IMPROVEMENT OF QUALITY AND RELEVANCE OF VOCATIONAL EDUCATION AND TRAINING IN BOSNIA AND HERZEGOVINA - IN THE LIGHT OF RIGA CONCLUSIONS - FOR THE PERIOD 2021–2030
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Since the adoption of the Copenhagen Declaration (2002), Bruges Communiqué (2010), Rethinking Education: Investing in Skills for Better Socioeconomic Outcomes (2012) and Riga Conclusions (2015), vocational education and training has continuously improved and developed. The Riga Conclusions also play an important role in defining the approach and strategic thinking about the future of VET after 2020.

The world is in the era of the fourth industrial revolution, in which it is necessary to inspire people to create, innovate and continuously improve their skills for the use of new technologies. In today’s “smart world” of work, VET is becoming a “smart choice”.

In the framework of the Copenhagen process, ministers in charge of VET development in EU Member States, EU candidate countries, countries of the European Economic Area (EEA), the European Commission and European social partners identified five medium-term results during a meeting in Riga in 2015, which constitute the basis of a VET modernisation plan by 2020.


The need for setting priorities in the Riga Conclusions is the fact that Europe is still facing economic and social challenges, with a relatively high youth unemployment rate in many EU Member States, lack of basic skills in case of one fourth of adult labour force, a need for the improvement of labour force skills due to changes in the labour market demand and new technologies.

Vocational education and training has been recognised as an important factor in the overall economic growth strategy and creation of new jobs. The contribution of vocational education and training has been recognised in particular in the context of fight against youth unemployment, better harmonisation of education and labour market needs and facilitation of the market entry for youth.

THE RIGA CONCLUSIONS

5 OBJECTIVES FOR THE IMPROVEMENT OF VOCATIONAL EDUCATION AND TRAINING

1. Promote work-based learning in all of its formats\(^2\), with a special focus on practice (apprenticeship), involvement of social partners, companies, chambers of commerce and VET providers, as well as support to innovations and entrepreneurship.

2. Further develop quality assurance mechanisms in VET in compliance with the recommendation made by EQAVET, and, as part of the quality assurance system, ensure continuous information and feedback in initial vocational education and training (I-VET) and continuing vocational education and training (C-VET) system based on learning outcomes.

3. Improve the availability of VET and qualifications for all through more flexible and permeable systems, by offering efficient and integrated orientation services and ensuring recognition of non-formal and informal learning.

4. Additionally support the development of key competences in VET programmes and offer more efficient possibilities for the acquisition and development of such skills through I-VET and C-VET.

5. Introduce systematic approaches and possibilities for initial and continuous professional training of teachers, trainers and mentors both at school and in workplace environment.

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\(^2\) According to Cedefop, work-based learning relates to the knowledge and skills that are acquired in the workplace or a vocational education institution. There are three types of work-based learning: 1) alternating practical training schemes that are usually called “dual system”, 2) work-based learning that takes place at a vocational school, but includes training periods and work-based learning at companies, and 3) work-based learning that is integrated in the school programme, and includes the use of laboratories, workshops, kitchens, restaurants, virtual companies, simulations or real project tasks (2 and 3 are “school-based” practical trainings).
The Riga conclusions also recognise the role of cross-cutting areas (partnership, efficient financing and promotion of excellence and innovations in VET, consistent application of the learning outcome-based approach and jointly developed tools and principles) in the improvement of VET quality.

By investing in vocational education and training at all government levels, the authorities in Bosnia and Herzegovina will develop a high-quality and accessible initial education that both students, their parents and the society at large will recognise as attractive. Vocational education and training should ensure recognised and high-quality qualifications and key and specific technical competences recognised in the labour market that ensure progress and economic growth.

In order to achieve this goal, the Ministry of Civil Affairs of Bosnia and Herzegovina initiated the activities related to the development of the document "Improvement of Quality and Relevance of Vocational Education and Training in Bosnia and Herzegovina – in the Light of Riga Conclusions – for the Period 2021-2030" in cooperation with Kulturkontakt Austria/OeAD GmbH.

One of the objectives of this document is to develop a plan of priorities and activities based on the Riga Conclusions in Bosnia and Herzegovina for competitive and attractive vocational education and training in the period 2021-2030. Round table discussions about the following topics were organised in the framework of the development of the document: "Expanding the Scope and Quality of Work-Based Learning", "Quality Assurance in Vocational Education and Training", "Initial and Continuous Professional Development of Teachers and Mentors from Vocational Schools and in the Workplace" and "Key Competences in Initial and Continuous VET".

The data about roundtable discussions and expert and participant lists are contained in annex. Roundtable recommendations, analyses of regulations and strategic documents in VET in Bosnia and Herzegovina, research conducted over the past period and an overview of the situation in this field were used to compile the document "Improvement of Quality and Relevance of Vocational Education and Training in Bosnia and Herzegovina – in the Light of Riga Conclusions – for the period 2021-2030".

An overview of the situation, challenges, priorities and relevant activities of the competent educational authorities and relevant partners in Bosnia and Herzegovina was prepared for every of the Riga conclusions. The purpose of setting priorities is for the competent educational authorities in Bosnia and Herzegovina to fully implement the Riga conclusions by 2030, which will contribute to the integration of VET in the European vocational education and training area and speed up the accession of Bosnia and Herzegovina to the EU.

Given the fact that the priorities were developed based on the Riga conclusions and discussions of all participants during round table events, this document includes separate short-term (2021-2023), medium-term (2024-2026) and long-term priorities (2026-2030), activities and institutions responsible for every objective. After every of these three periods, the competent educational authorities should conduct an evaluation of the implementation of priorities and actions.
OBJECTIVE 1
WORK-BASED LEARNING IN ALL OF ITS FORMATS
1.1. Situation and challenges in VET and work-based learning

Provisions of the Framework Law on VET in Bosnia and Herzegovina\(^3\) stipulate that vocational education and training, among other things, should be harmonised with the needs, requirements and trends of the labour market and that the requirements for practical training at schools or companies should be defined by every competent authority. In particular, the law stipulates that a curriculum, which is adopted by the competent minister, specifies the duration and basic forms of curriculum implementation and the annual and weekly number of practical training hours.

Practical training in VET or work-based learning in Bosnia and Herzegovina is organised through: a) alternate learning at school and business company\(^4\); b) school workshops, laboratories, etc., and c) summer and winter holiday placements.\(^5\)

a) The most prevalent form of practical training in the VET system in the entity Republika Srpska, in cantons in the entity Federation of Bosnia and Herzegovina and in Brčko District of Bosnia and Herzegovina is the one in case of which students spend between one and three days per week throughout the school year in practical training at companies. Schools and companies regulate their rights and obligations in a relevant document (contract). This format of work-based learning, in case of which theoretical lessons take place at school, and the whole practical training or part of the practical training that takes place at a company, constitutes a school-based practical training format, since the school is responsible for the overall learning content, including also monitoring of students’ achievements during practical training, although it takes place at companies. The company provides its premises and equipment for the implementation of practical training and employees/mentors at companies also provide learning support to students.

b) At some VET schools in Bosnia and Herzegovina and in case of some programmes, practical training takes place at laboratories, workshops, kitchens, virtual companies, etc. Students develop their practical skills at school premises in learning situations that correspond to real life situations. They are thus prepared to work in real working environment.

c) Summer and winter holiday work placements are a format of work-based learning in the framework of which students spend certain periods of time at companies (mostly between 10 and 15 days). Summer holiday placements prevail. The prevalence of summer and winter holiday placements as a work-based learning format varies at schools in Bosnia and Herzegovina, ranging from full absence of this form of work-based learning to partial presence in some cantons. In some cases, this format of practical training is obligatory, and in other cases it is only a voluntary choice of students and parents.

Work-based learning that implies alternate learning at the school and company and in case of which the company assumes the obligation of providing practical training to students and assessing their achievements, mostly referred to as “dual education”, is present only in the form of pilot projects in a small number of schools in Republika Srpska and some cantons in the Federation of Bosnia and Herzegovina.

Having in mind the importance of work-based learning in real work environment for the development of skills and competences of students and the need to harmonise the curriculum with the needs, requirements and trends of the labour market, the Ministry of Education, Science, Culture and Sport of Bosnia and Herzegovina, in cooperation with the Swiss Development and Cooperation Agency, SDC, has launched the Prilika Plus project, which aims to promote the implementation of work-based learning in VET and to increase the quality of practical training through the implementation of a work-based learning model.

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\(^3\) Framework Law on VET in Bosnia and Herzegovina, “Official Gazette of Bosnia and Herzegovina”, No. 63/08.
\(^4\) The term used in the document is business company, which implies companies (small and medium enterprises), sole proprietorships and public companies and institutions.
students, as well as the fact that work-based learning requires the involvement, cooperation and distribution of tasks to companies, their associations, chambers of commerce and educational institutions, it is necessary to create the conditions for various formats of work-based learning: alternating schemes of practical training at school and company, school-based format of work-based learning, practical trainings at virtual companies, workshops and summer and winter holiday work placements.

The applicable regulations on VET in Bosnia and Herzegovina make practical training and work-based learning at companies possible. The competent educational authorities are responsible for the organisation, implementation, monitoring and evaluation. However, in the opinion of employers, the applicable regulations do not allow sufficient room for their participation in the development of curricula and sufficient flexibility when it comes to organising work-based learning. The scope of practical training is not sufficient and curricula should be more flexible in order to meet labour market needs.

1.2 Fields of action (priority areas)

1.2.1. Promoting work-based learning and making it attractive for companies and students

One of the greatest challenges for the labour market is ensuring the necessary skills, i.e. making sure that the contents that students are learning at school meets the job requirements. A way to overcome this challenge is to use the workplace as the right learning environment. Work-based learning has been recognised as an approach to ensuring the relevant labour force and a high rate of students transitioning from the education sector to the labour market. It is a structured manner to increase the level of know-how, skills and competences of existing and future employees who are needed by business companies and who will contribute to the productivity, sustainability and long-term economic growth.

Work-based learning can be achieved only through close cooperation between schools and companies and their associations is crucial for work-based learning, irrespective of its format.

Practical training in the workplace helps students develop skills for duties relevant for their profession with the support of the mentor and other employees at the company. Students become confident and develop a routine in the performance of the work tasks and duties for their future profession in compliance with the established quality standards, develop practical skills and key competences (e.g. teamwork, innovation), which increases the chances for their employment following their graduation, either at the company, where they did their practical training, or another one. Students also become acquainted with state-of-art technologies that companies have at their disposal and are thus able to also develop their specific professional competences. During their practical training, students also develop specific occupational competences. In addition to this, students also develop entrepreneurial competences and cross-cutting skills that enable them to transition to the labour market faster and find employment more easily.

The manner of organisation and scope of work-based learning should be adapted to contexts that match the needs of specific companies, but also students, and the quality of training should be ensured.

Learning in the real work environment facilitates inclusion – students with special needs are able to find their place at a company that matches their abilities, with the relevant cooperation and support of the school and company.

Local communities should also be involved in the identification of needs of the labour market and business companies. Given the fact that local communities know the opportunities and challenges related to ensuring qualified labour, they are able to support companies and educational institutions in the implementation of the relevant agreed-upon policies that will ensure a faster response of the education sector to the needs of the economy.
1.2.2. Involvement of social partners in VET and VET policy making

As regards employers (the public and private sector and their associations), it is important to ensure an institutional impact on the process of planning and managing initial vocational education and training. An active involvement of business companies and their associations/chambers in policy making and defining of priorities in vocational education and training will enable employers, among other things, to understand work-based learning formats and other forms of cooperation between schools and companies.

In compliance with the established form of cooperation between the educational sector and companies and their associations, or sector-specific organisations, it is necessary to clearly regulate the roles and responsibilities of all partners. This form of cooperation requires providing well-structured support to companies in capacity building.

As regards the development of practical training plans, it is necessary to ensure that the content, duration and expected learning outcomes of school-based and company-based learning constitute a coherent whole that makes it possible to implement such plans.

1.2.3. Pre-requisites and support to work-based learning implementation

Although the various work-based learning formats described above do have different pre-requisites and different roles/obligations/rights for schools and business companies, advisory committees play a crucial role in ensuring a well-structured, permanent, transparent and efficient dialogue between partners in the education sector and labour and employment sector as well as coordination and decision-making on work-based learning. The establishment of tripartite advisory committees is provided by the Framework Law on Secondary Vocational Education and Training in Bosnia and Herzegovina.

Tripartite advisory committees can suggest modalities to decision makers regarding the involvement of partners in this learning format. The committees can help, among other things, in defining the occupational profiles and standards and determining the scope and manner of implementation of practical training, monitoring and evaluation of the implementation and determining criteria for the selection of companies that provide work-based learning opportunities (licencing of companies), which is particularly important in case of dual education training formats.

The basic principle of high-quality practical training of students at companies is ensuring that the time a student spends at a company is relevant for him/her, so that the student is able to acquire knowledge and skills he/she needs in his/her future profession in compliance with established standards. In order to achieve this, it is necessary to ensure mentor support measures before, during and after practical training at companies. Such support measures include support in mastering competences provided by the practical training plan and administrative and pedagogical support of the school.

Before the beginning of practical training of a student, it is necessary to establish whether a company is able to provide practical training to students and select an adequate work-based learning format, having in mind the content of the practical training plan and previously specified criteria of the competent educational authority. The process of specifying requirements for companies to provide practical training to students should be jointly implemented by schools and associations/chambers or by tripartite advisory committees, especially in case of the dual format or elements of dual education. The criteria and procedure for the licencing should be pre-defined through cooperation of all stakeholders, including also the competent educational authority. Students, their parents and companies should be informed about all aspects of work-based learning and their rights and obligations.

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6 An overview of pre-requisites, obligations, rights and roles of schools and business companies in three key work-based learning formats that are implemented in Bosnia and Herzegovina is contained in the Manual for the Implementation of Various Work-Based Learning Formats. For more details, please see the Manual for the Implementation of Various Work-Based Learning Formats, Project Prilika plus, SDC in cooperation with KulturKontakt Austria, 2017.
In the process of selection of companies, it is necessary to verify whether a company possesses adequate equipment for the implementation of all practical training fields. If some parts of practical training cannot be implemented at a single company, it is important to implement that part of the curriculum at another company or at school.

Practical training at companies in case of the dual education or certain elements of dual education in VET should be implemented by a qualified practical training mentor. The requirements for a mentor are specified by the competent educational authority in its rulebooks on the implementation of practical training. However, a basic requirement for a mentor (especially in case of the dual education format, since the mentor trains the student and checks his/her achievements) should include: at least the same qualification as the student he/she is mentoring, an adequate profile and work experience in the profession (such as at least 3 or 5 years). A mentor should attend additional pedagogical and didactical training in order to be able to work with students, in compliance with the training plan accredited by the competent body or service.

Once conditions for the implementation of practical training that corresponds to dual education/certain elements of dual education are created, the association/chamber of commerce of the Federation of Bosnia and Herzegovina, Republika Srpska and Brčko District of Bosnia and Herzegovina should keep a register of all companies that offer work-based learning. Both in case of the alternating learning format at school and company and dual practical training, schools should keep a register of companies where their students do practical training for all curricula and years, in compliance with the contract.

Before the beginning of practical training at a company, students should be insured. In this respect, it is necessary to define who is obliged to provide insurance for students. Also, before the beginning of training at a business company, students should be informed and able to comply with regulations on occupational safety/health and safety regarding youth.

During practical training or work-based training in the framework of dual education/elements of dual education, mentors at companies should receive administrative, pedagogical and technical support from the school, from practical training teacher and/or practical training coordinator. Mentors need a continuous cooperation with teachers and/or practical training coordinators, training for the implementation of a relevant subject/module curriculum and practical training plan or expected learning outcomes, the necessary forms for practical training planning, monitoring of student attendance, assessment of students’ achievements, etc.

The practical training coordinator and/or practical training teacher should assist the mentor with the drafting of the operational plan for practical training for a certain class in compliance with the content of the practical training curriculum/module.

After practical training of a student at a company, it is necessary to organise a valid verification of work-based learning results and achievement of planned learning outcomes for every student. Mentors, practical training coordinators and/or practical training teachers should be trained regarding the assessment of student achievements, monitoring and evaluation of work-based learning and be able to manage the quality assurance process.

Certain assessment principles applied to classroom learning should also be applied to work-based learning. Learning outcomes that are assessed and assessment criteria as well as the conditions under which the assessment takes place should be as authentic as the real work process as possible. If there are external committees or examination committees involved in the assessment of student achievements, it is necessary to define the qualifications and professional experience of members of these committees who assess work-based learning outcomes.
1.2.4. Costs and benefits of work-based learning

The most frequent form of division of practical training costs at companies is the one in the framework of which competent authorities organise and finance the education and training at schools, whereas companies assume the financing, responsibility for the supervision and training of students during their stay at the company, regarding primarily that practical training format we call the dual format, in case of which students are entitled to an allowance. The inclusion of companies from the private and public sector in the division of costs implies a shared responsibility of all partners for the creation of qualified work force, which is a basis for economic growth.

Other schemes of practical training financing at companies are also possible, such as the establishment of funds using part of contributions paid by companies, irrespective of whether the companies offer students practical training or not. The funds would be used for structural support to companies that provide work-based learning, mentor trainings, student insurance, etc. The financing modalities for work-based learning should be defined jointly by employers and their associations and educational authorities. Tripartite advisory committees can also play an important role in this.
## 1.3. Priorities and activities (2021 – 2030)

**Objective 1 of the Riga Conclusions**

<table>
<thead>
<tr>
<th>Priority</th>
<th>Activities</th>
<th>Institutions responsible</th>
<th>Indicators</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Promoting work-based learning</strong>&lt;br&gt; (making it attractive for students, companies, employers and social partners)</td>
<td>Strengthen the cooperation between VET schools and companies</td>
<td>Competent educational authorities, ministries of entrepreneurship, chambers of commerce, associations of employers and chambers of craft trades</td>
<td>All work-based learning formats are being implemented</td>
<td>2021 – ongoing</td>
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<tr>
<td></td>
<td>Strengthen the role of the local community through advisory committees at schools</td>
<td>Schools, business companies, local communities</td>
<td>Mutual visits of representatives of the local community and schools take place</td>
<td>2021 – ongoing</td>
</tr>
<tr>
<td></td>
<td>Promote occupations needed in the labour market with a focus on apprenticeship</td>
<td>Competent educational authorities, ministries of entrepreneurship (economy), chambers of commerce, associations of employers, chambers of craft trades, companies</td>
<td>Number of students doing practical training at business companies as part of the dual education/elements of dual education in VET</td>
<td>2021 – ongoing</td>
</tr>
<tr>
<td></td>
<td>Improve the flexibility of work-based learning for a more efficient response to the needs of students and companies</td>
<td>Competent educational authorities, educational institutions, business companies, chambers of commerce and chambers of craft trades, associations of employers</td>
<td>The number of enrolled students in VET</td>
<td>2021 – ongoing</td>
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<tr>
<td><strong>Role of social partners in creating VET policies</strong></td>
<td>Increase the impact on the process of planning and management in the initial vocational education and training through tripartite advisory committees</td>
<td>Competent educational authorities, business companies, chambers of commerce, associations of employers, chambers of trade crafts, tripartite advisory committees</td>
<td>An institutional framework for the involvement of business companies and/or their representatives in planning and management has been established</td>
<td>2021 – ongoing</td>
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<td></td>
<td>Implement contracts defining the rights and obligations of all participants in the process in compliance with the rulebooks of the competent educational authorities</td>
<td>Competent educational authorities, business companies</td>
<td>Roles and responsibilities of all stakeholders in the process of practical training at companies and schools have been defined</td>
<td>2021 – ongoing</td>
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<td></td>
<td>Modernise curricula in cooperation with social partners</td>
<td>Competent educational authorities, social partners</td>
<td>Curricula have been modernised and adapted to labour market needs</td>
<td>2021 – ongoing</td>
</tr>
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<td></td>
<td>Ensure occupational safety measures for all students during practical training at companies</td>
<td>Competent educational authorities, business companies</td>
<td>Occupational safety measures have been introduced</td>
<td>2021 – ongoing</td>
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<td></td>
<td>Ensure the accreditation of companies that involves the employers</td>
<td>Competent ministries, chambers of commerce, associations of employers, chambers of trade crafts, educational institutions</td>
<td>The accreditation of companies is carried out together with employers</td>
<td>2025 – 2030</td>
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<tr>
<td>Priority</td>
<td>Activities</td>
<td>Institutions responsible</td>
<td>Indicators</td>
<td>Period</td>
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<td></td>
<td>Define criteria for the selection of companies based on the work-based learning format and occupational profile</td>
<td>Educational institutions, chamber of commerce and chambers of trade crafts</td>
<td>Criteria for the selection of companies based on the work-based learning format and occupational profile have been defined</td>
<td>2021 – ongoing</td>
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<td></td>
<td>Select companies that will provide the relevant practical training for a certain occupational profile</td>
<td>Educational institutions, business companies, chambers of commerce and chambers of trade crafts</td>
<td>The selected companies fully match the occupational profile</td>
<td>2021 – ongoing</td>
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<td></td>
<td>Organise training for mentors from all companies that provide practical training for students in the framework of dual education/elements of dual education in VET</td>
<td>Pedagogical institutes, business companies, chambers of commerce, competent educational authorities</td>
<td>Mentor training takes place</td>
<td>2021 – ongoing</td>
</tr>
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<td></td>
<td>Organise training for coordinators and/or teachers of practical training and mentors from companies regarding the application of quality assurance mechanisms</td>
<td>Pedagogical institutes</td>
<td>Mentor trainings regarding the application of quality assurance mechanisms take place</td>
<td>2021 – 2025</td>
</tr>
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<td></td>
<td>Ensure training for teachers for practical training and mentors regarding the assessment of student achievements (learning outcomes)</td>
<td>Pedagogical institutes</td>
<td>Trainings regarding the assessment of student achievements take place</td>
<td>2021 – 2025</td>
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<td></td>
<td>Implement work-based learning in compliance with the EQAVET Framework</td>
<td>Competent educational authorities, pedagogical institutes</td>
<td>The EQAVET Framework is fully implemented during practical trainings</td>
<td>2025 – 2030</td>
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<td></td>
<td>Ensure permanent financing of practical trainings at companies</td>
<td>Competent educational authorities, business companies</td>
<td>Financing for practical training of students at companies has been ensured</td>
<td>2021 – 2030</td>
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<td></td>
<td>Define a mechanism for student allowances during practical training by adopting relevant regulations</td>
<td>Competent ministries, business companies</td>
<td>Contracts include a financial allowance for students</td>
<td>2021 – 2030</td>
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</table>

**Sustainable work-based learning financing mechanisms**
OBJECTIVE 2
FURTHER DEVELOPMENT OF QUALITY ASSURANCE IN COMPLIANCE WITH THE EUROPEAN QUALITY ASSURANCE IN VOCATIONAL EDUCATION AND TRAINING FRAMEWORK (EQAVET)
2.1. Situation and challenges in the field of quality assurance in Bosnia and Herzegovina

The establishment of a coherent VET quality assurance system in compliance with EQAVET recommendations is crucial for the relevance and reliability of VET for the labour market and individuals, and the development of skills and competences that will render possible employability and lifelong learning.

In the Economic Reform Programme for the period 2018 – 2020, the field of Education and Skills – it is stated that "the fundamental policy of Bosnia and Herzegovina is the work on further improvement of quality of all types and levels of education". The Framework Law on VET in Bosnia and Herzegovina provides that the competent educational authorities, pedagogical institutes and educational institutions are in charge of quality assurance in VET. The VET curriculum is adopted by the competent minister of education.

In Bosnia and Herzegovina, the competent educational authorities initiated the process of quality assurance in compliance with the European Quality Assurance in Vocational Education and Training (EQAVET) with the support of EU project "Lifelong Learning Qualification Framework Development". A "VET Quality Assurance Manual" was developed with the support of the project. The manual includes topics such as: VET quality assurance standards, self-evaluation manual for institutions, external evaluation manual for institutions, systemic evaluation manual, external evaluator training standards and Guidelines on the European Credit System for Vocational Education and Training (ECVET). The Action Plan for the Development and Implementation of the Qualification Framework in Bosnia and Herzegovina for the period 2014 – 2020 also defines quality assurance: “Quality assurance is a system and a set of procedures applied in order to maintain the agreed standard of products and services, including their continuous improvement”.

2.2. Fields of action (priority areas)

The quality of (VET) education can be viewed from two points: one is the functioning of the system as such and the other is the functioning of educational institutions (schools) or education providers. In case of the quality of the functioning of the system itself, there are various dimensions of education and training quality that reflect the strategic vision of VET and effectiveness and efficiency of the system as well as the focus on quantitative outcomes of educational work and the labour market. In case of the quality of the functioning of institutions, there are aspects regarding quality: is the quality assurance system adequate for the institution, does the institution implement the process of internal quality assurance in case of teaching and outcomes, employability of students after graduation, etc. These two levels of education quality are interrelated and complementary, because education quality indicators can be best seen based on the level of student achievements and are a result of educational work.

When we speak about a comprehensive and systemic quality assurance framework, basic factors should be kept in mind, which directly impact education quality at the entry in the education system, during the education process and at the end of education or evaluation of results.

2.2.1. Input information – quality assurance at the beginning of the educational process

All institutions that educate youth and adults and issue public education documents should be accredited in compliance with
clearly defined criteria regarding material, technical, personnel and other requirements. It is necessary to ensure procedures for the accreditation of institutions/schools, since these elements are not part of practice. The requirements for the establishment of public and private schools should be the same in order to ensure high-quality education for the students irrespective of the type of institution. The accreditation of institutions is a guarantee for the quality of educational process.

A systemic external evaluation of work of accredited VET institutions, which includes the relevant indicators and expert bodies conducting the external evaluation, is needed. The work of external bodies conducting the external evaluation should also be subject to audits by the competent educational authorities in compliance with defined procedures.

Teaching curricula implemented at accredited institutions should be in compliance with needs of the labour market and should be developed in compliance with the relevant occupational standards and based on learning outcomes and key competences. An evaluation of curricula is needed in order to establish whether their content and concept makes it possible to achieve the set goals and learning outcomes and plan their review in compliance with the findings of the evaluation.

Occupational standards based on which qualification standards, learning outcomes and curricula are prepared, should be developed together with the relevant partners (representatives of employers, chambers of commerce, sector-specific organisations, education sector, etc.).

In order to involve partners in the development of occupational standards and review of existing or development of new qualifications, systemic requirements need to be introduced in order to clearly define roles and responsibilities of individual partners. The process of identification of qualification needs and skill forecasts, training need forecasts and development of qualifications would thus become more transparent, qualifications would be more relevant, and the education system would be more efficient in meeting labour market needs. The establishment of permanent or ad hoc sector-specific partner committees by educational authorities and/or in cooperation with associations/chambers is a practice that has proven to be successful in different countries. The involvement of tripartite advisory committees in the identification of needs for qualifications can ensure added value for the process of qualifications development in the scope permitted by regulations.

Teaching should be done by teachers that have a relevant profile and education level and in compliance with the curriculum. Teachers should have permanent access to professional training.

2.2.2. Quality assurance in the process of education and training

A basis for efficient quality management in the education sector in general, and in VET specifically, is the so-called PDCA methodology, also known as Deming cycle. This methodology is used for management and continuous improvement of education quality. It is applied to all processes and is based on four steps/rules:

1. Plan: Identify and define objectives and processes needed to achieve the desired results
2. Do: Implement the plan, processes and activities
3. Check: Analyse results gathered and measured in the step "do" and compare them to expected results from the step "plan". For the next step, "act", it is necessary to analyse the differences between them.
4. Act: Define corrective measures for overcoming the differences between the real and planned results and analysis of differences in order to establish an efficient and continuous process in the quality management system.

Also, when it comes to quality assurance and VET, self-evaluation and external valuation as well as an adequate analysis of their results play an extremely important role. Only an adequate analysis and use of the results obtained from all competent authorities, and
In order to analyse the quality of teaching at an institution, it is necessary to analyse the conditions under which the institution operates, processes that take place and results or outcomes that the institution achieves. The above mentioned elements are a basis for defining key quality areas and quality standards. Quality standards, including defined indicators and descriptors, are a basis for an internal evaluation (self-evaluation) and external evaluation of an institution’s work. Employees of the institution conduct self-evaluation in compliance with quality assurance standards and defined quality assurance indicators. Research has shown that the best results in quality improvement of institutions’ performance and teaching process are achieved by combining external and internal evaluation, which is also a common practice in EU Member States. Such an approach results from the EQAVET framework.

The “VET Quality Assurance Manual” contains seven quality standards agreed upon by educational authorities and their partners that were involved in the development. These quality standards are as follows: management of an institution, learning and teaching, students’ achievements, student support, organisation and content of curricula, human and material resources, quality assurance systems and processes. Indicators have been developed for every standard by gathering evidence for their achievement. The focus of the standards is on achieving quality regarding learning and teaching in VET, including learning environment and relevant links to the labour market. The standards for internal quality assurance include strategic planning and drawing up of school development plans for a 3-5 year period.

Institutions should strengthen the capacities for the implementation of internal evaluations and capacities for internal school quality development. The establishment of school quality teams is the first step in this process. Activities that contribute to the further quality assurance development include:

- **Ensuring an enabling environment for teaching and learning.** Teachers should be trained to apply different teaching methods. Work-based learning, in all of its formats, should be the focus of education planning. Approaches to learning should differ (i.e. they should connect the practice and theory, stress key competences, boost independence and creativity of students, peer learning, promote work-based learning in all of its formats, etc.). A relevant infrastructure at schools in compliance with technological

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10 Ibid
11 Ibid
Enabling all students to achieve learning outcomes, including students at risk of dropping out of school and students with special educational needs. It is particularly important to monitor the regular attendance of lessons in order to prevent students from dropping out. In order for an institution to meet a wide range of educational needs and other needs of students, it needs support from educational authorities and the environment in which it is located – the local community and partners. Efficient partnerships and cooperation within the system and in local communities are crucial for achieving quality of work of an institution. Partners from the local community are other educational institutions, faculties, companies, associations of teachers, youth and other organisations, etc.

In order to ensure the achievement of set learning outcomes, it is necessary to continuously monitor the progress of students in terms of their knowledge, skills and attitudes and identify factors that lead to an insufficient performance of students. An unbiased, evidence-based assessment of the work of teachers, continuous self-evaluation and cooperation with others, including external evaluation, give a teacher a clear picture of where he/she really stands and what he/she needs to improve in his/her work.

2.2.3. Information about education results – quality assurance at the end of education

Institutions possess a significant quantity of data. In addition to data about the achievement of students, institutions also have data on the socio-economic position of students, their absences, corrective measures, their success during previous education, etc., which will enable institutions/employees to identify potential challenges and prevention and intervention measures, if necessary. Particular attention should be devoted to student drop-out or hidden drop-out (in those cases when students have a large number of absences). An institution should continuously gather, monitor and analyse data on the achievement of students by subjects, departments and classes throughout the academic year (classification periods, half-year, the end of academic year) as well as external tests, analyse them, plan and implement measures for the purpose of better student performance. The institution also supports students, among other things, by organising after-school classes for students that do not achieve sufficient progress at school and students that achieve extraordinary results and would like to learn more.

An institution should analyse the results of final exams and compare them with the results achieved during the period preceding it. If possible, representatives of companies should be involved in the assessment of students’ achievements, especially in case of the assessment of practical skills of students.

It is necessary to define mechanisms for the purpose of gathering and analysing information and data about the transition and employability of students graduating from VET schools. Such information should be combined with information about student performance and used to create educational content and identify priorities in the development of qualifications, review of standards, contents and scope of curricula, strengthening career orientation and counselling services, assessing needs for teacher training, etc. The key role of vocational education and training is to enable students to acquire knowledge, skills and competences necessary for individuals, the economy and the society. In order to achieve this, education policy makers should specify indicators for objectives based on which an operational and functioning data and information management system will be built. Indicators make it possible to measure VET results and compare them to set goals. Data and information should be accurate, up to date, and their analysis should be the basis for setting new goals and improving (the efficiency and effectiveness) of vocational education. Quality assurance implies that the reliability of gathered data and information is verified.
### 2.3. Priorities and activities (2021 – 2030)
Objective 2 of the Riga Conclusions

<table>
<thead>
<tr>
<th>Priority</th>
<th>Activities</th>
<th>Institutions responsible</th>
<th>Indicators</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Institutional quality assurance</strong></td>
<td>Accredit all institutions (schools) providing education services in the field of VET</td>
<td>Competent educational authorities</td>
<td>All institutions providing VET services have been accredited</td>
<td>2025 – 2030</td>
</tr>
<tr>
<td></td>
<td>Develop efficient quality development systems in compliance with common quality indicators, descriptors and other indicators</td>
<td>Competent educational authorities</td>
<td>The quality assurance system has been established in compliance with EQAVET</td>
<td>2025 – 2030</td>
</tr>
<tr>
<td></td>
<td>Capacity building for efficient quality assurance at schools – at the level of the school and competent authorities</td>
<td>Competent educational authorities, educational institutions</td>
<td>The capacities of educational institutions and competent educational authorities have been built</td>
<td>2021 – 2030</td>
</tr>
<tr>
<td><strong>Quality assurance in the process of education</strong></td>
<td>Implement external quality assurance verifications of institutions’ performance</td>
<td>Competent educational authorities, pedagogical institutes</td>
<td>External performance quality evaluations are implemented</td>
<td>2025 – 2030</td>
</tr>
<tr>
<td></td>
<td>Define external evaluation in rulebooks</td>
<td>Competent educational authorities</td>
<td>Rulebooks have been developed</td>
<td>2025 – 2030</td>
</tr>
<tr>
<td></td>
<td>Develop strategic plans of educational institutions [schools] for a 3-5 year period and annual quality development plans</td>
<td>Educational institutions</td>
<td>Strategic plans of institutions have been developed</td>
<td>2021 – 2023</td>
</tr>
<tr>
<td></td>
<td>Carry out internal evaluations of institutions in compliance with defined standards and relevant indicators</td>
<td>Educational institutions</td>
<td>Internal evaluation takes place in cooperation with the quality assurance system</td>
<td>2021 – 2023</td>
</tr>
<tr>
<td></td>
<td>Establish quality assurance and processes teams at schools</td>
<td>Educational institutions</td>
<td>Quality assurance teams at schools have been established</td>
<td>2021 – 2023</td>
</tr>
<tr>
<td></td>
<td>Establish procedures for occupational and qualification standards development</td>
<td>Pedagogical institutes, competent educational authorities</td>
<td>Procedures have been defined</td>
<td>2021 – 2023</td>
</tr>
<tr>
<td></td>
<td>Develop occupational standards in cooperation with representatives of employers, chambers, and sector-specific committees and education sector</td>
<td>Pedagogical institutes, educational authorities, employers</td>
<td>Cooperation with partners for the development of occupational and qualification standards has been established</td>
<td>Continuously</td>
</tr>
<tr>
<td></td>
<td>Develop curricula in compliance with occupational and qualification standards based on learning outcomes and key competences</td>
<td>Pedagogical institutes, competent educational authorities, employers</td>
<td>The curricula have been developed in compliance with occupational and qualification standards based on learning outcomes and key competences</td>
<td>Continuously</td>
</tr>
<tr>
<td>Priority</td>
<td>Activities</td>
<td>Institutions responsible</td>
<td>Indicators</td>
<td>Period</td>
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<tr>
<td>Quality assurance in the process of education</td>
<td>Monitor the work of institutions that implement curricula through the process of external evaluation</td>
<td>Competent educational authorities</td>
<td>External evaluations have been implemented</td>
<td>2025 – 2030</td>
</tr>
<tr>
<td></td>
<td>Organise training for external evaluators</td>
<td>Competent educational authorities, pedagogical institutes</td>
<td>Trainings have been implemented</td>
<td>2021 – 2030</td>
</tr>
<tr>
<td></td>
<td>Organise regular professional trainings for teachers, management of institutions and company mentors</td>
<td>Competent educational authorities, pedagogical institutes</td>
<td>Training of all VET stakeholders has been implemented</td>
<td>Continuously</td>
</tr>
<tr>
<td></td>
<td>Render possible the achievement of learning outcomes</td>
<td>Competent educational authorities</td>
<td>Students achieve better results</td>
<td>Continuously</td>
</tr>
<tr>
<td></td>
<td>Monitor students’ presence</td>
<td>Competent educational authorities, educational institutions</td>
<td>The number of drop-out students has decreased</td>
<td>Continuously</td>
</tr>
<tr>
<td></td>
<td>Monitor students’ progress in terms of knowledge, skills and competences</td>
<td>Competent educational authorities, educational institutions</td>
<td>Knowledge, skills and competences have improved</td>
<td>Continuously</td>
</tr>
<tr>
<td>Assessment at the end of education</td>
<td>Analyse final exam results</td>
<td>Educational institutions, pedagogical institutes, competent educational authorities</td>
<td>Analysis findings are used to improve performance</td>
<td>Continuously</td>
</tr>
<tr>
<td></td>
<td>Introduce intervention measures, if necessary (supplementary classes, corrective measures, etc.)</td>
<td>Educational institutions, pedagogical institutes</td>
<td>Intervention measures have been introduced</td>
<td>Continuously</td>
</tr>
<tr>
<td></td>
<td>Involve representatives of companies in the assessment of student achievements</td>
<td>Educational institutions, pedagogical institutes, business companies</td>
<td>Representatives of companies are involved in the assessment of student achievements</td>
<td>2025 – 2030</td>
</tr>
<tr>
<td></td>
<td>Establish committees for the assessment of student achievements</td>
<td>Educational institutions, pedagogical institutes, business companies</td>
<td>Committees for the assessment of student achievements have been established</td>
<td>2025 – 2030</td>
</tr>
<tr>
<td></td>
<td>Define prerequisites to be met by committees for the assessment of student achievements</td>
<td>Educational institutions, pedagogical institutes, business companies</td>
<td>Requirements to be met by committees for the assessment of student achievements have been defined</td>
<td>2025 – 2030</td>
</tr>
<tr>
<td></td>
<td>Define mechanisms for gathering data on the transition and employment of former students</td>
<td>Competent educational authorities in cooperation with relevant institutions</td>
<td>Data on transition and employment are gathered</td>
<td>2029 – 2030</td>
</tr>
<tr>
<td></td>
<td>Analyse data on the transition and employment</td>
<td>Competent educational authorities in cooperation with relevant institutions</td>
<td>Analyses are used to adapt curricula to the needs of the labour market</td>
<td>2029 – 2030</td>
</tr>
</tbody>
</table>
OBJECTIVE 3
IMPROVEMENT OF AVAILABILITY OF VET AND QUALIFICATIONS FOR ALL
3.1. Situation and challenges in the field of improvement of availability of VET and qualifications for all

The reform of VET curricula in Bosnia and Herzegovina has been ongoing since 1998 with the support of various projects, the majority of which were financed by the EU. The curricula are increasingly modular, learning outcomes are being introduced. The document “List and Analysis of Existing Vocational Qualifications in Bosnia and Herzegovina”\(^{12}\) states: “There is a total of 1,155 vocational qualifications, out of which 836 are formal, acquired at VET schools, whereas 310 were acquired through lifelong learning programmes. Three-year and four-year VET qualifications are classified in 13 occupational families.\(^{13}\) 42.9% of acquired qualifications in the framework of three-year and four-year programmes are based on learning outcomes. Learning outcomes are an obligatory element and a requirement for all qualifications in order to be able to incorporate them in the qualification framework. Learning outcomes in the curricula of 419 mentioned qualifications exist only at the level of modules, but not as an exit profile of the whole qualification”.\(^{14}\)

A significant breakthrough in the overall VET reform in Bosnia and Herzegovina was achieved in 2011, when the Council of Ministers of Bosnia and Herzegovina adopted the Qualification Framework Baseline in Bosnia and Herzegovina.\(^{15}\) The “Qualification Framework Baseline in Bosnia and Herzegovina” creates the pre-requisite for the development of the Qualification Framework in Bosnia and Herzegovina, which should connect the previous, current and future results of learning, set them into a mutual perspective in Bosnia and Herzegovina, but also the European Qualification Framework and European Education Area.\(^{16}\) An Action Plan for the Development and Implementation of the Qualification Framework in Bosnia and Herzegovina for the Period 2014 – 2020 was also adopted.\(^{17}\)

3.2. Fields of action (priority areas)

In order to build a flexible and learning outcome-based VET system adapted to the needs of the labour market and individuals, it is necessary to improve the mechanisms of labour market needs research. Labour market needs research could use methods such as structured interviews, questionnaires, focus groups, as well as analyses and recommendations of tripartite advisory committees and data on demographic trends, unemployment, including also tracer studies of graduate VET students. Analyses of trends and labour market need forecasts prepared by the relevant international organisations and bodies (ILO, European Commission, CEDEFOP, ETF, etc.) could be used for labour market research and forecasting.

Research findings constitute a basis for a review of existing and preparation of new qualifications, different levels and types of qualifications, in order for the educational offer to meet the needs of the labour market and various target groups. The procedure is conducted by the competent educational authorities in cooperation with associations of employers, chambers, sector-specific associations, employment services, educational agencies and other interested partners. The procedures and guidelines are contained in the document VET Qualification Improvement Manual.\(^{18}\) It is necessary to organise training for members of working groups participating in the preparation of occupational standards.

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\(^{12}\) List and analysis of existing occupational qualifications in Bosnia and Herzegovina, ETF, 2017.

\(^{13}\) The classification of groups of professions relates to the classification of qualifications into 13 qualification areas. The document includes a total of 100 three-year and four-year occupational qualifications. It was developed in 2004 and has not been updated.

\(^{14}\) Ibid

\(^{15}\) Decision on the Adoption of Qualification Framework Baseline in Bosnia and Herzegovina, “Official Gazette of Bosnia and Herzegovina”, No. 31/11 and 39/12.

\(^{16}\) Ibid


When preparing VET curricula, it should be kept in mind that they should be prepared in such a manner that students with special needs are able to gradually acquire qualifications, and, as needed, adapt them to the individual needs of students in compliance with pre-defined procedures.

It is necessary to conduct awareness raising and promotion campaigns about the educational offer, requirements for the acquisition of qualifications, programmes that support the personal development of an individual and lifelong learning, institutions implementing curricula and training programmes, informal learning curricula, employment opportunities of individual professions and other issues in order for all interested persons to be able to become acquainted with the possibilities of the educational system. It is necessary to strengthen the services of efficient career orientation and counselling with a special focus on the transition from primary education to VET and from VET to the labour market.

Development of learning outcome-based qualifications and grouping learning outcomes into units, as well as grouping units and qualifications, opens up the possibility of gradual acquisition of qualifications and recognising non-formal, informal and self-directed learning. For the purpose of recognising previous learning, depending on the context of the acquisition, it is necessary to define the competences of partners in the process, procedures for recognition, requirements for examiners and requirements for the institution implementing the process of recognition. The document (catalogue of exams) based on which the examination is conducted and which defines the learning outcomes for a certain qualification or its part and examination criteria, should be approved by the competent educational institution.

Everyone wishing to have their non-formal and informal knowledge recognised do not have to attend adult education programmes. If training is needed, they can also attend a programme developed based on an occupation and qualification standard. The duration of training should be adapted to the previous experience of participants, which should be tested at the beginning of the programme. If quality assurance principles were complied with in the process of recognition of non-formal and informal learning, the document that an individual acquired should be taken into account in the continuation of education and acquisition of full qualification.
### 3.3. Priorities and activities (2021 – 2030)
Objective 3 of the Riga Conclusions

<table>
<thead>
<tr>
<th>Priority</th>
<th>Activities</th>
<th>Institutions responsible</th>
<th>Indicators</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability of VET</td>
<td>Regularly analyse labour market needs</td>
<td>Chambers of commerce, unions [associations] of employers, ministries of labour, employment services</td>
<td>Analyses of needs are available</td>
<td>Continuously</td>
</tr>
<tr>
<td></td>
<td>Organise campaigns for students, parents and other target groups regarding the application of new technologies, digitalisation, and key competences in VET</td>
<td>Educational institutions, pedagogical institutes, competent educational authorities, local communities</td>
<td>Campaigns have been organised</td>
<td>Continuously</td>
</tr>
<tr>
<td></td>
<td>Ensure career guidance and counselling services at primary and secondary schools</td>
<td>Educational institutions, employment services, pedagogical institutes</td>
<td>Career counselling is being implemented</td>
<td>2025 – 2030</td>
</tr>
<tr>
<td>Qualifications for all</td>
<td>Review existing qualifications and develop new qualifications in compliance with EQAVET</td>
<td>Competent educational authorities in cooperation with social partners</td>
<td>The number of new qualifications adapted to labour market needs</td>
<td>2030</td>
</tr>
<tr>
<td></td>
<td>Ensure a balance between skills needed for a certain job and key competences</td>
<td>Pedagogical institutes, educational institutions</td>
<td>Relevant qualifications have been ensured</td>
<td>Continuously</td>
</tr>
<tr>
<td></td>
<td>Develop modular and flexible curricula</td>
<td>Educational institutions, pedagogical institutes, competent educational authorities, social partners</td>
<td>Modular and flexible curricula have been developed</td>
<td>Continuously</td>
</tr>
<tr>
<td></td>
<td>Adapt curricula to students with special needs</td>
<td>Educational institutions, pedagogical institutes, competent educational authorities, social partners</td>
<td>Curricula for students with special needs have been adapted</td>
<td>Continuously</td>
</tr>
<tr>
<td></td>
<td>Implement recognition procedures for non-formal, informal and self-directed learning</td>
<td>Competent educational authorities</td>
<td>Procedures for the recognition of non-formal, informal and self-directed learning are being implemented</td>
<td>2030</td>
</tr>
<tr>
<td></td>
<td>Define competences in the process of recognition to be met by examiners and institutions</td>
<td>Competent educational authorities</td>
<td>Competences in the process of recognition have been defined</td>
<td>2030</td>
</tr>
</tbody>
</table>
OBJECTIVE 4
KEY COMPETENCES IN I-VET AND C-VET
4.1. Situation and challenges in the field of key competences in VET

Key competences were included in the EU Education Policy Framework in 2006 with the adoption of the European Reference Framework for Key Lifelong Learning Competences, which was adopted in the form of a recommendation by the EU Parliament and the Council. The EU Reference Framework identified eight key competences,¹⁹ which are a combination of knowledge, skills and attitudes, needed for the education of all individuals for the purpose of professional and personal development, active involvement in the economy and society, social inclusion, employability and employment. Following the evaluation of a twelve-year implementation of key competence policies in the European Education Area, the EU adopted the Reviewed Key Lifelong Learning Competences Framework in 2018.²⁰

Eight key competences identified in the European Reference Framework are the following ones:

4. Digital competence,
5. Learning to learn (2006) – personal and social competences and learning to learn competence (2018),
6. Social and civic competences,

Key competences and basic skills are needed for inclusive education and lifelong learning, personal fulfilment and development, employability, social inclusion and active citizenship.

The Agency for Pre-School, Primary and Secondary Education of Bosnia and Herzegovina (APOS) has defined 10 key competences and life skills in cooperation with the competent educational authorities and in compliance with the EU Key Lifelong Learning Competences Framework (two were added to the EU Framework: bodily and health and creative and productive competence).

Bosnia and Herzegovina has achieved significant progress regarding the integration of key competences, in particular entrepreneurial and civic key competences. However, there is a need for further improvements as a result of the fast technological development and development of the society as a whole. The importance of key competences has been recognised in the Economic Reforms Programme²¹, which states that "an important element in further improvement of quality of all types and levels of education is further development and implementation of the Lifelong Learning Qualification Framework, which implies qualifications based on learning outcomes and key competences that are relevant for the labour market. In this context, one of the priorities is the development and introduction of key competences for lifelong learning at all education levels focusing on entrepreneurial and digital competences". The basis for the improvement of key competences in VET in Bosnia and Herzegovina does exist. The Framework Law on Primary and Secondary Education in Bosnia and Herzegovina²², Article 3, includes, among other things, the support to lifelong learning. The

²² Framework Law on Primary and Secondary Education in Bosnia and Herzegovina, “Official Gazette of Bosnia and Herzegovina”, No. 63/08
Qualification Framework Baseline in Bosnia and Herzegovina and the Action Plan for the Development and Implementation of the Qualification Framework in Bosnia and Herzegovina for the Period 2014 – 2020 have been adopted. The Agency for Pre-School, Primary and Secondary Education has also developed a document entitled “Common Curricula Core for Cross-Curricular and Inter-Subject Areas Based on Learning Outcomes” in cooperation with the competent educational authorities. Common curriculum cores have been adopted for primary and secondary education in Bosnia and Herzegovina based on learning outcomes. Learning results are included in modules of curricula. Working groups established by the Department for VET of the Agency for Pre-School, Primary and Secondary Education are developing new occupational and qualification standards in cooperation with the competent educational authorities and pedagogical institutes.

4.2. Fields of action (priority areas)

For the purpose of proper understanding of key competences in compliance with Recommendations on Key Lifelong Learning Competences, it is important to take into account the following:

- All key competences are considered equally important, and every one of them contributes to a successful life in the society and labour market mobility.
- Key competences can be applied in different contexts and combinations.
- Key competences overlap and intertwine; aspects that are crucial for one area strengthen the competence in another area.
- Skills such as critical thinking, problem solving, team work, communication and negotiation skills, analytical skills, creativity and intercultural skills, are part of key competences.

Part of VET support, which should enable students to develop and acquire key competences can be implemented as follows: by recognising the role and importance of key competences in regulations and strategic documents, by promoting the importance and development of key competences in VET, by recognising key competences in qualifications standards, by integrating key competences in education curricula, planning and implementation of lessons, by supporting teachers and by assessing and evaluating key competences.

4.2.1. Recognising the role and importance of key competences in regulations and key documents

It is necessary to include key competences in the relevant laws and regulations as well as education strategies at all relevant levels that such legislation relates to. This will speed up the integration of key competences in the educational process at institutions.

4.2.2. Promotion of the role and importance of key competences in VET

Activities promoting the importance of key competences for students should be supported by educational authorities and planned and implemented by institutions. The promotion can take place through various forms of activities – student competition, cooperation with employers, expert support to teachers, selection and promotion of teachers whose students achieve significant results, exchange of positive experiences and practices between teachers and institutions, online platforms for the exchange of best practices, various trade fairs, exchange and mobility of students, celebration of the European Day of Entrepreneurship, European Skills Week, etc.

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23 “Official Gazette of Bosnia and Herzegovina”, No. 87/15
4.2.3. Key competences in qualification standards and integration of key competences in new curricula, planning of teachers’ work and implementation of lessons

One or more key competences can be part of a relevant curriculum or module, as long as a student achieves every of them through the curriculum as a whole. The descriptions of key competences in subject or module curricula should be connected to learning outcomes and contextualised taking into account the specific content of tasks of a certain profession defined in occupational and qualification standards. The flexibility of the curriculum should make it possible to take into account changes in the environment and technological requirements for the purpose of connecting them to the didactic content.

When planning the lessons, selecting the working method, teachers also plan how to help students in developing key competences. Planning of lessons should be focused on the process and students’ activities, in compliance with their development potentials. Students play a key role through activities they implement and tasks they solve, as a result of which they acquire permanent and applicable knowledge, develop skills and competences. A teacher should plan multi-way communication, teacher – student, student – teacher, student – student.

Teachers should be prepared for new roles in the context of the innovative, competence-based approach to teaching. Digital competences in an era of growing digitalisation is the most dominant one. When it comes to teaching, the competence-based approach stresses processes: understanding and connecting content, constructing a system of theoretical knowledge, their use through development of skills and forming of attitudes. The approach to teaching and learning should be interdisciplinary and include linkage and correlation between different subjects and areas.

Promoting peer learning and encouraging students to actively participate in the construction of a system of knowledge, independence, being open for new things, curiosity and critical thinking constitute support for the development of competences.

In case of curricula that do not contain learning outcomes and explicitly stated key competences, teachers should be enabled to understand the concept of key competences, identify them in subject/module curricula and apply methods and formats of work that will help students to acquire them during their education.

Learning that takes place in different environments, including the working environment, participation in research, experiments and projects and use of digital technologies, stimulates the development of competences of students. Partnerships with companies and best practices are necessary for the development of the entrepreneurial competence, which is accompanied by the development of creativity, initiative, teamwork, etc. Extracurricular activities, including those in sports, culture and art, have a positive impact on strengthening the social inclusion and active participation of students in the civic and social life.

Work-based learning is of particular importance for the development of key and professional competences. When students participate in practical training at companies, in a real work environment, they are trained for independent work in their profession. In addition to this, practical training does not only develop manual or practical skills of students, but they also become able to work in a team, handle new and previously unknown situations, show initiative and solve problems. During practical training, students also acquire entrepreneurial competences and cross-cutting skills that enable them to get employment faster and be more employable.

Key competences should also be integrated in adult education programmes. The cooperation between institutions at all education levels, including also the organisers of adult education, makes possible a comprehensive approach to education and creates a good basis for lifelong learning of individuals.

4.2.4. Teacher support

It is necessary to introduce key competences as a subject in initial education curricula for teachers at higher education institutions. An adequate initial education and professional training of a teacher is crucial for the acquisition and progress regarding the development
It is necessary that teachers understand, accept and are able to apply the concept of integration of key competences and not see key competences as a separate issue (as a separate subject), which may result in a situation in which they are not including them sufficiently in their work and do not value them.

It is therefore necessary to prepare training curricula and manuals for teachers, which contain examples on how they can integrate key competences in their teaching. Knowing concepts of key competences has an impact on the application of various approaches to learning and integration of key competences in the curriculum.

Adequate material and technical equipment of schools, availability of textbooks and other materials for teachers, their ability to apply digital technologies and information management constitute a form of support for teachers in the implementation of innovative approaches to teaching and learning.

After the development of a training curriculum, it is necessary to develop a training plan for teachers, train the trainers, ensure resources and implement teacher trainings, including also mentors at companies.

The support for teachers is provided by advisors of pedagogical institutes, experienced professors from pedagogical faculties and school management. Mutual and peer learning, exchange among teachers from different institutions, participation in research, networking among teachers and best practices also improve competences and the autonomy of teachers when planning lessons that will enable students to acquire key competences.

4.2.5. Assessment of key competences

The level of achievement of key competences can be measured in case of some competences. It depends on their peculiarity and manner of acquisition (through all subjects, modules, project approaches, extracurricular activities, work-based learning, etc.). The 2018 Reviewed European Reference Framework encourages “supplementing them by means of adequate tools for a diagnostic, formative and summative assessment and evaluation at relevant levels”.

The basic steps in competence assessment are the following ones:

- Analysis as to which key competences are included in national tests and other forms of summative assessment
- Analysis and recommendations on how key competences can be translated into more detailed learning outcomes, which can be assessed more accurately and meaningfully
- Analysis and recommendations on how it is possible to determine the level of development of multiple competences by expanding the scope of assessment
- Analysis and recommendations on how manners of assessment can be implemented and what is needed to support the implementation.

When assessing key competences, it is possible to use standardised tests in which questions or topics relate to aspects of key competences, are related to subjects or modules, or standardised tests referring to social and civic competences, e-assessment, etc.

The assessment of the level of achievement of key competences in case of students makes it necessary that teachers possess relevant competences.
4.3. Priorities and activities (2021 – 2030)
Objective 4 of the Riga Conclusions

<table>
<thead>
<tr>
<th>Priority</th>
<th>Activities</th>
<th>Institutions responsible</th>
<th>Indicators</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promotion of the role and importance of key competences in VET</td>
<td>Include key competences in the relevant laws and/or secondary legislation of the competent authorities</td>
<td>Competent educational authorities</td>
<td>The role of key competences has been recognised in laws and secondary legislation</td>
<td>2023 – 2027</td>
</tr>
<tr>
<td></td>
<td>Organise exchanges of practices through an on-line platform for teachers</td>
<td>Competent educational authorities in cooperation with educational institutions</td>
<td>On-line platforms are functioning</td>
<td>Continuously</td>
</tr>
<tr>
<td></td>
<td>Organise competitions for students and teachers</td>
<td>Competent educational authorities, pedagogical institutes, educational institutions</td>
<td>Trade fairs and competitions take place regularly</td>
<td>Continuously</td>
</tr>
<tr>
<td></td>
<td>Participate in EU programmes for student exchange in relation to certain competences</td>
<td>Educational institutions, competent ministries</td>
<td>Students and teachers participate in EU exchange programmes</td>
<td>Continuously</td>
</tr>
<tr>
<td>Key competences in qualification standards and curricula in planning and implementing lessons</td>
<td>Ensure that one or more key competences are included in a module or programme</td>
<td>Competent educational authorities, pedagogical institutes, educational institutions</td>
<td>Key competences have been included</td>
<td>Continuously</td>
</tr>
<tr>
<td></td>
<td>Connect the descriptions of key competences in curricula and modules and learning outcomes</td>
<td>Competent educational authorities, pedagogical institutes</td>
<td>Key competences are connected to learning outcomes</td>
<td>Continuously</td>
</tr>
<tr>
<td></td>
<td>Organise training for teachers in order for them to understand and include key competences in curricula and modules</td>
<td>Competent educational authorities, pedagogical institutes, educational institutions</td>
<td>Trainings/a number of trainings have been organised</td>
<td>Continuously</td>
</tr>
<tr>
<td></td>
<td>Develop teacher manuals</td>
<td>Competent educational authorities, pedagogical institutes, educational institutions</td>
<td>Manuals have been developed</td>
<td>2030</td>
</tr>
<tr>
<td></td>
<td>Improve the process of teaching by means of new technological achievements/digitalisation</td>
<td>Competent educational authorities, pedagogical institutes, educational institutions</td>
<td>Equipment is available at schools</td>
<td>Continuously</td>
</tr>
<tr>
<td></td>
<td>Include key competences in adult education curricula</td>
<td>Competent educational authorities, pedagogical institutes, relevant adult education institutions</td>
<td>Key competences have been included in adult education curricula</td>
<td>Continuously</td>
</tr>
<tr>
<td></td>
<td>Introduce key competences in study curricula of initial education for teachers</td>
<td>Higher education institutions with the consent of the competent ministries</td>
<td>Key competences are part of study curricula of teachers</td>
<td>Continuously</td>
</tr>
<tr>
<td>Priority</td>
<td>Activities</td>
<td>Institutions responsible</td>
<td>Indicators</td>
<td>Period</td>
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<tr>
<td>--------------------------------</td>
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<td>--------------</td>
</tr>
<tr>
<td>Assessment of key competences</td>
<td>Include measuring of the level of key competences in the summative and formative assessment</td>
<td>Competent educational authorities, pedagogical institutes, educational institutions</td>
<td>The assessment of key competences is included in the assessment of knowledge</td>
<td>2025 – 2030</td>
</tr>
<tr>
<td></td>
<td>Introduce standardised assessment tests related to aspects of key competences</td>
<td>Competent educational authorities, pedagogical institutes, educational institutions</td>
<td>Standardised assessment tests are being used</td>
<td>2025 – 2030</td>
</tr>
<tr>
<td></td>
<td>Organise trainings for teachers in relation to the assessment of key competences</td>
<td>Competent educational authorities, pedagogical institutes, higher education institutions</td>
<td>Trainings have been organised</td>
<td>2023 – 2030</td>
</tr>
</tbody>
</table>
OBJECTIVE 5
PROFESSIONAL TRAINING OF TEACHERS, TRAINERS AND MENTORS IN VET
5.1. Initial education of teachers

5.1.1. Situation and challenges in the initial education of teachers

Initial education of teachers takes place at eight public and several private higher-education institutions in Bosnia and Herzegovina. The Framework Law on Higher Education\(^\text{25}\) specifies the organisation, responsibility of competent authorities, bodies responsible for complying with law and international obligations of Bosnia and Herzegovina and quality assurance in higher education. Qualifications of teachers or adequate profiles and educational background needed for work at secondary schools are defined by secondary education legislation or relevant rulebooks in cantons in the Federation of Bosnia and Herzegovina, entity Republika Srpska and Brčko District of Bosnia and Herzegovina.

Over the past period, higher education institutions changed study programme curricula in the framework of Tempus and Erasmus projects. However, initial education programmes for teachers are still focused on academic knowledge from the relevant areas.\(^\text{26}\)

The improvement of initial education and professional training of teachers have been identified as strategic goals in strategic documents in the field of higher education. A Higher Education Qualifications Framework\(^\text{27}\) has been developed in Bosnia and Herzegovina. Its main purpose is to support the improvement of quality and recognition of qualifications and promote reform processes in higher education or the Bologna process in Bosnia and Herzegovina.

5.1.2. Fields of action (priority areas)

It is necessary to continue modernising outcome and competence-based study programmes for teachers, which should be structured in such a manner that they make it possible to adapt them on time to the needs of the education system, with a special focus on didactic and methodological competences, development of digital skills and use of ICT in teaching as well as foreign language competences, in order for graduates that start working in schools to be fully or better prepared for their work with students in real working conditions.

Subjects or modules, or approaches that render possible the acquisition of knowledge of inclusive practices, which would enable future teachers to acquire skills necessary for working with students that have physical, mental or sensory disabilities and thus create an inclusive learning environment, should be part of study programmes.

It is necessary to strengthen the partnership between higher education institutions that implement initial education of teachers, schools, pedagogical institutes and agencies, in order to adopt and implement relevant policies in the field of planning, implementation and evaluation of teacher education, implementation of high-quality teacher internships and monitoring of teaching practice based on research findings about the quality, education and work of teachers, and in order for schools to become places of practical work of students, future teachers.

5.2. Continuous professional development of teachers

5.2.1. Situation and challenges in continuous professional development of teachers

Professional training of teachers from VET schools in Bosnia and Herzegovina is regulated by laws applicable to secondary education and VET and a series of regulations. According to these laws,

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\(^\text{25}\) Framework Law on Higher Education in Bosnia and Herzegovina ("Official Gazette of Bosnia and Herzegovina", No. 59/07 and 59/09)

\(^\text{26}\) Draft Report on the Situation in Initial Education and Professional Training of Teachers and Recommendations for Improvement, Bosnia and Herzegovina, IPA Project "General Education Qualification Framework Development Project"

\(^\text{27}\) http://hea.gov.ba/Dokument/bolonja_bih/?id=441, EU Project "Strengthening Higher Education in Bosnia and Herzegovina"
teachers have the right, but also the obligation to attend professional trainings. These laws mostly define the general framework related to decision making procedures, the role of the competent educational authorities, higher education institutions, pedagogical institutes and schools in the development of obligatory professional training curricula, assessment of teachers’ work and their career advancement. Procedures and implementation of professional training of teachers in practice are regulated by regulations adopted by the competent educational authorities. Regulations also regulate the responsibilities of teachers and the assessment of their work. Records about professional training of teachers are kept by schools, and almost all existing rulebooks also provide for a certain number of scores for their professional training, which are taken into account in teacher assessment. Regulations significantly differ in terms of their names, structure and content. In some cases, obligations of teachers in the field of continuous professional training are included in rulebooks on the assessment of teachers’ work and promotion. Rulebooks do not clearly specify the obligations of teachers regarding the number of hours of obligatory training in a certain period of time and there is no diversification in terms of the number of scores received for certain trainings in the context of advancement of teachers. Almost all rulebooks state that the institutions in charge of professional training are higher education institutions and pedagogical institutes.28

It is necessary to ensure procedures for the accreditation of training programmes for teachers and development of a professional training catalogue, since these elements are not part of practice. However, there are positive examples and practices in Bosnia and Herzegovina, just as secondary legislation regulating the professional training of teachers, which opens up possibilities for the improvement of procedures through their amendments.

The developed occupational standards for teachers of primary and secondary schools,29 which were prepared by representatives of the competent ministries, pedagogical institutes, higher education institutions and teachers from all cantons of the Federation of Bosnia and Herzegovina, Republika Srpska and Brčko District, constitutes a good basis for further development of the teaching profession.

5.2.2. Introducing teachers to their profession after the initial education

Fields of action (priority areas)

Internships are obligatory in Bosnia and Herzegovina for all teachers that have not passed the state exam. Practices in different parts of Bosnia and Herzegovina differ significantly in terms of the duration of internships, status of interns and their obligation during the mentioned period. Interns with a degree from a non-pedagogical faculty have to attend lectures and pass exams related to the pedagogical group of subjects during their internship. Interns receive permanent jobs or temporary jobs in compliance with a series of laws and regulations.30

It is necessary to analyse the possibility for harmonising the duration of teacher internships in the entity Republika Srpska, in cantons in the Federation of Bosnia and Herzegovina and Brčko District of Bosnia and Herzegovina as well as tasks and obligations of teachers who are doing an internship in relation to their participation in teaching and other activities that give them the possibility to acquire relevant professional experience. Also, it is necessary to analyse the possibility of harmonising the acquisition of professional experience of volunteers and interns that have a regulated status. The occupational standard for teachers is the

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28 Report on the Situation in Initial Education and Professional Training of Teachers and Recommendations for Improvement, Bosnia and Herzegovina, IPA project “General Education Qualification Framework Development”
29 Occupational Standard for Primary and Secondary School Teachers, General Education Qualification Framework Development, Component 3: Education and Professional Training of Teachers, EU-supported project.
30 Draft Report on the Situation in Initial Education and Professional Training of Teachers and Recommendations for Improvement, Bosnia and Herzegovina, IPA project “General Education Qualification Framework Development”
basis for harmonising the duration and complexity of internships, taking the state exam and defining indicators for the assessment of acquired competences of candidates.

An intern should receive a systematic support and mentorship. The teacher who is a mentor should have the relevant skills and knowledge in order to introduce the intern to the profession and prepare himself/herself in the best possible manner for the work in the classroom. It is therefore necessary to organise continuous trainings for teachers who will be future mentors, in compliance with the existing work programmes and a relevant manual should be developed. The role of the mentor should be adequately valued and mentors should have the possibility to advance, receive financial support and their rights should be defined by relevant regulations.

A teacher doing an internship should keep his/her portfolio, which will help him/her to monitor his/her own progress regarding the specified tasks and obligations, but it will also enable him/her to assess his/her quality of work during the internship in an unbiased manner.

5.2.3. Training programmes for teachers

Professional training curricula are adopted by pedagogical institutes or ministries and/or schools themselves as part of their annual work programme. Rulebooks and other relevant regulations prescribe models and formats of vocational education, which belong to two categories: individual and group (collective) formats. Other organisational models are mentioned only in one canton (school-based model, training centres, partnerships, etc.), division based on the manner of implementation (seminars, courses, workshops, symposia, etc.) and the level of obligation (obligatory, elective and free).31

The establishment of an efficient and continuous system of professional development of teachers requires the existence of accredited professional training programmes for teachers, which include defined training models, length of professional training programme, methods, etc. In this respect, the Guidelines for Developing Accreditation Standards for VET Teacher Education Curricula32 can be a good basis. Continuous professional training of teachers is part of the strategy of lifelong learning of teachers.

**Fields of action (priority areas)**

The role of pedagogical institutes is important for the promotion of the professional development of teachers as a basis for the improvement of student achievements, ensuring student achievements and quality assurance of training and exchange of best practices in Bosnia and Herzegovina. Pedagogical institutes should promote and make the changed role of teachers at schools more visible and reiterate the focus on learning, school and teacher autonomy.

When it comes to professional training of teachers, it is important to enable teachers to choose training programmes, which is a starting point for the quality of training itself.

Research, monitoring the application of lessons from teaching practice and research on the effects of professional training of teachers through monitoring of students’ achievements should be the basis for designing professional training programmes for teachers and a catalogue of professional training for teachers.

Accredited programmes should be part of the professional training catalogue for teachers and available online.

It is necessary to specify the pre-requisites and standards for the accreditation of organisers (providers) of training services for teachers. Trainers who hold professional trainings and seminars for teachers should be their peers – practitioners who can suggest solutions for problems and respond to practical questions. Learning methods at seminars/trainings should be chosen in such
a manner that they enable teachers to actively participate. The focus should be on the application of theory in practice, critical thinking and solution of practical problems through cooperation, discussion and innovative approaches and solutions.

VET teachers should be offered several alternative possibilities for professional training, including online platforms, mentorship, webinars, magazines and literature on professional development, drafting of their professional development plan and portfolio, participation and implementation of development projects, as well as new approaches to contemporary teaching. Schools should become places of teaching and learning. The role of pedagogical institutes is to support the professional development of teachers in cooperation with higher education institutions and other VET schools.

Rulebooks should define standards and procedures for monitoring, scores and evaluation of the quality of professional training programmes for teachers and their effects in practice.

Ensuring systemic financial support for the continuous professional development of teachers is necessary. The funds for the continuous professional development of teachers should be planned in the budgets of competent bodies and institutions based on identified needs for trainings.

5.2.4. Monitoring of teachers and their career advancement

Monitoring of the quality of work of teachers in Bosnia and Herzegovina is conducted at schools by headmasters and advisors from pedagogical institutes. Advisors are thus able to identify certain trends related to teachers’ need for further professional training or monitor the situation in practice in order to take systemic measures.

**Fields of action (priority areas)**

It is necessary to define assessment criteria and measurable performance indicators for every element in rulebooks and other regulations for the purpose of monitoring, assessment and advancement of teachers. The adopted occupational standard for teachers creates conditions for defining a transparent framework for monitoring or evaluating the work of teachers.

At schools it is necessary to work on the development of a mechanism of internal quality verification and enable teachers to do self-evaluations of their work based on indicators of high-quality teaching practice.

One of the most important elements in the professional development of teachers is monitoring and support to teachers in applying the contents of training programmes. In this context, schools and their management should assume part of the responsibility for the introduction of changes in practice, since the support to the introduction of novelties will encourage and motivate teachers to improve their teaching practices.

Training programmes for school headmasters and creating practical conditions for their professional development is necessary in order for them to adequately fulfil their tasks as pedagogical managers responsible for the quality of teaching and learning at school, who, among other things, also supports the professional development of teachers.

5.2.5. Licencing of teachers

Licencing of teachers is an important element for professional development of teachers and change in teaching practice. During the potential process of licencing of teachers, it is necessary to ensure a balance between the licencing requirements (obtaining scores) and motivating teachers to change teaching practices and engage in personal professional development. The monitoring of the quality of teachers’ work, monitoring and evaluation of their work following professional trainings and effects of trainings on the teaching practice and monitoring and evaluation of work constitute one of the pre-requisites for obtaining or renewing a licence. Systemic and sustainable financing mechanisms should be ensured prior to initiating the process of licencing and licence renewal.
5.2.6. Training of teachers at companies

Part of professional development of teachers and their advancement should also be the training of teachers from VET schools at companies. Teacher training in a real work environment is important due to the fact that it enables teachers to improve their professional competences and quality of work.

A company-based training curriculum for teachers should be accredited by the competent body (school, ministry) and recognised in the framework of professional advancement of teachers.

A company-based training for teachers from vocational schools should be part of the professional development of teachers and their advancement. A training in real work environment is an opportunity to improve the professional competences and quality of work.

Company-based trainings for teachers should be accredited by the competent body (school, ministry) and recognised for the purpose of the professional advancement of teachers.

An efficient company-based training requires a good coordination of all partners (school, company, teachers). The roles and responsibilities of teachers and companies must be clearly defined, so that training can offer an adequate scope of practical experience and possibilities for learning for teachers.

5.3. Training of mentors at business companies

The role of mentors at companies has been mostly regulated by existing legislation. Having in mind the necessity and importance of practical training of students in a real work environment and work-based learning, particular attention should be devoted to the training of mentors in charge of practical training of students at companies.

It is necessary to define the entry requirements for company mentors. Mentors should receive professional support. Training programmes for mentors should be accredited or approved by the competent institution. Mentors should have a licence in order to work with students. Mentors should be acquainted with the legislative framework for the implementation of practical training, be able to plan the implementation of training, monitor and assess students’ performance.

Relevant funds should be allocated to mentor training. It is necessary to encourage companies and their associations to support mentor training and acknowledge their additional work on student training.
### 5.4. Priorities and activities (2021 – 2030)

**Objective 5 of the Riga Conclusions**

<table>
<thead>
<tr>
<th>Priority</th>
<th>Activities</th>
<th>Institutions responsible</th>
<th>Indicators</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial education of teachers</td>
<td>Develop study programmes based on learning outcomes and key competences</td>
<td>Higher-education institutions</td>
<td>New programmes with learning outcomes and key competences have been developed</td>
<td>Continuously</td>
</tr>
<tr>
<td></td>
<td>Include new methodological and didactic approaches, digital skills, ICT and foreign languages in study programmes</td>
<td>Higher-education institutions</td>
<td>New study programmes with state-of-art methodological and didactical approaches, digital and ICT skills, foreign language skills are being implemented</td>
<td>Continuously</td>
</tr>
<tr>
<td></td>
<td>Create modules in study programmes to enable the application of an inclusive practice</td>
<td>Higher-education institutions</td>
<td>Modules for inclusive practices have been developed</td>
<td>Continuously</td>
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<tr>
<td></td>
<td>Strengthen partnerships between higher-education institutions, pedagogical institutes, educational agencies and schools</td>
<td>Competent educational authorities, higher-education institutions, pedagogical institutes, educational institutions, the Agency for Pre-Primary, Primary and Secondary Education</td>
<td>Partnerships have been improved</td>
<td>Continuously</td>
</tr>
<tr>
<td></td>
<td>Do more research about teacher practice</td>
<td>Higher-education institutions, pedagogical institutes, educational institutions</td>
<td>Research is being implemented</td>
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</tr>
<tr>
<td>Continuous professional development of teachers and mentors</td>
<td>Conduct an analysis of training needs and ensure training funds</td>
<td>Competent educational authorities, pedagogical institutes, educational institutions</td>
<td>Analyses are being carried out and training funds have been ensured</td>
<td>Continuously</td>
</tr>
<tr>
<td></td>
<td>Define procedures for the accreditation of teacher training programmes</td>
<td>Competent educational authorities, pedagogical institutes</td>
<td>Training programmes have been accredited</td>
<td>2025 – 2028</td>
</tr>
<tr>
<td></td>
<td>Create and regularly update catalogues of professional trainings for teachers</td>
<td>Competent educational authorities, pedagogical institutes</td>
<td>Professional training catalogues have been developed</td>
<td>2025 – 2028</td>
</tr>
<tr>
<td></td>
<td>Define obligatory training areas for teachers</td>
<td>Competent educational authorities, pedagogical institutes</td>
<td>Obligatory training programmes have been defined</td>
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<tr>
<td></td>
<td>Define the number of obligatory hours and number of scores that certain trainings entail</td>
<td>Competent educational authorities, pedagogical institutes</td>
<td>All trainings entail certain hours and scores</td>
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</tr>
<tr>
<td></td>
<td>Monitor the professional development of teachers</td>
<td>Competent educational authorities, pedagogical institutes</td>
<td>Evaluations of teachers’ work are being carried out</td>
<td>Continuously</td>
</tr>
<tr>
<td>Priority</td>
<td>Activities</td>
<td>Institutions responsible</td>
<td>Indicators</td>
<td>Period</td>
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</tr>
<tr>
<td><strong>Continuous professional development of teachers and mentors</strong></td>
<td>Define teacher licencing procedures and criteria</td>
<td>Competent educational authorities, pedagogical institutes</td>
<td>Licencing has been introduced</td>
<td>2030</td>
</tr>
<tr>
<td></td>
<td>Ensure funds and human resources for teacher licencing</td>
<td>Competent educational authorities, competent governments</td>
<td>Teacher licencing funds have been ensured</td>
<td>2030</td>
</tr>
<tr>
<td></td>
<td>Implement teacher trainings at companies</td>
<td>Competent educational authorities, pedagogical institutes, chambers of commerce, educational institutions, business companies</td>
<td>Trainings are being implemented</td>
<td>Continuously</td>
</tr>
<tr>
<td></td>
<td>Implement training for company mentors</td>
<td>Competent educational authorities, pedagogical institutes, chambers of commerce, educational institutions, business companies</td>
<td>Mentor trainings are being implemented</td>
<td>Continuously</td>
</tr>
<tr>
<td></td>
<td>Organise train-the-trainer trainings in the process of professional training of teachers and mentors at companies</td>
<td>Competent educational authorities, pedagogical institutes, chambers of commerce, educational institutions, business companies</td>
<td>Train-the-trainer trainings have been organised</td>
<td>Continuously</td>
</tr>
<tr>
<td></td>
<td>Accredit teacher programmes at companies</td>
<td>Competent educational authorities, pedagogical institutes, business companies</td>
<td>All programmes have been accredited</td>
<td>2025 – 2030</td>
</tr>
<tr>
<td><strong>Introducing teachers to their profession following initial education</strong></td>
<td>Define indicators for the assessment of competences acquired by teacher interns based on occupational standards</td>
<td>Competent educational authorities, pedagogical institutes, higher-education institutions</td>
<td>Indicators for teachers have been defined based on occupational standards</td>
<td>2023 – 2025</td>
</tr>
<tr>
<td></td>
<td>Define criteria for teacher mentors</td>
<td>Competent educational authorities, pedagogical institutes</td>
<td>Criteria have been defined in rulebooks</td>
<td>Continuously</td>
</tr>
<tr>
<td></td>
<td>Ensure a system for monitoring the work of teacher interns</td>
<td>Competent educational authorities, pedagogical institutes</td>
<td>A system for monitoring the work of interns has been established</td>
<td>Continuously</td>
</tr>
<tr>
<td></td>
<td>Ensure training of teacher mentors at higher-education institutions or with experienced trainers</td>
<td>Competent educational authorities, pedagogical institutes, higher-education institutions</td>
<td>Trainings take place</td>
<td>Continuously</td>
</tr>
<tr>
<td></td>
<td>Ensure teacher internships at companies</td>
<td>Competent educational authorities, pedagogical institutes, business companies, competent ministries</td>
<td>Trainings take place</td>
<td>Continuously</td>
</tr>
</tbody>
</table>
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ANNEX

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IMPROVEMENT OF QUALITY AND RELEVANCE OF VOCATIONAL EDUCATION AND TRAINING IN BOSNIA AND HERZEGOVINA - IN THE LIGHT OF RIGA CONCLUSIONS - FOR THE PERIOD 2021–2030

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