VET SYSTEM DEVELOPMENT PROGRAMME (2016-2020)
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List of abbreviations

AMEUP - Agency for Mobility and EU Programmes
AVETAE - Agency for Vocational Education and Training and Adult Education
CCE - Croatian Chamber of Economy
CCTC - Croatian Chamber of Trades and Crafts
CEA - Croatian Employers’ Association
CEDEFOP - European Centre for the Development of Vocational Training
CES - Croatian Employment Service
CROQF - Croatian Qualifications Framework
ECVET - European Credit System for Vocational Education and Training
EQAVET - European Quality Assurance in Vocational Education and Training
ETTA - Education and Teacher Training Agency
EU - European Union
FNC - Framework of National Curriculum
MoEC - Ministry of Entrepreneurship and Crafts¹
MLPS - Ministry of Labour and Pension System
MRDEUF - Ministry of Regional Development and EU Funds
MSES - Ministry of Science, Education and Sport²
NCEEE - National Center for External Evaluation of Education
NCF - Framework of National Curriculum for Pre-School Education and General Compulsory and Secondary Education
NCVET - National Curriculum for Vocational Education
VET - vocational education and training

¹ Renamed to Ministry of Economy, Entrepreneurship and Crafts in 2016
² Renamed to Ministry of Science and Education in 2016
Introduction

The creation of the VET System Development Programme was envisioned within the Strategy for Science, Education and Technology with the goal of a clearer definition of the means of realisation of the goals set by the Strategy, while taking into consideration European policies and tools for VET development.

This document plans gradual changes in the VET system (initial VET as well as the attainment of VET qualifications within the adult education system) by making use of everything within the system recognized as good, without endangering the quality of the already implemented measures, and by achieving the best possible results with targeted investments for the development of the system.

Republic of Croatia will develop high-quality and accessible IVET which society, primarily students and their parents, recognises as an attractive option which enables the attainment of key and specific vocational competences. The implementation of this type of VET will be followed by investments in high-quality, relevant and rational infrastructure, and will be based on high relevance of vocational qualifications on the labour market and defined paths for the continuation of education and training. A key role in the implementation will be given to highly qualified teachers who will receive permanent support in their professional development. The VET developed will be flexible and inclusive, based on learning outcomes, innovative learning and teaching methods, as well as partnerships with all stakeholders, especially employers. A transparent qualifications system will be developed which allows the gaining and transfer of learning outcomes, recognition of qualifications and acquired competences in international mobility, while the opportunities for international mobility of learners and teachers in VET will be increased.

Through the changes planned by this document the Republic of Croatia has defined the vision of VET until 2020 which will be directed towards quality and efficiency; which will be attractive, innovative and relevant, linked with the labour market and which will enable the attainment of competences for personal and professional development, continuation of education and lifelong learning.

Vocational education and training will be planned and implemented according to the following principles:

- **Quality assurance** which will increase the transparency of VET, strengthen confidence in the system and lifelong learning
- **Partnerships** which will ensure and promote the inclusion of all stakeholders in all phases of planning, implementation and monitoring of VET
- **Inclusion**, which will strengthen the importance of VET in reducing the risk of social exclusion of vulnerable and underrepresented groups
- **Relevance**, which will ensure that VET is based on analyses of labour market needs, continuation of education as well as personal development
- **Focus** on learning outcomes and developing competences for successful inclusion in the labour market and lifelong learning
- **Coherence** relating to different levels and types of education and training.

Sector curricula are planned to be developed by implementing the measures from the VET System Development Programme and following the necessary activities in line with the action plan, and, according to necessity, curricula for attaining vocational qualifications, strengthening the work-based learning model, improving quality assurance in VET, as well as continuous professional development system for teachers, raising the attractiveness of VET and increasing the mobility and employability of VET students.

The Action Plan for the Implementation of the VET Development Programme 2016-2020 will be developed based on this Programme, and adopted by the minister in charge of education by following this Programme.

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4 European Quality Assurance for Vocational Education and Training (EQAVET), European Qualifications Framework (EQF), European Credit System for Vocational Education and Training (ECVET).
Analysis of the state of the VET system

In the Republic of Croatia there are 70.7% full-time students in secondary education (ISCED - P 344, 354, 353, 351) and in 2014 approximately 140,000 were enrolled in some of 279 VET programmes/curricula, out of which:

- 66.25 % students were enrolled in four-year (and one five-year) VET programmes
- 32.17 % students were enrolled in three-year programmes (trades and crafts (JMO) and so-called “classical model” for crafts and industry)
- 1.58 % students were enrolled in two-year, one-year and programmes for students with disabilities (source: MSES, 2014)

A drop in the number of students is present in the entire educational system due to negative demographics, but the trend is most pronounced in the enrolment into three-year programmes in the last 15 years; since the number of students finishing three-year programmes has been reduced from 21,000 in 1998 to 11,710 in 2014. Besides that, a trend of schools switching to the “classical model” of education for crafts and industry is also present, where a large amount of hours of practical classes is performed in schools. This is the result of a complicated economic situation, shutting down of businesses and legal entities, lack of motivation of practical training providers and low licencing interest of employers with which students sign apprenticeship contracts.

In the Republic of Croatia there are 299 VET providers which, on average, have 400 students in an average of 10 different educational programmes, which is extremely demanding in financial, human resources and organisational terms. Because of the human resources and certain equipment standard requirements, vocational programmes are expensive, and VET providers need significant help in adjusting and changing the programme provision.

VET in the Republic of Croatia prepares students for the labour market, but also for the continuation of education in higher education institutions (four and five-year programmes). The analysis of enrolment in higher education programmes in Croatia, based on the State Matura exam results from academic years 2010/2011 to 2013/2014, has shown that 78.08% of four-year VET school students successfully pass the exams, and that 60.7% of VET students enrol in higher education study programmes. In the 2010-2015 period the data from Croatian Employment Service has shown that the largest percentage of registered unemployed persons, on average 58%, are people with secondary education, more precisely people with completed VET lasting from 1 to 4 years. However, no comprehensive analyses have been performed which would explore the connection between education and labour market needs within a period of several years. A significant step has been made with the development of Sector Profiles (Agency for Vocational Education and Training and Adult Education, 2012) and the establishment of the Croatian Qualifications Framework tool.

VET in the Republic of Croatia is performed in VET providers and partially with the employers. Work-based learning (WBL) is present in three forms in vocational programmes/curricula:

- Alternance schemes or apprenticeships
- At school with periods of training at employers
- Integrated within the VET programme

<table>
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<tr>
<th>Types of VET in Croatia</th>
<th>WBL models</th>
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<tr>
<td></td>
<td>On-the-job training periods in companies</td>
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<tr>
<td>Three-year educational programmes for crafts and trades (WBL performed through practical training and exercises in licenced crafts and/or legal entities and school workshops)</td>
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<tr>
<td>Three-year industrial and related education programmes (WBL is performed through practical training and exercises in school workshops, at employers’ and at</td>
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5 Work-Based Learning in Europe, Practices and Policy Pointers, European Commission, 2013
Graduation in VET is achieved by preparing and orally defending a final practical assignment. General competences in four-year (and five-year) vocational programmes enable access to State Matura exams and to the entry application for higher education institutions, and the students who have acquired a lower level of education, as well as students who finished three-year VET, are enabled to continue education for attainment of a higher level qualification.

Teacher jobs are performed by general-education subjects teachers, professional-theoretical contents teachers, practical training teachers and teaching associates.

### Strategic and legal framework of the VET system

VET is currently regulated by a series of strategic documents and legal frameworks of which the most important are the Primary and Secondary School Education Act and the Vocational Education and Training Act.

With the adoption of VET System Development Strategy 2008-2013 in Croatia a process of modernisation and reform of VET has begun, but it actually started in 2006 with the gradual building-up of capacities, resources, strategies and policies in accordance with the Copenhagen Process recommendations. A series of measures directed at modernisation and strengthening of VET quality in the Republic of Croatia were undertaken. Mechanisms of linking VET with labour market needs were strengthened (Sector Skills Councils), new tools were developed and introduced (Sector Profiles, occupational standards, qualifications standards), and modular and learning-outcome-based vocational curricula developed on the basis of these tools. The quality assurance system was improved and self-assessment introduced in VET providers. Strong incentives were provided to develop partnerships between VET providers and local stakeholders. All these measures had been supported by a series of innovative projects financed through EU funds.

There has to be a clear legal framework if the reform of VET system is be performed systematically and in a coordinated fashion. The implementation of measures planned by this document will require detailed analyses of the influence on the existing legal framework, and, when needed, changes and amendments, or a proposal for a new framework which will solve the current problem of overlapping jurisdiction. In accordance with this, there are already changes and annexes in preparation for the Vocational Education and Training Act and a new Adult Education Act.

The Framework of National Curriculum for Pre-School Education and General Compulsory and Secondary Education (NCF), adopted in July 2011, enabled all elements of the system to be meaningfully and consistently linked together into an interconnected whole. The primary characteristic of NCF is the transition to a system of competence and student achievements (learning outcomes), as opposed to the former system, which was focused on content. Also, expected learning outcomes were determined for different educational areas according to cycles.

The Croatian Qualifications Framework Act (2013) established the Croatian Qualifications Framework (CROQF) and determines its implementation as well as linking it to the EQF, QF-EHEA and, indirectly, the national qualifications frameworks of other countries. The Croatian Qualifications Framework is an instrument which structures the system of qualifications in the Republic of Croatia, as well as ensuring clarity, reliability, permeability and quality, and possibilities to attain qualifications. The development of VET will be in accordance with the tools and procedures developed through CROQF.

On 17th October 2014 the Croatian Parliament adopted the Strategy for Science, Education and Technology, which elaborates on the priorities and measures to improve pre-school, primary and secondary education, higher education, lifelong learning and adult education, as well as the systems of science and technology. Among the priorities of the

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6 A detailed list and description of VET projects financed through EU funds is within Annex II of this document.
reform are the flexibility of VET through elective courses and modularity, and ensuring general education and attaining key competences as foundations for further education and lifelong learning. Also, the Strategy foresees the incorporation of work-based learning into all programmes of VET in order to ease the transition of students from the educational system to the world of work. The Comprehensive Curricular Reform for Early and Pre-School, Primary and Secondary Education is the first measure in the implementation of the Strategy for Science, Education and Technology.

Jurisdiction over implementation of VET is held by the ministry in charge of education, supported by educational agencies (AVETAE, ETTA, NCEEE, AMEUP), while part of the jurisdiction for implementation for education for occupations in trades and crafts is held by the ministry in charge arts and crafts.7

Priority 1. Improving the relevance of VET in relation to the labour market

The Bruges Communiqué on enhanced European Cooperation in Vocational Education and Training for the period 2011-2020 defined long-term strategic goals for VET in Europe. One of the strategic goals is relevance of VET (both initial and continuous) for the labour market. Therefore it is important to strengthen the connections between VET and the labour market and further align national instruments with EU policies and instruments (Copenhagen Process, European Qualifications Framework, ECVET, EQAVET).

The Strategy of Education, Science and Technology (Official Gazette, number 124/2014) confirms the strategic orientation of strengthening work-based learning in all VET curricula.

Numerous activities have been undertaken with the purpose of developing vocational qualifications which will be competitive in the labour market and ensure a good foundation for further education: 29 new learning-outcomes-oriented vocational curricula based on occupational standards and qualification standards have been developed, new tools (Sector Profiles) and documents (occupational and qualification standards) have been introduced, the strategic and legal framework (VET System Development Strategy 2008-2013, Vocational Education and Training Act) has been ensured, new mechanisms for linking with the labour market (Sector Skills Councils, Methodology for Development of Vocational Occupational Standards, Qualifications and Curricula) have been developed, and funds have been ensured through the use of EU funds (more than 26 million EUR since 2006).

However, it is necessary to further intensify the processes, methods and procedures which will ensure continuous modernization of education provision in accordance with the needs of the labour market by developing new approaches and methodologies which will be in line with the changes in the system made in the preceding period (CROQF, Comprehensive Curricular Reform). Most of the existing teaching plans and programmes are not relevant and outdated, oriented on contents and teachers instead of students and learning outcomes. Programmes are not flexible and leave out the possibility of electivity. Most of the programmes date from 1996-1997, with only a partial modification of the VET segment in the 2004-2008 period. Most of the programmes for the crafts occupations are from the 2003-2007 period (with the exception of two programmes: domestic installations and automotive mechatronics, which were adopted in 2011). Work-based learning is significant for improving the relevance of VET. However, the implementation of this form of learning demands a greater degree of support from the system, seeing as the current economic circumstances limit the capacities of businesses for more active involvement in the learning process. Therefore, systemic support and incentives are needed in order to further develop all forms of work-based learning. The Strategy of Education, Science and Technology foresees the adoption of the Framework of National Curriculum and the National Curriculum for Vocational Education, which will, taking into account the needs of the labour market, form a foundation and guide the development of sector curricula and, if needed, the development of curricula for attaining specific qualifications.

7 A detailed list of the strategic and legislative framework of the VET system can be found in Annex I.
9 General teaching plans and programmes for crafts have been published in the Official Gazette in issues 136/03, 112/04, 167/04, 178/04, 68/05, 6/07 and 86/07.
An irrational and expensive network of programmes remains a significant problem in the VET system. The existing Primary, Secondary, Student Dormitory and Education Programmes Network determines the distribution of educational sectors in secondary VET schools. However, planned effects for increasing the availability, rationality and relevance of educational programmes in relation to the needs of the labour market haven’t been reached. All these are reasons for the network of educational programmes to be comprehensively analysed on the levels of schools, local communities and the territory of the Republic of Croatia, considering economic needs, the quality of teaching process, the results of learning outcomes and economic sustainability.

**Goal 1.1. VET directed towards labour market needs**

**Measure 1.1. Development, adoption and implementation of the National Curriculum for Vocational Education**

The National Curriculum for Vocational Education (NCVET) determines the purpose, values, goals, contents, learning and teaching processes, organization and means of assessment of students’ achievements, competences and qualifications in Croatia’s VET system.

NCVET states that VET is directed towards the development of generic competences and competences for attaining vocational qualifications and employment, with clearly defined learning outcomes and students’ achievements, as well as attaining competences for lifelong learning. The purpose of the National Curriculum for Vocational Education is determining the joint framework of VET in the Republic of Croatia. National VET Curriculum supports the continuous development of VET in line with the developmental goals of the Croatian economy.

According to European guidelines the system of initial and continuous VET should allow for organizing teaching and learning activities which will support the development of skills needed by the labour market. The relevance of VET and an easier transition from the education system to the world of work necessitates the development of a work-based learning models adapted to the national/regional context.

The National Curriculum for Vocational Education determines the relationship of the general education and vocational segments, which constitute the qualification of a certain level in accordance with the needs of economic growth and development, while taking into account the possibility of horizontal and vertical permeability within the system, which gives an added value to VET and opens the possibility of continuous education, as well as increasing competitiveness in the world of work.

**Results:**

2. Vertical and Horizontal Permeability for VET Students Model developed (2017)

**Jurisdiction:** MSES

**Implementation:** MSES, AVETAE, ETTA

**Measure 1.2. Development, adoption and monitoring of implementation of sector curricula and/or curricula for attaining VET qualifications**

The basis for the development of sector curricula is formed by FNC and NCVET, as well as the methodology and

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10 In line with Article 9 of the Primary and Secondary School Education Act in June 2011 the Government of the Republic of Croatia passed the Declaration on Primary, Secondary, Student Dormitory and Education Programmes Network (Official Gazette no. 70/2011) with the purpose of rationalization of the organization of education providers and programmes, but with meeting the demands for accessibility.
guidelines of CROQF, through the development of occupational standards and qualification standards. Sector curricula allow for greater flexibility and autonomy of education providers in the choice of contents and work methods, students will be allowed to achieve competences adapted to their professional and personal development, while the economy and local communities will be provided with more straightforward influence on the education system, which makes it easier to meet their needs for a competent workforce, as well as becoming more modular and oriented on learning outcomes. Sector curricula will be developed on the level of sectors or subsectors, with the exception of the development of individual curricula for attaining qualifications due to the specificity of these qualifications; for example, the lack of common basic vocational competences in the Personal, Protection and Other Services Sector. Sector curricula will allow the student, by enrolling in a certain sector, to attain a VET qualification within that sector. The decision on the choice of qualification will be made by the student on enrolment (level 4.1) or after the second year (level 4.2) of VET (that is in the beginning of the fifth educational cycle as defined in FNC).

Permeability within the sector will be made easier due to common basic vocational competences which will be attained in the forth educational cycle of FNC. VET providers will create school curricula based on the sector curriculum and qualification and occupational standards, while adult education institutions will create programmes for adult education with which providers will define ways of implementing the education process, that is, the education process of adults, with the goal of attainment of a VET qualification. This will enable greater autonomy of schools and better alignment of VET with local and regional needs. Key competences, which will be examined through the Occupational Standards Questionnaire, will form the main component of sector curricula, which will further guarantee the successful inclusion of students in the labour market and/or continuation of education and lifelong learning. The general model of work-based learning (in all three of its forms) will be clearly emphasized and promoted within NCVET, and comprehensively elaborated for each sector within sector curricula and for qualifications (levels 3, 4.1 and 4.2). Work-based learning will also be continuously promoted among employers, with the purpose of their stronger and more durable involvement in the educational process and ensuring that there is a sufficient number of placements for students in businesses and institutions.

The first phase of sector curricula development involves gathering of data and predicting labour market needs through activities within CROQF (analytical online interface, development of occupational standards and qualification standards, Sector Skills Council evaluations, as well as entry of standards into the CROQF Register). It is expected that the new labour market data will confirm the already identified need (AVETAE Sector Profiles, 2012) for re-examining the current number of vocational qualifications in IVET. The second phase of development will establish working groups which will have the task of planning and programming the following segments of the curriculum: general education segment, vocational segment (including work-based learning) and elective segment.

A pilot sector curriculum for attaining vocational qualifications will be made on the basis of the methodology for the development of sector curricula; experimental implementation with continuous monitoring will start in the 2016/2017 school year. Preparations for the development of the remaining sector curricula and/or curricula for attaining vocational qualifications will begin during the experimental phase through the development of occupational and qualification standards. These will be preceded by the development of Sector Profiles, the analytical online interface, as well as maps of vocational qualifications which can be attained in the regular education system. The introduction of sector curricula will be preceded by the development of learning materials with continued education of all involved in the implementation of vocational curricula (principals/expert associates/teachers/workplace mentors).

The methodology which will describe this process assumes the participation of relevant stakeholders and social partners in the creation of sector curricula and curricula for attaining specific qualifications, as well as curricula for schools, while the period for their mandatory revision is every 4-5 years, or according to need. Apart from this, mechanisms of horizontal and vertical mobility will be developed, which will serve as added value to VET and open the possibilities of continuous education and increased competitiveness on the labour market.

Results:

1. Methodology for creation of sector curricula and curricula for attaining specific qualifications developed (2017)
2. Sector curricula and curricula for attaining specific qualifications developed (2020)
3. Measures undertaken and incentives ensured for implementation of all forms of work-based learning (2020)

Jurisdiction: MSES, MLPS, AVETAE

Implementation: MSES, MLPS, AVETAE, ETTA, Sector Skills Councils, social partners, local and regional government

Goal 1.2. Establishment of a rational and effective network of vocational schools and programmes

Measure 1.3. Rationalisation of a network of vocational schools and programmes

Different indicators (Sector Profiles, information gathered by the analytical online interface, feedback from social partners, general analysis by MSES, etc.) show that the existing network of vocational schools and education programmes (curricula) are not in line with the needs of the economy and the labour market and do not offer all students equal opportunities for education and attaining basic and vocational competences necessary for accessing the labour market. Therefore it is necessary to further invest into VET schools’ spatial, material and human resources to enable better achievement of learning outcomes. Besides that, it is necessary to rationalise the number of VET schools and education programmes, since it is expensive and unnecessary to have several VET schools with same programmes in a small area, taking into account economic possibilities, opportunities for continuation of education, demographic and geographic specificities. In line with that, a detailed analysis of spatial, material and human resources is needed, as well as the developmental capacities in vocational schools in municipalities/regions, and the needs of the labour market on a local/regional level.

The rationalisation of the number of vocational schools and education programmes based on spatial, material and human resources prerequisites, as well as the capabilities of realizing work-based learning, in line with the needs of the labour market on a national and regional level, will create the conditions for improving the quality of vocational schools, and with that the competences necessary for accessing the labour market.

Result:

1. Rational and effective network of vocational schools established (2020)

Jurisdiction: Government of the Republic of Croatia, MSES

Implementation: MSES, local and regional government units

Measure 1.4. Establishment of regional centres of competence

Centres of competence are places of VET excellence which programmes of regular vocational education, teacher training and lifelong learning will be implemented, as well as other forms of formal and non-formal education (work-based learning, competitions, knowledge and skills presentations, etc.).

Quality secondary and continuous VET which will be implemented in the centres will be directed towards students, adult participants, teachers, workplace mentors, the employed and the unemployed, all of whom will be enabled to attain competences, as well as persons with disabilities and students with learning difficulties, who will be offered
specific adopted programmes with the goal of their social inclusion. The basic features of centres of competence are innovative learning models, and excellence of teachers, lecturers and workplace mentors, as well as high-quality infrastructure, constructive and creative cooperation with social partners, the public sector, businesses, and other interested institutions of the wider community.

Criteria for establishment of centres of competence will be developed and adopted, as well as the plan for their establishment which will define the needed steps and activities for the establishment of centres and beginning of work in more detail (for example, a detailed analysis of the existing situation in each school/future centre, activities for the development of spatial, technical and human resources capacities, cooperation with local/regional stakeholders, time schedule, etc.).

The establishment of the spatial distribution and optimal number of centres of competence in Croatia will be based on a network of regional centres of competence. In the first phase it will be directed at the following (sub)sectors: tourism and hospitality, mechanical engineering, electrotechnics, information and communication technology, agriculture and health. In the second phase it will also be directed at other vocational sectors, while taking into account national/regional priorities and labour market needs.

Results:

1. Regional centres of competence for all vocational sectors established (2020)

Jurisdiction: MSES, MRDEUF, other relevant ministries and local and regional government units

Implementation: MSES, local and regional government units

Priority 2. Improving the quality of VET

European Quality Assurance for Vocational Education and Training is an instrument helping countries to promote and monitor the development of the VET system and make it more relevant for the labour market. It is based on a Quality Cycle comprised of four stages: planning, implementation, evaluation and review. For each of the stages there are recommended criteria for improving VET, as well as quality indicators. The Recommendation on the establishment of European Quality Assurance Reference Framework for VET emphasizes quality and improvement culture and responsibility on all levels, for example, in the VET system, among VET providers and on the level of awarding qualifications. The European Quality Assurance Reference Framework for Vocational Education and Training emphasizes the importance of systematic self-assessment and external evaluation. Each member state must develop a national approach to quality assurance in VET – a strategy or plan which defines which measures have to be undertaken for further development of quality assurance in VET, a document which is strategic in nature and describes steps improving the national system of quality assurance. It should include measures for improving the relevance of the VET system and should be linked with EQAVET quality indicators for monitoring the system.

Quality assurance gained a dominant status in the development or VET through the VET System Development Strategy 2008-2013 and the Vocational Education and Training Act. These documents determine how the system of VET quality assurance should look like.

Taking into account the current situation in the Croatian education system, it seems necessary to further strengthen and widen the culture of quality by using mechanisms for promoting and monitoring the development of the VET system linked with the common European framework of quality assurance. Through this Croatian VET increases its transparency, alignment with the EU VET development policies, as well as promoting mutual trust, exchange of experiences, mobility of students and workers as well as the basic idea of lifelong learning.

Currently in the system there are different quality-assurance practices and activities. However, there is no clearly structured and coherent system of VET quality assurance which makes clear on how monitoring of quality influences
developmental processes and decision-making. The Strategy of Education, Science and Technology states that these actions are insufficiently linked together and not utilized enough to improve school practices.

The following is currently foreseen within the system:

- **Self-assessment of VET schools according to the Vocational Education and Training Act (AVETAE)**
  In accordance with the VET System Development Strategy 2008-2013 and the Vocational Education and Training Act, AVETAE has introduced the procedure of self-assessment to VET schools and developed the Croatian Framework of Quality Assurance in Vocational Education and Training, as well as the Self-Assessment Handbook. The Framework encompasses six areas, and includes the criteria which describe them, following the idea of indicators in EQAVET. In the 2012/2013 school year, VET schools established the first Quality Committees, and using AVETAE’s online tool e-Kvaliteta created final self-assessment reports. The process of self-assessment in the 2012/2013 school year involved 299 VET providers in total, while the process was completed by a total of 245 institutions (81.94% of all VET providers). In the 2013/2014 school year the number of institutions which finished the process was 203 (67.89%), while in the 2014/2015 school year this was done by 246 institutions (82%). It is necessary to further strengthen the capacities of the responsible Agency, as well as the schools, in order for the process to continue and for its results to be used to improve the work of schools and increase the quality of VET. The following shortcomings which decrease the possibility of reaching the full developmental potential of this approach were identified:
  - poor utilization of results of assessment to improve schools work in the pedagogical and business capacity
  - insufficient internal capacities of vocational schools to implement self-assessment and develop and implement improvement plans
  - insufficient external support to institutions in the process of self-analysis, self-assessment (lack of feedback on self-assessment reports) and implementation improvement plans
  - lack of cooperation between institutions and exchanging self-assessment experiences
  - lack of complementary external assessment of institutions
  - poor use of data for the purposes of planning and implementing external professional-pedagogical supervision.

- **External evaluation of student knowledge through national exams and State Matura exams (NCEE**) National exams and State Matura exams provide a systemic test of knowledge, skills and abilities of students, as well as assessing other constituents of the educational process. Following shortcomings of this process were noted:
  - legal regulations on national exams haven’t been carried out in practice for a number of years\(^\text{11}\)
  - tests of knowledge, skills and capabilities of students mostly deal with general-education subjects
  - there is insufficient use of analyses of test results and external evaluation for improving work quality of education staff and education providers

- **External evaluation of institutions’ work\(^\text{12}\), inspectional\(^\text{13}\) and professional-pedagogical supervision\(^\text{14}\)** (MSES, AVETAE, ETTA)
  For the most part it is implemented unsystematically and insufficiently, according to needs, due to financial constraints and constraints of the low number of workers who implement it. Most frequently it undertaken only by application, without transparent elements and evaluation criteria. It is poorly linked with the self-assessment processes of schools and mostly undertaken for only one teacher or a group of teachers, rarely for

\(^{11}\) National Center for External Evaluation of Education Establishment Act (Official Gazette no. 151/2004)

\(^{12}\) Ordinance on the Means of Implementing External Evaluation and Using the Results of External Evaluation of Education Providers (Official Gazette no. 23/2011)

\(^{13}\) School Inspection Act (Official Gazette no. 61/11 and 16/12)

\(^{14}\) Professional-Pedagogical Monitoring Act (Official Gazette, 73/97)
the entire school. Also there is poor recordkeeping and utilization of results, and poor legislature dealing with the responsibility of teachers and/or schools with regard to supervision findings.

- **Quality assurance in implementation of CROQF**

Croatian Qualifications Framework Act and Ordinance on the Croatian Qualifications Framework Register\(^{15}\) also define quality assurance of CROQF application. These prescribe the jurisdiction over the quality assurance of CROQF which encompasses managing development processes and implementation of CROQF, quality assurance of qualifications attainment and units of learning outcomes from the CROQF Register and using the rights granted by linking CROQF with the EQF. MSES has jurisdiction over implementing quality assurance of programmes for attaining qualifications at the levels 1., 2., 3., 4.1., 4.2., and 5., depending on the profile of qualification, implementing quality assurance of programmes for attaining and validation units of learning outcomes on all education levels, as well as programmes for validating units of learning outcomes.

- **Supervising the legality of organizing and implementing practical training and apprenticeship training undertaken at craftsmen and legal persons**\(^{16}\) (MoEC, MSES)

Article 56, paragraph 7, of the Crafts and Trades Act prescribe supervision of practical training and apprenticeship training, as well as supervision of the legality of organizing and implementing practical training and apprenticeship training undertaken at craftsmen and legal persons. The Ordinance on the Procedure and Method of Granting Licences for Implementing Practical Training and Apprenticeship Training was also adopted (Official Gazette, number 34/2015). Also, according to the Vocational Education and Training Act, the Ordinance on Ways of Organizing and Implementing Teaching in VET Schools was passed, which also regulates the implementation of practical training in schools and with employers’.

- **External evaluation of implementation of Apprentice Exams** (NCEE, AVETAE)

This measure was introduced by the 2013 Crafts Act and assigned jurisdiction. However, no subsidiary laws were passed which would define the method and procedure of external evaluation.

Also, there are some activities which are linked with the obligations of Republic of Croatia in European networks and projects, for example: **VET Quality Assurance National Reference Point in Croatia** – QAVET.HR\(^{17}\) (AVETAE is the VET Quality Assurance National Reference Point in Croatia, and is involved in working bodies and groups of the EQAVET network) and **ReferNet Croatia** (situating within AVETAE, which makes yearly reports to CEDEFOP and the European Commission on policies, measures and activities within VET and progress in fulfilling short-term goals stipulated in the Bruges Communiqué on enhanced European Cooperation in Vocational Education and Training for the 2011-2020 period).

With the purpose of further development and modernization of VET adapted to the needs of social and economic development of Croatia and carrying out Goal 8 of the Strategy of Education, Science and Technology, it is necessary to carry out the necessary changes and alignment of the legal framework, clearly define the jurisdiction, role and responsibilities of individual stakeholders and adopt the indicators, principles and actions compatible with EQAVET. The implementation of this Programme will begin the formation of a unified system of quality assurance of VET on the level of a national system of VET, VET providers and on the level of qualifications. Also, this system will be applicable in the procedure of attaining qualifications within the adult education system. A key element of strengthening WBL approach within the curricular reform will be the systematic quality assurance of education process taking place with employers. Furthermore, it will be necessary to strengthen the capacities of all stakeholders involved in planning, implementing, monitoring and improving the system of VET quality assurance.

Furthermore, it is necessary to clearly define the VET quality indicators (linked with EQAVET indicators) and define the procedures of improving the system based on measurable indicators, seeing as the VET quality data is currently not used as a basis for planning and decisions, even though the Vocational Education and Training Act defines the need for:

\(^{15}\) Ordinance on Croatian Qualifications Framework Register (Official Gazette, 62/14)

\(^{16}\) Crafts Act (Official Gazette, 143/13)

\(^{17}\) http://www.aso.hr/qavet/default.aspx?id=2489
- a unique database for informational monitoring and managing the system of quality
- a evaluation system and gathering the results of evaluation
- incentive and corrective measures

Furthermore, there is currently no appropriate employability tracking mechanism for students of secondary VET schools which would provide a clear picture of the need for VET and the relevance of current education programmes and contribute to quality assurance of VET.

The quality of VET is to a large degree based on capable, expert and motivated teachers, under the assumption that VET teachers complete quality initial education and additional education in the area of development of pedagogical-psychological-didactic-methodical competences. In the area of teacher training of VET teachers there are following challenges and needs:

- need for an increase in the number of teachers who participate in in-service teacher training processes
- ensuring greater accessibility and relevance of in-service teacher training contents and materials
- strengthening quality assurance of in-service teacher training processes
- aligning national priorities and in-service teacher training based on the needs of teachers/schools and long-term defining of goals of in-service teacher training
- ensuring mechanisms and measures for strengthening teacher competences and motivation for professional development
- creation of a comprehensive strategy of in-service teacher training
- improving the system of professional advancement of teachers
- designing a simplified model of pedagogical education for workplace mentors in order to strengthen the capacities of employers for accepting students for practical training

The current system of continuous professional development of VET teachers needs to be improved, and a new model of continuous in-service teacher training created and based on determined needs (of teachers, schools, system). It is also necessary to turn towards new technologies and develop models of training based on e-learning and innovative training models which include online and physical forms of learning and ensure continued support for in-service teacher training of teachers in businesses and in direct contact with the labour market. Also, currently there is no systematic approach towards the continuous training of workplace mentors who receive the students for practical training, as well as no programme for attaining pedagogical competences by workplace mentors. Licences for teachers in secondary schools are stipulated by the Primary and Secondary Schools Education Act, but the ways of attaining them is still not regulated.

**Goal 2.1. Structuring a coherent VET quality assurance system**

**Measure 2.1. Establishment of a unified VET quality assurance system**

MZOS, in cooperation with educational agencies and other relevant stakeholders will undertake the process of establishing a coherent national VET quality assurance system, in alignment with EQAVET recommendation, on the basis of which necessary changes will be made, detailed guidelines for VET providers and other components of the system created, and approaches introduced which will strongly support the culture of quality, modernization and rationalization of the system and defining of the jurisdiction, roles and responsibility of individual stakeholders in VET quality improvement processes. This improved system of quality assurance will include strategic and operative guidelines, tool sets and, according to needs, amendments to existing legal and regulatory framework. Special emphasis will be made on quality assurance of work-based learning undertaken at employers’.
VET quality assurance is not only about monitoring quality and teaching conditions, but whether education is “purposeful” – whether it is in accordance with the needs of students and whether it matches the needs of the labour market. For quality it is not only important whether education providers abide by laws, but what is the experience and accomplishment of their students – do their experiences during the educational process lead to acquiring knowledge and skills on an expected level of standards and whether that standard is appropriate for their future careers. For taxpayers the quality VET means that their money has been well-invested, for employers it provides a sense of trust in the attained qualifications, while for students it guarantees attaining quality competences necessary for social development, relevant in regard to the labour market, and also forming a good basis for continued learning.

Quality assurance implies development and use of a set of instruments, and this also necessitates the right balance:
- between instruments which set the standards for everything invested in the educational process (for example, material and human resources, curricula, work-based learning) and their monitoring, as well as instruments which set the standard for the results of the educational process (for example, teaching of students, learning outcomes) and their evaluation (for example: internal – monitoring and assessing learning outcomes; external – national exams, State Matura exams, final exams, quality assurance of attaining qualifications and units of learning outcomes from the CROQF Register);
- between internal assessment (self-assessment) during which teachers and schools assess the successfulness, and evaluation undertaken by external persons (professional-pedagogical supervision, inspectional supervision, external evaluation of VET providers).

The improved approach will be compatible with the European Quality Assurance for Vocational Education and Training. The application of EQAVET allows for a systemic approach to quality by including and linking together relevant levels and stakeholders on the entire education system level, the level of the VET providers, as well as on the level of recognizing vocational qualifications. By combining different forms of evaluation, as well as by using empirical procedures for measurement and qualitative analyses, this framework strongly emphasizes the improvement and monitoring of quality. It is especially important for cooperation, confidence and recognition of skills, competences and qualifications on an international level. EQAVET is adaptable, so it can be used in the Croatian educational system in accordance with national and local priorities and developmental needs.

The improved system of quality will indicate the direction of development of VET quality assurance in the Republic of Croatia more towards ensuring learning outcomes and results of students and less in the direction of centralized regulation of processes, and more toward a better balance between outcomes and processes. In strategic guidelines the short-term and medium-term priorities will be indicated which should be undertaken on the basis of recommendations from the analysis of current quality assurance activities and their identified drawbacks. Steps and activities will be defined in operation guidelines on the level of the system and institutions implementing improved quality assurance systems (for example, proposals for passing laws and subsidiary laws, guidelines for linking self-evaluation and external evaluation of institutions, professional-pedagogical supervision, guidelines for undertaking self-evaluation for institutions, strengthening capacities, etc.).

Strategic guidelines of a unified system of VET quality assurance will take into consideration the establishment of quality assurance of the vocational qualifications development (with the application of CROQF instruments), the system of quality assurance of learning and teaching processes (self-assessment support and introduction of external evaluation of VET schools, professional-pedagogical supervision, inspectional supervision), quality assurance of validation and certification of acquired learning outcomes (implementation of the Framework for evaluating processes and learning outcomes in primary and secondary education, further implementation of external evaluation of achieved educational outcomes, defining procedures in sector curricula, designing new models of final exams, etc.). This will also be listed within the Croatian Framework of Quality Assurance in Vocational Education and Training, developed in line with EQAVET recommendations and defined quality indicators.

Results:

2. Unified system of VET quality assurance established and strategic and operative guidelines of implementation of quality assurance in VET adopted (2018)

Jurisdiction: MSES
Implementation: MSES, AVETAE, ETTA, NCEE

Measure 2.2. Modernization of the self-assessment model and linking with the system of external evaluation of education providers

Self-assessment of education providers is a systemic and transparent process of reflexion on personal practices with the purpose of improving educational processes. The basic principle of self-assessment is enabling institutions to use realistic and methodologically clearly defined self-analyses of their own work to better recognize their own developmental needs and undertake measures for improving their own practices and more efficiently carry out their desired educational goals. Self-assessment of education providers is a legal requirement in Croatia. The gaps of the existing process of self-assessment have already been mentioned, while for achieving more effective self-assessment the following measures need to be undertaken:

1. Improving the existing model of self-assessment
2. Strengthening internal capacities for providers for self-assessment
3. Ensuring external support of self-assessment of providers
4. Strengthening cooperation between institutions
5. Linking improved self-assessment as a basis of newly-introduced external evaluation of providers’ work as well as professional-pedagogical supervision

It will also be necessary to implement adjustments of the e-Kvaliteta tool in order to align it to the new model of self-assessment. It is necessary to continue strengthening educational agencies, developing their capacities with the purpose of widening the scope of activities of these agencies with new forms of support, while the development of capacities implies allocating resources (financial, human, etc.) necessary for new types of work.

Results:

1. Modernized self-assessment model linked with complementary model of external evaluation of VET providers, including guidelines and criteria for systemic professional-pedagogical supervision of VET providers (2017)
2. Improved e-Kvaliteta tool (2018)
3. Strengthened capacities (on the system and provider level) for systemic implementation and improvement of quality assurance system (2020)

Jurisdiction: MSES
Implementation: AVETAE, ETTA, NCEE, VET providers

Measure 2.3. Use of mechanisms for monitoring VET quality and efficiency and system improvement based on measurable indicators

For the improvement of quality of VET within EQAVET a four-phase development cycle is used:

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18 Vocational Education and Training Act (Official Gazette, 30/09)
1. setting up goals and strategic planning
2. implementation of a plan/programme based on clear rules and guidelines
3. evaluation – analysis of factors contributing to improving quality
4. reviewing – which includes an overview of achieved results and which leads to setting further goals

For monitoring the achievement of certain phases of the cycle, quality criteria (indicative descriptors) are used, as well as measurable indicators of quality\textsuperscript{19,20}. These measurable indicators facilitate documentation, development, monitoring and evaluation, with the purpose of improving efficiency. The purpose of data gathering of defined indicators of quality aligned with EQAVET will be managing the system and decision-making about VET on the basis of reliable information and analyses.

The model of tracing students after they finish secondary education is important for getting a clear image of the need for VET on the sector level and the relevance of existing educational programmes on the local/regional level.

Results:
1. Improved system of data gathering and processing (2018)
2. Developed and implemented model and mechanisms for tracing students after graduating (2017)

Jurisdiction: MSES
Implementation: AVETAE, ETTA, CES, MLPS

Measure 2.4. Strengthening capacities of VET providers for implementing a unified system of VET quality assurance

A necessary prerequisite for improving and implementing a coherent approach to VET quality assurance is the continued strengthening of capacities of all involved stakeholders. The goal is to envision and implement processes, programmes and projects which will strengthen the capacities of competent authorities on the system level for providing planning and support, utilizing results of quality assurance, as well as permanent support to VET providers in undertaking measures and activities, improving educational work and increasing its quality.

Results:
1. Strengthened capacities of VET providers for implementing quality assurance measures (2020)

Jurisdiction: MSES
Implementation: AVETAE, ETTA, NCEEE

Goal 2.2. Improving the system of continuous professional development in VET

Measure 2.5. Strengthening the capacities of VET teachers

In order for VET providers to appropriately respond to new and complex circumstances of rapid technological development, changed social relations and different needs of the labour market, the modern VET teacher needs to significantly expand the spectrum of their professional competences, be prepared to critically examine their practice


\textsuperscript{20} Supporting the implementation of the European Quality Assurance Reference Framework: Results of EQAVET Secretariat Survey 2013 - 2014, Chapter 4.
and adapt it in accordance with the needs of students and the demands of the profession\textsuperscript{21}. Educational policy therefore has to take into consideration this expanded role of the VET teacher and create the conditions for ensuring teaching competences aligned with the modernization of VET and upcoming reform changes.

Continuous professional development was recognized by the European Commission as a key element of improving the quality of the education system. Continuous professional development is essential for the VET system to respond to labour market needs, the needs of students and employers, and society in general. Teachers need to become familiar with and use new approaches to teaching, cooperate with employers and actively use new technologies. EU Member States have recognized the need for clearly defining what teachers need to know and be able to do; such competence frameworks can be the basis for:

- defining learning outcomes for initial teacher education
- defining employment criteria
- assessing teachers’ needs for professional development
- rearranging the professional teaching offer in order for teachers to continue developing their professional competences during their entire career

Furthermore, competence frameworks can be used in the processes of:

- Granting or withdrawing teaching licences
- Managing the teachers work and professional development
- Designing programmes of initial education, induction training and continuous professional development\textsuperscript{22}

Measures and activities which are proposed with the purpose of professionalization of the teacher profession, strengthening teachers’ capacities and increasing their social standing, were designed as part of this VET development programme. Licencing of teachers for work in education providers according to the national competence standard for teachers, which will be aligned with occupational and qualification standards within the Croatian Qualifications Framework Register, will be introduced within the quality system. Same standards will be used to relicense teacher and allow professional progression according to measurable, valid and objective criteria.

Results:

1. Occupational standard and qualification standard for VET teachers developed (2018)
2. VET teachers (re)licensing system introduced (2017)
4. New professional progression model developed (2017)
5. Mechanisms developed and activities promoting in-service teacher training in businesses in direct contact with the labour market implemented (2020)

Jurisdiction: MSES, MLPS

Implementation: Sector Skills Council for Education; AVETAE, ETTA, NCEEE

Measure 2.6. Strengthening capacities of workplace mentors

Strategy of Education, Science and Technology confirmed the strategic orientation of VET in the Republic of Croatia towards work-based learning. A key element for the successful implementation of this model is permanent education


\textsuperscript{22} Supporting teacher competence development for better learning outcomes, European Commission, July 2013
and training of workplace mentors who are put in charge of students during their placement in businesses and institutions.

Participation in the education of young people has wider benefits for employers. VET teachers as well as workplace mentors who prepare students for transition to the labour market need to be provided with quality professional development which will help them to fulfil their role.23

Work-based learning is a specific form of learning, so it is necessary to inform and train VET teachers and employers in its application. In the beginning of 2016, in accordance with the Vocational Education and Training Act, MSES had passed the Programme for Attaining Pedagogical Competences for VET Teachers, Trainers and Mentors (Official Gazette, no. 8/16), however, due to legislative limitations, the programme is too demanding for workplace mentors and its implementation is difficult. For this reason a new simpler model of pedagogical education of workplace mentors will be developed. The goal is to design and implement processes, programmes and projects which will strengthen the capacities of employers who accept students for practical training, as a part of work-based learning.

Results:
1. Programme for attaining pedagogical competences for workplace mentors developed and implemented (2017)
2. Programme for continuous professional training of workplace mentors developed (2018)

Jurisdiction: MSES

Implementation: AVETAE, CEA, CCE, CCTC, social partners

Priority 3. Promoting excellence, attractiveness and inclusiveness of VET

*Increasing the attractiveness of VET has been a goal of European policy since the beginning of the Copenhagen Process in 2002. The attractiveness of VET needs to be considered within the context of improving the quality of VET and reducing the gap of necessary skills and their incompatibility. The Bruges Communiqué states that until 2020 European VET systems need to be more attractive, relevant, career-directed, innovative, accessible and flexible than they had been in 2010. It also states that, taking into consideration the role of VET in European societies and economies, it is crucial to ensure the sustainability and excellence of VET. For the purpose of raising the attractiveness of VET the Communiqué lists the undertaking of different activities which can include public campaigns and student skill competitions.*

The central measure for increasing the VET attractiveness in Croatia is improving its image and promoting VET as a desirable career choice. Career informing and counselling is necessary for individuals to choose the appropriate education and career with which they can contribute towards the development of the community and economy on both the local and national level and in order to contribute to aligning education with the needs of the labour market. Therefore it is necessary to improve the system of career guidance before and during VET, especially in primary schools in which students can “discover” affinities toward specific vocational occupations.

Unlike in some EU countries, increasing the attractiveness of VET in Croatia is not connected with increasing the number of students in VET (71.3% in 2014 when compared to EU-28 average of 50.4%), but with increasing the image of VET. It is necessary to support changes in attitudes towards VET, which is for the most part considered a second, weaker, option in comparison with gymnasium education.

Although the Republic of Croatia has a very low percentage of individuals aged between 18 and 24 who don’t finish secondary VET (4.2% in 2012 in comparison with the EU-27 average of 12.8%), as well as a quite high proportion of individuals aged between 20 and 24 who finish secondary education (89% in 2012 when compared with the 64.7%

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23 Work-Based Learning in Europe, European Commission, 2013
EU-27 average), it is necessary to continue with measures which will reduce the risks of early school-leaving. Currently there is no national system or indicators for early recognition of risk of early school-leaving.

Each year in the Republic of Croatia the Agency for Vocational Education and Training and Adult Education carries out student skills competitions, exhibitions and fairs with the purpose of promoting VET, improving its image and strengthening its attractiveness. However, these activities need to be linked more to contemporary trends and standards (for example, EuroSkills competitions), as well as be made more visible for the purpose of promotion and increasing the attractiveness of VET, and use for career guidance.

Since 2008 as part of Lifelong Learning Week the Agency for Vocational Education and Training and Adult Education has been organizing a campaign with the purpose of increasing awareness about the importance of VET among adults. Since 2012 AVETAE has been representing Croatia in the WorldSkills Europe organization, and also organizes the participation of Croatian representatives in European skills competitions – EuroSkills.

In the area of excellence of VET the Agency for Vocational Education and Training and Adult Education has been, promoting through EU grants for VET providers, innovative forms of cooperation between VET providers and companies and other stakeholders on the local and regional level. It is necessary to continue with this successful model of promoting greater autonomy of VET providers for the development of innovation using a bottom-up approach in areas where needs have been identified, seeing as within the framework of previous grant schemes for VET providers this has shown to be a very efficient measure of promoting partnership on a local level, as well as aligning with the needs of the local labour market and rapid introduction of innovations (technology, methods, approaches) in the educational process.

**Goal 3.1. Strengthening excellence and attractiveness of VET**

**Measure 3.1. Promoting VET students’ skills, modernization and promotion of VET and skills**

With the aim of promoting VET students’ skills it is necessary to carry out an analysis of effectiveness, accessibility and impacts of the current model of competitions and exhibitions. This analysis will serve as a basis for development and implementation of a new national model of competitions and exhibitions in most sectors (subsectors) in order to ensure complete coverage of sectors. The model will be clearly linked with EuroSkills competitions and exhibitions in order to increase the level of visibility and attractiveness of VET. Apart from this, it is necessary to develop a communication strategy to inform about competitions and exhibitions, directed at different stakeholders. Especially important elements of promoting VET are directed at primary school students through the development of a national web platform for informing about and promoting VET, which will include gaming elements, social networking and other forms of communication popular among students, as well as exploring the opportunities of primary school students for experiencing work-based learning within VET providers or during student skills competitions. Also planned are improvements and continuation of systemic support to simulations of business environment and processes in secondary schools (for example, through training firms concept) and introduction of similar models in primary schools. Remaining activities are directed toward promoting VET among employers, primary school employees and career advisors.

**Result:**

1. New model of student skills competitions and exhibitions in most sectors (subsectors) with clear progression towards international competitions and exhibitions introduced (2019)

   **Jurisdiction and implementation:** AVETAE

2. Activities informing about and promoting VET among different target groups implemented (2020)
Jurisdiction and implementation: MSES, AVETAE

2. Improved model of simulating business environment and processes introduced (2019)

Jurisdiction and implementation: AVETAE, ETTA

Measure 3.2. Supporting innovations and VET schools projects aimed at strengthening capacities and ensuring relevant, creative and modern VET in partnership with businesses and the wider community

Some of the primary mechanisms of improving the attractiveness of VET are innovation and projects undertaken by VET providers which have recognized the importance of becoming involved in various projects which serve as instruments for further training of students and teachers in line with their interests, but also the significance such projects have for innovation in the educational process. In this way not only is profiling and the desirability of VET schools promoted, there is also a contribution to the quality and relevance of VET. Therefore it is necessary to further support schools in participation in projects, firstly by ensuring normative solutions for suitable validation of work on projects, as well as professional development of in-service teacher training of teachers and school workers for work on projects. Promotion and presentation of innovative projects of successful schools will motivate other schools into participating in projects. This measure also promotes innovative partnerships which include VET institutions, businesses and science and research institutions, as a key link between the world of work and the educational system, which will enable their stronger connection and adaptability.

Results:


2. Capacities of VET providers for implementing innovative projects (national, EU, international) strengthened (2020)

Jurisdiction: MSES

Implementation: MSES, AVETAE, AMEUP

Measure 3.3. Improving the system of career guidance

One of the aims of this programme is the development of a system of career guidance aimed towards pre-school, primary-school, secondary-school and university-level students, as well as adult education participants and unemployed people. The organization of workshops, seminar, teacher-training events and similar activities plans to develop lifelong career guidance activities, as well as competences of stakeholders in the education system linked with career guidance. The implementation of this measure will be linked with the activities of the Lifelong Guidance and Career Development Forum which brings together stakeholders involved in lifelong career guidance, ensures dialogue and coordinates the implementation of the Lifelong Guidance and Career Development Strategy24, and works on the improvement and development of the career guidance system. Considering the insufficient interconnectedness and information of different stakeholders in the system of career guidance and career development in the Republic of Croatia, it is necessary to strengthen the exchange of information and further development and improvement of the system of career guidance, as well as the development the competences of all stakeholders involved in lifelong career guidance.

24 The Government of the Republic of Croatia during a session held on 29 October 2015 passed the Lifelong Guidance and Career Development Strategy 2016-2020
Result:

1. Improved system of career guidance of students before and during VET (2020).

**Jurisdiction:** MLPS

**Implementation:** MSES, VET providers, CES

**Measure 3.4. Incentives for programmes and projects supporting inclusion of all groups at risk from early school-leaving**

The entire educational system, including VET, has a key role in ensuring social inclusion of individuals and vulnerable and underrepresented groups. This also reduces the number of socially-excluded persons and improves social stability as one of the conditions of social development. The level of inclusion undoubtedly depends on the structure of the educational system and on the way it functions (on programmes, teaching, evaluation, school autonomy, school working climate, cooperation with parents and organizational processes in schools), as well as on educational providers and employers providing work-based learning opportunities. These factors reduce exclusion from education by influencing the individualization of teaching and grading, as well as cooperation between teachers and parents. As is shown by numerous studies, education influences social inclusion through educational achievements, lifelong learning and ensuring easier participation on the labour market.

According to this, the beginning phases need to identify the underrepresented and vulnerable groups of students within the VET system, analyse the existing state of programmes and projects strengthening inclusion, improve the current unsystematic procedures of preventing early school-leaving, among other ways by determining the indicators for early recognition of risk of early school-leaving, and develop alternative curricular solutions (as well as “second chance” models) and different organizational forms of education for groups at risk of early school-leaving, which would improve the inclusion of these groups in the education system. The development of a system of subsidized programmes offering additional educational activities (online courses, workshops, mentoring, career guidance) for students from families at risk of social exclusion would also increase their commitment to education and increase their competences needed for entering the world of work or continuing education, and decrease social exclusion.

**Results:**

1. System supporting and monitoring the implementation of programmes and projects of inclusion of different groups of students established (2020)
2. Indicators of early recognition of risk of early school-leaving identified and introduced (2020)
3. Alternative curricular and organizational solutions for groups at risk of early school-leaving developed (2020)

**Jurisdiction:** MSES

**Implementation:** MSES, AVETAE, civil society organizations, MLPS

**Priority 4. Internationalization of VET, encouraging international mobility of students and teachers**

*In the European context a very important role is given to the internationalization of VET and encouraging mobility of students and teachers, all of which are emphasized in numerous European documents (Bruges Communiqué, ET 2020).*

The VET System Development Strategy 2008-2013 in Croatia began the development of a VET system directed toward lifelong learning, mobility and use of tools which promote transparency, reliability and recognisability of learning outcomes. However, more significant steps in the direction of systematic mobility and use of EU tools were achieved by entering the Lifelong Learning Programme. The Republic of Croatia gained partial access to this
programme in 2009 and full access in 2011. The programme allowed for transnational mobility of students and teacher trainings.

Up to now 24% VET schools have participated in this programme and the new Erasmus+ programme. Currently 83 VET schools are involved international mobility of students/teachers projects through the Erasmus+ programme, out of which 72 deal with VET, while others deal with general education or adult education. It is estimated that in the 2015/2016 school year 0.78% students will participate in Erasmus+ mobility (the EU average for 2013 was 0.7%), while it is estimated that over 1% will do so by the conclusion (2020) of the Erasmus+ programme. The EU goal of 6% of persons involved in VET mobility until 2020 has been set. It is necessary to continue supporting VET provider participation in mobility programmes.

Also, it is necessary to undertake a series of activities which will contribute to strengthening the capacities of VET stakeholders for international cooperation, development of projects and raising consciousness on the need for VET internationalization. It is necessary to ensure more appropriate conditions for involvement in and implementation of international projects through adequately rewarding individuals in charge of project implementation in VET providers, as well as enriching the offer of trainings with high-quality content directly linked with internationalization and the international dimension.

In the Republic of Croatia this area needs to be more strongly promoted and be given more adequate support on the system level. Schools involved in international mobility projects are faced with difficulties when organizing longer mobility periods, organizing classes, administrating granted funds and motivating teachers for involvement in projects, since the option of remuneration of teachers for work on projects is limited and this work is not taken account with regard to professional advancement. There is significant room for improvement of capacities of schools for participation in projects (especially involving schools without experience in projects), improving the availability of projects results and increasing their quality, involving the public and private sector, and better networking of potential applicants. Within the scope of the Study of Influence of the Lifelong Learning Programme on Participating Education Providers in 2009-2013 Period, the first such study in Croatia, recommendations will be made for more significant strengthening internationalization of the education system as well as indicators for monitoring progression the development of the international dimension.

AVETAE is very actively involved in the internationalization of VET, and for a number of years it has been applying and implementing projects financed through EU funds and programmes, and in cooperation with partners from other EU and neighbouring countries.

EU tools which ensure the integration, transparency and reliability of learning outcomes are used in Croatia in order to support lifelong learning and internationalization. A national group of ECVET experts has been actively working since 2012 on promoting international mobility of students in the ECVET context, and guidelines, brochures and flyers have been developed, while teacher-training events for VET teachers and principals are organized each year. However, their current scope is insufficient.

ECVET as the European technical framework for the transfer, recognition and (where it is possible) accumulation of learning outcomes of individuals with the purpose of attaining a qualification in Croatia is implemented solely within the context of international mobility of students. The intention is to further work on strengthening the capacities of VET schools for easier implementation of ECVET in Croatia (for example, recognition of learning outcomes acquired abroad, organization of classes during periods of mobility, etc.). The Republic of Croatia’s priority is to further develop learning mobility because recognition of mobility periods as an integral part of the student’s education process will allow employers easier understanding of qualifications acquired abroad regardless whether they are from different countries, institutions or systems. In conclusion, the promotion of the Europass Certificate Supplement and other Europass documents relevant to VET students and teachers will be continued within the VET system.
Goal 4.1. Strengthened international relevance of VET

Measure 4.1. Development and improvement of possibilities for greater mobility of students and teachers

Primarily with the purpose of strengthening mobility and internationalization of VET an impact analysis will be undertaken of the influence of participation of VET schools and other participating education providers in the Lifelong Learning Programme and guidelines will be developed for strengthening international mobility as well as measurable indicators for monitoring the development of the international dimension. The capacities of teachers for involvement in international mobility projects will be strengthened and legislative and administrative preconditions ensured for realization and evaluation of teachers’ and students’ mobility. Also, the scope of schools participating in international mobility projects will be widened and attention will be given to inclusion of social partners as well as local and regional government in projects within Erasmus+. The number of instances of teacher and student mobility will be proportionally increased in accordance with the planned increase of funding within Erasmus+ until 2020. The new activity of transnational cooperation within Erasmus+ will allow a certain number of VET teachers and principals to participate in transnational forms of teacher training aimed towards developing projects within the Erasmus+ programme and strengthening professional and project potential in general.

With regard to using and promoting ECVET in 2015, a national ECVET portal was established and measures promoting the use of ECVET by VET providers and workshops for teachers and principals will continue.

Results:

1. Recommendations for strengthening the international dimension in VET developed on the basis of findings of the evaluation study (2017)
   **Jurisdiction and implementation:** MSES, AMEUP
2. Indicators for monitoring improvement in the development of the international dimension in VET developed (2017)
   **Jurisdiction and implementation:** MSES, AMEUP
3. Erasmus+ participation of schools with no prior mobility projects experience increased (2020)
   **Jurisdiction and implementation:** AMEUP
4. Visibility and better understanding of ECVET increased, as well as widening its application in VET schools by ensuring a suitable legislative framework (2020)
   **Jurisdiction and implementation:** MSES, AMEUP, AVETAЕ

Measure 4.2. Supporting the international dimension of VET

Ensuring conditions (amendments of the legislative framework dealing with resolving the status of persons in charge of projects implementation in VET providers, as well as participating in twinning projects and aligning national laws and regulations through use of EU funds and programmes, etc.) and strengthening the capacities for involvement in international projects will also encompass support in finding partners, availability of results of implemented international projects and promotion of good practice examples. The strengthening of capacities of VET schools for internationalization has already been covered within Measure 4.1.

One of important EU internationalization tools – Europass – has been promoted in Croatia since 2011. The Europass Certificate Supplement for all VET qualification standards will be especially promoted, and will ensure better understanding and improved recognition of VET qualifications attained in Croatia in the European context.
Result:

1. Improved and strengthened international dimension of VET (2020)

Jurisdiction and implementation: MSES, AMEUP, AVETAE
Annex I. Strategic and legislative framework of VET

Smart Specialisation Strategy of Croatia 2016-2020 (2016)
National Framework Curriculum for Pre-School Education and General Compulsory and Secondary Education (2011)
Vocational Education and Training Act (Official Gazette, no. 30/2009)
Agency for VET and Adult Education Act (Official Gazette, no. 24/2010)
Adult Education Act (Official Gazette, no. 17/2007)
Crafts and Trades Act (Official Gazette, no. 143/2013)
Professional Pedagogical-Supervision Act (Official Gazette, no. 73/1997)
School Inspection Act (Official Gazette, no. 61/2011, 16/2012)
Croatian Qualifications Framework Act (Official Gazette, no. 22/2013)
Ordinance on Final Paper Development and Defence (Official Gazette, no. 118/2009)
Ordinance on Taking the State Matura (Official Gazette, no. 01/2013)
Ordinance on Ways of Organizing and Implementing Teaching in VET Schools (Official Gazette, no. 140/2009)
Ordinance on Minimum Requirements for Apprenticeship Contracts (Official Gazette, no. 63/2014)
Ordinance on Qualifications and Pedagogical-Psychological Education of Teachers in the Secondary Education System (Official Gazette, no. 1/1996, 80/1999)
Ordinance on Compulsory Textbooks and Accompanying Teaching Instruments (Official Gazette, no. 104/2013)
Ordinance on Taking the First-License Examination for Teachers and Expert Associates in the Primary and Secondary Education System (Official Gazette, no. 88/2003)
Ordinance on Professional Advancement of Teachers in Primary and Secondary Education (Official Gazette, no. 89/1995, 148/1999 and 20/2005)
Ordinance on Ways, Procedures and Elements of Assessment of Students in Primary and Secondary Schools (Official Gazette, no. 112/2010)
Ordinance on Ways and Procedures of Determining Conditions for Beginning of School Work (Official Gazette, no. 141/2009)
Ordinance on the Elements and Criteria for Selection of Candidates for Enrolment in the First Grade of Secondary School (Official Gazette, no. 49/2015)
Ordinance on Primary and Secondary Education of Students with Developmental Disabilities (Official Gazette, no. 24/2015)
Ordinance on the Joint Electronic Register of School Institutions – e-Matica
Ordinance on Criteria for Imposing Pedagogical Measures (Official Gazette, no. 94/2015)
Ordinance on Croatian Qualifications Framework Register (Official Gazette, no. 62/2014)
Ordinance on the Procedure and Ways of Issuing Licences for Implementing Practical Training and Apprenticeship Training (Official Gazette, no. 37/15)
Ordinance on the Method and Way of Taking Apprentice Exams (Official Gazette, no. 63/14, 78/14 and 86/15)
Ordinance on the Form and Content of Apprentice Exams Certificates (Official Gazette, no. 63/14)
Ordinance on the Method and Way of Taking Master Craftsman Exams and Professional Competence Exams (Official Gazette, no. 88/02)
Ordinance on the Form and Content of Master Craftsman Exams Certificates (Official Gazette, no. 22/02 and 28/09)
Decision on the Prices of Taking Professional Competence, Apprentice and Master Craftsman Exams (Official Gazette, no. 31/02 and 86/15)
Annex II. List of VET projects financed through EU funds (2006-2015)

<table>
<thead>
<tr>
<th>Project title</th>
<th>Project duration</th>
<th>Project value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARDS 2001 “Vocational Education and Training”</td>
<td>18 months (March 2003 - December 2004)</td>
<td>600.000 EUR Service Contract</td>
</tr>
<tr>
<td>CARDS 2002 “Vocational Education and Training: Modernization and Development of Institutions”</td>
<td>15 months (September 2005 - December 2006)</td>
<td>1.500.000 EUR Service Contract</td>
</tr>
<tr>
<td>CARDS 2003 “Modernisation of VET Schools”</td>
<td>12 months (December 2005 - December 2007)</td>
<td>1.249.846 EUR Service Contract</td>
</tr>
<tr>
<td>Instrument for Pre-Accession Assistance (IPA)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strengthening the Institutional Framework for Development of VET Occupational Standards, Qualification Standards and Curricula</td>
<td>24 months (January 2010 - January 2012)</td>
<td>1.799.965 EUR Service Contract</td>
</tr>
<tr>
<td>Comprehensive Capacity Building of the Agency for Vocational Education and Training and Adult Education</td>
<td>18 months (June 2010 - December 2011)</td>
<td>1.168.500 EUR Service Contract</td>
</tr>
<tr>
<td>Implementation of New Curricula</td>
<td>18 months (April 2012 - October 2011)</td>
<td>1.065.500 EUR Service Contract</td>
</tr>
<tr>
<td>VET Quality Assurance Development</td>
<td>24 months (March 2010 - March 2012)</td>
<td>1.639.750 EUR Service Contract</td>
</tr>
<tr>
<td>Labour Market Research</td>
<td>6 months (April 2012 - October 2012)</td>
<td>171.555 EUR Framework Contract</td>
</tr>
<tr>
<td>Modernisation of School Curricula in VET Schools in Line with the Changing Needs of the Labour Market/Economy</td>
<td>12 months (September 2012 - September 2013)</td>
<td>4.454.776 EUR Grant Contract</td>
</tr>
<tr>
<td>European Social Fund (ESF)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modernisation of School Curricula in VET Schools in Line with the Changing Needs of the Labour Market/Economy – Phase II</td>
<td>Financing Decision – 2 March 2015</td>
<td>6.054.000 EUR Grant Contract</td>
</tr>
</tbody>
</table>

Project summaries:

CARDS 2001 “Vocational Education and Training”

Green Book on VET was developed through this projects and provided a vision and a plan of measures which needed to be undertaken in short, medium and long-term period in order to modernise the Croatian VET system in accordance with the goals and examples of good practice in the EU. Furthermore, occupational standards for mentors, mentor training programme, vocational teacher training programme, “new school” model, principal training within new school model, new model of teacher in-service training programme, new methodologies for teacher training analysis, as well as a new system of teacher evaluation were developed.

CARDS 2002 “Vocational Education and Training: Modernization and Development of Institutions”

A proposal for the content of the future VET Act – White Document – was developed through this project, which provided basic guidelines for the development of VET system, as well as: thorough specifications for information
system for VET management – VETIS; analysis of the labour market was carried out and one qualification proposal was developed. A work group for labour market study was founded within CARDS 2002, whose task was to survey the existing conditions on the labour market, propose new educational vocational sectors (professional fields of work) in accordance with the needs of the modern labour market and agree inter-institutional equalisation of sectors both in title and content. During its work, the work group collected and analysed all available information on: demographic trends (shares of population of different age groups); educational programmes and students (description of educational areas and programmes for occupations, student/learner traits and their flow); the labour market (description of the labour market within each sector, share of (un)employed, labour force workflows) and about the labour system (main activity areas, key knowledge, skills and competences, main markets, types of businesses/companies, recent and anticipated changes, drawbacks, flaws). The work group gave a proposal for new VET sectors, which replaced previous 32 education fields of work with 14 new VET sectors. Agency for VET established 13 interim Sector Skills Councils for 13 VET sectors and appointed their members in June 2006. Sector Skills Councils began their work on 1 July 2006. CARDS 2002 project professionally and materially helped in their establishment and work.

CARDS 2003 “Modernisation of VET Schools”

A Concept Paper encompassing the whole qualification structure of teachers and trainers was developed within the project. A feasibility study analysed where a tertiary level education study for vocational teachers and trainers could be established. An equivalent of modular one-year pre-service study for teacher training of vocational teachers and trainers was developed. A proposal for a continuous professional development system for vocational teachers and trainers was formed, based on the process of staff appraisal and main modules of training were developed. As part of the support for the work of interim Sector Skills Councils, in addition to the help with organising and implementing two rounds of 13 SSC’s meetings, an evaluation report of SSC’s was developed, along with new guidelines for their work. In the third component grants were awarded through contracting 13 projects financed by EU with total value of 2.660.674 EUR, directed towards the development of VET schools, and supporting partnerships. Partners were different institutions: VET and private schools, NGO’s, companies, institutes, public open universities, commerce and craft chambers, local authorities etc.


This project enabled the development of 14 education Sector Profiles which contain key information about the sector, labour market and VET. The Methodology for the Development of Vocational Occupational Standards, Qualification Standards and Curricula in Croatia was developed within the project. Methodology foreseen the development of vocational curricula which will reflect the needs of labour market, but also be in the function of continuation of education, and was accepted by AVETAE. A Handbook for Planning and Development vocational occupational standards, qualifications and curricula was developed and published. Furthermore, 26 new vocational curricula in 13 education sectors were developed, and an online database (e-Kvalifikacije) was created which contains all 26 vocational occupational standards, qualifications standards and curricula. A short animated film was developed which describes the planning and the development process of vocational qualifications and curricula. For the needs of the development of occupational standards, qualification standards and curricula the Agency appointed 26 work groups with over 240 members, and with the project’s support 70 days of seminars and workshops with over 1800 participants were held in 2011. Also, 230 work group meetings were held with additional 2300 participants. Based on this project, in school year 2011/2012 11 teaching plans and programmes were adapted to qualifications and one curriculum developed within the project. On the basis of these accomplishments, 22 vocational curricula are in experimental implementation since school year 2013/2014.
IPA 2007-2011 “Comprehensive Capacity Building of the Agency for Vocational Education and Training and Adult Education”

Through this project complete institutional and administrative capacities of the Agency for Vocational Education and Training and Adult Education were strengthened, so it could perform its basic task of acting as a central supporting body for the VET and adult education system stakeholders. During the project two rounds of intensive training for all professional sections of the Agency were carried out. In total, training through project was performed through 25 different training topics during 47 training days and 9 presentation days. 86.25% of Agency employees participated in the first and second round activities. During project implementation a web portal for human resource management of the Agency was developed, and an e-learning pilot-course on using eLearning module of the web portal was held for 16 employees of the Agency.

IPA 2007-2011 “Implementation of New Curricula”

A systematic approach to the development of innovative culture in VET schools, in accordance with the labour market needs on local and/or regional level, was developed through this project. Professional capacities of AVETAE and VET schools for successful preparation and implementation of grant contracts within IPA Component IV Human Resource Development and future projects financed through European Social Fund (ESF) were also developed through this project. On 27 September 2010 18 grant contracts for VET schools were signed, within IPA Component IV, for the project “Implementation of new curricula”. 18 applicants, along with their partners, fulfilled the conditions for grant award, and total value of used resources within this grant scheme was 3.709.913,18 EUR. Individual projects lasted from 12 to 14 months, and their value ranged between 100.000 and 300.000 EUR.

IPA 2007-2011 “VET Quality Assurance Development”

Within the project the Self-Assessment Handbook for VET providers was developed, which gives priority and quality areas in Croatian VET Quality Assurance Framework: 1. planning and programming of work, 2. teaching and learning support, 3. student achievements and learning outcomes, 4. material and human resources – professional development of institution employees, 5. cooperation within VET provider – cooperation with other stakeholders – promotion of the institution, 6. Management (institution and quality). A pilot-process of self-assessment in 24 Croatian VET schools was carried out. An online tool e-Kvaliteta (e-Quality) was also developed whose goal is to provide support in the implementation of Croatian VET Quality Assurance Framework. Strategic Guidelines for VET Quality Assurance were created as well.

IPA 2007-2011 “Labour Market Research”

Within the project a test research was carried out, with help from an online tool whose goal was to gather information directly from the employers on some of the most common occupations and competences in 13 education sectors, about future needs and plans regarding the needs for different work force types, and planning VET provision. Employers across Croatia participated in the survey. Methodology for labour market needs research was developed, as well as a Report on pilot-research results.

IPA 2007-2011 “Modernisation of School Curricula in VET Schools in Line with the Changing Needs of the Labour Market/Economy”

The general goal of this grant scheme was to support the introduction of modern and innovative projects, processes, activities, methods and contents into the existing vocational programmes and curricula with the goal of enabling the attaining of relevant student competences and demonstrate and connect new contents with learning outcomes, in
accordance with the Primary and Secondary Schools Education Act, the Vocational Education and Training Act and the Croatian Qualifications Framework Act. Specific project goals were to: provide support to VET providers in the development of bottom-up approach, so they could assure the attainment of modern competences and the access to latest technologies for their students, thus raising their employability and relevance of their qualifications on labour market; encourage VET providers to develop and implement new and modern scientific, technical and innovative accomplishments in the educational process. In total, 30 grant agreements were awarded with duration of up to 12 months.

ESF 2013 “Modernisation of School Curricula in VET Schools in Line with the Changing Needs of the Labour Market/Economy – Phase II”

The general goal of this grant scheme was to support the introduction of modern and innovative projects, processes, activities, methods and contents in the existing vocational programmes and curricula with the goal of enabling the attaining of relevant student competences and demonstrate and connect new contents with learning outcomes, in accordance with the Primary and Secondary School Education Act, the Vocational Education and Training Act and the Croatian Qualifications Framework Act. Specific project goals were to: provide support for VET providers in the development of bottom-up approach, so they could assure the attainment of modern competences and the access to latest technologies to their students, thus raising their employability and relevance of their qualifications on labour market; encourage VET providers to develop and implement new and modern scientific, technical and innovative accomplishments in the educational process.

In total, 30 grant agreements were awarded with duration of up to 12 months.
Annex III. Reference of Croatian Qualifications Framework (CROQF) with the European Qualifications Framework (EQF) qualification levels

<table>
<thead>
<tr>
<th>CROQF level</th>
<th>Qualification</th>
<th>EQF level</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.2</td>
<td>Postgraduate university (doctoral) studies</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Defence of a doctoral thesis not involving taught study programme</td>
<td></td>
</tr>
<tr>
<td>8.1</td>
<td>Postgraduate research Master of science studies</td>
<td>7</td>
</tr>
<tr>
<td>7</td>
<td>Graduate university studies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Specialist graduate professional studies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Post-Master specialist university studies</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Undergraduate university studies</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Undergraduate professional studies</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Professional higher education studies</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Vocational post-secondary development and training</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Programmes for master craftsmen with at least two years of assessed work experience</td>
<td></td>
</tr>
<tr>
<td>4.2</td>
<td>General secondary education</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Five-year vocational secondary education</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Four-year vocational secondary education</td>
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</tr>
<tr>
<td>4.1</td>
<td>Three-year secondary school vocational education</td>
<td>3</td>
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<tr>
<td>3</td>
<td>Two-year secondary school vocational education</td>
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</tr>
<tr>
<td></td>
<td>One-year secondary school vocational education</td>
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<tr>
<td>2</td>
<td>Vocational training</td>
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</tr>
<tr>
<td>1</td>
<td>Primary education</td>
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