



 **Interreg** 
EUROPEAN UNION
Danube Transnational Programme
Learning by Doing

A Guidebook for More Efficient Work-Based Learning in the Danube Region

June 2019



Project: Learning by Doing

WP5: Transnational Tools

Activity 5.1: Joint Preparation of the Guidebook for More Efficient Work-Based Learning in the Danube Region

Deliverable: Guidebook for More Efficient Work-Based Learning

Prepared by:

Chamber of Commerce and Industry Serbia

<https://www.pks.rs/>

Institute for Improvement of Education

<https://zuov.gov.rs/>

This publication was realized within the project Learning by Doing within the Danube Transnational Program. The content of the publication and the views expressed in it are the result of the work of all partners during the project.



Contents

1. Executive Summary	4
2. Introduction	7
2.1. Background	7
2.2. Guidebook Aims, Structure and Content.....	8
3. Definitions - Conceptual Framework, Methodology and Stakeholders.....	10
3.1. WBL – Definition – Conceptual Framework and Key Features	10
3.2. Methodology Used	12
3.3. Actors in the WBL	12
4. Challenges Encountered.....	14
4.1. Institutional Challenges.....	14
4.2. Cooperation Challenges.....	25
4.3. Cultural Challenges and Mind-set Challenges	32
4.4. Expertise and Capacities Challenges	41
5. Key Messages	50
6. Annex – Education and VET System in Partner Countries	51
Position of the VET/WBL System in Canton Sarajevo (Bosnia and Herzegovina)	52
Position of the VET/WBL System in Bulgaria	53
Position of the VET/WBL System in the Republic of Croatia	54
Position of the VET/WBL System in the Czech Republic	55
Position of the VET/WBL System in Hungary	56
Position of the VET/WBL System in Romania.....	57
Position of the VET/WBL System in the Republic of Serbia	58
Position of the VET/WBL System in Slovakia.....	59
Position of the VET/WBL System in the Republic of Slovenia	60



1. Executive Summary

The 21st century world is a rapidly changing place. Ongoing transformation, caused by technological development, automatization, digitalisation, and globalisation is restructuring many aspects of modern society. Global challenges are reflected in partner countries' societies, prompting this guidebook as one possible and viable answer.

Vocational education and training (VET) is mainly provided in three- and four-year programmes, which are deeply rooted in the formal education system. The four-year programmes usually lead to certificates that allow learners to enter higher education.

In most countries, regulatory frameworks provide the policy direction for Work-Based Learning (WBL) during formal three- and four-year VET. Curriculum frames usually include general subjects, vocational theory and vocational practice. In theory, a substantial part of the vocational practice – or in some cases even all the practical training – could be implemented in the form of WBL. However, such frameworks have often not been supported by the necessary by-laws that would, for example, stipulate the rights and obligations of the companies, learners and VET schools. For instance, the selection of learners, their contractual situation and their remuneration often remain unclear and may differ from school to school or company to company. Further, common standards for the administration and supervision of learners are often not in place. As a result, WBL is still not widespread. Instead, most of the practical training takes place in VET schools' workshops.

With the introduction of work-based learning into the existing secondary professional education system come certain issues regarding teachers/instructors who are responsible for the process of teaching. In most countries with a traditional VET system, teachers generally have a high educational background (EQF level 6 or 7) and the level of their education is regulated. Exceptions to the rule include teachers of practical subjects whose education can be at a lower level (EQF level 5 to 7). Learning through work is realized most commonly at real-life work places (factories, hotels, restaurants, services, hospitals, etc.) where the instructors are real working people at companies who may or may not have pedagogical experience. This is why one of the greatest challenges facing countries in the region introducing WBL is strengthening the capacity of instructors at companies in an organized manner, through introducing Chambers of Commerce as equal partners in the process of their training and licensing.

The role and responsibilities of different institutions involved in WBL is decided by regulations in the law. Aside from traditionally included institutions like ministries responsible for education, and VET centres/agencies, the Chamber of Commerce becomes



a new important partner. The chambers coordinate the economic processes of licensing instructors and companies, coordinating WBL contracts (student-company-school) and identifying the need for practitioners in the local/regional economy. The new role of chambers in many countries in the region forces the need for a permanent strengthening of capabilities in individuals employed at these institutions.

The ones responsible for the development of education policies in the field of VET are Ministries of Education and national councils for VET. The Ministry of Education, including regional school administrations, national agencies for qualifications and VET are in charge of implementing these policies through setting up a system of quality assurance, qualification development and VET as a whole. The introduction of WBL requires the identification of qualifications, the development of a curriculum and exams, furnishing schools and school workshops, and strengthening the abilities of teachers and collaborators. The challenges facing these institutions are similar in all the countries in the region and the experience gained through this project will benefit the establishment of high-quality national practices.

An important topic regarding WBL is the health and safety of students at the work place. In accordance with the legislative framework concerning this field, all students must be additionally insured for the part of their studies that is undergone at the workplace and must go through the appropriate training and testing at the company itself.

Career guidance offers counselling to students in regards to their future careers, as do their interests and career requirements. Certain countries in the region have developed these mechanisms and implemented them into the legislative framework applied at schools. The exchange of experiences in this field was the subject of many employee discussions at partner institutions.

When deciding on their future, students often rely on the experience and advice given by their parents. Because of this, the promotion of this model of professional education must be directed, not only at students, but at their parents as well. The partners involved in this project realized an array of activities meant to popularize VET with a variety of target audiences (students, parents, companies), activities which will be partially presented in this guide.

With the amount of large migrations of a working-capable population, it is necessary to secure first-rate qualified experts capable of facing challenges regarding, not only new technologies, but also concerning the adaptation to different languages, cultures and social issues. "Learning by Doing" gives individuals the opportunity to finish their studies not only in their home country but also in other countries in the Danube Region. This type of



mobility for students and teachers would allow for the establishment of connections between diverse educational systems. This possibility is also available through the program of Erasmus funded by the EU.



2. Introduction

Work-based learning (WBL) has been high on the policy agendas of many countries and international organisations for several years. At the Riga meeting in June 2015, the ministers responsible for vocational education and training (VET) reaffirmed their efforts towards raising the overall quality and status of VET in the context of the Copenhagen process, in order to meet the Education and Training 2020 (ET 2020) strategic objectives, as well as their support for the wider European growth and jobs agenda.

The EU Member States, the candidate countries, the European social partners and the European Commission agreed on a new set of medium-term deliverables (MTDs) for the period 2015– 2020¹. The first of the five MTDs focuses on WBL in VET. As such, they committed to ‘Promote work-based learning in all its forms, with special attention to apprenticeships, by involving social partners, companies, chambers and VET providers, as well as by stimulating innovation and entrepreneurship².’

As part of its New Skills Agenda for Europe, the European Commission proposed that “business and social partners should be involved in designing and delivering VET at all levels and that VET should include a strong work-based dimension”³. To inspire and support the various stakeholders to make WBL happen, the Commission identified 20 guiding principles for high-performance apprenticeships and WBL⁴.

The project “Targeted capacity building of VET partnerships in the Danube Region for the effective modernisation of VET systems - Learning by Doing” aims to improve the capacities of all relevant VET actors through reinforcing regional, national and transnational partnerships in order to ease the transition of existing VET systems in the Danube countries. The project is implemented by 24 partners from nine countries. The composition of the partnership has been consciously set up in such a manner that all key VET actors (chambers, regional or national level authorities and multinational companies) could directly participate in the project, representing all countries of the programme area.

2.1. Background

One of the work packages of the Learning by Doing project aims to develop transnational tools to support long-term transition of VET systems, including dual VET and apprenticeships. Economies (investments) and societies (labour skills, outmigration, and

¹ European Commission, 2015a

² Riga Conclusions, 2015

³ European Commission, 2016a, p. 5

⁴ European Commission, 2016b



demography) of the Danube region are strongly interdependent. The aim is to equip VET partnerships in the Danube region with durable transnationally convertible tools and change mind-sets as a way to catalyse and implement the needed complex, long-term changes in the institutional, cultural & organisational frames.

Transition towards more efficient, more company- and practice-driven Work-Based Learning schemes within VET (especially apprenticeship) is a visible trend in the entire Danube region as a way of addressing labour market disparities and youth unemployment.

Both *The Guidebook for More Efficient Work-Based Learning in the Danube Region* and the *Work-Based Learning Observatory* target all VET actors of the Danube region with the aim of supporting in the long-term transition processes of WBL schemes within VET systems of the region with expertise and knowledge sharing. By doing so, the Observatory (managed by all partners and operated mainly by the LP) will use the guidebook as one of its key tools.

Based on the project's case studies, The Serbian Chamber of Commerce and Industry, in cooperation with The Institute for Improvement of Education, prepared the guidebook, highlighting/structuring partners' experience in capacity building regarding institutional, cooperation, cultural, and human challenges, hindering the necessary transition towards a more demand- and practice-driven WBL system in the Danube region. The guidebook will be presented during the final conference and should provide a constant input for the establishment/operation of the Observatory and towards the preparation of the strategies.

2.2. Guidebook Aims, Structure and Content

This guidebook is to be viewed as a strategic document that summarises partners' experiences, with a special attention on applicable and replicable solutions for other regions and countries, including after the project lifetime. However, partners will ideally create their own versions based on this transnational guidebook. It could also be used outside of the programming area, since other territorial strategies have similar priorities as well. Thus, partners could become flagships when it comes to transforming VET systems, as well as disseminating a methodology for neighbouring non-EU countries.

The *Guidebook for More Efficient Work-Based Learning in the Danube Region* is based on partners' experience in capacity building actions, thus describes how efficient capacity building actions can address country specific challenges regarding institutional, cooperation and cultural challenges and mind-sets, hindering the necessary transition towards a more demand- and practice-driven WBL VET system in the Danube region.



Stakeholders, also as primary consumers of the outputs and achievements delivered by the project, will jointly edit the guidebook.

The guidebook is structured in the following way: its first part is an executive summary, its second part contains background information, its third part is an elaboration on theoretical and methodological issues related to WBL, while the fourth part lists challenges identified by the partners and how they combat them, including best partner practices selected to share as success stories.



3. Definitions - Conceptual Framework, Methodology and Stakeholders

3.1. WBL – Definition – Conceptual Framework and Key Features

The term WBL cannot be clearly distinguished from other terms referring to practice-based learning in a work context. Several close (and interchangeable) synonyms are found in the literature, including employment-based learning, on-the-job training, enterprise-based learning, and, in some contexts, work-based learning.

The term ‘work-based learning’ refers to the learning that occurs when people do real work in a real work environment. This is paid or unpaid work that leads to the production of real goods and services. Practical learning that takes place in an educational institution – for instance in a vocational college’s workshop – and classroom-based learning that happens to take place in an enterprise are not WBL. Virtual firms, practice firms and simulation tools are used by some educational institutions. These are not a substitute for the participation of learners in work practice and process, as they cannot create all of the features of a real workplace, but they can be useful when the alternative is difficult to access.

The European Commission, in its document “Work-Based Learning in Europe - Practices and Policy Pointers”,⁵ recognised three models of WBL in initial VET:

Alternance schemes or apprenticeships are typically known in Austria and Germany as the “dual system”⁶. These are fundamentally based on the integration of companies as training providers together with VET schools or other education/training institutes. In these programmes, learners spend a significant time on training in companies. In parallel, or in “alternating” periods, they acquire general and occupation-related knowledge and often complementary practical skills and key competences in VET schools or other education/training institutes. Across EU countries, the terms “alternance” “traineeship” and “apprenticeship” are often used interchangeably. These models are characterised by a high intensity or frequency of work integration or real-life work situations.

A second model of WBL is school-based VET, which includes on-the-job training periods in companies. On-the-job training periods typically cover internships, work placements or traineeships that are incorporated as a compulsory or optional element of VET programmes leading to formal qualifications. They can be of varying duration but typically represent less than 50% of the training programme duration (often around 25-30% or less). They are primarily intended as effective school-to-work transition mechanisms that

⁵ European Commission, Education and Training, June 2013

⁶ http://ec.europa.eu/dgs/education_culture/repository/education/policy/vocational-policy/doc/2015-riga-conclusions_en.pdf



allow young people to familiarise themselves with the world of work and thus facilitate their transition from education to employment. In some countries or programmes, they are a prerequisite to be able to successfully complete a VET programme.

Finally, the last model of WBL is integrated in a school-based programme, through on-site labs, workshops, kitchens, restaurants, junior or practice firms, simulations or real business/industry project assignments. The aim is to create "real life" work environments, establish contacts and/or cooperation with real companies or clients, and develop entrepreneurship competences. In this model, schools or training centres have the main responsibility for creating close to real life or real-life working environments. VET schools are equipped with school workshops, labs, kitchens and restaurants, or cooperate with business and industry to use their facilities. The mandatory share of learning in these working environments varies, depending on the type of VET. Work in practice firms or junior firms and real-life project assignments are frequently used and often form mandatory parts of curricula. Teachers design learning activities in cooperation with companies: they need to develop the skills to work in multidisciplinary teams and to focus on work, innovation and creation processes.

Terminology and definitions vary, and even a single term such as "apprenticeship" may have different connotations and underlying concepts. There are different approaches to WBL in VET⁷. More recently the Inter-Agency Work Group⁸ on WBL has identified three main types of WBL:

Apprenticeships provide occupational skills and typically lead to a recognised qualification. They combine learning in the workplace with school-based learning in a structured way. In most cases, apprenticeships last several years. Most often the apprentice is considered an employee and has a work contract and a salary.

Traineeships and internships are workplace training periods that complement formal or non-formal education and training programmes. They may last from a few days or weeks to months. They may or may not include a work contract and payment. (The EU has established a Quality Framework for Traineeships that recommends written agreements.)

On-the-job training is training that takes place in the normal work environment. It is the most common type of WBL throughout an individual's working life.

These most common types of WBL usually – but not always – combine elements of learning in the workplace with classroom-based learning.

⁷ ETF, Work Based Learning in the candidate countries, 2017

⁸ Cedefop, ETF, European Commission, ILO, OECD, UNESCO



The potential of WBL is mainly due to the mode of learning, and the types of knowledge, skills and competences that it can foster⁹. In terms of mode of learning: (a) it offers a way of learning that is different from the traditional classroom-based mode that is usually found in the compulsory phase of education; (b) it offers scope to integrate the learning of different knowledge, skills and competence based on the work situation, also replicating the way competences are acquired at work; (c) it supports both informal and formal learning, i.e. learning from experience, through reflection, in action and from the unwritten practices and norms that learners can observe and experience.

Learning by doing is the predominant method through which most adults learn. So, WBL is also suited for adult education and to combat unemployment.

3.2. Methodology Used

Methodologically, the process follows a well-designed path: firstly, *The Guidebook for More Efficient Work-Based Learning in the Danube Region* will be co-created, highlighting key factors of the transition. This is based on partners' experiences summarised in case studies reflecting on how capacity building addresses country specific challenges. Secondly, partners with increased capacities establish the Work-Based Learning Observatory in the Danube Region aiming to follow-up and support the transition processes with expertise and knowledge sharing.

The methodology applied to data collection included desk research and both quantitative and qualitative analyses. Relevant documents produced by the partners in the course of the implementation of the project were examined, such as critical analyses, national capacity building plans, case studies and good practice examples. The findings and conclusions in these documents were integrated in the guidebook.

3.3. Actors in the WBL

One of the outstanding characteristics of WBL are the stakeholders, and how many different groups of stakeholders partake in WBL development and implementation. Stakeholders are reflecting individual territorial and organisational characteristics of partner countries participating in this project. So, the first step in developing and implementing WBL is the identification of all relevant stakeholders and their active involvement in the process. Looking from the geographical point of view, stakeholders can be local, regional and

⁹ Return to work. Work-based learning and the reintegration of unemployed adults into the labour market. CEDEFOP, 2013



national. Looking from the point of their involvement in WBL, stakeholders can be divided into external and internal ones.

Stakeholders for WBL include social partners, business representatives, mediation bodies (e.g., industrial, commercial and craft chambers), professional and industry organisations, trade unions, employment agencies, education and training providers, student and parent organisations, as well as local, regional and national authorities. The internal stakeholders of WBL are relevant ministries, state bodies (councils that provide guidelines and counselling functions), state VET institutions, VET and CVET providers, schools, teachers, etc.



4. Challenges Encountered

Following chapter records the concrete challenges project partners encountered in the implementation of WBL and how they addressed them. The experiences and best practices partners shared here may serve as an inspiration to other countries on how to overcome challenges in the implementation of WBL.

4.1. Institutional Challenges

Fast development of new knowledge and technologies, frequent changes in the labour market and aging demographic population represent negative elements in the VET system environment. This is recognised by all partner countries and their response is in line with individual needs and situations. Several key issues are recognised by a majority of partners as institutional challenges:

Legal framework - The lack of legal bases for the implementation of WBL presents a serious impediment when it comes to putting WBL into practice. In most countries enabling legal framework is a precondition for the implementation of WBL. This is even more notable when it comes to WBL specific issues that are not regulated and link WBL to the labour and employment sectors. Since it takes upon two sectors (education and work), a lack of harmonisation of the legal systems may result in different practices and discourage enterprises to partake in this process or lead to the complete halt of the process. The absence of clear legal regulations result in situations where responsibilities are not clearly defined between stakeholders, leading to poor communication between developmental agencies, the business sector, chambers and the education sector.




 **Bosnia and Herzegovina:** Although most of the structures and processes already exist in Sarajevo Canton, they still do not form a coherent and functional system. This Canton has a strong infrastructure thanks to its central position and concentration of resources (finances, experts, academic community, company representatives). However, stakeholders identify weaknesses in the lack of strategy of VET, poor communication between developmental agencies, business sector, chambers and education sector. The current legislative policy does not oblige any of the sides to cooperate in VET. Specifically, stakeholders note that responsibilities are not clearly defined between Ministries of Education and Economy in the implementation of VET and thereof WBL. This results in the lack of platforms for cooperation between schools and the business sector in curricula design, mentor training, and implementation of company based WBL. The complete jurisdiction of the Ministry of Education over VET schools shows weaknesses in the area of teacher training. Teachers themselves need continuous company-based professional development. What is missing in this case is a well-defined program for students' competencies acquisition and development, as well as for qualified mentors in companies. Also, activities should be undertaken in order to ensure systemic benefits to companies from their participation in WBL. Quality assurance is currently completely missing, meaning that there is no systematic evaluation of the real outcomes resulting from the implementation of WBL, neither from the companies nor from schools. There are also cases of poor student protection while in companies, which is due to the lack of regulations in this sector and of an appointed body for monitoring and evaluating the companies' work. The results of the workshops that have been implemented so far within the project indicate that there is a need to define and institutionalise roles of both education and economic sectors, and to grant more responsibilities to the Chamber of Economy. The Learning by Doing project will contribute in: (1) passing Strategy of VET in Canton Sarajevo that would clearly define models of WBL implementation, modes of company participation, establish a system for mentor training and quality assurance; (2) approving regulations related to the inclusion of the business sector in VET implementation (defining eligibility criteria for companies in order to participate in WBL, regulating their rights and responsibilities related to students and schools, as well as benefits).

However, legislation by itself is not sufficient as one of the project partners noticed "the already created legislative framework is in force since 2016 but there is still insufficient practical experience and therefore not a very smooth application so far." Other elements need to be in place also. The lack of regulation or regulations that are not clear or are even conflicting results in the lack of platforms for cooperation between schools and the business sector in curricula designing, mentor training, and the implementation of



company based WBL. The education process is highly regulated in most countries, so a clear legal framework provides a welcoming environment for the development of WBL.

 **Slovenia:** With the implementation of the Law on Apprenticeship in 2017, the roles and responsibilities of institutions involved in PTW established certain rules and obligations for learners, schools, companies and chambers. As such, the law has consolidated under one umbrella the regulations regarding VET, labour market, adult education and in-company training. The Law introduced the term “apprentice” and legally defined its status, rights and obligations. Chambers have acquired additional responsibilities, and new requirements for companies (including financial obligations) and mentors have been defined. In addition, a coordination body for monitoring the implementation of the apprenticeship was set up, including the cooperation of chambers, trade unions, Ministry of Education, Ministry of Labour, employers and schools. Reasons and factors for success: (1) The already existing legislation regarding PTW was a good starting point for setting up the arrangements for the new apprenticeship path and for bringing VET closer to the needs of the labour market; (2) The social partners were involved at the strategic level; (3) Schools already had the means to prepare students for PTW, to improve cooperation among learning venues and evaluate student achievement; (4) Right social momentum gave impetus to political commitment on the issue as a way to decrease youth unemployment and support adult employability after the financial crisis.

WBL is characterised by its links with the world of work and employment. This raises two major questions of safety on work and students’ insurance. Lack of a unified protocol protecting VET students during in-company-based WBL (in terms of safety and work description) is another challenge faced by WBL practitioners. This issue is one of the primary parents’ concerns. Another concern is missing regulations and conditions for special subject’s teachers and trainers, especially in-company instructors, which may influence the quality of teaching and learning process and its outcomes.




Croatia: Vocational education curricula in Croatia are generally outdated and the vocational education reform process is ongoing. Since the school year 2018/2019, an experimental model of dual education has been introduced, aiming at acquiring the necessary skills to perform tasks efficiently, innovatively, independently and in cooperation with companies, while meeting the needs of the labour market and a successful economy by creating a young, qualified workforce. With regards to the current education programs, this form of vocational education includes a substantial increase in work-based learning (practice) that is largely organised in economic subjects. Croatia follows, creates and introduces a new, dual model of vocational education where entrepreneurs become partners with educational institutions. This model is in the experimental phase (in the first year at least 10 high schools in Croatia), it includes 4 professions (salesman, beautician, chimneysweeper and glassmaker) and has been adapted to the specific Croatian conditions and traditions. With the implementation of the program, the school year started in 2018/2019, and a total of 156 students were enrolled. Educating the subject curricula teachers of the general education part of the vocational curriculum was organised to enable inclusion in virtual classrooms for general subjects and teachers have available mentors assigned to a particular subject. Professional development of vocational teachers and mentors and human resource managers of economic entities involved in the implementation of vocational curricula based on the dual education model is monitored by the Agency for Vocational Education and Adult Education. Pupils who are enrolled in this dual education model for their work will receive salaries and work record (*“radni staž”*). After the 1st year, students can conclude their fixed-term employment contract with employers and, in accordance with the Labour Law, they will exercise the rights arising from their employment relationship and will acquire work experience. It still remains unregulated who and how one becomes a mentor, as well as which is the role of the Chamber of Commerce in such a system.

Political changes - Frequent political changes have major influence on the pace and direction of VET reforms. Absence of national or professional consensus often result in various reform initiatives, without a clear common goal, that influence development and implementation of WBL. As one of the project partners noticed, “Political disagreements have slowed down the implementation of the landmark strategy and the associated curricular reform”. Without a clear vision of the WBL system, consequences are evident in practice, discrepancy between enrolment quotas and actual labour market needs being the major one. In the words of one of the project partners, “There seems to be discrepancies between supply and demand for specific educational and skill profiles in many sectors, with



some VET programmes with the highest enrolment rates preparing students for occupations with the highest number of unemployed persons; there seems to be an absence of strategic and prognostic information on the labour market”.

 **Bulgaria:** The first steps for introducing a Dual Learning system were taken with the project based-DOMINO, with the Swiss support for the Introduction of the Principles of Dual Training in the Bulgarian Education System, in the period 2015-2019. The main objective of the project is the creation of a reproducible model and the corresponding capacity for the introduction of the dual vocational education and training system in Bulgaria. The schools in Vratsa were not involved in these projects. However, realising the meaning and benefits of the dual education system, as well as the importance of the interaction between schools, companies, Chambers of Commerce and Industry and the institutions that implement the state educational policy at regional and municipal level, the Regional Department of Education - Vratsa aims at implementing a "Bulgarian model" of dual training within the framework of the envisaged normative options. In the course of dual learning, one of the major challenges is the need for a change in the legal framework, taking into account the specificities of the different regions, which are unequal in terms of territory, population, economic development, difficulty to overcome conflicts between business interests, as well as the ability of schools with vocational education to satisfy them. Considering these circumstances, Bulgarian partners RDE-Vratsa and CCI - Vratsa, with its participation in various forums and committees at national level, repeatedly called upon the necessity of a legislative change to extend the scope of the schools in which it is possible to carry out a dual form of education. In the changes made to the VET Act, the training based on work has already been envisaged to be possible in secondary schools with professional classes, which was our reiterated request. At the regional and national levels, there is a need to host specialists and professions in which there is an expected shortage at the labour market of specialists, due to demographic collapse, migration, the difficulties to overcome contradictions between business interests, labour market needs, and the opportunities for VET schools to satisfy them. In 2018 a Decree of the Council of Ministers of the Republic of Bulgaria was issued for the adoption of: (1) List of state-protected specialists and list of professions where there is an expected shortage of specialists at the labour market; (2) Criteria for defining the state-protected specialists - it is envisaged that state-protected professions should be advertised as such, which, at the same time, meet certain conditions – uniqueness of the territory, uniqueness on the basis of a characteristic; (3) Terms and timeline for additional funding for maintenance of classes for acquiring qualification in protected specializations and professions where there is an expected shortage on the labour market; (4) The minimum number of students in a class for state-protected specialisation is 9. Training for specialists where there is an expected shortage on the



labour market, in a class minimum is 12 students; (5) The needs arising in practice are provided by the last normative changes: Introducing requirements for employers to ensure sustainability and transparency in the implementation of learning partnerships through work (dual education system); (6) Regulation of the role and functions of the mentor, determined by the employer, under whose guidance practical training is carried out in a real working environment; (7) Identify the tasks and requirements of the teacher-methodologist at the school or the teacher-methodologist in a vocational college or vocational training centre that is designated by the director of the training institution to establish the relationship between the employer, the mentor and the training institution in the field of training dual learning system; (8) Creating the conditions to ensure VET compliance with business needs by updating curricula at least once every 5 years. With the launching of the Learning by Doing project, RDE-Vratsa and CCI - Vratsa, as partners in this project, started a targeted campaign for the opening of classes with a dual form of education and the implementation of enrolment of students. By now, 15 classes have been formed in 6 vocational schools, supported by 24 local companies. The Strategic model for modernization of WBL in VET, developed within the project was recognized by the Ministry of Education and Science and national stakeholders and will be a part of the national VET strategy.

In most partner countries there is no system in which companies would define their needs for qualifications (i.e., there is no system of prediction of qualification needs, anticipation of labour market demand, etc.). The whole issue complicates the ambiguity of the concepts used (e.g. what is "meeting labour market needs", "how it is measured", etc.) and how they are implemented. Education policy and unclear developmental objectives, together with the shifting of priorities with every new government hamper the implementation of WBL. Political environment in general, volunteerism and political decisions and solutions instead of professionalism are some of the major negative factors. In the words of one of the project partners: "The State often tries to solve the most pressing and important issues by using project financing, a strategy that can only be temporary. Political meddling affects the whole VET system (shifts in priorities)".




Romania: The Romanian Stakeholder Group endorsed the list of institutional challenges, and considered that one of the most urgent and important challenges is related to the need to improve communication and cooperation between state institutions and all regional/local actors, because only in this large cooperation is it possible to realise the relevant inventory of qualification and skills needed by the employers. This inventory is a precondition for ensuring access to a qualification that will ensure a real professional integration of the graduates. The leading role in this process was assumed by the County Agency for Occupation, providing the needed expertise for collecting and processing data from companies, and the Chamber of Commerce, supporting with real and on-time contacts with the most relevant employers. The result of this intervention is the inventory at county level, which was promoted within the VET providers. This process showed that there are qualifications provisioned by companies, but that are not included in the VET schools supply. The level of this need is often lower than the size of the classes, meaning that it is not possible to answer this need, unless the VET system finds a special solution. The main conclusion is that companies can forecast their qualification needs for not more than 3 years, but the VET system can provide qualified graduates only when they know the concrete demand at least 5 years before. This means that there is an urgent need to innovate the paradigm of skills needs forecast, and to facilitate a much quicker response from the VET system to the employers' urgent requirements. This new paradigm is the central topic for the Stakeholder Group for the next period. This intervention is associated with the strategic priority of ACCESS, in which local partners are responsible to ensure the best possible relevance of the qualifications of VET supply, not only regarding the current labour market needs, but also as a result of the future employers' needs. If students graduate in a VET school, having a certificate that will become dated in the next year prevents them from having the right access to the proper qualification, as a good start in their professional lives.

Enabling environment – Providing condition for development and implementation of WBL is one of the main responsibilities of the State. Apart from legal framework, financial conditions are also relevant, meaning those covering the cost of WBL. Financial issues manifest in several ways: a lack of finances for wider implementation of company-based WBL; a lack of systematic benefits to companies participating in VET (costs of insurance, safety and protective uniforms, travel and meal cost, etc.); craftsmen not being motivated enough to working with apprentices (no help or stimulation from the government), which they see as long-term investment, effort and money with no satisfactory returns; the under-investment infrastructure of some secondary and tertiary vocational schools. Insufficient



financial resources are reflected in the lack of a modern IT infrastructure. Schools are often lacking modern tools, from literature to the equipment of school workshops and laboratories. The lack of financial support is preventing the development of VET and WBL systems in the long term perspective. Existing financing models are not providing enough resources and incentives, nor motivation and competencies for instructors in companies to participate in the education process.

 **Hungary:** The vocational education and training structure in place includes many components that carry the risks of staffing shortage and high loss factors. On the entry side, guidance provided by primary schools is less than satisfactory and does not promote entering vocational education and training for children. A significant part of teachers consider it a success when students enrol in a general grammar school. In addition, the growing number of grammar school places is also counterproductive to vocational education and training as some young people may get diverted from vocational education and training even though it would be a better choice for them in terms of their living situation and future prospects. The perception of vocational education and training also took a serious hit in the decades following the change of regime so, in many cases, not even parents support their children enrolling in such schools. Due to the complexity of the vocational education and training system, it is hard for parents to find real alternatives and not even primary school teachers are able to help them. Unfortunately, changing the names of training institutions did not help; indeed, renaming trade schools (vocational training schools) to secondary vocational schools deteriorated the position of manual occupations when a choice was made. Moreover, there are a high number of components in the system that cause functional issues (regulation of compulsory education, absence of basic sectorial training, lack of permeability within the vocational education and training system, leaving school with the school-leaving examination passed but without vocational qualification).

Curriculum - Relevance of the VET and its responsiveness to the needs of the labour market rely on the curriculum. Some of the identified challenges related to the curriculum are: slow curricular innovation and alignment with industry and real sectors; obsolete and/or missing textbooks and methodological aids on special subjects; limited application of modular organisation & absence of credit systems; practical training of students behind the dynamics of technological development and modernisation; obsolete and unadvised knowledge about new techniques and technologies applied in modern productions; education supply and education programs not modernised fast enough due to fast developmental trajectories in the global economy (especially connected with technological development); the fragmentation of the vocational offer of some secondary schools (they teach fields of education from several groups of disciplines but with low numbers of pupils, which impacts the professional qualification of pedagogical staff, equipment of schools,



etc.); in a number of disciplines, the number of pupils in vocational training is too high; current practice of apprenticeship is seldom based on well-developed programs of competence acquisition. Each partner county is addressing these issues in line with their own circumstances.



Slovakia: The Legislative framework is National Act. Nr. 61/2015. The legislation allows for the implementation of WBL in practice, and sets the basic rules for its implementation as well. The National Act can be changed every two years, with the last amendment being made in September 2018. The amendment of the National Act was in favour of the dual education system. Some of the most important changes include the following: simplifying the process of employer certification for the dual education system; establishment of so-called Employer Centre, established by the Employers' Association; Dual Learning contract; strengthening of the position of Chief Instructor/Master of Vocational education; cancelling of the normative financing of schools; possibility to establish a "Company school"; new benefits for employers - direct subsidies; career counselling at the primary school. The main initiations of WBL in VET are: Employers, Schools, Chambers, Associations and Self - region counties. Participants taking part in curriculum preparation for WBL in VET are: schools, companies, chambers, government bodies, the State Institute of Vocational Training and independent experts. Curriculums are done on a national level and reflect on labour market demands, expert opinions, and changes in education organization. Changes are made rarely, with the last change made 10 years ago. Certain suggestions were made in the spirit of improving the effectiveness of vocational training and dual education system and some changes have already been adopted in the new amendment into the law, which is in force since September 2018. Proposals: To ensure liquidation of state modernization debt to the secondary vocational schools; To replace the funding of school based on coefficient (norms for schools) to the financing given for a classroom with predetermined criteria for the number of pupils in the class, engaging pupils into the practical training by employers and employing of graduates in the labour market; To present practical examples of financial and tax benefits. Regarding the establishment of concrete support institutions for the professional (future) orientation of elementary school pupils and for support of the vocational training in small and medium-sized enterprise we propose two things. Firstly, each region should have an established Career orientation centre targeted primarily for career counselling for elementary school pupils as well as for job orientation and job counselling. Secondly, support mechanisms for creating Employers' vocational training centres should be established.

Quality Assurance System and its integration into the system is one of the major concerns when WBL is introduced. Certain issues include missing a quality assurance system in WBL



as well as systematic data on the quality of the labour force graduating from VET, as well as further support being needed for external assessment systems introduced for vocational education. Also, there is no adequate program for the training of mentors within the companies while teachers' motivation to improve their performance is not sufficient. Systems of continuous teacher training and capacity building are not tailored for VET teachers to address their specific needs. Usually these training programmes are outdated for teachers in VET schools. School management is not sufficiently prepared to deal with the challenges that come along with the WBL. Capacities of instructors to work with students are not sufficient since they were not trained to perform educational roles. In most countries education programs for mentors in companies are missing. The quality assurance system needs to be strengthened (indicators, self and external evaluation).



Serbia: Work-based learning requires involvement of various actors – students, schools, companies, Ministry of Education, Chamber of Commerce and the Institute for Improvement of Education. In order for this aspect of vocational education to function, we have developed appropriate support systems for all stakeholders. As for the partners in the project, Serbia's priority was to establish effective communication between institutions (Chamber of Commerce, Institute for Improvement of Education), as well as to create stronger connections between ourselves and our partners - schools and companies. Through a series of workshops with different stakeholders at national and local levels, we identified different challenges. Some of them concerned the lack of information about the capacity of schools or companies in the local environment, laws in the field of vocational education, the role of employers in the development and implementation of new programmes, the joint planning of schools and companies for the realisation of work-based learning. In workshops with companies and schools in different local communities, we established additional communication channels between IIE, school, company, and the Chamber of Commerce. The goal is the same - the establishment of the Vocational Education System from which competent individuals come out ready to respond to the job requirements they were trained for. Concerning quality assurance, during the project we were engaged in final exams and joint planning of learning between schools and companies. We strengthened the capacities of employers and teachers in the area of assessment based on proficiencies in the framework of final exams in vocational education. We conducted 22 one-day trainings for employers and teachers involved in the evaluation at the final examinations in 20 educational profiles based on standards of qualifications, competences and work-based learning that included 165 vocational schools and 135 employers. Teachers and instructors, i.e. schools and companies, are empowered to (self) evaluate the acquired competencies of students and improve the learning process.



Apart from above mentioned challenges common trends can be recorded in the Danube region. Depopulation, and an aging population, with a significant decline of the population between 20 and 54 is a common trend in partners' countries. Demographic decline, diminishing and aging of the population continues to intensify. There is a trend of young people leaving for the big cities and/or going abroad. Also, within the education system there is a trend of "aging" and feminisation of teaching staff in vocational education. Economic and technological changes present as: the risk of major changes in the economic environment (investors leave some regions interrupting the education process and leaving the students without qualifications); underdeveloped economy not capable to partake in WBL and receive students; economic climate (not supportive of WBL and not providing incentives to companies to partake in the process) and structure of economy (medium, small and micro companies without capacities to take on number of students). The imbalance in the territorial distribution of the population and in the territorial development of the economy is deepening.




Czech Republic: Cooperation was successfully established with the National Institute for Education of the Czech Republic, whose task is to universally help with the development of all education in the Czech Republic. The promise to cooperate in developing the National Strategy for the Modernisation of Vocational Training is seen as a significant signal within good institutional relations. Close work is also being done with the Thematic Group of the Vocational Training Centre at the South Moravian Regional Authority, which is concerned with the cooperation of schools and employers and the modernisation of vocational training in the region. Regular meeting invitations are given by the Thematic Group, whose members are representatives of the South Moravian Region Education Department and the directors of secondary vocational schools and institutions. Together, support was given to the craft industry at the Festival of Education in November 2018, which was visited by over 10,000 guests in four days. Within the framework of the festival, a competition was organised with young confectioners from five professional schools in the region in cooperation with representatives of vocational schools and the South Moravian Region, which proved very popular and had strong publicity. Young confectioners were rewarded with prizes related to the field of confectioners. During the regular meetings of the Thematic group, problems are being identified and proposals for their solution are being adopted, e.g. frequent transfers of pupils from school to school, the level of career counselling is evaluated, the discussion about the Long-term Plan for Education and Development of the Czech Educational System, currently being prepared by the Ministry of Education for 2019 - 2023.



4.2. Cooperation Challenges


Cooperation is the corner stone upon which WBL relies. The uniqueness of WBL is that it requires cooperation between the world of work and education. Two worlds very different, which even speak different languages. Funding the common ground and understanding is what WBL depend on. Building these links will require time and effort. Another significant aspect of cooperation concerns the level at which the cooperation is occurring. In most cases there is a national, regional and local level, each with their own specifics and requirements. Each project partner provided examples in accordance with their own territorial organisation and concerns of involved institutions and partners.

National level cooperation - Insufficient operational cooperation between institutions is one of the most frequent challenges formulated by the project partners. Developing cooperation is a work in process and depends on the historical characteristics of different VET systems. All partners tackled this issue in line with their individual situations, but one common characteristic is that the project contributed to the development of cooperation and facilitated decision making and problem solving along the way.

 **Czech Republic:** Successful meetings were organised with representatives of vocational schools and companies, where participants presented real cooperation on specific topics. These included support materials for schools, the education of company employees in schools, the practice of students in the workplace, and joint presentations of companies and schools. The mutual collaboration of schools and companies will lead to a better functioning. In the region, the Smart Accelerator pilot project was supported, which aims to improve the interconnection of the education system with practice through the Vocational Training Plan, a plan tailored to the level of the student in the given field in accordance with real workplace possibilities. Problems seem to be the practice of students who do not have respectable study results, as companies do not employ such students, but practice is necessary for them. This creates room for understanding and a further challenge for the cooperation of all stakeholders.

Insufficient coordination and cooperation is most visible when it comes to enrolment policies. Usually enrolment policy is designed on a national level and implemented in schools and companies on a local level. When planning vocational qualification, the local labour market and economy have a large say, but an issue identified by the partners is that not always the planned enrolment reflects the needs of the local/regional/labour market. This is due to the lack of coordination between different levels of government or methodology to include local interest into enrolment policy.




 **Bulgaria:** One of the main challenges in VET is the implementation of the state-run admission plan for each school year, which must meet the needs of the labour market and be tailored to the specifics of the region in which it is carried out. A guarantee for the success of this campaign is cooperation between all stakeholders - educational institutions, employers' and business organisations, businesses, regional and municipal administrations, etc. In order to improve the cooperation and interaction between all the stakeholders involved in the campaign for the implementation of the State Plan-reception, RDE-Vratsa developed a roadmap for planning, organising, validating and promoting the state-level reception plan at the regional level activities, responsible parties, participants and deadlines associated with this process. It also includes the organisation of information and communication campaigns such as Vocational Education Panoramas, Days of Occupations, Open Days of Schools and Companies, Exhibitions and Bases of Occupations and others that are made for students, parents, the public, in order to obtain comprehensive and complete information on the opportunities for applying in different profiles and occupations across the territory. The roadmap of activities is implemented at the regional level and is presented to the Advisory Board for VET to the Minister of Education and Science. Its applicability has been taken into account and it is envisaged to extend its application throughout the country. The expected result of its implementation is to improve the coordination and interaction between the participants in the different stages of the process of the realisation of the State Reception Plan and as a final result to improve the quality of the choice of the pupils and their parents to school and future realisation. The modernisation of the system starts with a difficult change in the way of thinking - it takes time, persistence, good communication and a legal framework to ease efforts in this direction. Current results for the Vratsa region include: (1) Regional model of cooperation - Already established partnerships, visions and models, understanding and planning at the local level; (2) Companies built capacity to work on the dual system; (3) Teachers and directors of vocational schools acquire more experience and gain knowledge about the Dual Education system in other Danube countries; (4) Changing the attitudes of more and more parents and pupils to recognise VET and dual learning as the right choice; (5) Increased role of the companies and CCI – Vratsa in the planning process.

Insufficient cooperation is often characterised by mistrust and a lack of coordination among all involved stakeholders and there is a tendency to shift the responsibility to other partners, leading to misunderstanding and an absence of alignment between all the relevant stakeholders. Cooperation and roles are not clearly defined on different levels (national, regional, local), especially when it comes to social partners and their role in WBL, resulting in a halt of the process. Another important aspect is that there are still great



discrepancies in capacities and attitudes between small, medium and large-sized companies when it comes to apprenticeships.

 **Bosnia and Herzegovina:** Every school has certain monitoring activities managed by coordinators for practical instruction in cooperation with mentors based in companies. Schools monitor dynamics and the level of acquisition of practical knowledge and skills, but the system as such does not exist. It is especially difficult to ensure proper monitoring when it comes to company-based WBL. One of the main obstacles for more comprehensive quality control system is the lack of a detailed plan of competency acquisition for practical instruction outside school. In addition, the Chamber of Economy should be entitled to certain elements of the quality control system (recruitment of companies and candidates, monitoring the implementation of WBL, etc.), but its role in this regard according to the current Law on Chambers is fairly limited. The Chamber so far had no role in the education system that belongs to it, but simply served as a mediator between schools and companies. Within the study visits of partner countries in which the Chamber plays a very important role in the education system, the members of the Chamber project team and members of the Ministry's project team, together with relevant stakeholders, have realised that is necessary to include the Chamber in the education system at Canton level. For this reason, the Chamber is included in the *Draft of the Law on Dual Education*, which is currently being prepared by the board of experts nominated by the Ministry of Education, Science and Youth. It proposes a more active role of the Chamber of Economy in student assessment, curriculum revision and monitoring companies' activities. The Learning by Doing project enabled the Chamber, Ministry and stakeholders to recognise its role in the VET system. All VET actors included in the project supported the Chamber's intention to place it in the education system where it belongs. As a result, the Chamber will legally become a link between schools and companies.



Hungary: Institutions within the public education system, which currently includes vocational education and training, have a considerable impact on vocational training in a number of fields. Nursery schools are key, primarily for developing children from disadvantaged socio-cultural backgrounds, as experiences show that those who receive nursery school education from the age of 3 also do better in primary schools, thereby laying the groundwork for learning a trade. Primary schools also play an important role in career guidance. They are essential for students to choose the career path that is right for them. Due to a rapidly changing economy and labour market, elementary school teachers need to be properly informed and prepared for this task. Today, there are still many primary schools where the criterion for success for both teachers and parents is grammar school enrolment. In recent years, the development of manual skills has been scaled back in upper primary schools. There is a need for the subject of technology to be reintroduced into the curriculum with a revised and renewed content. The most important job for primary schools is to develop basic competencies, strong comprehension and mathematical competences as well as basic digital competences. The results of the PISA assessments and competence assessments carried out during central written entrance examinations and at the start of vocational training show a declining trend. The renewed National Core Curriculum must further strengthen the requirement that students should complete primary school education with basic competences that enable them to learn a trade. Experiences show that many disadvantaged or highly disadvantaged students reach the compulsory education age limit of 16 without graduating from primary school. A large proportion of primary schools do not have the set of tools and the methodology to resolve this issue. These youngsters must be given the opportunity to learn in a special training programme and leave the training system with at least a partial vocational qualification. Grammar school students need to have permeability after the 9th year if some of them decide to learn a trade. As a result of changes in the labour market situation, many occupations requiring a school-leaving examination have increased in value. Career guidance provided in grammar schools should cover the option of a two-year technician training as a real alternative.

Local Level cooperation - Lack of cooperation is evident not only between different governmental levels but also between stakeholders at the same level. One of the project partners stated that: "There is not enough cooperation of local partners (local employers, schools and the Chamber)". The cooperation on the local level is centrepiece around local self-government, schools and enterprises. Each of these partners have their own interest and objectives, and finding common ground requires building a dialogue and a practice that supports the exchange of opinions and building common understanding.



Romania: To answer cooperation challenges; a mechanism based on sound cooperation between employers, local authorities and VET school was built, aiming to increase the quality of the VET supply, through excellence recognised and awarded by the beneficiaries of the properly qualified workforce. The Title of Excellence scheme is part of our national strategy, within the quality priority. An innovative element that brings added value to vocational education and training is the "Title of Excellence", a distinction awarded to VET schools by employers' representatives and other partners, validating the quality of the process and the results of VET education from the perspective of actual beneficiaries of vocational education and training. The last edition of the Title of Excellence campaign ran from March to May 2019. The relevant local stakeholder group (usually the extended CLDPS -Local Committee for Social Dialog Development- group in the county) agreed on a set of criteria of excellence and defined their own requirements to create the level of performance it deemed sufficient for excellence. This year the five criteria were: attractiveness, flexibility, relevance, innovation and business. Audit visits were carried out by teams of relevant actors in schools that have applied for a Title of Excellence. The teams spent one day in the candidate schools focusing on the concrete aspects of areas of excellence. The school had the opportunity to prove that it deserves the recognition of the partners and the whole community, while the partners' representatives had the chance to convince themselves about the realities of the schools in order to correctly and objectively assess their performances. Direct dialogue between schools and external teams proved to be of great importance, contributing to this day a better understanding and mutual trust between the education sector and employers as a way of finding solutions together. Thus, the attitude of the parties has changed: they demonstrate an openness for further dialogue and cooperation, and it is believed that this is one of the main preconditions for a better matching between schools and employers, a better chance of the VET graduates to enter the labour market with the relevant and right skills and behaviours. Based on past experiences, it can be said that the schools which are flexible enough to adapt their offer to the needs of employers and that are open for innovation in the teaching-learning process, have the chance to build a relevant VET supply, harmonised with the companies' expectations, and by doing so will become more attractive to students and parents, and can obtain the recognition of the business sector. In 2018 a number of 18 schools applied for 31 titles, out of which 26 have been awarded by the stakeholders, 9 for Attractiveness, 5 for Flexibility, 6 for Relevance, 5 for Innovation and 1 for Business. In 2019 Title of excellence extended to national level due to the sensitisation campaigns and three more counties enrolled for this mechanism. 25 schools applied and 92 Titles were awarded.

There is a mutual agreement between partners that there is a lack of systematic linkages between schools and companies. Even where it exists, it is assessed that it is not enough.



Furthermore, not only partnership between schools and business, but also cooperation between secondary vocational schools and universities is lacking. The difficulties in cooperation between schools and companies, derive not only from speaking a “different language” but also from a difference in their organisational culture.

 **Croatia:** Challenges faced in cooperation between institutions involved in the implementation of vocational education in Croatia and Varaždin County are numerous, but currently one of the most important problems is a weak collaboration of stakeholders at the regional/national levels. Students of elementary schools are often left with little or superficial knowledge of the possibilities of enrolment in secondary schools and the profile of the offered professions. Therefore, the Chamber of Commerce (CCE) Varaždin actively participated within this project in the "Select Your School" county campaign, where all high schools of Varaždin County and their enrolment programs were presented to all elementary schools students. 1,700 students completed elementary schools in the year 2018, while the first grades of secondary schools offer 2,100 places in 70 different occupations. Students and their parents could visit one place and, in direct contact with school representatives, find out about the programs and the possibilities for enrolments, while each student received a promotional booklet with brief information on vocational schools, enrolment quotas and deadlines. Vocational education is extremely important, and it is necessary to adapt it to local and regional economies. CCE Varaždin, in cooperation with all active participants, educational institutions, companies involved in the vocational education process and students already enrolled into vocational occupations, presented the advantages of choosing vocational occupations through promotional materials (videos). The materials presented within the campaign involved three 5-minute films representing the advantages of vocational occupations in the local labour market and with the goal of attracting pupils and parents into vocational schools for lacking occupations whose labour market deficiencies increase on a yearly basis (such as engineering, mechanical engineering and electrical engineering). Three promotional films presented professional interests from the perspective of the schools, the companies and from the perspective of students' experience directly, and were delivered to all primary schools for their further use, broadcasted on regional television, social networks and the web, to ensure a much wider reach in the end. As a result of the campaign, all vacancies in secondary vocational schools are occupied.

The formula of success for the WBL is a sustainable effective partnership among educational institutions, public authorities, businesses, chambers of commerce, business support organizations with their branch organizations, students and parents.




Slovakia: Policy makers and employers cooperate on a regular basis. The Council of Employers coordinates the practice of professional organizations and professional organizations in the dual education and vocational training system. There is a lack of cooperation between policy makers and schools. On the other hand, cooperation between chambers and schools, and chambers and companies is satisfactory. Achieved results: Thanks to the project, cooperation between companies and schools has been strengthened. Deepening cooperation between the Chamber of Commerce and the Ministry of Education, also with the State Institute of Vocational Training, which is responsible for the main cooperation and communication with the Ministry in the field of VET. Many efforts have been put to ensure closer cooperation between the key actors. The main reasons are common cooperation in improving and making the vocational training (dual education) more attractive for pupils and for companies.



Serbia: Previously, the development of vocational education was accompanied by insufficient participation of employers and the economy. At a national level, this has resulted in the existence of educational programmes that are incompatible with economic and social needs. At a school level, on the other hand, this resulted in a situation where students did not have anywhere to perform professional practice nor to acquire the necessary knowledge and skills. Despite various attempts to establish cooperation, they were short-lived. The project has improved the cooperation between the Serbian Chamber of Commerce and Institute for Improvement of Education and also enabled the strengthening of cooperation between schools, companies and chambers at the regional/local levels. Workshops with companies and schools strengthened local partnerships between schools and companies and gave them a platform to improve existing collaboration in work-based learning. These workshops contributed to achieve a better understanding of the different participants in WBL, as well as to reach common positions in order to improve the quality of learning. In addition to these effects, the improvement of cooperation at the local level had a positive impact even beyond WBL, improving the system of vocational education as a whole. The trainings for the realisation of the final exams, which are carried out by schools, and the economy also contributed to the strengthening of their cooperation and mutual understanding.



 **Slovenia:** Traditionally there can be a lack of cooperation between educational institutions. However, the creation of the so-called system of “School Centres” has led to higher cooperation and capitalisation of efforts. This system has allowed the merging of technical, vocational and general secondary schools in one hub, for the common use of lecture halls, classrooms, laboratories and workshops. This cooperation not only has considerably reduced the financial burden through a higher efficient use of spaces, personnel and equipment, but it has also increased the quality of education and specialisation across sectors and regions, including through the development of the ITCs (inter-company centres), which enable students (and also local companies and adult learners) to improve their technical skills and competences. In addition, the system has allowed for a reinforced cooperation between the school centres and other key stakeholders, such as companies and governmental bodies. Reasons and factors for success include: (1) Appropriate political climate (stable government policies with clear priorities and strategic lines); (2) Common understanding among stakeholders (different schools facing same challenges); (3) During the economic crisis, reduced financial support led to imaginative solutions (capitalization of efforts)

4.3. Cultural Challenges and Mind-set Challenges

Challenges present themselves on a systematic and individual level. The system level revolves around the position within whole education system and the government attitude towards VET. In general, countries that have a long tradition of VET usually have a better attitude towards VET and WBL. Also, in countries where there is a progression to higher education from VET there is a more positive attitude from students.


System level - One of the main problems in some partner countries is that VET is recognised and promoted as a priority only for a short period, without sustainable mechanisms put in place or policy. Within the project, partners were tackling this issue and addressing their individual situations.



Hungary: The transformation of the vocational education and training system would achieve the desired effect if the VET system became attractive to stakeholders, particularly to those facing career choices and to parents. What makes vocational education and training attractive? (1) *Professional career, higher wages, stable living* - Wages of workers with vocational qualifications saw a significant increase, while the difference in the level of income between higher education graduates and professionals with vocational qualifications has decreased. (2) *Computerized competence assessment instead of entrance examination* - Instead of the traditional entrance examinations in mathematics and Hungarian language and literature, enrolment in vocational training should involve an assessment focusing on key competences and laying a better foundation for development goals. (3) *Reducing the burden in technical schools; vocational examination is included in the school-leaving examination* - Currently, vocational grammar schools represent a greater burden than grammar schools. It would be easier to take the school-leaving examination in four general subjects and have the fifth substituted with the vocational examination. (4) *Straight to specialized higher education with a technician examination passed with a good grade* - Depending on the result of the vocational examination at the end of technician training, students who obtain vocational qualifications have a significant advantage when it comes to specialized further education. (5) *Dual learning provides an opportunity for young people to start earning income during their studies* - With the possibility of introducing an employment contract, some of the years spent studying can count towards pensionable service. (6) *A scholarship system creates the opportunity of supporting a starting a career* - In VET schools every student receives a vocational training scholarship; the student allowance may amount up to the minimum wage for students with good grades in both technical schools and VET schools. Students receive a part of the scholarship as a one-off payment upon passing the examination. (7) *Attractive environment* - As a result of the "VET School of the 21st Century" development programme, students will be able to study in attractive school buildings and well-equipped training workshops. Young people learn in a digital environment that forms an integral part of their lives, including tools, superfast Wi-Fi, digital curriculum and a touchscreen board.

Another challenge recognised was a growing tendency for young people to "escape", especially from industries related to production. Low numbers of pupils in VET result in poor fulfilment of some secondary schools, low numbers of students in some accredited educational programs of higher vocational schools and the lack of recognition of VET schools results.



 **Slovenia:** The main challenges in Slovenia were identified as the negative image of VET, low levels of motivation of students and parents to enrol in VET (especially the apprenticeship form of education) and resistance of educational institutions towards more company-based work-based learning. In the beginning of the apprenticeship pilot (which started in school year 2017/2018), there was no systemic promotion of VET and apprenticeship. During 2018, there was a national promotional campaign implemented by the national VET Institute CPI and the Ministry of Education, as well as many other promotional campaigns and promotional activities implemented by the Chamber of Commerce and Industry of Slovenia (CCIS). CCIS has also established excellent cooperation with VET schools involved in the apprenticeship pilot – this relationship and mutual trust has been built on the basis of face-to-face visits and availability of CCIS advisors to communicate and support them in the implementation on daily basis. There were three sensitisation campaigns (targeting youth and companies) implemented in the framework of Learning by Doing, which contributed to building relationships with stakeholders (primarily VET schools, national VET institute and companies). The number of companies with verified learning places increased significantly during the first year and a half of the pilot implementation (more than 600 verified companies), primarily due to efforts made by CCIS. The number of students enrolled in the apprenticeship form of education has also been constantly increasing (although, the level of interest on the companies' side is significantly larger).



Individual level – The poor level of information about VET and its opportunities among pupils and their parents is one of the causes why there is no greater interest in VET. Another issue is that young people with low advancement and insufficient motivation are targeting the majority of professional high schools.



Slovakia: Establishing the so-called “Dual Points” in each county in Slovakia, where parents and students are informed about the dual system, conditions, schools and companies, etc.; Many inspirational videos on YouTube about dual education and success stories should be promoted in TV and other media; Practical information should be given from pupils to students, as well as their experiences; Individual visits of companies to schools should be encouraged; Individual meetings with parents and career consults need to be established; Participation at the Fair trades, organising of events for pupils with presentation of companies and schools in the region are positive factors; On behalf of the state, the Institute for Vocational Training will be launching a big national campaign for students/parents and schools/companies. The campaign at primary schools for pupils is evaluated as a highly effective and interesting way of informing students, as well as of making vocational education more attractive. Linking theoretical information with practical experience and presentation of the students in dual education - “dualist” together with short interactive videos, and presentation of companies’ representatives as well, is the best way to inform and attract students. Trade fairs for students, such as “MALACKY DUAL DAY 2018”, which was visited by around 720 students and where they met companies and schools are supported. We evaluated the realisation of the MALACKY DUAL DAY event very positively. First of all, this was one fair oriented only to present companies and schools joining the dual education system (VET system) from the Bratislava and Trnava Regions. Our example was a good practice example and other similar fair trades were organised in different regions across Slovakia. For the next time, recommendations include shorter videos and more active representatives, because some students were reluctant to ask. The campaigns at the primary schools for parents were evaluated as a highly effective and interesting way of informing parents about the dual education system, its benefits and possibilities to either work or to study further. Parents appreciate direct information, as well as meeting with companies. Most importantly, parents were not required to do anything more but go to their school, for regular meetings where representatives came to meet them. Individual meetings with companies were established during workshops and seminars organised by the Chamber. At the beginning of the workshop/seminar, after each opening, participants were informed about the project and the benefits of vocational education.



Serbia: Equal possibilities of continuing education at higher education institutions has made VET very attractive, especially when considering that students acquire a vocational qualification recognisable in the labour market at the same time. Despite the fact that 72% of students in secondary education in Serbia belong to VET, the problem of student enrolment in three-year profiles has been in place for many years, regardless of the labour market needs, scholarships and jobs that have been provided. Through this project, the promotion of work-based learning was realised within the regular meetings organised by associations of secondary vocational schools in all fields of work, at national competitions and shows of students of secondary vocational schools, regional education fairs in Subotica and Belgrade, as well as by the organisation of presentations of students' products. The project also supported the schools in Subotica and Sombor by producing printed and video promotional materials for student enrolment in profiles based on WBL. In the framework of the manifestation *European VET Skills Week*, the project organised the exhibition "Work-based learning and development of entrepreneurial competences of students", in cooperation with the vocational school from Subotica, where students studying bakery, textile and leather production presented their products. Eleven schools from all over Serbia took part in the event. The students' products were then sold and the received income was given to humanitarian purposes. The event was open to all visitors - students and teachers of secondary schools, but also to students of the final grades of primary schools, as well as their parents.


One of the reasons VET and WBL is not so attractive to students is because early career guidance policies are not effectively implemented. Project partners tackled this issue in different ways.



Romania: For students and their parents ACCESS is the local case study, correlated with the priority of access, because we consider that the most important aim of the career guidance is to ensure the right access of the students to the right qualification, and then the school will provide the needed labour force to the employers. The selected challenges associated with our actions are the lack of interest by students and their parents, combined with the need to change their mind-sets concerning the VET pathway. The working group created from the interested members of our Stakeholder Group (SG) considered that there is a need for an innovative approach regarding counselling, by providing this service to students together with their parents. The new model of counselling, which used the results of a previous pilot project “JOBS” developed for reaching simultaneously the defined target groups, was delivered as content for a training program of 48 hours to 28 enrolled teachers and counsellors. At a later stage, these teachers were supported to deliver some innovative counselling sessions in their schools, covering both rural and urban areas. At least 600 students and their parents benefited from these services, and the feedback collected from their beneficiaries and from teachers convinced the SG that this initiative can have a real contribution when facing the mentioned challenges, and that local experiences could be used as support for national policy recommendations.

The low attractiveness of VET has its roots in a historical heritage and parents' opinions, resulting in persistent high interest in the fields of education and graduation, and low interest in the fields of vocational education and apprenticeship.




 **Bulgaria:** At present, vocational education is still not attractive enough for students who are about to choose a school to continue their education after graduation. A key issue is the attitudes, values and career orientation of young people. It is no secret that in the last two decades professional education is not considered to be prestigious in a small percentage of society. Vocational education attracts fewer students, one of the reasons being the worsened demographic situation. On the other hand, the quality of education in some vocational schools is deteriorating, and vocational education is often associated with unprepared and low-paid work. In pursuance of its significant responsibility in carrying out the State policy in the field of education at the regional level and in particular in the field of vocational education and training, the Regional Department of Education - Vratsa and CCI - Vratsa developed a Regional Program for the Development of VET in the Vratsa District (2017 -2020). It specifies key measures in policies to enhance the interaction between school and real business, to improve the professional training of students and to enhance the attractiveness of vocational education, as a whole. Tendencies and challenges to vocational education and training have been identified, namely: 1. Optimisation of the school network in the Vratsa district; 2. Increasing the attractiveness of vocational education and training; 3. Reducing drop-outs and early school leavers; 4. Attracting pupils for training in occupations with first and second degree qualification and students with high school achievements for training in high-tech professions; 5. Developing a system for updating the qualification of teachers in vocational training; 6. Ensuring career guidance for learners; 7. Implementing a system for validating knowledge, skills and competences acquired through non-formal and informal learning; 8. Expand participation and responsibilities of the social partners in vocational education and training. In order to implement the policies and measures outlined in the Regional Program, a series of activities at regional, municipal and school level, time-bound, committed institutions, necessary funding and performance indicators have been outlined. The Regional Program for the Development of VET was adopted at a meeting of the Regional Council for Regional Development in 2017 and is being implemented at three levels - regional, municipal and school. The activities set out in the Regional Program help to enhance positive attitudes towards Vocational Education and Training, in particular "Learning by Doing", which is a solid foundation for a successful career of young people, and dual learning is a valuable investment for both employers and for pupils, facilitating their transition from school to work and fostering competitiveness and economic growth.

Another aspect listed by the project partners is that the abilities and competencies of pupils entering vocational schools do not correspond to the requirements of the chosen fields,



leading to a number of early school leavers. Low students' motivation to study, the lack of interest in three year profiles, and the absence of workplace discipline are just some of the manifestations of the aforementioned situations.

 **Bosnia and Herzegovina:** Generations currently living in BiH have been shaped by different political and social systems and respective values. In this regard, three aspects can be identified: students, their parents and the overall environment. Generations from the 1960s and earlier have a rather positive attitude towards VET and WBL, as most of them had received this kind of training themselves. However, they show the most resistance to major changes. Most of them have been forced to change many times during their career or life-time and as a result experienced a sense of insecurity. The generation of current parents of secondary school children is more critical towards VET, as they do not see many opportunities for good income from a secondary education diploma. On the other hand, general perception is that less-capable students attend these schools and most parents find it unacceptable. According to some estimations, half of students that are enrolled in VET schools did not chose those schools voluntarily as their first choice. Students often prefer practical exercises over theory; parents see benefits of such learning, in the sense that it enables more efficient acquisition of skills and competencies. General public perceptions are mixed, meaning that those who had experienced the time of industry expansion nowadays show distrust to current companies and their work values. The results of the sensitisation campaigns are very good. Their main goal – to introduce the project Learning by Doing and its activities to the public - is achieved. All participants responded positively to the presentation of the project and the activities carried out by the Chamber of Economy of Sarajevo Canton and the Ministry for Education, Science and Youth of Sarajevo Canton within the project. The Sarajevo Canton Government nowadays is striving to introduce a dual education system as a best solution for the future students of vocational schools, with which everyone is familiar, but most of people did not know that the Chamber of Economy of Sarajevo Canton and the Ministry for Education, Science and Youth of Sarajevo Canton are delivering added value to this process through the project Learning by Doing. For this reason, sensitisation campaigns were of great importance because the general public indicated that in the process of transition from a classical education system to a WBL system, Canton Sarajevo has the support of the EU.

The overall perception of the VET significantly depend on the perception of the labour market employment possibilities and the income prospects. Students' choices are often determined by their results in the previous education period.



Czech Republic: In order to promote vocational education, a successful media campaign has been implemented based on a modern way of sharing information. The main motto of the campaign was "Craft is worth it, give your children a great future, and make them study craft". The campaign, specifically targeted at pupils, parents and businesses, was implemented in a form of PR articles in the most popular press, online, PPC, and banners. The campaign brought nearly 6,000 users to the site, with 3.8 million views in two months. Due to the success of the spring part of the campaign, we decided to continue in the campaign at the end of 2018. In addition, the information portal of the project <https://remeslosevyplati.cz/> was created, where information about the project, sections for pupils, parents, companies, various links and information and most frequently asked questions and contact information are available. The campaign was considered as a success as it was prepared by a professional agency and that the good results addressed the target groups in a youthful and modern way.

Wider society has its influence on how the VET and WBL are perceived. Society attitudes towards vocational secondary education occupations are sometimes negative, and as if looking down on these occupations, leading to low student interest and enrolment.




Croatia: The vocational education process in Croatia is constantly changing. The labour market currently faces a lack of workforce due to emigration of trained and qualified people. While employers before were looking for a highly-educated workforce, now they are increasingly aware of the shortage of skilled workers. Consequently, along with the shortage of a skilled workforce, employers tend to significantly increase the salaries in the affected sectors. However, more and more of such experienced workers retire, while on the other side young people rarely decide on vocational occupations. Accordingly, vocational education needs to become attractive and tailored to labour market needs. Linking vocational schools to the labour market should be a quick process so students could have secured jobs and a future when completing a high school education, while enrolment plans of vocational secondary schools need to be aligned with the needs of the economy. Only in this way can the gap between unemployment and real needs on the labour market be overcome. The most important communication is with businesspeople, schools, parents and students. With the activities of the project's sensitisation campaign, the process of aligning the education with the needs of the economy has been tackled and accelerated it in a way that all offered and opened positions in the vocational schools are completed in this school year.




4.4. Expertise and Capacities Challenges

System level – For WBL to be functional, a coherent administration system in vocational secondary education had to be put in place to provide support (comprehensive data bases, development agencies, monitoring and quality assurance, etc.). But in the majority of the countries there is no comprehensive information system with a database of vocational high school graduates to help informed and evidence-based decision-making and to assist employers in recruiting graduates. The WBL is characterised by slow innovations and very low investment in the R&D sector. The system lacks good research and development projects, as investment in this sector is very poor and only resources from EU funds are available.

 **Slovenia:** Since the new Apprenticeship Act was adopted (in May 2017) and the project duration coincided with the pilot implementation of the apprenticeship, many of the project activities (namely capacity building trainings) contributed to the strengthening of expertise and capacities, especially regarding the stakeholder cooperation. The apprenticeship system in Slovenia is based on the elements of the dual system (at least 50% of apprentices' time spent in company), which demands strong cooperation of all key stakeholders. There were also some capacity building trainings for the employees of the intermediary organisations (Chamber of Commerce and Industry, Chamber of Crafts) implemented in the framework of the project, which resulted in more staff trained to work with both companies and VET schools in this field. As there was a lack of a centralised and user-friendly information platform, identified as a challenge in the beginning of the project, it is important to emphasise that since the start of the pilot (and coinciding with project activities), CCIS has developed its internal database, which will eventually be integrated (also with the database of the Chamber of Crafts) into the web portal administered by the national VET institute (CPI). All of the information regarding announcements of learning places and verified companies is administered by CCIS, and is regularly updated and available on CCIS's website. Additionally, there is also an apprenticeship blog as a part of the CCIS's apprenticeship portal, where additional information and interesting facts, events, etc. are being regularly published.


School level - This level is characterised by the lack of facilities and infrastructural capacities for wider implementation of WBL, low level of quality of the equipment in schools, and a lack of investments in the infrastructure of the schools, resulting in many schools not being properly equipped.



 **Czech Republic:** Collaboration with stakeholders is key. The South Moravian Region is involved in increasing and streamlining cooperation between secondary vocational schools and employers. The weight of the lack of craft professions has forced businesses to cooperate with schools, not only in the form of internships and practices of students, but also in the training of vocational training teachers to improve their knowledge. Pilot projects of cooperation between vocational schools and companies are being developed. An example is the “Innogy” scholarship program for students in the 1st – 3rd year of vocational construction schools, which carries elements of dual education, including material insurance for the student during the study and the conclusion of an employment contract. Students will go through the selection process and their school will benefit, while the fulfilment of their school duties will also be taken into account. Another example is a pilot project to promote long-term internships for high school students at companies, which is called “Smart Accelerator”. Five vocational schools and 29 companies in the region are involved in the project. The fields of engineering, electrical engineering, information and communication technologies and life sciences will all be supported.




Teaching equipment - Due to the staff requirements and demands for certain standards of equipment, professional programs are expensive, and VET institutions need considerable support when adjusting and changing the offer of the programs. Another issue is quality learning materials (e-learning), which are lacking.

 **Croatia:** Within the existing education model, students from the beginning of their schooling are acquiring practical knowledge, but sometimes only partially. Theoretical teaching is conducted according to the prescribed programs in vocational schools and is not always in line with economic trends. In this way, students acquire theoretical education that is not in line with labour market needs due to obsolete curricula or due to insufficient hours of practical teaching. The 4-year vocational education programs usually do not have a compulsory practice at school or within a company. Therefore, the Engineering and Traffic School from Varaždin, which is the most important stakeholder in the project, designed and offered students the opportunity to conduct practical classes in school workshops within faculty (elective) subjects. Such a form of practical tuition for "non-practical" 4-year school curricula takes place every other week for 4 consecutive hours, which makes up to 70 hours of total practical hours per year. By solving specific tasks, the student can thus prove the acquired knowledge and acquire the necessary skills, thus this kind of learning through practice becomes more than just a process of institutionalised and organised learning. Additionally, using the option of a special vocational elective part of the curriculum, which represents 15% of the total scheduled time, vocational teachers, in cooperation with mentors from companies involved in the vocational training process, can design their own teaching materials for themselves and further prepare them for the regional/local labour markets. Teachers can also evaluate the practical work of students in companies through observations or commentaries of their mentors in companies, not just based on students' diaries. The Engineering and Traffic School of Varaždin is engaged in all project activities and is regularly consulted in vocational educational matters and further actions.




Partners identify poor career orientation and lack of development of entrepreneurial competencies as the main challenge for better perception and participation in VET.

 **Bulgaria:** Ensuring career guidance at all stages of student development influences all participants and stakeholders and contributes to the full professional and life achievement of young people. Although important steps have been taken in the field of career guidance with the implementation of a project with such a focus in the period 2016-2017, there are still deficits and problems with the capacity of educational institutions and other stakeholders. The next steps and activities at a regional level are directed towards: 1. providing a career guidance system at a school level with quality information and methodological resources; 2. development and implementation of models for early career guidance for drop-outs and from an early age; 3. Improving coordination and cooperation between stakeholders for career development; 4. expanding access to the labour market through the development of lifelong career management skills; 5. developing and implementing an information system to track the realisation of VET graduates. RDE - Vratsa and CCI- Vratsa have implemented steps to improve the expertise and capacity in the field of career guidance of the students in the Vratsa district during the implementation of the "Learning by Doing" project, as follows: For the third consecutive year in Vratsa region, was organized a "Day of Professions", with the participation of Regional Employment Agency - Vratsa, CCI - Vratsa employers' organizations, business representatives, vocational high schools, students of the 7th grade and their parents. The "Panorama of Education" is held in the Vratsa District. Info events were held at a municipal level in the municipalities of Mezdra, Kozloduy and Byala Slatina (municipalities with more than one school in which the students can continue their education). In the same municipalities, general parental meetings took place where the approved state admission plan was presented to both parents and students. In June 2018 an "Open Doors Day" was held in 15 companies and enterprises, in which students were introduced to the character of production, while demonstrations were made, *inter alia*. During the information and communication campaigns, CCI - Vratsa prepared videos representing different professions, leaflets, posters, reference books, essay competition on the topic "Profession-Dream and Reality" for students of the 7th grade are used as a serious tool for career guidance, as well as, educational radio studios and educational TV studios with interviews and sharing of practical experience, etc. Periodic meetings with students and companies for promotion of professions were held.




In situation where there is no system of continuous professional development of teachers some partners utilised international project to raise the teacher' competencies.

 **Bosnia and Herzegovina:** Most employees in the public institution are not trained to respond to today's market demands nor to take advantage of all the opportunities offered by different EU grants as assistance. This is indicated by the fact that a public partner from BiH, the Ministry of Education, Science and Youth of Sarajevo Canton, has never participated so far in a project that is co-financed by the EU. The Chamber of Economy of Sarajevo Canton, within the framework of the project "Learning by Doing", organised capacity building workshops to build the capacity of members of the stakeholder group, in particular the employees of public institutions. The topics of the workshops, which aimed at preparing participants for applying to international projects, were "Project Management Cycle with a Focus on Project Proposal Preparation" and "Presentation Skills". The aim of the workshops was to get acquainted with the project management, various funds (project financing sources) and how to create a project proposal. Presentation Skill Training, based on NLP tools and techniques designed to help each trainee recognise his presentation style, re-examine and improve this technique in a way that it becomes interesting and inspirational to listen, aimed at showing participants how to achieve effective, compelling and professional performance in front of an audience and to be an interesting presenter. Very often people's career depends on how good they are in what they are doing. Often people have decisive ideas, products, and services and should present them in a simple and listener-friendly way. Such workshops aim to strengthen the human capacities and competences for successful writing, applying and managing EU projects, given that Bosnia and Herzegovina is enabled to use funds from various EU programs. Participants of these workshops were representatives of VET schools and the Ministry of Education and Economy.



Teachers – The VET system is faced with a difficulty to obtain enough teachers for certain areas of expertise, given that the salary system is not sufficiently stimulating. Also being long in the education system far from the enterprises and economy, teachers lose some professional knowledge or do not acquire the most updated type.

 **Romania:** Skills development internship for tutors and VET teachers is one of the local initiatives proposed as a solution to the school capacity challenges and weaknesses, especially concerning the close cooperation of schools with companies in the field of improving the professional knowledge of teachers. The teachers in the VET sector are qualified, and they regularly participate in in-job training as a way to update their level of teaching skills and competencies. The trainings usually are provided by educational professional from universities. But in the case of VET teachers, our Stakeholder Group considered that they need to have the chance of growth directly at the employers, in order to be able to keep pace with the very dynamic technological development, and to be able to adapt the curricula and the teaching methods. The solution we proposed consists of offering interested and motivated teachers the possibility to participate in a real internship, within a partner company, with a minimum duration of 1 week and ideally of 1 month. The working group within the SG committed to this action, within the priority of QUALITY, made an inventory of the interested teachers, and for the 26 expressed options the SG tried to identify adequate internship places. Within this exercise, we documented that there is interest from both the teachers and employers' side, as well as readiness from companies to support the costs and needed resources for these internships. For the next period, we plan to identify the most feasible modalities for collecting interests and matching them with the companies support; we will use the existing cases to define the appropriate lengths of these internships and together we intend to propose our local project for replication at the national level, by supporting a dedicated policy for this type of teacher training.

It is not just the teachers that need capacity building, however, it is also companies. Different institutions and bodies need to be able to perform to the requirements of WBL.



Serbia: One of the key challenges in implementing WBL is the insufficiently built capacity of stakeholders at all levels, from ministries and councils responsible for the development of education, through chambers and institutes to schools and companies. During the implementation of the project, the ministry responsible for education adopted the Law on Dual Education, which has established the institutional and programmatic framework for the implementation of WBL in secondary education. The project organised a special workshop for the members of the Council for Vocational Education and Adult Education, where various practices of project partner countries were presented, and which were visited by employees of the Serbian Chamber of Commerce and Institute for Improvement of Education within study visits and exchanges. Material generated during the project, as well as materials from individual countries, have been made available to members of the Council. The employees in the chamber and IIE had the opportunity to visit a large number of partner countries, but also to accommodate colleagues from those countries. Peer learning has proven to be the best form of capacity building. After the study visits, presentations of the acquired knowledge were held, in which the employees in our institutions took part. In order to strengthen the capacities of teachers and school directors, the experiences of the partner countries in the field of WBL were presented by the employees of the institute at the meetings of school associations, competitions of vocational schools and during special thematic workshops. In addition to the presentation of experiences from the countries of the Danube region, within the project we also implemented special thematic workshops for directors, teachers and instructors from companies. The topics were related to the joint planning of WBL by schools and enterprises, as well as competence-based assessment in the implementation of the final exams in vocational education.

Companies - There are still great discrepancies between small, medium and large-sized companies when it comes to apprenticeships. Small companies and even medium-sized ones don't have space and the capacity to provide WBL or receive a substantial number of students for training. Practical training should be improved, in cooperation with employers and mentors.



Slovakia: One of the big challenges in the whole education system, not only in dual education, is lack of finances. There is a big need for qualified teachers, mentors, experts, and support of employer organizations. An informative campaign towards parents and students and exchange of knowledge and know-how between the learning and working environment should be implemented. On the other hand, there is a good protection of VET students in WBL. The Council of Employers, who are very active in the dual education process, meet regularly and very effectively. Experts from the council, ministries, chambers and key actors meet together regularly and work on the attractiveness of the dual education for employers and schools. During the project implementation, various awareness campaigns have been done with the aim to raise information and interest in pupils about the dual education. A couple of campaigns were carried out within the project at primary schools and informed students through an interactive presentation and discussion about the Dual education system. Parents were also met in different schools to raise their awareness and attractiveness of the dual education system. During the project we also carried out special workshops for school directors and company's directors with the aim to inform them about the new Amendment in the Law, benefits of dual education and possibilities to join the dual education system. The educational fair: MALACKY DUAL DAY 2018 and 2019 proved useful and practical, where pupils from the primary schools from the Malacky region were invited to personally meet with companies and schools working under the dual education system. They could speak with duals and companies to ask for information, experience and expectations. A meeting with stakeholders was carried out to discuss the importance of inadequate career guidance at elementary schools. Later on, stakeholders together with the ministry and associations met together and proposed to add to an amendment to the law that required compulsory career guidance in each elementary school. In the meantime, the career guidance for each primary school was adapted to the law. This means that the career or educational counsellor will be informed about the system of dual education and will be able to present it to students as an option.



Hungary: Experts have developed a package of proposals that contribute to increasing the efficiency and capacity of funding for practical training and the framework curriculum, as the human resources and financial constraints represent major capacity challenges within the VET system in Hungary. Although the education system has undergone substantial transformation in the last few decades, governance of schools has been centralised (2013). There should also be the possibility of dual training in public administration, as well as the conclusion of student contracts and financial benefits. Furthermore, flexible interpretation of the framework curriculum at a local level is needed (such as subject structure and curriculum blocking, and transfer possibilities within the curriculum). Simplification of student payment: the co-operative scholarship for higher education is possible (last grade possible): the company pays the training fee and the additional scholarship to the minimum wage paid to the training institution and gives the scholarship free of charge to the student who is unable to then change the company in the given semester. In dual training, the company pays the scholarship to or over the amount of the minimum wage, and pays it over but less than the cost reimbursement. The student receives a scholarship for 12 months, but only during the exam period and the term of study, he/she must work 5 days a week, during the examination period a test day plus one preparation day.



5. Key Messages

Ensuring Greater Cooperation and Coordination at a Policy Level

National policies tend to remain too fragmented in their approaches, with insufficient crossovers and joint policy-thinking between the relevant ministries and national institutions responsible for employment policy, education and training and social affairs. Policy approaches should be designed and implemented in a more coherent and inter-departmental manner.

Developing Adequate Legal and Institutional Framework for Implementation of WBL

Based on adopted national policies on WBL it is necessary to develop appropriate legal framework in common areas (education, labour, insurance, security, safety at the work place, etc.). The regulation should identify key partners/stakeholders and their remits and responsibilities in the WBL implementation. The legal framework needs to be flexible in order to facilitate WBL implementation together with financial incentives and create an enabling environment for WBL development.

Developing Holistic Policy Approaches to Address All Barriers Faced By Low-Qualified Unemployed Adults

At a strategic level, more efforts should be made to develop policies and programmes that use the full potential of WBL regarding adult education. The WBL could be a potential answer to challenges of migration and aging of population and fast technological development, providing continuous professional development.

Improving Monitoring, Evaluation and Quality Assurance of Policies and Programmes

The WBL needs to be followed up and supported by quality assurance measures. Policy-makers and delivery organisations should implement more effective mechanisms for monitoring the impact of policies and programmes. The quality assurance elements should include the licencing of providers and instructors, a curriculum based on National Qualification Framework principles, exams assessing learning outcomes, learning materials, career guidelines and counselling.



6. Annex – Education and VET System in Partner Countries

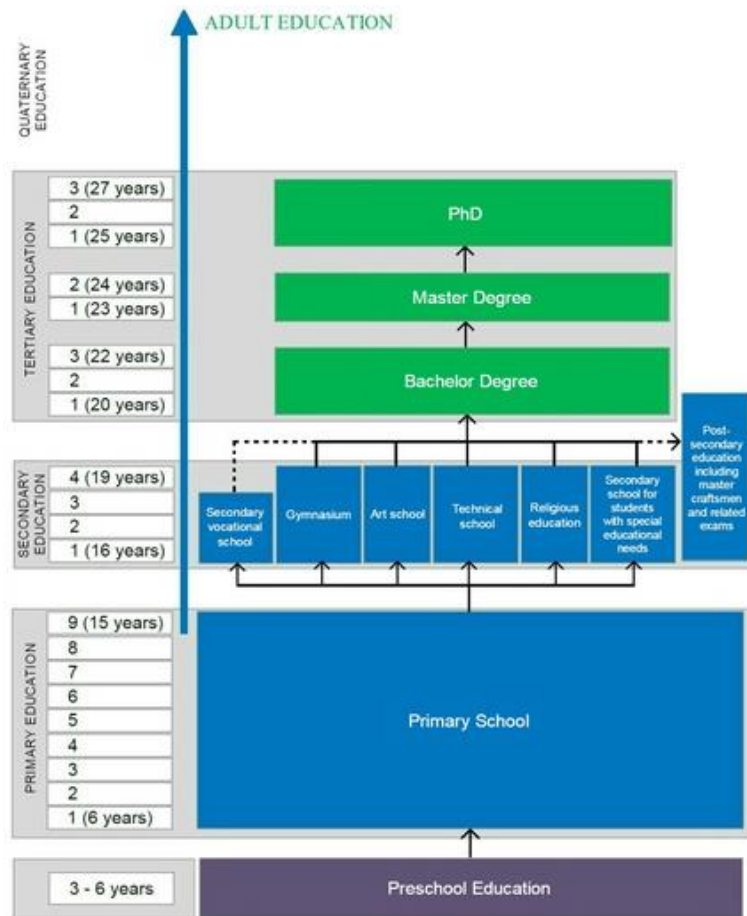


Position of the VET/WBL System in Canton Sarajevo (Bosnia and Herzegovina)

The main principles of secondary education in Bosnia and Herzegovina are regulated on the basis of *Framework Law on Primary and Secondary Education in Bosnia and Herzegovina* (2003), while specific issues of its functioning in each of the 13 educational administrative units are further elaborated by respective laws. In Canton Sarajevo, according to the *Law on Secondary Education* ("Official Gazette of Canton Sarajevo", XXII/23, 2017, Article 57), the system of secondary education is comprised of:

- a) Grammar schools (known as gymnasia) – offering general secondary education
- b) Secondary schools of vocational education and training, which entails:
 1. Art and music schools
 2. Technical schools
 3. Vocational schools
- c) Religious schools
- d) Secondary schools for students with disabilities

Vocational education is based on practical instruction and is aimed for regular and non-regular students (in most cases, those above 18 years). Unlike general education and religious schools, VET schools lead to qualification, enabling students direct mobility to labour market, while some schools (those lasting 4 years) grant also mobility to tertiary education.

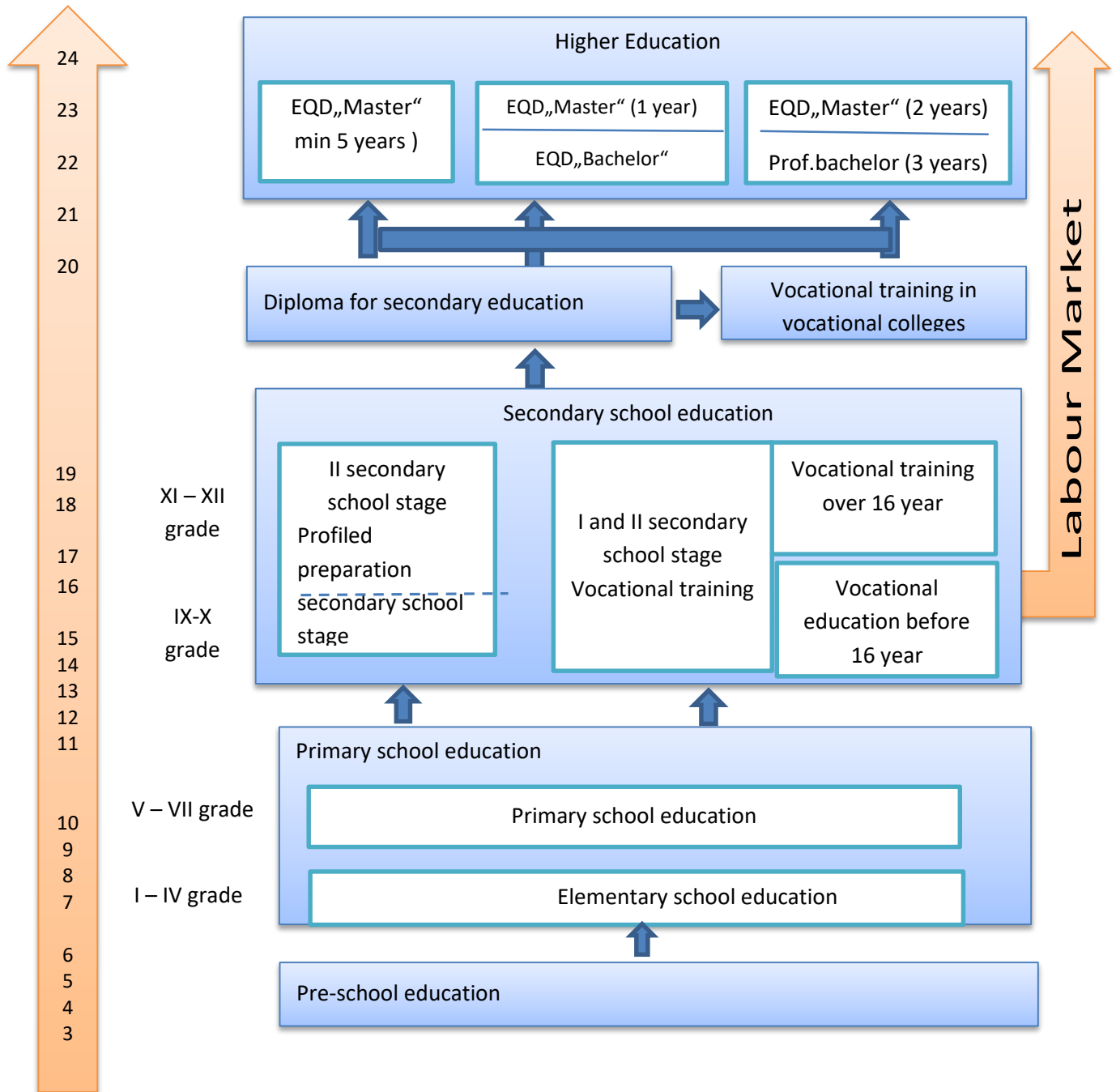


EDUCATION SYSTEM IN BOSNIA AND HERZEGOVINA
(The scheme made by DNV International - Country Office B&H)





Position of the VET/WBL System in Bulgaria





Position of the VET/WBL System in the Republic of Croatia

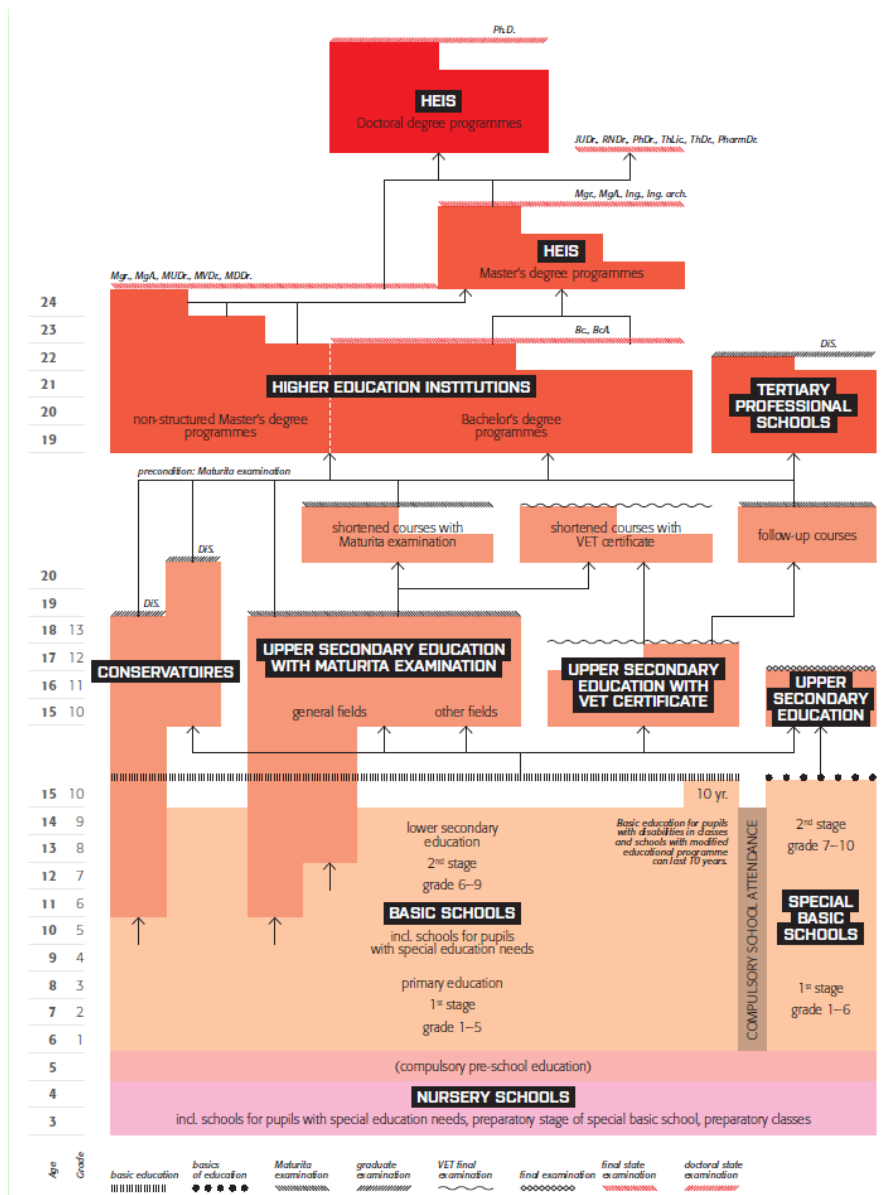
Croatian VET/WBL system is part of secondary level education in Croatia, which is not mandatory by law, but most of the students continue their schooling even after finishing mandatory Elementary school.

Figure 1. Chart of the Educational System

Tertiary	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>University Study programmes</p> <p>PhD programmes Master programmes Bachelor programmes</p> </div>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>Professional Study programmes</p> <p>Specialist professional studies Professional studies</p> </div>	<div style="border: 1px solid black; padding: 5px;"> <p>Post-secondary level Development and training programmes</p> </div>
Secondary	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>4 ys General programme GYMNASIUM</p> </div>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>3-4 (only one 5 ys) VOCATIONAL OR TRADE SCHOOLS</p> </div>	<div style="border: 1px solid black; padding: 5px;"> <p>1-2 ys Basic professional degree programmes</p> </div>
Primary	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>Mandatory elementary education 8 ys of ELEMENTARY SCHOOL</p> </div>		
	<div style="border: 1px solid black; padding: 5px;"> <p>PRE-SCHOOL INSTITUTIONS</p> </div>		



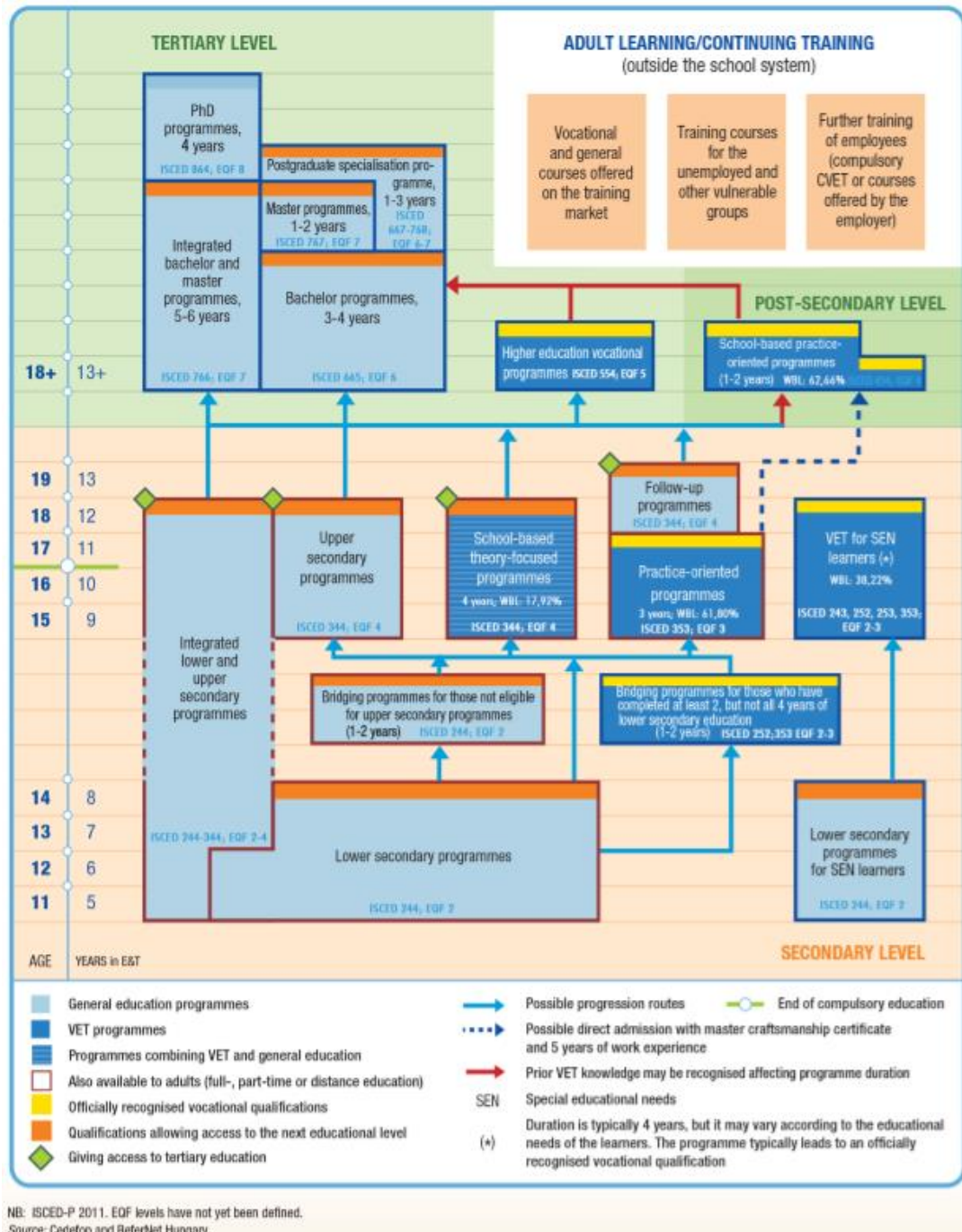
Position of the VET/WBL System in the Czech Republic



Vocational training in the Czech Republic is a continuation of the long-standing tradition of the educational system and has recently developed strongly. The main body responsible for initial vocational training is the Ministry of Education of Youth and Sports. Most vocational schools are public and are established by the county. Initial VET takes place in schools, it contains a great deal of practical training done in school workshops, training centres and practical training centres, or in real practice with employers. Employers' representatives are involved in sectoral councils and sectoral groups and work together to develop training programs. Vocational training at secondary level starts after the completion of basic education at the age of 15 years. Higher secondary education programs last for 3-4 years and end either directly through the labour market, followed by a two-year study and graduation. Four-year study with a final exam allows graduates to continue at universities or to pursue a professional technical profession.

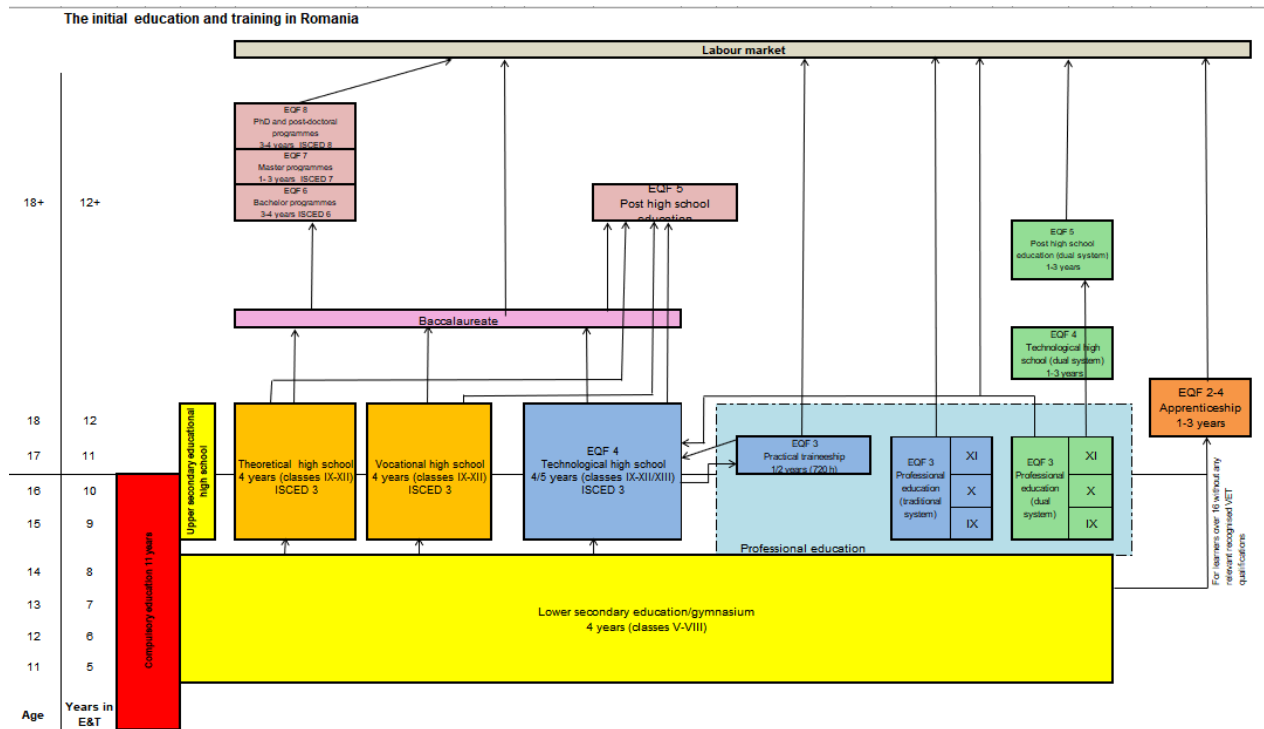


Position of the VET/WBL System in Hungary





Position of the VET/WBL System in Romania



According to the new law on national education (Law no 1/2011) the national education system comprises the following education levels (pre-university): a) early education (0-6 years); b) primary education, including preparatory class and classes I-IV; c) secondary education, including: (i) lower secondary education (RO: Gimnaziu), including classes V-IX; (ii) upper secondary or high school, including school classes X-XII/XIII, with the following paths: theoretical, vocational and technological; d) vocational education, lasting between 6 months and 2 years; e) post-secondary education.

High school education includes the following channels: a) theoretical path; b) technological path with the following profiles: technical, services, natural resources and environmental protection; c) vocational pathway, with profiles: military, theological, sports, artistic and educational. The higher education is organized in universities, study academies, institutes, higher studies schools, referred to as higher education institutions or universities, temporarily authorized or certified.

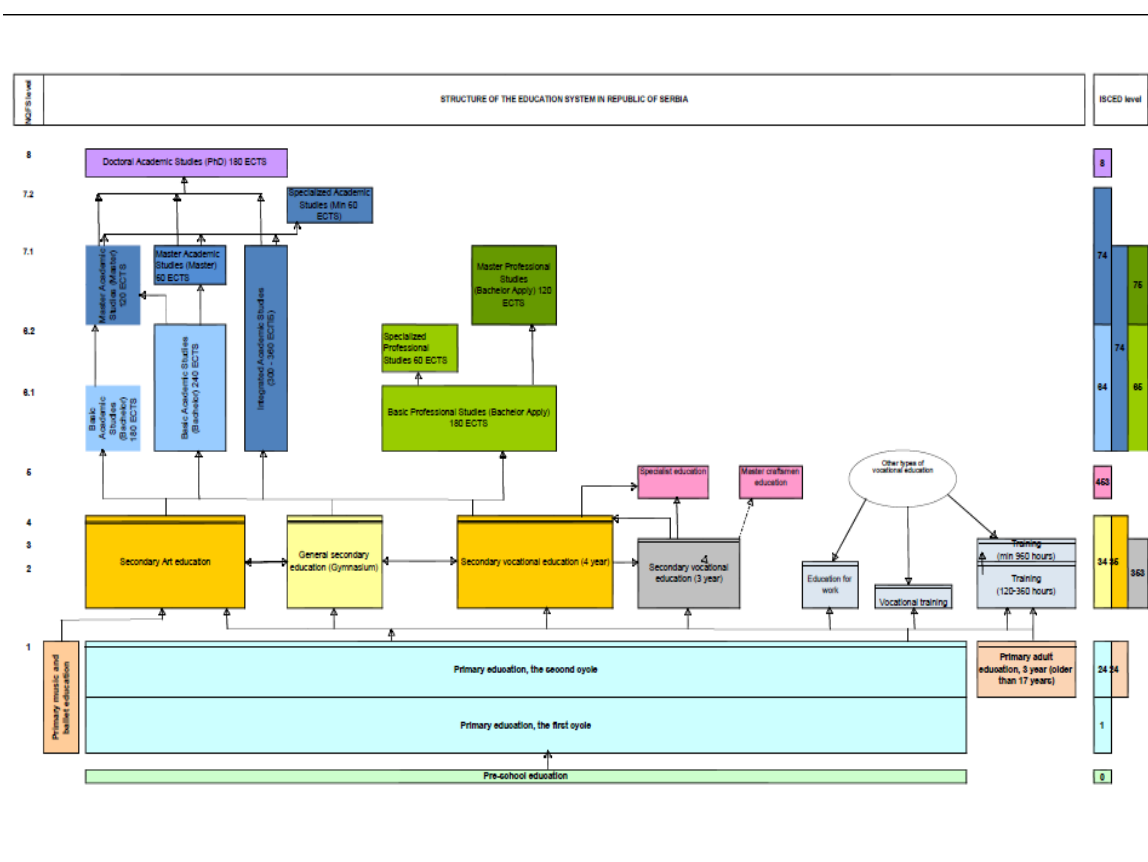
Adult education (CVET) includes training programmes at all qualification levels, organized in the public or private sector.



Position of the VET/WBL System in the Republic of Serbia

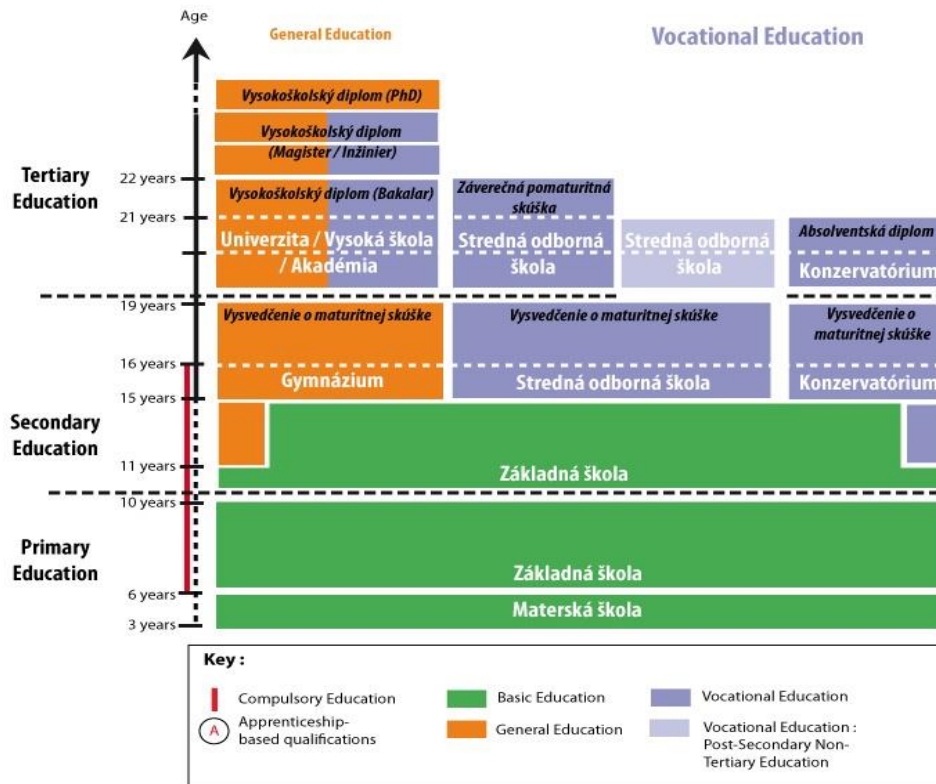
Education in Serbia is divided into 4 cycles: preschool, primary, secondary and higher education.

Secondary education can be: Secondary general education, Secondary Vocational education, Secondary (formal) Adult education and Secondary Art education (Musical and Ballet education). There are general secondary schools (gymnasiums), vocational schools and art schools. Secondary education is not obligatory, although almost all children in Serbia attend it. Children enter secondary education at the age of 15 and spend 6 hours per day in school. General secondary school offer four year programmes which are focused on social and natural sciences. Secondary vocational schools offer education programmes that last 3 or 4 years, and prepare students for work and/or further education. In vocational schools, children get qualification in fields of construction, mechanical engineering, agriculture, forestry, chemistry, medicine, dentistry, economy, tourism, trade etc. Art schools last for 4 years and offer programmes in the fields of music, visual arts and ballet. At the end of secondary education (four-year programmes) students pass the Matura exam. At the end of 3 year programme students pass Final exam. Students who do a 3-year course are not eligible for further studies. Upon completion of secondary vocational education and two years of working, specialist and master's education lasting one to two years can be acquired, as well as additional qualification acquired in the process of additional qualification or retraining (dokvalifikacije and prekvalifikacije).



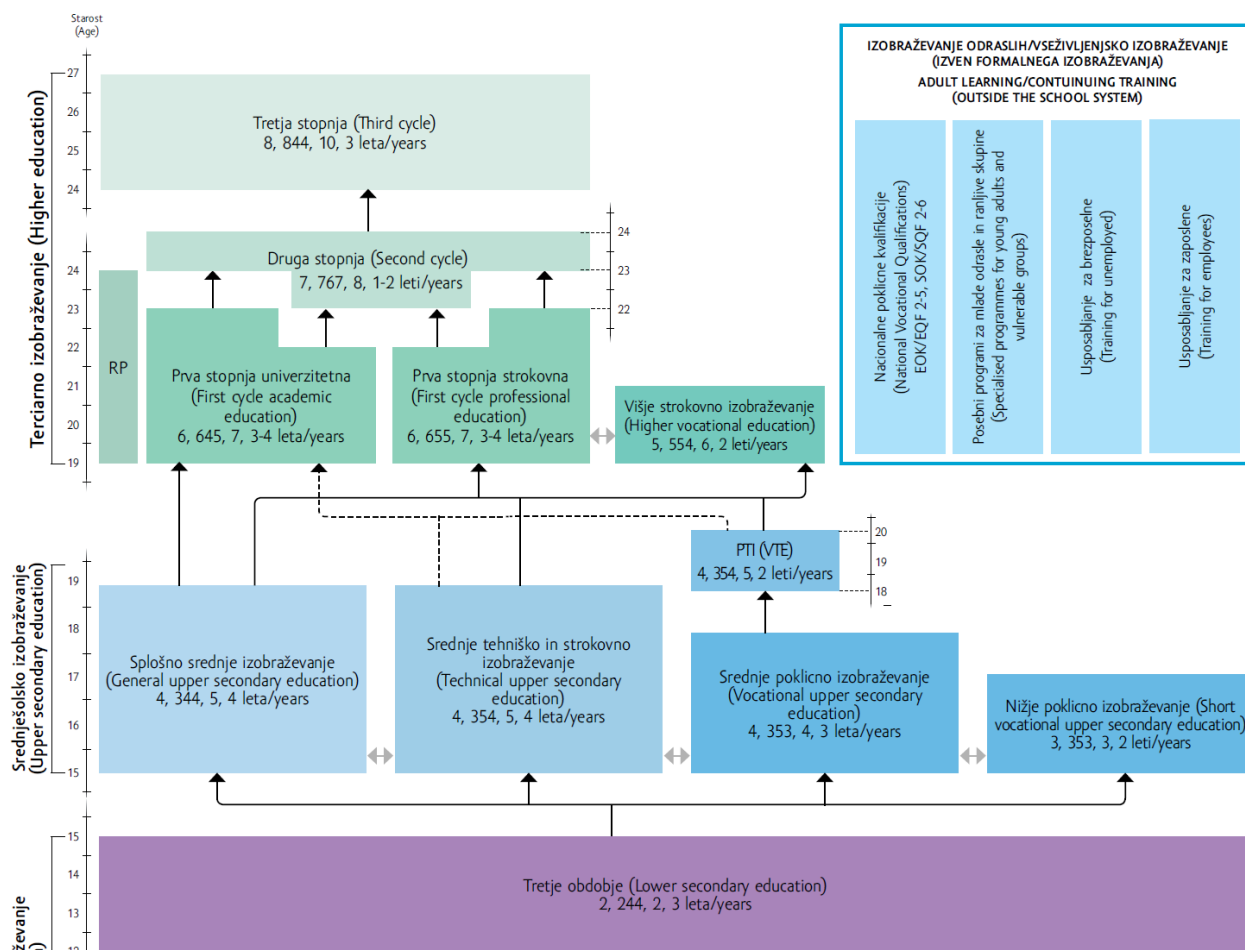


Position of the VET/WBL System in Slovakia





Position of the VET/WBL System in the Republic of Slovenia





PARTNERS



Chamber of Economy of Sarajevo Canton
Ministry of Education, Science and Youth of Canton Sarajevo Government



Chamber of Commerce and Industry Vratsa
Ministry of Education and Science— Regional Department of Education



Croatian Chamber of Economy Varaždin County Chamber



Brno Regional Chamber of Commerce



Budapest Chamber of Commerce and Industry
National Office for Vocational Education and Training and Adult Education



National Centre for Vocational Education and Training Development
Hunedoara Chamber of Commerce and Industry



Chamber of Commerce and Industry Serbia
Institute for the Improvement of Education



Regional Chamber of Commerce and Industry Bratislava



Chamber of commerce and Industry Slovenia
Institute of the Republic of Slovenia for Vocational Education and Training