan Design Draft Framework Law on Adult Education and Training Assess institutional needs in the field of statistics for education Design unique form in accordance with Eurostat Upgrade existing computer hardware Assess capacity-building of the Agency for Pre-primary, Primary and Secondary Education Organise study visit and networking Allocate grants for human resources development <i>Employment</i> Design appropriate solutions for identified problems Set up Human Resources Development Councils, creating a mechanism to match labour supply and demand for training Install specific IT software		2009–11

# ABBREVIATIONS AND ACRONYMS

BAM	Convertible mark (currency)
BIP	Business Innovation Programme
CARDS	Community Assistance for Reconstruction, Development and Stabilisation
Cedefop	Centre européen pour le développement de la formation professionnelle (European Centre for the Development of Vocational Training) – EU agency
CNC	Computer numerical control
CVET	Continuous vocational education and training
ECTS	European Credit Transfer and Accumulation System
ECVET	European Credit Transfer in Vocational Education and Training
EMIS	Education Management Information System
EQF	European Qualifications Framework
ETF	European Training Foundation – EU agency
EU	European Union
Eurostat	Statistical office of the European Union
GDP	Gross domestic product
GTZ	Gesellschaft für Technische Zusammenarbeit (German Agency for Technical Cooperation)
HACCP	Hazard analysis and critical control points
IPA	Instrument for Pre-Accession Assistance (EU financial instrument)
ISCED	International Standard Classification of Education
IT	Information technology
NGO	Non-governmental organisation
OSCE	Organisation for Security and Cooperation in Europe
Phare	Programme of aid to central and east European countries
VET	Vocational education and training
VETIS	Vocational Education and Training Information System

# BIBLIOGRAPHY

## Reports and studies

ETF (European Training Foundation), Labour market review of Bosnia and Herzegovina, ETF, Turin, 2007

ETF (European Training Foundation), 'The role of social partners in VET in a lifelong learning perspective', ETF, Turin, 2008

EU CARDS, Vertical review of the labour and employment sector 2006-2007, 2005

EU CARDS VET 2, Final report, Aalborg Technical College, Aarhus Technical College, Centre of the Republic of Slovenia for VET, December 2006

EU CARDS, VET system reform 3: Copenhagen in Bosnia and Herzegovina 2007-2009

EU-ICBE, Institutional and capacity building of Bosnia and Herzegovina education system, 2007

EU-ICBE, Strategic directions for the development of education in Bosnia and Herzegovina, Final document, February 2008

Parkes, D. and Nielsen, S. (European Training Foundation), The reform of vocational curricula: Outcomes of the 2005 ETF peer reviews in Bulgaria, Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia, and Serbia, Office for Official Publications of the European Communities, Luxembourg, 2006

Tiongson, E. and Yemtsov, R., Bosnia and Herzegovina 2001-2004: Enterprise restructuring, labour market transitions and poverty, Policy research working paper 4479, World Bank, Washington DC, 2008

UNDP (United Nations Development Programme), National human development report 2007: Social inclusion in Bosnia and Herzegovina, UNDP, 2007

UNDP (United Nations Development Programme), Human development report 2007/2008, Palgrave Macmillan, 2008

United Nations, International migration report 2006: A global assessment, United Nations Department of Economic and Social Affairs, Population Division, New York, 2006

United Nations, World statistics pocketbook: Bosnia and Herzegovina, 2011

World Bank, Bosnia and Herzegovina: Addressing fiscal challenges and enhancing growth prospects – A public expenditure and institutional review, World Bank, Washington DC, 2006

## Regulations

'Law on Agency for Pre-school, Primary and Secondary Education', Official Gazette of Bosnia and Herzegovina, No 88/07, 2007

'Framework Law on Primary and Secondary Education in Bosnia and Herzegovina', Official Gazette of Bosnia and Herzegovina, No 18/03, 2003

'Framework Law on Secondary Vocational Education and Training in Bosnia and Herzegovina', Official Gazette of Bosnia and Herzegovina, No 63/08, 2008

## Strategic issues

Green Paper on strategy and policy for reform of vocational education and training in Bosnia and Herzegovina, February 2000

White Paper for vocational education and training in Bosnia and Herzegovina, February 2001

Green and White Papers for general education, 2003/2004

Public administration review for education, 2005

Bosnia and Herzegovina Council of Ministers, VET development strategy 2007-2013, Council of Ministers, Directorate for Economic Planning, November 2006

EU CARDS VET 2, Financing of vocational education and training in Bosnia and Herzegovina, 2006

EU CARDS VET 3, Situation analyses, September 2007

EU CARDS VET 3, Generic state qualifications framework in Bosnia and Herzegovina, April 2008

EU CARDS VET 3, Evolving policy for VET in Bosnia and Herzegovina, August 2008

**Curricula**

Curricula developed in the context of Phare, EU VET 2 and 3 programmes

EU VET 3 guidelines for developing VET modular curricula in Bosnia and Herzegovina

GTZ documents on occupational guidance, curricula and a glossary of terms

KulturKontakt documents on entrepreneurship

Modular curricula from 5+1 occupational families and teachers trained under VET 3 project

Standards for modular curricula in VET in Bosnia and Herzegovina



## CONTACT US

Further information can be found on the ETF website:  
**[www.etf.europa.eu](http://www.etf.europa.eu)**

For any additional information please contact:

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

E [info@etf.europa.eu](mailto:info@etf.europa.eu)  
F +39 011 630 2200  
T +39 011 630 2222

