



МИНИСТАРСТВО ПРОСВЕТЕ,
НАУКЕ И ТЕХНОЛОШКОГ РАЗВОЈА

NATIONAL MODEL OF DUAL EDUCATION: THE ROAD TO THE FUTURE OF SERBIA

Prepared by:
Prof. Dr Gabrijela Grujić



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Agency for Development
and Cooperation SDC



ДУАЛНО ОБРАЗОВАЊЕ

• ДА ЗНАМ ШТА РАДИМ •

Publisher:
Ministry of Education, Science and Technological Development

Reviewers:
Prof. Dr Nenad Zrnić
Dr Goran Cvijović

Design and preparation:
JP "Službeni glasnik"

Printed by
JP "Službeni glasnik"

Number of copies:
250

Year of publication:
2020

SUPPORT: This publication was created thanks to the Swiss Government within the project "Support in the Development and Establishment of the National Model of Dual Education".

Note: This publication does not represent the official views of the Government of Switzerland. All terms used in the publication in the masculine grammatical gender cover both the male and female gender of the persons they relate to.

TABLE OF CONTENTS

Word of editor	5
Introductory Addresses	8
1. Why dual education is important.....	21
2. Regulatory Framework.....	28
2.1. Law on Dual Education of 2017 and Rulebooks.....	28
2.1.1. Bylaws regulating more specifically certain parts of the Law on Dual Education.	29
3. Institutional framework – establishment of the system, creation of education profiles in accordance with the needs of the economy and monitoring of dual education.	33
3.1. Chamber of Commerce and Industry of Serbia and employers in dual education.....	33
3.2. Commission for the development and implementation of dual education in the National Model of Dual Education.....	36
3.3. National qualification framework and its importance in implementing the model of the dual education in the Republic of Serbia – the role of the Qualification Agency and the Council for National Qualification Framework.....	39
3.4. Role of the Institute for the Improvement of Education	43
3.4.1. Developing a curriculum for profiles implemented in accordance with the Law on Dual Education	44
3.5. Standing Conference of Towns and Municipalities in Implementation of Dual Education	46
3.6. Master Plan as an instrument for monitoring the reform processes	49
4. Students in dual education	51
5. Support of Donors and Partners to the Establishment and Development of the National Model of Dual Education in Serbia	55
5.1. Contribution of the German Development Cooperation (GIZ) – Reform of Secondary Vocational Education in Serbia ...	55
5.2. Contribution of the Chamber of Commerce of Austria and of the Austrian Development Agency (ADA).....	58
5.3. Contribution of the Swiss Agency for Development and Cooperation (SDC) – Strategic Counselling for Effective Reform of Secondary Vocational Education in Serbia	60

5.3.1. Swiss System of Vocational and Professional Education – example of good practice.....	62
6. Importance of professional and general public awareness of dual education	73
7. Support to creating evidence-based educational policies.....	77
Annexes.....	81

WORD OF EDITOR

The philosophy of education should become the philosophy of life of every young man in the 21st century. Namely, the 21st century as a century of rapid technical and technological development brings along other things, it brings awareness to young people that education is a pillar of building a successful professional career. Since in this context we have to talk about the importance of developed competencies that sublime knowledge, skills, abilities and attitudes, it is then necessary to provide young people with the conditions for acquiring these competences.



Dual education, as a model of realization of the learning process in two places, is no doubt a necessary pre-condition for achieving quality both in terms of acquiring knowledge and skills. By adopting legislation at the level of secondary and higher education (the Law on Dual Education and the Law on the Dual Model of Studies in Higher Education), and also by the results achieved, Serbia has become a leader in the region in the process of improving the quality of education.

The following data also testify to that: the system of dual education includes about 7,000 students. The number of dual educational profiles, which are realized in 104 secondary vocational schools, rose to 37, while the number of companies participating in the implementation of work-based learning reached the figure of 880. In the school year 2019/2020, a total of 2,533 students were enrolled in the first grade of secondary school.

I emphasize that dual education is only a supplement to the current model of vocational education and differs from the model in other European countries. Namely, the National Model of Dual Education protects general education, and the fund of hours of vocational subjects is divided into learning in an educational institution and in a real work environment. Education does not only mean acquiring knowledge but also the way we teach young people to "use their reason". Thus, dual education, as an elective platform, is not only a model of teaching but also a way of thinking of young people.

The perspective of such a concept is reflected in providing a chance for young people to acquire, in addition to theoretical knowledge, the skill of knowledge management, which opens the door to a successful career with a significantly higher level of self-confidence.

Gone are the days when young people could enter the labour market with diplomas that are not in the function of modern knowledge because they did not have the opportunity to develop skills. They were cheap labour in the hands of those who, thanks to this knowledge, became owners of reputable companies, both domestic and foreign. Now, when young people actively participate in the learning process based on work in companies, in the presence of licensed instructors and with respect for modern curriculum, they become leaders and can dictate the conditions under which they want to work, making a company not only sustainable, but also innovative.

For a reform to be successful, it is necessary for all stakeholders to see some benefit in it. Our model of dual education certainly meets all the requirements: young people acquire the highest level of knowledge and skills in accordance with the needs of the modern market, and companies get for their employees creative, educated people who make their business systems competitive.

The fact is also that the state can redirect the funds planned for investment in classroom-workshop equipment to the realization and modernization of the curricula and to equipping training centres. With dual education, we have returned what has not existed for years, and that is the JOY of education and the promotion of creative curiosity necessary for the acquisition of new knowledge. When a young person has the opportunity to see the value of his theoretical knowledge and its immediate applicability in a real work environment, he certainly raises the level of motivation for further learning and stops the learning aimed at earning a mark only. As a participant in dual model of teaching, the student acquires soft skills (analytical, communication, team spirit) and strengthens all his potentials for successful career building, thus acquiring his own educational identity.

The Ministry of Education, Science and Technological Development, with the support of the Swiss government, has developed a Master Plan based on relevant research by all actors and enables quality monitoring of the development of the dual process. We, the representatives of the Ministry of Education and the Serbian Chamber of Commerce, as a team, learned from the developed economies of Switzerland, Austria and Germany, but we took from them only valuable experiences that could be harmonized with our views and the status of our micro-economy, small and medium enterprises.

However, we are aware of the fact that it is necessary to continuously improve our model of dual education, which, among other things, allows us to respect the decision of young people when choosing a future profession. It should be emphasized that it is equally honourable to be a locksmith-welder, aircraft technician, electrician, just like a law graduate, a doctor... Through dual education, we have created the most modern curricula for them and

students' safety is at the highest level and harmonised with the legislation preventing dangerous occupations for children.

There are also digitized processes and knowledge in Industry 4.0, then licensed instructors, motivated teachers, but also a motivational scholarship as a reward for successful learning in the company. Serbia has always been a country open to cooperation and respect for other peoples and cultures, but not to the departure of young people. That is why the RS Government Strategy emphasizes the arrival of the most successful companies, which has increased the chances of young people from dual education to prove that they can build a career in their country.

One of the proofs that we have fulfilled the requirements regarding the quality of dual education is the signing of the Memorandum of Cooperation with the German leading airline MTU (Appendix 1). The beauty and joy of education that takes place in two places are proof that knowledge and skills are the greatest value and are a mirror of the future of Serbia. And that is why it can be stated that the National Model of Dual Education is the way to the future of Serbia!

Prof. Dr Gabrijela Grujić
Assistant Minister of Education
in charge of Dual Education

INTRODUCTORY ADDRESSES

The National Model of Dual Education in Serbia has proved to be a useful, flexible and perspective. It recognised the specificities of the economy, and this is the first time that the education system reacted in a flexible and synchronised manner. From year to year has been increasing the number of students, schools and companies, and the awareness in the companies of the need for dual education has matured faster with the objective of providing a good quality labour force. The concept of national model education significantly contributes also to the raising of general education of young people in Serbia, because this is the way which, coupled with the wish for fast personal employment, motivation is stimulated for acquiring knowledge in two places, in schools and in companies.



The development of dual education follows the process of lifelong learning that was recognised by the Government of the Republic of Serbia which established together with our line Ministry ten training centres in different areas of education and activities. Under establishment in Knic, in Sumadija, is also a multifunctional centre for the development of learning about entrepreneurship which, following the example of the Kragujevac region, will become become an example of good practice of linking all levels of VET education. Together with the company MIND, operating in cooperation with Siemens, this centre will become also the centre for lifelong learning.

By the adoption of the National Qualifications Framework and its fast referencing with the European Qualification Framework was improved the principle of qualification recognition through formal, non-formal and informal learning. Sector Councils have been established and a stimulating environment has been created for the return of the youth to Serbia and for attracting foreign investors. Taking into account the effects of the Law on Dual Education at the level of secondary education, the Law on Dual Model of Studies in higher education has been adopted and I expect expansion of its accelerated integration into the system, with a view to improving the quality of competencies of the students who will be acquiring them in cooperation with companies.

Mladen Šarčević
Minister of education, science and technological development
Ministry of Education, Science and Technological development

In the past six years since we took the first steps, dual education has transformed from an economic initiative into a major national project, important for the further development of the Serbian economy and strengthening the productivity and competitiveness of individual companies

We managed to be the first in the region to get the Law on Dual Education and the Law on Dual Model of Studies in Higher Education, to foster our capacities to implement this novelty in our education system and create a roadmap that will follow in the forthcoming period. With the strong financial and expert support of the governments and Chambers of Commerce of Germany and Austria and the Government of Switzerland, we have managed to step out of pilot projects and establish a stable system of dual education.

We overcame the initial mistrust, fears and prejudices about dual education (teachers, students and parents), removed the dilemmas of businessmen and proved that the novelty we are introducing is in the interest of all –young people, society as a whole and the economy. Not only in the interest of foreign companies operating here, but primarily in the interest of domestic companies in order for them to strengthen human and other capacities and become an even more reliable partner to the international business community.

We managed to ensure the quality of education – theoretical teaching and practice, to develop the process of accreditation of companies and of licensing of instructors, and to ensure active participation of the economy in creating national education policies, enrolment plans and new educational profiles.

And most importantly: today, six years later, we have schools and companies satisfied with the new role in the education of young people and staff, which thus get students satisfied with the opportunity to learn in a real work environment and get a job for which they were educated.

About 850 companies in Serbia – foreign and domestic, big and small, manufacturing and service rendering, a hundred more than before, are ready to receive this autumn the students who will be educated according to the dual model for 37 offered educational profiles. About 170 of them are joining the “dual family” for the first time, in which there are more and more companies, students and schools every year.



Our goal is to create conditions and to encourage as many students as possible, particularly the micro, small and medium companies to avail of the huge opportunities provided by dual education. Our goal is that as many companies as possible open their doors to students and invest in that way in persons with whom they will implement future development and investment plans. Our further goal is that no investment is questionable because of the lack of qualified staff and to avoid having unemployed persons and the companies not having whom to employ.

Dual education as a solution to the problem of youth unemployment and the lack of appropriate staff has become a great advantage of Serbia. Our special trump card in the race for investors have become people - competitive, trained, qualified staff and top experts and engineers recognized in the world. Following the example of the best European experiences, a model of dual education was created and introduced in secondary schools and faculties in order to improve the quality and availability of qualified staff. At the same time, we have become a role model for others in the region who, following our successful example - following the example of our laws, chamber activities and company experience, is introducing dual education into their education systems.

Because the first thing that domestic businessmen consider when planning a new investment and the first thing that future investors ask when they are interested in investing in our country is - what are our labour force is like, what their qualifications and skills are. The quality of staff is one of the key factors when making an investment decision: just as important as political stability and security, a friendly legal and regulatory environment, the quality of infrastructure, production costs.

Only with people who have the qualifications and skills needed by the modern economy, who can adapt to rapid technological change and the demands of the digital economy, will there be more investment, both domestic and foreign, and new jobs for our companies and new jobs for our citizens. That is why it is important that we educate children who will replace student books here in Serbia with employment contracts, instead of waiting for employment at the National Employment Service. It is imperative to produce according to the standards of developed markets and to export products to the world, not people.

Marko Čadež
President

Chamber of Commerce and Industry of Serbia

The education system in Serbia is facing constant pressure to improve equality, reduce the number of students leaving school and respond to the individual needs of students. Also, Serbia, like many other countries is facing a great challenge to meet the demand for skills, especially in the jobs of medium-skilled staff.



These are jobs that require secondary vocational education, not basic academic and master's education. Although secondary vocational education is not a universal solution to all these issues, permeability within the education system with multiple levels and multiple types of diplomas opens the door to lifelong learning and improvement of the skills needed by the labour market.

For more than three decades, Switzerland has been developing a dual system of evidence-based vocational and technical education. The Swiss model of vocational and professional education allows employers to recoup their investments before completion of student training. When the employer participates in a coordinated way as a company that provides work-based learning for students attending dual education, the quality of secondary vocational education increases, while its public costs decrease. This key feature makes the system attractive and financially viable for employers, which is crucial for maintaining their engagement. Switzerland is not compare to Serbia and its dual education system should not be literally copied or applied abroad. While Serbia has only recently started implementing the Law on Dual Education, Switzerland can count on more than a hundred years of experience in managing its vocational and professional education.

However, Switzerland and Serbia have the opportunity to cooperate in the area of secondary vocational education and both are oriented towards economic development and are proud of competitiveness and innovation. Various donors have already invested efforts to promote exchanges between multinational companies operating in both countries, some Swiss companies operating in Serbia are ready to share their expertise and follow the model of German and Austrian companies, which already have a long tradition of participating in dual education.

Our cooperation with the Ministry of Education, Science and Technological Development and the Chamber of Commerce and Industry of Serbia allows us to provide scientific support to the complex implementation of the dual education system to ensure that the findings are directly involved in further development of the system. We want to determine whether companies in Serbia that train students also show a positive cost-benefit ratio during or after the training. We are convinced that this type of evidence will help strengthen the dual education system in Serbia and improve the productivity of companies.



We will continue to provide systematic support to the competent authorities and institutions in order for this important system of dual education to reach its full potential. Thanks to the personal commitment of the President of the Republic of Serbia, Aleksandar Vucic, it is possible to dynamically implement processes and remove obstacles that would otherwise hinder implementation. We are convinced that thanks to the intensive exchange of knowledge between all Swiss and Serbian institutions involved, Serbia will be able to look back on the successful development of the dual education system in the foreseeable future.

Prof. Dr. Ursula Renold
Chair of the Department for Education Systems
of the Swiss Federal Institute of Technology (ETH)
and co-director of the Centre for Economics and Management
of Education and Training Systems

Dr Katherine Caves
Researcher in Postdoctoral Studies
Department for Education Systems
of the Swiss Federal Institute of Technology (ETH)

Serbia has set economic stability, social cohesion and innovation as the key characteristics of the development model and is striving to join the European union (EU). The Government of the Republic of Serbia has defined a comprehensive strategy of the country, in which sustainable growth, economic competitiveness, social cohesion and innovation are ranked at the same level of importance.



The Ministry of Education and Science and Technological development has committed itself to educational reforms in the light of accession to the European Union. Education reform is focused on the modernisation of the general, vocational and higher education, digitalisation, entrepreneurship, coverage and quality of preschool education. Serbia has launched an ambitious skills development agenda, taking into account skills that will be needed in the future. The Ministry of Education Science and Technological Development has expanded its capacity to meet national priorities, establishing a dual education sector and a digitalisation sector in education and science.

Serbia became a member of the European Agency for Special Needs and Inclusion in Education the 1st of January 2018, and in February 2019 became one of the Erasmus + programme me countries. As a candidate country, Serbia's cooperation within the education systems (related to vocational education) with EU member states and other countries is defined by the Copenhagen Process and the Riga Conclusions.

The implementation of many of these reforms in the field of education has been supported by the European Union in the form of EU bilateral projects and other bilateral and international and donor projects.

The European Training Foundation (ETF) cooperates with key institutional partners in Serbia and complements the work of the European Commission and the European External Action Service in supporting Serbia, including supporting the Delegation of the the European Union to Serbia, and contributing to bilateral fialogue on public policies between the European Union and Serbia.

The ETF supports Serbia's efforts to implement skills reform, with the participation of institutions and organisations in European platforms and dialogue processes, such as the European Alliance for Practice, Erasmus + and others. The ETF also provides expert support and works closely with public

and private institutions that monitor and assess the skills of young people in Serbia through participation in dialogues on public policy reform at the national level and working groups of key actors supported by EU projects and programme mes.

Lida Kita
Specialist for vocational education and social inclusion
– coordinator for Serbia and Turkey
European Training Foundation

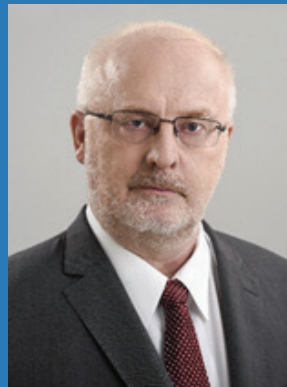
Dual education is at the heart of the Swiss education system. We truly believe in dual education, simply because it gives everyone the opportunity to succeed in a variety of professions. Switzerland has a long-standing experience and expertise in this field, and we very happy to share that experience with others. When the Government of the Republic of Serbia called on Switzerland to support the introduction of dual education, we gladly accepted.

And now, two years after all our joint undertakings and efforts, we see the first positive results. All actors involved are not only aware of the importance of the reforms but are also ready and motivated to see the Law on Dual Education applied in practice. This is very promising and is the basis for transforming the legal framework into life, in order to increase the employability of all students in vocational education.



Priska Doeppnering
Acting Director of the Swiss Cooperation Office
Embassy of the Swiss Confederation to the Republic of Serbia

Dual education in Serbia started with GIZ almost 20 years ago. GIZ, the German Agency for International Cooperation in the Field of Economic Development, with the consent and support of the Ministry in charge of education, started to implement the project to pilot the use of dual education in Serbia through educational profiles in the area of economy. Later, our Austrian colleagues continued to carry out reform activities in this area, and GIZ focused its support on industrial occupations and profiles such as industrial mechanic, locksmith welder or electrician. During the implementation of various activities in the field of the vocational education reform in Serbia, GIZ also addressed the German-Serbian Chamber of Commerce with a proposal to be involved in the implementation of the vocational education reform project. Behind this proposal is the fact that many German chambers of commerce abroad run such projects in cooperation with their member companies and need well-trained professionals.



It soon became clear that Serbia had the opportunity to achieve more than that pilot project, nothing more than to establish a national system of dual education. After all, the Government of the Republic of Serbia has recognised that successful re-industrialisation of the country is not feasible only with well-trained engineers and unskilled workers. In other words, every company needs those who are able to understand engineering plans and turn them into reality with the help of machinery.

Another essential precondition for the introduction of the National Model of Dual Education was the fact that since the adoption of the Law on Chambers of Commerce and Industry in 2015 Serbia, Serbia has gained a strong national institution – the Chamber of Commerce and Industry of Serbia, which speaks on behalf of the whole economy and who is capable of organizing such a "project" representing the business community.

Finally, GIZ, colleagues from Austria, Switzerland, the Chamber of Commerce and Industry of Serbia, the German-Serbian Chamber of Commerce and the Ministry of Education, Science and Technological Development worked together. The role of the state in the whole process was crucial because the regulatory framework had to be established. This system of secondary vocational education is called "dual" because it is jointly organized - by the business community and the state, or by companies and schools.

The mentioned international institutions that have signed bilateral agreements, such as our German-Serbian Chamber of Commerce, had an advisory role in the dialogue between the Chamber of Commerce and Industry of Serbia and the Ministry of Education, Science and Technological Development. The result of the dialogue is the Law on Dual Education, which was adopted in November 2017, and its full implementation can already be considered successful, although only six months ago the Law officially began to apply. In cooperation with our colleagues from the Austrian Federal Chamber of Commerce, we also worked on improving the capacity of the Chamber of Commerce and Industry of Serbia, which was a crucial aspect taking into account that the Chamber of Commerce and Industry of Serbia was faced with numerous new tasks related to dual education.

The system in Serbia combines the advantages of the dual system, the one we know in German speaking countries, with a high degree of permeability to higher education, given that students, at least of four-year profiles, have the opportunity to continue their education, which is important for accepting the system both by students and parents. With the introduction of this system, Serbia has gained an advantage over the countries in the region, which is already positively reflected in the will of industrial companies to invest in Serbia.

Martin Knapp,
executive member of the Board and Head of sector for services,
dual education and communications
of the German-Serbian Chamber of Commerce

Reformed conditions of the legislative framework in Serbia provide opportunities for all parties: the economy becomes a strong partner in education, thus gaining highly competent employees who will better meet the needs of the company, and students gain greater professional skills necessary for employment and good earnings.

The recipe for the success of all these achievements may be in the perfect coordination of all donor organisations that always keep in mind the finding of the best solution and creating a viable model for dual education in Serbia.

We truly appreciate all the outstanding achievements of Serbia over the last four years of our cooperation: Serbia has managed to create a legal basis for dual education, but law enforcement has also been achieved.



In addition to the Ministry of Education, Science and Technological Development, the Chamber of Commerce and Industry of Serbia has taken special responsibility for the implementation of dual education and has the legal authority to provide support to companies which, together with vocational schools, are key partners in dual education. The Austrian Federal Chamber of Commerce which acts as an intermediary institution for the practice system in Austria, provides support to the Chamber of Commerce and Industry of Serbia in capacity building and knowledge and skills transfer.

The impressive number of students and companies participating in dual education clearly shows the need and attractiveness of dual education oriented towards work-based learning.

Melina Schneider
Director,

Division for Education Policy
Austrian Federal Chamber of Commerce

Barbara Wilfinger
Expert for Dual Education
Austrian Federal Chamber of Commerce

The initiative for the introduction of dual education in Serbia came from the economy, which for years indicates a lack of appropriate staff in the market and the unwillingness of secondary school graduates to get involved in work processes immediately after leaving school, which creates additional costs for companies and prevents them from implementing development plans.



The Chamber of Commerce and Industry of Serbia is committed to the application of the dual education system in those sectors where there is a strong need and support of the economy. Without the business sector, the education system cannot identify the key and specific competences needed to successfully involve young people in work. If education enables individuals and society to be more employable, society as a whole will be stronger – it will be more competitive and able to support the development and rights of each individual citizen to a greater extent. That is why it is necessary to cooperate in the realization of such an important project and to include every individual who can make the smallest contribution.

The essence of the dual education system is that the pupil or student already during schooling spends time in a real work environment and that upon leaving school or college can immediately join the production process and, even more importantly, become aware of the fact that the diploma received does not mean the end of learning, to be able to receive new knowledge, upgrade it and adapt to rapid technological changes. Of course, it will not be possible to educate staff according to the needs of the economy if there are not enough students interested in the occupations that the economy is looking for. Currently, the economy is looking for the most productive occupations. Parents and students need to be explained and shown that significant changes have taken place in the performance of production and craft occupations. Today, these occupations are often paid better than the average salary in Serbia, and modern production is based on a high degree of automation and safety standards. On the other hand, it is necessary to develop the inclination of young people towards entrepreneurship from the earliest schooldays. If they do not have practical experience, it is difficult for them to decide to start an independent business. Research shows that only 3–5% of young people will start an independent business if they have not gained some work experience during school, but in those environments where they

have gained that experience, 15–20% of young people who have finished school will start their own business.

However, it is important to ensure permeability through the education system, i.e. to enable those students who have decided to study for craft occupations to be able to change their mind and, instead of working after graduation, continue to be educated. Dual education must be a form of education, i.e. a principle, a way of thinking and acting, and not just one of models of education.

Mirjana Kovačević, M.A.
Head of the Centre for Education, Dual Education and Education
Policies of the CCIS
Director of Business Academy of CCIS
Chamber of Commerce and Industry of Serbia

1. WHY DUAL EDUCATION IS IMPORTANT

Knowledge is perceived as a basic resource in modern societies, which is why increasing the quality and efficiency of education at the beginning of the third millennium was set as a particularly important strategic goal and a necessary determinant of success and prosperity in all European countries. Investing in education is unequivocally defined as a key investment in the future, in the context of personal, social, national and economic development and progress, and education itself is certainly a key factor in the formation of human capital. In the global economy of knowledge, skills, learning, predispositions, talents and qualities that people possess – their human capital has become crucial both for their ability to earn a living and for wider economic growth and development. According to its function, goal and nature, the education system can and needs to be designed to support each individual in reaching their full potential, but if it fails, it can lead to long-term social and economic problems (OECD, 2009).¹

The use of a wide range of competences (knowledge, skills, abilities and attitudes) necessary in the 21st century, and developed through appropriate highly functional and purposeful education, applicable in practical frameworks, certainly has a positive impact on the growth and development of the economy. Persons whose education include theoretical knowledge and also developed skills, abilities and attitudes, generally have higher incomes, which is a benefit that is also reflected through increased economic growth. It should be borne in mind that the impact and development of human capital, in addition to a direct link with the economic aspect, leads to the improvement of individual well-being, health, active participation in community and society, increase of employment prospects, etc. It is worth mentioning that the world is on the threshold of the fourth industrial revolution, which, in cooperation with other (socio-economic, demographic, geopolitical) global trends, has a strong impact on the world of work and education.

Research shows that employers are much more likely to organise trainings to cover the shortcomings in the education of young people during their schooling than they conduct or send young people to highly sophisticated and advanced trainings. The research showed that in the period between 2001 and 2012, the shortcomings of the education system cost the economy almost EUR 3.5 billion.² These problems discourage employers to hire young and inexperienced people, because in a certain period they have too much

1 OECD (2009). *Human capital*, Ministry of Education, Science and Technological Development, Belgrade.

2 Ristic, Z., Rajic, D, Pavlovic, Lj. (2013), *Better conditions for employment of the young*, Union of Serbian Employers, Belgrade.

tax burdens, investment in supplemental training of new employees and loss due to lower productivity in the period of their adaptation.

The development of a secondary vocational education system that will respond to the needs of the labour market in a more effective and efficient

Dual education in numbers in the school year 2019/2020 (start of application of the Law on Dual Education)

- 72 secondary vocational schools implement at least one dual education profile
- In total, 37 dual education profiles in the offer
- about 2600 students of the first grade
- about 400 companies

way of, as well as the development of the National Model of Dual and Entrepreneurial Education in recent years have been set as priority goals of the Government of the Republic of Serbia, and defined within two strategic documents: the Economic Reform Programme me (ERP) and the Action plan for implementation of the Government Programme Action Plan. The Strategy for the Development of Education in Serbia until 2020, as well as the National Employment Strategy for the period from 2011 to 2020, point to the need for better connection between the world of work and education. Briefly, the Ed-

ucation Development Strategy points to the need for changes in the current structure of secondary vocational education, obsolescence of the curricula, the inconsistency of the enrolment plan and the needs of the labour market, etc. This strategic document and the accompanying Action Plan also point to the need of a greater share of internships during schooling and better “internships”, accredited jobs for instructor training, incentives for companies that provide training places for students, etc. The National Employment Strategy also states that it is necessary to harmonise secondary vocational education with the needs of the labour market, harmonise supply and demand, better access to lifelong learning, especially for vulnerable groups, and the like.

The need for reforming the secondary vocational education system in the Republic of Serbia was also recognised in the key strategic documents.

The project “Reform of Secondary Vocational Education”, which was implemented with the support of GIZ in the period 2013–2016, with respect to the experience and support of countries (Germany, Austria and Switzerland), with a long tradition of dual education relevant to our educational context, followed the development of the National Model of Dual Education which was created in accordance with economic, cultural, educational characteristics of Serbia. The model of dual education that is being implemented in the Republic of Serbia could be briefly defined as education that students receive in two places, in the education system and in the real work environment –

companies. Moreover, increasing the number of hours that students spend on work-based learning and developing curricula that include the economy – giving job description that correspond to the jobs that students will do after school in the future workplace, raises the quality of acquired knowledge the includes skills and creates a system where qualifications really represent the expression of acquired competences, which ultimately leads to increased employability of young people. Therefore, the economy, by investing in education, invests in the future employees and solves the problem in terms of personnel in the long run. Key issues of importance for the realisation of dual education are defined by the Law on Dual Education adopted in 2017 (“Official Gazette of the Republic of Serbia”, number 101/17),³ which is accompanied by the developed bylaws (described in more detail in chapter 2). During the conceptualization of the model, development of laws and by-laws, as well as after the adoption of the law and accompanying regulations, a number of activities (company accreditation, training of instructors, systematic involvement of employers in creating curricula for secondary vocational schools, etc.) were undertaken for ensuring the prerequisites for a successful realisation of the envisaged model and for the start of its implementation from the school year 2019/2020.

The approach to the development of the National Model of Dual Education was intended to develop, establish and precisely define the system solutions and procedures in terms of its key characteristics and specifics, so as to ensure its quality and continuous improvement. In this regard, it is important to point out that the National Model of Dual Education implies conceptual, but also formal regulation of the following key issues, which at a certain level and in some elements posed a challenge to the entire system of secondary vocational education:

- licensing of companies and training of instructors through the provided training programme me, all for the purpose of ensuring the quality of work-based learning in companies;
- regulation of all key roles and responsibilities of the world all work and education – key actors in achieving the National Model of Dual Education (MESTD, CCIS, LSG, schools, companies, students, parents), but also systems and channels of communication and information exchange through the created Master Plan and Communication Strategy, as well as the establishment of the Commission for the development and implementation of dual education;

3 Explanation of the Draft Law on Dual Education and Analysis of the Effects of the Regulations of the Draft Law on Dual Education can be found in Annexes 2 and 3, and the adopted Law on Dual Education in Annex 4.

- manner of realisation of work-based learning in the company (responsibilities of school students and employers, protection of students' rights, necessary conditions for work-based learning, material and financial provision of students and other matters regulated by formal agreements between school and company, but also students and companies, creation of dual profiles in accordance with the Regulation on Dangerous Occupations for Children, etc.).

In order to consider dual education in the context of secondary vocational education, *Table 1* shows the main differences between dual education (dual educational profiles) and traditional secondary vocational education (so-called classical educational profiles).

Table 1. Differences and similarities between dual and the rest of the secondary vocational education system⁴

Dual education	Traditional secondary vocational education
Implies the application of: the Law on Dual Education and the Law on Secondary Education.	Implies the application of the Law on Secondary Education.
Work-based learning is implemented in a company.	Models of practical teaching - realization only in school or in school and company.
The scope of work-based learning is minimum 20%, and maximum 80% of the total number of hours of professional subjects. Maximum 25% in the schoolroom, workshop.	Not prescribed by law.
All companies participating in dual education must be accredited.	Obligation of company accreditation does not exist.
Instructor license is mandatory.	Instructor license is not necessary.

⁴ The explanation of the Draft Law on Dual Education and the Analysis of the effects of the regulations of the Draft Law on Dual Education are in Attachments 1 and 3, while the adopted Law on Dual Education can be found in Annex 4.

Mandatory signing of a contract between the school and the employer and the employer and the student. The form of the contract is prescribed by the Law on Dual Education.	The Law neither stipulates mandatory signing of both types of contracts nor their form.
The employer is obliged to provide the student with financial and material compensation.	The employer does not have a duty to provide the student with financial and material compensation.
The structure of the curriculum and the content are almost the same for both models of realization of secondary vocational education and material compensation.	
The same way of obtaining a diploma.	

In addition to precisely defining the manner of realisation of the National Model of Dual Education, special attention is paid to the issues of successful implementation and ensuring the quality of its realisation. In this regard, it is particularly important to point out that one of the key features of dual education is the need to establish partnerships between different key partners. Communication channels for these needs have been defined, and a National Commission for Dual Education has been established (subchapter 3.2), as well as a Master Plan (subchapter 3.6), and a Communication Strategy to support the implementation of dual education in Serbia (Chapter 6).

In order to ensure quality in the establishment, realisation and improvement of dual education, support is provided through various projects and donations (Chapter 5). A particularly important segment can be considered the development of the Methodological Framework for Monitoring and Evaluation of the National Model of Dual Education and the accompanying package of instruments that should provide answers to questions such as – relevance, effectiveness, efficiency and sustainability of the implemented model and enable corrective actions and identify further directions of the development of dual education in the Republic of Serbia on the basis of data collection (see the last Chapter).

Importance of Education in the Industry 4.0 Environment in Attracting investments

Industry 4.0 implies complete digitalization of all production processes and application of digital technologies when creating an idea about a product, product engineering, production organization, production realization, process control and provision of industrial services. Such an approach enables the competitiveness of the industry in the changed global conditions.

The importance of dual education in the Industry 4.0 environment and the need to invest in education that will enable our society to be competitive in the world market - With the arrival of foreign investors in the technology (and related) sectors, there is a great need for specialized staff, who are currently being trained abroad. There is an increase in the chance of employment in companies that base production processes on Industry 4.0.

The availability of professional staff is nowadays the most crucial factor when making a decision of developed technology companies to invest in a particular country. This is exactly our chance that education through work-based learning will be a competitive advantage in attracting investments that create high added value to the Serbian economy.

The integration of modern technologies that form the basis of the fourth industrial revolution in education will contribute to the direct solution of the above challenges:

- they will offer **better perspectives to young people in Serbia** and the surroundings through a possibility of employment in more advanced sectors /companies with higher added value;
- they will offer **qualified staff to the companies** wishing to work also in Serbia upon the industry 4.0 principles;
- they will have a **positive impact on added value of the Serbian economy** through the development of technological companies.

High-tech companies operate according to the principles of industry 4.0 and expect the same from their subcontractors. It is, therefore, necessary to enable the sector of small and medium-sized enterprises in Serbia to systematically educate their staff to operate in the environment of industry 4.0, and a way to get the opportunity to be subcontractors of large companies. The training programme me to develop the skills needed to use and work with

the latest technologies in the digital industry is one of the most important prerequisites for creating the staff that modern companies need.

However, in industry 4.0 it is not that everything depends on the fact that machines, systems and equipment must be networked – industrial production of tomorrow depends primarily on well-trained staff who are able to monitor and intervene in this process and improve it where necessary.

In order to adapt current and future employees to the new workflow and requirements, it is necessary to develop new qualifications and study programmes as well as an integrated system of learning for Industry 4.0.

The new concept of learning fulfils one of the main preconditions of the fourth industrial revolution. Not only does it optimally prepare machines and systems for new requirements – networking, modularity, transformability and efficiency – but also future qualified personnel. Thanks to digitalisation, these employees will focus more on value creation processes, rather than on outdated routine jobs in their workplaces.

2. REGULATORY FRAMEWORK

2.1. Law on Dual Education of 2017 and Rulebooks

The Law on Dual Education (LDE) (“Official Gazette of the Republic of Serbia”, number 101/17) was adopted in 2017, and its application started in the school year 2019/2020 (Law on Dual Education is enclosed in its integral form as Annex 4 of this publication).

This Law refers to the regulation of the rights and obligations of stakeholders in dual model of teaching in secondary vocational education. The Ministry in charge of education was responsible for creating the Law on Dual Education, and it is envisaged that the entrusted tasks will be carried out by the Chamber of Commerce and Industry of Serbia. Other partners were other relevant institutions – representatives of various ministries, educational institutions, employers, representatives of local self-governments, the NES and other actors. The public debate and three tribunals (Belgrade, Niš and Novi Sad) preceded the drafting of the final version of the law, which was adopted by the National Assembly of the Republic of Serbia.

According to the LDE, dual education is a model of teaching in the system of secondary vocational education in which the **curriculum is taught in two places**, i.e. in the school and in the company: (with the employer), which means that students acquire competencies, in the school through theoretical classes and exercises, as well as in the company where the work-based learning is performed, all in accordance with the qualification standard and the curriculum.

In secondary vocational education of the education system of the Republic of Serbia, it is not new that a student of a secondary vocational school spends part of his schooling in a company, but what is a **novelty brought by the LDE is that now this part of schooling is regulated**. This refers to comprehensive the overall regulation, from defining important terms (such as “work-based learning”, “employer”, “instructor” etc.), through the scope, period and place of realisation of work-based learning, student enrolment, career guidance and counselling, responsibilities of students, schools and companies, to the conditions for conducting work-based learning that the company must fulfil and to the procedure for determining them, keeping registers of contracts, material and financial support to students, and the like.

It is also worth adding that the transitional period and the start of application of the LDE have brought to light the need of supplementing and amending certain provisions, which has launched a process of amendments of this Law the adoption of which is underway (the Draft Law amending the Law on Dual Education can be found in Annex 5).

2.1.1. Bylaws regulating more specifically certain parts of the Law on Dual Education

The reasons for the delayed implementation of the LDE two years after its adoption are the need to prepare all actors for full implementation and the need to draft and adopt by the Ministry of Education, Science and Technological Development (Anexxes 6, 7 and 8 of this publication), each of which additionally regulates a certain aspect of dual education implementation, as well as an act adopted by the Chamber of Commerce and Industry of Serbia (Attachments 9 and 9a of this publication).

Before briefly reviewing each of the acts, it is important to note that the drafting process was complex and involved the work of working groups whose members were representatives of various institutions and organizations, which ensured the active involvement of various partners. In addition, for the work on specific issues / thematic areas, subgroups composed of experts on the topic were formed as needed. In addition to involving domestic experts, international actors contributed to providing insight into international solutions in the field of dual education regulation, which are examples of good practice, and experts from Austria, Germany and Switzerland shared their experiences and, as advisors, also participated in the process of drafting acts. However, the specifics of the domestic context and enrolment policy system are reflected in the creation of a new enrolment plan that includes a large number of partners (business representatives, LSGs, NES, school principals), who in accordance with the development plan of the city or municipality and/or needs of the economy decide on necessary new or modernized existing profiles in the enrolment plan for the next school year. Thus, the novelty is reflected in the fact that the enrolment plan ensures both networking and equality of relevant actors in decision-making, which is forwarded for consideration in the final version to the ministry responsible for education.

The following by-laws have been passed:

Rulebook on the manner of placement of students to work-based learning ("Official Gazette of RS", No. 102/18) – the act that probably received the most attention of all the above-mentioned acts related to the Law on Dual Education, and the reasons for this are the least arm triple. The first reason is the importance of the topic, because the question: "Where does a student spend time while studying, if not at school?" is of great importance. The second reason is that the regulation of this area is a complete novelty in the legislation of the Republic of Serbia. More precisely, until this rulebook, there was no regulation dealing with the placement of students in companies (and it was needed, as it is still needed to regulate the placement of students during student practice in educational profiles that are not dual).

And third – Serbia is a country with a very developed legislative framework for inclusive education, equality in education and non-discrimination, and is one of the countries that have ratified a large number of international documents concerning children's rights, and it was necessary to harmonize all provisions regulations with the previously mentioned documents and regulations.

In that sense, the main characteristics of this rulebook are that it enables every student who attends a dual educational profile to be assigned to work-based learning in a company, as well as to consider the “wishes” of both students and companies.

Schools, i.e., more specifically, the Career Guidance and Counselling Team, which brings together various actors from the local self-government territory and is headed by a school representative, are responsible for organizing and conducting meetings with students and company representatives, as well as providing conditions for the whole process to run smoothly in the best student interest. The application of this rulebook helps schools to provide work-based learning for each student in the dual education profile in the fairest possible way, as well as to prevent the possibility of discrimination in the placement process.

The Rulebook on detailed conditions, manner of work, activities and composition of the Team for career guidance and counselling in high school that implements educational profiles in dual education (“Official Gazette of RS”, No. 2/19) regulates the formation of this team, activities undertaken and ways of working and keeping records of career management and counselling activities. This rulebook relies on the latest achievements in the regulation of education in the field of career guidance and counselling. Standards for career guidance and counselling were later, in 2019, made official by the adoption of the Rulebook on Standards for Career Guidance and Counselling Services (“Official Gazette of RS”, No. 43/19), which is based on the Law on National Qualifications Framework of Serbia (“Official Gazette of RS”, No. 27/18). The general goal of the standards of career guidance and counselling services is to serve as a basis for planning, development, evaluation or improvement of career guidance services (for different target groups), so that they are available to all users from a particular target group, to contribute to skills development concerning the management of careers and that organizations, i.e. practitioners who provide career guidance and counselling services, ensure the quality of activities, ways and approaches to work. The novelty brought by this Rulebook is, *inter alia*, that the mentioned team needs to carry out the counselling activities with each student of the school in dual education profile lasting at least one hour during the school year.

The Rulebook on training program, closer conditions and other issues of importance for taking the instructor exam ("Official Gazette of RS", No. 70/18) determines the training program for instructors which is its integral part and prescribes conditions and other issues relevant to obtaining a license instructor. The instructor is a person who is employed in the company and who is in charge of direct work with students, so the instructor directly ensures that the contents prescribed by the curriculum are implemented and that students acquire competencies prescribed by the qualification standard.

This Rulebook defines the role of the instructor, from applying for training, through the implementation of training, organizing exams for obtaining a license, to the structure of exams, assessments, reporting on exam result, etc. It is important to note that the existence of licensed instructors in the company is one of the conditions that the company must fulfil in order to be able to realize work-based learning. It is clear from the attached that the entire matter is a complete novelty in the legislation of the Republic of Serbia, i.e., that for the first time there **are precisely prescribed conditions that employees must meet in order to directly participate in work-based learning process by working in a real working environment.**

In connection with this topic, it should be pointed out that the Chamber of Commerce and Industry of Serbia, determined by its general act, on the basis of the LDE, the amount of costs for training and taking the exam for instructors.

In addition, the Chamber of Commerce and Industry of Serbia, adopted based on the LDE the Rulebook on the organization, composition and manner of work of the Commission for determining if conditions are fulfilled for conducting work-based learning at the employers who want to get involved in dual education, from the composition of this Commission, through the manner of submitting applications by companies and the process of verification of eligibility, including fieldwork, to deciding on applications, the procedure for determining cessation of eligibility, and the like.

The Government of the Republic of Serbia adopted in 2019 the **Law on the Dual Model of Education in Higher Education** ("Official Gazette of the Republic of Serbia", number 66/19) (Annex 10). The Law defines the mode and content of realization of dual education, mutual rights and duties of students, higher education institutions and employers, material and financial support to students, and other issues of relevance for implementation of studies according to dual model.

In dual model of education, practical training, work-based learning or practice with employer are integral parts of the curriculum, which involves signing of a contract with the employer and learning in two different locations – in a higher education institution and in a company.

Dual model of studies also treats the employer as an environment for student's learning along with the higher education institution. It is a practical type of learning, and/or work-based learning that covers three groups of participants: students, higher education institutions and employers. Such formed environment combines traditional methods of learning in the classroom (the so-called theoretical education) together with the work-based learning with the employer, partner (the so-called practical education) and innovative processes as a consequence of the experience gained in the companies and the students' work in research projects. Moreover, the curricula are mutually harmonized in a detailed manner and must satisfy corresponding academic standards. A contract for dual model is concluded with the employer in whose company the envisaged periods of work-based learning will take place. The areas in which dual studies are most often offered to the comparative practice are: economics, finance and management, technological and engineering sciences, information technologies and health care.

3. INSTITUTIONAL FRAMEWORK – ESTABLISHMENT OF THE SYSTEM, CREATION OF EDUCATION PROFILES IN ACCORDANCE WITH THE NEEDS OF THE ECONOMY AND MONITORING OF DUAL EDUCATION

In addition to the ministry in charge of education, which is responsible for reform processes in this area, a number of institutions and organizations are not only involved in establishing a dual education system but are also important partners to the ministry in implementing various processes necessary for the proper functioning of this part of the system.

3.1. Chamber of Commerce and Industry of Serbia and employers in dual education

Dual model of education in Serbia is implemented by the Ministry of Education, Science and Technological Development in cooperation with the Chamber of Commerce and Industry of Serbia, and its development largely depends on the quality and accessibility of qualified labour force.

The Chamber of Commerce and Industry of Serbia (CCIS) is the institution defined by law as an organisation of economic operators. With the tradition longer than 160 years, the CCIS brings together the economy of Serbia into a single system, sector and regional.

The members of the CCIS are companies, grouped in the sectors of agriculture, industry and services, which are already grouped into 19 branch associations. Within the network of 16 regional chambers of commerce and the capital's chamber, professional support and efficient representation of the interests of the economy by region is provided. Through the work of representative offices in several European countries, major foreign trade partners, special importance is given to the internationalization of business and international integration of the domestic economy.

The CCIS represents the interests and attitudes of members by participating in the creation of laws and other regulations important for the business community, improves economic cooperation with foreign countries, provides information and analytical support to the economy, encourages export activity and inclusion of domestic companies in international supply chains. Through the connection of economy and science, the application of new technologies and knowledge in modern business and production is encouraged.

All CCIS members have rights and obligations defined by law and internal acts. The CCIS is independent in its activities and businessmen participate in the work of its administration bodies.

The Chamber of Commerce and Industry of Serbia as an institution that brings together businessmen whose interests it represents, has launched an

initiative through pilot projects to introduce a dual model of education in the education system of the Republic of Serbia as a tried and tested way of connecting education and economy, which enables knowledge and skills, in addition to school, to be acquired in the company, i.e. in a real work environment.

The participation of companies in the dual model of education is voluntary, which means that only those employers who have an interest in accepting students for work-based learning are included, and/or those who have a problem with deficient occupations or unqualified staff.

In the 2019/2020 school year, about 850 companies provided support to the implementation of work-based learning. For their needs, a Guide for companies through dual education in Serbia was prepared (Annex 11), within the project "Support to the development and establishment of the National Model of Dual Education".

More information can be found on the official website of the Chamber of Commerce and Industry of Serbia dedicated to dual education – dualnoobrazovanje.rs.

Employers wishing to get involved in dual education need to:

1. fulfil the requirements necessary for work- based learning at employer

If a company is willing to get involved in the dual model of education it needs to file an application with the Chamber of Commerce and Industry of Serbia in order to be checked if it fulfils the conditions necessary for the implementation of work-based learning together with the accompanying documentation by no later than the 30th of November of the calendar year preceding the school year in which implementation of the education profile in dual education starts. Upon receipt of the prescribed documentation, CCIS sets up a commission which checks all conditions and thereafter, if all the requirements are fulfilled, the company receives a certificate of fulfilled conditions for implementation of the work-based learning at employer. Following the receipt of the certificate, the company is entered in the Registry of accredited employers, which is regularly updated and maintained by the Serbian Chamber of Commerce and Industry;

2. dispose of sufficient number of licensed instructors

For a company to be issued a certificate of fulfilled conditions (item 1), it is necessary that such company disposes of adequate number of licensed instructors. This number is determined in accordance with the number of students that the company will accept to work-based learning, and/or with the curriculum designed for the corresponding educational profile. It is necessary that the company file a Request for training and the Request for instructor licence examination. The training involves acquisition of psychological pedagogic and didactic methodical knowledge and skills necessary for working

with young people. Upon completion of the training lasting 40 hours, the persons who attended the training for instructor take an exam for licensed instructor in dual education. The licences are issued by the Chamber of Commerce and Industry of Serbia which regularly updates and keeps the Register of issued licenses;

3. cover material and financial needs of students

In the dual model of education, students receive a monetary compensation amounting to 70% of the minimum labour cost for each hour spent on work-based learning with the employer with the corresponding contributions of 2% for health insurance and 4% for pension and disability insurance (PIO). In addition to monetary compensation, employers are obliged by law to provide protective equipment for each student, insurance, transportation and nutrition of students;

4. submit a Statement of readiness of the employer for inclusion in dual education

Upon receiving the certificate of fulfilled conditions for implementation of work-based learning with the employer, the company fills out and files with the Chamber of Economy and Industry the Statement of readiness for inclusion in dual education in which it chooses the education profile for which it is willing to accept students to work-based learning and states the number of students it can accept for work-based learning for next school year. Based on the collected statements, CCIS and MESTD are working together to form an enrolment plan for secondary school students for the next school year, which is why it is important that employers have a good look at all the conditions and obligations, because they make the final decision on enrolment of students for each city and municipality in the territory of the Republic of Serbia for the next school year. The decision on approved classes is announced in the Invitation for enrolment of students in the 1st grade of secondary school in May;

5. sign a contract for dual education

Upon completion of enrolment of students in secondary vocational schools, the employer and the school sign a contract on dual education for a period of 3 and 4 years, respectively, depending on the duration of the educational profile for which the employer submitted the Statement. The contract regulates the mutual rights, obligations and responsibilities of the employer and the school;

6. sign the contract for work based learning

Employers in dual education sign an employment contract with each student individually after the placement of students. Companies that support this model of education participate in the process of placement of students together with the school. The contract regulates the mutual rights, obligations and responsibilities of the employer and the students.

3.2. Commission for the development and implementation of dual education in the National Model of Dual Education

The adoption of the Law on Dual Education envisages the establishment of the Commission for the Development and Implementation of Dual Education (Commission) to promote and implement dual education, as well as three-year evaluation of achieved results (Decision of the Government of the Republic of Serbia 05 number: 02-02-239 / 2018/1).

The Commission brings together representatives of institutions, organizations involved in the creation of educational policies in the field of dual education and its implementation. Members are representatives of the Ministry of Education, Science and Technological Development, the Chamber of Commerce and Industry of Serbia, the Prime Minister's Office, the Standing Conference of Towns and Municipalities, company directors, school principals and independent experts in the field of dual education.

The tasks of the Commission are:

- Coordination of activities in implementation of dual system of education based on the labour market requirements at national level;
- Supervision over the quality of implementation of secondary vocational education implemented based on the model of dual education, with a purpose of three-year valuation of the results achieved;
- Coordination of activities of domestic and international projects the objective of which is the development and improvement of dual and entrepreneurial education.

Organisation and mode of operation of the Commission – The mode of operation, responsibilities of the commission, decision-making and other issues of relevance for the Commission's operation is regulated by the Rules of Procedure, adopted by the Commission at one of its sessions.

The Commission has a chairman, vice-chairman and members. The Chairman of the Commission represents, organizes, manages the work of the Commission and signs the acts adopted by the Commission. In his absence, the position is taken over by the Vice Chairman of the Commission, and logistical and administrative support to the Commission is provided by the Ministry of Education, Science and Technological Development.

The Commission's rules of procedure define the frequency of the Commission's sessions – at least four times a year, and there is also a possibility of holding electronic sessions if necessary to urgently discuss the topic concerning the dual education or if the participants are not able to attend a session.

The work of the Commission on an annual level is defined by the Work Plan and can be done through the delegation of certain tasks to individual members of the Commission by the Chairman of the Commission, but also through the work of narrow working groups and thematic meetings. In order to prepare analyses, operational plans and other expert materials related to dual education, the Commission may include other experts in its work. In addition to the obligatory members of the Commission, other persons may attend the session or part of the session if their presence is significant for the work of the Commission or decision-making.

In its work, the Commission cooperates with state bodies, organizations, associations, companies, chambers, institutions, but also with domestic and international organizations.

All decisions are made by the Commission at sessions attended by the majority of members of the Commission, and each decision, discussed topics and agreements are recorded. Conclusions and agreements from the sessions of the Commission, in the form of guidelines, recommendations, opinions, proposals and reports, can be sent to line ministries, organizations, and chambers.

In the previous period, the Commission sent to the Ministry of Education, Science and Technological Development proposals for improving the enrolment policy for dual education profiles, proposals for amendments to laws regulating dual education and other current topics affecting the quality of dual education in Serbia.

Working groups of the Commission – The operational part of the [Commission's work is delegated to working groups established in accordance with the Master Plan](#) and Risk Analysis for certain segments of dual education that are currently in the focus of reform, whether identified as risk factors affecting the sustainability of dual education or because this strategic commitment of the Commission. It is planned to form six working groups:



The function of the working groups is to ensure continuous and quality cooperation and coordination between the competent institutions, organizations in the field of dual education.

The members of the working groups are representatives of the institutions, organizations that deal with the issues for which the working group was formed. Each working group has a coordinator who represents the working group at the sessions of the Commission.

At the end of the year, the working groups submit to the Commission reports on the work and proposals for the improvement of dual education.

Annual work plan of the Commission – The work plan of the Commission is determined by the annual work plan which plans the activities from the scope of the Commission's work. This document defines the activities, the time period for their implementation, the responsible person, other actors involved in the activities implementation, indicators of the activities' realisation and assessment of an envisaged activity implementation.

Annual work plan is enacted at the end of the year for the next calendar year and must be adopted by the Commission.

The Commission members and also the working groups which give recommendations for the improvement of dual education participate in the drafting of the annual work plan.

Report on the Commission's work. Annual report on the Commission's work is submitted to the Government of the Republic of Serbia once a year, in the first quarter of the year in course, as a general rule, for the previous reporting period.

The report includes the information about the implemented activities envisaged by the annual work plan coupled with the data about the possibilities and challenges in the Law on Dual Education, and the opinions of relevant participants in the implementation of dual education.

All members of the Commission participate in writing the report, as well as other persons, organizations, associations, working groups, thematic teams that participated in the work of the Commission.

The report is adopted by the Commission and is thereafter submitted to the Government of the Republic of Serbia by the Commission chairperson.

Strategic documents coordinated by the Commission. – In the dual education system, the Commission is positioned as a body that coordinates a large number of actors involved in the design and implementation of dual education policies.

In this regard, the Commission manages and coordinates several strategic documents in the field of dual education: Master Plan and Communication Strategy to support the implementation of dual education in Serbia and the

accompanying action plan, all in cooperation with the Ministry of Education, Science and Technological Development and the Chamber of Commerce and Industry of Serbia.

3.3. National qualification framework and its importance in implementing the model of the dual education in the Republic of Serbia – the role of the Qualification Agency and the Council for National Qualification Framework

The National Qualifications Framework of the Republic of Serbia (hereinafter: NQF) is an instrument that regulates the field of qualifications and connection with the labour market. NQF is the basis for the application of the concept of lifelong learning and has an impact on improving the education system of the Republic of Serbia, i.e. it is part of solving the problem of incompatibility of qualifications with the needs of economy, social and personal development, problems of insufficiently developed and sustainable system of social partnership, problems of lack of quality standards and coordination in the process of qualification development, their realization (in formal and non-formal) education and certification and others.

With the adoption of the Law on the National Qualifications Framework in the Republic of Serbia ("Official Gazette of the RS", No. 27/18) (hereinafter: the Law on NQF, in 2018 a single and integrated National Qualifications Framework will be established covering all levels and types qualification, regardless of the method of acquisition (through: formal education; non-formal education; informal learning – life or work experience) and regardless of the age in which the qualifications are acquired. The Law on NQF is attached as Annex 12.

After the legislative one, in 2018, activities were realized on the establishment of the institutional framework of the NQF system. The Council for NQF was established as an advisory body that provides recommendations on the process of planning and development of human resources in accordance with public policies in the field of lifelong learning, employment, career guidance and counselling. The NQF Council has 25 members – representatives of the social partners such as ministries, the Serbian Chamber of Commerce, the National Employment Service, trade unions, civil society organizations and others. Also, in order to perform professional and development work in ensuring the quality of the qualification system and providing professional support to the **Council for NQF** and other competent institutions in all aspects of development and for the implementation of the NQF, the **Qualifications Agency** was established. As in many countries, the relevance of knowledge and skills in the labour market within one labour sector is ensured through a

sector approach, the Law on NQF has created a legal basis for the establishment of sector councils as bodies based on social partnership. Accordingly, during 2018, **12 sector councils** with over 250 members, i.e. relevant social partners, were established, namely: Sector Council for the Education Sector, Sector Council for the Arts and Humanities (Humanistic sciences), Sector Council for the Social Sciences, Journalism and Information Sector, Sector Council for the Business Administration Sector, Sector Council for the Natural Sciences, Mathematics and Statistics Sector, Sector Council for the sector of information and communication technologies, electrical engineering, automation and electronics, Sector council for the sector of industrial development, Sector council for the sector of agriculture, food production, forestry, Fisheries and Veterinary Medicine, Sector Council for the Health and Social Welfare Sector, Sector Council for the Trade, Catering and Tourism Sector, Sector Council for the Transport and Transport Services Sector and Sector Council for the Other Services Sector

Qualifications Agency – was established by the Government of the Republic of Serbia on the 7th September 2018 by passing the Decision on the Establishment of the Qualifications Agency (“Official Gazette of RS”, No. 68/18), in accordance with the Law on National Qualifications Framework of the Republic of Serbia. The main purpose of establishing such a professional institution is to improve and modernize the education system by developing qualifications based on the needs of the labour market and society as a whole, as well as ensuring comparability and recognisability of national qualifications in the European context.

The basic competencies of the Qualifications Agency include considering initiatives for the introduction of new qualifications, providing professional and administrative-technical support to sector councils, preparing proposals for qualification standards, maintaining the Register of the National Qualifications Framework of Serbia (NQF), recognizing foreign school documents employment documents (professional recognition), and issuing approvals to other organizations to acquire the status of Publicly Recognized Organizers of Adult Education Activities (PROAE).

The Organizational Unit of the Qualifications Agency, the **Centre for Qualifications Development and Support to Sector Councils of NOKS (QD&SSC Centre)** primarily considers, encourages and develops Initiatives for the introduction of new qualifications by providing guidelines for including new, revised and modernized qualifications in the national integrated qualifications framework, type of qualifications – general, professional, vocational and academic, while respecting the methodological framework. In accordance with the legislative framework and guidelines for the development of the Initiative, the possibility of involving all stakeholders, both outside the education sector, in the process of proposing and developing

qualification standards opens up. The initiative should basically provide an answer to the question of how the introduction of a certain qualification will respond to the needs of the labour market. This promotes the involvement of various partners in the consultation process (employers, educational institutions, professional associations, etc.) and taking responsibility for the process of identification and creation of qualifications. **QD&SSC Centre** also edits and maintains the NQF Register to inform the public (students, parents, employers and other stakeholders) about qualifications and educational programmes that meet quality standards and develop a system for collecting data on current and future qualification needs, respecting the interests of economic development, individual and society as a whole.

In order to make the world of work and education as harmonized and compliant as possible, the Government of the Republic of Serbia formed sector councils as expert bodies based on the principle of social partnership, with a mandate to consider Initiatives for Qualifications Development and decide on necessary qualifications in a particular sector. In these bodies, in addition to representatives of institutions of the Government of the Republic of Serbia and professional bodies and organizations, professional associations, the National Employment Service, there are also representatives of employers delegated by the Chamber of Commerce and Industry of Serbia or representative employers' associations. **QD&SSC Centre** coordinates the work and supports sector councils in identifying qualifications that no longer meet the needs of the sector, decides on drafting standards of qualifications within the sector, promotes dialogue and direct cooperation between the world of work and education, gives an opinion on expected outcomes of knowledge and skills sector, promotes opportunities for education, training and employment within the sector, identifies opportunities for adult learning within the sector, considers the implications of the national qualifications framework on qualifications within the sector, proposes lists of qualifications by levels and types that can be acquired by recognizing prior learning.

The Qualifications Agency is responsible for developing qualification standards. With the necessary coordination of the Sector Councils and the support of the Council for NOKS, the Ministry of Education, Science and Technological Development, as a final instance, adopts an act on the adoption of qualification standards. Namely, the **Initiative for the development and adoption of standards for new qualifications** is submitted to the Qualifications Agency. On the recommendation of the Agency, the **Initiative** with the accompanying study is submitted to the relevant Sector Council. If the Sector Council concludes that the initiative is justified, it shall make a decision on the development of qualification standards and order the Agency to develop a **proposal for qualification standard**. The Agency submits the prepared qualification standard proposal to the NQF Council. In case of a

positive opinion of the Council for NQF, the Minister of Education, Science and Technological Development issues an **act on the adoption of the qualification standard** and publishes it in the “Official Gazette of RS – Education Gazette”. Based on this final act, the Agency enters the Qualification Standard in the NQF Register.

The model of dual education, as a way of realization of teaching in the education system in which the combination of theoretical teaching and work-based learning with the employer acquires, improves, i.e. builds competencies, and is based on the standard of qualification. The qualification standard is the basis for the adoption of educational programs within the dual model. The Qualifications Agency, within the implementation of the National Qualifications Framework, according to the described procedure develops qualification standards that are also applied in dual education, while respecting the common strategic goals of dual education and the National Qualifications Framework. The essence of the correlation of these systems is ensuring the quality and relevance of education at all levels, enabling easier access to education, contributing to strengthening the competitiveness of the economy of the Republic of Serbia and providing conditions for employment, further education and lifelong learning. By applying and achieving common goals, we strive to develop entrepreneurship, innovation and creativity of every citizen of the Republic of Serbia for his professional and career development and provide conditions for personal, economic and general social development.

In the process of developing qualifications according to the dual model, and in accordance with the initiatives of employers, the Qualifications Agency cooperates with the Ministry of Education, Science and Technological Development and the Chamber of Commerce and Industry of Serbia.

The connection of the National Qualifications Framework of the Republic of Serbia with the European Qualifications Framework (EQF) is of great importance for the implementation of the dual model of education. By connecting the NQF with the EQF, a clear and transparent link has been established between the eight levels of qualifications of the Republic of Serbia and the eight levels of qualifications of the European Qualifications Framework.

The European Qualifications Framework was created for several reasons. Although its primary purpose is to assist citizens in learning and career development, this framework also supports other actors in education, training and employment to improve policies and practices. As a comprehensive frame of reference, the EQF enables employers to better assess qualifications from other countries, to better understand the level of qualifications of all candidates, to compare their qualifications with national qualifications, to better understand the relevance of these qualifications. With the help of the EQF, employers can see Europe as a single area of qualification. This reduces

barriers to labour mobility, supports better use of existing knowledge, skills and competences and a better match between supply and demand in the labour market. When it comes to students and individuals who want to learn, the European Qualifications Framework provides them with an easily accessible overview of qualifications and how to acquire them.

Connecting NQF with EQF implies numerous challenges in the coming period. Special activities will be undertaken so that the documents on qualifications acquired by individuals, in addition to information on the level of NQF, also contain information on the level of EQF. Also, European levels will be clearly indicated in the Qualifications Base, i.e. the NQF Register, which is currently being established in order to make qualifications more transparent and comparable.

3.4. Role of the Institute for the Improvement of Education

The Institute for the Improvement of Education (IIE), in accordance with its legal role, since the introduction of dual education in the education system of the Republic of Serbia has played a major role in its implementation: in drafting the Law on Dual Education, drafting by-laws development of a curriculum that is adapted to dual education (flexible curriculum).

Representatives of the IIE, by participating in the working group for drafting the Law on Dual Education, made a great contribution, especially in the part related to curricula and the place and scope of realization of work-based learning, to make this Law of a quality as high as possible. Together with the MESTD and CCIS, the IIE advisors participated in workshops that examined the needs of companies for the introduction of certain profiles (dual model) in the education system of the Republic of Serbia and their expertise made a great contribution to formulating these needs.

Advisers of IIE participated together with MESTD and CCIS in the workshops where the needs of the company's winner examined for introduction of certain profiles (based on dual model) into the education system of the Republic of Serbia and largely contributed with their expertise to the formulation of these needs.

IIE developed qualification standards for 37 profiles that were introduced into the education system of the Republic of Serbia according to the Law on Dual Education, according to its methodology, which was developed in the period preceding the introduction of "dual" profiles in the education system. A characteristic of this methodology is the key role of companies (through their representatives – direct executors) in the development of job descriptions as the initial and basic element on the grounds of which the qualification standard is defined, and then followed by the curriculum.

For the needs of curriculum development, the IIE has defined the scope of work-based learning on a weekly basis: for three-year 1 + 2 + 3 days, and for four-year 0 + 1 + 2 + 2 days (by year). This number of days proved to be optimal given the willingness and capacity of companies to participate in this part of the course.

The specificity of conducting practical classes in companies according to the requirements of dual education (work-based learning) required more detailed instructions for schools and companies themselves, so the curriculum provided more detailed and comprehensive instructions. In addition to school teachers, direct executors from companies in which work-based learning will be performed are included in the development of practical teaching programmes.

In addition to this, the IIE has developed Standards of services for career guidance and counselling of students in dual education, a programme for training instructors in dual education and participated in the development of the Rulebook on the manner of placement of students to work-based learning.

After the entry into force of the Law on Dual Education, the IIE developed a methodology for drafting a “plan for the realization of work-based learning”, which enables good cooperation between companies and schools and is an integral part of the Contract for Dual Education and the Contract for work-based learning.

3.4.1. Developing a curriculum for profiles implemented in accordance with the Law on Dual Education

The development of a curriculum for a particular educational profile is an extremely important step in the implementation of the dual model of education process in secondary vocational education in Serbia. **A modern and well-conceived curriculum enables modern education of students.**

The curriculum is based on the **qualification standard** which had been created in the **Institute for the Improvement of Education** until the establishment of the Qualifications Agency.

The **qualification standard** is the basis for the development of educational programmes for acquiring qualifications at all levels of education and, accordingly, in secondary vocational education. It includes a defined title of qualification, sector – field of work, level of qualification, standard of professional competencies (which contains a description of work, extreme conditions under which duties are performed and exposure to risks while performing duties), and goals and outcomes of vocational education

The Qualifications Agency and the **Sector Council** for a certain area are considering initiatives for the introduction of new qualifications and decide on the development of proposals for qualification standards within the

sector. The Council for NQF proposes qualification standards for all levels, and the Minister verifies or adopts them. Then teams of teachers, coordinated by the appropriate advisor from among the IIE employees develop a curriculum.

In the process of writing the standard, interviews, panel discussions and workshops are conducted with relevant employers and executors of jobs for which the standard is created. Labour market data are analysed in cooperation with representatives of the Chamber of Commerce and the National Employment Service. Information on similar or comparable qualifications from neighbouring and developed countries of the European Union is collected. After that, the formulation of professional competencies is approached, as well as the outcomes of knowledge, skills and attitudes that are important for acquiring qualifications.

Representatives of companies and employers actively participate in the process of analysing the work tasks performed in a particular occupation, in this phase of the standard writing process, the role of employers is crucial, because the essence of the dual model is a flexible process of creating educational profiles that can fully respond to the demands of the economy, and/or labour market.

After the adoption of the standard, the Institute for the Improvement of Education starts developing a curriculum. Working groups composed of trained teachers analyse in detail the standard, duties and outcomes that lead to the acquisition of qualifications, having in mind the general education that a student should acquire during schooling, as well as general and interdisciplinary competencies prescribed by law. When creating a curriculum, special attention is paid to the number of hours that are provided for the realization of work-based learning. The curriculum should ensure that the student spend one, two or three days during the work week with the employer, acquiring knowledge and skills by work-based learning.

The development of the curriculum directly relies on the outcomes of knowledge, skills and attitudes, which are defined by the qualification standard. Teachers develop subjects and contents by “breaking down” the outcomes achieved by the overall schooling into smaller outcomes so that students can gradually and in accordance with their age, abilities and possibilities be able to master them. If we were to pictorially represent this process, it would look like we were breaking up one big picture into small pieces, like pieces of a jigsaw puzzle. All individual parts must fit with parts that are close to them. At the end of the process, it is checked in detail whether all small pieces of the puzzle (i.e. all minor outcomes, knowledge, skills and attitudes) give a common picture of the qualification that the student achieves.

The working group is especially working on **formulating the outcomes of knowledge and skills that are recognizable in the labour market, not**

only in the field of education, using appropriate terminology. It is **important that these outcomes are equally well understood by schoolteachers, but also by instructors and mentors** who will work with students in companies. The contents that can be realized through theoretical classes, exercises and practical classes at school are carefully weighed, which can be realized by work-based learning with the employer.

The new curricula contain more detailed recommendations for planning, implementation and evaluation of teaching and learning so that the cooperation between learning coordinators for schoolwork and instructors in companies is of the highest quality.

After the development of the curricula, the Institute for the Improvement of Education, in cooperation with employers, prepares a manual for the Matura and final exams. Employers' representatives are part of examination commissions in schools or companies where students take the professional Matura or final exam.

For example, the curriculum for the profile of aircraft technician was developed in accordance with the regulations / rules of the European Commission "Regulation on the continuing airworthiness of aircraft and other aeronautical products, parts and appliances, as well as the approval of organizations and personnel dealing with this business", and according to the requirements of the German company MTU. An example of the qualification standard for the profile of aircraft technician can be found in Annex 13 and an example of the curriculum for the profile of aircraft technician in Annex 14.

3.5. Standing Conference of Towns and Municipalities in Implementation of Dual Education

The Standing Conference of Towns and Municipalities (SCTM) is an association of local self-government. The mission of the SCTM is to represent the interests, support local authorities in their efforts to build their legal, financial and functional capacity, provide high quality services and support the development and improvement of local self-government through joint membership, in accordance with European standards.

Local self-government is one of the social partners which, in addition to the Ministry of Education, Science and Technological Development and the Serbian Chamber of Commerce, have a great role and responsibility in the implementation of the dual education model.

The role of local self-government is reflected primarily in active participation in creating and implementing a new methodology of enrolment policy

in secondary vocational schools, which, unlike previous years, is based on respecting the needs of the economy for staff at local, regional and national levels, and coordination of cooperation and work between schools and the economy. Currently, dual education is implemented in 52 local self-governments (LSG).

Also, the local self-government is a partner that actively participates in the creation of the municipal or city plan for enrolment of students in secondary schools, which is carried out by the school administration in cooperation with other competent authorities. Representatives of local self-government are also members of the team for career guidance and counselling, which is formed in order to strengthen career management skills and make decisions about the professional future of students.

The Ministry of Education, Science and Technological Development, in cooperation with the Standing Conference of Towns and Municipalities (SCTM), conducted a research with the aim of further researching important elements of the implementation of dual education, especially those relevant to local self-government.

The research included an analysis of the local experience of local self-government on the application of the dual education model in the previous three years (which preceded the year in which the implementation of the Law on Dual Education began).

The main goal of the research was to ensure continuous improvement of the quality of dual education in Serbia by improving the participation of local self-government. In addition, the research had several specific objectives:

- to identify the current level of engagement of individual LSGs;
- to identify examples of good practice in the application of the dual education model and identify the preconditions that led to it;
- to identify the causes of the results poorer than expected;
- to define recommendations for decision makers related to improving the quality of LSGs involvement in the application of the dual education model.

The conclusion of the research was that the cooperation of local self-governments with social partners such as representatives of school administrations and the ministry in charge of education was highly praised. As an important measure for improving the realization of dual education, local self-government units proposed increasing their competence in creating local education policies, which would include amendments to laws and bylaws relevant to harmonizing labour market needs and education systems, but also improving various forms of social partnerships with the establishment

of mechanisms for successful data exchange between national, regional and local levels of government in relation to the creation of education policies, development of methodology for decision-making on local education policies based on data, and improving media strategy and promotional activities related to the dual model of education.

Having in mind the above, we can conclude that the role of local governments in the process of dual education is important today, but that in the future, through the implementation of this system throughout Serbia will be even greater and more significant.

Enrolment policy

Enrolment policy represents one of the key mechanisms for harmonising the offer of dual education profiles and enrolment of students in accordance with the needs of the economy of the region. Although MESTD prescribes the guidelines for the creation of the enrolment policy and renders the final decision, for the purpose of creating an effective enrolment policy all relevant actors at the local level need to be included.

After the schools submit and explain, by using the “Dositej” information system of education, the number and structure of enrolment of students by fields of work and education profiles they plan to enrol, it is necessary that the school administration, with direct assistance and coordination by competent authorities in the self government units (SGUs – municipalities and/or towns), organise the meetings with school masters, regional Chambers of Commerce and Industry (RCCI), branches of the National Employment Service (NES) and other stakeholders at the local level.

Special attention is paid to the development of the plan of enrolment in educational profiles based on dual model of education. The enrolment plan that schools will import in the “Dositej” information system of education must be corroborated by adequate support of employers. Adequate support implies that for each planned student is ensured the place for implementation of the work-based learning with the employer on the grounds of the Statement of the employers’ readiness to get involved in dual education, which are taken over by schools from the RCCI competent for the municipalities and towns in which the school is located. Draft curriculum needs to take into account all submitted Statements on readiness on the part of employers.

The Master Plan which is in Annex 15 of this document includes a detailed description of the enrolment policy process.

3.6. Master Plan as an instrument for monitoring the reform processes

The Master Plan, developed within the project of the Ministry of Education, Science and Technological Development “Support in the Development and Establishment of the National Model of Dual Education”, implemented with the support of the Swiss Agency for Development and Cooperation, is an instrument to support systematic planning and reform processes in the area of dual education, and which contains information relevant to the implementation of this process. Said differently, the most important purpose of the Master Plan is to describe all activities and to help coordinate them in **establishing a dual education system in Serbia and implementing the Law on Dual Education.**

The Master Plan also enables transparency of reform processes in the field of dual education, because in a concise and clear way, to all stakeholders, it represents the process of building a dual education system in Serbia, by containing:

- Explanation of the settings and main concepts of the Law on Dual Education,
- Description of institutions, organizations and bodies involved in the implementation of the Law on Dual Education, including a brief description of their competencies,
- Description of responsibilities of various actors for the implementation of the Law on Dual Education.
- Overview of cooperation mechanisms and characteristics of institutional partnerships at all structural levels,
- Explanation of the process of creating and realizing the curriculum in dual education from the development of curricula to their realization and evaluation, through enrolment of students in schools and placement for work-based learning and career guidance and counselling in dual education to permeability to employment and higher education,
- Description of the system of quality assurance and monitoring of the realization of dual education,
- Clarification of the system of financing dual education,
- Pointing out the importance of communication with stakeholders,
- Detailed description of the process of building a dual education system and/or a description of the organizational structure (at the strategic, organizational and operational level),
- Information on the intended process of implementing reform activities i.e.: plans for the development of the dual education system in the next three years, etc.

It is important to point out that the Master Plan will be updated over time, on an annual basis, and supplemented with data that will be collected through various surveys, because the approach to its development respects the principles of decision-making based on evidence. In other words, the purpose of the research to be conducted as part of the Master Plan process is to provide the Commission for the Development and Implementation of Dual Education, as well as other stakeholders, with the necessary empirical evidence that education policy makers can rely on and make informed decisions. As part of the research that will be conducted as segment of the work on the Master Plan, special emphasis should be placed on cost-benefit analysis for companies (cost-benefit analysis), which has not been done in Serbia so far, and all data should be used to develop system recommendations legal regulations, i.e. its adaptation to the context in Serbia.

The text of the Master Plan is in the Annex 15.

4. STUDENTS IN DUAL EDUCATION

Dual education is important for students because it is intended to enable students to acquire competencies that will help them to be more able to get a job faster immediately after finishing school. Dual education will reduce youth unemployment and, among other things, young persons will have the opportunity to start their careers earlier by getting acquainted with the work environment during formal schooling and the opportunity to develop responsibility, commitment and direct insight into work processes. In this way, through dual education, students will become more competent for a certain professional occupation and thus more competitive in the labour market, which is an important strategic investment in their future. How will the students achieve this? One of the key mechanisms is to improve the quality of student practice, which is now becoming a work-based learning, or part of dual education, which involves an organized process during which students in a real work environment in the company, acquire competencies in certain occupations or a group of occupations. Students also receive compensation in the amount of 70% of the minimum labour price for each hour spent in the company⁵⁵, which, among other things, entails a responsible attitude towards obligations and fulfilment of the curriculum created by the school and company.

In the process of *work-based learning* students acquire the skills necessary for functioning in modern work environments, such as communication,

5 A company that decides to enter dual education undertakes to pay students a fee for work-based learning for each hour spent on this type of learning, in the net amount of at least 70% of the minimum labour price, no later than the end of the current month for the previous month (LDE, Article 34). The Government of the Republic of Serbia decided that the minimum price of a working hour in 2019 is 155.3 dinars (net). In practice, this means that a student for one day spent in the company of six hours (which is the maximum time that a student can spend in the company per day), at a given price per hour, should be paid (net) compensation of 652.3 dinars ($0.7 \times 6 \times 155.3$ RSD). When the minimum price of labour in 2020 increases to 30,000 RSD, students will have a compensation of ($0.7 \times 6 \times 172.54$ RSD) 724 RSD for one day in the company. The decision on the amount of the minimum labour price for the period January-December 2019 ("Official Gazette of RS", No. 69/18) is available at: <http://www.pravno-informacioni-sistem.rs/SlGlasnikPortal/eli/rep/sgrs/government/decision/2018/69/1/reg>. Companies are obliged to pay a contribution to this amount (Article 11 of the Law on Contributions for Compulsory Social Insurance ("Official Gazette of RS", No. 84/04) for the pension and disability insurance (PIO) in the case of disability and bodily injury due to occupational injuries and diseases at the rate of 4% and health insurance contribution in case of occupational injuries and diseases at the rate of 2% (Accounting Practice, No. 12-13 / 2018, available at: <http://www.praksa.rs/prirucnik.php>).

team, social and organisational skills. Work-based learning in companies during formal education directs the students and the school to develop the competences that are necessary for accomplishment of the assigned tasks and issues encountered by employees in the work with the company. In this way competences are acquired for a successful career in the companies that are relevant for development of the society and for the student himself and his future.

By the introduction of dual education, practical teaching itself takes the form of work-based learning, which increases the scope and quality of student engagement and he is an active participant in the learning process in the presence of a licensed instructor. It should be borne in mind that by introducing a company to a student, his chances of getting a job in that company increase. The companies themselves have an interest in investing in education, because in that way they will solve the problem of lack of quality staff in the long run.

Contact with the world of work in the formative period for students can increase the chances for later development of entrepreneurship among young people and be an incentive to start their own business, as well as for further and continuing education in higher vocational schools and faculties.

The student in dual education is in contact with the real work environment, in which he acquires, improves and develops professional competencies and professional experience. He thus checks, in a practical way, whether what he learns in school corresponds to his personality, interests and competencies, that is, he acquires management skills based on knowledge. He also develops the ability to work in a team and a sense of personal responsibility at work, awareness of the importance of health and safety, including safety and health at work, develops entrepreneurship, innovation and creativity, as well as the ability to express his own opinion and make independent decisions.

Employers also agree that work-based learning has a positive impact on students' attitudes and abilities, and school representatives pointed out that students involved in work-based learning attended classes more regularly and that "student internships in companies helped schools in their efforts to reduce the number of students leaving school."⁶ The majority of employers (95%) stated that high school graduates who studied based on work have better or significantly better chances of employment compared to students from "traditional" profiles, for which such practice is mostly maintained at school.⁷

6 European Training Foundation (2019). Work-based learning in Serbia. Available at - https://www.etf.europa.eu/sites/default/files/2019-11/work-based_learning_serbia_sr.pdf

7 *Ibid*

The answer to the question of what work-based learning looks like from the perspective of students can be provided by a survey conducted on a sample of 120 students, which showed that 93% of students rate the quality of work-based learning with the highest grades (4 and 5).⁸ In the same survey, the majority of students (85%) stated that they acquired new skills and new knowledge during the internship in the company and that they were able to achieve all the necessary learning outcomes through work. The students stated that instructors in companies rarely asked them to do something that was not part of what they learned in school, as well as that they felt that they were really involved in the work process. Most of the students had a systematic schedule of staying in the company. Also, the majority of students (about 60%) agreed that the combination of work-based learning and school learning was meaningful and coherent (in terms of content, duration, expected learning outcomes), and slightly more than half of the students who participated in the research stated that they have always received feedback on the quality of their work and the areas in which they can progress.

Although the data show that the quality of work-based learning varies from company to company, almost all students were very satisfied with the way they were accepted in companies and pointed out that everyone had equal treatment during work-based learning, that they had equal opportunities for learning and participation in planned activities, and that they felt comfortable, accepted, respected and safe. Also, a significant majority of students felt that the health and safety rules related to the work process were clearly explained to them and that they were obliged to respect them.

Students also had a very positive opinion about the impact that work-based learning had on the development of their “soft” skills and attitudes. Most of them stated that work-based learning helped them develop self-confidence (65%), the ability to work effectively in a team (72%) and a sense of responsibility (58%), and that it positively influenced their motivation to learn (52 %). Also, students highly valued the skills they acquired in areas of decision making such as communication skills, problem solving skills and performing complex tasks. They stated that the experiences of work-based learning helped them to acquire and create new knowledge, the ability to apply knowledge in real work situations and to take personal responsibility for the learning process and career development.

In addition, most students stated that work-based learning helped them to see their career goals more clearly.

Students were most satisfied with work activities that were tailored to their individual needs and one-on-one contact activities compared to situations when they were observers while the instructor in the company gave

them explanations and when they worked in groups.

All the mentioned findings unequivocally indicate the great importance of dual education for students. Students are satisfied with the process of work-based learning, it affects not only the development of competencies but also their personal development, including a sense of self-confidence and gaining a clearer perspective in terms of the future. However, like any other process, the process of work-based learning has its challenges, with the important role of connecting coordinators of work-based learning from schools and instructors from companies.

Due to all the above, through the project “Support in the Development and Establishment of the National Model of Dual Education”, a Guide for students and parents through dual education in Serbia was developed. The Guide contains all relevant information on the characteristics of the National Model of Dual Education, and additionally provides students and parents with answers to questions: how to enrol in a dual education profile, how to implement a curriculum in dual education profiles, what the advantages are of choosing dual education profiles; what the possibilities are of students after completing dual education. The full text of the Guide is presented in Annex 16.

5. SUPPORT OF DONORS AND PARTNERS TO THE ESTABLISHMENT AND DEVELOPMENT OF THE NATIONAL MODEL OF DUAL EDUCATION IN SERBIA

The role of development partners from countries that have a long and successful tradition of dual education (Austria, Germany, and Switzerland), in the development and establishment of the National Model of Dual Education in Serbia is very important. The support is reflected in the exchange of experience and expertise in the field of dual education and financial support for strengthening the capacity of institutions for the development, establishment, monitoring and evaluation of a sustainable dual education system in Serbia.

An overview of the contributions of each development partner is provided separately in this chapter.

5.1. Contribution of the German Development Cooperation (GIZ) – Reform of Secondary Vocational Education in Serbia

The project “Reform of Secondary Vocational Education in Serbia” was implemented by GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH) from April 2013 to December 2019, in cooperation with the Ministry of Education, Science and Technological Development of the Republic of Serbia. Through this project, the Government of the Federal Republic of Germany has invested 6.4 million Euros to support the reform of secondary vocational education in Serbia. The aim of the project was to improve the offer of inclusive, cooperative education for technical occupations in accordance with the needs of the market within the formal system of secondary vocational education.

In the first three years of implementation, a cooperative model with elements of dual education was developed, in line with the conditions in Serbia, with the aim of improving cooperation between schools and companies in the field of youth education. The cooperative model was based on the division of responsibilities between secondary vocational schools and employers for acquiring competencies defined by the curriculum. The model included the involvement of employers in defining and revising qualification standards, in planning the training process, in the implementation (training in the company) and in the assessment of acquired knowledge and skills. The aim of the model introduced within the project was not to copy some of the foreign models, but to develop a “domestic” model of secondary vocational education, which builds on existing practices and institutional capacity.

The model with elements of dual education has been tested in practice through the modernization and implementation of three-year craft-technical profiles for occupations in demand in the labour market. At the beginning of the implementation, in 2014, through the project, in cooperation with the ministry responsible for education, three educational profiles were modernized: locksmith-welder, electrician and industrial mechanic, and eight schools received support for educating about 150 students in these profiles. In cooperation with the ministry in charge of education, three more profiles were modernized: motor vehicle mechanic, fashion tailor and electrician of networks and plants. As of 2019, 3,635 students in 63 schools in Serbia were enrolled in one of these six profiles according to the dual education model. In 2019, about 200 companies were included in the project, which accept 2nd and 3rd grade students for work-based learning.

One of the main preconditions for entering the project was that the school has the support of companies that can provide student places and instructors for the realization of work-based learning, and an additional advantage was the willingness of employers to provide some form of financial support to students (hot meals, travel expenses, accommodation, scholarships, etc.).

When it comes to the implementation of modernized profiles in selected locations, the project first provided support to relevant institutions in curriculum development and development of final exams, and then support to the schools themselves. The Institute for the Improvement of Education (IIE) was responsible for curriculum development, with the involvement of company representatives. The ratio of general education and vocational subjects, which is defined by law, has been retained: 65–70% of vocational subjects; 30–35% of general education subjects, with the former 65–70% reorganized in a way to enable work-based learning two days a week in the second year and 3 days a week in the third year of schooling. During the first year of schooling, practical classes take place at the school, 1 day a week. The IIE was also in charge of preparing the final exam. Thanks to the project, cooperation was established with the department of the Stuttgart Chamber of Commerce and Industry in charge of the final exam and task development in Germany, so that the IIE would receive support in the process of preparing the final exam.

Support to schools in the implementation of modernized profiles and the new model of education has been provided through various measures. Due to the bad image of three-year craft profiles, it was important to first support schools in their promotional activities, especially during the enrolment period, so that as many students and their parents as possible were presented with the benefits of education in close cooperation with companies. This type of support was continuous throughout the project, for

each year of enrolment, and significantly contributed to good enrolment results. Another form of support was the purchase of basic tools for practical classes in the first year of school, when students in school workshops should develop basic practical skills before going to learn based on work in companies.

However, the main type of support for schools in the project was in the form of measures to develop the capacity of school principals and teachers in various fields: improving specific practical / professional skills, career guidance and counselling, quality management, media literacy and media appearance, anti-discrimination and inclusion. In addition to employees in schools, the project also provided training to instructors through work in companies in order for them to develop and improve pedagogical and didactic skills for working with young people.

In addition to measures to develop the capacity of schools and companies to implement a model with elements of dual education, the project has implemented measures to develop the capacity of institutions to manage this model, as well as to develop a legal and regulatory framework. These measures were intended for representatives of the Sector for Secondary Education and the Sector for Dual Education MESTD, VET Centre (IIE) and the Chamber of Commerce and Industry of Serbia and include primarily the exchange of knowledge and experiences at the regional level and with partners abroad through study trips, conferences, development required studies, etc. In addition, project representatives participated in working groups that worked on drafting the Law on Dual Education and accompanying regulations.

Through numerous activities, the project has continuously worked on the promotion of dual education and modernized profiles – informative material was printed, promotional films were made, various events were organized (Girls' Day, national conferences on dual education, media events).

An important field of activity is measures to raise awareness and support the inclusion of vulnerable groups in secondary education and dual profiles, capacity development to improve inclusion in certain project schools and support the inclusion of students with disabilities and disorders in development.

The project also monitored the effects of project measures on youth employment for the generation enrolled in 2015 and completed their education in 2018. The research showed that about 70% of young people who passed the final exam in one of the profiles supported by the project were employed in the first six months after graduation. The same research showed that young people who completed these profiles are more often employed in the company in which they realized work-based learning and generally more of-

ten find a job in their profession, perform better jobs and have higher earnings than those who studied at the so-called in the so-called traditional way.

KEY RESULTS OF THE PROJECT “REFORM OF SECONDARY VOCATIONAL EDUCATION”	6 modernised education profiles
	8 schools (2014) – 63 schools (2019)
	145 male / female students (2014) – 3600 male / female students (2019)
	20 companies (2014) – 200 companies (2019)
	65% employed male/female students
	Law on Dual Education

5.2. Contribution of the Chamber of Commerce of Austria and of the Austrian Development Agency (ADA)

The signing of the Memorandum of Cooperation between the Chamber of Commerce and Industry of Serbia, the Ministry of Education, Science and Technological Development, the Federal Ministry for Europe, Integration and Foreign Affairs of the Republic of Austria and the Austrian Chamber of Commerce on February 9, 2016 officially confirmed the Republic of Austria’s support to the development of dual education within secondary vocational education in the Republic of Serbia.

After the initial phase of the project, which was implemented by the Chamber of Commerce and Industry of Serbia (CCIS) in cooperation and with the expert support of the Austrian Federal Chamber, and financial support from the Austrian Development Agency, a new phase of the project was opened in October 2017 to last four next years and worth EURO 1.8 million. This project enabled the establishment of the entire dual education system, implementation of the Law on Dual Education (adopted in November 2017), support to businessmen and the Chamber of Commerce and Industry of Serbia to build and strengthen capacities for quality performance of tasks entrusted to it by this Law.

Through a project jointly implemented by two chambers (CCIS and Chamber of Commerce of Austria) since February 2017, the Trade School in Belgrade has organized education for the entire generation of first grade students in the three-year profile of a trader. In 2017, 120 students started their education as a dual model trader in one school in cooperation with six companies (Delhaise, dm drogeriemarkt, Univerexport, Mercator, VIP mobile and Metro). Today, about 500 students are studying for this educational profile in 15 schools in 15 cities in Serbia and in cooperation with 40 companies.

With the Austrian expert support, at the initiative of Austrian freight forwarding companies operating in Serbia, and in cooperation with the Ministry of Education, Science and Technological Development, a completely new educational profile of logistics and forwarding technician was developed. Thirty students of the Traffic and Technical School in Zemun in 2018 began the work-based learning in the companies Gebruder Weiss, Cargo Partners, Lagermax, Schenker, Kuehne + Nagel, Kvenberger and dm drogeriemarkt. On that occasion, in October 2018, agreements on dual education were signed between the school and the representatives of these seven companies. The signing was also attended by the President of the Republic of Austria, Alexander Van der Belen, as well as the President of the Republic of Serbia, Mr. Aleksandar Vučić. Currently, about 90 students are studying for this educational profile in Belgrade, and there are indications for its introduction in other cities in Serbia.

Austria also supported the modernization of educational profiles in the field of construction, thanks to which dual educational profiles for the 2019/2020 school year were offered, such as construction machinery operator and operator of basic construction works. Support to the realization of these two profiles according to the dual model of education is provided by 14 companies in which 72 students from 4 schools in Serbia are placed to work-based learning.

Another in a series of educational profiles developed with the financial and expert support of Austria and in cooperation with the Ministry of Education, Science and Technological Development, and belonging to the hospitality sector, is the Tourism and Hotel Technician. This profile is from the school year 2019/2020 attended in the secondary school "Nikola Tesla" in Boljevac by 16 students who perform work-based learning within the "Ramonda Rtanj" hotel.

The Serbian Chamber of Commerce is in the same direction of modernizing its activities and services to the economy as the Austrian Chamber of Commerce – the focus of both chambers of commerce is digitalization of the economy and dual education in both formal and non-formal education and education for new occupations. Accordingly, we are able to adopt and implement their know-how with a small time lag. For example, the work on the introduction of the educational profile of e-commerce trader was announced this summer by the Austrian Minister for Digitization and Economic Relations at the conference "Future of Vocational Education", held in Vienna under the Austrian EU presidency, which is one of the educational profiles that Serbia will also include in the offer of education according to the dual model.

Apart from developing the education system with the digital component, Serbia developed in the past period thanks to the Austrian support the web

portal that will enable all participants in dual education to perform oral procedure is linked with the inclusion in everyday work by the web portal, avoiding complex procedures and administration. Also, online education and upgrading will be possible through the web portal which is a duty, according to the Law, of all employees with the employers that are in dual education in charge of the work with students, and for the purpose of getting the mandatory licences.

Significant support of Austria in the implementation and realization of dual education in Serbia is reflected in the financial provision of funds for the realization of training of instructors. By September 2019, 45 trainings were realized, through which about 900 instructors acquired psychological-pedagogical and didactic-methodological knowledge and skills.

However, cooperation with Austria involves far more than developing dual-education programs. It provides complete support to the establishment of the dual vocational education system, and above all to businessmen and the Serbian Chamber of Commerce, to present the quality of work entrusted to them by the Law on Dual Education.

KEY RESULTS OF HITHERTO COOPERATION WITH THE CHAMBER OF COMMERCE OF AUSTRIA AND THE AUSTRIAN DEVELOPMENT AGENCY	– 4 modernised education profiles in cooperation with the Ministry of Education, Science and Technological Development
	– Introduced 1 new education profile in the offer of dual model of education
	– Established a web portal of dual education
	– 45 trainings of instructors were realized, in which about 900 instructors were trained

5.3. Contribution of the Swiss Agency for Development and Cooperation (SDC) – Strategic Counselling for Effective Reform of Secondary Vocational Education in Serbia

Switzerland and Serbia have a long-standing partnership since 1991, which includes financial assistance of 350 million Euros, which makes Switzerland one of the most important bilateral donors in Serbia. Within the activities envisaged by the Strategy of Cooperation with Serbia in the period 2018-2021, Switzerland strives to contribute to the development of efficient and effective democratic institutions and processes in Serbia, as well as to support reforms on the path to European integration for the benefit of all citizens.

As the establishment of the dual education system is an integral part of the education reform in Serbia, the Swiss Agency for Development and Cooperation

is implementing the project “Support in the Development and Establishment of the National Model of Dual Education” (hereinafter: the Project), which will be implemented from mid-2018 (until mid-2021), and through it provides support to the Commission for Development and Implementation of Dual Education of the Government of the Republic of Serbia in establishing a mechanism for managing the dual education system, based on the Law on Dual Education, in a transparent and participatory manner. More specifically, the Project supports the establishment of a system for monitoring and evaluating dual education, developing the necessary tools for the successful implementation of secondary vocational education reform and improving the capacity of national institutions to monitor and evaluate the dual education system. The ultimate goal is to support the development and realization of the National Model of Dual Education, based on the needs of its primary participants (students, parents, schools and companies), which contributes to the acquisition of student competencies relevant and required by the economy, and available to all students, all in order to increase the opportunities of finding a job after completing secondary vocational education. The main partner in the Project is the Ministry of Education, Science and Technological Development, and the Project is implemented by the Centre for Education Policies (CEP) and the Swiss Economic Institute for Research in Educational Systems (KOF).

The project relies on the experience and expertise of Switzerland, given that the management of the dual education system in Switzerland has proven to be an example of good practice and is a good basis for further concretization and contextualization of strategic solutions related to dual education in Serbia.

The overall goal of the Project is for young people who have obtained a qualification in dual education to benefit from a well-functioning and high-quality dual education system in Serbia, and upon completion of the Project the following outcomes are expected to be achieved:

Outcome 1: Dual education system in Serbia is strengthened and sustainable.

Outcome 2: National institutions have the capacity to monitor and evaluate the implementation of the Law on Dual Education.

Outcome 3: The general public in Serbia is familiar with dual education and young people have more career opportunities.

Project activities are carried out in the framework of three components:

1. **Support to MESTD and the Commission in the development of various reform documents**, which include activities that include support to various target groups in understanding and inclusion in dual education in Serbia through the development of various guides, Master Plan

for Implementing Reform Processes, supporting the Commission, establishing and supporting work of various expert groups dealing with individual segments of the dual education system in Serbia. Within this component, special attention is paid to the development of by-laws provided by the Law on Dual Education and which enable its full and effective application.

2. **Monitoring and providing evidence on the implementation and effectiveness of dual education** through the development of a system for monitoring and evaluating the achievement of dual education profiles and through targeted research aimed at assessing the status of dual education in Serbia during different time periods and including examination of all stakeholders included in dual education in Serbia (students, parents, representatives of schools, companies, regional chambers of commerce, regional school administrations, national institutions and partner organizations). Under this component, a cost-benefit analysis is envisaged for companies involved in dual education.
3. **Increasing the visibility of activities and results in the field of dual education** with the aim of exchanging information on dual education reform and coordinating activities of public promotion of dual education through creating a joint Communication Strategy and action plan for its implementation and creation of visual identity of the National Model of Dual Education.

The project is related to the SDC project in Serbia “Knowledge to Work”, which is implemented by SIPRU in partnership with Niras-IP, but also with projects of other donor organizations operating in the field of secondary vocational and dual education (for example, GIZ, ADA, EU).

The total budget of the project is 1,836,638 Swiss francs.

5.3.1. Swiss System of Vocational and Professional Education – example of good practice

The Swiss system of vocational and technical education has recently been presented as the gold standard, especially when it comes to secondary vocational education (see, for example, NCEE, 2015). This is due to its obvious positive impact on innovation, active involvement of employers and low youth unemployment rate in Switzerland. Switzerland ranks first in the world in terms of innovation (IN-SEAD Global Innovation Index, 2016) and competitiveness (WEF, 2016), and boasts a low youth unemployment rate (ILO states 8.6% for 2016). The Swiss system of vocational and professional education is characterized by intensive involvement of employers during all

educational processes, which largely harmonizes the Swiss system of vocational and professional education with the needs of the labour market. The results of the KOF Index of Youth in the Labour Market (Renold et al., 2014) indicate that young people in Switzerland actively participate in the labour market, that working conditions are good, that education is adjusted the with labour market needs and that there is a simple transition from the world of education to the world of work.

Overview of the important aspects of the Swiss vocational and professional education system

The Swiss system of vocational and technical education is fully integrated and connected to the entire education system of the country. At the age of 15 or 16, young people decide what they want to do after compulsory education. In essence, they choose between general education and vocational education. Within each path, there are two possibilities: an academic diploma and a special diploma of general education, as well as a two-year diploma or a federal diploma of vocational education, lasting three to four years within vocational education. Continuing education after compulsory schooling is very demanding, especially for students who choose the path of vocational education and have to decide between 230 occupations. This transition confronts young people with a real labour market – in this case a practice market – for the first time and they have to face the reality of supply and demand. Students apply and hope to be accepted into their favourite occupations and companies, but still usually fill out more applications. The vocational education pathway is the majority option in Switzerland and a key part of the country's education system, with 70% of young people choosing vocational education (see Chart 1).

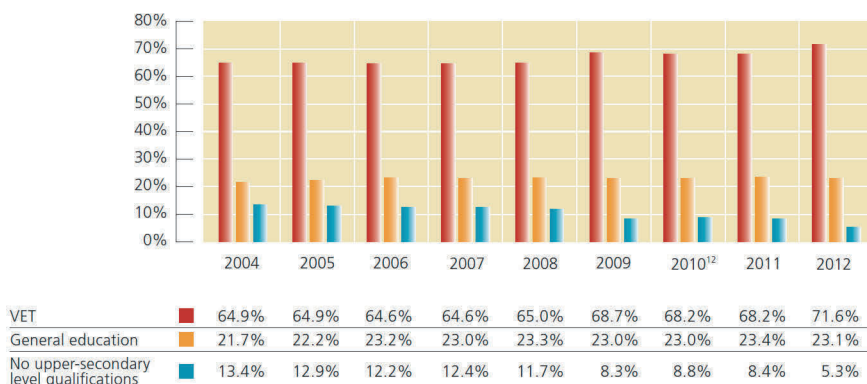
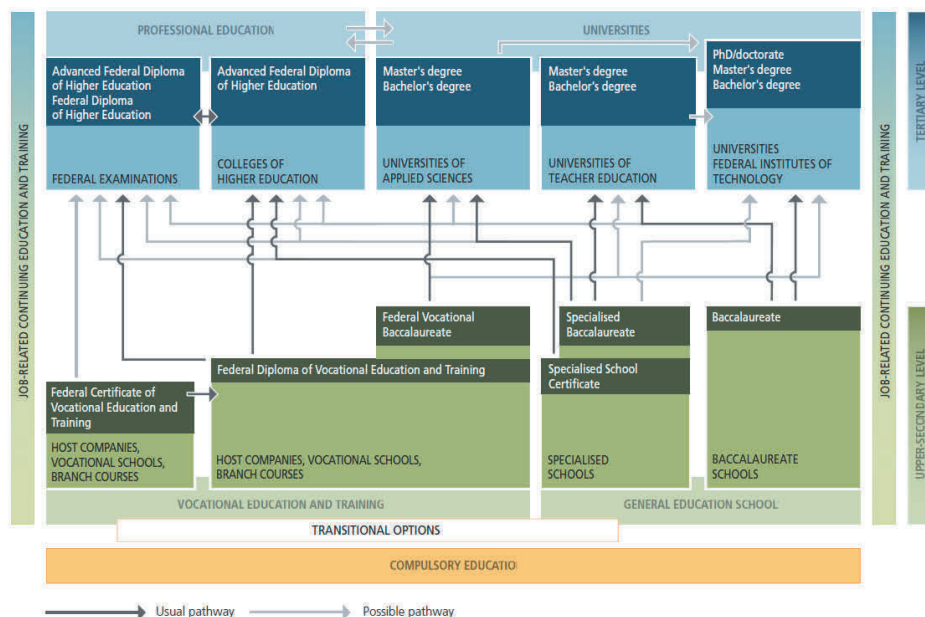


Chart 1: Division by type of diploma in secondary education – secondary level of education (Source: State Secretariat for Education, Research and Innovation – SERI, 2015)

Independent Career Guidance and Counselling Centres provide information on many available programs and offer guidance to adolescents so that they can make informed decisions and be successful in the trainee market (SDBB / CSFO, 2008). Additional measures of support ensure that as many young people as possible have access to secondary education. This includes selection guidelines, application assistance, transition courses and support to each student individually to give all students the best chance and support those at risk of dropping out of school.



Graph 2: Swiss Education System (SERI, 2017)

Finally, as many arrows in Chart 2 show, permeability within the Swiss system allows young people to choose from more options, but also to change the originally desired direction through advances between all levels and types of education. For example, a federal vocational education degree may be combined with a federal vocational undergraduate degree for students with higher achievement who wish to continue their education at the University of Applied Sciences. The student can also attend university with an additional test.

After completing secondary education, all young people in all programs have a number of further opportunities to advance in education or the labour market. Students who have completed secondary vocational schools have two “tickets” at the end of their internship: the first allows

them to enter the labour market directly and probably succeed thanks to the work experience gained during the internship. The second provides them with further education, with clear conditions for enrolment in each program. This permeability strategy is a Swiss way of combining colleges (colleges) and willingness to work, avoiding early guidance and enabling lifelong learning.

Students who have a federal vocational education degree have access to vocational education through federal vocational exams, federal higher-level vocational exams, and colleges. Individuals typically take advantage of these opportunities after spending some time working, and vocational education programs are usually chosen by adult students aged 25–35 (Renold, 2016). Therefore, vocational education programs are designed for experienced people who deepen their knowledge in a particular field, advancing in a leadership position or taking the next step on the career ladder.

For students who are interested in an academic career, the best solution is higher education, which consists of universities, the Swiss Federal Faculty of Technology ETH Zurich, EPF Lausanne or universities of applied sciences. Individuals can even change their path to higher education by moving within and between universities and colleges that offer vocational education. For example, a student may graduate from the University of Applied Sciences and may, with some additional requirements, transfer to the ETH University of Zurich, which is among the top ten universities in the world, to complete a master's or doctoral degree.

There is always concern that changing educational pathways leads to increased costs, but Backes-Gellner and Tuor (2010) show otherwise. They found that companies give higher salaries to employees with combined education – those who start school in both general or secondary vocational education and complete tertiary education in another path. The general goal of the Swiss education system is that “there is no educational program without access to further education” or, more simply, “there are no dead ends”. In accordance with this philosophy and the advantages that such a system creates, the system of vocational education has a high social status and attracts successful students.

Good results and permeability within the education system are accompanied by good systems for overcoming the challenges that young people face during their teenage years. The Swiss model of vocational education also leaves the possibility for a career, and a federal vocational education diploma is considered the first step in a career with the possibility of access to higher education. Permeability is a key strength of the system, in addition to a strong commitment from companies. However, the involvement of employers does not only stem from tradition, culture or social responsibility;

Swiss companies are involved in vocational education through the coordination of professional associations and management that conditions their participation, enables financial sustainability and gives priority to the opinion of employers when making key decisions in vocational and professional education. The following section describes the management of the Swiss vocational education system.

Vocational education system management – Importance of professional associations

According to the Swiss Vocational Education Act, the federal government, the cantons and professional associations work together to ensure that all those involved in vocational education benefit. The Confederation is responsible for the strategic oversight, management and development of the vocational and professional education system. Its specific tasks include ensuring the quality of training, enabling comparability and transparency of all programs across the country, adopting vocational education and training regulations detailing each occupation and vocational education and training examination regulations, as well as frameworks for vocational training curricula and programmes. All 26 cantons apply this legislation and are responsible for the operation and management of vocational schools, regulating the practice of contracts and establishing centres for career guidance and counselling.

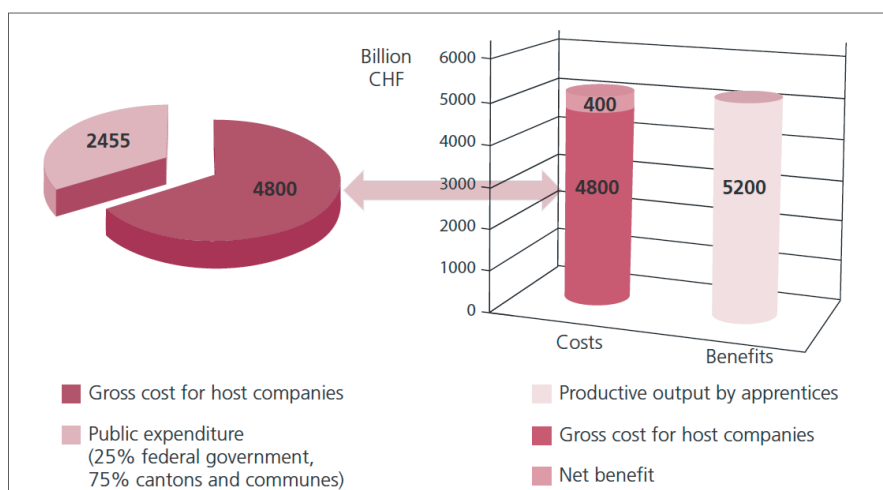
Professional associations consisting of member companies are the driving force of the entire process of vocational and professional education. More than 600 professional associations are responsible for vocational education and training programs in Switzerland. In cooperation with the cantons and the Confederation, they revise the regulations on vocational education and training for individual occupations every three to five years and are in charge of developing and improving the framework of curricula for vocational education and training programmes. The responsibility that comes with the development of the curriculum framework positions professional associations as the initiators of the system of vocational and professional education. Some of the tasks of professional associations are informing young people about internships in member companies, contributing and leading courses in various areas of the economy, preparing training materials for companies, supervising part of national exams related to the workplace and much more.

The advantage of involving professional associations lies in their awareness of new technologies and predicting which technologies will be used in the future. Therefore, professional associations know in a timely manner whether the new qualification requirements should be integrated

into the curriculum of a given occupation. The more companies that apply innovation are involved in curriculum development, the faster curricula can adapt to new technologies. This strong connection between actors from the education system and the labour market is also essential for overcoming the problem of skills mismatch between what students learn and what employers need.

Most companies derive net benefits from internship training

Numerous studies have presented examples in which companies train students within the formal education system (i.e. Mühlemann et al., 2007; Muehleemann, 2010; Strupler and Wolter, 2012). Simply said, companies that train students earn on average from these activities. Training costs are balanced against the return on investment in training, generating a net benefit, as shown in Chart 3 (right). However, this is not a coincidence or luck, but a product of the way the system is designed.



Graph 3: Distribution of costs between public and private sources, and the net benefit that companies achieve by training students. The costs of professional associations are not included in this chart. Source: Renold / Probst, 2016, p. 48

How is it profitable to companies in Switzerland to train students during a formal system of education and is not for other countries with similar system of vocational education?

The first reason is the distribution of the financing between the public and private sectors. The Confederation insures one fourth for us of the financing of vocational education, and the remaining part of public assets

are insured by the Cantons. They together provide about 40% of the total financing of the system, and the remaining 60% comes from the companies providing training for students. It is worth mentioning that not a single public financing is used for direct subsidisation of the companies that provide practice. Public assets are distributed to vocational schools for the needs of supervision over the system and for development of the system, centres for career guidance and counselling and for similar capacity building. Professional associations bring companies together and occasionally prepare materials. The companies pay salaries to the students who are with them in practice, and they also cover the costs of training coaches. This balance between the three partners is ideal for all parties. This balance among the partners is ideal for all parties.

Another reason for the cost-effective participation of Swiss companies in vocational education is the salaries of students in practice. Their salaries represent the highest cost for companies, ranging from 400 Swiss francs per month during the first year of practice to 1,400 Swiss francs per month during the last year.⁹ Students do not contribute to the financing of the vocational education system and the programmes are free; however, they accept low salaries during the internship period. There are no binding minimum wages in Switzerland, which has a very liberal labour market. Usually, the productivity of trainees at the beginning of the training is lower than their salaries. However, over time, they reach the level of a skilled worker, but they still earn much less than their skilled counterparts until they complete the internship, generating a return that pays for the initial deficit.

A key element in balancing the incentives of different players is the curriculum framework designed by professional organizations. This framework provides a balance between students' salaries in practice, time spent in school and time spent in the workplace, and skills that are specific to the company providing the internship or that are applicable within the profession. At the end of formal schooling, students who have had an internship in a company have a set of skills that are specific enough for employment, but also general enough to explore other opportunities if students so desire. Companies reimburse internship costs – and even more – have access to skilled workers who are already familiar with their processes and may feel a sufficient level of loyalty to stay with the company. The Swiss economy gets a job market with skilled young people, strong innovation and a population of young people who are ready to learn throughout life and who can choose to improve or reorient their skills whenever they want.

9 For salaries of individual occupations, see <https://berufsberatung.ch/dyn/show/3231>

Why is the Swiss system of vocational education attractive for Serbia?

The education system in Serbia is facing constant pressure to improve equality, reduce the number of students leaving school and respond to the individual needs of students. Also, Serbia, like many other countries, is facing a great challenge to meet the demand for skills, especially in the jobs of medium-skilled staff. These are jobs that require secondary vocational education, not basic academic and master's education. Although secondary vocational education is not a universal solution to all these problems, mobility within the education system with multiple levels and multiple types of diplomas paves the way for lifelong learning and improving the skills needed by the labour market.

For more than three decades, Switzerland has been developing a dual system of evidence-based vocational and technical education. The Swiss model of vocational and professional education allows employers to recoup their investments before completing student training. When the employer participates in a coordinated way as a company that provides work-based learning for students attending dual education, the quality of secondary vocational education increases while public costs of the same decrease. This key feature makes the system attractive and financially viable for employers, which is crucial for maintaining their engagement. Switzerland is not comparable to Serbia and its dual education system should not be literally copied or applied abroad. While Serbia has only recently started implementing the Law on Dual Education, Switzerland can count on more than a hundred years of experience in managing its vocational and professional education.

However, Switzerland and Serbia have the opportunity to cooperate in the field of secondary vocational education and both are oriented towards economic development and are proud of competitiveness and innovation. Various donors have already made efforts to promote exchanges between multinational companies operating in both countries, some Swiss companies operating in Serbia are ready to share their expertise and follow the model of German and Austrian companies, which already have a long tradition of participating in dual education.

Our cooperation with the Ministry of Education, Science and Technological Development and the Chamber of Commerce and Industry of Serbia allows us to provide scientific support for the complex implementation of the dual education system to ensure that the findings are directly involved in further development of the system. We want to determine whether companies in Serbia that train students also show a positive cost-benefit ratio during or after the training. We are convinced that this type of evidence will

help strengthen the dual education system in Serbia and improve the productivity of companies.

We will continue to provide systematic support to the competent authorities and institutions so that this important system of dual education reaches its full potential. Thanks to the personal commitment of the President of the Republic of Serbia, Aleksandar Vučić, and the President of the Chamber of Commerce, Marko Čadež, it is possible to dynamically implement processes and remove obstacles that would otherwise hinder rapid implementation. We are convinced that thanks to the intensive exchange of knowledge between all Swiss and Serbian institutions involved, Serbia will be able to look back on the successful development of the dual education system in the foreseeable future.

Authors

Professor Dr. Ursula Renold chairs the Education Systems at the Swiss Federal Institute of Technology (ETH) in Zurich. He is also the co-director of the Center for Economics and Management of Education Systems (www.cemets.ethz.ch). In addition, she chairs the University Board of the University of Applied Sciences and Arts, Northwestern Switzerland. She was a guest lecturer at Harvard University of Education from September 2012 to March 2013.

Prior to that, Ursula Renold was the Director General of the Federal Office for Vocational Education and Technology (OPET) until June 2012. In this position, she led the Swiss Competence Centre for Vocational Education, Universities of Applied Sciences and led the innovation program in 2005. Prior to becoming Director General, she was Head of the Vocational Education Department of the Federal Office for Vocational Education and Technology and Director of the Swiss Federal Institute for Vocational Education (teacher education). During her career, she launched a number of key initiatives that have had a major impact on the vocational education system. She has the honorary title of Professor of Vocational Education at the University of Applied Workers' Studies in Mannheim (Germany).

Contact: ursula.renold@kof.ethz.ch

Dr. Catherine Caves is a postdoctoral researcher at the Department of Educational Systems of the Swiss Federal Institute of Technology (ETH) in Zurich. She is involved in conducting research projects related to the application of the dual education system in Serbia. She graduated from

the University of California at Berkeley and earned a master's degree in education. She holds a PhD in Economics of Education from the University of Zurich.

Her research interests focus on the economic, institutional and infra-structural foundations of strong vocational education systems around the world, especially on what those foundations mean in successful vocational education systems and how they can be developed in emerging vocational education and training systems. In addition to this project, she is currently working on identifying success factors and obstacles to labor market-oriented education system reforms with the Centre for Economics and Management of Education and Training Systems (CEMETS).

Contact: caves@kof.ethz.ch

Literature

- BACKES-GELLNER, U. and TUOR, S. N. (2010): "Gleichwertig, andersartig und durchlässig?", *Die Volkswirtschaft*, 7/8/2010, pp. 43–46.
- MUEHLEMANN, S.; WOLTER, S. C.; FUHRER, M. and WUEEST, A. (2007): *Lehrlingsausbildung – ökonomisch betrachtet*, Zürich/Chur: Rüegger Verlag.
- MUEHLMANN, Samuel (2010): "The Costs and Benefits of Apprenticeship Training: Evidence from Swiss Firms", *Canadian Apprenticeship Journal*, 1(1), pp. 45–55.
- INSEAD (2016): *Global Innovation Index, 2016*. Retrieved from: <https://www.globalinnovationindex.org/gii-2016-report#> (6. 6. 2017).
- NCEE (2015): *Gold Standard: The Swiss Vocational Education and Training*, International Comparative Study of Vocational Education and Training, Washington DC.
- RENOLD, U. (2016): *Swiss Federal Office for Professional Education and Technology: Advanced Diploma Examination for Professional Credentialing*, in: Wingard, Jason, and Michelle LaPointe. *Learning for Life: How Continuous Education Will Keep Us Competitive in the Global Knowledge Economy*. First Edition. New York: AMACOM – American Management Association, 2016, pp. 195–208.
- RENOLD, U. and PROBST, F. (2016). *The Swiss Vocational Education and Training Initiative India. Background, Concept and Results of the Pilot Project 2008–2013*. hep publisher, Berne.

- RENOLD, U.; BOLLI, T.; EGG, M. E. and PUSTERLA, F. (2014): "On the Multiple Dimensions of Youth Labor Markets", KOF Studies, 51, August 2014, Zurich.
- SDBB/CSFO (2008): What happens after school? An apprenticeship or an academic education? Information for parents, Berne.
- SERI (2017). Vocational and Professional Education and Training in Switzerland. Facts and Figures 2017, Berne.
- SERI (2015). Vocational and Professional Education and Training in Switzerland. Facts and Figures 2015, Berne.
- STRUPLER, M. and Wolter, S. C. (2012): Die duale Lehre eine Erfolgsgeschichte – auch für Betriebe. Ergebnisse der dritten Kosten-Nutzen-Erhebung der Lehrlingsausbildung aus der Sicht der Betriebe, Glarus/Chur: Rüegger Verlag.
- WEF (2016): WEF Global Competitiveness Report 2016–2017, Geneva 2016.

6. IMPORTANCE OF PROFESSIONAL AND GENERAL PUBLIC AWARENESS OF DUAL EDUCATION

Any reform of the education system requires the cooperation of decision-makers and reformers. The more extensive the reform, the more important it is for cooperation to be more fruitful, and there must be a common vision at the root of cooperation. A shared vision provides an answer to the question of what we want to achieve with the reform, i.e. the change we are striving for and how we want that change to look like.

The introduction of dual education, in the manner regulated by the Law on Dual Education, is a significant change for the entire education system, and especially for those who carry out activities in the field of vocational education. Therefore, decision makers have made great efforts to provide common understanding, necessary support and cooperation with all relevant actors in the implementation of the National Model of Dual Education in Serbia.

In order for the reform to be successful, in addition to cooperation with those directly involved in the implementation of the reform, it is very important that there is public understanding, both professional and general, about how important dual education is, why dual education was introduced and what are the social benefits we can expect in the future. The common understanding consequently leads to the building of public trust, which “is extremely important in the creation and implementation of public policies” (Government of RS, 2019, p. 15), i.e. affects the “position” that specific educational reform will take in society and how society as a whole will treat it.

The response to the question why dual education is important and what benefits of dual education are the subject matter of the previous chapters all this publication. This is the reason for this chapter to deal with the manners in which decision-makers included the stakeholders, and order the professional and the general public in the process of “confidence building”, and/or a establishment of joint understanding of dual education. These activities where at the same time the means for promoting dual education both among the youth and among the companies.

In addition to the statutory and mandatory procedures for creating new legislation (stakeholder involvement and public debate), key stakeholders in the introduction of dual education have put a lot of effort into additional activities to ensure a common understanding and vision of dual education in Serbia.

The first steps in that direction were made by conducting activities to promote dual education, within which representatives of the Ministry of Education, Science and Technological Development (MESTD) and the Chamber

of Commerce and Industry of Serbia (CCIS) visited 34 local government units, including 124 schools and 116 companies, i.e. about 10.000 participants (internal data of MESTD). This great endeavour began in July and ended in December 2017. The aim was to acquaint stakeholders and the public with the benefits of dual education, as well as with the novelties that, in that period, were assumed by the Draft Law on Dual Education, and later adopted in the Law on Dual Education.

After these activities, the MESTD continued to involve the public through the Sector for Dual and Entrepreneurial Education, in the field of implementation of the Law on Dual Education and, starting in April 2018, conducted a promotional campaign to improve dual and entrepreneurial education in Serbia. The campaign was conducted in local self-government units and included representatives of schools, parents, companies, representatives of the CCIS, the national employment service and other stakeholders. Within this campaign, among other things, discussions were held on the benefits of the Law on Dual Education and accompanying regulations, i.e. on how to train instructors, deploy students to learn by working in companies, as well as career guidance and counselling, and video -materials aimed at acquainting the public with the benefits of dual education.

One of the components of the project “Support in the Development and Establishment of the National Model of Dual Education”, by which the Swiss Agency for Development and Cooperation supports MESTD, is to improve communication between decision makers and the general public in establishing and implementing the National Model of Dual Education. Therefore, this component of the project included the development of the visual identity of the National Model of Dual Education, as well as the support of MESTD in the implementation of activities and communication on events that encourage common understanding and vision of dual education. The preparation of the “Communication Strategy for Support to the Implementation of Dual Education in Serbia and the Accompanying Action Plan” (hereinafter: the Communication Strategy), which is in Annex 17 of this publication, has begun. The goal of the Communication Strategy is to “provide a framework and directions for improving communication in the process of further development of dual education in Serbia, so that all stakeholders have the opportunity to make the most of the opportunities provided by the introduction of dual education” (RS Government, 2019, p. 3), and/or to encourage the exchange of information between relevant actors. Within this component of the project, it is planned to conduct a workshop for MESTD representatives, which aims to improve the capacity of the MESTD to implement the activities envisaged in the action plan of the Communication Strategy.

In addition, the project “Support in the Development and Establishment of the National Model of Dual Education” produced the First Report on

Obstacles and Drivers in the Pre-Implementation Phase of the Law on Dual Education (hereinafter: the First Report)¹⁰10, which addressed awareness and stakeholder party in the process of introducing dual education in Serbia.¹¹ A *Master Plan* has been prepared (presented in subchapter 3.6), a system document that serves to inform and coordinate all parties involved in the reform process of introducing dual education, i.e. the implementation of the Law on Dual Education. In the field of communication between stakeholders regarding dual education, the First Report and the Master Plan are important because the results of research conducted for their needs were used to design the activities of MESTD and CCIS, which aim to contribute to public awareness.

When it comes to conferences, they are a suitable tool for involving a large number of participants and various stakeholders, and for comprehensively informing the interested public, both about the results achieved and future directions of action. In this regard, key actors who advocated the introduction of dual education, as part of the mission of providing a common vision of dual education, i.e. its promotion, since 2018 have organized and participated in a large number of conferences and other forms of group meetings to include and inform target groups, more precisely, parents and students, schools and companies. Some of the organized conferences are: “Dual education – a European model for Serbia” (2018), “Work-Based Learning: the path to opportunities” (2018), “New dynamics in technical and secondary vocational education in the Western Balkans” (2018), “Dual education – to know what I work” (2019), “Dual education – knowledge for the future” (2019), and others. More group meetings, including the conferences “Dual Education – Experiences of German Companies in Serbia” and “Dual Education in Serbia 2019: the Role of the Private Sector” were held as part of the Dual Education Week. The event lasted from 21-25 October 2019, and aimed to promote the results achieved in the implementation of dual education.

Additional activities intended for the general public, which will be implemented in the coming period, are planned by the *Plan for the implementation*

10 Renold Ursula et al. (2019). Implementation of the Law on Dual Education - The first report on obstacles and drivers in the pre-implementation phase of the Law on Dual Education. Available at <https://www.research-collection.ethz.ch/handle/20.500.11850/337794>

11 The first report concludes that, although the reform of dual education is strongly supported by decision makers, there must be cooperation with all actors involved in dual education, space for dialogue with the public and continuous dissemination of information related to the implementation of dual education. One of the conclusions of the First Report is that it is especially important to increase the flow of information to students and parents, i.e. that there should be more ways to inform students and parents.

of promotional activities of the National Model of Dual and Entrepreneurial Education in the Republic of Serbia MESTD. These include the production of professional and promotional material on dual education, the organization of conferences, as well as information and educational workshops¹² that will cover all target groups (students, parents, employers and school employees). This publication is also a product of the mentioned plan.

Finally, all key actors who have advocated the introduction of dual education are also making efforts to regularly publish content on their websites and social networks in order to provide professional and general public with easy and quick access to information. It should be noted that a website dedicated to dual education has been created, where, in addition to basic information and news in the field of dual education, all educational profiles in dual education, schools and companies can be searched, as well as basic information from the register of schools and employers.

As in the forthcoming period the emphasis will be on monitoring and evaluation of dual education, informing the public will move towards presenting analyses of the results achieved in dual education and promoting examples of good practice in the field of cooperation between schools and companies and student success. In this regard, greater involvement of researchers and organizations focusing on education and the process of monitoring and evaluating dual education can be expected (Government of RS, 2019).

12 The implementation of information and educational workshops began with a promotional event at the training center of the Aviation Academy in Belgrade. Available at <http://www.mpn.gov.rs/pocela-promocija-dualnog-obrazovanja-u-trening-centru-vazduhoplovne-akademije-u-saradnji-sa-kompanijom-mtu>

7. SUPPORT TO CREATING EVIDENCE-BASED EDUCATIONAL POLICIES

Evidence-based decision-making and public policies are not new – looking for the roots of the knowledge and governance relationship of Flivbjerg in *Making the Social Sciences Important: Why Research in the Social Sciences Fails and How to Make It Successful* (2001) goes back to Aristotle arguments why it is important that the social sciences and research conducted within them are more relevant to policy making and society as a whole.¹³

However, despite such a long tradition of science, research and decision-making, there is still no single definition of evidence-based public policy making, and in modern literature the definitions range from a very narrow to a very broad description of this process. For example, Davis defines evidence-based decision-making in education as an approach that helps people make well-informed decisions about policies, programs, and projects by putting the best available evidence from research at the heart of policy development and implementation,¹⁴ but it must also be borne in mind that, despite the use of evidence, this process can still be seen as opinion-based decision-making if it “relies heavily on or selective use of evidence (for example, on individual studies regardless of the quality of) or on unverified views of individuals or groups that are often inspired by ideological views, prejudices or speculative assumptions”.¹⁵

Although the cited definition is broad, it does not tell us much about the nature of evidence, but rather focuses on their application, and it is important to note that evidence in creating public and educational policies can be experience and results of practice evaluations, results of independent or commissioned scientific analyses, quantitative and qualitative research, basic and applied research, statistical indicators¹⁶, etc. That is, evidence means any form of argumentation or data that supports informed decision making.¹⁷

13 The implementation of information and educational workshops began with a promotional event at the training center of the Aviation Academy in Belgrade. Available at <http://www.mpn.gov.rs/pocela-promocija-dualnog-obrazovanja-u-trening-centru-vazduhoplovne-akademije-u-saradnji-sa-kompanijom-mtu>

14 Davies, P. (2004). What is evidence-based Education? *British Journal of Educational Studies*, 47(2), 108-121.

15 Davies, P. (2004). Is evidence-based government possible? Jerry Lee Lecture, presented at the 4th Annual Campbell Collaboration Colloquium, Washington DC, p. 3.

16 Commission of the European Community (2007). *Towards more knowledge-based policy and practice in education and training*, p. 4

17 Gerson, L.N. (2004). *Public Policy Making: Processes and Principles*. London, M.E. Sharpe, pp. 24.

That is, reliable data include high-quality information obtained on scientific and empirical principles; can be obtained from various sources, such as statistics, relevant qualitative and quantitative research (domestic and foreign), data collected through consultations on the views of stakeholders and social actors, opinions and analyses of experts and expert groups, views of civil society organizations, experiences other countries, experiences of other sectors, evaluation of previous policies, results of pilot projects, conducting new research, analysis of policy impact, cost-benefit analysis, and the like.¹⁸

Also, as it is clear that everything gathered in systematic research can be taken into account as evidence or data, it is important to point out that one of the most common definitions of research states that research can be considered any systematic effort to increase the body of knowledge.¹⁹

Having in mind the previous considerations and in the desire that the creation and implementation of educational policies in Serbia always has valid evidence, within the project “Support in the development and establishment of the National Model of Dual Education” five phases of research related to the introduction and achieving dual education in Serbia. More specifically, the first survey was conducted in the spring of 2019 and examined the opinions of representatives of the most important stakeholders in the process of achieving dual education in Serbia, primarily schools, companies, parents, students, unions and government agencies and organizations, examining various factors that have an impact on the success of the introduction of dual education in Serbia, and the future implementation of the Law on Dual Education. This research contains data related to the situation before the Law on Dual Education began to be applied and describes the success factors and obstacles to achieving dual education in Serbia, and a summary of the research is in Annex 18. The second survey began in autumn 2019 and refers to the examination of the state of realization of dual educational profiles after the Law on Dual Education began to be applied in the 2019/20 school year, and the final results of the research will be published in the spring of 2020. The next three researches will follow the situation after the end of the first year of achieving dual educational profiles on the basis of the mentioned law, the situation at the beginning of the second year and the reflection on the entire process.

18 Cabinet Office (1999). *Professional Policy Making for the Twenty First Century - Report by Strategic Policy Making Team*, pp. 33. Available at - <https://ntouk.files.wordpress.com/2015/06/professional-policy-making-for-the-21st-century-1999.pdf>

19 OECD (1981). *Proposed Standard Practice for Surveys on Research and Experimental Development Frascati Manual*. OECD Publishing, Paris

The main beneficiary of the research results is the Commission for Development and Implementation of Dual Education, given that one of the most important tasks of the Commission is to monitor the quality of dual education, i.e. coordination of activities aimed at development and improvement.

It should be noted that this research is not the only research in Serbia that focuses on work-based learning and dual education – before them, various research by international and donor organizations that support the establishment and implementation of dual education in Serbia, but especially important because the uniform methodology and comprehensive subject of research provide insight into the development of dual education over a period of three years.

ANNEXES

Annex 1 – Memorandum of Cooperation with the Company MTU



Република Србија
МИНИСТАРСТВО ПРОСВЕТЕ,
НАУКЕ И ТЕХНОЛОШКОГ РАЗВОЈА



MTU Maintenance Serbia d.o.o.
An MTU Aero Engines Company

Memorandum of Cooperation with the aim of establishing a strategic partnership in dual education

signed by:

1. **MTU Maintenance Serbia d.o.o.** with seat in Belgrade, Vladimira Popovica 6, TIN 111531672, Reg. No. 21497495, represented by Rainer Becker, Director (hereinafter: the **Beneficiary**)
2. **Ministry of Education, Science and Technology Development**, Nemanjina 22-26, Belgrade, 11000 Belgrade, represented by the Minister Mladen Šarčević (hereinafter: **Ministry**)
3. **Sector for dual education**, Nemanjina 22-26, Belgrade, 11000 Belgrade, represented by Acting Assistant Minister Prof Dr Gabrijela Grujić (hereinafter: **Sector**)

Promoting leadership, innovation and social responsibility on one side and the professional competences in the dual system on the other side are the main initiators for this cooperation.

Article 1

The aim of the cooperation is to carry out mutually agreed activities that have an educational, practical and developmental purpose and effect. The immediate results of the collaboration relate to students of vocational schools, who are educated under the dual system of education and can improve their knowledge and skills within MTU Maintenance Serbia d.o.o. Together with employees of MTU Maintenance Serbia d.o.o., the students can enhance their theoretical knowledge and raise their professional competences through professional development programs.

Important effects of such cooperation shall be social responsibility and promoting the direct form of cooperation between economic and educational system through a dual model of schooling.

Article 2

The development dimension of the strategic partnership between the Sector for Dual Education and MTU Maintenance Serbia d.o.o, with the aim of cooperating in the theoretical and practical development of the individuals and institutions of the participants, involves monitoring the needs and aligning the programs in accordance with the interests and expectations of both parties, if they are guided by the idea of strengthening the relationship between educational institutions and the economy, as well as providing a positive socially responsible example.

Article 3

The activities for cooperation are determined according to the needs of the parties in the process, opportunities for involvement and their realization.

The activities can be divided into several areas:

- Development curriculum according to the needs of MTU Maintenance Serbia d.o.o.;
- enhancing the institutional cooperation of MTU Maintenance Serbia d.o.o. with selected schools in the dual education system;
- public relation programs;
- promoting dual education and work-based learning
- successful model of cooperation between companies and schools in media.

Article 4

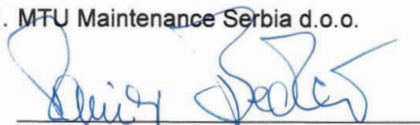
Activities can be modified and aligned with the current capabilities and needs of one side or the other. If there is a need for a formal regulation, the parties have to describe the activities in detail and sign an agreement in advance.

The Memorandum of Cooperation between the Ministry of Education, Science and Technological Development of the Republic of Serbia, the Sector for Dual Education and MTU Maintenance Serbia d.o.o. is valid until the year 2025, with the possibility of extension, and will apply from October 22, 2019.

In Belgrade, October 22, 2019.

SIGNATORIES TO THE MEMORANDUM

1. MTU Maintenance Serbia d.o.o.



Rainer Becker, Director

2. Ministry of Education, Science and Technology Development



Mladen Šarčević, Minister

3. Sector for dual education



Prof. Dr. Gabrijela Grujić

Annex 2 – Explanation of the Draft Law on Dual Education

I. CONSTITUTIONAL BASIS

The constitutional basis for the adoption of the Law on Dual Education is contained in Article 97, item 10 of the Constitution of the Republic of Serbia, which sets forth that the Republic of Serbia regulates and provides, *inter alia*, a system in the field of education.

II. REASONS FOR MAKING THE LAW

The Law on Secondary Education (Official Gazette of the PC, No. 55/13), adopted in 2013, does not regulate dual education, nor do the subject laws recognize this type of education in secondary vocational schools in the Republic of Serbia.

Article 30 of the Law on Secondary Education stipulates the issue of practical teaching and professional practice that the school can achieve in cooperation with a company, institution, other organization or other legal entity, that the time, manner and conditions for the realization of practical classes and professional practice are determined by the contract.

Having in mind the above, as well as the situation on the labour market, the Ministry of Science and Technological Development (hereinafter: the Ministry) defined the introduction and development of dual education as one of the priority goals, which certainly requires normative regulation of this type of education.

The system of secondary vocational education in the Republic of Serbia is characterized by insufficient harmonization with the labour market, which is reflected in the fact that the offer and structure of the education system, outdated curricula and the plan for enrolment in secondary schools do not reflect the needs of the economy. As a result, we have high youth unemployment, which is one of the highest in Europe, with extremely worrying data where 65% of young people with completed vocational education are classified as long-term unemployed, and almost 150,000 young people aged 15-24 do not go to school or work.

On the other hand, based on a comprehensive study of the needs of the economy, it was found that it faces major problems in terms of lack of competent staff and those whose qualifications do not reflect the achievement of competencies, outcomes and learning objectives provided by the curriculum.

Although in the current system there is cooperation between education and the economy and practical classes on that basis, it is not implemented in an adequate way and the expected results are not achieved in terms of acquiring knowledge, skills and competencies, which students are not ready after high school. To immediately engage in work in a real work environment. For this reason, employers must bear the cost of introducing young people to work and train them with the additional knowledge and skills needed to get involved in the work.

A conclusion arising from the above facts shows that it is necessary to ensure the improvement of the quality of practical teaching in a way that will include in the system of realization of practical aspects of vocational education in addition to schools and the economy by introducing dual education.

The basic idea of dual education implies the acquisition of theoretical knowledge in school, and practical in companies in a real work environment, bearing in mind that schools cannot keep up with the speed of technical and technological changes taking place in the market. In addition, increasing the volume of practical classes and creating curricula that include the economy – giving job descriptions that correspond to the jobs that students will do after school in the future, raises the quality of practical classes and creates a system where qualifications are an expression of acquired competencies. In the end, it leads to an increase in the employability of young people. Thus, by investing in education, the economy invests in its future employees and solves the problem in terms of personnel in the long run. Investing is not only about providing material and technical conditions and providing compensation to students, but also the appointment of employees – instructors who will be in charge and responsible for work-based learning with students throughout the school cycle in accordance with the curriculum.

The introduction of this innovative model of education should first solve the problem of companies regarding the lack of skilled labour, reducing unemployment of young people under 25 and the costs that the Ministry allocates for vocational education. This model will allow students to get a job in one of the companies, start their own business or continue their education at higher education institutions.

In addition, the Strategy for the Development of Education in Serbia until 2020 ("Official Gazette of RS", No. 107/12) defined the following as goals in the field of vocational education: creating conditions for the introduction of quality work practice (stimulating employers, for example development of social partnership with their participation in practical classes, exams, etc.); ensuring that at least 50% of teachers / instructors in companies pass the master's exam and are accredited as teachers in the competent institution;

establishing a system of accreditation and certification of employers and instructors who work with students in companies; accreditation of jobs for practical classes, tax relief for companies in which practical classes are held, adoption of laws and bylaws for financial incentives for employers whose companies provide practical classes, and involvement of at least 10% of employers in the work of sector councils, examination commissions and in the realization of practical classes.

The drafting of the Law on Dual Education (hereinafter: the Draft Law) was approached with the aim of adapting the concept of dual education to the time, needs and conditions in which this process can take place in the Republic of Serbia, using all experiences of European countries dual education.

The experience so far within the projects supported by the Federal Republic of Germany, the Republic of Austria and the Swiss Confederation speaks in favour of the fact that the system of dual education is necessary for our education and our economy. Based on previous experience in the implementation of dual education, which currently involves 21 vocational schools with 1,272 students and 68 companies, with one generation that has passed the cycle according to the dual model and got a job, 1,800 businessmen who have shown interest and readiness to join the education system by signing a statement of intent, need legal solutions with clearly regulated rights and obligations, which will connect the interests of the state, employers, workers and students and put vocational education in the function of economic growth and development.

As already mentioned, the current Law on Secondary Education regulates only practical classes and professional practice that the school can carry out in cooperation with a company, institution, other organization or other legal entity, but the conditions under which such cooperation should be specified are not specified, nor are specified the conditions under which work-based learning in real working environment should be implemented. What should be specified in this law and relevant bylaws are the conditions that a business entity should meet in order to be able to educate students, i.e. what activity they should be engaged in and what material and technical possibilities and conditions they should meet.

The draft law enables a systematic, rational and gradual approach to the introduction and development of dual education with a comprehensive view of the process, from the beginning to the end of schooling. Also, a clearly defined system of rights and obligations of schools, employers and students should ensure the inclusion of more companies and schools in the new model of practical teaching, harmonization of education with the needs of the economy and the possibility for companies to get the right staff and students, and students to get adequate knowledge, skills and abilities that enable their faster and easier employability.

Also, the goal of passing the new law is to achieve optimal results in each of the stages of education, whether it is education for continuing education or for entering the work process. At the same time, the possibility of continuous verification, analysis and modification of the achieved results opens up.

As the proposed novelties in the Draft Law cannot be resolved by a by-law or in any other way, it is necessary to pass a law in order to regulate dual education.

III. EXPLANATION OF BASIC LAW INSTITUTES AND INDIVIDUAL SOLUTIONS

The subject matter of the Draft Law is systematized in 10 chapters, as follows: I. Basic provisions; II. Realization of dual education; III. Contracts in dual education; IV. Register of contracts; V. Instructor; VI. Performance assessment (grading) and exams in dual education; VII. Material and financial support of students; VIII. Supervision; IX. Penal provisions; X. Transitional and final provisions.

I. BASIC PROVISIONS

Article 1 of the Draft Law regulates the subject of this law: content and manner of exercising dual education, mutual rights and obligations of students, parents, or other legal representatives of students, schools and employers, material and financial support to students, other issues of importance for dual education; as well as the area of application of this law.

Article 2 of the Draft Law determines the meaning of terms in the sense of this law, namely the following terms: dual education, employer, work-based learning, instructor, work-based learning coordinator and plan for realization of work-based learning.

Article 3 of the Draft Law stipulates that dual education is based on the obligation of all participants to be guided by the best interests of students, in accordance with principles such as: school-employer partnership, establishing social partnership at the local level, professionalism, ethics, quality assurance, career guidance and employability, accessibility, relevance, permeability, lifelong learning, the right to choose and the principle of equal opportunity. Institutional partnership and cooperation between the Ministry in charge of education (hereinafter: the Ministry), the Chamber of Commerce and Industry of Serbia and the Institute for the Improvement of Education is defined as a special principle on which dual education is established.

Article 4 of the Draft Law stipulates that the goals of dual education are: providing conditions for the acquisition, improvement and development of competencies in accordance with the needs of the labour market; contribution to strengthening the competitiveness of the economy of the Republic of Serbia, providing conditions for employment after graduation; providing conditions for further education and lifelong learning; developing entrepreneurship, innovation, professional and career development of each individual; providing conditions for personal, economic and general social development; developing the ability to work in a team and a sense of personal responsibility at work; developing awareness of the importance of safety and health at work; developing the ability of self-evaluation, expressing one's own opinion and independent decision-making and respecting the mutual rights and obligations of students and employers.

II. IMPLEMENTATION OF DUAL EDUCATION

Article 5 of the Draft Law defines that the basis for adopting curricula in dual education (hereinafter: curriculum) is a standard of qualification, which will be determined by the sector council for a particular sector of work, in accordance with the law that regulates the national qualifications framework. The role of sector councils is to connect the needs identified in the labour market with the education sector. Based on the qualification standards, the Institute for the Improvement of Education will prepare a draft curriculum, which will be adopted by the Minister with the previously obtained opinion of the Council for Vocational and Adult Education and the National Education Council. It is prescribed that the standard of qualification and the curriculum shall be updated every five years, and/or in a shorter period of time if the needs of the economy and technological development require it.

Article 6 of the Draft Law stipulates that the scope of work-based learning is at least 20% and at most 80% of the total number of hours of professional subjects, in accordance with the appropriate curriculum, and is to be performed in accordance with the school calendar during school year in the period from 8 am to 8 pm, for a maximum of six hours per day, i.e. 30 hours per week, in accordance with the curriculum. The place of work-based learning is also defined, as well as the percentage in which work-based learning can take place in a school that must have the appropriate materials and equipment.

Article 7 of the Draft Law defines the manner of enrolment in secondary schools, by fields of work and profiles, as well as the proposers of the enrolment plan in secondary schools, who draft the plan with the participation of various actors, such as: employers, employment service, Chamber of

Commerce of Serbia and other stakeholders, with the need to take care of providing conditions for the inclusion of students with disabilities, disorders in development and vulnerable groups. This Article specifies that during enrolment in high school, the placement of students for work-based learning is done in cooperation with the student, parent or other legal representative, employer and school, and that the manner of placing students for work-based learning is prescribed by the Minister in cooperation with the Chamber of Commerce and Industry of Serbia.

Article 8 of the Draft Law stipulates the obligation of the school to form a team for career guidance and counselling whose role is in the process of dual education, strengthening career management skills and making informed decisions in choosing direction, education and professional activity, with the aim of achieving professional identity, in accordance with personal characteristics and labour market needs. The team consists of representatives of school employees, professional associations, representatives of local self-government units and employers, and team meetings can be attended by representatives of parents and other legal representatives of students and the student parliament. This article stipulates that more detailed conditions on the manner of work, activities and composition of the team are prescribed by the Minister.

Article 9 of the Draft Law defines the role of students, schools and employers in the implementation of the curriculum. The school is responsible for implementing the curriculum as a whole. The school realizes the part of the curriculum related to theoretical classes and exercises and monitors, in cooperation with the employer, the implementation of the curriculum related to work-based learning with the employer.

The employer realizes the part of the curriculum related to work-based learning and is responsible for the systematic and quality performance of work-based learning in accordance with the qualification standard and the curriculum, and mutual relations between school and employer are regulated by contract.

Article 10 of the Draft Law defines that the protection of students' rights is realized in accordance with the law which regulates the basics of the education system, in accordance with the special law which regulates the secondary education system. Given that work-based learning takes place with the employer, it is necessary to ensure the protection of students' rights in accordance with the regulations governing the field of work and safety at work, as well as regulations governing the prohibition of dangerous work for children, and Discrimination against students, physical, psychological, social, sexual, digital and any other violence, abuse and neglect of students are prohibited during work-based learning with the employer.

Article 11 of the Draft Law specifies the conditions that the employer must meet for performance of work-based learning and which relate to performing activities that enable the realization of the content of work-based learning prescribed by the appropriate curriculum, space, equipment and teaching aids for work in accordance with the Rulebook on detailed conditions regarding space, equipment and teaching aids of a certain educational profile, number of licensed instructors, ensuring the application of safety and health related measures at work, conditions regarding employer liquidity, conditions for responsible person of the employer and the instructor, and which refer to non-conviction by a final verdict for a criminal offense for which an unconditional sentence of imprisonment of at least three months has been imposed, as well as for criminal offenses of domestic violence, abduction of a minor, neglect and abuse of a minor or incest; for criminal offenses from the group of criminal offenses against sexual freedom, against the economy, against official duty, against legal traffic and against humanity and other goods protected by international law, regardless of the criminal sanction imposed; that they have not been convicted of a misdemeanour in the field of labour relations and for which, in accordance with the law, discriminatory behaviour has not been established, as well as the condition that the employer has not been convicted of criminal offenses prescribed by law governing the prevention of harassment at work.

Article 12 of the Draft Law stipulates that the Chamber of Commerce and Industry of Serbia checks the fulfilment of the employer's conditions for performance of work-based learning, which in that procedure forms the Commission for determining the fulfilment of conditions for such type of learning for the educational profile or group of educational profiles, and the manner of its work is regulated in more detail by the Chamber of Commerce and Industry of Serbia by a general act, and the Law determines the composition of this Commission in terms of mandatory members and specifies that members perform their work without compensation. This article also prescribes the deadline for submitting the request for checking if conditions are fulfilled, and issues certificates of fulfilled requirements for work-based learning. The Article stipulates that the Chamber of Commerce and Industry of Serbia, at the proposal of the mentioned Commission, in case the employer stops fulfilling the prescribed conditions, makes a decision on the termination of fulfilment of the conditions for performance of work-based learning. This decision is final in the administrative procedure. The Chamber of Commerce and Industry of Serbia performs these tasks as entrusted tasks.

The Article also introduced the obligation of keeping a Register of employers who have been found to meet the conditions for performance of

work-based learning, which is kept and regularly updated by the Chamber of Commerce and Industry of Serbia. The Article determines the data that are entered in this Register, as well as that it is kept as a single electronic database, and the data from the Register are posted on the official website of the Chamber of Commerce and Industry of Serbia.

III. CONTRACTS IN DUAL EDUCATION

Article 13 of the draft law regulates the existence of two types of contracts - the contract on dual education which regulates the relationship between school and employer and the contract on work-based learning which regulates the relationship between employer and student, i.e. parents or other legal representative.

Articles 14-17 of the draft law defines the form and content of the contract on dual education, and/or the obligatory elements it contains, and sets forth that this contract is concluded between the school and the employer. The school concludes a contract with one or more employers, who have a Certificate of fulfilled conditions for performing the work-based learning, thus providing conditions for mastering the entire content of work-based learning, as defined by a specific curriculum. Also emphasized is the obligation of the school to be guided by the best interests of students in the selection of the employer, as well as to inform the Ministry about the concluded contracts on dual education within eight days from the date of execution thereof.

This Article also sets forth the obligation of the school and of the Chamber of Commerce and Industry of Serbia to post on their respective official web sites within no longer than 15 days from the date of the conclusion of the dual education contract the basic information about the curriculum and other information relevant for work-based learning.

Articles 18-20 of the Draft Law stipulate the conditions and the reasons for termination of a contract for dual education both by the school and by the employer. The provision of Article 20 regulates the consequences of the termination of dual education contract, and/or the manner in which the students will be provided the opportunity to attend theoretical or practical instruction in another school and/or with another employer.

Articles 21 and 22 of the Draft Law define the form and content of a contract for work-based learning and concluded by the employer and the student, and/or the parent or other legal representative of the student by not later than the beginning of the school year in which implementation of the work-based learning begins, as well as the obligation of the employer to keep records of the concluded contracts for work-based learning.

Article 23 of the Draft Law sets forth a possibility for a student and/or parent or other legal representative to conclude the contract for work-based learning with several employers if necessary for implementation of the curriculum.

Articles 24–26 of the Draft Law stipulate the conditions and the reasons for termination of the contract for work based learning both by the employer and student, and/or parent or other legal representative of the student. The provision of Article 26 governs the consequences of the termination of the work-based learning contract, and/or the manner in which students will be given an opportunity to continue their work-based learning and/or be allowed to continue their work-based learning with an employer.

IV. REGISTER OF CONTRACTS

Article 27 of the Draft Law stipulates that the register of dual education contracts shall be maintained as an entrusted task by the Chamber of Commerce and Industry of Serbia, and lists all data that have to be entered in this register which shall be kept as a single database publicly accessible as it is posted on the official website of the Chamber of Commerce and Industry of Serbia.

Article 28 of the Draft Law establishes that the employer has a duty to submit to the Chamber of Commerce and Industry of Serbia the contract for dual education within a period of eight days from the date of execution of such contract in order to be entered in the register.

V. INSTRUCTOR

Article 29 of the Draft Law defines the term instructor, as well as the conditions in terms of employment, work experience, level of education and training with a certificate of passed exam for an instructor, which is the obligation the instructor must meet. It is prescribed that in addition to the obligation to attend training and have a certificate of passed instructor exam, the instructor may be a person who has the basics of pedagogical and didactic knowledge and skills and has valid authorizations to be an instructor, issued by national or international regulatory authorities for the areas to which the authorization relates.

Obligations of the instructor are to carry out, conduct and supervise in cooperation with the work-based learning coordinator the work with the employer, to participate in the process of assessment of students' work-based learning, and supervise the manner in which safety and occupational health

are ensured. The number of students that the instructor can implement the work-based learning with is determined by the curriculum.

Article 30 of the Draft Law prescribes the competence of the Serbian Chamber of Commerce to conduct training for instructors lasting 40 hours, which must include the basics of pedagogical and didactic knowledge and skills, to form a Commission to conduct an exam for instructors, and that obligatory members of the Commission, in addition to experts in the relevant field of work, shall be at least one representative proposed by the Ministry and one by the Institute for the Improvement of Education. It is also specified that members of the Commission perform the work in the Commission free of charge. The Chamber of Commerce of Serbia issues and bears the costs of issuing a license to a person who has passed the instructor exam and keeps and bears the costs of keeping the register of issued licenses, and the data entered in the license and register are listed. The costs of instructor training are borne by the instructor's employer, and the amount of these costs is determined by the General Acts of the Serbian Chamber of Commerce. The mentioned tasks are performed by the Chamber of Commerce and Industry of Serbia as entrusted tasks, and the training program, closer conditions and other issues of importance for taking the exam for instructor, at the proposal of the Institute for the Improvement of Education are prescribed by the Minister.

VI. ASSESSMENT (GRADING) AND EXAMINATIONS IN DUAL EDUCATION

Article 31 of the Draft Law stipulate that the instructor monitors continuously the progress of students in cooperation with the coordinator of work-based learning in order to be acquired the competencies prescribed by qualification standard, and that evaluation of students is done in accordance with the curriculum, the law and the rulebook specifying in greater detail the performance assessment of students in secondary vocational education.

Article 32 of the Draft Law regulates issues of importance for the content and manner of conducting the final and matura exams in dual education, the commission for assessment of acquired competencies (which performs its work free of charge), as well as issues related to public documents and diploma supplement issued to a student who has passed the final or matura exam in dual education.

It is important to emphasize that this Article determines the permeability, i.e. the possibility of enrolling students in dual education at the next level of education in accordance with the law.

It is worth noting that this Article establishes permeability, and/or the possibility that a student in dual education enrolls in the next level of education in accordance with law.

VII. IN-KIND AND FINANCIAL SUPPORT TO STUDENTS

Article 33 of the Draft Law defines that the employer allocates assets for material security of students and lists the obligations of the employer in this regard.

Article 34 of the Draft Law stipulates that the financial support to a student attending the work-based learning includes compensation, paid once in the month for the preceding month, which compensation is paid for each hour spent on work-based learning in a net amount of minimum 70% of the minimal price of labour in accordance with law. Assets for this purpose are provided by the employer.

VIII. SUPERVISION

Article 35 of the Draft Law stipulates that the Ministry supervises via Education Inspectorate the enforcement of this law and the performance of the tasks entrusted to the Serbian Chamber of Commerce, with the exception of the segment relating to work conditions and safety at work with the employer which fall under the competence of the Ministry in charge of labour – via the labour inspectorate.

IX. PENAL PROVISIONS

Articles 36 and 37 of the Draft Law sets the fines for misdemeanours of the school, as well as the principal, i.e. the responsible person of the school, and a fine for the misdemeanours of the employer, i.e. the responsible person with the employer.

X. TRANSITIONAL AND FINAL PROVISIONS

Article 38 of the Draft Law specifies the deadline for adoption of the by-laws. The Minister passes the by-laws necessary for implementation of this Law within a period of six months from the date of entry into force of this law, and the documents from Article 12 paragraph 13 and Article 30 paragraph 11 of this Law are enacted by the Chamber of Commerce and Industry of Serbia within a period of three months from the date of coming into force of this law (document on organisation, composition and mode of

operation of the Commission for establishing fulfilment of the conditions for implementation of work-based learning with the employer, and the document on the level of the training and instructor examination costs).

This Article stipulates that by the time of commencement of implementation of the law which governs the National Qualification Framework in dual education will be determined the qualification standards in dual education in accordance with the law regulating the bases of the education system, except the portion that relates to the description of the work that is determined by the Chamber of Commerce and Industry of Serbia.

Article 39 of the Draft Law prescribes that a person who is employed by an employer or independently performs an activity, and who until the entry into force of this Law participated in the implementation of practical training in secondary vocational education in accordance with the applicable curriculum, has the right to submit a request to the Serbian Chamber of Commerce for the issuance of instructor license

Article 40 of the Draft Law sets a 60-day deadline from the date of entry into force of this law in which the government shall setup the Commission for the development and implementation of dual education, with the intention to improve dual education and make three-year valuations of achieved results.

Article 41 of the Draft Law stipulates that this Law shall enter into force eight days after its publication in the "Official Gazette of the Republic of Serbia", and apply starting from the school year 2019/2020.

Annex 3 – Analysis of the effects of the provisions of the Draft Law on Dual Education

1. 1. What are the issues that the law needs to resolve?

The Serbian economy and its development largely depend on the quality and availability of labour. In Serbia, despite high unemployment (especially among young people), there are vacancies for skilled labour, primarily in craft and technical occupations, where employers cannot hire the right staff.

Employers cannot find the necessary workers with secondary education and in most cases do not have the capacity, their own resources, or time for their additional training, which has resulted in a significant number of unfilled jobs over the years. In the current economic situation, this phenomenon is not negligible. Unemployment affects the growth of poverty, especially in the segment of the youth population, as well as the declining birth rate.

Various studies show that employers are much more likely to organize trainings to cover shortcomings in the education of young people during their schooling than they conduct or send young people to those highly sophisticated and advanced trainings. The research showed that from 2001 to 2012, the shortcomings of the education system cost the economy almost 3.5 billion euros.²⁰ These problems discourage employers to hire young and inexperienced people, because in a certain period they have too much tax burden, investment in additional training of new employees and loss due to lower productivity in the period of their adaptation.

Although providing the most direct opportunity for high school students and employers to meet, currently practical classes and professional (student) internships are conducted in a way that is not appropriate and does not give the expected effects in terms of skills acquisition and competence development.

From 1992 to 2003, practical classes in secondary vocational education were realized according to the same programs. Since 2003, it has changed, as have the overall teaching and learning curricula in 59 pilot profiles. However, the place of practical classes has not changed - in most schools practical classes are conducted in school workshops that are not adequately equipped. On the other hand, as the production technology and performance of work processes in modern business conditions change very quickly, employers must, in order to survive in the market, monitor these changes by

20 Dr Ristić, Z., Rajić, D., Pavlović, Lj.: Better conditions for youth employment (p. 14); Union of Employers of Serbia, 2013, Belgrade

adopting new technologies and using new production techniques and equipment. Schools cannot monitor these changes with their equipment in school workshops, and most often students use that equipment for practical work, i.e. machines that employers used as obsolete. Also, teachers of practical classes are not able to transfer to students the knowledge and skills that change over time due to technological progress, as a way of behaving in the work environment, because they themselves do not have that practical experience. At the same time, learning in a real work environment develops skills and inclinations to work, which are difficult to develop in an artificially created and simulated environment.

Even when practical classes take place in companies, the quality is not at a satisfactory level, because the very concept of practical classes was based on the obligation of schools to provide students with a place to do internships. Employers' needs for educational profiles were not taken into account at all, and practical classes were organized in a way that would meet the needs of schools in order to fulfil the required form. The companies were not obliged to delegate an employee who would take care of the student to acquire all the knowledge and skills provided by the curriculum during the practical classes, and there were no contractual relations that would regulate all rights and obligations of students and employers during the practical classes.

Improving the quality of practical teaching achieved through dual education, i.e. work-based learning, will create and encourage entrepreneurial spirit and self-employment because students will have the opportunity to learn a lot in the real work environment that is not taught in school, will acquire various skills in an opportunity to develop an entrepreneurial spirit and perhaps decide to start their own business after graduation.

If not having practical experience, it is difficult for a young person to decide to start an independent business. Research shows that only 3-5% of young people will start an independent business²¹ if they have not gained some work experience during school, but in those environments where they have gained that experience, 15-20% of young people who have finished school will start their own business.

According to the latest statistical data (Labour Force Survey for the first quarter of 2017, source: Serbian Statistical Bureau), there are about 452,800 unemployed people in Serbia, of which almost one-fifth are the population aged 15 to 24.

21 OECD (2016), *Competitiveness in South East Europe: A Policy Outlook*, Competitiveness and Private Sector Development, OECD Publishing, Paris, p. 126 <http://dx.doi.org/10.1787/9789264250529-en>

- Among the young unemployed persons, 62% do not have any work experience, and around 150.000 of the young (age from 15 to 24) are neither getting educated nor are employed.
- The experience shows that when a young person does not have employment for six months after graduation, lasting consequences remain when his productivity is concerned. When an engineer does not work for three years, he loses the knowledge acquired at school, does not acquire the knowledge that he could acquire at work, loses self-confidence, and he no longer has the quality required once he finds a job.

The current system of secondary vocational education in the Republic of Serbia is primarily school, and learning at work, when it exists, takes place in virtual school workshops, while in companies it rarely takes place.

- The rate of continuation of education from the primary to secondary school in Serbia is around 92% (the remaining 8% desist from further schooling).
- Of the total number of students who continue their education after finishing primary school, 75% of students opted for secondary vocational schools, but about a quarter of that number opted for economics, law and medicine. The second quarter opted for one of the schools that will make it easier to enrol in college than high school will.
- About 15% of students who continue their education after finishing primary school have opted for three-year education for craft occupations.
- It is interesting that many still do not enrol in college or do not graduate, so in the end we have data that in the structure of the active population of Serbia the largest share of the population is with completed secondary vocational school (52%), while the population with higher education is less than 18.
- At the same time, among the unemployed, most are those with high school education (as many as 65%), and even among those who are in the category of long-term unemployed.

Having in mind the above, as well as the situation on the labour market, the Ministry of Education, Science and Technological Development (hereinafter: the Ministry) defined the introduction and development of dual education as one of the priority goals, which certainly requires normative regulation of this type of education.

The drafting of the Law on Dual Education was approached with the aim of adapting the concept of dual education to the time, needs and conditions in which this process can take place in the Republic of Serbia, using all the experiences of European countries that have developed this education system.

The drafting of the Law used the experiences gained during the implementation of pilot projects related to the development of dual education in Serbia. In the pilot projects of dual education supported by the German Organization for Technical Cooperation (GIZ), the Swiss Agency for Development and Cooperation (SDC) and the joint project of the Chambers of Commerce of Serbia and Austria, ending the previous school year (2016/2017), involved more than 60 companies and 18 schools, with over 900 students.

The introduction of elements of dual education in secondary vocational education in Serbia began in 2013 with the project of the German Organization for Technical Cooperation (GIZ) "Reform of secondary vocational education in Serbia". At that time, three educational profiles were introduced into the regular school system - industrial mechanic, electrician and locksmith-welder.

Austria has joined the services sector (education profile trader and technician for logistics and freight forwarding). The signing of the Memorandum of Cooperation between the Serbian Chamber of Commerce, the Ministry of Education, Science and Technological Development of the Republic of Serbia, the Federal Ministry for Europe, Integration and Foreign Affairs of the Republic of Austria and the Austrian Chamber of Commerce on February 9, 2016 and was officially confirmed the support of the Republic of Austria to dual education in secondary vocational education in the Republic of Serbia.

Through the project of the Chamber of Commerce and Industry of Serbia and the Chamber of Commerce of Austria, since February 2017, education for the entire generation of first grade students of the three-year trader profile has been organized at the Trade School in Belgrade. A total of 120 students were trained as traders according to the dual model in cooperation with five companies. At the same time, in cooperation with large Austrian freight forwarding companies, but also others, a new educational profile was developed - logistics and forwarding technician.

Switzerland, through the Swiss Development Organization - SDC, has invested in the development of a dual education model for the wood processing industry sector (furniture operator education profile).

All profiles were selected based on the demand of the company and the labour market by the responsible actors - MESTD, IIE, CCIS, NES, the Council for Vocational and Adult Education, the Association of Secondary Vocational Schools (primarily mechanical and electrical engineering schools).

In all companies participating in dual education within the projects, the persons in charge of working with students - instructors, attended training based, among other things, on acquiring pedagogical and didactic knowledge and skills needed to work with students. At the same time, this training included all elements of the legislative framework relevant to the stay of students in companies (such as regulations in the field of education, regulations in the field of labour and labour relations, occupational safety), as well as getting acquainted with the part of the curriculum implemented with the employer. The training was held by trainers in the field of education - representatives of the Institute for the Improvement of Education, teachers, as well as experts in dual education from Austria, with extensive experience in this field. In addition to future instructors, teachers of practical classes also participated in some trainings, with whose schools the employers established cooperation. The training of instructors lasted in most cases three working days.

When including employers in the dual education system, the possibilities of employers to implement the curriculum were considered. This referred to the possibility of realization of each teaching unit and consideration of material and technical conditions in terms of having adequate equipment, facilities, machines, working environment, necessary materials, etc., as well as conditions in terms of having an adequate number of employees in charge of instructor work with students. . As in reality it was not possible to expect that every employer will be able to fully implement the curriculum, the acquisition of the necessary knowledge and skills was carried out either in other companies or in the school.

Teachers of practical classes had the role of monitoring the implementation of the curriculum and to ensure that all students adopt the knowledge and skills provided. Also, they had the task to cooperate with instructors and provide them with support in the implementation of plans, programs and practices with employers, as well as support in solving difficulties and challenges that arose in working with students during practical classes. In this way, teachers also had the opportunity to improve their practical knowledge and get acquainted with the real work process in order to be able to better prepare students for learning with employers.

Regarding the selection of new educational profiles for dual education, it was done by implementing a new methodology of enrolment policy in secondary vocational schools, which, unlike previous years, is based on respecting and considering the needs of the economy for staff at local, regional and national levels. Several actors participated in the implementation of the new methodology: the task of the CCIS was to, in cooperation with local self-government units and the National Employment Service, at the

national level, review the real needs of the economy and collect data on the required staff. The collected data were submitted to the Ministry of Education, and based on them a final decision was made on the number and structure of student enrolment for the next school year. Enrolment in high schools, planned in this way, is another big step with the aim of bridging the big gap that exists between the education system and the economy, and in which the economy also actively participates, through the Chamber of Commerce and Industry of Serbia.

350 employers expressed interest in joining the dual education system, and 62 educational profiles were identified as needed by the economy.

However, as not all educational profiles are adjusted to the dual education system (in terms of the volume of practical classes and are not based on information on the needs provided by the economy), for the new school year, in addition to five existing, 14 new educational profiles have been prepared to educate 2,000 students, in cooperation with 60 schools and about 200 employers in 40 cities throughout the Republic of Serbia.

Other educational profiles, in accordance with the needs of the economy, will be modernized and prepared for the next school year. This means that the economy will be included in the development of curricula, so that the job description of educational profiles corresponds to the jobs in the real work environment for which students study.

2. What are the desired objectives of the adoption of the Law?

The Law on Dual Education as a special law governing the content and manner of implementation has for its objective the regulation of work-based learning for students of secondary vocational schools aim to:

- improve the secondary vocational education which will be adapted to the needs of the economy;

- acquire theoretical knowledge in school and practical knowledge in companies in a real work environment, taking into account the fact that schools cannot go hand-in-hand with the speed of technical and technological changes taking place in the market;

- increase the volume and quality of practical classes;

- develop curricula and programs that meet the needs of the economy, i.e. a description of jobs that correspond to the jobs that students will perform after schooling in the future workplace;

- approach systematically, rationally and gradually to the introduction and development of dual education, with a comprehensive view of the process, from the beginning to the end of schooling;

- create a system in which the qualification acquired at the end of dual education is a real expression of the acquired competencies, which leads to increased employability of young people;
- have the economy investing in education and its future workers, which will resolve in the longer run the issue of lack of certain qualitative labour force;
- ensure the conditions for employment upon completion of dual education;
- decrease the costs that the Ministry allocates for vocational education;
- enable, and/or increase the chances for students employment in one of the companies where work-based learning and was conducted;
- build entrepreneurial spirit with young persons and encourage them to launch a business, as well as to resume education in the area of vocational studies and faculties.

In order to follow up the enforcement of the prescribed targets and take preventive corrective measures, the law envisages establishment of a commission for the development and implementation of dual education, which will every three years submit reports to the government about the activities that were taken and about the results achieved.

3. Have possibilities been considered for resolution of issues without passing the act?, and

4. Why is the adoption of the law the best way for resolution of problems?

Bearing in mind that dual education is a specific type of secondary vocational education, which, in addition to students, teachers and schools, includes employers and their employees, the Serbian Chamber of Commerce, parents and other legal representatives of secondary school students, and mutual rights and obligations all these actors demand the enactment of laws to regulate this.

Given the fact that the Law prescribes a set of procedures that cannot be the subject of a by-law, the law was the only possibility to regulate dual education.

5. Who and in what way will be most probably affected by the solutions envisaged by the Law?

The solution is contained in the Law will affect:

- 1) Students - by providing better quality practical teaching or learning through work, students acquire, improve and build knowledge, skills and

abilities, which achieves the creation of opportunities for easier and faster employment; through formal education, quality functional education will be provided; the realization of educational profiles according to the model of dual education will not affect employment in the sense that already employed workers will be replaced by students because students are not employed and do not work, but learn through work. Although it can be said that in the third year of school, students become productive and contribute to the profit of a company, they cannot replace a skilled worker because they are still students; in the first year they spend only one or no day in the company, in the second two, and in the third two or three days (depending on the educational profile), which in no way makes them real employees.

2) Teachers - teachers of practical classes in vocational schools who, according to the curriculum, were engaged in training students in practical classes, within the profile that will be in dual education will continue to work with students the same job but will perform practical classes in the company and these teachers of practical teaching will be called coordinators of learning through work with the employer, unlike teachers of practical training in profiles that are not in dual education;

3) Economy / companies - providing deficient staff, providing better quality staff who have the necessary competencies and are able to meet the needs of modern economy and labour market requirements, improving competitiveness in the international market;

4) company employees / instructors - company employees who are the best in the job, and who already had the role of introducing young persons and / or newly imploded persons to work will be in centre by the director to attend the training for getting the license and / or the foundations of pedagogical and didactic knowledge and skills necessary for training the students in dual system of education; upon acquiring the license they will be appointed as instructors by directors, depending on the number of students they receive for work-based learning, and will train the students either the whole work time or only a part of the work time;

5) The Institute for the Improvement of Education - within the framework of the tasks prescribed by law that the Institute regularly performs, will actively participate in the preparation of the prescribed conditions for the realization of dual education. Namely, the Centre for Vocational and Adult Education, as an organizational unit of the Institute, in accordance with the Draft Law on the Fundamentals of the Education System, will have in its job description the preparation of part of the curriculum of secondary vocational education, preparation of qualification standards for educational profiles in vocational education as well as the preparation of the content of training programs and exams for instructors to perform work-based learning with the employer;

6) The Chamber of Commerce and Industry of Serbia - given that one of the basic tasks (strategic goals) of the CCIS is to represent the interests of the Serbian economy, and that one of the basic interests of economic entities - members of the CCIS is the availability of educated staff, participation in dual education adequate support to its members. CCIS will thus expand the range of services to Serbian businessmen;

7) Local self-government units - bearing in mind that they have representatives in the school board of vocational schools will influence the making of the most important decisions that relate, among other things, to the profiles in dual education;

8) parents of the students – because of faster employment the parents will not be forced to financially support their children;

9) budget of the Republic of Serbia – smaller outflows for the needs of secondary vocational education and also smaller outflows for various types of social assistance to the unemployed.

6. What costs will the implementation of the Law cause to citizens and the economy, and especially to small and medium enterprises

Direct costs of participation in dual education for businessmen in the Republic of Serbia include obtaining appropriate documents (proof of performing activities that enable the realization of learning content based on work prescribed by the appropriate curriculum; proof that the employer has not opened bankruptcy or liquidation proceedings, that the responsible person at the employer and the instructor have not been convicted by a final judgment of a prescribed crime, etc.), which will be required for obtaining a certificate of fulfilled conditions for work-based learning (approximate amount payable for obtaining these documents is about 500 RSD in case that the employer does not want to have such documents provided ex officio), as well as the costs related to instructor training and the exam.

The strategic intention is that only employers who have an interest in that or have a problem with finding adequate staff participate in dual education, and accordingly it is expected that these employers will be able and willing to pay the costs of training and exams for instructors, as well as to provide students with material and financial resources.

The Serbian Chamber of Commerce will bear the costs of training the trainers who will continue to train instructors from the company, as well as taking exams for instructors in the next four years through a project with the Austrian Chamber of Commerce.

Data from a project with the Austrian Chamber of Commerce can be used to estimate the cost of instructor training. To illustrate, this project is planned

to hold a total of 91 trainings (one training for trainers, and 90 trainings for instructors in companies) over four years (length of the project). It is planned that 20 trainers will be trained and about 1,350 instructors in 90 trainings. Estimated training costs are € 17,900 for coach training and € 2,650 per training for instructors. The total cost is approximately 256,000 Euros and includes the cost of hiring experts from abroad, the necessary travel and accommodation costs, food costs, translation services and equipment.

Upon completion of the project, after the establishment of the system, the costs of instructor trainings will be covered by employers.

With regard to direct costs, for example the costs of equipping the work, employers will not have such costs because the working will not be particularly adapted to the students.

One of the objectives of this model of education is that students learn in a real working environment, the one that the employer already has.

The costs of compensation of the students' transportation costs are hard to be estimated because they depend the distance between the place where students live and the working premises of the employer, as well as on the number of students who are in dual model of education.

The costs of safety at work depend on the educational profile, and in fact these are the costs related to the condition that employers must meet not only for students but also for their employees.

Other costs to be covered by the Chamber of Commerce and Industry of Serbia relate to:

- participation in the development of the envisaged by-laws;
- determining the job description in the qualification standard;
- participation in the development of a high school enrolment plan;
- checking the fulfilment of conditions for performing work-based learning with the employer;
- determining work of the Commission for checking fulfilment of the conditions;
- processing requirements for checking fulfilment of the conditions'
- issue and withdrawal of the Certificate of fulfilled conditions;
- keeping and updating of the registry of employer whose Certificates were issued/withdrawn;
- disclosure of data from the registry of employers on its web site;
- posting on its website, upon executed dual education contract, of the information about the curriculum and other information relevant to work-based learning;
- support to school to organise the work-based learning with another employer in the case of termination of the contract for dual education;

- establishment and keeping of register of dual education contracts and work-based learning contracts;
- posting on its website of the data from the registry of dual education contracts;
- issue of instructor licences and keeping register of issued licenses;
- appointment of the employer's qualified representative for participation in final and MATURA exams.

The commission at the final and matura exams, as well as so far in the sample profiles, consists of representatives of the school and qualified representatives of employers appointed by the Serbian Chamber of Commerce, who perform their work free of charge.

All costs of implementation of dual education that will be borne by the Serbian Chamber of Commerce will not affect the amount of membership fees, as well as the amount of any other service that the Serbian Chamber of Commerce offers to its members. The amount of membership fees is prescribed by the Law on Chambers, and the determination of the amount of other services is prescribed by special acts of the Serbian Chamber of Commerce and has special internal procedures.

Most of the costs to be borne by the Chamber of Commerce and Industry of Serbia relate to work that employees of the Chamber of Commerce and Industry of Serbia already perform during their regular work and during working hours, which will not require their additional engagement, as well as engagement of persons outside the Chamber of Commerce and Industry of Serbia.

Indirect costs have not been estimated, but taking into account the results of the mentioned research which showed that from 2001 to 2012 the shortcomings of the education system cost the economy almost 3.5 billion Euros due to the organization of non-formal education for introducing new workers, this Law creates conditions for generating benefits for the economy, small and medium enterprises, students as workers or even future employers.

7. Are the positive consequences of the law adoption of such nature that they justify the costs that it will create?

In the previous period, the state allocated significant funds for investment in secondary vocational education, i.e. in equipping school classrooms / workshops, as well as for raw materials necessary for student internships that have existed in the system of secondary vocational education.

Given that technical and technological development is making significant progress, the state is not able to provide funds from the budget of the Republic

of Serbia for equipping classrooms that would purposefully go abreast with this development. By opening the door to employers who enter the dual education system and enabling students to acquire competencies and by work-based learning in a real work environment, it significantly reduces the need for the state to continue allocating funds for equipping school classrooms / workshops. In this way, in the coming period, with the increase in the number of students in the dual system as well as the number of new dual profiles, the state will save significant funds which will make it cheaper to educate students in secondary vocational education.

Employers, at employing new workers, will not need to allocate significant funds for the organization of trainings because these new workers will already be trained thanks to their formal-dual education.

Cheap labour is produced in the education system, which through the concept of curricula in vocational education does not follow modern technical and technological development. The sustainability of employers' business is proof that they have modern knowledge about technical and technological progress and as such become partners in dual education and enable young people to acquire competencies through learning in a real work environment.

It is expected that the benefits of the dual education introduction and application will be visible after 5-10 years, i.e. after the completion of one cycle of secondary education which is realized according to the dual model, and upon entry of these students into the labour market.

8. Does the Law support creation of new economic entities and market competition?

By acquiring new knowledge, competencies, skills and abilities, acquiring work discipline, sense of responsibility, learning for independent and team work, enabling work-based learning in a real economic environment and by encouraging entrepreneurial spirit, students as future workers will have greater opportunities, knowledge and experience to decide, after schooling, on an independent entrepreneurial activity, i.e. the establishment of small and medium enterprises. A larger number of companies should have a positive impact on market competition and improve the quality of company work.

9. Did all stakeholders have an opportunity to express their opinion about the Law?

At the proposal of the Ministry of Education, Science and Technological Development, the Committee for public services of the Government of Serbia adopted pursuant to Article 41 paragraph 3 of the Government's Rules of Procedure ("Official Gazette of the Republic of Serbia ", No. 61/06 – consolidated

text, 69/08, 88/09, 33/10, 69/10, 20/11, 37/11, 30/13 and 76/14) at the session held on 17 May 2017 the Conclusion 05 Number: 011—4507/2017, establishing the conduct of public debate about the Draft Law on Dual Education, and the Programme of the public debate was determined.

The public debate on the Law on Dual Education Proposal was conducted in the period from May 19 to June 8, 2017. The text of the Draft Law was posted on the website of the Ministry of Education, Science and Technological Development on the e-government portal, and remarks, proposals and suggestions could be made to the Ministry on a special Form that could be downloaded from the official website of the Ministry of Education, Science and Technological Development.

During the public debate, three tribunals were held in:

1. **Novi Sad**, on 26 May 2017 in the primary school "Svetozar Markovic Toza", Janka Cmalika 89, in the period from 2 to 4 p.m.;

2. **Nis**, on 1 June 2017 at the Faculty of Electronics, A. Medvedeva 14, in the period from 2.30 p.m. to 4.30 p.m.;

3. **Belgrade**, 8 June 8 2017 in the Hall of the Belgrade Municipality of Vračar, Njegoševa 77, in the period from 2 p.m. – 4 p.m.

Representatives of the Council for Vocational and Adult Education, the Institute for the Improvement of Education, the Provincial Secretariat for Education, Administration and National Minorities - National Communities, the Union of Employers of Serbia, the Chamber of Commerce and Industry of Serbia, the Local Self-Government Units, employers, representative education unions and branch unions participated in the public debate. In addition, high school principals and teachers, members of vocational school communities, representatives of parents, NGOs, and other interested individuals participated in the discussion. The public debate took place in a polemical but parliamentary spirit, except in the case of Belgrade, where a group of participants, who openly opposed the adoption of this Law, prevented the proposer from presenting this draft law.

Stakeholders had the opportunity to participate in the drafting of the Law and make proposals for changes in certain legal solutions. A meeting was held with the representatives of all representative unions in the field of education, after which several of the received proposals were adopted and thus became an integral part of the Law. Representatives of the Chamber of Commerce and Industry of Serbia, as representatives of employers - one of the most important stakeholders, have all the time been involved in drafting the Law. Representatives of vocational schools, principals and teachers had the opportunity to create individual legal solutions, i.e. give their suggestions during its development. Representatives of the Standing Conference of

Towns and Municipalities also commented on the Law in the part related to the role of local self-governments.

International experts, representatives of Germany, Austria and Switzerland, who manage donor projects for the reform of vocational education in Serbia, also commented on the Law in the form of comments and proposals.

A total of 36 letters with proposals, remarks and suggestions were received at the e-mail address dualno.obrazovanje@mpn.gov.rs from

- Belgrade Open School
- UNICEF
- Institute for the Improvement of Education
- Union of Employers of the Town of Sremska Mitrovica
- Gebruder Weiss doo
- Provincial Secretariat for Education, Regulations, Administration and National Minorities - National Communities
- Agricultural School "R. J. Selja" Prokuplje
- Movement of Free Citizens
- European Graduate School – EGS, Sas-Fe, Switzerland
- Technical school "Drvo Art" Belgrade
- Technical school "Ivan Saric" Subotica
- Association of Independent Craftsmen Novi Sad
- Agricultural School "Rados Jovanovic Selja" Prokuplje
- Forum of businessmen Čačak
- "Cosmos print", Belgrade, graphic company
- Novkol a.d. Belgrade
- FARMALOGIST DO BEOGRAD
- DOO Studio Maruska
- Techno-Coop d. o. o. Subotica
- "Zapis", Arandjelovac
- dm drogerie markt d. o. o.
- Delaise Serbia
- "Cugura print"
- Alltech Serbia d. o. o. Senta
- "Elektromreza Srbije" a. d.
- German-Serbian Chamber of Commerce

• Carpentry workshop TIK Sremska Mitrovica LION GROUP SYSTEM, group of 12 members (Europetrol, Euro gas, Euro petrol trans, Euro style center, DES, Luka Senta, Euro garni hotel, Integral inženjering, Minpres, Min tehnoproces, Transfer R, Lion cart).

- Association "Context"
- Union of Education Workers of Serbia
- Center for Emancipation Policies
- Association "Radnik" Belgrade
- Association of citizens with disabilities "Fren"
- Secondary school "Sveti Ahilije" Arilje
- Network of organizations for children of Serbia (NOCS)
- Association of citizens "Roditelji"
- Agroinvest Foundation Serbia
- Center for Youth Integration
- Western Balkans Institute
- Center for Developing Potentials of Children and Youth "Play"

The Ministry considered all the principled and individual suggestions, proposals and remarks made during the public debate.

Remarks and suggestions for changing certain Articles or attitudes of the Draft Law on Dual Education, referred to:

- Definitions of basic terms - dual education, work-based learning, instructor and especially coordinator of work-based learning;
- Clarifying the role of learning coordinator through work;
- Supplement to the provision that defines the scope of application of the Law;
- Defining career guidance and counselling and school-company partnerships as additional principles of dual education;
- Defining the position of persons with disabilities within the principle of equal opportunities for all;
- Defining the competitiveness of the economy as one of the goals of dual education;
- Clarification of procedures and competencies in the adoption of curricula for teaching and learning in dual education;
- Determining the validity period of the qualification standard at a maximum of five years;

– Clarifying the scope of work-based learning with the employer, daily learning time and the maximum weekly workload of students in the process of work-based learning;

– Specifying the conditions under which part of work-based learning is realized in school;

– Clarification of the role of the school, the employer, parents and students in the process of enrolling students, especially in the part of assigning students to the employer;

– Employers demand the possibility of selecting and choosing students to learn through work;

– Clarification of the provisions for the protection of students' rights in the field of occupational safety as well as in the field of the provisions of the regulation on illicit activities for children;

– Clarification of the procedure for licensing employers, the role of the CCIS and the composition of the Commission that determines the fulfilment of conditions;

– Clarifying the procedure for controlling licensed employers and the procedure for revoking a license;

– Minimum duration of dual education contract;

– Abolition of the obligation to post the contract on the website of the school and the employer;

– Termination of the contract by the employer to be provided in case of organizational and technological reasons;

– Termination of the contract by the student to be enabled in case the student intends to change the school and educational profile;

– Specifying the obligatory elements of the contract on work-based learning, especially the elements of material and financial support to students;

– Specifying the provisions of the conditions for the instructor - the instructor must have at least the same level of education as the level of the profile in which he is engaged as an instructor;

– The duration of pedagogical-didactic training should be increased against the proposed 40 hours. Employers believe that training can be shorter;

– Specifying the obligation to pay for instructors' training and exam and specifying who pays for training;

– Specifying the ratio of the number of instructors and students who instruct from 1: 5 to 1:10;

- Specifying the composition of the Commission that conducts the instructor license exam, mandatory members from the Ministry, the Institute for the Improvement of Education and CCIS members;
- Concretization of the content and procedure of the Matura and final exam;
- Clarification of the provision for payment of transportation to the student performing work-based learning in the amount of actual costs for public city transport and compensation for food costs in accordance with the general act of the employer; increasing the amount of financial support to students to 70% of the minimum labour cost per working hour spent on work-based learning. It is proposed to remove the provision - productive work;
- Provide the student with security of disposal of the received compensation and prevent possible abuse of a parent or other legal representative;
- Introduce monitoring of the implementation of teaching and learning by the employer by educational advisors and the Institute for the Improvement of Education;
- Delete the provisions prescribing supervision by the education inspector at the employer's premises;
- Consider penal provisions with the possibility of eliminating them in order to involve as many employers as possible - CCIS proposal;
- Increase the envisaged penalties in order to act preventively on violations of the provisions of the law - proposal of individual participants;
- Adoption of bylaws simultaneously with the adoption of the Law;
- Postpone implementation for one year due to the need for better preparation of by-laws.

The Ministry of Education, Science and Technological Development made the necessary changes to the Draft Law, taking into account certain remarks received during the public hearing. All remarks, suggestions and proposals sent to the proposer during the public debate were carefully considered. All proposals and suggestions that improve the legal solutions of the proposed text of the Draft Law were incorporated into the final text of the Draft Law.

According to the provisions of the Draft Law on Dual Education, students are not in the process of work but in the process of work-based learning, i.e. the model of realization of the curriculum which also refers to acquiring competencies in cooperation with employers. Considering that dual education as a model of teaching implies stimulation through the allocation of material resources with the relevant partners who participated in the creation of the

Law, it is agreed that the student receives at least 70% of the minimum hourly wage. This amount is the product of the agreed opinion of these stakeholders that the student is in the process of learning during the implementation of the curriculum and these funds are determined as motivation and support to acquisition of competencies, and not as compensation for productive work that the student is supposed to achieve only in the final phase of their schooling.

10. What measures will be taken during the implementation of the Law to achieve what the Law provides?

Withdrawal of the Certificate from the employer not fulfilling the conditions for conducting work-based learning, the Chamber of Commerce and Industry of Serbia will perform on the basis of control, and according to the information received from the APR, school, students / parents, competent inspectorates and authorities and, first of all, from its regional offices that are still in constant contact with companies and will especially be with all companies that will be in the dual education system.

The implementation of the Law on Dual Education implies the following measures:

- employers will provide material and technical conditions for performing work-based learning, as well as financial conditions through the right to compensation for work-based learning;

- The Chamber of Commerce and Industry of Serbia, in cooperation with the Ministry and the Institute, will create a base of trainers (train trainers), through the project of the Chamber of Commerce and Industry of Serbia and the Austrian Chamber of Commerce and other mentioned foreign partners, who will be further responsible for the training of instructors from the companies;

- The Chamber of Commerce and Industry of Serbia will be responsible for organizing training and licensing of persons employed in companies - instructors who will be responsible for students during work-based learning or for their acquisition of competencies prescribed by the qualification standard and curriculum.

For the purpose of full implementation of this Law, the Ministry shall issue by-laws within the deadlines prescribed by this Law, as follows

1. Rulebook on the curriculum, which also contains a standard of qualifications (consists of a description of work and goals and learning outcomes;

2. Rulebook on the instructor training programme and more detailed conditions on taking the instructor exam;

3. Rulebook on how to place students for work-based learning;

4. Rulebook on detailed conditions on the way of work, activities and composition of the team for career guidance and counselling.

The said by-laws shall be adopted by the Minister within six months from the date of the Law's entry into force.

In order for this Law to be fully implemented, the Chamber of Commerce and Industry of Serbia will adopt general acts within the deadlines prescribed by this Law, namely:

1. Act on the organization, composition and manner of work of the Commission for determining the conditions for conducting work-based learning with the employer;

2. Act on conducting training, composition of the commission in charge of instructor licensing exam, issue of licence and of the register of issued licenses;

3. Act on the amount of the costs of instructor training and exam taking.

The mentioned acts of the Chamber of Commerce and Industry of Serbia will be passed within three months from the day the law enters into force.

In connection with the institutional-management measures and activities of the bodies and organizations for the implementation of the Law, financial, technical-technological, and organizational and personnel capacities have been provided. For the implementation of new solutions and for the application of the Law, it will not be necessary to change the organizational structure of the bodies and organizations that will participate in the preparation and implementation of dual education (Ministry, Institute for Improvement of Education, Ministry of Labour, Vocational Schools, Companies, etc.) or change the number of their employees.

In this regard, we note that the Chamber of Commerce of Serbia, as the only association of businessmen in the Republic of Serbia that represents the interests of the economy in dual education, will take over the implementation of a number of legally prescribed activities. Since the Chamber of Commerce and Industry of Serbia was established by the Law on Chambers of Commerce (Official Gazette of the Republic of Serbia, No. 112/15), all economic entities are members of the Chamber of Commerce and Industry of Serbia (membership is mandatory). The Chamber of Commerce and Industry of Serbia has regional coverage, i.e. network of offices throughout the Republic of Serbia. The work of the Chamber of Commerce and Industry of Serbia will be supervised by the Commission for the Development of Dual Education, formed by the Government.

Annex 4 – The Law on Dual Education

Downloaded from www.pravno-informacioni-sistem.rs

THE LAW on Dual Education

"Official Gazette of the Republic of Serbia ", number 101
of 10 November 2017

I. BASIC PROVISIONS

Subject of the Law

Article 1

This Law regulates the content and manner of achieving dual education, mutual rights and obligations of students, parents, or other legal representatives of students, schools and employers, in-kind and financial support to students, as well as other issues of importance for dual education.

The provisions of this Law shall apply to the part of secondary vocational education for educational profiles lasting three or four years and specialist education, in accordance with the Law.

The terms expressed in this Law in the grammatical masculine gender imply the natural masculine and feminine gender of the person to whom they refer.

Definition of Terms

Article 2

In terms of this Law, the following terms are defined:

1) "dual education" is a model of teaching in the system of secondary vocational education in which through theoretical teaching and exercises students in school and work-based learning with the employer acquire, improve, or build knowledge, skills, abilities and attitudes (hereinafter text: competencies) in accordance with the qualification standard and the curriculum;

2) "employer" is a legal entity or entrepreneur who fulfils the prescribed conditions for work-based learning of students in dual education and whose

activity enables realization of the contents prescribed by the appropriate curriculum in dual education (hereinafter: curriculum).

3) “work-based learning” is an organized process during which students, under the guidance and supervision of instructors and coordinators of work-based learning, in a real work environment with the employer acquire competencies to work in a particular occupation or group of occupations.

4) “Instructor” is a person employed by the employer, who directly ensures that during the work-based learning the contents prescribed by the curriculum are realized and it is responsible for the students to acquire the competencies prescribed by the qualification standard;

5) “coordinator of work-based learning” is a person employed in a secondary vocational school, i.e. a teacher of practical classes, who in cooperation with the instructor plans, monitors, implements and evaluates the realization of work-based learning with the employer;

6) “plan of realization of work-based learning” contains a description of activities, place and dynamics of realization of work-based learning and is adopted in cooperation between the school and the employer.

Principles of Dual Education

Article 3

Dual education is based on the obligation of all participants to be guided by the best interests of students, in accordance with the following principles:

1) school-employer partnership - cooperation and clear division of obligations and responsibilities in ensuring a quality learning process through work;

2) establishment of social partnership at the local level - involvement of all stakeholders in the process of planning, implementation and monitoring of the effects of dual education through the established institutional framework;

3) professionalism - establishing a formal-legal relationship between students, employer and school in the process of education;

4) ethical attitude - respect for the personality and dignity of students and achieving the goals of education;

5) quality assurance - coordination and establishment of standards at all levels and monitoring the efficiency of dual education;

6) career guidance and employability - developing career management skills and providing greater employment opportunities;

7) accessibility - equal conditions for all for quality access to dual education

8) relevance - compliance with the needs of employers and the labour market

9) permeability - access to different areas of work within the same level of education and to higher levels of education;

10) lifelong learning - enabling lifelong learning and development in all areas of life and work;

11) the right to choose - the freedom to choose an occupation and educational profile within the established criteria;

12) equal opportunities - providing equal conditions for education, without any discrimination based on gender, racial, national, cultural, ethnic and religious affiliation, language, sexual orientation, place of residence, financial status, disability and other personal characteristics.

Institutional partnership and cooperation between the Ministry in charge of education (hereinafter: the Ministry), the Chamber of Commerce and Industry of Serbia and the Institute for the Improvement of Education is established for the implementation of dual education at the national level.

Goals of Dual Education

Article 4

The goals of dual education are:

1) providing conditions for acquiring, improving and developing competencies in accordance with the needs of the labour market;

2) contribution to strengthening the competitiveness of the economy of the Republic of Serbia;

3) providing conditions for employment after graduation;

4) providing conditions for further education and lifelong learning;

5) developing the entrepreneurship, innovation and creativity of each individual for his professional and career development;

6) providing conditions for personal, economic and general social development;

7) developing the ability to work in a team and a sense of personal responsibility in work;

8) developing awareness of the importance of health and safety, including safety and health at work;

- 9) developing the ability to self-evaluate and express one's own opinion and make independent decisions;
- 10) respect for mutual rights and obligations of students and employers.

II. ACHIEVEMENT OF DUAL EDUCATION

Curricula

Article 5

The basis for the adoption of curricula is the qualification standard set by the sector council for a particular sector of work, in accordance with the law governing the national qualifications framework.

Based on the qualification standards referred to in paragraph 1 of this Article, the Institute for the Improvement of Education prepares a draft curriculum and submits it to the Ministry.

The curriculum contains the standard of qualification, compulsory general education, compulsory professional and elective subjects.

Within the compulsory professional subjects, there are also subjects that are realized as work-based learning.

The learning outcomes determined for the subjects that are realized within the framework of work-based learning are the basis for the development of a plan for the realization of work-based learning and are part of the school curriculum.

The Minister in charge of education (hereinafter: the Minister), with the previously obtained opinion of the National Education Council and the Council for Vocational and Adult Education, adopts the curriculum.

The qualification standard and the curriculum are updated every five years, i.e. in a shorter period of time if the needs of the economy and technological development so require.

Scope, period and place of realization of work-based learning

Article 6

The scope of work-based learning is at least 20%, and at most 80% of the total number of hours of professional subjects, in accordance with the appropriate curriculum.

Work-based learning is realized in accordance with the school calendar during the school year in the period of 8-20 hours, maximum six hours a day, or 30 hours a week, in accordance with the curriculum.

Work-based learning is realized in its entirety with one or more employers in accordance with the curriculum.

Notwithstanding the provision of paragraph 3 of this Article, part of work-based learning may be realized in the school in accordance with the curriculum or if it is not possible to be achieved in full with the employer.

The school realizes a maximum of 25% of work-based learning hours envisaged by the curriculum.

Student enrolment

Article 7

The structure of students' enrolment in secondary vocational schools by areas of work for educational profiles in dual education is determined in accordance with the needs of the economy and the possibilities of further education of future students.

The school administration, in cooperation with the competent authority of the autonomous province, compiles municipal or city proposals for a plan for students' enrolment in secondary schools.

In the preparation of the enrolment plan referred to in paragraph 2 of this Article, it is necessary to provide for the conditions for the inclusion of students with disabilities and students from vulnerable groups.

Employers, the organization responsible for employment affairs according to the seat of local self-government, the Chamber of Commerce and Industry of Serbia and other stakeholders participate, in accordance with the law, in the drafting of the enrolment plan referred to in paragraph 2 of this Article.

When enrolling in a secondary school, the placement of students for work-based learning is done in cooperation with the student, parent, or other legal representative, employer and school.

The manner of students' placement for work-based learning is prescribed by the Minister in cooperation with the Chamber of Commerce and Industry of Serbia.

Career guidance and counselling of students in dual education

Article 8

The school encourages and monitors the career development of students.

The school forms a Team for Career Guidance and Counselling (hereinafter: the Team), in order to strengthen career management skills and make thoughtful and responsible decisions about the professional future of students.

The team consists of representatives of school employees, professional associations, local self-governments and employers, and their engagement in the Team is free of charge. Representatives of parents, i.e. other legal representatives of students and the student parliament, can also attend Team meetings.

The Team cooperates with primary schools, especially in the process of planning the enrolment of students in secondary schools.

More detailed conditions on the manner of work, activities and composition of the Team are prescribed by the Minister.

Responsibility of students, schools and employers

Article 9

In dual education, the student attends school and learns based on work with the employer, in accordance with the qualification standard and the curriculum.

The school is responsible for implementing the curriculum as a whole.

The school realizes the part of the curriculum teaching and learning related to theoretical teaching and exercises and monitors, in cooperation with the employer, the implementation of the curriculum related to work-based learning with the employer.

The employer realizes the part of the curriculum that is related to work-based learning.

The employer is responsible for systematic and quality performance of work-based learning in accordance with the qualification standard and the curriculum.

Mutual relations between the school and the employer are regulated by a contract, in accordance with this Law.

Protection of students' rights

Article 10

Protection of the rights of students in dual education is realized in accordance with the law which regulates the basics of the education system, the law which regulates secondary education, the law which regulates the field of work and safety at work, regulations which regulate the prohibition of dangerous work for children, and this Law.

Discrimination against students, physical, psychological, social, sexual, digital and any other violence, abuse and neglect of students are prohibited during work-based learning with the employer, in accordance with the law governing the basics of the education system and other law.

Conditions for conducting work-based learning with the employer

Article 11

The conditions that the employer must meet in order to perform work-based learning, are:

- 1) performing activities that enable the realization of the content of work-based learning prescribed by the appropriate curriculum;
- 2) disposing of space, equipment and means for work in accordance with the Rulebook on closer conditions in terms of space, equipment and teaching aids of a certain educational profile;
- 3) disposing of the required number of licensed instructors in accordance with the curriculum;
- 4) ensuring the application of safety and health measures at work in accordance with the law;
- 5) that no bankruptcy proceedings have been opened against the employer or liquidation proceedings have been initiated;
- 6) that the responsible person at the employer and the instructor have not been convicted by a final judgment for a criminal offense for which an unconditional sentence of imprisonment of at least three months was imposed, as well as for criminal offenses of domestic violence, confiscation of a minor, neglect and abuse of a minor or incest, criminal acts from the group of criminal offenses against sexual freedom, against the economy, against official duty, against legal traffic and against humanity and other goods protected by international law, regardless of the criminal sanction imposed, that they have not been convicted of a misdemeanour in the field of labour relations, in accordance with the law, established discriminatory behaviour;
- 7) that the employer has not been convicted of criminal offenses prescribed by the law governing the prevention of harassment at work.

Determining the fulfilment of conditions for performing work-based learning with the employer

Article 12

The Chamber of Commerce and Industry of Serbia verifies the fulfilment of the conditions referred to in Article 11 of this Law.

The Chamber of Commerce and Industry of Serbia establishes a Commission for determining the fulfilment of conditions for conducting work-based learning with the employer (hereinafter: the Commission) for an educational profile or group of educational profiles.

The commission, which has an odd number of members in its composition, in addition to experts in the relevant field of work, must also have teachers in the field of secondary vocational education, labour inspectors and representatives of the Ministry.

The members of the Commission perform their work free of charge.

The request for verification of fulfilment of the conditions from Article 11 of this Law shall be submitted by the employer to the Chamber of Commerce and Industry of Serbia no later than the 30th of September of the calendar year preceding the school year in which the work-based learning begins.

The Chamber of Commerce and Industry of Serbia, at the proposal of the Commission, issues to the employer who has fulfilled all the prescribed conditions a Certificate of fulfilment of the conditions for performing work-based learning (hereinafter: Certificate), within 15 days from the date of receiving the Commission proposal.

The Chamber of Commerce and Industry of Serbia determines by a decision that the employer does not meet the conditions for conducting work-based learning and this decision is final in administrative procedure.

If the employer ceases to meet the requirements prescribed by Article 11 of this Law, the Chamber of Commerce and Industry of Serbia, at the proposal of the Commission, shall issue a decision on termination of the conditions for performing work-based learning and this decision is final in administrative procedure.

The Chamber of Commerce and Industry of Serbia maintains and regularly updates the Register of Employers who have been determined to meet the requirements for conducting work-based learning.

The Register referred to in paragraph 9 of this Article shall be kept as a single electronic database, and the data from the Register shall be published on the official website of the Chamber of Commerce and Industry of Serbia.

In the Register referred to in paragraph 9 of this Article, are entered the data relating to the registration number of the Certificate, name and identification number of the employer, name, surname and function of the responsible person with the employer, and the number and date of the decision on termination of fulfilment of conditions for work-based learning.

The costs of issuing the certificate, keeping and entering in the register referred to in paragraph 9 of this Article are borne by the Chamber of Commerce of Serbia.

The organization, composition and manner of work of the Commission are regulated in more detail by the general act of the Chamber of Commerce and Industry of Serbia.

The Chamber of Commerce and Industry of Serbia performs as entrusted tasks the checking of the fulfilment of the conditions for performing work-based learning, issue of documents from paragraphs 6–8 of this Article, and keeping the Register referred to in paragraph 9 of this Article.

III. CONTRACTS IN DUAL EDUCATION

Article 13

The mutual relationship in dual education between the school, the employer and the student, and/or the parent or other legal representative of the student is regulated by a contract.

The mutual relationship between the school and the employer is regulated by the contract on dual education, and the mutual relationship between the employer and the student, and/or the parent or other legal representative of the student is regulated by the contract on work-based learning.

1. DUAL EDUCATION CONTRACT

Article 14

The contract on dual education is concluded between the school and the employer, in writing, for at least a period of three or four years, in accordance with the curriculum.

Contents of the contract

Article 15

Mandatory elements of a dual education contract are:

- 1) name, seat and registration number of the employer as well as the registration number of the Certificate;
- 2) name and seat of the school;
- 3) educational profile which is the subject of the contract;
- 4) the obligation of the employer to perform work-based learning at his own expense;

- 5) obligations of the school in connection with the realization of work-based learning;
- 6) obligations of the employer in connection with the realization of work-based learning;
- 7) plan and programme for realization of work-based learning;
- 8) place and time schedule of realization of work-based learning;
- 9) the maximum number of students that the school can send to work-based learning;
- 10) the number of licensed instructors provided by the employer for those purposes;
- 11) duration of the contract;
- 12) reasons for termination of validity and termination of the contract;
- 13) manner of resolving possible disputes;
- 14) date and signatures of the contracting parties.

Concluding a dual education contract

Article 16

The school concludes a contract on dual education with one or more employers who have a Certificate, in order to provide conditions for the realization of all work-based learning contents defined by a specific curriculum.

When choosing an employer, the school is obliged to be guided by the best interests of the students.

An employer who meets the requirements prescribed in Article 11 of this Law may conclude a dual education contract with one or more schools.

The school notifies the Ministry of the concluded contract referred to in paragraph 1 of this Article no later than eight days from the date of the contract execution.

Publishing on the official website

Article 17

The School and the Chamber of Commerce and Industry of Serbia publish on their official website, no later than 15 days from the date of execution of the dual education contract, the basic information about the curriculum and other information relevant to the implementation of work-based learning.

Termination of the contract by the employer

Article 18

The employer terminates the dual education contract if:

- 1) the school is prohibited to operate or its work has discontinued in accordance with the law;
- 2) the school ceases to meet the prescribed conditions for the educational profile in which the employer realizes work-based learning;
- 3) the school does not fulfil the obligations stipulated in the contract on dual education;
- 4) unforeseen technological, economic or organizational changes occur with the employer, which prevent, hinder or significantly change the performance of activities.

Termination of the contract by the school

Article 19

The school terminates the dual education contract if:

- 1) a decision was made to terminate the fulfilment of the conditions for conducting work-based learning referred to in Article 12, paragraph 8 of this Law;
- 2) the employer does not fulfil the obligations stipulated in the dual education contract;
- 3) the employer violates the prohibition referred to in Article 10 of this Law;
- 4) the employer violates the rights of students prescribed by law.

The school is obliged to inform the Ministry without delay about the termination and reasons for termination of the contract on dual education.

Consequences of contract termination

Article 20

If the contract on dual education is terminated for the reasons prescribed in Article 18, item 1) –3) of this Law, continuing education is provided by another school determined by the Ministry.

If the contract on dual education is terminated for the reasons prescribed in Article 18, item 4) of this Law, work-based learning is provided to students by the school with another employer with which it has concluded a contract on dual education.

If the dual education contract is terminated for the reasons prescribed in Article 19 of this Law, work-based learning is organized by the school,

with the support of the Ministry, local self-government and the Chamber of Commerce and Industry of Serbia, with another employer with whom it concludes a dual education contract.

2. CONTRACT ON WORK-BASED LEARNING

Form of contract

Article 21

The employment contract through work is concluded by the employer and the student, i.e. the parent or other legal representative of the student, in writing.

The contract on work-based learning is concluded no later than the beginning of the school year in which the realization of work-based learning begins.

The employer is obliged to keep records of concluded contracts referred to in paragraph 1 of this Article, in accordance with the law.

Contents of the contract

Article 22

Mandatory elements of the contract on work-based learning are:

- 1) employer identification data;
- 2) name and surname of the student and his / her residential address;
- 3) name and surname of the parent, i.e. other legal representative of the student and his / her residential address;
- 4) identification data of the school the student attends;
- 5) the name of the educational profile;
- 6) confirmation from the health institution that the student meets the health requirements for the educational profile;
- 7) obligation of the employer to organize and implement student work-based learning in accordance with the curriculum;
- 8) as long as the curriculum is taught in the language of a national minority, the employer is obliged to organize and implement work-based learning in the language of that national minority;
- 9) place and time of realization of work-based learning;
- 10) obligation of students to regularly learn based on work with the employer;
- 11) obligation of students regarding the length of stay, learning, safety and health protection during work-based learning with the employer;
- 12) in-kind support to students in accordance with Article 33 of this Law;

- 13) financial support to students in accordance with Article 34 of this law;
- 14) duration of the contract;
- 15) reasons for termination, and termination of the contract;
- 16) way of resolving possible disputes;
- 17) date and signature of the contracting parties.

An integral part of the contract is the plan for the realization of work-based learning.

Article 23

A student, and/or a parent or other legal representative of a student may conclude a work-based learning contract with several employers with whom the school has concluded a dual education contract, if this is necessary for the implementation of the curriculum.

Termination of the contract by the employer

Article 24

The employer terminates the study contract through work if the student:

- 1) lost student status;
- 2) violates the obligations established by the contract on work-based learning and the law;
- 3) permanently loses the health ability to work in the profession for which he is studying.

Termination by the student or parent or other legal representative of the student

Article 25

A student, and/or a parent or other legal representative of a student may terminate the work-based learning contract if:

- 1) the student loses the status of a student in the school or decides to change the educational profile for which he / she is being educated;
- 2) the student permanently loses the health ability to work in the occupation for which he is studying;
- 3) the employer does not fulfil the obligations from the contract on work-based learning with the employer;
- 4) a decision was made to terminate the fulfilment of the conditions for conducting work-based learning referred to in Article 12, paragraph 8 of this Law;
- 5) the employer violates the prohibition referred to in Article 10 of this Law;
- 6) the employer violates the rights of students prescribed by law.

Consequences of contract termination

Article 26

If the contract on work-based learning is terminated for the reasons stated in Article 25, items 3) –6) of this Law, the school is obliged to organize work-based learning for the student in the same educational profile with another employer, with which it has concluded a contract on dual education.

After the termination of the contract referred to in paragraph 1 of this Article, the student, and/or the parent or other legal representative of the student and another employer, with whom the school has concluded a contract on dual education, conclude a contract on work-based learning.

The school notifies the Ministry and the employer of the Chamber of Commerce and Industry of Serbia of the termination of the contract referred to in paragraph 1 of this Article, and/or of the concluded contract referred to in paragraph 2 of this Article, no later than eight days from the date of the contract conclusion.

If the school has not concluded a contract on dual education with another employer referred to in paragraph 2 of this Article, it is obliged to provide within 15 days the conditions for continuing work-based learning in the appropriate educational profile, and shall do so in cooperation with the Ministry and the Chamber of Commerce and Industry of Serbia.

IV. CONTRACT REGISTER

Register of dual education contracts

Article 27

The register of contracts on dual education is kept by the Chamber of Commerce and Industry of Serbia, as an entrusted job.

The following data shall be entered in the register referred to in paragraph 1 of this Article:

- 1) record number of the contract;
- 2) name and address of the school;
- 3) name and address of the employer;
- 4) number of students for whom the employer organizes work-based learning;
- 5) address of the place of work-based learning;
- 6) date and time of the contract conclusion;
- 7) start date of work-based learning.

The register referred to in paragraph 1 of this Article shall be kept as a single.

Electronic database

The data referred to in paragraph 2 of this Article are publicly available and posted on the official website of the Chamber of Commerce and Industry of Serbia.

Entry in the register

Article 28

The employer is obliged to submit the contract on dual education to the Chamber of Commerce and Industry of Serbia, within eight days from the date of the contract conclusion, for entry in the register referred to in Article 27, paragraph 1 of this Law.

A copy of the contract referred to in paragraph 1 of this Article may be submitted by the employer in printed or electronic form.

V. INSTRUCTOR

Instructor

Article 29

An instructor is a person who:

- 1) is employed by the employer or who independently performs the activity;
- 2) has work experience of at least three years in the appropriate occupation or group of occupations for which the student is educated in dual education;
- 3) has at least the same level of education for the appropriate educational profile for which the student is studying;
- 4) knows the language of the national minority in which the curriculum is implemented;
- 5) has completed training for an instructor and has a certificate of passed exam for an instructor (hereinafter: license).

Notwithstanding the provision of paragraph 1, item 5) of this Article, an instructor may also be a person who possesses the basics of pedagogical and didactic knowledge and skills and has valid authorizations to be an instructor, issued by national or international regulatory bodies in the field to which the authorization relates.

The instructor, in cooperation with the coordinator of work-based learning, realizes leads and supervises work-based learning at the employer,

under the condition and in the way that ensures safety and health at work, in accordance with the Law.

In the process of assessing work-based learning, the instructor cooperates with the coordinator of work-based learning.

The number of students with whom the instructor realizes work-based learning is set forth by the curriculum.

Training and license for instructor

Article 30

The training for instructors is conducted by the Chamber of Commerce and Industry of Serbia.

The training referred to in paragraph 1 of this Article lasts 40 hours.

The training referred to in paragraph 1 of this Article must also contain the basics of pedagogical-didactic knowledge and skills.

After completing the training referred to in paragraph 1 of this Article, the person takes the instructor exam.

The Chamber of Commerce and Industry of Serbia forms the Commission for taking the instructor exam and conducts the instructor exam.

The commission referred to in paragraph 5 of this Article shall have, in addition to experts in the relevant field of work, at least one representative nominated by the Ministry and the Institute for the Improvement of Education.

The members of the commission referred to in paragraph 6 of this Article shall perform their work free of charge.

The Chamber of Commerce and Industry of Serbia issues a license to a person who has passed the instructor exam, and keeps a register of issued licenses.

The license and the register of issued licenses contain: the registration number of the license, the name, surname and occupation of the person who passed the instructor exam and the name of the employer with whom that person is employed.

The costs of issuing a license and keeping a register of issued licenses are borne by the Chamber of Commerce and Industry of Serbia.

The amount of costs of training and taking the exam for an instructor shall be determined by a general act of the Chamber of Commerce and Industry of Serbia.

The costs of training and taking the instructor exam are borne by the employer.

The Chamber of Commerce and Industry of Serbia performs the tasks of conducting exams, issuing licenses and keeping a register of issued licenses for instructors.

The training programme, more detailed conditions and other issues of importance for taking the instructor exam, upon the proposal of the Institute for the Improvement of Education are prescribed by the Minister.

VI. PERFORMANCE ASSESSMENT AND EXAMS IN DUAL EDUCATION

Student grading

Article 31

The instructor continuously monitors the progress of students in cooperation with the coordinator of work-based learning, in order for the student to acquire the competencies prescribed by the qualification standard.

Student grading is performed in accordance with the curriculum, the law and the Rulebook, which regulates in more detail the assessment of students in secondary education.

Final and graduation (Matura) exam

Article 32

The content and manner of conducting the final, i.e. Matura exam are prescribed by the curriculum.

The final or Matura exam also checks the acquired competencies in accordance with the qualification standard.

Qualified representatives of employers must participate in the verification of acquired competencies during work-based learning, free of charge.

Representatives of employers referred to in paragraph 3 of this Article shall be appointed by the Chamber of Commerce and Industry of Serbia.

After passing the final, i.e. graduation exam, the student is issued a public document, in accordance with the law.

The student can enrol in the next level of education, in accordance with the Law.

The supplement to the diploma of a student who has passed the final or matura exam contains information on the scope of achieved work-based learning and a list of employers with whom work-based learning has been performed.

VII. IN-KIND AND FINANCIAL SUPPORT TO STUDENTS

In-kind support to students

Article 33

The employer provides to the student who performs work-based learning:

- 1) means and equipment for personal protection at work;
- 2) reimbursement of the actual costs of transport from the school to the place of work-based learning and back, at most in the amount of the price of a transport ticket in public transport, if the employer has not provided its own transport;
- 3) reimbursement of food costs in accordance with the general act of the employer;
- 4) insurance in case of injury during work-based learning with the employer.

The employer can also provide the student with the costs of accommodation and meals in the student dormitory.

Financial support to students

Article 34

A student who performs work-based learning is entitled to a compensation for work-based learning.

Compensation for work-based learning is paid once a month no later than the end of the current month for the previous month for each hour spent on work-based learning in the net amount of at least 70% of the minimum labour price in accordance with the law.

The compensation referred to in paragraph 2 of this Article is borne by the employer.

VIII. SUPERVISION

Article 35

The Ministry supervises the implementation of this Law.

Inspection supervision is performed by the Ministry through the educational inspection.

Supervision related to working conditions and safety at work at the employer is performed by the Ministry in charge of labour affairs - through the

labour inspection. Supervision over the performance of tasks entrusted by this Law to the Chamber of Commerce and Industry of Serbia is performed by the Ministry.

IX. PENAL PROVISIONS

Article 36

A fine ranging from 50,000 and 100,000 dinars shall be imposed on schools for a misdemeanour if the Ministry does not notify the Ministry of the termination of the contract referred to in Article 26, paragraph 1 of this Law within the time limit referred to in Article 26, paragraph 3 of this Law.

A fine ranging from 5,000 to 50,000 dinars for a misdemeanour under this Article shall also be imposed on the principal, i.e. the responsible person of the school.

Article 37

A fine from 50,000 to 100,000 dinars will be imposed on the employer - legal entity or entrepreneur if:

1) conducts work-based learning contrary to Article 6, paragraph 2 of this Law;

2) fails to provide means and equipment for personal protection at work referred to in Article 33, item 1) of this Law;

3) does not provide compensation for the actual costs of transportation from the school to the place of work-based learning and back from Article 33, item 2) of this Law;

4) does not provide reimbursement of food costs referred to in Article 33, item 3) of this Law;

5) fails to provide insurance referred to in Article 33, item 4) of this Law;

6) fails to provide compensation for work-based learning referred to in Article 34, paragraph 2 of this Law.

A fine from 5,000 to 50,000 dinars for a misdemeanour under this Article shall also be imposed on the responsible person at the employer.

X. TRANSITIONAL AND FINAL PROVISIONS

Article 38

By-laws for the implementation of this Law are adopted by the Minister within six months from the date of entering this Law into force.

The acts referred to in Article 12, paragraph 13 and Article 30, paragraph 11 of this Law are adopted by the Chamber of Commerce and Industry of Serbia within three months from the date of entering this Law into force.

Until the beginning of the application of the Law governing the National Qualifications Framework, the qualification standard in dual education is determined in accordance with the Law governing the basics of the education system, except for the part related to the job description determined by the Chamber of Commerce and Industry of Serbia.

Article 39

A person who is employed by an employer or self-employed, and who until the entry into force of this Law participated in the implementation of practical training in secondary vocational education in accordance with the applicable curriculum, has the right to file an application for an instructor license with the Chamber of Commerce and Industry of Serbia.

Article 40

The Government shall establish a commission for the development and implementation of dual education within 60 days from the day this law enters into force, in order to implement and improve dual education and three-year evaluation of the achieved results.

Article 41

This Law shall enter into force on the eighth day from the date of its publication in the “Official Gazette of the Republic of Serbia”, and shall apply from the 2019/2020 school year.

THE LAW
ON AMENDMENTS OF AND SUPPLEMENTS
TO THE LAW ON DUAL EDUCATION

Article 1

In the Law on Dual Education (“Official Gazette of the Republic of Serbia”, No. 101/17) in Article 1, paragraph 2, the words: “specialist education” are replaced by the words: “master and specialist education, as well as education for work for a period of two years”.

Paragraph 3 is amended to read:

“All terms used in the masculine grammatical gender include the masculine and feminine genders of the persons to whom they refer”

Article 2

In Article 2, after item 2), item 2a) is added, which reads:

“2a) the employer in the sense of this Law are also the body of internal affairs and defence, where work-based learning is realized in accordance with the regulations governing the work of these bodies and by this Law, except for the provisions of this Law relating to the financial support to students;”

In point 6) at the end of the text, after the point, a new sentence is added: “The plan for the realization of work-based learning is an integral part of the annual work plan of the school.”

Article 3

In Article 6, paragraph 2, the words: “in the period of 8-20 hours” are deleted.

After paragraph 2, a new paragraph 3 is added, which reads: “Work-based learning cannot be realized in the time from 22.00 to 6.00 the next day.”

The previous paragraphs 3-5 become paragraphs 4-6.

Article 4

In Article 7, paragraph 1, after the words: “economy”, a comma is placed and the words: “based on the statements of employers on inclusion in dual education” are added.

After paragraph 1, a new paragraph is added. 2-4. which reads:

“The employer submits to the Chamber of Commerce and Industry of Serbia a statement of readiness to join dual education no later than the 30th of November of the calendar year preceding the school year in which the implementation of the educational profile in dual education begins.

The statement referred to in paragraph 2 of this Article must contain the name of the employer, seat, ID number, educational profile, number of students who can accept work-based learning, municipality and place of work-based learning and the proposal of the school that implements the required educational profile.

The Chamber of Commerce and Industry of Serbia submits to the Ministry a plan for the inclusion of employers in dual education for the next school year by schools and educational profiles, no later than the 14th of February of the current year for the next school year.”

The previous paragraph 2 becomes paragraph 5 after the words: “provinces” a comma is placed and the words: “i.e. local self-government units” are added.

In the previous paragraph 3, which becomes paragraph 6, the number: “2” is replaced by the number: “5”.

In the previous paragraph 4, which becomes paragraph 7, the number: “2” is replaced by the number: “5”.

After the previous paragraph 4, which became paragraph 7, a new paragraph 8 is added, which reads:

The candidate for enrolment in the dual profile decides on a specific educational profile before the final exam, in accordance with the by-law which regulates the enrolment of students in high school.”

In the previous paragraph 5, which becomes paragraph 9, the words: “When enrolling in secondary school, placement”, are replaced by the word: “Placement”.

The previous paragraph 6 becomes paragraph 10.

Article 5

In Article 11, paragraph 1, item 6) is deleted.

After paragraph 1, paragraph 2 is added, which reads:

“In the implementation of work-based learning, the employer is obliged to provide the prescribed measures of safety and health at work, in accordance

with the regulations governing safety and health at work, as well as the application of regulations governing dangerous work for children.”

Article 6

Article 12, paragraph 3 is amended to read:

“The Commission referred to in paragraph 2 of this Article has three members and consists of a member proposed by the Ministry from among educational advisors, external associates, educational inspectors, and/or teachers, labour inspector and a representative of the Chamber of Commerce and Industry of Serbia.”

In paragraph 5, the words: “30th of September”, are replaced by the words: 30th of November”.

Article 7

In Article 18, after paragraph 1, paragraph 2 is added, which reads:

“The employer is obliged to inform the Chamber of Commerce and Industry of Serbia about the termination and reasons for termination of the dual education contract, within eight days from the date of the contract termination.”

Article 8

In Article 19, paragraph 2, after the words: “dual education”, the words: “within eight days from the date of termination of the contract” are added.

After paragraph 2, paragraph 3 is added, which reads: “The employer is obliged to inform the Chamber of Commerce and Industry of Serbia about the termination and reasons for termination of the contract referred to in paragraph 2 of this Article, within eight days from the date of termination.”

Article 9

In Article 20, after paragraph 3, paragraph 4 is added, which reads:

“If it is not possible to organize work-based learning in accordance with paragraphs 1–3 of this Article, the school provides the student with the conditions to complete the started schooling, in accordance with the law governing secondary education.”

Article 10

In Article 21, paragraph 2, the words: “school year in which the implementation begins”, are replaced by the word: “implementation”.

Article 11

In Article 26, after paragraph 4, paragraph 5 is added, which reads: "If it is not possible to ensure the continuation of work-based learning, in accordance with paragraph 4 of this Article, the school shall provide the student with conditions for completing secondary education in accordance with the law governing secondary education."

Article 12

In Article 29, paragraph 1, item 1) after the words: "activity" a comma is inserted and the words: "and/or another person hired by the employer, in accordance with the law governing work" are added. In point 3) the words: "for the appropriate educational profile", are deleted. In point 5) at the end of the text, the full stop is replaced with a semicolon and point 6) is added, which reads:

6) has not been convicted by a final judgment for a criminal offense for which a sentence of imprisonment of at least three months has been imposed, as well as for criminal offenses of domestic violence, confiscation of a minor, neglect and abuse of a minor or incest, criminal offenses against sexual freedom, against the economy, against official duty, against legal traffic and against humanity and other goods protected by international law, regardless of the criminal sanction imposed, that he has not been convicted of a misdemeanour in the field of labour relations and for which he has not, in accordance with law, established discriminatory behaviour."

In paragraph 2, at the end of the text, the full stop is replaced with a comma and the words are added: "that is, the body referred to in Article 2, item 2a of this Law."

Article 13

In Article 30, paragraph 6, after the words: "composition", the comma shall be deleted, and the words: "except for experts in the relevant field of work", shall be replaced with the words: "representatives of the Chamber of Commerce and Industry of Serbia and". In paragraph 9, the words: "License and register of issued licenses contain", are replaced with the words: "License contains", and the words: "and the name of the employer when the person is employed", are deleted.

After paragraph 9, paragraph 10 is added, which reads:

"Register of issued licences contains: licence registration number, name, name of one parent, surname and occupation of the person who passed the instructor exam, highest level of education, JMBG, address, contact phone, e-mail address."

The previous paragraphs 10-11 become paragraphs 11-12.

In the previous paragraph 12, which becomes paragraph 13, after the words: “employer”, a comma is inserted and the words: “i.e. a natural person if such person applied personally for the exam.”

The previous paragraphs 13-14 become paragraphs 14-15.

Article 14

In Article 33, paragraph 1, after the words: “transport”, a comma shall be put and the words: “i.e. if not otherwise provided” shall be added.

In point 4) after the words: “employer”, a comma is put and the words: “unless otherwise provided”.

Article 15

In Article 39, paragraph 1, the words: “A person who is employed by an employer or performs an activity independently”, shall be replaced with the words: “A person who meets the conditions prescribed in Article 29, paragraph 1, items 1) –4) and 6) of this Law”.

After paragraph 1, paragraph 2 is added, which reads:

“Along with the request referred to in paragraph 1 of this Article, the person shall submit proof that he / she has attended training whose programme corresponds to the training programme prescribed in accordance with Article 30, paragraph 14 of this Law.”

Article 16

This Law shall enter into force on the eighth day from the day of its publication in the “Official Gazette of the Republic of Serbia”.

Annex 6 – Rulebook on the training programme and taking the instructor exam

Downloaded from www.pravno-informacioni-sistem.rs

Pursuant to Article 30, paragraph 14 of the Law on Dual Education (Official Gazette of the Republic of Serbia, No. 101/17), the Minister of Education, Science and Technological Development issues the

RULEBOOK

ON THE TRAINING PROGRAMME, DETAILED CONDITIONS AND OTHER ISSUES OF IMPORTANCE FOR TAKING THE INSTRUCTOR EXAM

"Official Gazette of the Republic of Serbia", number 70
of 21 September 2018

Subject of regulation

Article 1

This Rulebook determines the Training Programme for Instructors as well as more detailed conditions and other issues of importance for taking the exam for obtaining an instructor's licence.

Instructor exam training

Article 2

The training for taking the instructor exam is conducted by the Chamber of Commerce and Industry of Serbia (hereinafter: the Chamber of Commerce) on the basis of the instructor training programme (hereinafter: the training programme), in accordance with the Law on Dual Education (hereinafter: the law) and this Rulebook.

The training programme is based on the description of competencies arising from the responsibilities and conditions prescribed by the Law on Dual Education.

The purpose of the training programme is to ensure the quality of the realization of work-based learning by defining objectives that ensure that instructors will be well-trained for successful planning, implementation and monitoring of student competencies.

Instructor training lasts 40 hours.

The training programme contains five areas: application of the legislative framework in work-based learning, planning and preparation of work-based learning, implementation of work-based learning, monitoring and evaluation of competencies in work-based learning, and support for student development in work-based learning.

The training programme is printed with this Rulebook and is an integral part of it.

Applying for instructor training

Article 3

An employer intending to engage in dual education submits a request to the Chamber of Commerce and Industry for the training of employees in order for them to obtain an instructor licence.

When an employee applies for training, the employee must meet the conditions prescribed in Article 11, paragraph 1, item 6) and Article 29, paragraph 1, items 1) –4) of the Law.

Article 4

Along with the request for conduct of the training for an instructor, the employer shall submit evidence in the original or a certified copy that the employee meets the requirements referred to in Article 3, paragraph 2 of this Rulebook.

In addition to the documentation referred to in paragraph 1 of this Article, the employer shall submit with the request the proof of payment of the training fee, in accordance with the general act of the Chamber of Commerce and Industry of Serbia.

The Chamber of Commerce shall notify the employer who submits the request not containing all the necessary evidence to supplement the request within eight days from the date of the receipt of the notification.

If the applicant does not supplement the request within the deadline referred to in paragraph 3 of this Article, the request shall be rejected.

Conducting instructor training

Article 5

Trainings for instructors are organized at the time announced on the official website of the Chamber of Commerce.

The Chamber of Commerce may organize training at other times at the request of one or more employers.

The number of participants in the group cannot exceed 15 per trainer.

Trainings are realized by applying combined methods of work with adult participants (short lectures, practical exercises, discussions, etc.), lectures on the premises of the Chamber of Commerce or the employer, and the theoretical part of the training can be realized through online courses in accordance with candidates' IT competencies.

The trainings are conducted by trainers appointed by the Chamber of Commerce, in accordance with its general act.

Attendees must attend at least 80% of the scheduled training hours.

Exceptionally, students can justify their absence in case of illness and other impediments, with the obligation to make up for missed lectures.

The Chamber of Commerce issues a certificate of completed training for instructors to the participants who have attended the entire training programme, i.e. at least 80% of the planned training hours.

Organization of instructor license exams

Article 6

The Chamber of Commerce organizes the taking of the exam for the licence of instructor for persons from Article 5, paragraph 8 of this Rulebook.

The Chamber of Commerce announces the dates for taking the instructor's license exam on its official website.

The exam for the license for instructor can also be organized on other dates at the request of persons who have completed the training and have not passed the exam.

Along with the request for taking the exam, a confirmation of the paid fee for taking the exam is submitted, in accordance with the general act of the Chamber of Commerce.

Materials for the preparation of the license exam are available on the website of the Chamber of Commerce.

Commission for taking the exam for instructor license

Article 7

The exam for the licence of instructor is taken before the Commission for taking the instructor exam (hereinafter: the Commission) formed by the Chamber of Commerce.

The Commission is formed for the implementation of each exam and has at least three members, as follows:

1) at least one member expert in the field of work, nominated by the Chamber of Commerce, who has at least five years of work experience in the profession;

2) at least one member at the proposal of the ministry responsible for education (hereinafter: the Ministry) from among the educational advisors employed in the Ministry or external associates;

3) at least one member at the proposal of the Institute for the Improvement of Education (hereinafter: the Institute) from among the advisors-coordinators of employees in the Institute, who are experts in the field of work, and who have at least five years of work experience.

The Chamber of Commerce, the Ministry and the Institute shall nominate at least three persons in accordance with paragraph 2 of this Article for the list from which the members of the Commission are appointed.

By the decision on the appointment of the Commission, the President of the Commission is appointed from among the members, as well as the Secretary of the Commission from among the employees of the Chamber of Commerce.

Exam content

Article 8

The exam, as a rule, is realized in one day and consists of a written and an oral part.

The candidate first takes the written part of the exam, which is an objective type test to check the achievement of knowledge objectives in all areas determined by the training programme.

The written part of the exam lasts 60-90 minutes and is realized in a group. The oral part of the exam is taken after the written part and is realized by solving situations from practice to check the application of knowledge and skills in work-based learning.

The oral part of the exam lasts 20-30 minutes and is realized individually.

In addition to the candidates, trainers, members and the secretary of the Commission may attend the exam.

Grading on the exam

Article 9

The commission reviews the written part of the exam according to a key prepared in advance.

Based on the results of the written and oral part, the success of the candidate in the exam is determined.

Success in the exam is expressed by one descriptive grade: “passed” or “failed”.

A candidate has passed the exam if he / she has been graded “passed” in both parts of the exam.

The candidate has passed the written part of the exam if he / she has at least 60% of the total possible number of points.

A candidate who passes only one part of the exam is entitled to take the other part of the exam in the next exam period.

A candidate who does not pass both the written and oral part of the exam is considered not to have passed the exam in its entirety.

Examination minutes

Article 10

The minutes of the exam are kept by the Secretary of the Commission.

The minutes contain: data on the President and members of the Commission, candidate, number and date of notification of approved taking, place, day and time of taking the exam, exam tasks, general success in the exam, information on waiving the exam and other information relevant to taking the exam.

The minutes shall be signed by the Chairperson, members and secretary of the Commission.

An integral part of the minutes are the tests by which the written part of the exam was performed.

The Chamber of Commerce keeps the minutes and keeps records of the conducted exams.

Postponement of exams

Article 11

If the candidate is prevented from taking the exam for justified reasons, he is obliged to submit the appropriate evidence to the Secretary of the Commission and to his employer.

The candidate referred to in paragraph 1 of this Article has the right to take the exam in the next exam period without paying the fee for taking the exam.

Notification of success in the exam and issuance of a license

Article 12

The Secretary of the Commission shall, within eight days from the date of conduct of the exam, inform the candidate through his / her employer about the success achieved in the exam.

Candidates who have not passed the written part of the exam are provided with a copy of the minutes from the exam.

The Chamber of Commerce issues a licence for an instructor to a candidate who has passed the licence exam.

The Chamber of Commerce shall enter the data on the issued instructor licence in the Register of issued licences, in accordance with the Law.

Entry into force

Article 13

This Rulebook enters into force on the eighth day from the date of its publication in the "Official Gazette of the Republic of Serbia".

Number 110-00-00636/2018-18
In Belgrade, on 13 September 2018
Minister,
Mladen Šarčević,
personally signed

Instructor training programme

The aim of the training is to develop the competencies of instructors for the realization of work-based learning.

The programme contains five areas:

Application of the legislative framework in work-based learning

Planning and preparation of work-based learning

Realization of work-based learning

Monitoring and evaluation of competencies in work-based learning

Support for the development of students in work-based learning

The training programme describes in detail the **competencies**, expected **knowledge objectives, skills, and attitudes** and **recommended content**.

Area 1: Application of the legislative framework in work-based learning

After completing the training, the instructor will be able to:		
Competencies	Objectives (knowledge, skills and attitudes)	Recommended content
1.1. Understands the regulatory framework for implementing work-based learning	<ul style="list-style-type: none"> – to present the characteristics of dual education and its place in the system of vocational education; – to describes the structure, functions and objectives of regulations related to work-based learning; – to state the consequences of non-compliance with the prescribed requirements relating to the employer and the instructor; – to recognize institutions that provide support in work-based learning; – to participate in the preparation of the necessary conditions for the involvement of the employer in work-based learning; – to understand the rights, obligations and responsibilities of students; – to respect regulations in everyday work with students in work-based learning; – to recognize cases of violation of rules of conduct and non-fulfilment of student obligations; – to explain workplace risks and occupational safety and health measures; – to care about the safety and health of students in work-based learning; 	<ul style="list-style-type: none"> - general principles, goals and outcomes of education; - goals and general outcomes of secondary education; - interdisciplinary competencies for the end of secondary education; - key competences for lifelong learning; - rights of the child and student, obligations and responsibilities of students; - educational and disciplinary measures and legal protection of students; – Practical classes and professional practice; - meaning of terms (dual education, employer, work-based learning, instructor, work-based learning coordinator, work-based learning realization plan); - principles and goals of dual education; - scope, period and place of realization of work-based learning; - conditions for conducting work-based learning with the employer; – regulating the relationship and responsibilities of students, schools and employers in work-based learning; - protection of students' rights; - in-kind and financial support to students; - protection and safety of students in the institution and prohibition of violence and abuse, discrimination and neglect; - regulations on safety and health at work and preventive measures for safe and healthy work of young people; - dangerous work for children

1.2. Present the qualification standard and programme framework for work-based learning	<ul style="list-style-type: none"> - to describe the importance of certain occupations and the needs of the employer in the context of staff development; - to understand the system of qualifications and the way of developing programme s in vocational education; - to distinguish elements of qualification standards; - to explain the importance and role of qualification standards in work-based learning; - to describes the structure of the curriculum and the content of the subject programme within which the work-based learning is realized; - to describe the programme and conditions for the realization of the final and practical part of the Matura exam; - to respect the content of the programme and qualification standards and act in accordance with that framework; 	<ul style="list-style-type: none"> - qualification standard; - learning goals and outcomes; - teaching and learning programme structure and function; - national qualifications framework in the Republic of Serbia; - monitoring and grading of students, exams in vocational education; - goal, structure, assessment criteria and work tasks at the final / matura exam
1.3. Performs the role of instructor in the prescribed manner	<ul style="list-style-type: none"> to describe the roles and responsibilities of instructors in work-based learning; - to identify one's own competencies and recognize motives for performing the role of instructor; - to present your own tasks and obligations in the realization of work-based learning; - to recognize strengths and weaknesses in themselves and students; - to promote positive models of behaviour in a professional context; - to respect the rights and needs of students; - to solve specific situations and adapt the conditions for effective implementation of learning. 	<ul style="list-style-type: none"> - legal basis, requirements regarding the roles and responsibilities of instructors; - competencies, training and license of instructors; - knowledge, skills and attitudes for the field of work of instructors; - nature and characteristics of internal and external motivation; - instructor as a model; - modern concepts / ideas of mentoring / instructor work

Area 2: Planning and preparation of work-based learning

After completing the training, the instructor will be able to:		
Competencies	Goals (knowledge, skills and attitudes	Recommended content
2.1. Provides the necessary conditions for the realization of work-based learning	<ul style="list-style-type: none"> - to explain the importance of organizing a learning environment (place, time, resources); - assess the conditions for work-based learning with the employer; - develop a plan for the realization of work-based learning in cooperation with the coordinator of work-based learning; - provides conditions (technical and safety) for learning in different jobs; - connects key actors in the realization of work-based learning; - is guided by learning outcomes when planning and implementing work-based learning, taking into account the possibilities and requirements of the work process 	<ul style="list-style-type: none"> - prerequisites for the realization of work-based learning; - organization - climate, values and culture; - measures of safety and health at work at the employer; - qualification standard - starting point for planning work-based learning; - planning based on learning outcomes; - plan for the realization of work-based learning - structure, levels, dynamics; - principles and rules of teamwork and cooperation; - a network of main actors who cooperate in the realization of work-based learning
2.2. Organizes the introduction of students to work-based learning	<ul style="list-style-type: none"> - explain the importance, purpose and elements of a well-organized introduction of students to work-based learning; - informs students and parents about internal rules and application of safety and health measures at work; - develop a plan for introducing students to work-based learning; - monitors the adaptation of students to the organization and process of work and prevents early withdrawal; - establish cooperation with colleagues in the company and coordinate their involvement in the realization of work-based learning 	<ul style="list-style-type: none"> - learning environment - support for the development of learning culture; - organization - internal rules and opportunities to meet the different needs of students; - plan for introducing students to the realization of work-based learning; - coordination of learning in the workplace: contents and outcomes (learning areas and areas of action) and forms of cooperation in learning places; - factors that affect the successful adaptation of students: challenging tasks, various activities, socialization.

Area 3: Realization of work-based learning

After completing the training, the instructor will be able to:		
Competencies	Outcomes (knowledge, skills and attitudes	Recommended content
3.1. Creates learning situations based on the plan of realization of work-based learning	<ul style="list-style-type: none"> - describes different methods of work-based learning and their application and expediency for achieving different learning outcomes; - plans and adapts methods to the requirements of the learning implementation plan and conditions in the company; - chooses methods, tasks and resources according to the knowledge, experience and specific characteristics of students (groups) and applies them in specific situations; - actively involves students by combining learning and working methods; - supports student initiative, entrepreneurial competencies and recognizes talents in the context of the field of work; - encourages the development of key competencies in the process of work-based learning; - instructs students to adhere to safety and health measures at work; 	<ul style="list-style-type: none"> - learning - characteristics, types, factors ...; - didactic principles: connecting learning and work, theory and practice ...; - learning in real conditions, the benefits of learning in the workplace; - learning theories - experiential learning ...; - learning methods - types and applications in work-based learning; - work-oriented learning - independent planning, execution and assessment; - Key competencies - problem-solving skills in different situations - problem-based approach to learning
3.2 Leads the student to independently perform work tasks	<ul style="list-style-type: none"> - understands the concept of independence and responsibility of students in all phases of work-based learning: planning, execution, control, documentation and self-assessment; - assigns work tasks in accordance with the level of development of students' competencies; - encourages students to reflect on their own work; - provides sufficient opportunities for learning and training in the function of students' independence; - conducts support interviews and evaluation interview with the student; - applies measures that strengthen students' self-confidence as future professionals; - support and empower students for the realization of the final / graduation exam. 	<ul style="list-style-type: none"> - concept of competence development - from beginner to independent executor; - learning from mistakes; - self-evaluation in the function of further learning; - the role of instructors in guiding students to independent performance; - award, praise in the function of successful learning and progress.

Area 4: Monitoring and evaluation of competencies in work-based learning

After completing the training, the instructor will be able to:		
Competencies	Outcomes (knowledge, skills and attitudes	Recommended content
4.1. It applies various methods, techniques and instruments for monitoring and assessment of competencies in work-based learning	<ul style="list-style-type: none"> - explains the importance of continuous monitoring of the process of progress and achievement in work-based learning; - determines different assessment methods and their application in monitoring the knowledge, skills, attitudes or competencies acquired in work-based learning; - applies the principles of assessment in accordance with regulations; - develops instruments for monitoring and assessment and based on them and criteria gives structured feedback to the student; - specifies the types of documentation for monitoring and evaluation– keeps records of the achievements and regularity of each student and reports to the work-based learning coordinator and parents; - participates in the (re) assessment of competencies according to the qualification standard in cooperation with the coordinator of work-based learning; - participates in the development of descriptions of individual achievements in the diploma supplement; 	<ul style="list-style-type: none"> - Rulebook on grading; - monitoring and assessment an integral part of work-based learning; - evaluation principles; - types of assessment; - evaluation criteria; - monitoring and evaluation instruments - basic principles for development and adjustment of instruments (protocols, checklists ...); - assessment of competencies - methods and techniques; - objections to assessment, grade and exam; - documentation for monitoring and evaluation.
4.2. Uses monitoring data to improve student competencies and quality of work-based learning	<ul style="list-style-type: none"> - analyses the achievements of each student and adapts learning and assessment methods in order to achieve learning progress; - involves students in the assessment of achievement (self-assessment) and assessment of the quality of work-based learning; - recognizes opportunities for improving their own achievements in work-based learning; - identifies areas where there is a need to improve learning with the employer; - monitors student satisfaction with the realization of work-based learning; - evaluates the success of the realization of work-based learning in relation to the realization plan. 	<ul style="list-style-type: none"> - evaluation and self-evaluation; - reports on the realization of work-based learning; - techniques for assessing satisfaction with the realization of work-based learning - surveys, interviews, assessment scales ...

Area 5: Supporting student development in work-based learning

After completing the training, the instructor will be able to:		
Competencies	Outcomes (knowledge, skills and attitudes	Recommended content
5.1 Considers and respects the developmental and individual characteristics of students in work-based learning	<ul style="list-style-type: none"> - explains the basic physical, cognitive, emotional and social changes in adolescence; - applies various forms of work and activities respecting cultural, socio-economic, physical, psychological and other differences among students; - recognizes changes in behaviour and learning difficulties; - considers potential causes that lead to changes in behaviour and learning difficulties; - shows sensitivity to the problems of students that arise in adolescence; - knows the risk factors for dropping out of education; - apply strategies for timely response and overcoming problems in behaviour and learning; - provides support to the student and discusses with him the effectiveness of the applied measures in overcoming problems in behaviour and learning; - encourages the strengthening of students' self-confidence and self-efficiency; 	<ul style="list-style-type: none"> - puberty - adolescence - characteristics; - developmental changes and crises in adolescence; - peer groups; - changes in behaviour in adolescence; - socialization factors: gender roles, peer groups, separation from the parental home, socio-cultural context, fatigue from school; - behavioural problems: fear, aggression, addictions; - measures to support students; - inclusive education; - individual educational plan and additional support in education; - drop-out; - motivation; - principles of quality education for all, equality and inclusion, respect for diversity (gender, SES, religion, race, disability)

5.2. Builds and maintains communication and collaboration with the student	<ul style="list-style-type: none"> - explains the characteristics, types and levels of communication; - distinguishes types of barriers / difficulties in communication; - applies successful communication techniques - active listening, assertiveness, coordination of verbal and non-verbal communication; - provides explanations of key concepts, professional terms and working concepts in accordance with the experience and prior knowledge of students; - recognizes challenging situations in working with adolescents in order to prevent conflicts; - provides feedback to the student and finds a constructive solution for conflict prevention; - fosters relations of mutual trust, support and open dialogue 	<ul style="list-style-type: none"> - verbal, non-verbal communication; - principles of efficient communication; - assertiveness; - "I" sentences; - conflict resolution; - feedback
5.3. Provides support to students in career development	<ul style="list-style-type: none"> - informs students about the specifics of occupations, qualifications and opportunities for professional advancement; - lists the possibilities of professional development in the company and encourages students to think about their career development; - supports special achievements and successes of students and their documentation in the career portfolio of students; - involves students in activities and tasks that encourage the development of employment skills; - participates in advising students regarding the development of career management skills; - encourages students to analyse the experience of work-based learning and use feedback from the work environment for further personal and professional development; 	<ul style="list-style-type: none"> - lifelong learning; - modern career concept; - standards of career guidance and counselling services; - CGC activities: information, open day, specialized fairs, networking; - by-law on CGC in dual education;

<p>5.4. Cooperates with the school and those interested in work-based learning</p>	<ul style="list-style-type: none"> - understands the importance of continuous communication and cooperation with the coordinator of work-based learning, parents / guardians / other legal representatives) and other employees of the employer; - connects and uses available resources to support work-based learning (school, family, local community, chamber of commerce); - continuously exchanges information with the work-based learning coordinator in the activities of planning, implementation and assessment of students; - uses documentation and reports on the realization of work-based learning; - timely informs the coordinator of work-based learning and parents about problems in behaviour and learning and measures taken. 	<ul style="list-style-type: none"> - partners in work-based learning; - principles of efficient communication; - school responsibilities; - responsibilities of the employer; - contracts in dual education; - records, reporting and documentation in work-based learning.
---	---	---

Annex 7 – Rulebook on students’ placement

Downloaded from www.pravno-informacioni-sistem.rs

Pursuant to Article 7 paragraph 6 of the Law on Dual Education (“Official Gazette of the Republic of Serbia”, number 101/17),

The Minister of Education, Science and Technological Development passes the

RULEBOOK ON THE MANNER OF PLACEMENT OF STUDENTS FOR WORK-BASED LEARNING

"Official Gazette of the Republic of Serbia ", number 102
of 21 December 2018

The Rulebook subject

Article 1

This Rulebook determines the manner of placing students for work-based learning (hereinafter: student placement), in secondary schools where work-based learning for a particular educational profile in dual education takes place with several employers.

In secondary schools in which, in accordance with the curriculum, different parts of the programme are realized with different employers so that all students must do part of the work-based learning with each of the employers, the manner of student placement is determined by a dual education contract between schools and employers.

Participants in student placement

Article 2

The placement of students is done by teachers, professional associates and representatives of employers where work-based learning is performed and who are members of the Team for Career Guidance and Counselling of students educated in accordance with Article 8 of the Law on Dual Education (hereinafter: CGC Team), in cooperation with students and their parents, and/or other legal representatives, by harmonizing the expressed wishes of students to do work-based learning with a certain employer as well as employers for certain students. Representatives of the employer with whom

work-based learning is performed participate in the placement of students only for the educational profile in implementation of which they participate.

Informing students about the manner of placement

Article 3

The CGC team organizes the presentation of all employers to students and their parents, or other legal representatives and informs them about how the students are placed, about the number of vacancies and conditions, and about the environment for work-based learning with each employer; no later than the end of the second week from the beginning of the school year in which, in accordance with the curriculum begins the realization of work-based learning, i.e. at the end of the school year preceding the realization of work-based learning.

The CGC team prepares students for the context in which work-based learning takes place as well as for interviews with work-based employers.

Interview of employers with students

Article 4

After the activities referred to in Article 3 of this Rulebook, the CGC Team at the school organizes interviews of all students by all employers, with the obligatory participation of the student's parents, or other legal representative. Exceptionally, in case the parent or other legal representative of the student is not able to attend, the school pedagogue or psychologist attends the interview instead.

Wish lists of students and employers

Article 5

The CGC team, after interviewing all employers with all students, organizes the students' statements, so that students make their own list of employers with whom they would like to do work-based learning, ranking all employers from the most desirable to the least desirable.

In addition to the student, the wish list of the student referred to in paragraph 1 of this Article shall be signed by the parent or other legal representative.

Exceptionally, if the parent or other legal representative is not able, the student's wish list is signed by the school pedagogue or psychologist.

After the interview with all students, each employer compiles its own ranking list of students, and must declare for at least as many students as there are vacancies for work-based learning.

Reconciling the wishes of students and employers and the final list of student placement

Article 6

The CGC Team, based on the wish list from Article 5 paragraphs 1 and 4 of this Rulebook, compiles a list of students by employers, matching the wishes of students and employers, from the first to the last wish, to fill all vacancies with employers. In the event that two or more employers vote for the same student, the student is placed to an employer who has been ranked higher in his wish list. Students, who are not placed in accordance with paragraphs 1 and 2 of this Article, are placed by the CGC Team in accordance with the best interests of students and employers, taking into account:

- 1) the proximity of the student's residence in relation to the employer's premises in which work-based learning is realized;
- 2) equal gender representation of students with all employers;
- 3) other circumstances that may be important for the student and the employer.

If work-based learning is realized from the second grade, when placing students from paragraph 3 of this Article, the following is taken into account:

- 1) even distribution of students with excellent, very good, good and sufficient success with all employers;
- 2) evaluation / or recommendation of the work-based learning coordinator.

Upon placing all students in accordance with paragraphs 1-4 of this Article, the CGC Team compiles the final list of student placement.

Record of student placement

Article 7

Based on the list from Article 6, paragraph 5 of this Rulebook, the CGC team makes a record of the assignment of students to employers.

The minutes referred to in paragraph 1 of this Article shall also contain a description of the entire assignment procedure, the wish list of students, the wish list of employers and the explanation for the assignment of students in accordance with Article 6 paragraphs 3 and 4 of this Rulebook.

The minutes referred to in paragraph 1 of this Article shall be signed by the members of the CGC Team, the authorized person of the employer where the work-based learning is realized, the school principal and the parents, i.e. other legal representatives of the students.

Exceptionally, if the parent, i.e. other legal representative is not able, the record referred to in paragraph 1 of this Article shall be signed by the school pedagogue or psychologist.

Employers are obliged to realize, and students are obliged to attend classes through work, according to the schedule determined in the minutes from paragraph 1 of this Article.

Notwithstanding paragraph 5 of this Article, students may realize work-based learning with another employer with the prior consent of the school, employers and parents, or other legal representative.

Entry into force

Article 8

This Rulebook enters into force on the eighth day from the date of its publication in the "Official Gazette of the Republic of Serbia".

Number 110-00-00743/2018-18
In Belgrade, on 13 December 2018

Minister,
Mladen Šarčević,
Personally signed

Annex 8 – Rulebook for Career Conduct and Counselling in Dual Education

Downloaded from www.pravno-informacioni-sistem.rs

Pursuant to Article 8 paragraph 5 of the Law on Dual Education ("Official Gazette of the Republic of Serbia", number 101/17),

The Minister of Education, Science and Technological Development passes the

RULEBOOK ON DETAILED CONDITIONS, MANNER OF WORK, ACTIVITIES AND COMPOSITION OF THE TEAM FOR CAREER GUIDANCE AND COUNSELLING IN SECONDARY SCHOOL THAT IMPLEMENTS EDUCATIONAL PROFILES IN DUAL EDUCATION

"Official Gazette of the Republic of Serbia", number 2 of 16 January 2019

The Rulebook subject

Article 1

This Rulebook sets out more detailed conditions on the manner of work, activities and composition of the Career Guidance and Counselling Team (hereinafter: the CGC Team) in a secondary school that implements educational profiles in dual education.

CGC Team Formation

Article 2

The principal of the secondary school (hereinafter: the school) forms the CGC Team, which consists of representatives of school employees, professional associations, local self-governments and employers.

The CGC Team Coordinator (hereinafter: Team Coordinator) is a representative of the school.

Article 3

Representatives of school employees in the CGC Team are professional associates, teachers of professional subjects in the field of educational profile in dual education, coordinator of work-based learning and other teachers.

Representatives of professional associations in the CGC Team are nominated by appropriate professional associations that operate on the territory of the local self-government in which the school is based.

Representatives of the local self-government in the CGC Team are proposed by the competent body of the local self-government in which the school is based.

Employers' representatives in the CGC Team are persons employed by employers who implement work-based learning, and if it is of interest for the implementation of career guidance and counselling activities, CGC Team members may also be representatives of other employers and employers' associations.

Representatives of the National Employment Service, local youth offices, youth organizations and civil society organizations dealing with career guidance and counselling and higher education institutions can participate in the work of the CGC Team.

The School, in accordance with the Standards of Career Guidance and Counselling adopted on the basis of the law governing the national qualifications framework (hereinafter: the Standards), plans and organizes the training of the CGC Team members.

CGC Team Activities

Article 4

The CGC team:

1) participates in the preparation of the part of the School Programme and the part of the Annual Work Plan of the school which refers to the activities of career guidance and counselling and monitors their realization;

2) organizes and implements counselling, information and training activities for career management skills in accordance with the Standards and through interdisciplinary linking of outcomes and content of different subjects;

3) performs activities for the purpose of placing students for work-based learning, in accordance with the Rulebook which regulates the scheduling of students for work-based learning;

4) continuously monitors the satisfaction and motivation of students and employers during work-based learning;

5) empowers and supports students in identifying and documenting (hereinafter: portfolio) experiences and benefits of work-based learning as well as special achievements and successes, and encourages students to plan and set further career development goals based on learning experiences through work;

6) evaluates and evaluates the career guidance programme based on the achievement of the outcome of career management skills, in accordance with the Standards;

7) cooperates with other teams in the school, the Chamber of Commerce, the National Employment Service, businesses and higher education institutions in the process of planning career guidance and counselling activities and develops a network of external associates and organizations to guide students to individual needs and their best interests;

8) cooperates with the team for professional orientation of primary school in order to establish continuity of career guidance and counselling and informing students and their parents about the possibilities of schooling in educational profiles in dual education, conditions and context in which work-based learning with the employer is realized.

The activities referred to in paragraph 1 of this Article are performed in accordance with the Standards.

Annual work plan of the CGC Team

Article 5

The annual work plan of the CGC Team contains: name and description of activities and tasks, target group, activity goals, activity outcomes, activity protagonists and collaborators in implementation, dynamics and duration of activities, resources and manner of monitoring activities.

By the annual work plan of the school, in the part related to self-evaluation, activities are planned in the function of self-evaluation and improvement of the work of the CGC Team.

The CGC Team's Annual Work Plan is an integral part of the School's Annual Work Plan.

CGC Team Mode of Operation

Article 6

In order to implement the activities referred to in Article 4 of this Rulebook, the CGC Team holds meetings at least once during each semester, and more often if necessary.

The CGC Team Coordinator convenes and chairs the meetings, and keeps records of the meetings held.

Decisions at CGC Team meetings are made by a majority vote of the present, members, with the mandatory presence of school representative in the CGC Team.

For the implementation of specific tasks within the activities referred to in Article 4 of this Rulebook, the Team Coordinator may entrust the performance of these tasks to one or more members of the CGC Team in accordance with their competencies.

Representatives of parents, and/or other legal representatives of students and the student parliament, may also attend the meetings of the CGC Team.

The provision of support to students and their parents is organized by the CGC team in accordance with the specific needs of students, along with continuous and joint harmonization of goals and topics of activities.

The CGC team implements advisory activities with each student of the school for at least one hour during the school year.

Keeping records of career guidance and counselling activities

Article 7

The CGC team shall keep records of the career guidance and counselling activities referred to in Article 4, paragraph 1 of this Rulebook.

The CGC Team uses the personal data of students needed to keep records of career guidance and counselling activities from the records kept by the school, in accordance with the law governing the bases of the education system.

Only the CGC Team members, employees in the school, have the right of access to and insight into the personal data of students that can be processed by the school only, in accordance with the law governing the bases of the education system and the law governing secondary education.

In collecting the data needed to develop the portfolio, data relevant to the career development of students and data from the work diary kept in accordance with the curriculum, the student is assisted by the CGC Team within the activities referred to in Article 4, paragraph 1 point 5) of this Rulebook.

Entry into force

Article 8

This Rulebook shall enter into force on the eighth day from the date of its publication in the "Official Gazette of the Republic of Serbia".

Number 110-00-00744/2018-18

In Belgrade, on 9 January 2019

Minister,
Mladen Šarčević,
signed personally

Annex 9 – Rulebook on the Commission for Determining the Fulfilment of Conditions for Conducting Work-based Learning with the Employer

Downloaded from www.pravno-informacioni-sistem.rs

Pursuant to Article 12 paragraph 13 of the Law on Dual Education (“Official Gazette of the Republic of Serbia”, number 101/17) and Article 48 paragraph 1 point 3 sub-point 1 of the Statute of the Chamber of Commerce and Industry of Serbia (“Official Gazette of the Republic of Serbia”, number 39/16), the Managing Board of the Chamber of Commerce and Industry of Serbia passes at the session held on 13 June 2018 the

RULEBOOK ON THE ORGANIZATION, COMPOSITION AND MANNER OF WORK OF THE COMMISSION FOR DETERMINING THE FULFILMENT OF CONDITIONS FOR CONDUCTING WORK-BASED LEARNING WITH THE EMPLOYER

“Official Gazette of the Republic of Serbia “, number 46 of 15 June 2018

I. INTRODUCTORY PROVISION

Subject of Regulation

Article 1

This Rulebook regulates in more detail the organization, composition and manner of work of the Commission for Determining the Fulfilment of Conditions for Conducting Work-based Learning with the Employer (hereinafter: the Commission).

II. ORGANIZATION, COMPOSITION AND WORK OF THE COMMISSION

Formation of the Commission

Article 2

The President of the Chamber of Commerce and Industry of Serbia (hereinafter CCIS) forms the Commission for the educational profile or a group of related educational profiles for which education is organized according to dual model.

The decision on the formation of the Commission determines the mandate of the Commission.

Number of the Commission Members

Article 3

The Commission has a chairperson and four members.

Composition of the Commission

Article 4

The commission consists of:

- two experts in the relevant field of work,
- one teacher from the relevant field of secondary vocational education and training,
- one labour inspector, and
- one representative of the ministry responsible for education.

Experts for the relevant field of work are appointed by the CCIS, as follows:

- one CCIS employee;
- one representative of the economy from among the members of the CCIS.

An employee of the CCIS is the President of the Commission.

Teachers from the appropriate field of secondary vocational education are determined by the appropriate secondary vocational school for that type of education from the territory of the school administration for which the Commission is formed, from the ranks of teachers of practical classes and exercises, i.e. coordinators of work-based learning.

The work inspector is appointed by the ministry in charge of labour.

The Ministry in charge of education appoints its representative in the work of the Commission.

Administrative and technical tasks for the needs of the Commission are performed by the CCIS.

Exemption from the work of the Commission

Article 5

Member of the Commission - a representative of the economy from among the CCIS members must be excluded from the work of the Commission if there is a conflict of interest, or if:

- such member is a legal representative of the company or is employed in a company or with an entrepreneur where fulfilment of the conditions for work-based learning is verified

- such member is an entrepreneur for whom the fulfilment of conditions for performing work-based learning is checked or

- such member is otherwise connected with a company or an entrepreneur for whom the fulfilment of conditions for performing work-based learning is checked (founder, membership in a company body, engagement on the basis of work outside the employment relationship, etc.).

Filing Applications

Article 6

The company or entrepreneur (hereinafter: the Employer) submits to the CCIS a request to be determined the fulfilment of the conditions for performing work-based learning (hereinafter: the Request), on the form attached to this Rulebook, which is an integral part thereof.

The request is submitted electronically or in printed form, in person or by registered mail to the CCIS address.

The following documentation is attached to the Request:

- the founding act and decision of the Business Registers Agency on entry in the register of business entities;

- the decision on appointing a person for safety and health at work;

- the excerpt from the Act on Risk Assessment for workplaces where students will perform work-based learning

- the expert finding on the performed inspection and inspection of work equipment on which students will perform work-based learning, if the work equipment is subject to inspection and inspection;

- the report on control of correctness of work equipment;

- the expert finding on the performed examination of the working environment conditions;

- training programme for safe and healthy work of students;

- instructions for safe and healthy operation of work equipment on which the student will perform work-based learning.

If the Request is submitted in printed form, a photocopy of the documentation referred to in paragraph 3 of this Article shall be submitted with the Request.

If the Request is submitted electronically, the documentation referred to in paragraph 3 of this Article shall be submitted in the form of an electronic document.

Acting on the submitted request

Article 7

Upon receipt of the Request, the CCIS verifies that the Request is in order, i.e. that it contains all the data and documentation referred to in Article 6 of this Rulebook and notifies the employer within three days of the date of the Request received.

If it is determined that the Request is incomplete, the CCIS within three days invites in writing the Employer to supplement the Request within the next eight days, with a warning that in case of failure to do so, his request will be rejected as irregular.

If the Request is correct, i.e. if the Employer completes the Request within the set deadline, the Commission proceeds to check the fulfilment of the conditions for performing work-based learning with the Employer.

Eligibility check

Article 8

The Commission verifies the fulfilment of the conditions for conducting work-based learning with the Employer referred to in Article 11 of the Law on Dual Education (hereinafter: the Law) in the following manner:

- verification of the fulfilment of the conditions referred to in Article 11, items 1) –2) of the Law is carried out in the facilities in which work-based learning will be realised for a specific educational profile for which the student is educated, based on the realised visit to the Employer;

- verification of fulfilment of conditions from Article 11, item 3) of the Law is done by inspecting the Register of issued licences for instructors kept by the CCIS;

- verification of fulfilment of conditions from Article 11, items 5) –7) of the Law is performed based on data obtained from the competent authorities that keep official records on these data.

Verification of fulfilment of conditions from Article 11, item 4) of the Law is performed by inspecting the submitted documentation from Article 6, paragraph 4 of this Rulebook, as well as on the basis of the visit made to the Employer.

The Commission is obliged to determine that the student will not perform jobs that are harmful to the health, safety or morals of children, jobs that are performed within dangerous circumstances or dangerous activities, in terms of regulations that determine dangerous work for children.

The Commission checks whether the Employer, based on the assessed risks, has taken all preventive measures for safe and healthy work of students in accordance with the regulations in the field of safety and health at work.

The Commission especially checks:

- the organization of work at the workplace where students are trained to work for the Employer;
- manner of organizing safety and health at work;
- expert finding on the performed inspection and inspection of work equipment, as well as expert finding on the performed examination of the working environment conditions, where each of the expert findings must have a positive conclusion;
- whether all preventive measures of safety and health at work have been applied to the work equipment;
- nature, degree and duration of students' exposure to physical, biological and chemical hazards;
- manner, scope and use of work equipment, machines, devices and tools;
- training programme and level of training for safe and healthy work of students.

Plan of visits to employers

Article 9

The President of the Commission convenes a session of the Commission at which the plan of visits to employers is determined.

The visit plan contains:

- a list of responsible persons with whom the Commission will conduct an interview;
- list of licenced instructors;
- a list of premises and equipment specified in the Request, which will be visited by the Commission. The visit is realized according to the established visit plan. The CCIS informs the Employer about the date of the Commission's visit and submits the established visit plan no later than 7 days before the date planned for visit.

Commission Report

Article 10

After checking the fulfilment of the conditions for conducting work-based learning with the Employer from Article 11 of the Law, the Commission is obliged to make a report within eight days from the date of the visit.

Based on the established facts, the Commission states in the report referred to in paragraph 1 of this Article:

- 1) that the Employer meets the conditions for performance of work-based learning, if all conditions from Article 11 of the Law are met and proposes issuing a certificate of fulfilment of conditions for performing work-based learning;

2) that the Employer does not meet the conditions for performance of work-based learning, with exhaustive indication of all conditions that the Employer does not meet and an explanation of the circumstances on the basis of which it was determined that the Employer does not meet those conditions.

The Commission shall submit the CCIS report referred to in paragraph 1 of this Article within three days.

Deciding on the Request

Article 11

The CCIS, at the proposal of the Commission issues to the Employer who has fulfilled all the prescribed conditions a Certificate of fulfilment of the conditions for performance of work-based learning, within 15 days from the date of receipt of the Commission's report from Article 10 of this Rulebook.

If the Commission determines in the report referred to in Article 10 of this Rulebook that the Employer does not meet the conditions for performance of work-based learning, the CCIS shall issue a decision which is final in the administrative procedure.

III. DETERMINATION OF THE CEASE OF FULFILMENT OF CONDITIONS FOR PERFORMANCE OF WORK-BASED LEARNING

Procedure for determining the cease of fulfilment of conditions

Article 12

The initiative for initiating the procedure for determining the cease of fulfilment of the conditions for performance of work-based learning can be submitted by any interested person.

The initiative referred to in paragraph 1 of this Article shall be submitted to the CCIS, which shall inform the Commission thereof within eight days from the date of receipt of the initiative.

If the Commission determines that the employer has ceased to meet the requirement of Article 11 of the Law relating to instructors, it shall order the employer to delegate new employees who will perform the duties of instructors for work-based learning and who will obtain a license within six months in accordance with the Law.

If it finds that the Employer has ceased to meet the other conditions prescribed by Article 11 of the Law, the Commission proposes to the CCIS to issue a decision on the cease of the conditions for performance of work-based learning.

Based on the proposal of the Commission referred to in paragraph 3 of this Article, the CCIS shall issue a decision on discontinuation of fulfilment of

conditions for performance of work-based learning with the Employer, which is final in the administrative procedure.

IV. FINAL PROVISION

Entry into Force

Article 13

This Rulebook shall enter into force on the eighth day from the date of its publication in the “Official Gazette of the Republic of Serbia”.

02.01 number 4/4

In Belgrade, on 13 June 2018

Chamber of Commerce and Industry of Serbia

President,

Marko Čadež

signed personally

Attachments

Form number 1

Pursuant to Article 12, paragraph 5 of the Law on Dual Education (Official Gazette of the Republic of Serbia, No. 101/17), I submit the:

REQUEST

FOR DETERMINATION OF FULFILMENT OF CONDITIONS FOR PERFORMANCE OF WORK-BASED LEARNING WITH THE EMPLOYER

Name of business entity	
Responsible person (entrepreneur or legal representative of the company)	
Address:	
Contact person: Name and surname, Workplace, E-mail, Official mobile phone, Landline phone	

Attached to the Request, I submit the following documentation:

- Photocopy of the Founding Act and the APR decision on entry in the register, as proof of activity (if the documents are submitted in paper)

_____ (specify code and name)

- decision appointing a person for safety and health at work;
- excerpt from the Risk Assessment Act for jobs where students will perform work-based learning;
- expert finding on the performed inspection and inspection of work equipment on which students will perform work-based learning, if the work equipment is subject to inspection and verification;
- report on control of good operating condition of the equipment;
- expert finding on the performed examination of the working environment conditions;
- training programme for safe and healthy work of students;
- instructions for safe and healthy operation of work equipment on which the student will perform work-based learning.

Work-based learning will take place at the following locations (specify exact addresses):

- _____
- _____
- _____

In _____,

Date: _____

(name and surname, function
and the handwritten signature of the legal
representative of the business entity,
and/or entrepreneur)

Annex 9a – Rulebook on Amendments of the Rulebook on the Commission for Determining Fulfilment of Conditions for Performance of Work-based Learning with the Employer

Pursuant to Article 12, paragraph 13 of the Law on Dual Education (Official Gazette of the Republic of Serbia, No. 101/17) and Article 48, paragraph 1, item 3, sub-item 1 of the Statute of the Chamber of Commerce and Industry of Serbia ("Official Gazette of the Republic of Serbia", No. 39/16), the Managing Board of the Chamber of Commerce and Industry of Serbia adopts at its session held on October 11, 2019

RULEBOOK ON AMENDMENTS OF AND SUPPLEMENTS TO RULEBOOK ON THE ORGANIZATION, COMPOSITION AND MANNER OF WORK OF THE COMMISSION FOR DETERMINING FULFILMENT OF CONDITIONS FOR PERFORMANCE OF WORK-BASED LEARNING WITH THE EMPLOYER

"Official Gazette of the Republic of Serbia", number 74/2019

Article 1

In Article 2, paragraph 1 of Rulebook on the organization, composition and manner of work of the Commission for determining fulfilment of conditions for performance of work-based learning with the employer 02.01 number 4/4, dated 13 June 2018, the word: "related" is deleted

Article 2

In Article 3 of the Rulebook, paragraphs 2 and 3 are added and read: "The President and members of the Commission shall have their deputies. Deputies have the same rights and responsibilities and are determined in the same way as the members they replace."

Article 3

Article 6 of the Rulebook shall be replaced to read:

"Article 6

The company or entrepreneur (hereinafter: the Employer) submits to the CCIS a Request for determining fulfilment of conditions for performance of work-based learning (hereinafter: the Request), on the form attached to this Rulebook (Attachment No. 1), which is an integral part thereof.

The request is submitted electronically or in printed form, in person or by registered mail to the CCIS address.

The Request is accompanied by the following documentation:

- proof of the organization of safety and health related activities at work, in accordance with the provisions of the law governing the field of safety and health at work, namely:
 - a written act appointing an employee (one or more) as a person in charge of safety and health at work, and a certificate of passed professional exam for safety and health at work and the person responsible for those persons or
 - a contract for hiring a legal entity or entrepreneur for performing safety and health related activities at work, and a licence therefor issued to the hired legal entity, i.e. an entrepreneur;
- a list of work and auxiliary premises, equipment for work in / where students will perform work-based learning, with data about the name of the equipment, name of the manufacturer, year of production and factory and inventory number, made in accordance with the appropriate curriculum;
- excerpt from the Risk Assessment Act for workplaces where students will perform work-based learning;
- expert finding on the performed inspection and checking of work equipment on which students will perform work-based learning, if the work equipment is subject to inspection and checking;
- statement of the employer on good operating condition of the work equipment on which the student will perform work-based learning and the applied safety measures;
- expert finding on the performed examination of the working environment conditions;
- report on inspection and testing of electrical installations for all work and auxiliary rooms in which work-based learning will be performed;
- safety data sheet for hazardous chemical substances and other chemical substances, in accordance with the regulations governing the management of chemicals, the use of which is not prohibited by the regulation governing hazardous work for children, and which will be used in work-based learning, in Serbian and, if necessary, the language that the student understands;
- training programme me for safe and healthy work of students; and
- instructions for safe and healthy work according to regulations on safety and health at work for the use of work equipment and means and equipment for personal protection at work that the student will use during work-based learning.

A written act on appointing an employee as a person in charge of safety and health at work means an employment contract, an act on systematisation or a decision, i.e. a decision of the employer appointing an employee as a person for safety and health related activities at work.

An employer who performs activities relating to safety and health at work, in accordance with the provisions of the law governing the field of safety and health at work, is not obliged to submit the evidence referred to in paragraph 3, indent one of this Article.

The safety data sheet referred to in paragraph 3, indent eight shall be submitted by the Employer where work-based learning is performed by for whom the use of chemicals is envisaged by the curriculum.

An employer who has not provided consent to the CCIS to obtain evidence ex officio of his non-conviction of criminal offenses prescribed by the law governing the prevention of harassment at work, is obliged to attach it to the Request. If the Request is submitted in printed form, a photocopy of the documentation referred to in paragraph 3 of this Article, i.e. the original or a certified photocopy of the evidence referred to in paragraph 7 of this Article shall be submitted.

If the Request is submitted electronically, the documentation referred to in paragraphs 3 and 7 of this Article shall be submitted in the form of an electronic document signed by a qualified electronic signature."

Article 4

In Article 8, paragraph 1, indent of the second Rulebook, after the words: "Employer", the words: "by a member of the Commission - a representative of the ministry responsible for education" are added. In Article 8, paragraph 2 is changed and reads:

"Verification of fulfilment of conditions from Article 11, item 4) of the Law is done by inspecting the submitted documentation from Article 6, paragraph 3 of this Rulebook, based on the visit to the Employer by the member of the Commission - work inspector and the Employer's statement that work-based learning is organized in accordance with regulations determining dangerous work for children, i.e. preventive measures for safe and healthy work of young people, for all workplaces where work-based learning is carried out."

In Article 8 paragraphs 3 – 5 are deleted.

Article 5

Article 9 paragraph 2 of the Rulebook is changed and reads:

"The visit plan contains:

- the name of the Employer;
- area of work of the Employer;

- job description for each of the workplaces where work-based learning is performed;
- date of the visit realization;
- a list of responsible persons with whom the Commission will conduct an interview;
- a list of licensed instructors;
- a list of work and auxiliary premises and work equipment specified in the Request.“

Article 6

This Rulebook shall enter into force on the eighth day from the date of its publication in the “Official Gazette of the Republic of Serbia”.

CHAMBER OF COMMERCE AND INDUSTRY OF SERBIA

PRESIDENT

Marko Čadež

02.01 Number: 10/21

11 October 2019

B e l g r a d e

Pursuant to Article 12 paragraph 5 of the Law on Dual Education ("Official Gazette of the Republic of Serbia", number 101/17) I submit:

REQUEST FOR DETERMINATION OF FULFILMENT OF CONDITIONS FOR PERFORMANCE OF WORK-BASED LEARNING WITH THE EMPLOYER

FOR EDUCATIONAL PROFILE: _____

Name of business entity	
Legal representative (or entrepreneur) and others	
Headquarters address of the business entity	
Contact person: Name and surname, Work post, E-mail address, Cell phone, Landline phone	

Work-based learning will take place at the following location (s):

- a. _____
city / municipality
- _____ street and number
- b. _____
city / municipality
- _____ street and number
- c. _____
city / municipality
- _____ street and number

I enclose the following documentation (mark with X):

No.	PROOF	YES	NO
1.	Proof of organization of safety and health at work, in accordance with the provisions of the law governing the field of safety and health at work *		
	Written act ** on appointing an employee (one or more) as a person in charge of safety and health at work and a certificate of passed professional exam for performing safety and health at work and the job of the person responsible for such persons		
	Agreement on hiring a legal entity, i.e. entrepreneur, for performing safety and health at work activities and licence for performing activities in the field of safety and health at work for hired legal entity, i.e. entrepreneur		
2.	List of working and auxiliary rooms, equipment for work in / where students will learn based on work, with information about the name of the equipment, name of the manufacturer, year of production and factory and inventory number, made in accordance with the appropriate curriculum		
3.	Excerpt from the Risk Assessment Act for workplaces where students will perform work-based learning		
4.	Expert finding on the performed inspection and check of the work equipment on which the students will perform work-based learning, if the work equipment is subject to inspection and verification		
5.	A statement on good operating condition of the work equipment on which the student will perform work-based learning, and the applied safety measures		
6.	Expert finding on the performed examination of the working environment conditions		
7.	Report on inspection and testing of electrical installations for all work and auxiliary rooms in which work-based learning will be performed		

8.	Safety data sheet *** for hazardous chemical substances and other chemical substances, in accordance with the regulations governing the management of chemicals, the use of which is not prohibited by the regulation governing hazardous work for children, and which will be used in work-based learning, in Serbian and, if necessary, in a language that the student understands		
9.	Training programme for safe and healthy work of students		
10	Instructions for safe and healthy work according to the regulations on safety and health at work for the use of work equipment and means and equipment for personal protection at work that the student will use when performing work-based learning		
11.	Proof of not having been convicted of criminal offences prescribed by the law governing the prevention of harassment at work ****		
12.	Evidence that the responsible person at the employer and the instructor have not been convicted by a final verdict of a criminal offence for which unconditional sentence of imprisonment of at least three months was imposed, as well as of criminal offences of domestic violence, deprivation of a minor, neglect and abuse of a minor or incest, criminal offences from the group of criminal offences against sexual freedom, against the economy, against official duty, against legal traffic and against humanity and other goods protected by international law, regardless of the criminal sanction imposed, that they have not been convicted of a misdemeanour in the field of labour relations, and that no discriminatory conduct has been established in accordance with the law		

NOTE:

*An employer who performs safety and health at work activities by himself, in accordance with the provisions of the law governing the field of safety and health at work, is not obliged to submit evidence.

**A written act on appointing an employee as a person in charge of safety and health at work means an employment contract, an act on systematisation or a decision, i.e. a decision of the employer appointing an employee as a person for safety and health at work.

***The Safety Data Sheet must be submitted by the Employer where work-based learning is performed by students for whom the use of chemicals is envisaged by the Curriculum.

**** Submitted by the Employer who has not given the consent to the CCIS to obtain evidence ex officio of his non-conviction of criminal offences prescribed by the law governing the prevention of harassment at work.

If the Request is submitted in printed form, a photocopy of the documents from ordinal numbers 1 to 10, or the original or a certified photocopy of the evidence under serial numbers 11 and 12 shall be submitted.

If the Request is submitted electronically, all documentation shall be submitted in the form of electronic document signed by qualified electronic signature.

In _____,

Date _____

(Name and surname, function and personal signature
of the legal representative of the company, i.e. entrepreneur)

THE LAW ON DUAL MODEL OF STUDIES IN HIGHER EDUCATION

(“Official Gazette of the Republic of Serbia”, No. 66/19)

The basic text in force since 26/09/2019, in application since 26/09/2019

I. INTRODUCTORY PROVISIONS

Subject of the Law

Article 1

1) This Law regulates the content and manner of realization of the dual model of studies in higher education, mutual rights and obligations of students, higher education institutions and employers, in-kind and financial support to students, as well as other issues of importance for realization of studies according to the dual model.

(2) The terms expressed in this Law in the grammatical masculine gender mean the natural masculine and feminine gender of the person to whom they refer.

Meaning of terms

Article 2

In terms of this law, the following terms are defined:

1) “dual model of studies” (hereinafter: dual model) is a model of realization of teaching in study programmes in higher education in which students through active teaching at a higher education institution and practical training and work with the employer (hereinafter: work-based learning), acquire, improve, i.e. build knowledge, skills, abilities and attitudes (hereinafter: competencies) in accordance with the study programme and qualification standard;

2) “employer” is a legal entity or entrepreneur who meets the conditions established by this Law and whose activity enables the realization of appropriate contents and work-based learning determined by the study programme;

3) “work-based learning” is an integral part of the study programme according to the dual model of study that carries a certain number of ECTS

credits and is an organized process during which students under the supervision of a mentor when working with the employer apply theoretical knowledge in a real work environment; have direct contact with operating procedures and technologies used in the business world, connect with employed professionals and prepare for the world of work;

4) “mentor with the employer” is a person engaged with the employer, who directly ensures that during work-based learning the contents determined by the study programme are realized, and is responsible for students to acquire competencies prescribed by the study programme and qualification standard;

5) “academic mentor” is a person employed in a higher education institution (teacher or associate), who in cooperation with the mentor plans, monitors, implements and evaluates the realization of work-based learning with the employer;

6) “plan for the realization of work-based learning” contains a description of the activities, place and dynamics of work-based learning and is jointly adopted by the higher education institution and the employer.

Dual model goals

Article 3

The goals of the dual model are:

1) providing conditions for acquiring, improving and developing students' competencies in accordance with the needs of the labour market;

2) contribution to strengthening the competitiveness of the economy of the Republic of Serbia;

3) providing conditions for easier employment after completing higher education;

4) providing conditions for further education and lifelong learning;

5) developing entrepreneurship, innovation and creativity of each individual for his professional and career development;

6) providing conditions for personal, economic and general social development;

7) developing the ability for teamwork and a sense of personal responsibility in work

8) developing awareness of the importance of health and safety, including safety and health at work;

9) developing the ability to self-evaluate and express one's own opinion as well as independent decision-making;

10) promoting the socially responsible role of the employer in the company.

II. REALIZATION OF THE DUAL MODEL

Cooperation between higher education institutions and employers

Article 4

(1) A higher education institution that wants to implement study programmes according to the dual model of studies forms a network of employers who have the need to employ persons with qualifications acquired at that institution.

(2) Members of the network of employers may also be members of the council of employers formed in accordance with the law governing higher education.

Study programmes according to dual model

Article 5

1) The basis for the implementation of the dual study model is the study programme me accredited in accordance with the accreditation standards established in accordance with the law governing higher education and this Law, and the qualification standard established in accordance with the law governing the National Qualifications Framework.

(2) The dual model of study can be accredited as an independent study programme me or as one of the modules within the study programme m, and in addition to the elements prescribed by the law governing higher education and accreditation standards it contains a description and scope of work-based learning expressed in hours and ECTS credits.

(3) Employers shall also participate in the development of study programmes, i.e. modules referred to in paragraph 2 of this Article, in accordance with the law governing higher education.

4) A higher education institution may submit a request for giving consent to the organization of a module within the accredited study programme me for the realization of the study programme me according to the dual model, without increasing the number of students from the accreditation.

(5) The request referred to in paragraph 4 of this Article is submitted together with the study to the National Body for Accreditation and Quality Assurance in Higher Education (hereinafter: the National Accreditation Body).

(6) The study referred to in paragraph 5 of this Article shall be adopted by the professional body of the independent higher education institution.

(7) The form and content of the study referred to in paragraph 5 of this Article shall be determined by the National Council for Higher Education at the proposal of the National Accreditation Body.

8) Upon receipt of the request referred to in paragraph 4 of this Article, the Accreditation and Quality Assurance Commission (hereinafter: the Accreditation Commission) forms within 15 days from the date of submission of the request a special commission of reviewers appointed in accordance with the law governing higher education.

(9) The separate Commission referred to in paragraph 8 of this Article shall, within 30 days from the day of appointment, submit to the Accreditation Commission a proposal to give consent or to reject the request for approval of the organization of modules for realization of study programme me according to dual model.

(10) The Accreditation Commission shall decide on the request based on the proposal of the separate commission, within 30 days from the date of receiving the proposal referred to in paragraph 5 of this Article.

(11) Standards for study programme m, i.e. module accreditation according to the dual model are determined in accordance with the law governing higher education.

Scope, period and place of realization

Article 6

1) The ratio in the volume of hours of active teaching performed at a higher education institution and work-based learning with the employer is determined by the study programme me, with active teaching (lectures, exercises and other forms of active teaching) must account for at least 450 hours per year on average at the level of the entire study programme, and work-based learning at least 450 hours per year on average at the level of the entire study programme.

(2) Work-based learning is realized in its entirety with one or more employers in accordance with the study programme me and the plan for the realization of work-based learning.

3) Notwithstanding the provision of paragraph 2 of this Article, only with the consent of the higher education institution, part of the work-based learning may be realized at the higher education institution or with a third party (training centre, another legal entity that conducts training, another employer, another higher education institution, etc.) which has material, technical and personnel conditions for performing the part of work-based learning, if work-based learning cannot be fully realized with the employer.

(4) Mutual rights and obligations between the higher education institution and the employer, as well as between the higher education institution and the third party referred to in paragraph 3 of this Article shall be regulated by a contract.

Enrolment of students

Article 7

1) Students are enrolled in study programmes according to the dual model of studies based on inviting applications, in accordance with the law governing higher education.

(2) By a general act, a higher education institution shall determine specific conditions for enrolment of students in study programmes according to the dual model, as well as conditions for the transition of students from dual to other study models, and/or transition to dual study models

Placement of students with employers

Article 8

1) If several employers participate in the realization of the study programme according to the dual model of study, students apply for work-based learning with a certain employer from the network of employers of the higher education institution where work-based learning is realized.

(2) Placement is done through interviewing students by employers, whereby the wishes of students are harmonized with the choice of employers.

(3) The study programme, and/or the plan for the realization of work-based learning, shall determine more detailed conditions for the placement of students to employers.

Career guidance and counselling

Article 9

1) The higher education institution provides support through the centre for career guidance and counselling or otherwise, encourages and monitors the career development of students, in accordance with the general act of the higher education institution and career guidance and counselling standards adopted on the grounds of the law governing the national qualifications framework.

2) The higher education institution supports career development of students in the dual model of studies by: monitoring the satisfaction and motivation of students and employers during the work-based learning programme, empowering and supporting students to plan and set career development goals, cooperates with high schools to establish continuity of career services guidance and counselling, assists students in choosing an employer

when work-based learning is realized with several employers, in order to guide students to individual needs and in their best interests.

Protection of student rights

Article 10

1) Protection of students' rights is exercised in accordance with the law governing higher education, the law governing the field of work and safety and health at work, the law governing the prohibition of harassment at work, the law governing pension and disability insurance, the law the protection of intellectual property rights and by this law.

(2) During the performance of work-based learning with the employer, all types of discrimination, prescribed by the law governing the prohibition of discrimination, are prohibited.

Conditions for conducting work-based learning with the employer

Article 11

1) The conditions that the employer must meet in order to perform work-based learning are:

- 1) performing activities that enable the realization of content from the study programme;
- 2) an appropriate number of mentors with the employer who have at least the type and level of higher education that corresponds to the type and level that the student acquires according to the study programme and three years of work experience in the profession;
- 3) disposal of appropriate space, equipment and means for work in accordance with the study programme and the plan for the realization of work-based learning;
- 4) ensuring the application of safety and health measures at work in accordance with the law;
- 5) that no bankruptcy proceedings have been opened against the employer or that liquidation proceedings have not been initiated;
- 6) that the mentor and another responsible person at the employer have not been convicted by a final judgment of a criminal offence for which an unconditional sentence of imprisonment of at least three months has been imposed, as well as of criminal offence of domestic violence, deprivation of a minor, neglect and abuse of a minor or incest, crimes from the group of crimes against sexual freedom, against

the economy, against official duty, against legal traffic and against humanity and other goods protected by international law, regardless of the criminal sanction imposed, that they have not been convicted of a misdemeanour in the field of labour relations for which, in accordance with the law, discriminatory behaviour has not been established;

7) that the mentor with the employer and the responsible person with the employer have not been convicted of criminal offences prescribed by the law governing the prevention of harassment at work.

(2) Conditions from paragraph 1 items 1) - 4) of this Article are determined by the study programme.

III. REGULATION OF MUTUAL RELATIONS BETWEEN HIGHER EDUCATION INSTITUTIONS, EMPLOYERS AND STUDENTS

Article 12

1) The mutual relationship between a higher education institution, an employer and a student in study programmes, i.e. modules according to the dual model, is regulated by a contract.

(2) The mutual relationship between a higher education institution and an employer shall be regulated by a contract on dual model, and the mutual relationship between an employer and a student shall be regulated by a contract on work-based learning.

1. Dual model contract

Form of contract

Article 13

The dual model contract is concluded between the higher education institution and the employer, in writing, for a period that cannot be shorter than the number of years of the study programme.

Contents of the contract

Article 14

Mandatory elements of a dual model contract are:

- 1) name, seat and registration number of the employer;
- 2) name and seat of the higher education institution;
- 3) data on the study programme;

- 4) the obligation of the employer to perform work-based learning at his own expense;
- 5) obligations of the higher education institution in connection with the realization of work-based learning;
- 6) obligations of the employer in connection with the realization of work-based learning;
- 7) plan and programme for realization of work-based learning;
- 8) place and time schedule of realization of work-based learning;
- 9) the maximum number of students that a higher education institution can send to the employer for work-based learning;
- 10) duration of the contract;
- 11) protection of the intellectual property rights of the employer and the intellectual property rights of the student;
- 12) protection of personal data;
- 13) reasons for termination of validity and termination of the contract;
- 14) manner of resolving possible disputes,
- 15) date and signatures of the contracting parties.

Conclusion of a dual model contract

Article 15

(1) The higher education institution concludes a contract on a dual model with one or more employers, in order to provide conditions for the realization of all learning contents through the work defined by the study programme.

(2) When choosing an employer, a higher education institution is obliged to be guided by the best interests of students.

(3) The employer may conclude a contract on a dual model with several higher education institutions.

(4) The higher education institution shall notify the ministry in charge of higher education and the Chamber of Commerce and Industry of Serbia of the concluded contract referred to in paragraph 1 of this Article no later than eight days from the date of the contract conclusion.

Publishing on the official website

Article 16

The higher education institution and the Chamber of Commerce and Industry of Serbia publish on their official website, no later than 15 days from

the date of conclusion of the contract on the dual model, basic information about the study programme and other information relevant to the implementation of work-based learning.

Termination of the contract by the employer

Article 17

The employer terminates the dual model contract if:

- 1) the higher education institution's work permit is revoked or revoked in accordance with the law;
- 2) the higher education institution ceases to meet the prescribed conditions for the study programme in which the employer realizes work-based learning;
- 3) the higher education institution does not fulfil the obligations stipulated by the contract on the dual model;
- 4) unforeseen technological, economic or organizational changes take place with the employer, which prevent, hinder or significantly change the performance of activities.

Termination of the contract by the higher education institution

Article 18

(1) The higher education institution terminates the contract on the dual model if:

- 1) the employer does not fulfil the obligations stipulated by the dual model contract;
 - 2) the employer violates the rights of students prescribed by law.
- 2) The higher education institution is obliged to inform the ministry in charge of higher education and the Serbian Chamber of Commerce of the termination and reasons for termination of the dual model contract without delay, and no later than the next working day.

Consequences of contract termination

Article 19

(1) If the contract on the dual model is terminated for the reasons prescribed in Article 17, items 1) -3) of this Law, continuing education is provided by another higher education institution determined by the Ministry.

(2) If the dual model contract is terminated for the reasons prescribed in Article 17, item 4) of this Law, work-based learning shall be provided to students by a higher education institution with another employer with which it has concluded a dual model contract.

(3) If the dual model contract is terminated for the reasons prescribed in Article 18 of this Law, work-based learning shall be organized by a higher education institution with another employer with which it concludes a dual model contract.

1. Contract on work-based learning

Form of contract

Article 20

1) The contract on work-based learning is concluded by the employer and the student in writing.

2) The contract on work-based learning shall be concluded after the assignment of students to employers with whom work-based learning will be realized, and no later than five days before the beginning of the planned performance of work-based learning.

3) The employer is obliged to keep records of concluded contracts referred to in paragraph 1 of this Article, in accordance with the law.

Contents of the contract

Article 21

(1) Mandatory elements of the contract on work-based learning are:

- 1) identification data of the employer;
- 2) name and surname of the student and his / her residential address;
- 3) data on the higher education institution;
- 4) name of the study programme;
- 5) the obligation of the employer to organize and implement student work-based learning in accordance with the study programme;
- 6) certificate from the health institution that the student meets the health conditions for work with the employer if such a certificate is necessary, in accordance with the provisions on the protection of youth prescribed by the law governing employment;
- 7) if the study programme is realized in the language of a national minority, the obligation of the employer is to organize and implement work-based learning in the language of that national minority;
- 8) place and time of realization of work-based learning;

9) the obligation of the student to regularly perform work-based learning with the employer;

10) the obligation of the student in relation to the time of stay, learning, safety and health at work during work-based learning with the employer;

11) in-kind support to students;

12) financial support to students;

13) protection of the intellectual property rights of the employer and the intellectual property rights of the student acquired during the work-based study with the employer;

14) protection of personal data;

15) keeping business secrets of the employer;

16) duration of the contract;

17) reasons for termination and termination of the contract;

18) compensation for damage in case of dismissal by the employer, unless the dismissal occurred by no fault of the employer;

19) manner of resolving possible disputes;

20) date and signature of the contracting parties.

(2) An integral part of the contract on work-based learning is the plan for the realization of work-based learning.

Article 22

A student may conclude a work-based learning contract with several employers with whom the higher education institution has concluded a dual model contract, if this is necessary for the implementation of the study programme.

Termination of the contract by the employer

Article 23

(1) The employer terminates the work-based learning contract if the student:

1) loses student status;

2) violates the obligations determined by the contract on work-based learning and the law;

3) permanently loses the health ability to work;

4) unforeseen technological, economic or organizational changes take place with the employer, which prevent, hinder or significantly change the performance of activities.

(2) In the event that the higher education institution in accordance with the law governing higher education approves the student's suspension of rights and obligations (in cases of serious illness, child care up to one year of

age, special care lasting longer than the child's first year of life, maintenance pregnancy, etc. in accordance with the general act of the higher education institution), the employer may terminate the contract on work-based learning.

Termination of the contract by the student

Article 24

A student may terminate a work-based learning contract if:

- 1) he loses the status of a student, decides to enrol in another study programme or if the higher education institution approves the suspension of rights and obligations in accordance with the law governing higher education;
- 2) the employer does not fulfil the obligations from the contract on work-based learning with the employer;
- 3) the employer violates the student's rights prescribed by law.

Consequences of contract termination

Article 25

(1) If the contract on work-based learning is terminated for the reasons stated in Article 23, paragraph 2 of this Law, the higher education institution is obliged to organize the student's work-based learning on the same study programme with the same or another employer upon restoration from suspension of the rights and obligations, that is, to enable him to transfer to another study programme in accordance with the general act referred to in Article 7, paragraph 2 of this Law.

(2) If the contract on work-based learning is terminated for the reasons stated in Article 23, paragraph 1, item 2), the higher education institution may organize student work-based learning on the same study programme with another employer, with which it has concluded a dual model contract.

(3) After the termination of the contract from paragraphs 1 and 2 of this Article, a student and another employer, with whom the higher education institution has concluded a contract on dual model, shall conclude a contract on work-based learning.

(4) On termination of the contract referred to in paragraphs 1 and 2 of this Article, i.e. about the concluded contract from paragraph 3 of this Article, the higher education institution informs the ministry in charge of higher education, and the employer notifies the Chamber of Commerce and Industry of Serbia no later than eight days from the date of the contract execution.

(5) If the higher education institution has not executed the contract on a dual model with another employer referred to in paragraph 3 of this Article, it shall be obliged to provide conditions for the continuation of studies.

IV. CONTRACT REGISTER

Register of dual model contracts

Article 26

(1) The Register of contracts on the dual model is kept by the Chamber of Commerce and Industry of Serbia, as entrusted job.

(2) The following data shall be entered in the Register referred to in paragraph 1 of this Article:

- 1) record number of the contract;
- 2) name and address of the higher education institution;
- 3) name and address of the employer;
- 4) number of students for whom the employer organizes work-based learning;
- 5) address of the place of work-based learning;
- 6) date and time of the contract execution;
- 7) start date of work-based learning.

(3) The Register referred to in paragraph 1 of this Article shall be kept as a single electronic database.

(4) The data referred to in paragraph 2 of this Article are publicly available and posted on the official website of the Chamber of Commerce and Industry of Serbia.

Entry in the Register

Article 27

(1) The employer is obliged to submit the dual model contract to the Chamber of Commerce and Industry of Serbia within eight days from the date of the contract execution, for entry in the register.

(2) A copy of the contract referred to in paragraph 1 of this Article may be submitted by the employer in printed or electronic form.

V. MENTOR WITH THE EMPLOYER

Article 28

(1) The mentor with the employer must have competencies for the realization of work-based learning defined by the general act of the higher education institution.

(2) The manner of checking the competencies of the mentor with the employer shall be determined by a general act of the higher education institution.

(3) Based on the results of the competence examination, the higher education institution shall, if necessary, provide instructions for performing the work of a mentor with the employer or organize a training programme in accordance with the plan of realization of the study programme according to the dual study model.

VI. PERFORMANCE ASSESSMENT AND EXAMS IN DUAL MODEL

Student performance assessment

Article 29

Student performance assessment according to the dual model of studies is regulated by a general act of the higher education institution.

Final work

Article 30

The content and manner of conducting the final work are regulated in accordance with the study programme and the implementation plan according to the dual model.

VII. IN-KIND AND FINANCIAL SUPPORT TO STUDENTS

In-kind support to students

Article 31

(1) The student performing work-based learning is provided by the employer:

- 1) means and equipment for personal protection at work;
- 2) reimbursement of the actual costs of transport to the place of work-based learning and back, at most in the amount of the price of a transport ticket in public transport, if the employer has not provided its own transport;
- 3) Reimbursement of food costs in accordance with the employer's general act;
- 4) insurance in case of injury during work-based learning with the employer, if such insurance is provided for employees of that employer.

(2) The employer may provide the student with coverage of the costs of accommodation and meals in the student dormitory.

Financial support to students

Article 32

(1) A student who performs work-based learning is entitled to compensation.

(2) Compensation for work-based learning shall be paid once a month no later than the end of the current month for the previous month for each hour spent on work-based learning in the net amount of at least 50% of the basic salary of an employee working on the same or similar jobs.

(3) Compensation for work-based learning in undergraduate studies can be paid in different amounts by years of study according to the level of knowledge of students, for each hour spent on work-based learning in the range of 30-70% of the basic salary of an employee working on the same or similar jobs, provided that the total remuneration for work-based learning paid at the level of the study programme must be at least 50% of the basic salary of the employee paid for the same period.

(4) If the employer bears the costs of tuition fees at the same time, he may reduce the compensation for work-based learning up to the amount of tuition fees.

VIII. SUPERVISION

Article 33

(1) Supervision over the implementation of this Law shall be performed by the ministry in charge of higher education, in accordance with the law governing higher education, the law governing educational inspection, and this law.

(2) Inspection supervision over higher education institutions shall be performed by the ministry in charge of higher education, through the educational inspection.

(3) Supervision related to working conditions and safety and health at work with the employer shall be performed by the ministry in charge of labour affairs - through the work inspection.

(4) The quality control of the work of a higher education institution is performed by the National Body for Accreditation and Quality Assurance in Higher Education, in accordance with the law governing higher education.

(5) In the territory of the Autonomous Province of Vojvodina, inspection activities shall be performed by the bodies of the Autonomous Province of Vojvodina.

IX. PENAL PROVISIONS

Article 34

(1) A higher education institution shall be fined from 50,000 to 100,000 dinars for a misdemeanour if it fails to notify the Ministry of the termination of the contract referred to in Article 25, paragraph 1 of this Law within the time limit referred to in Article 25, paragraph 4 of this Law.

(2) A fine of 5,000 to 50,000 dinars for the misdemeanour referred to in this Article shall also be imposed on the management body, and/or the responsible person of the higher education institution.

Article 35

(1) A fine of 50,000 to 100,000 dinars shall be imposed on the employer - legal entity if:

- 1) realizes work-based learning contrary to Article 6 of this Law;
- 2) fails to provide the means and equipment for personal protection at work referred to in Article 31, paragraph 1, item 1) of this Law;
- 3) fails to provide compensation for the actual costs of transportation from the school to the place of work-based learning and back from Article 31, paragraph 1, item 2) of this Law;
- 4) fails to provide reimbursement of food costs referred to in Article 31, paragraph 1, item 3) of this Law;
- 5) fails to provide insurance referred to in Article 31, paragraph 1, item 4) of this Law;
- 6) fails to provide remuneration for work-based learning referred to in Article 32, paragraph 2 of this Law;

(2) A fine of 10,000 to 100,000 dinars shall be imposed on the employer - entrepreneur for the misdemeanour referred to in paragraph 1 of this Article.

(3) A fine of 5,000 to 50,000 dinars for the misdemeanour referred to in paragraph 1 of this Article shall also be imposed on the responsible person at the employer.

X. TRANSITIONAL AND FINAL PROVISIONS

Article 36

The National Council for Higher Education shall adopt the acts referred to in Article 5, paragraphs 7 and 11 of this Law within six months from the date of this Law entry into force.

Article 37

This Law shall enter into force on the eighth day from the date of its publication in the "Official Gazette of the Republic of Serbia".

**A GUIDE FOR COMPANIES THROUGH
DUAL EDUCATION IN SERBIA**

October, 2019

Project
“Support in the Development and Establishment
of the National Model of Dual Education”

The publication was created within the project "Support in the Development and Establishment of the National Model of Dual Education" implemented by the Centre for Education Policies in partnership with the Ministry of Education, Science and Technological Development of the Republic of Serbia, thanks to funding from the Swiss Agency for Development and Cooperation.

The views and opinions expressed in this publication do not necessarily reflect the views of donors.

All terms used in the Guide in the grammatical masculine gender imply the natural masculine and feminine gender of the persons to whom they refer. The word "parent (s)" is used to mean biological parent(s), guardian(s) and means all those who have taken or are taking primary care of students.

Introductory Word

Dear company representatives,

This Guide contains basic information about the National Model of Dual Education that is tailored to you and your needs. The aim of the Guide is to bring you closer to the dual model of education and provide support in assessing and deciding whether you want to become a partner in achieving dual education in Serbia, as well as to inform you about your role, rights and responsibilities in this regard.

The key to the success of dual education lies in the quality cooperation of all participants, and it is possible only with good information and understanding of the concept, characteristics, as well as potential advantages and challenges. In addition to the above, the purpose of this Guide is to, through information relevant to companies, present the rights, obligations and responsibilities of all other participants in the implementation of dual education. All issues of importance for dual education are regulated by law and by-laws, and the Guide presents the overall legal framework according to which the National Model of Dual Education is realized.

The Guide contains explanations of the concept of the National Model of Dual Education, basic concepts, presents the roles and tasks of the most important participants, gives an overview of legislative acts that regulates all key issues for all actors in the process of dual education, provides guidelines for important decisions and instructions for all necessary activities, and shows all the steps that the company should take in order to be included in dual education, as well as the guidelines for achieving the work-based learning process in the company.

We hope that the Guide will be a form of support for more complete information of companies, successful realization of dual education and quality partnership of companies and schools.

Team of Authors

List of Abbreviations

Abbreviation	Full name
QA	Qualifications Agency
LSG	Local Self-Government
LDE	Law on Dual Education
IEQE	Institute for Education Quality and Evaluation
IIE	Institute for the Improvement of Education
CGC	Career Guidance and Counselling
Commission	Commission for Development and Implementation of Dual Education of the Government of the Republic of Serbia
MESTD	Ministry of Education, Science and Technological Development
NES	National Employment Service
NQF	National Qualifications Framework of Serbia
CCIS	Chamber of Commerce and Industry of Serbia
RCCIS	Regional Chamber of Commerce and Industry of Serbia
RS	Republic of Serbia
SCTM	Standing Conference of Towns and Municipalities
NQFC	National Qualifications Framework Council
SVE	Secondary Vocational Education
CVAE	Council for Vocational and Adult Education
CGC	Career Guidance and Counselling
RSA	Regional School Administration

1. BASIC CHARACTERISTICS OF DUAL EDUCATION IN SERBIA

1.1. National Model of Dual Education in the Republic of Serbia

The development of the system of secondary vocational education that will respond to the needs of the labour market in a more effective and efficient way, as well as the development of the National Model of Dual and Entrepreneurial Education in the last few years have been set as priority goals of the Government of Serbia. The Strategy for the Development of Education in Serbia until 2020, as well as the National Employment Strategy for the period from 2011 to 2020, consistently point to the need for better connection between the world of work and education. In short, the Education Development Strategy indicates the need for changes in the current structure of secondary vocational education, the obsolescence of the curriculum, the inconsistency of the enrolment plan and the needs of the labour market, and the like. This strategic document and the accompanying Action Plan also point to the need for a greater share of internships during schooling and for better "internships", for accredited training jobs for mentors, for incentives for the companies that provide training places for students, etc. The National Employment Strategy also states that it is necessary to harmonize secondary vocational education with the needs of the labour market, harmonize supply and demand, better access to lifelong learning, especially for vulnerable groups and the like.

The need for reform of the secondary vocational education system, recognized in the key strategic documents, and based on previous reform experiences and identified development needs, as well as the experience of the project "Reform of secondary vocational education" which was implemented with the support of GIZ in the period from 2013 to 2016 by taking into account the experiences and support of countries (Germany, Austria and Switzerland) with a long tradition of dual education, resulted in the development and introduction of the National Model of Dual Education in Serbia. The model of dual education that is implemented in the Republic of Serbia could be briefly defined as education that students receive in the company and at school, where special emphasis is placed on student practice that takes place based on work in the company.

The initiative for the introduction of the dual model of education came from the economy, which for years pointed to the lack of appropriate staff on the market and the unwillingness of secondary school graduates to get involved in work processes immediately after leaving school. In this way, the additional obligations and costs of introducing young people to work and training for knowledge and skills, which they were supposed to acquire

during schooling, were imposed on employers. The discrepancy between the demand for skilled workers of certain profiles and their availability on the labour market, as well as the fact that workers' qualifications are sometimes not a true reflection of their knowledge, skills and abilities, necessitated a change in the current situation as soon as possible in order for the staff not to be limiting factors for economic growth and development. Many businessmen have pointed out (and still do) that they perform production in one shift because they cannot find qualified staff for working in two shifts.

Based on the Law on Dual Education (LDE) ("Official Gazette of RS", No. 101/17), dual education is a model of teaching in the system of secondary vocational education (SVE) in which the curriculum is implemented on two places - in school and in the company (with the employer). More precisely, students acquire knowledge, skills and attitudes (competencies) in the school where theoretical classes and exercises are conducted, and with the employer when work-based learning is conducted, all in accordance with the qualification standard and the curriculum (LDE, Article 2).

Dual education is implemented differently in different countries, and some of the countries that have a long history of implementation are Austria, Germany and Switzerland. In each of these countries, dual education is conducted in accordance with the context in that country. Thus, the National Model of Dual Education created in Serbia relies on the experiences and examples from countries that have developed dual education, but is adapted to the characteristics of the situation in Serbia in the fields of education (strategic goals of education, school structure, number of students, etc.) and economy (economic development and strategic directions of its development, company structure, etc.).

Dual education is present in the offer of schools in cities and municipalities where employers express the need and opportunity for admission of students to work-based learning, because dual education is introduced exclusively at the request of the economy. Inclusion in dual education is voluntary and is intended for those employers who see a systemic way to solve the problem of the lack of competent staff in the long run through their own investment in education.

In dual education in Serbia, the student DOES NOT WORK, but learns based on work, which means that the Labour Law does not apply to him, but the laws and all other legal regulations in the field of education. The student is not in the sphere of work, but in the sphere of education. The student first enrolls in school, and then is placed with the employer. The school is responsible for both the part of the curriculum that is realized in the school and for the part that is realized with the employer.

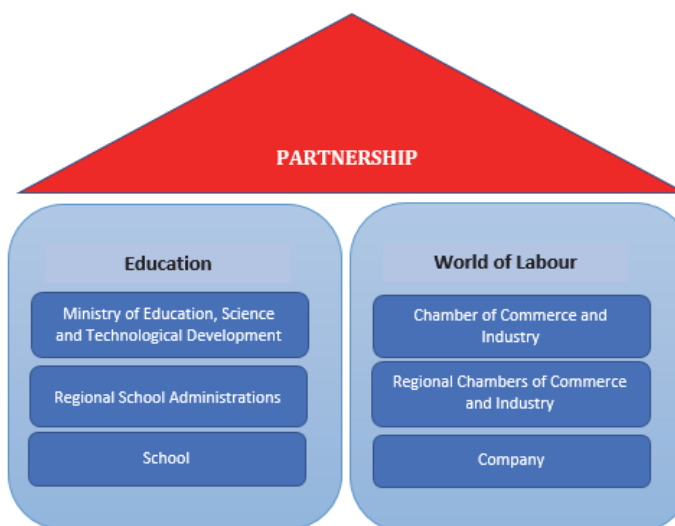
The key issues of importance for the realization of dual education are defined by the Law on Dual Education adopted in 2017 ("Official Gazette of the Republic of Serbia", 101/17) which is followed by a whole set of by-laws (relating to both education and economy (see Chapter 1.5). During the conceptualization of the model, development of laws and bylaw regulations, as well as after the adoption of the mentioned Law and the accompanying Rule-books, a number of activities were undertaken to provide preconditions for successful implementation of the envisaged model, so that from the school year 2019/2020. its implementation has begun.

For more information, you can see the Law on Dual Education ("Official Gazette of RS", No. 101/17), which can be found at this link www.mpn.gov.rs/dokumenta-i-propisi/zakonski-okvir/

In the first years of introduction of work-based learning (from 2013 to 2016), support for the development of this model of vocational education was provided by 40 companies. However, for the school year 2019/2020, as many as 850 companies expressed readiness for inclusion in this type of education. Thus, in the 2019/2020 school year dual educational profiles make up 10% of the total offer of educational profiles in the system of secondary vocational education.

Apart from the fact that the implementation of the curriculum takes place in two places, dual education in Serbia has another particularly important "dual" characteristic. Namely, the process of achieving dual education in Serbia includes two main partners, namely the Ministry of Education, Science and Technological Development (MESTD) and the Chamber of Commerce and Industry of Serbia (CCIS). The inclusion of the Chamber of Commerce and Industry of Serbia in dual education ensures, among other things, that dual educational profiles are in line with the needs of employers and the labour market, but also ensures the quality of work-based learning with employers through company accreditation and training of instructors for the work with students.

Figure 1. Partnership in Dual Education as one of its Key Specificities



In addition, a characteristic of dual education in Serbia is the Law on Dual Education (Article 6) is the prescribed scope of work-based learning, and/or the time that students can spend in companies during the process of work-based learning. General education of students in dual education remains in the same scope as for students who study in non-dual educational profiles (the same number and scope of classes of general education subjects.

The scope of work-based learning is at least 20%, and at most 80% of the total number of hours of professional subjects, in accordance with the appropriate curriculum. Bearing in mind that a student in dual education is not employed in the company in which he attend work-based learning, it is important to keep in mind that the time he spends with the employer is limited to a maximum of six hours a day or 30 hours a week and can be realized only during the school year in the period from 8 am to 8 pm (LDE, Article 6).

For example, in the case of three-year educational profiles, students are usually not in the company in the first grade or spend a maximum one day in a week with the employer, while in the second and third grade they spend

two and three days a week, respectively. In the case of four-year educational profiles, in most cases in the first and second grade they spend one day a week with the employer, while in the third and fourth grade they spend two days a week.

Exceptionally, a part of work-based learning can be realized in school in accordance with the curriculum, i.e. if it is not possible to achieve it in its entirety with the employer. The school realizes a maximum of 25% of learning hours through the work provided by the curriculum. It is also possible to unite employers in a consortium, in order to enable students to acquire all the knowledge (achieve all learning objectives) if they cannot do so with one employer.

1.2. The most commonly used terms related to dual education in Serbia and their meaning

Dual education and its specifics can be defined and viewed through an overview of key terms that are directly related to its realization. With the aim of a comprehensive and harmonized understanding of the National Model of Dual Education, the meaning of key terms in the context of the implementation of dual education is presented below. The meanings of the terms are based on the Law on Dual Education (Official Gazette of the Republic of Serbia, No. 101/17) and the Law on the National Qualifications Framework of the Republic of Serbia (NQF), (Official Gazette of the Republic of Serbia, No. 27/18).

Table 1. Overview of the meaning of key terms related to dual education

Term	Meaning
Dual ducation	Dual education is a model of teaching in the system of secondary vocational education in which through theoretical teaching and exercises in school and work-based learning with the employer, students acquire and improve, i.e. build knowledge, skills, abilities and attitudes (competencies) in accordance with the standard qualifications and the curriculum (LDE, Article 2).

Term	Meaning
Work-based learning	Work-based learning is a part of dual education which implies an organized process during which students in a real work environment acquire competencies to work in certain occupations or groups of occupations.
Employer	An employer is a legal entity or entrepreneur who directly provides conditions for work-based learning in dual education. An employer who is involved in dual education must satisfy the requirements prescribed by the Law on Dual Education, and/or must be accredited for the realization of work-based learning in accordance with the curriculum for a particular educational profile. The Chamber of Commerce and Industry of Serbia accredits companies for participation in dual education.
Coordinator of work-based learning	Coordinator of work-based learning is a person who is employed in a secondary vocational school, i.e. a teacher of practical classes, who in cooperation with the instructor plans, monitors, implements and evaluates the realization of work-based learning with the employer (LDE, Article 2).
Instructor	An instructor is a person employed by the employer, who ensures that during work-based learning the contents prescribed by the curriculum are realized and who is responsible for acquiring knowledge, skills and attitudes by students with the employer (LDE, Article 2).
Curriculum	The curriculum is a document that determines which subjects will be taught, in what order by grades and with how many hours per subject and grade. This document also prescribes the teaching contents by subjects, goals, tasks and contents of teaching as well as the annual and weekly fund of classes for each subject.
Plan for realization of work-based learning	The plan for the realization of work-based learning is a document that contains a description of activities, place and dynamics of achieving work-based learning. This plan is created jointly by the school and the employers, i.e. the work-based learning coordinator and the instructor. The implementation plan is an integral part of the contract between the employer and the school and between the employer and the student / parent.

Term	Meaning
Enrolment policy	Enrolment policy is a process of planning educational profiles that will be realized during one school year. This process takes place in cooperation with the school, school administration, local self-government, employers, regional chambers of commerce and industry, the National Employment Service and other relevant institutions at the local level. The criteria for creating an enrolment policy are prescribed by the MESTD. The final decision on educational profiles in the school is made by the MESTD, and when it comes to dual educational profiles, the final decision is made by the MESTD in cooperation with the CCIS, but it is important to emphasize that the school launches an initiative with the MESTD for approval of dual educational profiles, and encloses the proof of the cooperation existing with employers.
Placing students for work-based learning	Placing students for work-based learning is the process of placing students who have enrolled in a dual educational profile to attend work-based learning with employer(s). This process is regulated by the Rulebook on placement of students for work-based learning and involves the active participation of students (and parents), schools and employers.
Material security of students	Material security of students includes the provision of the means and equipment for personal protection at work, insurance in case of injury at work, compensation for food costs, compensation for transportation or providing transportation for students from school to company, etc., by the employer to the student performing work-based learning (LDE, Article 33).
Financial support to students	Student financial support implies mandatory compensation to the student by the employer for work-based learning. The financial support to the student must be an integral part of the contract (both the one signed by the school with the employer and the one signed by the student, i.e. the parent, with the employer). Compensation for work-based learning is paid for each hour spent on work-based learning, once a month, in a net amount of at least 70% of the minimum labour cost (LDE, Article 34).

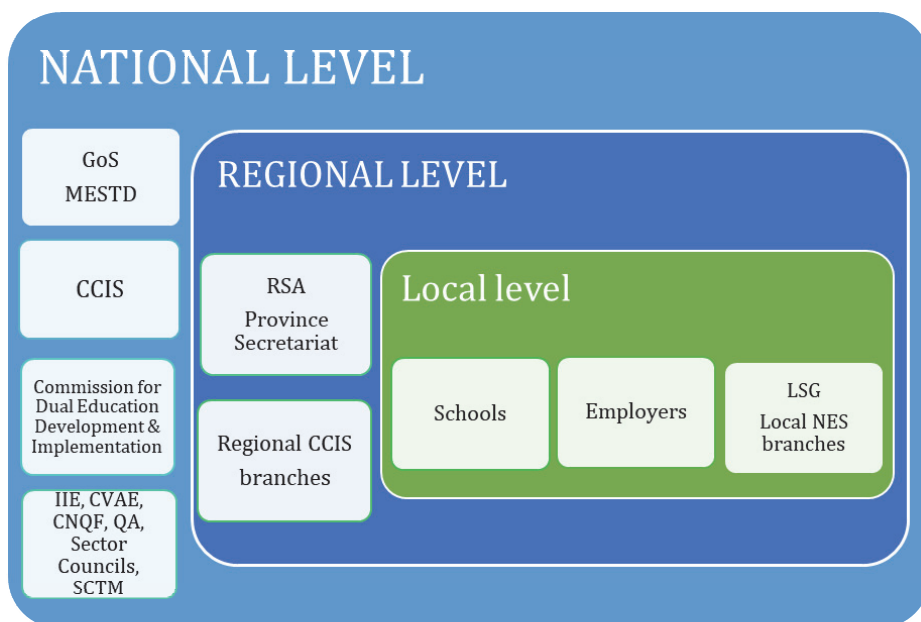
Term	Meaning
Dual education contract	The contract on dual education regulates the rights and obligations of the school and the employer who is involved in work-based learning. The duration of the contract is three or four years, i.e. as much time as it takes for the generation that started schooling to finish it.
Work-based learning contract	The work-based learning contract regulates the rights and obligations of students and employers where work-based learning will be conducted. The contract is concluded by the student (or parent) and the employer. The contract is signed no later than the beginning of the school year in which the realization of work-based learning begins. This means that some contracts will be signed in the second year when work-based learning for that dual educational profile begins
Career guidance and counselling (CGC)	Career guidance and counselling involves the process, services and activities aimed at supporting the individual to make decisions concerning education, training and occupations and the management of their career.
Competency	Competency implies a set of knowledge, skills and attitudes.
Qualification standard	A qualification standard is a document established at the national level that contains a set of qualification data with a detailed description of learning goals and outcomes as well as qualification data on the basis of which the level is determined, classified and evaluated (NQF, Article 2).
Higher education institutions	Higher education institutions that independently perform higher education activities are universities (faculties and art academies within them), colleges, academies and colleges of vocational studies. All of them except the university (and its institutions) are non-university institutions.
Qualification	Qualification is a formal recognition of acquired competencies. An individual acquires a qualification when the competent body determines that he has achieved learning goals within a certain level and according to a given qualification standard, which is confirmed by a public document (diploma or certificate) (NQF, Article 2)

Term	Meaning
Occupation	A set of jobs whose main tasks and duties are characterized by a high degree of similarity
Occupational standard	A document containing a description of the duties and tasks, as well as the competencies required for an individual to efficiently perform work in a particular occupation, determined in accordance with the regulations governing employment (NQF, Article 2).

1.3. Participants in dual education

One of the key preconditions for the successful realization of a well-designed national model of dual education is continuous and quality cross-sector cooperation and institutional partnership at various levels (national, regional and local). Below is a graphic presentation of all key actors in the process of planning, implementation, but also of monitoring and further improvement of the established National Model of Dual Education.

Figure 2. The main actors in the implementation of dual education at different levels



As can be seen from the previous Figure, many actors at both national and other levels participate in dual education and each of them has a role to play. Thus, the Government of the Republic of Serbia and the relevant ministry, together with their partners from the world of work represented by the Chamber of Commerce and Industry of Serbia, are actors at the national level who see the development of dual education as their priority.

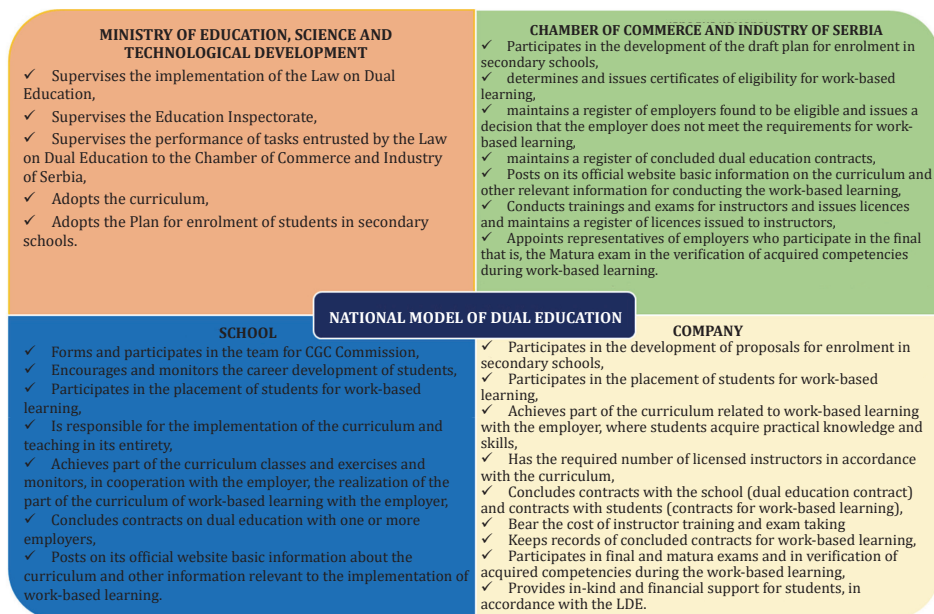
The Commission for the Development and Implementation of Dual Education was established by the Government of the Republic of Serbia and brings together, in addition to national actors, representatives of schools and companies, and should not be confused with other commissions that will be mentioned later in this Guide (for example, the commissions in charge of checking the fulfilment of conditions in companies for achieving work-based learning, or the commissions established for instructors' exams).

The Institute for the Improvement of Education (IIE), Qualifications Agency (QA), education councils formed at the national level, such as the Council for Vocational and Adult Education (CVAE) and the Council for the National Qualifications Framework (CNQF), as well as sector councils for different areas of work, have their competencies and roles in the introduction and implementation of dual education.

Given the important role that local self-governments (LSGs) play, the partner to be mentioned and whose representative is also represented among the members of the Government Commission for the Development and Implementation of Dual Education is the Standing Conference of Towns and Municipalities (SCTM). Local branches of the National Employment Service (NES) also have a role, primarily in the enrolment policy process.

The following is a brief overview of the key roles and responsibilities of the two key actors in the field of education and the world of work when it comes to the process of realization of work-based learning.

Figure 3. Overview of the main roles of key actors from the education system and the world of work in the realization of dual education



For the success of dual education, it is especially important that the protagonists of its implementation - schools and companies through partnerships nurture and respect the key general principles of dual education.

Respect for key principles in the implementation of dual education

In order for dual education to be successfully implemented, it is important that both schools and companies, and/or employers, adhere to several important general principles.

The agreement on dual education and the plan for the realization of work-based learning should establish a **clear division of obligations and responsibilities** between the school and the company.

The process of dual education itself should be **open enough to include all interested representatives** of different groups from the local community.

The dignity and personality of students must be respected at all times, and both the school and the company must be **maximally committed** to increasing the students' chances of employment after secondary school and help them develop skills to manage their career and make decisions, which are of the greatest interest to them.

1.4 Benefits of dual education

Dual education can have multiple benefits for all actors involved in its realization. The following is an overview of the key benefits from the perspective of employers' and instructors' companies, as well as the students themselves.

EMPLOYERS who participate in dual education have the opportunity to:

- ✓ Provide deficient staff - employers invest in education, i.e. in future workers, which will solve the problem of lack of certain staff in the long run.
- ✓ Ensure that in a real work environment, students acquire, improve and develop competencies in accordance with the needs of employers, i.e. the requirements of the labour market during the duration of education.
- ✓ They get to know the student and train a potential, future worker who acquires theoretical knowledge at school, and has the opportunity to practically apply and improve his acquired knowledge with the employer.
- ✓ Ensure that students are introduced to the corporate environment (business conduct, collaboration with colleagues, clients, use of equipment) and encourage students to identify with company values and specific skills. Students contribute to the "freshness" of the company and generate new energy and innovation. The fact is that the change of generation ensures the future of the business.
- ✓ They have the opportunity to recognize students to whom, after completing their education, they would like to offer a job. Return on investment: in most cases, the company reimburses the costs generated by work-based learning primarily by obtaining future employees who have developed professional competencies in a particular work environment in accordance with the business needs of a particular company.
- ✓ They participate in the development of the curricula in accordance with the needs of the economy. Namely, the employer defines the description of jobs that correspond to the jobs that students will perform after schooling at the future workplace. Employers also have the opportunity to continuously adapt the content of the curriculum to the needs of the ever-changing labour market.
- ✓ They identify and train potential candidates for more complex jobs.
- ✓ They promote the company's social responsibility: work-based learning reflects the company's energy, modernity and commitment to society. In this way, companies gain media attention and thus increase the visibility of their business.

INSTRUCTORS who participate in dual education have an opportunity to:

- ✓ acquire basic pedagogic-didactic knowledge and skills indispensable for training the students in dual education;
- ✓ acquire or improve the knowledge and skills such as team work, organization, communication and settlement of conflicts;
- ✓ get trained and become licenced as instructors in dual education, which licence is issued to the name and surname of the instructor;
- ✓ transfer knowledge and professional skills to new generations, as well as the gained experiences;
- ✓ get a higher level of responsibilities in accordance with additional competencies they have gained;
- ✓ influence on the image of the company and the attractiveness of work posts in the company. Namely, the work-based training of students represents a sign of confidence by which the employer wishes to say: "We believe you, we value your efforts and wish you to be a part of our company upon your graduation", and the instructors are the persons who actually transmit these messages.

Particularly significant benefits are those that STUDENTS have from dual education:

- ✓ Work-based learning in companies makes easier the transition from school to employment and increases employability of students. Through theoretic instruction at school and work-based learning with the employer the students acquire, and/or build up the competencies in accordance with the qualification standard, and/or the curriculum;
- ✓ Under guidance and supervision of the instructor in the company and the coordinator of work-based learning the students acquire the competencies in certain occupation or a group of occupations;
- ✓ They are permanently in contact with the real corporate environment and thus also gain professional experience during the schooling;
- ✓ They develop the ability for team work and the feeling of personal responsibility, enterprising spirit, innovativeness and creativity. They have the opportunity to check in practical way that what they are being educated for corresponds fully to their personality, interests and competencies;
- ✓ Work-based learning in a company increases the motivation of students because apart from a certain compensation they receive for their performance, they have the opportunity to learn from older future colleagues who can be, in their early age, the examples having impact on their future decisions and professional orientation;

- ✓ work-based learning in combination with a monetary compensation raises the student's awareness of the importance to become independent and no longer dependant on his parents/guardian;
- ✓ entrepreneurial competencies are developed with young persons motivating them to start their own business;
- ✓ the possibilities of developing the work ethics are greater;
- ✓ the awareness of the importance of health and safety are developed, including the health and safety at work;
- ✓ increased is the possibility of developing innovations and creativity;
- ✓ self-confidence and abilities are developed for expressing one's own opinion and for making own decisions.

1.5 Legal framework for the implementation of dual education

Although this Guide relies entirely on the overall legislative framework and its main goal is to bring all the most important legal provisions closer to companies, the goal of making companies aware of the key laws and bylaws governing the implementation of the National Model of Dual Education can be considered particularly important, which the companies can additionally consult in the case of dilemmas that may arise. The following is a list of basic legislative acts whose determinants are decisive for the realization of dual education from the perspective of companies, but also all other actors. The presented list of legal acts provides answers to key questions that may arise before, but also during the involvement in the realization of dual education.

The following set of laws and regulations make up the legal framework for the implementation of the National Model of Dual Education:

- ✓ The Law on the Foundations of Education System ("Official Gazette of the Republic of Serbia", numbers 88/17, 27/18 – other law, and 10/19)
- ✓ The Law on Secondary Education ("Official Gazette of the Republic of Serbia", numbers 55/13, 101/17 and 27/18 – other law)
- ✓ The Law on Dual Education ("Official Gazette of the Republic of Serbia", number 101/17)
- ✓ The Rulebook on the Curricula (various documents depending on the education profile)
- ✓ The Rulebook on the Final Examination Programme (various documents depending on the education profile)

- ✓ The Rulebook on the Training Programme me for Instructors and more detailed conditions for taking instructor examination ("Official Gazette of the Republic of Serbia", number 70/18)
- ✓ The Rulebook on the manner of placement of students to work-based learning ("Official Gazette of the Republic of Serbia", number 102/18)
- ✓ The Rulebook on More Detailed Conditions, Mode of Operation, Activities and Composition of the Career Guidance and Counselling Teams in the Secondary School Forming Education Profiles in Dual Education ("Official Gazette of the Republic of Serbia", number 2/19)
- ✓ The By-Law Establishing Dangerous Work for Children ("Official Gazette of the Republic of Serbia", number 53/17)
- ✓ The Rulebook on the Organization, Composition and Mode of Operation of the Commission for Determination of Fulfilment of the Conditions for Work-Based Learning Realization with the Employer ("Official Gazette of the Republic of Serbia", number 46/18)
- ✓ The Law on Health Insurance (Article 22, paragraph 1) ("Official Gazette of the Republic of Serbia", number 25/19)
- ✓ The Law on Contributions for Mandatory Social Insurance (Article 11, paragraph 3, Articles 35 and 47) ("Official Gazette of the Republic of Serbia", number 4/19 – adjusted dinar amount)
- ✓ The Law on Citizens Income Tax, Article 9, paragraph 23a ("Official Gazette of the Republic of Serbia", number 4/19 – adjusted dinar amount)

2. THE COMPANY'S DECISION TO ENGAGE IN DUAL EDUCATION

After getting good information, i.e. understanding of the concept of the National Model of Dual Education, existing motivation and recognized benefits from the company's perspective to get involved in the realization of the National Model of Dual Education, it is especially important to know all prerequisites and procedures that the company must meet. This chapter actually contains information that will help companies to make a self-assessment regarding the fulfilment of the conditions for inclusion in dual education, but also to get acquainted with the verification procedure itself regarding the fulfilment of the conditions.

The conditions that the company must meet in order to realize work-based learning are specified in the Law on Dual Education, while the detailed procedure is defined by the Rulebook on the organization, composition and manner of work of the Commission for determining the fulfilment of conditions for work-based learning at the employer (Official Gazette of the RS“, number 46/18).

Employers who want to participate in the realization of dual educational profiles apply to the Chamber of Commerce and Industry of Serbia by submitting the required documents as evidence, and CCIS forms a **Commission that determines if the conditions for conducting work-based learning with the employer are fulfilled** and which checks all companies that applied for accreditation under all conditions set forth in the Law on Dual Education.

When this Commission determines that a certain company meets all the prescribed conditions, it proposes to the CCIS to issue a certificate of fulfilment / accreditation to that company in order to be able to implement work-based learning.

The CCIS keeps a register of all companies, i.e. employers, who have met the conditions for conducting work-based learning. If any of the companies ceases to meet the conditions for the realization of work-based learning, the CCIS renders a decision on discontinuation of such conditions.

All employers, i.e. all companies that want to participate in dual education must meet the legally prescribed conditions for conducting work-based learning, i.e. to meet the conditions for accreditation. This means that employers must meet the prescribed standards, which ensures quality implementation of work-based learning for all students in dual education.

2.1. The company's self-assessment of the possibility to participate in dual education

The first step for the employer is to consider whether this model of education brings benefits for the employer and whether the employer is able to accept students to learn based on work according to the dual model of education. If motivation is present, the company's self-assessment can be considered a particularly important step. In the function of self-assessment, the following are the issues relevant for assessing the possibility of the company to be involved in the realization of dual education, and which are formally and legally regulated by the Law on Dual Education (Articles 11 and 12).

QUESTIONS FOR CONSIDERATION

- ✓ In which ways do you find the staff? Do you have difficulties in getting a good quality staff?
- ✓ Would engaging students in dual education could be an option for filling the vacancies in your company – by investing in the long-term development and thus getting the trained staff?
- ✓ For which educational profile(s) you would organize the work-based learning?
- ✓ Are you registered for performing the activity that enables realization of the content of work-based learning stipulated by the relevant curriculum?
- ✓ Do you dispose of the space, equipment and instruments of labour enabling realization of the content in accordance with the Rulebook on More Detailed Conditions in terms of space, equipment and teaching aids of a specific education profile?
- ✓ Do you have the necessary number of licenced instructors stipulated by the curriculum?
- ✓ Do you apply the measures of safety and health at work in accordance with law and applicable regulations?
- ✓ Are bankruptcy proceedings opened against the employer or is the liquidation procedure instituted?
- ✓ Are the responsible person with the employer and instructor convicted by final judgment of the criminal offence for which was pronounced the unconditional sanction of imprisonment lasting minimum three months, or of the criminal offense of family violation, abduction of an underage person, neglect and maltreatment of a minor person or incest, criminal acts from the group of criminal offences against sexual freedom, against economy, against legal duty, against legal traffic and against humanity and other goods protected by international law, irrespective of the pronounced criminal sanction, if they were convicted with final judgements for a violation in the area of labour relations and for which discriminatory behaviour was not determined, in accordance with law?
- ✓ Was the employer convicted by final judgement of the criminal acts stipulated by the law governing prevention of maltreatment at work?

2.2. Submission of the application and the procedure for checking the fulfilment of the conditions for work-based learning

The accreditation process of a company for inclusion in dual education, i.e. for achieving work-based learning, consists of three key steps.

Figure 4. Steps within the company accreditation procedure for inclusion in dual education



Step 1. The first step for the employer is to send to the Chamber of Commerce and Industry of Serbia the Request to initiate the Eligibility Verification procedure (hereinafter: Verification).

You can find the application form, address and all the necessary information on the website <https://dualnoobrazovanje.rs/>

The request for initiating the examination procedure is submitted no later than one year before the admission of students to work-based learning. For example, if a company wishes to admit students to work-based learning from a particular school year, it must submit the Application no later than 30 September of the previous year (LDE, Article 12, paragraph 5).

The request is submitted electronically or in printed form, in person or by registered mail. Along with the request, the employer encloses the following documentation shown in the table below.

Table 2. Overview and clarification of the documentation that the company encloses with the Request for assessing fulfilment of the company's conditions

Document name	Additional notes
Photocopy of the Memorandum of Association and the Decision of the Business Registers Agency on entry in the register, as proof of performance of the activity	<p>The Memorandum of Association is a publicly available document located on the official website of the Business Registers Agency, and it is acceptable for the employer to send a link leading to the part of the website where the Memorandum of Association is located.</p> <p>If the founding act is sent by mail or as a scanned document, the entire founding act must be sent (it is not enough to send the first or last change). The Statute cannot be used as a substitute for the founding act, and is not acceptable in that regard.</p> <p>In the case of a branch that does not have the status of a legal entity, the founding act of the parent company to which the branch belongs is taken into account. Decision on entry in the register - the Registration Certificate is also acceptable as a replacement.</p>
Decision on designating persons for safety and health at work	<p>In case the employer has up to 20 employees, he can be appointed as a person for safety and health at work, and in that case only the decision on appointment is enough.</p> <p>If the person in charge of safety and health at work is an employee or a third party, it is also enough to send a decision on appointment because it contains information that the person has passed the professional exam and has a licence. However, it may happen that the labour inspector during the visit asks for a professional exam and a licence, and it is necessary to prepare these two documents for the visit. Instead of the Decision, an acceptable document is the Decision on appointment.</p>
Excerpt from the Risk Assessment Act for workplaces where students will perform work-based learning	<p>It is necessary for the employer to submit excerpts for all workplaces where students will stay during work-based learning.</p>
Expert finding on the performed inspection and check of the work equipment on which the students will perform work-based learning, if the work equipment is subject to inspection and check	<p>If the work equipment is not subject to inspection and check, which is checked by Rulebook on the procedure of inspection and check of work equipment and testing of working environment conditions, it is enough for the employer to submit a short letter that the equipment is not subject to inspection and check.</p>

Document name	Additional notes
Report on the control of the correctness of work equipment	For the documentation sent with the request, it is enough to send the Form 9 - Records of performed inspections and tests of work equipment, which contains numbers of expert findings for all equipment to be checked, and for the visit of the Commission for determining the fulfilment of conditions for work-based learning with the employer, expert findings should be prepared.
Expert finding on the performed examination of the working environment conditions	It is enough for the employer to send the Form 8 - Records of performed tests of the working environment.
Training programme for safe and healthy work of students	It is recommended, but not obligatory, for employers to include in the existing programme the amendments related to the work of minors in accordance with the Regulation on the Determination of Dangerous Work for Children.
Instructions for safe and healthy work and the use of work equipment on which the student will perform work-based learning	All work equipment used has the instructions for use and safe handling (this is what needs to be attached, translated into Serbian).
Confirmation that no bankruptcy proceedings have been opened against the employer or that liquidation proceedings have been initiated	This certificate is provided by the competent court in the area of the employer.
Confirmation that the responsible person with the employer and the instructor have not been convicted by a final judgment, as well as confirmation that the employer has not been convicted by a final judgment of criminal offences prescribed by the law governing the prevention of harassment at work	The request for the issuance of these types of certificates is provided by submitting a request to the Ministry of the Interior (the request is submitted to the police station according to the person's residence)

If the request is complete and orderly, CCIS notifies the employer of this and the date of the visit, no later than seven days before the scheduled date. If the request is incomplete, CCIS will request supplementation of the documentation where the deadline of eight days is set. If complete documentation is not submitted, the request is rejected.

Step 2. Checking the fulfilment of conditions is performed by the Commission for determining the fulfilment of conditions for conducting work-based learning with the employer by inspecting the documentation and on the basis of the realized visit to the employer. This commission is formed by the Chamber of Commerce and Industry of Serbia, which is legally in charge of conducting the Verification procedure.

What does the Commission for Determining the Fulfilment of Conditions for Performing work-based learning check with the Employer?

The commission that performs the inspection is obliged to determine whether the employer meets the conditions provided by law, that the student will not perform activities that are harmful to the health, safety or morals of children, activities performed in dangerous circumstances or dangerous activities in the sense of the regulation that determines hazardous work for children, and checks whether the employer, based on the assessed risks, has taken all preventive measures for safe and healthy work of students in accordance with the regulations in the field of safety and health at work.

Who are the members of this commission?

The commission consists of:

- labour inspector,
- teacher of practical classes, i.e. coordinator for work-based learning from a school that corresponds to the field of work for which the employer submits the request for a certificate,
- representatives of the Ministry of Education, Science and Technological Development (these persons are most often educational advisors from the School administration on the territory of the company),
- a representative of the CCIS and a representative of the economy from among the CCIS members who is an expert in the given field of work.

Based on the performed verification procedure, at the proposal of the commission for determining the fulfilment of conditions for performing work-based learning with the employer, the CCIS issues a certificate of fulfilled conditions for performing the work-based learning to the employer who has satisfied all prescribed conditions no later than one month from the date of the visit made on the employer.

Step 3. Upon receipt of the certificate, the CCIS enters such certificate in the public register posted on the official CCIS website, and the employer can

be included in the dual model of education in accordance with the following procedure. The costs of the certificate issue, keeping and entry in the Register are borne by the CCIS.

The certificate is issued for the field of work to which the educational profile in the educational system belongs. If the employer wants to obtain a certificate for two areas of work, there is a possibility to do so through a single verification procedure.

If this commission finds that the employer does not meet all the prescribed conditions, it proposes to the CCIS to issue a decision that is final in the administrative procedure.

Although the certificate is issued for an indefinite period of time, it may happen that the employer in the meantime ceases to meet the requirements set forth by the LDE. Discontinuation of the fulfilment of the conditions may be reported by any stakeholder, and the CCIS is obliged to convene a commission to determine the eligibility for work-based learning with the employer, which commission will carry out the verification procedure. If the employer does not have a sufficient number of licensed instructors, this commission orders him to delegate new employees who have six months in which to obtain a licence. However, if the employer has ceased to meet other conditions provided by law, the CCIS issues at the proposal of this commission a Decision on discontinued fulfilment of conditions, which is final in the administrative procedure.

If you happen to be without a sufficient number of instructors for certain reasons, appoint a new person and immediately contact the CCIS for training and exams to obtain a licence.

3. OBLIGATIONS AND COSTS OF EMPLOYERS IN ACCORDANCE WITH THE LAW ON DUAL EDUCATION

In addition to the fact that the employer undertakes to systematically and qualitatively implement the part of the curriculum and teaching related to work-based learning, the following table shows other obligations, as well as the costs arising from them.

Table 3. Overview of obligations and costs for companies arising from inclusion in dual education

OBLIGATION	LDE ARTICLE	COSTS	DESCRIPTION
Possession of a Certificate of fulfilled conditions for performing work-based learning	Articles 11 and 12	There are no costs for employers	In order for the employer to obtain the Certificate, he must go through the procedure of checking of the fulfilment of required conditions. The costs of Certificate issue, keeping entry in the register are borne by the CCIS.
Having the required number of licensed instructors	Article 11 (paragraph 6), Articles 29 and 30	Until the end of 2019, attending the training and taking the exam is free of charge, after which these costs will be borne by the employer according to the act on the amount of the CCIS training costs, which will be drafted by the end of 2019. entry in the register is free of charge.	In order for an instructor to obtain a licence, he must meet the requirements prescribed by the Law, attend 40-hour training and pass the instructor exam. After obtaining the license, entry is made in the register. The number of students who can be in charge of one instructor is not currently prescribed by the curriculum for all educational profiles. Where not yet prescribed, it is recommended that one instructor be in charge of maximum five students.

OBLIGATION	LDE ARTICLE	COSTS	DESCRIPTION
Concluded contract on dual education, and entered in the Register	Articles 13–20, 27 and 28	There are no additional costs for employers	<p>This type of contract is concluded with the school. The Law prescribes the obligatory elements of the contract, and the employer is obliged to submit it to the CCIS within eight days from the date of the contract execution for entry in the public register.</p> <p>The costs of keeping and entry in the Register shall be borne by the CCIS</p>
Concluded work-based learning contracts and keeping records thereof	Articles 21–26	A contract conclusion does not in itself bring additional costs for the employer	<p>This type of contract is concluded with the student, The Law stipulates mandatory elements of the contract. This contract is not entered in the register, but the employer keeps it in its records</p>
In-kind support to students ²²	Article 33	Cost of funds and equipment for personal protection at work	
		Reimbursement of actual transportation costs from school to the place of work-based learning and back or providing own transportation	<p>If the employer has not provided its own transport, the compensation of costs is in the amount of the price of the transport ticket in public transport. At the end of the month, the student is required to bring individual tickets, which are the basis for the payment of these costs. The employer has no obligation to pay the student a monthly ticket, nor is it possible to cover a proportionate part.</p>
		Reimbursement of food costs	In accordance with the employer's general act
		Occupational injury insurance	In accordance with applicable regulations.

22 Everything that the student realizes, as in-kind and financial support, is exempt from paying taxes by Article 9, paragraph 23a of the Law on Personal Income Tax ("Official Gazette of RS", No. 4/19 – adjusted dinar amount)

OBLIGATION	LDE ARTICLE	COSTS	DESCRIPTION
Financial support to students ²³	Article 34.	For each hour spent on work-based learning the employer pays the student at least 70% of the minimum labour cost. The employer also pays contributions of 2% for health insurance in case of injury at work and 4% for PIO (pension and disability insurance) in case of disability and bodily injury. ²⁴	A student can spend a maximum of 6 hours a day with the employer. In case of an injury at work, the student exercises the right to admit the injury. ²⁵

3.1. Calculation of financial compensation

As already mentioned, the financial support to students (LDE, Article 34) during work-based learning implies mandatory compensation to the student by the employer for work-based learning. The financial support to the student must be an integral part of the contract (both the one signed by the school with the employer and the one signed by the student, i.e. the parent, with the employer). This means that each student who has signed a contract for work-based learning receives a fee for work-based learning once a month, no later than the end of the current month for the previous month for each hour spent on work-based learning (in the company) in a net amount of at least 70 % of the minimum labour cost in accordance with the law, which means that this compensation may be higher, if the employer is able to do so. It is important to emphasize that the minimum price of labour changes every year, so that when calculating the minimum amount of compensation, the minimum price of labour for that year should be taken into account.

²³ Everything that the student realizes, as in-kind and financial support, is exempt from paying taxes by Article 9, paragraph 23a of the Law on Personal Income Tax ("Official Gazette of RS", No. 4/19 – adjusted dinar amount)

²⁴ Article 11 paragraph 3 of the Law on Contributions for Mandatory Social Insurance ("RS Official Gazette", number 4/19 – adjusted dinar amount)

²⁵ Article 22 paragraph 1 of the Law on Health Insurance ("RS Official Gazette", number 25/19)

Example of calculating the minimum fee for work-based learning in 2019

The minimum price of labour for 2019 per hour is 155.30 dinars (Decision of the Government of the Republic of Serbia on the amount of the minimum labour price for the period January-December 2019 - "Official Gazette of RS", No. 69/18). More precisely, the employer must provide 108.71 dinars for each hour of work-based learning (70% of the minimum price of work per hour). Practically, for a third-grade student who spends two days a week six hours (maximum time per day) on work-based learning, the employer should provide a net compensation of 652.3 dinars from the company's funds for each such day.

3.2. Instructor licencing - training and exams

One of the conditions that must be met by every company that wants to participate in dual education is to have instructors among the employees, i.e. persons who have undergone training in accordance with the Rulebook on the training programme, detailed conditions and other issues relevant to the instructor exam ("Official Gazette of the Republic of Serbia ", No. 70/18), and who have passed the exam for obtaining the licence.

Instructors directly ensure that during the work-based learning only the contents prescribed by the curriculum are realized, not other tasks. Instructors are equally responsible, as are teachers in vocational schools, for acquiring the competencies prescribed by the qualification standard.

In addition to employees in companies, instructors can also be company owners who also perform activities independently (entrepreneurs).

WHAT ARE THE BASIC OBLIGATIONS OF INSTRUCTORS DURING THE ACHIEVEMENT OF THE WORK- BASED LEARNING PROCESS?

- The instructor in cooperation with the coordinator of learning implements, guides and supervises the work-based learning with the employer, under the condition and in the manner which provide safety and health at work.
- In the process of assessing work-based learning, the instructor cooperates with the coordinator of work-based learning.

The number of students with whom the instructor realizes work-based learning is prescribed by the curriculum. The required number of instructors is defined jointly by the school and the company.

Not every employee can be an instructor, even if he has extensive knowledge, rich work experience and developed skills to transfer knowledge to others.

WHAT CONDITIONS DO EMPLOYEES IN THE COMPANY MUST MEET IN ORDER TO BECOME AN INSTRUCTOR IN DUAL EDUCATION?

- An employee of the company should have at least three years of work experience in the appropriate occupation or group of occupations for which the student is educated in dual education.
- The future instructor must have at least the same level of education for the appropriate educational profile for which the student is studying.
- It is necessary to know the language of the national minority in which the curriculum of teaching and learning is realized.
- It is necessary to attend training for an instructor and obtain a certificate of passed exam for instructor (licence).

The training is organized by the Chamber of Commerce and Industry of Serbia in accordance with the Rulebook on the training programme, detailed conditions and other issues relevant to taking the instructor exam ("Official Gazette of the Republic of Serbia", No. 70/18). The training is mostly related to the acquisition of pedagogical-psychological and methodological-didactic skills for working with students, lasts 40 hours and consists of five areas.

WHAT AREAS ARE THE CONTENT OF THE TRAINING PROGRAMME?

1. Application of the legislative framework in work-based learning
2. Planning and preparation of work-based learning
3. Realization of work-based learning
4. Monitoring and evaluation of competencies in work-based learning
5. Supporting student development in work-based learning

The trainee must attend at least 80% of the scheduled training hours, provided that the absence is justified in case of illness and other impediments, with the obligation to make up for missed lectures.

The exam is realized at the end of the training and consists of a written and an oral part.

The employer registers the employee for training as an instructor (or registers himself, if he performs the activity independently) and submits evidence that the employee meets the requirements of Article 3, paragraph 2 of the said Rulebook.

The Chamber of Commerce and Industry of Serbia issues a certificate of completed training for instructors to the participants who have attended the entire training programme, i.e. at least 80% of the planned training hours.

Only a candidate who took the exam for a dual education instructor and successfully passed the same acquires the right to be licensed. Other candidates, i.e. trainees are only issued the certificates of completed instructor training, which does not entitle them to call themselves dual education instructors.

Materials for the preparation of the licence exam are available on the website of the Chamber of Commerce and Industry of Serbia (www.dualnoobrazovanje.rs).

The exam, as a rule, is realized in one day and consists of a written and an oral part. The candidate takes the written part of the exam first. The written part of the exam lasts 60-90 minutes and is realized in a group. The oral part of the exam is taken after the written part, so that the candidate solves the situation from practice and is in this way checked if he applies the knowledge and skills acquired in work-based learning. The oral part lasts 20-30 minutes and is realized individually.

Success in the exam is expressed by one descriptive grade: "passed" or "failed". A candidate has passed the exam if he / she has been graded "passed" in both parts of the exam. The candidate has passed the written part of the exam if he / she has at least 60% of the total possible number of points. A candidate who passes only one part of the exam is entitled to take the other part of the exam in the next exam period. A candidate who has completed the training but has not passed the exam may request to take it again.

In addition to the candidates, the exam can be attended by trainers (trainers for instructors), members and the secretary of the commission.

The costs of training and taking the exam for the instructor licence are borne by the employer, and the costs of issuing the license are borne by the Chamber of Commerce and Industry of Serbia.

The license is valid in the personal name of the instructor and has no limited duration. The Chamber of Commerce enters the data on the issued license for the instructor in the Register of issued licenses, which is available on the website www.dualnoobrazovanje.rs.

4. STEPS FOLLOWING THE ACCREDITATION PROCESS

4.1. What after accreditation?

Every year in December, the process of planning the enrolment of students in secondary schools for the next school year begins, with the aim of harmonizing the offer of education with the needs of the labour market.

Employers who want to get involved, i.e. to admit students to work-based learning for the next school year, fill in the **Statement of readiness to engage in dual education** and send it to the responsible person in the Chamber of Commerce and Industry of Serbia no later than the end of September for the next school year. In this Statement, employers state the needs for staff from the list of educational profiles offered by the dual model of education and the number of students they want to admit to work-based learning, in accordance with the obligations provided by the Law on Dual Education. The Statement must be signed and stamped by an authorized person of the employer. The Statement, instructions for filling-in and the address to which the Statement is sent can be found on the website of the Chamber of Commerce and Industry of Serbia (www.pks.rs) and on the website www.dualnoobrazovanje.rs.

Only employers who have a certificate of eligibility for work-based learning can admit students to work-based learning. If you do not have a certificate, and students in the 1st grade start work-based learning with an employer, you must submit a request to the Chamber of Commerce and Industry of Serbia to obtain a certificate before starting the enrolment policy process, i.e. no later than 30 September of the current year for the next school year in accordance with the LDE (Article 12, paragraph 5). For educational profiles that start work-based learning in the second grade, you can apply later. Information on which educational profiles work-based learning begins in the 1st grade, and in which in the 2nd grade are available on the CCIS website in the section dual education.

Based on the collected Statements of intent, the Chamber of Commerce and Industry of Serbia forms a proposal on the needs of the economy for future staff and submits it to the Ministry of Education, Science and Technological Development on the basis of which a decision is made on the structure of enrolment in secondary schools for dual education model – number of students and classes for each municipality and city in the territory of the Republic of Serbia for

the next school year. When formulating the Proposal, the CCIS must take into account certain procedures for the formation of classes prescribed by the Ministry. In order to form a class, 30 places must be provided with employers for a certain educational profile. In certain cases, individual three-year educational profiles located in the same field of work may be combined (for example, 15 students in one and 15 students in another educational profile within the same class). Information on which educational profiles can be combined is available on the site www.dualnoobrazovanje.rs.

The result of the Ministry's decision was the Invitation for application of students in late April / early May. The Invitation is intended for students in order to be informed about the offer of educational profiles of each school they plan to enrol in. Currently, there are 37 educational profiles in the offer according to the dual model of education, but in accordance with the requirements and needs of the economy, new educational profiles are introduced in the offer every year (for the list of profiles, please visit the website www.dualnoobrazovanje.rs).

After the enrolment of students in high schools, the conclusion of contracts with the school, the assignment of students to the employer and the conclusion of contracts with each individual student. The student with whom the employer concludes a contract remains with the same employer until the end of schooling. For more information, see the chapters - "Contracts in Dual Education" and "Student Placement and How to Conduct an Interview".

4.2. What if there is no educational profile required by the employer in the offer according to the dual model of education?

Educational profiles that are offered according to the dual model of education were introduced upon request and according to the needs of the economy. If you do not find a profile in the offer, and you need to admit students of a certain educational profile, in the part of the Statement of intent enter the name of the educational profile or job description for which you need staff, and it is desirable to specify the number of students you would admit for that educational profile. By processing the data, the CCIS also provides information which educational profiles need to be prepared for the next school year.

Another way for developing the necessary educational profiles is to provide information on the needs to the competent branch association within the CCIS or the Dual Education Service in the CCIS (obrazovanje@pks.rs).

Given that educational profiles are made for the whole country, it is neither possible to meet the needs of one employer only nor introduce an educational profile for only one company. When the need for a certain educational profile of a larger number of employers belonging to different regions is iden-

tified, then the introduction and preparation of an educational profile for the next school year is considered.

Once a decision has been made as to which profiles will be prepared for the next school year, employers are invited to be part of a working group that will develop a job description for a particular educational profile. Taking into account the contributions related to job descriptions provided by the economy, curricula are being developed. In this way, employers have a direct impact on the knowledge and skills that students acquire during schooling in order to comply with jobs in a real work environment for a given profile.

According to the Law on Dual Education, educational profiles must be innovated every five years, and at the request of the economy and technological development, it is possible to do it earlier, i.e. more often.

4.3. Regulating the relationship between the company, the school and the students

The mutual relationship between the school, the employer and the student, i.e. the parent or other legal representative of the student, in dual education is regulated by a contract. This way of arranging cooperation is a specificity and obligation of the established model of dual education.

There are two types of contracts in dual education:

1. Contract for dual education regulating mutual relationship of the school and the employer
2. Contract for work-based learning which regulates the mutual relationship between the employer and the student, i.e. the parent or other legal representative of the student

The Law on Dual Education prescribes mandatory elements of both types of contracts, and their samples are presented in Annexes 1 and 2. When it comes to regulating the formal legal relationship between schools, companies and students, in addition to mandatory elements and content of these contracts, important is also the familiarity with the conditions under which the contract may be terminated. All these issues are precisely defined by the Law on Dual Education.

4.3.1. Dual education contract

The dual education contract regulates all key issues of importance for achieving cooperation between the school and the company. The school may enter into a dual education contract with one or more employers who must have a Certificate of fulfilled conditions for work-based learning. Likewise, an employer may enter into a dual education contract with one or more schools. The employer is obliged to submit the contract for dual education to the Chamber of Commerce and Industry of Serbia within eight days from the date of the contract conclusion, for entry thereof in the register. A copy of the contract may be submitted by the employer either in printed or electronic form. The register of dual education contracts is maintained by the CCIS. The data entered in the register are publicly available and posted on the official CCIS website.

The issues of the content of the Dual Education Contract, its conclusion, public availability and conditions for termination of the contract are precisely regulated by the Law on Dual Education (Articles 15-20). For more information see the Dual Education Law <https://www.paragraf.rs/propisi/zakon-o-dualnom-obrazovanju>.

Among the overall binding elements of the contract (see LDE, Article 15), it is important to emphasize that in addition to the obligations and responsibilities of both parties, the contract precisely defines the place and time organization of work-based learning, the maximum number of students, and also contains the Plan of the work-based learning realization, a very important document in terms of concretization of the overall work-based learning process and the conditions under which the contract may be terminated.

Termination of the Contract on Dual Education (LDE, Articles 18 and 19)

The termination of the contract by the employer may occur under the following circumstances - if the school is prohibited or terminated, if the school ceases to meet the prescribed conditions for the educational profile within which the co-operation takes place, if the school does not satisfy the conditions envisaged by the contract, and due to unforeseen technological, economic or organizational changes taking place with the employer that make difficult or significantly affect the performance of the company's activities.

Termination of the contract by the school can be undertaken if the employer ceases to meet the conditions necessary for the realization of the work-based learning, if the conditions stipulated by the contract are not met, the employer violates the protection of students' rights.

4.3.2. Contract for work-based learning

The relationship between the company and the students in terms of achieving work-based learning must be formally and legally regulated by the contract for work-based learning. This contract is concluded by the employer and the student, or the parent or other legal representative of the student, in writing. The contract on work-based learning is concluded no later than the beginning of the school year in which the realization of work-based learning begins. The employer is obliged to keep records of concluded contracts, in accordance with the law.

The issues of the content of the contract for work-based learning, its conclusion, public availability and conditions for termination of the contract are precisely regulated by the Law on Dual Education (Articles 21-26). For more information, please see the Law on Dual Education. <https://www.paragraf.rs/propisi/zakon-o-dualnom-obrazovanju>

Just as a school can conclude several Dual Education contracts with different companies, for the same reasons a student can conclude several work-based learning contracts with companies with which the school cooperates (e.g. it is not possible to implement everything planned by the curriculum for that educational profile with only one employer).

The following are the conditions under which this type of contract between the employer and the student may be terminated.

Termination of the Work-Based Learning Contract (LDE, Articles 24–26)

According to the LDE, termination of the contract by the employer is possible if the student loses the status of a student (eg. drops out of school), violates the obligations set by the work-based learning contract and the law, permanently loses health ability to work in the profession for which he is studying (the emphasis is here on contract termination only if the student loses permanently the ability to work in that particular occupation, not on the loss of ability to work that will be remedied after a particular treatment or intervention).

Termination of the contract by the **student (parent)** is possible, *inter alia*, if the employer does not fulfil its contractual obligations, violates the rights of students (more closely defined in Article 10 of the Law on Dual Education and concerns the prohibition of discrimination, abuse, neglect, etc.), the rights of students prescribed by law, the CCIS makes a decision on discontinuation of the fulfilment of the conditions for conducting work-based learning with the employer, etc. If the termination occurs for the reasons that are on the side of the employer, the school is obliged to organize work-based learning for the student in the same educational profile with another employer with which he has a contract on dual education. In such a case the contract on work-based learning is re-signed with a new employer.

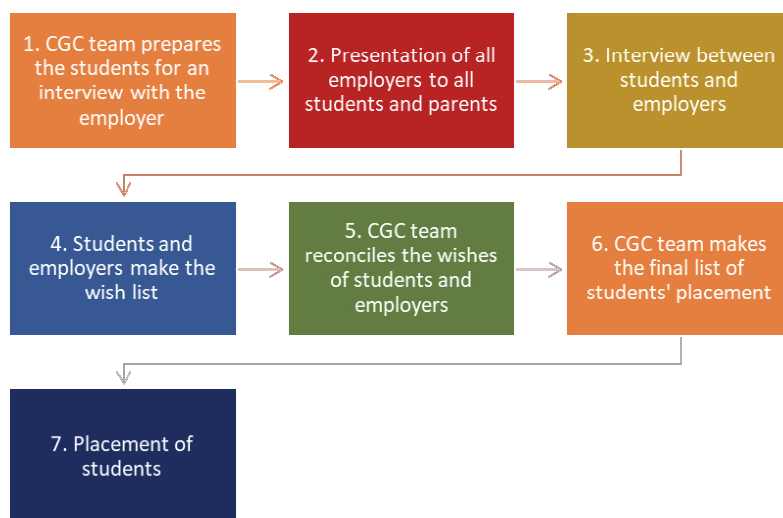
If the school does not have a contract on dual education with another employer that could implement work-based learning, then the school in cooperation with MESTD and CCIS should provide within 15 days the conditions for continuation of work-based learning in the appropriate educational profile. The school informs the MESTD about the termination of the contract, and the employer notifies the CCIS.

4.4. Student placement and how to conduct an interview with students

The manner of the placement of students is determined by the Rulebook on the manner of placement of students to work-based learning ("Official Gazette of the Republic of Serbia" No. 102/18). Employers and teachers, as well as students themselves, participate in the placement of students, by harmonizing the expressed wishes of students to perform work-based learning with a certain employer, as well as the wishes of employers for admitting certain students. Employers' representatives may participate in the placement of students only for the educational profile in the implementation of which they participate.

Below are graphically presented the steps regarding the students placement process.

Figure 5. Steps in the process of students' placement for work-based learning



The Team for Career Guidance and Counselling (CGC Team) first organises in a school the presentation of all employers to students and their parents and makes them acquainted with the manner of students placement with each employer **no later than the end of the second week from the beginning of the school year in which work-based learning starts in the first year, and/or at the close of the school year that precedes implementation of the work-based learning.**

Following the presentation of employers to the students, the CGC Team in the school organises the interviews of all students by all employers with obligatory presence of the student's parents or other legal representatives. Exceptionally, in the case where a parent or other legal representative of the student is not able to attend, the interviews are instead of them attended by the school's pedagogue or psychologist.

The CGC Team prepares the students for the context in which work-based learning is organised and also for the interview with employers where this type of learning is implemented.

Upon conducted interviews by all employers with all students the CGC Team organises the expression of views of the students so that students make their own list of employers with which they would like to learn based on work, ranking all employers from the most to the least desirable.

In addition to students, their wish list is also signed by a parent and/or other legal representative. Exceptionally, if a parent and/or other legal representative is not in a position to do so, the wish list is signed by the school's pedagogue or psychologist.

After the interview conducted with all students, each employer makes his ranking list of students and has a duty to give opinion about, at least, the number of students to fulfil the vacancies available for work-based learning.

The CGC Team draws up, on the basis of the wish lists, a list of students placement among the employers by matching the wishes of the students and employers, from the first to the last one, until all available vacancies for work-based learning with the employers are fulfilled.

In the case where two or more employers wish to take the same student, such student will be placed with the employer ranked higher by this student in his list. Also, the Rulebook prescribes the criteria for situations where in the previously described process a student remains non-placed.

**Rulebook on students placement for work-based learning, Article 6
("Official Gazette of the Republic of Serbia", number 102/18)**

If a student remains non-placed in the previously described process, the CGC Team places him according to the following criteria:

- 1) proximity of his domicile relative to the employer's premises in which the student will be learning based on work;
- 2) equal gender representation of students with all employers;
- 3) other circumstances that may be of relevance for the student and employer.

If work-based learning is implemented starting from the second grade, at the time of final placement of students care is taken of:

- 1) placement of students with excellent, very good, good and sufficient achievement in learning with all employers;
- 2) performance assessment or recommendation of the the coordinator of work-based learning.

Guidelines for the interview for the purpose of student placement.

It is of great importance to take into account that an interview with the underage students, of the age between 15 and 16, differs essentially from interviews with adult persons one hires for work. In this case, standard techniques for an interview with future employees are not adequate. We are recommending the use of informal approach that will allow you to assess better students' motivation and enthusiasm rather than to focus on their technical skills and knowledge. This is why the interviews of all students by employers are organised in the school with obligatory participation of their parents and/or other legal representatives.

It is important to always keep in mind that this is their first conversation with employers and that they need your support and understanding. It is recommended that the conversation be short and that you do not ask

more than 7-8 questions. Also, don't forget to introduce yourself to them at the very beginning and briefly explain to them the specifics of your company and work process, the company's motivation to participate in dual education and your role in the company and motivation to work with students, and previous experiences with students. At the company level, you can create your own interview form in order to place students, and for support in this regard you can contact the pedagogical and psychological service of the school with which you cooperate. Below is a suggestion of several framework questions that can serve as guidelines during the interview with the student.

QUESTIONS THAT CAN SERVE AS GUIDELINES FOR INTERVIEWS FOR THE PURPOSE OF SCHEDULE STUDENTS

- How would you briefly introduce yourself to someone in the best way?
- What are your three best traits?
- Why did you choose to study within this educational profile?
- On a scale of 1 to 5 (where 1 is the lowest and 5 is the highest grade), how would you rate your motivation to learn by working for an employer? Why?
- What do you expect from work-based learning in a company?
- Do you currently have any dilemmas or questions regarding the realization of work-based learning in our company to which you believe that we can provide an answer?
- Where do you see yourself in three to five years?
- Is there anything else you would like to say about yourself that we didn't ask? Do you have another question for us?

4.5. Team For Career Guidance and Counselling

Career guidance and counselling (CGC) is a series of activities aimed at supporting an individual in connection with his career and includes:

- identifying student competencies and interests,
- support in making decisions concerning education, profession, further training,

- support in managing their decisions in the field of learning, work and other areas in which they can acquire and apply skills and competencies.

Career guidance and counselling is given special attention within dual education.

The school should encourage and monitor the career development of students, in order to strengthen career management skills and make thoughtful and responsible decisions about the professional future of students, and it does so by forming a Team for Career Guidance and Counselling that deals with these issues.

The role of the Career Guidance and Counselling Team (CGC Team) is very important and it is defined by the Rulebook on detailed conditions, work, activities and composition of the CGC Team in secondary school that implements educational profiles in dual education ("Official Gazette of the Republic of Serbia", No. 2/19).

The secondary school principal forms the CGC Team which consists of representatives of school employees, professional associations, local governments and employers. The CGC Team coordinator is a school representative.

Representatives of employers in the CGC Team are persons employed by employers who implement work-based learning, and if it is of interest for the implementation of career guidance and counselling activities, members of the CGC Team may be representatives of other employers and employers' associations. The role of employers is especially important for the successful implementation of this Team's activities.

The activities of the CGC Team primarily relate to providing advice, information and training for career management skills, but also to placing students to work-based learning. It is very important for employers that this team continuously monitor the satisfaction and motivation of students and employers during work-based learning and empower and support students in identifying and documenting (portfolio) experiences and benefits of work-based learning as well as special achievements and successes, and encourage students to plan and set further career development goals based on the experience of work-based learning.

What is of special importance for the successful implementation of dual education is the task of this team to cooperate with the team for professional orientation of primary school in order to establish continuity of career guidance and counselling, and to inform students and their parents about educational opportunities in dual education and the context in which work-based learning with the employer is realized.

In order to implement all these activities, the CGC Team holds meetings at least once during each semester, and more often if necessary. The CGC Team Coordinator convenes and chairs the meetings and keeps records of the meetings held.

Decisions at CGC Team meetings are made by a majority vote of the present members, with the mandatory presence of the CGC Team members representing schools. Representatives of parents, i.e. other legal representatives of students and the student parliament, can also attend the meetings of the CGC Team.

The CGC team conducts counselling activities with each student of the school for at least one hour during the school year.

The CGC Team uses the personal data of students needed to keep records of career guidance and counselling activities from the records kept by the school. Access and insight into the personal data of students that can be processed only by the school, have exclusively Articles of the CGC Team employed in the school, in accordance with the law governing the basics of the education system and the law governing secondary education.

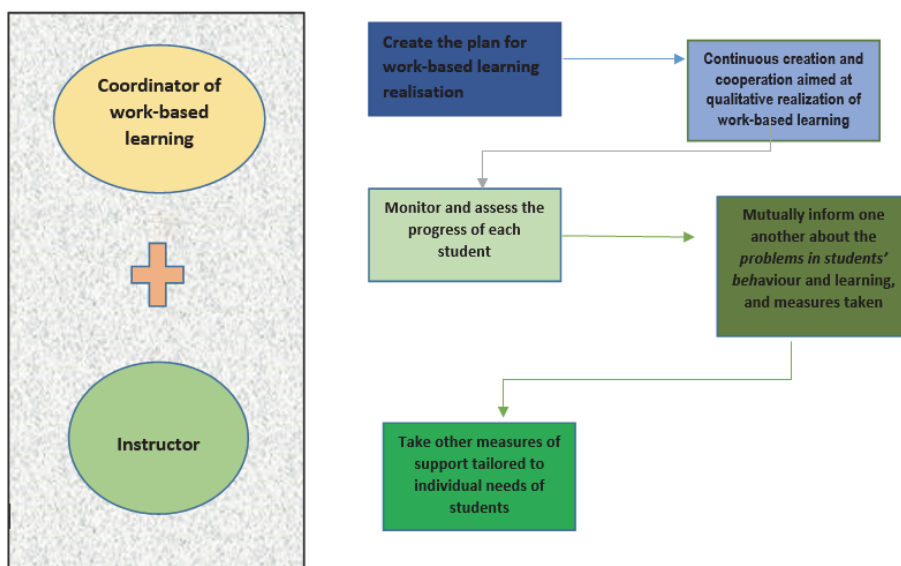
5. IN THE COURSE OF WORK-BASED LEARNING

5.1. Cooperation of instructors and coordinators of work-based learning

Given that the employer is responsible for the systematic and quality delivery of work-based learning in accordance with the curriculum, and that the school is responsible for implementing the curriculum in full, cooperation with the school and the coordinator for work-based learning is necessary and crucial for the successful realization of this process. The instructor and coordinator of work-based learning have important roles in the implementation of work-based learning. They are in direct contact with students, and the successful realization of many aspects of dual education depends on their mutual cooperation.

It is necessary that the coordinator of work-based learning visits the students while they are in the company on work-based learning. The coordinator will thus check whether the student is present in the company and whether he realizes work-based learning in accordance with the Plan for the realization of work-based learning.

Figure 6. Areas and activities of cooperation between instructors and coordinators of work-based learning



5.2. Plan for the realization of work-based learning

The student in dual education in the company learns in a real work environment the "lessons" that are determined by the curriculum. In order to ensure that the student will learn everything that is foreseen by this plan, so that work-based learning follows the dynamics of learning in school, and having in mind that the student can stay in different jobs in the company, it is necessary to have in place the Plan of realisation of work-based learning as a key document and a starting point for the successful realization of work-based learning. According to the Law on Dual Education (Article 2, paragraph 6), this Plan contains a description of activities, place and dynamics of work-based learning and is adopted in cooperation between the school and the employer.

This Plan facilitates communication and coordination between all actors in dual education. It states where each individual competence will be acquired.

In accordance with the LDE (Article 5, paragraphs 4 and 5), within the compulsory professional subjects, there are also subjects that are realized as work-based learning. The learning outcomes determined for the subjects that are realized within the framework of work-based learning are the basis for the development of a plan for the realization of work-based learning and are part of the curriculum. It is used to plan periodic and final evaluations, which will help in the performance assessment of students. It should be signed by both the instructor and the coordinator of work-based learning, given that the employer is responsible for the systematic and quality performance of work-based learning in accordance with the curriculum, and that the school is responsible for realization of the curriculum.

When creating a work-based learning plan, it is important to take into account its duration. Namely, in accordance with the LDE (Article 6), work-based learning can last maximum 6 hours a day, or 30 hours a week (in the case of block classes) in the period from 8 a.m. to 8 p.m. It can be done only in the months in which school classes are held (this means that during summer, or on holidays work-based learning, i.e. dual education) is not conducted.

It is possible that one company does not have the conditions and opportunities for work-based learning that will enable acquisition of all competencies in accordance with the qualification standard. In that case, in accordance with the Law (Article 6), work-based learning can be realized with several employers who form a consortium of employers. The Chamber of Commerce and Industry of Serbia provides operational and administrative support in the functioning of the consortium.

5.3. The first day - introducing students to the company

The first day of the beginning of work-based learning with the employer is very important for the student, and it depends on what first impressions both the student and the employer, i.e. the instructor, will develop. At the very beginning, it is crucial to establish a friendly but professional relationship, point out the importance of respect for the rules that apply to company employees, hold training in the field of safety and health at work, if students have not passed the same at school. It is very likely that the impression that students gain on the first day will affect their motivation and attitude towards the activities they will perform. Try to relieve them of the anxiety and discomfort they may feel because they are in a non-school learning environment for the first time.

In order to be able to plan the first day better and easier, below is a checklist of tasks that are important to go through in order to lay a good foundation for starting and furthering cooperation with students.

Table 4. Checklist of tasks for admission of students to the company

Before the start of work-based learning (preparation)	Notes	✓
Are all managers and employees informed about the start date of work-based learning in the company?		<input type="checkbox"/>
Are the students' place, locker, documents, etc. ready (e.g. work suit, nameplate, computer password, etc.)?		<input type="checkbox"/>
Are the programme and procedures for the first day of work-based learning already planned?		<input type="checkbox"/>
Will each person in charge of the students be present in the company on the first day of work-based learning? Are the instructors present in the company on the first day?		<input type="checkbox"/>
Who will welcome the students? Who will show them their places in the company?		<input type="checkbox"/>
Make sure that students have received binding instructions on safety and security in the workplace, or will go through them in the company		<input type="checkbox"/>

First day of work-based learning	Notes	✓
Welcome for students Take time to receive students. Keep in mind that they will probably be nervous. Try to relax the situation by talking to them		<input type="checkbox"/>
Company / Room Tour Take the students on a tour to get a first impression of the company. Show them the toilets, too. Students may be shy during the first few days and may be uncomfortable asking questions.		<input type="checkbox"/>
Introducing the team Introduce all employees who are important to working with students. Make sure students know who their contact person is.		<input type="checkbox"/>
Introduction to work-based learning Discuss the work-based learning procedure and the company's main internal rules (rules of procedure, breaks, lunch, etc.).		<input type="checkbox"/>
Introduction to the student place and initial professional activities Provide students with everything they need to start work-based learning in a company (work suit, passwords, etc.). Show students their places. Involve students in tasks that are primarily interesting, but also require engagement.		<input type="checkbox"/>
Conclusions: retrospective and overview of future activities At the end of the first day, make a retrospective. Answer the questions. Give them an overview of those jobs / tasks that students are expected to do in the coming days. Make sure students leave the company in a positive mood.		<input type="checkbox"/>

5.4. Monitoring and assessment of student work-based learning

Performance assessment of students in secondary education is carried out in accordance with the curriculum for each of the educational profiles, and is regulated by various legal acts: Law on the Fundamentals of the Education System ("Official Gazette of the Republic of Serbia" no. 88/17, 27/18 - other laws and 10/19), Law on Secondary Education "Official Gazette of

the Republic of Serbia" No. 55/13, 101/17 and 27/18 – other Law; Articles 48-58), Rulebook on the assessment of students in secondary education ("Official Gazette of the Republic of Serbia" No. 82/15), etc. **The Law on Dual Education is also important for students who are educated in dual education, because the engagement and progress of students in the company, i.e. in work-based learning, is also taken into account for assessment.**

The instructor is responsible for the implementation of the curriculum and his duty is to continuously monitor the progress of each student in work-based learning in cooperation with the coordinator of work-based learning. This means that the instructor and the work-based learning coordinator work together and exchange information about each student throughout the year in order for them to acquire the prescribed competencies. Instructor and work-based learning coordinator should deal with:

- improving work with each student and adapting the work to the individual needs of students;
- taking appropriate support measures if the student does not achieve the expected results;
- monitoring the progress and assessing the competencies that students acquire during work-based learning, etc.

The instructor, in cooperation with the coordinator of work-based learning, gives on the grounds of the analysis of the student's progress, a proposal for the student's performance assessment for the part that is carried out in the company. The assessment of students in all other subjects is carried out in accordance with the above-mentioned legal acts. Attached to this Guide are some examples of the Forms that instructors can use to monitor the student and give feedback to the student in terms of his progress in development by the curriculum and the prescribed professional competencies - goals and outcomes of vocational education operationalized through knowledge, skills, abilities and values that the student should develop as well as for the exchange of information with the coordinator of work-based learning. It is very important that instructors document the monitoring and evaluation process. The Forms contained in the attachment refer to:

- Form for monitoring activities during work-based learning. This form contains three categories of data needed for assessment - professional competencies, social skills and personal skills and attitudes and in relation to them specifying the following determinants through questions of when and with whom, as well as resources used for competence development with assessment of development

level on a three-point scale - acquired / in the process of acquisition / have not been acquired.

- Final evaluation form. This form contains the assessment of the instructor, as well as the assessment of the students in relation to the various elements, as well as the recommendations of both parties regarding how the learning process through work could be improved.

It is very important that the monitoring of students by the instructor is realized continuously and that the results of monitoring are documented, as well as that the results of monitoring are taken into account in the function of providing appropriate support to the student. At the end of each year, it is important to do a final evaluation, which can be a very useful source of information for students, as well as for the instructors and coordinators of work-based learning. The instructors can adapt the proposed Forms independently or in cooperation with the work-based learning coordinator to the specifics of their company and educational profiles within which work-based learning is realized, and can create different formats of monitoring forms that will include assessment of professional competencies and other elements of importance for realization of the work-based learning.

5.5. Challenges that may arise in communication and cooperation with the student

Students in dual education are mostly between the ages of 15 and 19, that is, teenagers. This age has specific characteristics and is extremely sensitive for each person. For these reasons, but also a number of others (e.g. high school enrolment policy, due to which students often enrol in a school that was not ranked high on their wish list), it is possible that in the realization of work-based learning emerge problems in terms of poor communication with students or student indiscipline.

Some of the problems that may arise during the work-based learning process are as follows:

- the student does not come or comes to the company irregularly;
- the student is late for "work-based learning" or leaves it earlier;
- the student does not act in accordance with the rules on safety and health at work;
- the student inflicts material damage to the employer (alienates the employer's property);
- the student refuses to cooperate, does not want to perform the obtained tasks, etc.

In resolving each of these, as well as all other situations with students, it is necessary to cooperate and exchange information with the coordinator of work-based learning, and in the case of a specific need, with relevant services or persons in the company, as well as with employees in the Service for dual education of the CCIS.

The instructor, as someone who is in the company in the most direct communication with the student, should always try to talk about the "problematic" situation with the student and point out to him the importance of acting in a certain way. For the sake of illustration, when a student does not come to the company on time, he should be immediately pointed out the importance of arriving on time. Most students are still without developed work habits, so the well-intentioned suggestion of their instructor is very important. However, if the situation does not improve even after the interview, then it is necessary to inform the work-based learning coordinator and take appropriate measures.

Also, if a student wants to go out or go home during work-based learning, the instructor must inform his teacher, ie the coordinator of work-based learning, who will further inform the parent. In these cases, parents should come to the branch to pick up the students.

If the student does not want to realize the assigned tasks, it should be discussed with him. The reason can be that he does not understand what is required of him, so he offers resistance, because he does not want to show that he does not know or does not understand something. It may be that there is something that prevents him from performing those work tasks. You certainly need to find out what the matter is. Boredom can also be a problem if the student does not have enough tasks to do. That is why he should be given assignments that will be challenging, interesting and meaningful. In that way he feels needed. Try to remember yourself when you were in this period and ask yourself the question: was I satisfied with the training and work tasks. Conversations with the student can help the instructor and the student to get to know each other better, develop and build a relationship of trust.

The student should be talked to even when there are no problems, and then a constructive diversion of attention to the problem is applied with a recommendation for overcoming it. Student compliments can be considered especially important. The student should be praised every time the job is well done and whenever he shows progress. This will help him build faith in himself and in what he does.

If a student suddenly withdraws into himself, it can be a sign that something in his life is not going well or that he cannot cope with a challenge. Maybe this is the right time to ask him a question and encourage him to talk. Take the student seriously, treat him as your equal and accept him as an adult. The very feeling of being accepted will make him think before he starts speaking,

without immediately expressing dissatisfaction or criticism. Be there for students when they need you, but whenever there are conditions for it give them space so they can try their hand at work.

We need to work patiently with young people. It often takes some time for students to understand some of the things you have explained to them, so if there is a need, repeat one process several times. The pace at which a student learns and which varies from student to student should always be taken into account. You need to entrust something to the student to do on his own and give him over time more responsibilities in performing the tasks - always as much as you think he is ready to do. Use your strengths and continue to work on their strengthening and development. Offer support where you see the student doing something with less successful result.

The Dual Education Service of the Chamber of Commerce and Industry of Serbia is available for any type of assistance in this area, i.e. for mediation, if necessary, as well as for establishing contact with other educational institutions (e.g. with the school administration, or the line ministry).

6. UPON COMPLETION OF WORK-BASED LEARNING

6.1. Completion of secondary dual education

Final exam or vocational matura awaits the students in dual education at the end of schooling as all other students in secondary education - depending on whether they attended a three-year or four-year educational profile.

Just as the completion of primary school is not possible without taking the final exam at the end of primary education, all students of secondary vocational schools must at the end of secondary education pass the final exam (three-year educational profiles) or vocational matura (four-year educational profiles) to obtain a public document of completed secondary school level of education.

Both the final exam and the professional matura are taken in accordance with the Rulebook on the programme of the professional matura and final exam ("Official Gazette of RS - Educational Review", No. 1/18).

The final exam and the professional matura are taken on the territory of Serbia in the terms prescribed by the school calendar for secondary schools and include two regular exam terms: June and August. Students who do not pass within these deadlines take the exam in the next exam period in accordance with the prescribed calendar.

The language in which the final exam and the professional matura is taken is the language in which the student acquired secondary education. Students who have received education in the language of a national minority can choose to take the vocational matura / final exam in whole or in part in the Serbian language.

The final or matura exam checks whether the competencies determined by the qualification standard have been acquired during the study. Considering that the competencies have been acquired in a real work environment, qualified employers' representatives must participate in the verification. They perform this work without special compensation. They are proposed for membership in the Commission by the Chamber of Commerce and Industry of Serbia.

CONTENT OF FINAL EXAM

- The final exam is realized through a practical exam which consists of one or more standardized tasks which check professional competencies on the basis of an established list of standardized tasks. From this list of standardized tasks, an appropriate number of work tasks are made for the final exam, i.e. the school forms a school list in each exam period based on the list of work tasks.
- The student takes the final exam before a commission consisting of two teachers of vocational subjects (one of whom is the chairman of the commission) and one representative of employers, an expert in that field of work. In order for the employer to participate in the commission, it must be proposed by the school and the appropriate association must give its consent (the Serbian Chamber of Commerce).
- The performance assessment of the acquired professional competencies is given by the mentioned commission. A student who achieves at least 50% of the total number of points on each individual work task showed competence, i.e. passed the final exam.

CONTENT OF THE MATURA EXAM - PROFESSIONAL MATURA

- **The first exam** is related to Serbian language and literature, i.e. mother tongue and literature
- The **second exam** refers to mathematics, except for educational profiles that have not had mathematics in the last two years, because instead of mathematics, these students choose a subject from the list of general education subjects, with the possibility to choose mathematics as well. The list of general education subjects consists of: Serbian language and literature / mother tongue and literature, foreign language, mathematics, physics, chemistry, biology, geography, history and Serbian as a non-mother tongue (this list of subjects is expected to expand in the coming school years). Within the professional matura, the student takes exams in general education subjects that are of the same content and structure as for the general matura (e.g. for high school students).
- The **third exam** is a professional exam based on competencies defined by the qualification standard, ie the contents of professional subjects in accordance with the curriculum. The professional exam consists of two parts: **the first part is theoretical, and the second part is graduation practical work.**
- The student takes the Matura practical work before a commission consisting of two teachers of professional subjects (one of whom is the president of the commission) and one representative of employers, an expert in that field of work. The assessment of the acquired professional competencies is given by the mentioned commission. A student who achieves at least 50% of the total number of points on each individual work task showed competence, i.e. passed. Graduation practical work is carried out in the school and the areas where there are jobs and conditions for the realization of graduation practical work.

On the website of the Institute for the Improvement of Education you can find a more detailed description of taking the vocational matura and final exam as well as a database of work assignments:
www.zuov.gov.rs/zavrsni-ispit-i-maturski-ispit-srednje-strucno/

Upon passing the final or graduation exam, the student is issued a public document, in accordance with the law. The appendix to the diploma of a student who has passed the final or matura exam contains information on the scope of achieved work-based learning and a list of employers with whom work-based learning has been performed.

6.2. Employment of students and continuing education

Dual education refers only to the period of formal schooling of students at the secondary level. Any other type of cooperation between students and employers requires regulation by another contract, i.e. no longer by the Contract on work-based learning. After completing dual education, students can choose to enter the labour market with the acquired qualification or to continue their education at one of the higher education institutions in accordance with the law.

The biggest advantage of dual education for employers is the possibility of selecting staff, both those they will hire, but also those in whose further education they will invest. Although the Law on Dual Education does not oblige employers to hire students for whom they have organized work-based learning, the latest research related to work-based learning in Serbia shows that many employers with work-based learning hire students after graduating from secondary school.²⁶

The duration of work-based learning gives enough time for the student and the employer to get to know each other and assess the possibilities of resuming cooperation. It may happen that the employer is satisfied with the student who was learning with him based on work and that he is ready to offer him a job accordingly, but that the student is not ready to work yet, maybe he wants to change employer or wants to continue his education.

The dual model of education in Serbia leaves all options open, and it is up to the employer and the student to recognize them and choose the one that is in the best interest of both parties.

²⁶ European Training Foundation (2018). *Reviewing the quality of work based learning in initial VET in Serbia*.

7. IMPORTANT INFORMATION

If you have additional questions, concerns or want to contact the institutions responsible for the implementation of dual education, below we recommend how to do it.

Table 5. Institutions and Contacts

Institution	Contacts (web address, e-mail addresses, telephone numbers)
Ministry of Education, Science and Technological Development Sector for dual and entrepreneurial education	dualno.obrazovanje@mpn.gov.rs 011 3616 289 011 3616 519
Chamber of Commerce and Industry of Serbia - Centre for Education, Dual Education and Education Policies	www.pks.rs obrazovanje@pks.rs 011 3304 539
The school you want to enrol in	You can find the school's contacts on the school's official website (e.g. enter the name of the school you are interested in). If you do not find the official website of the school, you can try to find information about the contact of the school through the following links: www.upis.mpn.gov.rs www.srednjeskole.edukacija.rs www.mpn.gov.rs/skolske-uprave
Regional Chamber of Commerce and Industry that covers the territory where the school is located and the one you are interested in	www.pks.rs/regionalne-komore obrazovanje@pks.rs 011 3304 539

*Table 6. Topics that may interest you and
a recommendation how to learn more*

Topic	Recommendation of the internet presentation and / or other ways in which you can learn more about the topic
Information and news about dual education on the CCIS website	www.dualnoobrazovanje.rs www.pks.rs
Information and news about dual education on the MESTD website	www.mpn.gov.rs/dualno-o/
Laws and regulations related to dual education	www.mpn.gov.rs/dokumenta-i-propisi/zakonski-okvir/ https://www.paragraf.rs/propisi/zakon-o-dualnom-obrazovanju
Competition for enrolment in the first grade of secondary school for 2019/20 school year, including other important information such as the schedule of all activities (Calendar)	www.mpn.gov.rs/upis-ucenika-u-srednju-skolu-2019-20/
Rulebook on enrolling students in high school	www.paragraf.rs/propisi/pravilnik-o-upisu-ucenika-u-srednju-skolu.html
Feasibility study of dual education	www.kooperativnoobrazovanje.org/predstavljena-studija-izvodljivosti-uvodenja-dualnog-obrazovanja-u-srbiji/
Project: Reform of secondary vocational education	www.kooperativnoobrazovanje.org/
Curricula on the IIE website	www.zuov.gov.rs/nastavni-planovi-i-programi/#1557128435959-aaba5be0-1eed
Career guidance and counselling materials	www.zuov.gov.rs/karijerno-vodjenje-i-savetovanje/ www.euroguidance.rs/resursi/bazaaktivnosti/ www.vodiczaosnovce.nsz.gov.rs
Manuals on final and matura exams	www.zuov.gov.rs/zavrsni-ispit-i-maturski-ispit-srednje-strucno/

Safety and health at work	Directorate for Safety and Health at Work 011 3347 391 011 3347 392 www.minrzs.gov.rs/sr/struktura/organi-uprave-u-sastavu-ministarstva/uprava-za-bezbednost-i-zdravlje-na-radu
	Labour Inspectorate 011 2017 485 011 2017 495 www.minrzs.gov.rs/sr/struktura/organi-uprave-u-sastavu-ministarstva/inspektorat-za-rad
	MESTD Educational Inspection 011 3616 293 011 2401 911 prituzbe-prosvetnainspekcija@mpn.gov.rs

8. ATTACHMENTS

Attachment 1. Model of a dual education contract

(SCHOOL NAME)

(Draft Contract)

Reference number: _____

Date: _____ 2019

Pursuant to Articles 13-14 of the Law on Dual Education ("Official Gazette of the Republic of Serbia" No. 101/2017), and Rulebook on the curriculum for teaching and learning for acquiring education in a three-year / four-year duration in a secondary vocational school for the field of work _____ ("RS Official Gazette- Educational Journal", No. _____) (hereinafter: Curriculum),

1. Secondary vocational school "_____" (name) headquartered in _____, St. _____ no. ____, Tax Identification Number _____, Registration Number _____, represented by the Director _____ (hereinafter: "School")

and

2. the Company / Entrepreneur "_____" (name of the Employer), with its registered office in _____, St. _____ no. ____, Tax Identification Number _____, Registration Number: _____, Registration Number of the Certificate of Fulfilled Conditions for Performing Work-Based Learning _____, represented by the Director _____ (hereinafter: "**Employer**") conclude the

DUAL EDUCATION CONTRACT

Article 1

The contracting parties agree:

1) that the employer within his activity performs the work _____, for the performance of which he is registered with the Business Registers Agency of the Republic of Serbia, which enables the realization of the content of work-based learning prescribed by the curriculum;

2) that the educational profile of the School, which is attended for three years / four years by a student who is sent to work-based learning with the employer, is _____.

Article 2

The subject of this Contract is the regulation of mutual relations, rights and obligations of the School and the Employer.

Article 3

Work-based learning will be realized on the business premises of "_____" (name of the Employer) at the address of the headquarters / branch of the Employer.

(- If work-based learning is conducted on the premises of the employer's headquarters, state:

Work-based learning will be realized on the business premises of "_____" (name of the Employer) at the address of the Employer's headquarters.

- If work-based learning is not conducted on the premises of the employer's headquarters but in a branch, state: Work-based learning will be realized on the business premises of "_____" (name of the Employer) at the branch address _____ (state the branch address) of the employer whose headquarters are in _____.

Article 4.

The Employer and the School conclude a Contract on dual education for the realization of the work-based learning content prescribed by the Curriculum starting from _____ 2019.

Article 5

If work-based learning, in accordance with the curriculum, is conducted in the language of a national minority, the Employer is obliged to organize and implement work-based learning in the language of students belonging to a national minority **only for educational profiles for which work-based learning in the language of a national minority.**

Article 6

The contracting parties undertake to, in mutual cooperation, develop a plan and programme for the realization of work-based learning, which contains a description of activities, place and dynamics of work-based learning with which the student, after signing the contract on work-based learning, will be acquainted by the Employer.

Article 7

The employer commits to:

- realise the work-based learning at its own expense;

- ensure quality and uninterrupted performance of work-based learning, in the period in which the student performs work-based learning with the Employer, in accordance with this contract, the curriculum and the plan for the realization of work-based learning;
- appoint _____ (number) of licensed instructors, employees / employees of the Employer, who directly ensure that during the work-based learning the contents prescribed by the curriculum are realized and are responsible for the students to acquire the competencies prescribed by the qualification standard;
- provide training for students in the field of safety and health at work, both in the theoretical and in the practical part before starting work-based learning; apply all general and special measures and regulations in the field of safety and protection at work, and especially regulations governing the safety and protection of children and youth at work; enable the implementation of monitoring of the curriculum and the plan of realization of work-based learning in agreement and cooperation with the work-based learning coordinator in the facilities of the Employer, in pre-defined terms; the instructor will inform the coordinator of practical classes if the student has an urgent need to leave work-based learning.

Article 8

The school commits to:

- ensure the presence of students in accordance with the specified schedule of work-based learning, in accordance with Article 4 of this contract;
- inform the student before starting work-based learning about his / her rights, obligations and responsibilities while performing work-based learning with the Employer;
- ensure that the coordinator of work-based learning in cooperation with the instructor plan, monitor, implement and evaluate the performance of work-based learning of students with the Employer, visit students during work-based learning at the Employer in a pre-agreed time, which in no way disrupts the work of other employees at the Employer;
- involve the Employer in the process of placing students for work-based learning, in accordance with the valid Rulebook on the manner of placement of students to work-based learning ("Official Gazette of RS" No. 102/18);
- ensure the implementation of sanitary check-up for students (for certain educational profiles).

Article 9

The maximum number of students with whom the instructor realizes work-based learning is ____ (specify the number), and it is determined in the contract between the School and the Employer, guided by the curriculum.

The number of licenced instructors provided by the employer for the purpose of work-based learning is _____, and is determined by the number of students sent to work-based learning with the Employer, bearing in mind that one instructor is hired to work with a group of ____ (specify number) students, and in selecting of instructors the employer is obliged to comply with the conditions provided for in Article 29 of the Law on Dual Education.

Article 10

The Contracting Parties may terminate the Contract by mutual consent.

Unilateral termination of the Contract by the School is possible in case of non-fulfilment of contractual obligations by the Employer provided for in Article 7 of this Contract, as well as for the reasons set forth in Article 25 of the Law on Dual Education.

Unilateral termination of the Contract by the Employer is possible due to breach of obligations by the School under Article 8 of this Contract as well as the reasons provided for in Article 18 of the Law on Dual Education.

The School shall notify the Ministry of the termination of the contract in accordance with Article 19, paragraph 2 of the Law on Dual Education.

Article 11

The Contracting Parties shall in all respects act in accordance with the principle of good faith and fairness and shall not abuse their rights.

Article 12

The provisions of the **Law on Dual Education** and the **Law on Obligations** shall apply accordingly to anything not governed by this Agreement.

Article 13

The Contracting Parties shall settle all possible disputes amicably.

If the contracting parties are unable to resolve any disputes amicably, the resolution of the same will be entrusted to the competent court.

Article 14

This Contract is made in two identical copies, of which each contracting party keeps one copy. The Contract in question is an expression of the free will of the contracting parties, made without fraud, coercion and delusion, and as such the contracting parties sign it in agreement.

For the Employer:

Director

For the School:

Principal

Forwarded to:

1. The School;
2. The Employer.

Attachment 2: Model of a work-based learning contract

(EMPLOYER'S NAME)

(Draft contract)

Reference number: _____

Date: _____ 2019

Pursuant to Articles 13 and 21 of the Law on Dual Education (Official Gazette of the Republic of Serbia, No. 101/17), Rulebook on the curriculum for the acquisition of three year / four years education in a vocational school for area of work _____ ("Official Gazette of RS - Education Gazette" number _____) (hereinafter: Curriculum), as well as the Agreement on Dual Education (number _____), concluded between _____ (name of the Employer) and _____ school, in _____ (city) on _____,

1. Business company / entrepreneur _____ (name of the Employer), with headquarters in _____, St. _____ no. _____, tax identification number _____, identification number: _____, registration number of the Certificate of fulfilment of conditions for performing work-based learning _____, represented by the director _____ (hereinafter: the Employer)

and

2. _____ (name and surname of the student), with residence in _____, st. _____ no. _____, represented by _____ (name and surname of the student's parent or other legal representative), in the capacity of legal representative, residing in _____, St. _____ no. _____ (hereinafter: the **Student**) conclude

CONTRACT FOR WORK-BASED LEARNING

Article 1

The contracting parties agree:

- that the Contract on dual education number _____ from the day of _____ has been concluded between the school and the Employer;
- that the employer within its activity performs the works _____, for the performance of which it is registered with the Agency for Business Registers of the Republic of Serbia, which enables the realization of work-based learning content prescribed by the curriculum;

- that the student is enrolled in the Secondary Vocational School "_____" in _____, with its registered office at the address _____ no. _____, tax identification number _____, identification number: _____, represented by the principal _____ (hereinafter: the School); (Does the school have any other identification information?
- that the student opted for the educational profile _____ of three / four year duration.

Article 2

The subject of this Contract is the regulation of mutual relations, rights and obligations of the Employer and the Student, or the parents or other legal representative of the Student.

Article 3

Work-based learning with the Employer is a mandatory segment during the education of students for the educational profile _____ in accordance with the qualification standard and the curriculum; accordingly, students are obliged to learn based on work with the Employer in the manner prescribed by this Contract.

Article 4

The Employer and the Student conclude a Contract on work-based learning for the realization of the content of work-based learning prescribed by the curriculum, starting from _____ 2019. A student, i.e. a parent or other legal representative of a student may conclude a work-based learning contract work with several employers with whom the school has concluded a dual education contract, if this is necessary for the implementation of the curriculum.

Article 5

Work-based learning will be realized on the business premises of "_____" (name of the Employer) at the address of the seat of the Employer in the period _____ which will be determined by the Employer and the Student in accordance with the business obligations of the Employer in accordance with the school schedule.

If work-based learning is conducted on the premises of the employer's headquarters, state:

Work-based learning will be realized on the business premises of "_____" (name of the Employer) at the address of the Employer's **headquarters**.

If work-based learning is not conducted on the premises of the employer's headquarters but in the branch, state:

Work-based learning will be realized on the business premises of " _____ " (name of the Employer) at the branch address _____ (state the branch address) of the employer whose headquarters are in _____.

Article 6

If work-based learning, in accordance with the curriculum, is conducted in the language of a national minority, the Employer is obliged to organize and implement work-based learning in the language of students belonging to a national minority only for educational profiles for which work-based learning in the language of a national minority is approved.

Article 7

Work-based learning will be performed in accordance with the Plan for realization of work-based learning which contains a description of activities, place and dynamics of work-based learning with which the student, after signing this Contract, will be acquainted by the Employer, as well as the Curriculum. all this in cooperation with the school that the student attends in order for the contracting parties to timely harmonize the time frame for the realization of work-based learning with business obligations and mandatory attendance at school.

Article 8

The employer commits to:

- organize and realize work-based learning in accordance with the Curriculum;
- enable the Student to acquire and develop competencies in accordance with the qualification standard and the Curriculum;
- enable the Student to perform work-based learning in the period from 08:00 a.m. to 08.00 p.m., for maximum of 6 (in words: six) hours per day, or 30 (in words: thirty) hours per week;
- acquaint the Student and his / her parents / legal representatives with the provisions of all general acts that exist with the Employer, which the Student is obliged to adhere to during the work-based learning, as well as with the consequences of possible non-compliance or violation thereof;
- apply all general and special regulations in the field of safety and protection at work, and especially regulations governing the safety and protection of children and youth at work;
- provide training of students in the field of safety and health at work, both in theoretical and practical part, before starting work-based learning;
- provide the Student with a licenced instructor who directly takes care that during the work-based learning the contents prescribed by the Curriculum

are realized and are responsible for acquiring the competence of the Student prescribed by the qualification standard; provide the student with:

- the means and equipment for personal protection at work;
- reimbursement of the actual costs of transport from the school to the place of work-based learning and back, at most in the amount of the price of a public transport ticket, if the Employer has not provided its own transport;
- reimbursement of food costs in accordance with the general act of the Employer;
- insurance in case of injury during work-based learning with the Employer;
- fee for each hour spent on work-based learning in the net amount of at least 70% of the minimum labour price during one calendar month, which is paid once a month no later than the end of the current month for the previous month;
- associated contributions in accordance with applicable regulations;
- the amount is paid to the current account of the Student, number _____ at the bank;
- to inform the Student in writing about the prohibition of harassment, the rights, obligations and responsibilities of the parties in connection with the prohibition of harassment at work and work-based learning.

Article 9

The student commits to:

- submit a certificate from the competent institution to meet the health requirements for the educational profile, which is an integral part of this contract;
- come regularly, on time and spend the planned time on work-based learning with the Employer in accordance with the plan for the realization of work-based learning;
- inform the instructor if there is an urgent need to leave work-based learning;
- while performing work-based learning, respect the discipline and rules of conduct that apply to the Employer, and to adhere to the general acts of the Employer;
- observe all instructions, and perform every task entrusted to him by the Instructor conscientiously;
- adhere to safety and health measures at work and fire protection, and to use protective equipment, if it is intended for work at a specific workplace

after training for the application of safety and health measures at work and fire protection that was performed before the start of training through work, in accordance with the law, bylaws, act on risk assessment and other acts of the employer in the field of safety and health at work;

- compensate in full material damage to the Employer if he intentionally or through gross negligence causes such damage;
- submit proof of actual transport costs from the School to the place of work-based learning and back, in the form of a public transport ticket, if the Employer has not provided its own transport.

Article 10

Supervision over the realization of work-based learning of the Student is performed by _____ (name and surname of the Instructor) in the capacity of a licenced instructor in cooperation with the work-based learning coordinator of the employee at the school the Student attends.

In the procedure of performing the supervision referred to in paragraph 1 of this Article, the instructor, appointed to supervise the realization of work-based learning, submits to the Employer monthly reports on the success and work of the Student.

Article 11.

The Employer reserves the right to provide the Student with a special reward for performing the work-based learning, as well as an increased amount of compensation in relation to the basic compensation of the Student to which he is entitled by this Contract, according to the economic possibilities of the Employer.

The student is responsible for the damage he caused to the Employer, alone or with other employees, during work-based learning, intentionally or through extreme negligence.

The Employer determines existence of the damage, its amount, the circumstances under which it occurred, who caused the damage and the manner of compensation.

Article 12

The Contracting Parties may terminate the Contract by mutual consent.

Unilateral termination of the Contract by the Student, i.e. parents or other legal representative is possible in case of non-fulfilment of obligations by the Employer provided for in Article 8 of this Contract, as well as the reasons provided for in Article 25 of the Law on Dual Education.

Unilateral termination of the Agreement by the Employer is possible due to breach of obligations by the Student under Article 9 of this Contract, the

reasons provided for in Article 24 of the Law on Dual Education, as well as the general acts of the Employer.

The employer shall notify the Chamber of Commerce and Industry of Serbia of the termination of the Contract in accordance with Article 26 of the Law on Dual Education.

Article 13

The Contracting Parties shall in all respects act in accordance with the principle of good faith and fairness and shall not abuse their rights.

Article 14

The relevant provisions of the Law on Dual Education and the Law on Obligations shall apply accordingly to anything not regulated by this Contract.

Article 15

The Contracting Parties shall settle all possible disputes amicably.

If the contracting parties are unable to resolve any disputes amicably, the resolution of the same will be entrusted to the competent court.

Article 16

This Contract is made in three identical copies, of which each contracting party keeps one copy, and the third is delivered to the school. The Contract in question is an expression of the free will of the contracting parties, made without fraud, coercion and delusion, and as such the contracting parties sign it in agreement.

For the Employer:

Director

Student:

(Name and surname)

**Parent / legal representative
of the student:**

(Name and surname)

Submitted to:

1. The student _____ *(date and student's signature)*;
2. the employer
3. the school

Attachment 3. Suggested forms for monitoring and grading students

Form for monitoring work-based learning activities

This Form serves as a support to check the acquisition of student competencies. Before starting the work-based learning, the competencies acquired in the company must be defined in accordance with the curriculum for a particular educational profile. It should also be clear with whom and with what resources each competence will be achieved in order to provide concrete learning outcomes within the educational profile.

Job description / competencies	Implemented activities	When	With whom	Resources	Monitoring date		
					Acquired	In the process of acquiring	Nor acquired
Social skills	Implemented activities	When	With whom	Resources	Acquired	In the process of acquiring	Nor acquired

Personal skills / attitudes	Implemented activities	When	With whom	Resources	Acquired	In the process of acquiring	Nor acquired

Instructor’s signature:

Student’s signature:

Place and date:

Form for evaluation (report on evaluated skills)*

OT'hia tool enables a permanent evaluation of learning objective achievement that are defined by the Plan of Activities.

Signature of practical instruction teacher:

Instructor’s signature:

Student’s signature:

Form for final evaluation

Assessment provided by the instructor

	Highly successful	Successful	Less successful	Not successful	Additional comments
Talk about the advantages (qualities) of students					
Talk about the integration of students into the company and the work team					
Talk about students' personal initiative					
Talk about how well the student is fulfilling the work plan					
Talk about the efficiency of students in performing assigned tasks					
Talk about student responsibility					
Talk about the commitment and enthusiasm of the students					
The instructor gives advice on student work, which the student can use in the next period of work-based learning.					
The instructor indicates whether there is a possibility of employment of students in the company. What should a student do to maintain or improve those opportunities?					

With the help of this Table, the company can assess the student according to the module, based on the skills that are related to each module.

	Technical skills related to a certain profile	Evaluation
[Name of MODULE 1]		
[Name of MODULE 2]		

Assessment given by the student

	Highly successful	Successful	Less successful	Not successful	Additional comments
Talk about the personal experience of students during the practical classes					
Talk about what the infrastructure (space, equipment) and organization was like during the practical classes.					
Talk about the professional challenges of the student, personal responsibilities, or tasks that he had during the practical training in the company.					
The student states how personally satisfied he is with the practical classes.					
The student gives suggestions for improvement to the company					

9. SOURCES USED

- Law on the National Qualifications Framework of the Republic of Serbia “Official Gazette of the Republic of Serbia”, number 27/18
- Law on Secondary Vocational Education, “Official Gazette of the Republic of Serbia”, numbers 55/13, 101/17 and 27/18 – other law
- Law on the Fundamentals of the Education System “Official Gazette of the Republic of Serbia”, numbers 88/17, 27/18 – other law, and 10/19
- Law on Safety and Health at Work, “Official Gazette of the Republic of Serbia”, numbers 101/05, 91/15, and 113/17 – other law
- Law on Safety and Health at Work “Official Gazette of the Republic of Serbia”, numbers 101/05, 91/15 and 113/17 – other law
- Rulebook on Student Enrolment in Secondary School, “Official Gazette of the Republic of Serbia”, numbers 23/18 and 30/19
- Rulebook on the Manner of Placing Students for Work-Based Learning, “Official Gazette of the Republic of Serbia”, number 102/18
- Rulebook on More Detailed Condition, Mode of Operation, Activities and Composition of the Team for Career Guidance and Counselling in a secondary school realizing education profiles in dual education “Official Gazette of the Republic of Serbia”, number 2/19
- Rulebook on the training programme, mode detailed conditions and other issues of importance for taking the instructor exam, “Official Gazette of the Republic of Serbia”, number 70/18
- Rulebook on the organization, composition and manner of work of the Commission for determining the fulfilment of conditions for conducting work-based learning with the employer, “Official Gazette of the Republic of Serbia”, number 46/18
- Rulebook on the Professional Matura and Final Exam Programme “Official Gazette of the Republic of Serbia – Educational Journal”, number 1/18
- Rulebook on Student Assessment in Secondary Education “Official Gazette of the Republic of Serbia”, number 82/15
- Rulebook on Standards of Career Guidance and Counselling Services, “Official Gazette of the Republic of Serbia”, number 43/19
- Decree on the Determination of Dangerous Work for Children “Official Gazette of the Republic of Serbia”, number 53/17
- European Training Foundation (2018): *Reviewing the quality of work based learning in initial VET in Serbia*

Annex 12 – Law on National Qualification Framework of the Republic of Serbia

THE LAW ON NATIONAL QUALIFICATION FRAMEWORK OF THE REPUBLIC OF SERBIA

("Official Gazette of the Republic of Serbia", No. 27/2018)

I BASIC PROVISIONS

Subject of the Law

Article 1

This Law establishes the National Qualifications Framework of the Republic of Serbia (hereinafter: NQF) as a system for regulating qualifications, its purpose, goals and principles, types and levels of qualifications, ways of acquiring qualifications, descriptions of knowledge, skills, abilities and attitudes (hereinafter : descriptors) of qualification levels, bodies and organizations responsible for the implementation and development of the NQF, quality assurance in the implementation of the NQF and connection with the European Qualifications Framework (hereinafter: EQF).

Terms expressed in this law in grammatical masculine gender imply the natural masculine and feminine gender of the person to whom they refer.

Basic concepts and their meaning

Article 2

Certain terms in this Law have the following meaning:

1) Qualification - formal recognition of acquired competencies. An individual acquires a qualification when the competent body determines that he has achieved learning outcomes within a certain level and according to a given qualification standard, which is confirmed by a public document (diploma or certificate);

2) Competence - an integrated set of knowledge, skills, abilities and attitudes, which enable an individual to act effectively in accordance with the qualification standard;

3) Key competencies for lifelong learning - the ability to use the acquired knowledge, skills and attitudes, necessary for personal, social and professional development and further learning. These competencies are built into the goals and standards at all levels of education as new areas, relevant for the continuous acquisition of competencies, leading a private and social life, profession and coping with real problems and demanding situations;

4) Learning outcomes - clear statements about what an individual is expected to know, understand and be able to show or do after the learning process. They enable the verifiability of the level of development of competencies, ie the achievement of knowledge, skills, attitudes and abilities;

5) Qualification standard - a document determined in accordance with this Law, which contains a description of learning objectives and outcomes, as well as data on the qualification on the basis of which the level is determined, classified and evaluated;

6) Occupational standard - a document that contains a description of duties and tasks, as well as the competencies necessary for an individual to efficiently perform work in a particular occupation, determined in accordance with the regulations governing employment;

7) NQF Register (hereinafter: the Register) - the NQF Register consisting of a sub-register of national qualifications, a sub-register of qualification standards and a sub-register of publicly recognized organizers of adult education activities (hereinafter: PROAE), with employers with which PROAE realizes practical work and / or practical classes;

8) European Qualifications Framework (hereinafter: EQF) - a common European reference framework that connects national qualifications systems and acts as a tool for comparison or easier understanding and interpretation of qualifications between different countries and education systems in Europe;

9) Qualifications Framework in the European Higher Education Area (hereinafter: EHEA) - Qualifications Framework within the Bologna Process. It is defined by four main cycles (short cycle, first, second and third cycle) which are described by Dublin descriptors;

10) Formal education is organized learning processes that are realized on the basis of curricula and programmes of teaching and learning of primary and secondary education and study programmes of higher education;

11) Non-formal education is organized adult learning processes that are realized on the basis of special programmes for acquiring knowledge, skills, abilities and attitudes focused on work, personal and social development;

12) Informal learning is a process of independent acquisition of knowledge, skills, values, attitudes and abilities of adults, in everyday life, work and social environment;

13) Lifelong learning - includes all forms of learning and involves participation in various forms of educational activities throughout life, with the aim of continuous improvement of the necessary personal, civic, social and competencies needed for work;

14) Recognition of prior learning - An adult education activity that is realized by assessing the knowledge, skills and abilities acquired through education, life or work experience and which enables further learning and increasing competitiveness in the labour market. The term is equated with the term "validation of non-formal and informal learning" (Validation of non-formal and informal learning), and in accordance with the European recommendations for the validation of non-formal and informal learning.

NQF Goals

Article 3

The goals of the NQF are:

1) ensuring the comprehensibility, transparency and transparency of qualifications, as well as their interconnectedness;

2) development of qualification standards based on the needs of the labour market and society as a whole;

3) ensuring the orientation of the entire education to the learning outcomes which build the competencies defined by the standard of the given qualification;

4) improving access, flexibility of roads and permeability in the system of formal and non-formal education;

5) ensuring the recognition and recognition of non-formal and informal learning;

6) affirmation of the importance of key, general and interdisciplinary competences for lifelong learning;

7) improving cooperation between relevant stakeholders and social partners;

8) providing a quality system in the process of development and acquisition of qualifications;

9) ensuring comparability and recognisability of qualifications acquired in the Republic of Serbia with qualifications acquired in other countries.

NQF Principles

Article 4

NQF is based on the principles of:

- 1) lifelong learning - respect for the needs and opportunities of the individual for learning and development throughout life;
- 2) individuality - acquiring qualifications, in accordance with the experiences, needs, interests, social and life roles and developmental characteristics of the individual;
- 3) equal opportunities - acquisition of qualifications regardless of age, gender, difficulties and disabilities, disability, racial, national, social, cultural, ethnic and religious affiliation, language, sexual orientation, place of residence, material or health condition and other personal characteristics;
- 4) accessibility - equal rights and conditions for inclusion in all levels and types of qualifications;
- 5) transparency - publicity of the process of development and acquisition of qualifications;
- 6) relevance - the basis of qualifications on the needs of the labour market, scientific research and artistic work, or society as a whole;
- 7) openness - different ways of acquiring qualifications and opportunities for horizontal and vertical mobility in the qualifications system, including academic mobility;
- 8) partnerships and cooperation - partnership and cooperation between the holder and the participants in the qualification system;
- 9) quality assurance - management of the process of qualification development based on standards and learning outcomes, as well as the quality system in the process of acquiring and evaluating qualifications;
- 10) comparability - linking NQF with EQF.

II QUALIFICATIONS FRAMEWORK

Qualification levels

Article 5

Qualifications in the NQF are classified into eight (8) levels and four (4) sublevels:

- 1) the first level (level 1), which is acquired by completing primary education, basic adult education, basic music, i.e. basic ballet education;

2) the second level (level 2), which is acquired through professional training, lasting up to one year, work-based learning lasting up to two years, or non-formal adult education lasting 120-360 hours of training. The condition for acquiring this level is the previously acquired level 1 of the NQF;

3) the third level (level 3), which is acquired by completing secondary vocational three-year education or non-formal adult education for at least 960 hours of training. The condition for acquiring this level is the previously acquired level 1 of the NQF;

4) the fourth level (level 4), which is acquired by completing secondary four-year education (professional, artistic, i.e. high school). The condition for acquiring this level is previously acquired level 1 of the NQF;

5) the fifth level (level 5), which is acquired by completing a master's or specialist education lasting two or one year and non-formal adult education lasting at least six months. The condition for acquiring this level is previously acquired level 3, ie level 4 of the NQF, and for acquiring through non-formal adult education previously acquired level 4 of the NQF;

6) sixth level, sublevel one (level 6.1), which is acquired by completing undergraduate academic studies (hereinafter: UGAS) of at least 180 ECTS points, or basic vocational studies (hereinafter: BVS) of 180 ECTS points. The condition for acquiring this level is previously acquired level 4 of the NQF and passed the general, professional or artistic matura, in accordance with the laws governing secondary education and higher education;

7) sixth level, sublevel two (level 6.2), which is acquired by completing an UGAS of at least 240 ECTS points, or specialist vocational studies of at least 60 ECTS points. The condition for acquiring this level is the previously acquired level 4 of the NQF and passed the general, professional or artistic matura, in accordance with the laws governing secondary education and higher education, i.e. level 6.1 (BVS of a volume of 180 ECTS points);

8) seventh level, sublevel one (level 7.1), which is acquired by completing integrated academic studies of 300 to 360 ECTS credits, master's academic studies (hereinafter: MAS) of at least 60 ECTS credits, with previously achieved OAS of 240 ECTS, MAS with a volume of at least 120 ECTS (with previously achieved OAS with a volume of 180 ECTS), or master vocational studies with a volume of at least 120 ECTS points (with previously achieved BAS with a volume of 180 ECTS points);

9) seventh level, sublevel two (level 7.2), which is acquired by completing specialist academic studies of at least 60 ECTS credits (with previously completed master's academic studies;

10) eighth level (level 8), which is acquired by completing doctoral studies of 180 ECTS credits (with previously completed integrated academic or master's academic studies.

NQF levels for individual level qualifications from paragraph 1 item. 6) -8), in the Register and public documents shall be marked with the indication of the type of qualification, namely:

1) sublevel 6.1 acquired by completing an OAS of at least 180 ECTS credits, is denoted by 6.1 A;

2) sublevel 6.1 acquired by completing the OSS of 180 ECTS points is marked with 6.1 S;

3) sublevel 6.2 acquired by completing an OAS of at least 240 ECTS points, is denoted by 6.2 A;

4) sublevel 6.2 acquired by completing specialist vocational studies in the amount of 60 ECTS credits, is denoted by 6.2 S;

5) sublevel 7.1 acquired by completing integrated academic studies in the range of 300 to 360 ECTS credits and MAS, is denoted by 7.1 A;

6) sublevel 7.1 acquired by completing master vocational studies is denoted by 7.1 C.

Qualification level descriptors

Article 6

For each level and sublevel of qualifications referred to in Article 5 of this Law, descriptors necessary for the performance of work or further learning have been determined. Qualifications are classified by level based on the complexity of the learning outcomes.

Descriptors of the level of qualifications referred to in paragraph 1 of this Article are given in Annex 1 to this Law and form an integral part thereof.

Types of qualifications

Article 7

By type, qualifications in the NQF are classified as:

1) general - primary education and gymnasium education which includes all types and directions of gymnasiums as well as specialized gymnasiums, in accordance with the laws governing the basics of the system of education, primary and secondary education;

2) vocational - secondary vocational education, secondary artistic education and training, in accordance with the law governing the basics of the education system, vocational education, dual education and adult education;

3) academic - higher education acquired by completing basic academic, master's academic, specialist academic and doctoral studies, in accordance with the law governing higher education;

4) vocational - higher education acquired at basic vocational, specialist vocational and master vocational studies, in accordance with the law governing higher education.

Qualification classification system

Article 8

The system according to which qualifications are classified and coded in the NQF (hereinafter: KLASNQF), is harmonized with the International Standard Classification of Education ISCED 13-F, and contains the names of sectors, narrow sectors and subsectors of education and training into which qualifications are classified and their numerical designations on the basis of which the qualification code is determined.

KLASNQF is determined by the Minister in charge of education.

The act referred to in paragraph 2 of this Article shall also determine the relations between KLASNQF and the field of work, ie scientific, artistic, i.e. professional fields within the educational-scientific, i.e. educational-artistic fields, determined until the entry into force of this Law.

Ways of acquiring qualification

Article 9

Qualifications can be acquired through formal and non-formal education and through the process of recognition of prior learning.

In formal education, general, vocational, academic and vocational qualifications are acquired by completing primary, secondary, i.e. higher education at verified educational institutions, i.e. accredited higher education institutions and study programmes, after which an appropriate public document is issued, in accordance with the laws governing primary education, secondary education and higher education.

In non-formal education, professional qualifications are acquired through various adult education activities at PROAE, after which an appropriate public document or certificate is issued, in accordance with the law

governing adult education, or another law in accordance with Article 39, paragraph 3 of this Law.

By recognizing prior learning, professional qualifications are acquired at PROAE through a special procedure in which, in accordance with the qualification standard, knowledge, skills and attitudes acquired on the basis of work or life experience are assessed, followed by the issuance of an appropriate public document or certificate in accordance with the law governing adult education.

Career guidance and counselling

Article 10

Career guidance and counselling services provide support to the individual to achieve mobility through the levels of the NQF, which enables the application of the concept of lifelong learning and easier mobility of the workforce.

Career guidance and counselling services are provided in accordance with the standards for career guidance and counselling issued by the Minister responsible for education.

Career guidance and counselling services are provided by the National Employment Service, PROAE in accordance with the law governing adult education and higher education institutions in accordance with the law governing higher education.

The programme of professional orientation, i.e. career guidance and counselling of students is implemented by the primary or secondary school, in accordance with the law governing primary or secondary education and the standards referred to in paragraph 2 of this Article.

III BODIES AND INSTITUTIONS RESPONSIBLE FOR THE DEVELOPMENT AND IMPLEMENTATION OF THE NQF

NQF Council

Article 11

The NQF Council (hereinafter: the Council) is established as an advisory body that makes recommendations on the process of planning and development of human resources in accordance with public policies in the field of lifelong learning, employment, career guidance and counselling.

Council composition

Article 12

The Council has 25 members appointed by the Government, as follows:

1) six members upon proposal of: the ministry in charge of education, the ministry in charge of labour and employment, the ministry in charge of economy, the ministry in charge of youth, the ministry in charge of state administration and local self-government and the ministry in charge of health;

2) three members upon the proposal of: the Provincial Secretariat in charge of education, the Provincial Secretariat in charge of higher education and the Provincial Secretariat in charge of labour and employment;

3) one member on the proposal of the National Employment Service;

4) two members upon the proposal of the Chamber of Commerce and Industry of Serbia;

5) five members of the representatives of higher education institutions, three on the proposal of the Conference of Universities and two on the proposal of the Conference of Academies of Vocational Studies and Higher Education Institutions (hereinafter: the Conference of Academies and Higher Education Institutions);

6) two members of representatives of vocational schools at the proposal of the communities of vocational schools;

7) one member of the gymnasium representative at the proposal of the gymnasium community;

8) two members at the proposal of representative trade unions, which are members of the Social and Economic Council of the Republic of Serbia;

9) two members upon the proposal of representative associations of employers, which is an Article of the Social and Economic Council of the Republic of Serbia;

10) one member representing civil society organizations, at the proposal of the body responsible for coordination with civil society organizations.

The term of office of the Council members is four years.

The Council is chaired by a member who is a representative of the ministry responsible for education.

The Government shall dismiss a member of the Council before the expiration of the term, in the following cases:

1) at personal request;

2) if he does not fulfil the duties of a member of the Council or by his actions violates the reputation of that duty, at the proposal of the organization on whose proposal he was appointed.

In case of dismissal referred to in paragraph 4 of this Article, the authorized proposer shall propose a new member to the Government within 30 days

from the decision on dismissal, and the Government shall appoint a new member for the period until the expiration of the Council's term of office within 30 days from the date of the submission of the proposal by authorized proposer.

The Council submits a report on its work to the Government at least once a year.

The Council adopts the rules of procedure for its work.

Administrative and technical tasks for the Council are performed by the Qualifications Agency (hereinafter: the Agency).

Jurisdiction of the Council

Article 13

The Council:

- 1) proposes qualification standards for all levels of the NQF;
- 2) proposes to the Government the establishment of a sector council for a certain sector of labour, i.e. activity;
- 3) makes recommendations on the process of planning and development of human resources in accordance with the strategic documents of the Republic of Serbia;
- 4) makes recommendations on improvements in linking education and labour market needs;
- 5) give an opinion to the Minister responsible for education on the recommendations of the sector councils regarding the enrolment policy in secondary schools and higher education institutions;
- 6) monitors the work of sector councils and gives recommendations for improving the work on the basis of regular reports on the work of sector councils;
- 7) give an opinion on the standards for self-evaluation and external quality control of PROAE;
- 8) perform other tasks in accordance with this Law.

Agency

Article 14

In order to perform quality assurance activities and provide professional support to the Council and other competent organizations in all aspects of the development and implementation of the NQF, the Government shall establish an Agency.

The Agency has the status of a legal entity.

The work of the Agency is financed from the budget of the Republic of Serbia, own funds, gifts (donations), contributions and other revenues generated in accordance with the law.

The Agency submits to the Government a report on the work for the previous year no later than the 1st of April of the current year, and exceptionally submits periodic reports or a report on the execution of some work, at the request of the ministry in charge of education, within a period of no less than 20 days.

The provisions of the law governing public agencies shall apply to the establishment, management and operation of the Agency.

Jurisdiction of the Agency

Article 15

The Agency:

- 1) considers initiatives for the introduction of new qualifications;
- 2) provides professional support to the sector council and prepares a proposal for qualification standards;
- 3) provides administrative and technical support to the work of sector councils;
- 4) keep the Register and take care of the entry of data in the appropriate sub-registers;
- 5) classifies and encrypts qualifications according to the KLASNQF system;
- 6) recognizes foreign school documents;
- 7) performs the procedure of recognition of a foreign higher education document for the purpose of employment (hereinafter: professional recognition), in accordance with this Law and the law governing higher education;
- 8) performs the first evaluation of a foreign study programme in the procedure referred to in item 7) of this paragraph, in accordance with this and the law governing higher education;
- 9) give approval to other organizations for acquiring the status of PROAE;
- 10) determines the amount of compensation for the procedure referred to in item 6), 7) and 9) of this paragraph;
- 11) keep records on professional recognition in accordance with this and the law governing higher education;
- 12) performs external quality control of PROAE, once during the five-year duration of the approval;
- 13) at the request of the ministry responsible for education, gives a report on the fulfilment of conditions regarding the plan and programme of activities for adult education, implementation of programmes and staff;

14) prepares development projects, analyses and research of importance for the development of qualifications;

15) monitors and measures the effects of the implementation of (new) qualifications on employment and lifelong learning;

16) proposes measures to improve quality assurance in the entire system;

17) performs other tasks in accordance with the law. The tasks referred to in paragraph 1, item 4), 6), 7), 9), 10) and 11) of this Article shall be performed by the Agency as entrusted tasks.

Agency bodies

Article 16

The Qualifications Agency has a managing body, an executive body, professional bodies and services that perform administrative and technical tasks.

More detailed conditions regarding the manner of work, manner and procedure of election and dismissal of the Agency's bodies shall be determined by the founding act and the statute.

Managing Board

Article 17

The Managing Board has five members.

The President and members of the Managing Board of the Agency are appointed by the Government for a period of four years, with the possibility of re-election, three upon the proposal of the ministry responsible for education, one upon the proposal of the ministry responsible for labour and employment and one at the proposal of the ministry responsible for economy.

A person who meets the conditions for employment in a state body, who is an expert in one or more areas within the scope of a public agency, who has a higher education, who is not employed in the Agency, may be appointed to the Managing Board of the Agency.

A member of the Managing Board of the Agency may not be a person who has been convicted of a criminal offense against legal traffic, against legal duty, as well as of another criminal offense punishable by five years in prison or a heavier sentence, until expunction of the sentence by law.

A member of the Managing Board may not be a person elected, appointed or appointed to a position in a state body, an autonomous province or local self-government body, a political party body or a managing body of an educational institution, or a higher education institution, nor a person who

is a member of the Council for Vocational and Adult education, the National Education Council, the National Council for Higher Education, the National Employment Service or managing bodies of legal entities and entrepreneurs engaged in educational activities.

The Government shall dismiss a member of the Managing Board before the expiration of the mandate, as follows:

- 1) upon personal request;
- 2) if he does not fulfil the duties of the member of the Managing Board, does not meet the conditions for appointment, if he does not fulfil the obligations provided by this or a special law or document on the Agency establishment or if he is sentenced to imprisonment of at least six months.

In the case of dismissal referred to in paragraph 6 of this Article, the authorized proposer shall propose a new member to the Government within 30 days from the date of the decision on dismissal, and the Government shall appoint a new member for the period until the expiration of the term of office within 30 days from the date on which the proposal was submitted by the authorized proposer.

Managing Board Competence

Article 18

The Managing Board:

- 1) adopts the annual work programme of the Agency;
- 2) adopts the financial plan of the Agency;
- 3) adopts the reports submitted by the Agency to the founder;
- 4) adopts regulations and other general acts of the Agency, except for Rulebook on the internal organization and systematization of jobs in the Agency;
- 5) directs the work of the director and issues him / her work instructions;
- 6) supervises the operations of the public agency;
- 7) determines the amount of the fee for the recognition of school and higher education documents with the consent of the Government;
- 8) determines the amount of the fee for granting approval for acquiring the status of PROAE with the consent of the Government;
- 9) performs other tasks determined by this Law, the law that regulates the work of public agencies or the act on the establishment of the Agency.

The member of the Managing Board is entitled to remuneration for work in the amount determined by the Government.

Director

Article 19

The Director is appointed by the Government for a period of five years, with the possibility of one re-election, in accordance with the law governing public agencies.

Competence of the director

Article 20

The Director shall:

- 1) represent the Agency;
- 2) manage the work and operations of the Agency;
- 3) adopt a Rulebook on the internal organization and systematization of jobs in the Agency;
- 4) adopt individual acts of the Agency;
- 5) decide on the rights, obligations and responsibilities of employees in the Agency;
- 6) prepares and implements the decisions of the management board;
- 7) appoint for the purposes of providing expert opinion in the procedure of the first evaluation of a foreign study programme, a commission of at least three reviewers from the list of reviewers determined by the National Council for Higher Education, in accordance with the law governing higher education and this Law;
- 8) perform other tasks determined by this Law, the law governing public agencies or the act on the establishment of the Agency.

Sector Council

Article 21

The Sector Council is a body based on the principle of social partnership established by the Government at the proposal of the Council.

The Government appoints the Members of the Sector Council in the field for which the council is established on the proposal of:

- 1) the Chamber of Commerce and Industry of Serbia and representative associations of employers from among economic entities in the field for which the sector council is formed;
- 2) Professional chambers, i.e. associations;
- 3) Council for Vocational and Adult Education, from among experts in the field of vocational and adult education;

4) Conference of Universities and Conference of Academies and Colleges, and from the ranks of teachers of higher education institutions;

5) National Employment Services;

6) ministries responsible for: education, employment and labour affairs and activities for which a sector council is established;

7) communities of vocational schools;

8) representative branch unions;

9) Institute for the Improvement of Education from among employed experts from the field for which the sector council has been established and from other institutions, institutions and organizations relevant to the field for which the sector council has been established.

The term of office of the members of the Sector Councils is five years.

The Government shall dismiss a member of the Sector Council before the expiration of the mandate, as follows:

1) upon personal request;

2) if he does not fulfil the duties of the Sector Council member or violates by his actions the reputation of that duty, at the proposal of the organization on whose proposal he was appointed.

In the case of dismissal referred to in paragraph 4 of this Article, the authorized proposer shall propose a new member to the Government within 30 days from the decision on dismissal, and the Government shall appoint a new member for the period until the expiration of the Sector Council term of office at the proposal of the authorized proposer.

For the implementation of activities on specific qualifications, the Sector Council may propose to the Agency to form expert teams.

The Sector Council shall submit an annual report on its work to the Agency, the Ministry in charge of education and the Government, no later than March 1 of the current year for the previous calendar year.

Members of the Sector Council and expert teams are entitled to remuneration for work in the amount determined by the Government.

Competence of the Sector Council

Article 22

The Sector Council:

1) analyses the existing and determines the necessary qualifications in a particular sector;

2) identifies qualifications that need to be updated;

- 3) identifies qualifications that no longer meet the needs of the sector;
- 4) decides on the development of the proposals for qualification standards within the sector;
- 5) gives an opinion on the expected outcomes of knowledge and skills within the sector;
- 6) promotes dialogue and direct cooperation between the world of work and education;
- 7) promotes opportunities for education, training and employment within the sector;
- 8) identifies opportunities for adult training within the sector;
- 9) considers the implications of the National Qualifications Framework on qualifications within the sector;
- 10) proposes the lists of qualifications by levels and types that can be acquired through recognition of prior learning;
- 11) performs other tasks in accordance with this Law.

Ministry in charge of education

Article 23

The Ministry in charge of education:

- 1) monitors the implementation of this Law;
- 2) adopts a methodology for the development of qualification standards, at the proposal of the Agency;
- 3) connects NQF with EQF;
- 4) adopts the qualification standard;
- 5) adopts standards for self-evaluation and external quality control of PROAE;
- 6) promotes NQF and various opportunities for learning and achieving qualification standards;
- 7) performs the tasks of the National Coordination Point;
- 8) performs other tasks in accordance with this Law.

Cooperation of institutions

Article 24

The Council, the Agency, the competent ministries, the National Employment Service and the Republic Bureau of Statistics are obliged to coordinate activities for the development and implementation of the NQF and exchange data from records and databases kept in accordance with the law.

IV QUALITY ASSURANCE IN THE APPLICATION OF NQF

Qualification Standard

Article 25

The qualification standard is developed in accordance with this Law on the basis of the methodology referred to in Article 23, paragraph 1, item 2) of this Law, and in addition to basic data on qualification, it also contains data on the connection of qualification with the occupational standard and labour market data.

The qualification standard is the basis for the development of educational programmes for acquiring qualifications at all levels of education.

Submission of initiative for qualification standards development and adoption

Article 26

The initiative for the development and adoption of standards for new qualifications (hereinafter: the initiative) may be submitted by the Sector Council, the Council for Vocational and Adult Education, the National Education Council, the National Council for Higher Education, the National Employment Service, higher education institution, state body and another legal entity (company, PROAE, etc.).

The initiative referred to in paragraph 1 of this Article shall contain a study on the justification of the qualification and an initial proposal of the qualification standard and shall be submitted to the Agency on a Form whose content and appearance shall be determined by the Minister responsible for education.

If the qualification proposed by the initiative referred to in paragraph 1 of this Article is covered by another qualification from the Register, the Director of the Agency shall notify the submitter of the initiative within 15 days from the day of submitting the initiative.

If the qualification standard proposed by the initiative referred to in paragraph 1 of this Article is not covered by another qualification standard from the Register, the Agency shall within 15 days submit a recommendation on qualification development based on the initiative referred to in paragraph 1 of this Article to the relevant Sector Council.

When the Sector Council is the initiator, based on the recommendation referred to in paragraph 4 of this Article, the Agency shall develop a qualification standard in accordance with the provisions of Article 27, paragraph 5 of this Law.

Development of a proposal for qualification standards

Article 27

Within 30 days from the date of submitting the recommendation referred to in Article 26, paragraph 4 of this Law, the Sector Council shall decide on drafting a proposal for qualification standards and submit it to the Agency for the preparation of that proposal.

If it finds that the adoption of the qualification standard proposed by the initiative is not justified, the Sector Council shall decide not to accept the initiative with an explanation and notify the Agency within 30 days from the date of submission of the recommendation referred to in Article 26, paragraph 4 of this Law.

When the submitter of the initiative is the ministry in charge of education, the ministry in charge of labour and employment, the ministry in charge of economy, the National Education Council, the Council for Vocational and Adult Education and the National Council for Higher Education and a higher education institution, the decision referred to in paragraph 2 of this Article, in addition to the reasons for non-acceptance, must also contain the instructions for amendment and deadline for submission of the amended initiative, for which the Sector Council would make a decision referred to in paragraph 1 of this Article.

The deadline for submitting the amended initiative referred to in paragraph 3 of this Article may not be shorter than 30 days.

The Agency shall, within 60 days from the day of receipt of the decision referred to in paragraph 1 of this Article, submit the qualification standard to the Council for determining the proposal, i.e. within eight days from the date of delivery of the decision referred to in paragraph 2 of this Article.

If the applicant referred to in paragraph 3 of this Article does not submit the amended initiative within the period specified in paragraph 4 of this Article, the initiative shall be considered rejected.

Upon receipt of the notification referred to in paragraph 5 of this Article and Article 26, paragraph 3 of this Law the submitter of the initiative may file a complaint to the ministry responsible for education within 15 days from the date of the receipt of the notification.

Complaint procedure

Article 28

The Ministry in charge of education shall, within 30 days from the date of submission of the complaint referred to in Article 27, paragraph 7 of this Law, appoint a commission composed of employees of the Ministry and the Agency to give an expert opinion on the initiative. The members of the Sector

Council that made the decision to reject the initiative may not be appointed to the Commission referred to in paragraph 1 of this Article. The Commission referred to in paragraph 1 of this Article shall submit to the Minister a report and a proposal for a decision within 30 days from the date of appointment. The Ministry is obliged to return the initiative to the Agency, i.e. the Sector Council for reconsideration, within 30 days from the date of submission of the proposal referred to in paragraph 3 of this Article, i.e. to inform the submitter that the complaint is unfounded.

The Agency, i.e. the Sector Council is obliged to decide in accordance with the legal understanding of the Ministry within 30 days from the date of the return of the initiative for making a new decision.

If the Agency, i.e. the sector council does not act in accordance with the legal understanding of the Ministry, at the proposal of the submitter of the initiative, the Minister shall decide on the initiative within 30 days from the date of the receipt of the proposal.

If the decision referred to in paragraph 6 of this Article accepts the initiative, the Ministry shall order the Agency, i.e. the sector council to prepare and submit the draft standard for initiated qualification to the Council to be determined the draft qualification standard within 60 days from the date of delivery of that decision.

Adoption of Qualification Standard

Article 29

The Council shall within 30 days from the date of the receipt of the material referred to in Article 27, paragraph 5 of this Law determines the draft qualification standard and submit it to the ministry responsible for education.

The Ministry in charge of education shall within 30 days from the date of the receipt of the proposal referred to in paragraph 1 of this Article, issue an act on the adoption of qualification standards and submit it to the Agency for entry in the Register.

The act referred to in paragraph 2 of this Article shall be published in the "Official Gazette of the Republic of Serbia - Education Gazette".

If the Council does not submit to the ministry responsible for education the proposal referred to in paragraph 1 of this Article within 60 days from the date of the receipt of the materials referred to in Article 27, paragraph 5 of this Law, the minister responsible for education shall decide on the initiative to adopt qualification standards without the Council's proposal.

Registry

Article 30

The register consists of a sub-register of national qualifications, a sub-register of qualification standards and a sub-register of PROAEs with employers with whom the PROAE carries out practical work.

A sub-register of national qualifications is established for the purpose of managing qualifications data, broken down by level and type, in accordance with KLASNQF.

A sub-register of qualification standards is established for the purpose of managing data on qualification standards.

The PROAE sub-register is established for the purpose of managing data on the PROAE that have been granted or revoked approvals, approved adult education activities and employers where the PROAEs carry out practical work.

The register referred to in paragraph 1 of this Article shall be kept by the Agency in electronic form.

The data from the register referred to in paragraph 1 of this Article are open and available through the official website of the Agency, which is maintained bilingually - in Serbian and English.

The content and manner of keeping the Register and sub-registers, as well as other issues of importance for keeping the register, shall be prescribed by the Minister in charge of education.

Registration of qualifications in the sub-register of national qualifications

Article 31

The Agency shall enter general and professional qualifications of levels 1 to 5 of the NQF in the sub-register of national qualifications within eight days from the date of the receipt of the act referred to in Article 29, paragraph 2 of this Law.

Academic and professional qualifications of levels 6.1 to 8 of the NQF accredited in accordance with the law governing higher education are entered by the Agency in the sub-register of national qualifications upon receiving the notification of accreditation from the National Body for Accreditation and Quality Assurance in Higher Education.

Entry of standards in the sub-register of qualification standards

Article 32

Standards of general, professional, academic and vocational qualifications of levels 1 to 8 of the NQF are entered by the Agency in the sub-register of qualification standards upon receiving the act referred to in Article 29, paragraph 2 of this Law.

V CONNECTING NQF WITH EQF

Article 33

Connecting NQF to EQF is the official process of establishing the relationship between the respective levels of these two systems.

Information on the connection between NQF levels and EQF levels is entered in the appropriate section in the public document on the acquired qualification at all levels, in accordance with this law and regulations governing the content and appearance of public document Forms in secondary and adult and higher education.

In order to implement the process of connecting the NQF with the EQF and the EPVO, a National Coordination Point (hereinafter: NCP) is established, which is responsible for:

- 1) preparation of the Report for connecting NQF with EQF;
- 2) submission of the Report to the EQF Advisory Board;
- 3) maintaining communication with the EQF Advisory Board.

The NCP activities are performed within the ministry responsible for education.

VI RECOGNITION OF FOREIGN SCHOOL DOCUMENTS

Article 34

A citizen of the Republic of Serbia who has completed primary or secondary school or a certain grade of school abroad, i.e. who has completed a foreign primary or secondary school or certain grades of school in the Republic of Serbia, has the right to request recognition of acquired foreign school document.

A foreign citizen and a stateless person have the right to request the recognition of a foreign school document, if he / she has a legal interest in doing so.

A citizen of the Republic of Serbia, a foreign citizen and a stateless person, who does not have the appropriate foreign school document required

for the recognition procedure, may enrol in the appropriate grade of primary school on the basis of a prior knowledge test.

Upon recognition, a foreign school document is equated with the corresponding public document acquired in the Republic of Serbia. The procedure of recognition of a foreign school document is carried out by the ENIC / NARIC center, as an organizational unit of the Agency. The procedure for recognition of a foreign school document shall be carried out in accordance with the provisions of this Law, unless otherwise provided by an international agreement.

Procedure for recognition of a foreign school document

Article 35

In the procedure of recognition of a foreign school document, the provisions of the law governing the general administrative procedure shall apply, unless otherwise regulated by this Law.

In the procedure referred to in paragraph 1 of this Article, the following shall be taken into account: the education system of the foreign state, the duration of education, the curriculum, the rights granted to the holder by the foreign school document and other circumstances relevant to decision-making.

If in the procedure is found that the foreign curriculum significantly deviates from the domestic one with which it is compared to, the recognition is conditioned by passing certain exams, making certain papers or by testing knowledge.

The Agency may entrust the determination of examinations and verification of abilities and skills referred to in paragraph 3 of this Article to a special expert commission of the relevant school.

The examinations determined as a condition for the recognition of a foreign school document shall be taken in the appropriate school no later than the date determined by the Agency.

Preliminary testing of knowledge from Article 34, paragraph 3 and paragraph 3 of this Article is performed by a team composed of primary school teachers, i.e. subject teachers, pedagogues and school psychologists, respecting the standards of achievement and appreciating the best interest of students.

The special expert commission referred to in paragraph 4 of this Article shall be appointed in accordance with paragraph 6 of this Article.

Conditional enrolment

Article 36

A student, who has submitted a request for recognition of a foreign school document of primary education, can be conditionally enrolled in the next grade, if the procedure is not completed by the beginning of the school year.

In the case referred to in paragraph 1 of this Article, the school is obliged to immediately include the student in the appropriate class.

A person whose right to recognition of a foreign school document of secondary education is decided may be conditionally enrolled in the next grade, if the procedure is not completed by the deadline for enrolment of students in school.

A person whose right to recognition of a foreign secondary education document is decided may be conditionally enrolled in the first year of study at a higher education institution if the procedure is not completed by the deadline for student enrolment.

Decision on recognition

Article 37

The person requesting the recognition of a foreign school document shall submit the original of that document and the translation thereof done by an official translator.

The decision on recognition is final in the administrative procedure.

The short content of the decision is written on the original of the foreign school document and on the copy of the translation (recognition clause).

The decision on the recognition of a foreign school certificate of completed secondary education must contain the level of the NQF to which the recognized qualification corresponds.

The Agency keeps records and permanently keeps the documentation on the recognition of a foreign school document in electronic and paper form.

The records referred to in paragraph 5 of this Article include: surname, name of one parent and name, date and place of birth, citizenship, name of the foreign institution that issued the document, place and country, duration, type and level of education, number and date of additional exams, number and date of the act on passed additional exams, number and date of the decision on recognition of a foreign school document, summary of the dispositive of the decision and the name and level of the NQF to which the recognized qualification corresponds.

VII PROFESSIONAL RECOGNITION OF FOREIGN HIGHER EDUCATION DOCUMENTS

Procedure for professional recognition

Article 38

The request for professional recognition is submitted by the interested person to the Agency.

Professional recognition is performed by the ENIC / NARIC centre, as an organizational part of the Agency, after the previous evaluation of the foreign study programme, in accordance with this and the law governing higher education.

The decision on professional recognition contains in particular: name, type, degree and duration (scope) of the study programme, i.e. qualification, which is stated in the foreign higher education document - in the original language and translated into Serbian and scientific, artistic or professional field within which is the realized study programme, i.e. the type and level of qualification in the Republic and the level of NQF to which the qualification corresponds.

The director of the agency decides on professional recognition within 90 days from the date of the receipt of a proper request.

The decision referred to in paragraph 4 of this Article does not release the holder from the need of fulfilling the special conditions for performing a certain profession prescribed by a special law.

The decision on professional recognition is final. Unless otherwise prescribed, the law governing general administrative procedure shall apply to the procedure of professional recognition.

The decision on professional recognition has the significance of a public document. More detailed conditions regarding the procedure for professional recognition are prescribed by the Minister in charge of education.

VIII ACQUISITION OF THE STATUS OF A PUBLICLY RECOGNIZED ORGANIZER OF ADULT EDUCATION ACTIVITIES

Publicly recognized organizer of adult education activities

Article 39

Publicly recognized organizer of adult education in terms of this Law is a legal entity (other institution, public agency, public company, organization responsible for employment, employment agency, company, professional

rehabilitation, entrepreneur, trade union, association, professional society, organizations for adult education (people's, workers', open university, university for the third age, etc.), centres and organizations for professional development, for learning foreign languages, information and communication technologies, for training and development of human resources, for driver training, Chamber of Commerce, centre for career guidance and counselling, employers' association, cultural and educational centre, home of culture, hereinafter: other organization) which has been granted PROAE status approval in accordance with this law.

Primary and secondary school may acquire the status of PROAE if it meets the detailed conditions for performing adult education activities prescribed in accordance with this law and has a decision on verification in accordance with the law governing the basics of the education system.

Notwithstanding the provision of paragraph 1 of this Article, state bodies and institutions that in accordance with a special law perform professional training and other adult education activities, or other organizations that have received permission from the competent state body to perform professional training and other adult education activities have the status of a publicly recognized organizer of activities. More detailed conditions regarding the programme, staff, space, equipment and teaching aids are prescribed by the Minister in charge of education.

Adult-approved education activities

Article 40

The status of a publicly recognized organizer of activities can be acquired for the following activities:

1) non-formal adult education that acquires competencies and / or qualifications to perform, improve or change occupations, jobs, job functions or work operations, for levels 1 to 3 and 5 of the NQF;

2) adult education which improves knowledge, skills and abilities, for personal and professional development and socially responsible behaviour, improving the quality of life, general education and culture (non-formal education and informal learning), for levels 1 to 3 NQF;

3) career guidance and counselling;

4) recognition of prior learning, which in a special procedure assesses the knowledge, skills and attitudes acquired through education, life or work experience for levels 1 to 3 and 5 of the NQF, in accordance with the qualification standard and regulations adopted pursuant to this Law.

An application for acquiring the status of PROAE referred to in paragraph 1, item 4) of this Article may be submitted only by a primary and secondary school that has acquired the status of PROAE for the activities referred to in paragraph 1, items 1) -2) of this Article.

Exceptionally, in the secondary school referred to in paragraph 2 of this Article, the NQF level 4 qualification may be acquired through the procedure for recognition of prior learning if the candidate completes the programme for acquiring competencies in accordance with Article 63a of the Law on Secondary Education ("The Official Gazette of the Republic of Serbia", numbers 55/13 and 101/17). The standards and the manner of conducting the procedure for the recognition of prior learning shall be prescribed by the Minister in charge of education.

Procedure for issue approvals to primary and secondary schools

Article 41

Primary and secondary schools acquire the status of PROAE in the procedure for obtaining approval for expanded activity, in accordance with the provisions of the law governing the basics of the education system and this Law.

In the procedure referred to in paragraph 1 of this Article, the ministry responsible for education shall obtain a report on the fulfilment of conditions regarding the plan and programme of adult education activities, manner of realization and staff, and a record on the verification of fulfilment of the conditions with respect to the space, equipment, teaching aids pursuant to the provisions of Article 42, paragraphs 2, 3, 5, 6 and 7 of this Law.

Primary and secondary schools are granted approval for a period of five years.

The provisions of this Law shall apply accordingly to the external quality control, self-evaluation and revocation of the approval of the PROAE status of primary and secondary schools.

Procedure for approval issue to another organization

Article 42

The application for the approval of PROAE status shall be submitted by another organization to the Agency. The request referred to in paragraph 1

of this Article shall contain: the name, activity, seat of the applicant as well as the proposal of the programme of adult education activities.

The proposal of the programme of adult education activities contains the plan and programme of adult education activities and the manner of realization, conditions envisaged for performing adult education activities related to the space in which this activity will be performed, necessary equipment and funds, as well as the number of required professionals engaged for performing adult education activities.

The request shall be accompanied by evidence of fulfilment of conditions and the proof of payment of the republic duty stamp.

The Agency shall, within 45 days from the date of the receipt of a valid request, prepare a report on the fulfilment of conditions regarding the plan and programme of adult education activities, the manner of realization and staff, in accordance with the qualification standard.

If the Agency determines that the conditions regarding the plan and programme of adult education activities and the manner of realization are met, it shall send a request to the educational inspection in order to determine the fulfilment of the conditions regarding space, equipment and teaching aids for issuing approvals.

If the report referred to in paragraph 5 of this Article is negative, the Director of the Agency shall issue a decision rejecting the request.

The educational inspector shall, within 30 days from the date of the receipt of the request referred to in paragraph 6 of this Article, submit to the Agency a report on the verification of the fulfilment of the conditions.

The Director of the Agency shall, within ten days from the receipt of the minutes of the educational inspector referred to in paragraph 8 of this Article, decide on the request for the issue of approval.

The decision referred to in paragraph 9 of this Article is final in administrative procedure.

The approval is issued for five years.

Another organization also submits a request for a change in the approval when it makes a status change, changes the seat or facility or introduces a new adult education activity.

Withdrawal of approval

Article 43

Another organization is revoked the approval if:

1) it ceases to meet the conditions for issuing approvals or if it performs adult education activities contrary to this Law and the law governing adult education, based on the minutes of the education inspector;

2) during the performance of activities, commits a misdemeanour or criminal offence in connection with the performance of adult education activities;

3) it is determined in the procedure of external quality control that it does not fulfil the obligations regarding quality.

The decision to revoke the approval of another organization such as PROAE is made by the Director of the Agency.

The decision referred to in paragraph 2 of this Article is final.

The PROAE whose authorization has been revoked for the reasons specified in paragraph 1 of this Article may, only after the expiration of two years from the date of revocation of the operating authorization, re-initiate the procedure for issue of the authorization in order to obtain PROAE status.

IX SUPERVISION

Article 44

Supervision over the application of this Law is performed by the ministry in charge of education, in accordance with the law.

X TRANSITIONAL AND FINAL PROVISIONS

Deadline for adoption of bylaws

Article 45

The by-laws for the implementation of this Law shall be adopted within one year from the entry into force of this Law.

Deadline for establishment of the Council

Article 46

The Government shall appoint the members of the Council within three months from the date of entry into force of this Law.

Pending commencement of the Agency operation, the Ministry will perform administrative and technical tasks for the Council.

Deadline for establishing the Agency

Article 47

The Government shall issue an act establishing the Agency within nine months from the entry into force of this Law.

As of the date of the commencement of work, the Agency takes over from the Ministry of Education, Science and Technological Development the employees in the ENIC / NARIC centre, funds for salaries, allowances and other incomes of these employees, as well as the rights, obligations, items, equipment, funds and archives for the performance of the activities stipulated by this Law.

As of the date of the commencement of work, the Agency takes over from the Institute for the Improvement of Education the employees from the Centre for Vocational and Adult Education who perform the preparation of qualification standards for educational profiles in vocational education, funds for salaries, allowances and other incomes of those employees, as well as the rights, obligations, items, equipment, means of work and archives for performing the tasks determined by this Law.

Harmonization of Operation

Article 48

Competent institutions, organizations and bodies are obliged to harmonize the work and organization with this law within one year from the date this law enters into force.

Equivalence of existing qualifications

Article 49

The degrees, i.e. degrees of education, professional, academic and scientific titles acquired according to the regulations that were valid until the entry into force of this Law, are equivalent to the NQF levels determined by this Law, as follows:

- 1) primary education, equivalent to level 1 NQF;
- 2) vocational training lasting one year which until the entry into force of this Law corresponded to the first level of education and two-year work-based education, which until the entry into force of this Law corresponded to the second level of education, is equivalent to level 2 of the NQF;
- 3) three-year secondary education, which until the entry into force of this law corresponded to the third level of education, is equivalent to level 3 of the NQF;
- 4) four-year secondary education, which until the entry into force of this Law corresponded to the fourth level of education, is equivalent to level 4 of the NQF;

5) education acquired in a school for talented students which, until the entry into force of this Law, corresponded to the fourth level of education, is equivalent to level 4 of the NQF;

6) training for specialization, which until the entry into force of this Law corresponded to the fifth level of education, is equivalent to level 5 of the NQF;

7) professional title acquired upon completion:

(1) study at a higher school, lasting up to three years, which until the entry into force of this law in terms of rights arising from it was equated with the professional title of the first degree of vocational studies, is equivalent to level 6.1 of the NQF,

(2) part of the syllabus of undergraduate (basic) studies at the faculty, the completion of which leads to the first degree of higher education, and which until the entry into force of this Law in terms of the rights arising from it was equated with the professional title of undergraduate academic studies of at least 180 ECTS points, is equivalent to level 6.1 of the NQF;

(3) undergraduate studies at the faculty, lasting three years, which until the entry into force of this Law in terms of the rights arising from it was equated with the professional title of undergraduate academic studies of at least 180 ECTS points, is equivalent to level 6.1 of the NQF,

(4) specialist vocational studies of the second degree in accordance with the Law on Higher Education, "Official Gazette of the Republic of Serbia", No. 76/05, 100/07 - authentic interpretation, 97/08, 44/10, 93 / 12, 89/13, 99/14, 45/15 - authentic interpretation, 68/15, 87/16 and 88/17 - other law), is equivalent to level 7.1 of the NQF,

(5) undergraduate (basic) studies at the faculty lasting from four to six years, which until the entry into force of this law in terms of the rights arising from it was equated with the academic title of master, or graduate master, is equivalent to level 7.1 of the NQF;

8) the academic title acquired upon completion of specialist studies at the faculty, which until the entry into force of this Law in terms of the rights arising from it was equated with the academic title of specialist of second degree of academic studies, is equivalent to level 7.2 of the NQF;

9) the master's thesis, which until the entry into force of this Law in terms of the rights arising from it was equated with the scientific title of Master of Science, is equivalent to level 7.2;

10) the scientific degree of Doctor of Science acquired by completion of doctoral studies, i.e. the defence of a doctoral dissertation, which until the entry into force of this Law in terms of the rights arising from it was equated with the scientific title of Doctor of Science, is equivalent to level 8.

Proposal of qualification standards pending establishment of the sector council

Article 50

Pending establishment of sector councils in accordance with this Law, the decision on drafting the qualification standard is made by the Agency on the proposal of a special commission that is formed for each individual initiative for the adoption of qualification standards.

The Agency shall appoint the commission referred to in paragraph 1 of this Article in accordance with the provisions of Article 21 of this Law, within 30 days from the day of delivery of the recommendation referred to in Article 26, paragraph 4.

Pending adoption of occupational standards in accordance with the regulations governing employment, the connection of qualification standards with the labour market is based on data on occupations determined on the basis of regulations in the field of labour and employment until the entry into force of this Law.

Initiated proceedings

Article 51

Until the beginning of the work of the ENIC / NARIC center in accordance with this Law, the procedure of professional recognition will be performed in accordance with the provisions of the law governing higher education.

Procedures for professional recognition of a foreign higher education document, i.e. for evaluation of a foreign study programme for employment that have started before the beginning of the work of the ENIC / NARIC centre in accordance with this Law shall be completed in accordance with these regulations.

Proceedings for the issuance of approval for the acquisition of PROAE status in accordance with the regulations in force until the date of entry into force of this Law shall be completed in accordance with these regulations.

Until the beginning of the work of the Agency in accordance with this law, the procedure for issuing approvals for acquiring the status of PROAE will be performed in accordance with the Law on Adult Education ("Official Gazette of the Republic of Serbia", no. 55/13 and 88/17 - other law).

Until the beginning of the work of the ENIC / NARIC centre in accordance with this law, the procedure of recognition of foreign school documents will be performed in accordance with the provisions of the law governing primary education and the law governing secondary education.

Procedures for the recognition of foreign school documents that have begun before the entry into force of this law shall be terminated in accordance with these regulations.

Establishment of the Register

Article 52

Until the establishment of the Register, the Ministry will maintain an electronic database of qualifications.

Upon the establishment of the Register, the Agency shall take over the database referred to in paragraph 1 of this Article and keep it through the sub-register of national qualifications.

Discontinuation of other regulations

Article 53

As of the date of the start of the Agency operation in accordance with this Law shall cease to be valid:

1) the provisions of Articles 17-19, 24-27, 42 and 65 of the Law on Adult Education ("Official Gazette of the Republic of Serbia", No. 55/13 and 88/17 - other law), in the part related to the procedure for the issuance of approval to another organization that performs activities and has its headquarters in the territory of the Autonomous Province;

2) the provision of Article 41, paragraph 1, item 3) of the Law on the Fundamentals of the Education System ("Official Gazette of the Republic of Serbia", No. 88/17).

A bylaw enacted pursuant to Article 17 of the Law on Adult Education shall apply until a bylaw is enacted in accordance with this Law.

As of the date of the ENIC / NARIC centre start of operation in accordance with this Law, the following shall cease to be valid:

1) the provisions of Article 130, paragraph 1 in the part relating to the recognition of a foreign higher education document for employment, Article 131, paragraph 3 in the part that the ENIC / NARIC centre is an organizational unit of the Ministry, Article 131, paragraph 4 and Article 133 of the Law on Higher Education ("Official Gazette of the Republic of Serbia", No. 88/17);

2) the provisions of Articles 86-89 of the Law on Secondary Education ("Official Gazette of the Republic of Serbia", No. 55/13 and 101/17);

3) the provisions of Articles 96-99 of the Law on Primary Education ("Official Gazette of the Republic of Serbia", No. 55/13 and 101/17).

Entry into Force

Article 54

This Law shall enter into force eight days after the date of its publication in the "Official Gazette of the Republic of Serbia".

ATTACHMENT 1

Qualification level descriptors

LEVEL	KNOWLEDGE	SKILLS	ABILITIES AND ATTITUDES
	A person with an acquired level of qualification:		
1.	Has basic general knowledge that enables further learning	Applies the skills needed to perform simple predictable tasks	Performs tasks or learns according to simple oral and written instructions, with direct supervision
2.	Has general and professional knowledge of the facts and basic principles necessary for work and / or learning	Applies the skills needed to perform less complex, predetermined operational tasks	Performs tasks in accordance with established technical-technological procedures, with occasional supervision
3.	Has general and professional knowledge of the facts, basic principles and processes required for work and / or learning	Applies the skills needed to perform medium-complex, diverse, occasionally non-standard operational tasks; Collects and selects relevant information; It handles specialized equipment, machines and plants using different materials	Performs tasks independently in accordance with technical and technological procedures, organizes its own work and / or the work of others; is responsible for the application of the procedures and means of his own work; is enterprising in his work

LEVEL	KNOWLEDGE	SKILLS	ABILITIES AND ATTITUDES
4.	Has systematized and comprehensive knowledge needed for work and / or learning	Applies the skills needed to perform complex, diverse, often non-standard jobs using a variety of methods and techniques; makes critical selections of relevant information gathered from a variety of sources for use in work or learning; handles various equipment, machines and plants using different materials	Performs work independently with occasional consultations; Organizes and controls its own work and / or the work of a small group; detects problems and participates in their solution; is responsible for the choice of procedures and means for his own work and / or the work of others
5.	Has specialized professional knowledge needed for work	Applies the skills needed to perform complex, specific and mostly non-standard tasks that require participation in creating new solutions; handles specialized equipment, machines and plants using different materials	Performs tasks with great independence in decision-making; performs organizing, controlling and evaluating one's own work and / or the work of others, as well as training others for work; takes responsibility for determining one's own way and method of work, as well as for the operational work of others; demonstrates entrepreneurship to improve work processes and solve problems in the unpredictable situations
6.1	Possess advanced academic and / or professional knowledge related to theories, principles and processes including evaluation, critical understanding and application in the field of learning and / or work	Solves complex problems in the field of learning and / or working in standard conditions; applies the skills of successful communication in interaction and cooperation with others from different social groups; uses equipment, instruments and devices relevant to the field of learning and / or work	Is enterprising in solving problems in standard conditions; manages complex projects independently and with full responsibility; applies the ethical standards of his profession; organizes, controls and trains others to work; analyses and evaluates various concepts, models and principles of theory and practice; shows a positive attitude towards the importance of lifelong learning in personal and professional development

LEVEL	KNOWLEDGE	SKILLS	ABILITIES AND ATTITUDES
6.2	Possess advanced academic and / or professional knowledge related to theories, principles and processes including evaluation, critical understanding and application in the field of learning and / or work	Solves complex problems in the field of learning and / or working in non-standard conditions; applies the skills of successful communication in interaction and cooperation with others from different social groups; Uses equipment, instruments and devices relevant to the field of learning and / or work	Is enterprising in solving problems in non-standard conditions; leads complex projects independently and with full responsibility; applies the ethical standards of his profession; organizes, controls, and trains others to work; analyses and evaluates various concepts, models and principles of theory and practice by improving existing practice; shows a positive attitude towards the importance of lifelong learning in personal and professional development
7.1	Possesses highly specialized academic and / or professional knowledge related to theories and principles, processes including evaluation, critical understanding and application in the field of learning and / or work	Solves complex problems in an innovative way that contributes to the development of learning and / or work; manages and leads complex communication, interaction and cooperation with others from different social groups; applies complex methods, instruments and devices relevant to the field of learning and / or work	Acts entrepreneurially and takes over managerial jobs; He manages the most complex projects independently and with full responsibility; Plans and implements scientific and / or applied research; Controls the work and evaluates the results of others in order to improve the existing practice
7.2	Possesses narrowly specialized academic knowledge related to theories and principles, processes including evaluation, critical understanding and application in the field of learning and / or work	Solves complex problems in an innovative way that contributes to development in the field of work; manages and leads complex communication, interaction and cooperation with others from different social groups; applies complex methods, instruments and devices relevant to the field of learning and / or work	Acts entrepreneurially and takes over managerial jobs; manages the most complex projects independently and with full responsibility; Controls the work and evaluates the results of others in order to improve the existing practice

LEVEL	KNOWLEDGE	SKILLS	ABILITIES AND ATTITUDES
8.	Possesses top theoretical and practical knowledge required for critical analysis and original research in fundamental and applied fields of science with the purpose of expanding and redefining existing knowledge, science or field of work	Applies advanced and specialized skills and techniques needed to solve key research problems and to expand and redefine existing knowledge or areas of work; Applies communication skills to explain and critique theories, methodologies and conclusions, as well as present research results in relation to international standards and the scientific community; Develops new tools, instruments and devices relevant to the field of science and work	Independently evaluates contemporary results and achievements in order to improve the existing and create new models, concepts, ideas and theories; demonstrates innovation, scientific and professional integrity and commitment to the development of new ideas and / or processes that are at the heart of the context of work or science, through the principle of self-evaluation of his work and achievements; designs, analyses and implements research that makes a significant and original contribution to general knowledge and / or professional practice; manages interdisciplinary and multidisciplinary projects; is able to independently initiate national and international cooperation in science and development

Annex 13 – Qualification Standard for Education Profile Aircraft technician

QUALIFICATION STANDARD FOR EDUCATION PROFILE AIRCRAFT TECHNICIAN

1. Qualification name	Aircraft technician
2. Sector - area of work	Mechanical engineering and metal processing
3. Qualification level	IV
4. Purpose of the qualification	Aircraft maintenance.
5. Manner of acquiring qualification:	The qualification is acquired after successfully completing the process of secondary vocational education
6. Duration:	The programme of secondary vocational education for acquiring a qualification lasts four years.
7. Method of verification:	The achievement of the outcome of the secondary vocational education programme is checked at the Matura exam conducted by the secondary school.
8. Basis of qualification	The qualification is based on the job description, the objectives of the vocational education and the outcomes of the vocational education. The rights of obligations and duties of Aviation Technicians are defined by the regulations / Rulebook of the European Commission "Regulations on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organizations and personnel involved in these tasks" i.e. Rulebook on ensuring continuous airworthiness aircraft and other aeronautical products, parts and appliances and on the approval of aeronautical technical organizations and personnel engaged in these activities.

8.1. Work description

Duties - professional competencies

- Carrying out inspections of correctness and elimination of malfunctions of aircraft elements, components and systems;
- Performing inspection and troubleshooting of engine elements, components and systems;
- Reading, writing and communicating in the language in which the technical documentation and procedures necessary for issuing the certificate of readiness for use of the aircraft are written;
- Application of the human factor and human performance issues.
- Application of the human factor and human performance issues.

Duties – professional competences	Tasks – units od competencies
<p>Inspection of malfunctions and elimination of malfunctions of aircraft elements, components and systems.</p>	<ul style="list-style-type: none"> - inspection of aircraft elements, components and systems; - failure analysis of aircraft elements, components and systems; - troubleshooting of aircraft elements, components and systems; - assembly and disassembly of aircraft elements and components and systems; - adjusting the elements and components of the aircraft system.
<p>Inspection of good order and elimination of malfunctions of engine elements, components and systems.</p>	<ul style="list-style-type: none"> - inspection of the good order of engine elements, components and systems; - failure analysis of engine elements, components and systems; - troubleshooting of engine elements, components and systems; - assembly and disassembly of engine elements and components and systems; - adjustment of engine elements and components; drive group installation; - engine storage and protection; monitoring engine operating parameters and ground operation
<p>Reading, writing and communicating in the language in which the technical documentation and procedures necessary for issuing the certificate of readiness for use of the aircraft are written</p>	<ul style="list-style-type: none"> - understanding of aircraft technical documentation in English; - filling-in the technical documentation of the aircraft in English; - selection and use of the manufacturer's parts catalogue; - understanding of the organizational procedures (written in English) required in cases of issuance of aircraft return certificates; - professional communication with colleagues in English understanding of aircraft technical documentation in English.
<p>Application of the human factor and human performance issues.</p>	<ul style="list-style-type: none"> - respect for human capabilities and limitations; - avoiding hazards in the workplace; - error management; - application of prescribed protection measures; - taking care of interpersonal relationships; - application of applicable standards and regulations used in aircraft maintenance.

8.1.1. Extreme conditions under which duties are performed:

- noise that prevents normal communication;
- poor lighting (lack of daylight, artificial lighting);
- strong vibrations;
- work in a confined space;
- work at extreme temperatures;
- work in shifts;
- work with hazardous substances

8.1.2. Exposure to risks in the performance of duties:

- risk of mechanical injury;
- risk of chemical injury;
- risk of various occupational diseases;
- risk of exposure to causes of stress.

8.2. Objectives of vocation education:

The goal of professional education for the qualification AIRCRAFT TECHNICIAN is to train persons for aircraft maintenance. The need for constant adaptation to the changing demands of the labour market, the need for continuing education, professional development, career development, improving employability, directs people to be trained for:

- application of theoretical knowledge in a practical context;
- application of safety and health measures in the work process;
- application of environmental protection measures in the work process;
- teamwork;
- the use of information technology in the collection, organization and use of information in work and everyday life;
- taking responsibility for one's own continuous learning and advancement in work and career;
- recognizing business opportunities in the work environment and the wider social environment.

8.3. Upon completion of the education programme, the person will be able to:

Professional competencies	Knowledge	Skills	Abilities and attitudes
Upon completion of the education programme the person will be able to: carry out inspections of correctness and elimination of malfunctions of aircraft elements, components and systems.	<ul style="list-style-type: none"> - distinguish aircraft systems; - distinguishes the elements, components and structure of the aircraft; - explain the principle of operation of the aircraft system; - explain the functioning and role of aircraft elements, components and structures; - distinguish the characteristics and properties of the materials used on the aircraft. 	<ul style="list-style-type: none"> - use the tools necessary to carry out aircraft maintenance; - check the components of the aircraft system; - determine the failure and type of failure of aircraft systems; - troubleshoot the aircraft (listed in PART - 145); - maintain and adjust the elements of the aircraft system; - maintain the technical documentation of the aircraft. 	<ul style="list-style-type: none"> - conscientiously, responsibly and orderly perform the tasks entrusted to him; - have a positive attitude towards the application of protective measures in the workplace; - show kindness, communication, entrepreneurship, unobtrusiveness and flexibility in relation to clients and associates; - show a positive attitude towards the importance of functional and technical correctness of equipment and means of work; - organize time efficiently; - show a positive attitude towards professional-ethical norms and values.
perform inspection and troubleshooting of engine elements, components and systems	<ul style="list-style-type: none"> - explain the principle of engine operation; - distinguish engine systems; - distinguish the elements, components and structure of the engine; - explain the principle of operation of the engine system; - distinguish the characteristics and properties of the materials used in the engine. 	<ul style="list-style-type: none"> - use tools necessary to perform engine maintenance; - check the components of the turbojet engine system; - determine the fault and type of fault on the engine systems; - troubleshoot the engine (listed in PART - 145); - maintain and adjust the elements of the engine system; - maintain the technical documentation of the engine. 	<ul style="list-style-type: none"> -
Read, write and communicate in the language in which the technical documentation and procedures necessary for the issuance of the aircraft readiness certificate are written.	<ul style="list-style-type: none"> - read documentation in English; - fill-in the documentation in English; - communicate in English. 	<ul style="list-style-type: none"> - select and use catalogues of manufacturer's parts; - apply the organizational procedures (written in English) required in cases of issuance of a certificate of return of aircraft to traffic; - professionally communicate with colleagues in English. 	<ul style="list-style-type: none"> -

<p>Application of human factors and human performance issues</p>	<ul style="list-style-type: none"> - understand the importance of studying the human factor; - know the dangers of their workplace; - explain the physiological characteristics of man; - explain the psychological characteristics of man; - know how to manage errors; - distinguish between applicable standards and regulations applicable to aircraft maintenance. 	<ul style="list-style-type: none"> - apply safety measures at work. 	
--	---	--	--

Annex 14 – Curriculum for the educational profile of aircraft technician

Curriculum for the educational profile of aircraft technician

	GRADE I						GRADE II						GRADE III						GRADE IV						TOTAL								
	weekly			annually			weekly			annually			weekly			annually			weekly			annually			annually								
	T	E	PI	T	E	PI	T	E	PI	T	E	PI	T	E	PI	T	E	PI	T	E	PI	T	E	PI	T	E	PI	Σ					
A: MANDATORY GENERAL EDUCATION SUBJECTS																																	
1.	3			105			3			350	70	0	0	10	2	0	350	70	0	0	11	2	0	341	62	0	0	1426	272	0	0	1698	
Serbian language and literature																																	
1.1	3*			105*			3			105*			3			105*				3*			93*				408*			408*			
Language and literature*																																	
1.2	2*			70*			2*			70*			2*			70*				2*			62*				272*			272*			
Serbian as non-mother tongue*																																	
2.	2			70			2			70			2			70				2			62				272			272			
English																																	
3.																																	
Physical education																																	
4.	4			140			5			175			5			175				4			124				614			614			
Mathematics																																	
5.	2			70																						70			70				
History																																	
6.																																	
Sociology and civil rights																																	
B: ELECTIVE SUBJECTS																																	
3.				105			3			105			3			105				3			93				408			408			
Civic education / Religion																																	
1.	1			35			1			35			1			35				1			31				136			136			
Elective subjects according to education profile curriculum**																																	
2.**	2**			70**			2**			70**			2**			70**				2**			62**				272**			272**			
Total: A1+B																																	
12	2	0		420	70	0	0	11	2	0	385	70	0	0	11	2	0	385	70	0	0	12	2	0	372	62	0	0	1562	272	0	0	1834
(16**)																																	
(490**)																																	
(15**)																																	
(455**)																																	
(15**)																																	
(434**)																																	
(1834**)																																	
(2106**)																																	
Total:																																	
14	(16**)			490	(560**)			13	(15**)	455	(525**)			13	(15**)	455	(525**)			14	(16**)	434	(496**)				1834	(2106**)					

Note: * for students who attend classes in the mother tongue of a national minority..

** The student chooses a subject from the list of elective general education or vocational subjects

	GRADE I						GRADE II						GRADE III						GRADE IV						TOTAL							
	weekly			annually			weekly			annually			weekly			annually			weekly			annually			weekly			annually				
	T	E	PI	T	E	PI	T	E	PI	T	E	PI	T	E	PI	T	E	PI	T	E	PI	T	E	PI	T	E	PI	T	E	PI		
A2: MANDATORY VOCATIONAL SUBJECTS	6	7	3	210	245	105	70	6	9	2	210	315	70	70	4	7	6	140	245	210	70	5	6	5	155	186	155	105	715	991	175	
	2			70																								70			70	
	2			70																								70			70	
	1			35																								35			35	
	2			70				2			70				2								2						272		272	
	2			70																								70			70	
	3			105																								105			105	
	7							2			70																	70			70	

Note: * for students who attend classes in the mother tongue of a national minority.
 ** The student chooses a subject from the list of elective general education or vocational subjects

T - theory, E - exercises, PI – practical instruction, WBL – work-based learning, WBL/B – work-based learning in block

Gantt chart of professional subjects by grades for the educational profile Aircraft technician

I GRADE	Subjects / Teaching weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	T	E	P I	WBL	WBL	Σ																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1																								B																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
	Tools and measurements	E	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				

Subjects / Teaching weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	T	E	P1	WBL	WBL	Σ					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	T	E	P1	WBL	WBL	Σ					
Fundamentals of Thermodynamics	T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1																															
	E	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1																														
	P1																																															
	WBL																																															
	WBL/B																																															
Fundamentals of Hydraulics	T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1																														
	E	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1																													
	P1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1																														
	WBL																																															
	WBL/B																																															
Aircraft Construction	T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	E	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	P1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
	WBL																																															
	WBL/B																																															
Aircraft Electric Equipment	T																																															
	E																																															
	P1																																															
	WBL																																															
	WBL/B																																															
Piston Engines and Propellers	T																																															
	E																																															
	P1																																															
	WBL																																															
	WBL/B																																															
Σ	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	35	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	35	105	70				350					

[illegible][illegible]

B: List of Elective Subjects According to Education Profile

	List of Elective Subjects	GRADE			
		I	II	III	IV
Vocational Subjects					
1.	Chemistry	2			
2.	Mechanics	2			
3.	Technical Mechanics with Mechanisms		2		
4.	Air Traffic		2		
5.	Entrepreneurship			2	
6.	Composite Materials			2	
7.	Non-destructive Testing of Materials				2
8.	Air traffic safety				2

Other obligatory forms of educational work during school year

	GRADE I classes	GRADE II classes	GRADE III classes	GRADE IV classes	TOTAL classes
Class teacher's class	70	70	70	64	274
Additional work *	up to 30	up to 30	up to 30	up to 30	up to 120
Supplemental work *	up to 30	up to 30	up to 30	up to 30	up to 120
Preparation work *	up to 30	up to 30	up to 30	up to 30	up to 120

*If need arises for this form of work

Optional forms of educational work during the school year by grades

	GRADE I	GRADE II	GRADE III	up to
Excursion	up to 3 days	up to 5 days	up to 5 instruction days	up to 5 instruction days
The language of another nation or national minority with elements of national culture	2 classes per week			
Third foreign language	2 classes per week			
Other subjects *	1–2 classes per week			
Creative and free activities of students (choir, hobby group, and more)	30–60 classes per annum			
Social activities - student parliament, student cooperatives	15–30 classes per annum			
Cultural and public activities of the school	2 working days			

* In addition to the listed subjects, the school may organize, in accordance with the students' preferences, optional classes in subjects determined by the curriculum of other educational profiles of the same or another field of work, as well as in the curricula of the gymnasium, or according to previously adopted programme s.

Realization of the curriculum by weeks

	GRADE I	GRADE II	GRADE III	GRADE IV
Hours of class teaching	35	35	35	32
Mentoring work (block of practical classes)	2	2	2	2
Compulsory extracurricular activities	2	2	2	2
Graduation (Matura) exam				3
Total working weeks	39	39	39	39

Division of classes into groups

The envisaged number of students in the class is 24.

Teaching in the following subjects takes place in groups through: exercises (E), practical instruction (PI), work-based learning (WBL), work-based learning in a block (WBL/B):

Grade	Subject	Annual number of classes				Number of students in a group	** An assistant teacher is needed
			Practical instruction	Work-based learning	Work-based learning in a block		
I	Professional English	70				12	
	Technical drawing and machine elements	70				12	
	Computer Science and Mathematics	105				12	
	Tools and Measurements		51		35	8	yes
	Aircraft Elements		54		35	8	yes
II	Professional English	70				12	
	Fundamentals of Electrical Engineering and Electronics	70				12	
	Computers	70				12	
	Aircraft Construction	35	70		35	8	yes
	Fundamentals of Thermodynamics	17				12	yes
	Aircraft Electric Equipment	18				12	yes
	Fundamentals of Hydraulics	17				12	yes
	Piston Engines and Propellers	18			35	8	yes

III	Professional English	70				12	
	Application of Computers in Aircraft Maintenance	70				12	
	Avionics	35				8	yes
	Aircraft Structure	17		51		8	
	Aircraft Hydro-Pneumatic Systems	18		54		8	
	Construction of Turbojet Engines	17		51	35	8	
	Turbojet Engine Systems	18		54	35	8	
IV	Professional English	62				12	
	Application of Computers in Aircraft Maintenance	62				12	
	Aircraft Systems	31		93	70	8	
	Helicopter Aerodynamics and Structure	16		32	35	8	
	Helicopter Systems	15		30		8	

** Classes of exercises, practical classes, and practical classes in the block are realized by the subject teacher, and **the assistant teacher performs the tasks of preparation for conducting classes of exercises, practical classes**. Under the direct guidance of the teacher, he demonstrates the work task, **provides assistance in working with students in classes of exercises**, practical classes, practical classes in the block (in the office, specialized classroom, school workshop) to perform certain tasks and tasks.

Plans and requires the necessary materials and resources for class work. Performs work tasks for which students are not competent.

The place of realization of classes, exercise programmes, practical classes, work-based learning, work-based learning in the block is defined in the part of the *Curricula* entitled "Recommended activities and how to implement the module".

MASTER PLAN

Implementation of Dual Education Law in Serbia

Belgrade
May 2019

The production of this publication was supported by the Government of Switzerland.
The publication does not necessarily represent the official standpoints of the Swiss Government.

List of abbreviations

ANQ	Agency for National Qualification
CCIS	Chamber of Commerce and Industry of Serbia
CGC	Career Guidance and Counselling Team
CNQF	Council for National Qualification Framework
Commission Art. 40	Commission for the Development and Implementation of Dual Education
CVC	Curriculum Value Chain
CVAE	Council for Vocational and Adult Education
GIZ	German Agency for Development and Cooperation, Deutsche Gesellschaft für Internationale Zusammenarbeit
GRS	Government of the Republic of Serbia
KOF	Swiss Economic Institute
LFS	Labour Force Survey
EU IPA	European Union Instrument for Pre-Accession Assistance
IIE	Institute for the Improvement of Education
IEQE	Institute for Education Quality and Evaluation
LDE	Law on Dual Education
LFES	Law on Foundations of Education System
LSG	Local Self-Government
LNQF	Law on National Qualification Framework in Serbia
MESTD	Ministry of Education, Science and Technological Development
NEC	National Education Council
NES	National Employment Service
NQF	National Qualification Framework
SCTM	Standing Conference of Towns and Municipalities
SDC	Swiss Agency for Development and Cooperation
SORS	Statistical Office of the Republic of Serbia
VET	Vocational Education and Training

1. MASTER PLAN CONTENT

1.1. Law on Dual Education – Fundamental and Main Conceptions

The Strategy for Development of Education in Serbia by 2020, adopted in 2012 (“Official Gazette of the Republic of Serbia”, No. 107/2012) and the Action Plan for the Implementation of the Strategy for Education Development in Serbia by 2020 (“Official Gazette of the Republic of Serbia”, No. 16/15) are still valid. This Strategy cites the main principles of the quality education system, including VET, in the Republic of Serbia, and calls for the provision of high-quality education for all, an increase of students’ coverage and attainment at all levels of education by maintaining the relevance of education and increasing efficiency.

The development of education that will meet the needs of the labour market to the maximum extent and the development of the National Model of Dual Education were priority goals of the Government of the Republic of Serbia for the last few years. Accordingly, the Law on Dual Education (LDE) was developed and adopted in November 2017 (“Official Gazette of the Republic of Serbia”, No. 101/17).

According to this Law, **dual education is a model of realization of teaching and learning in the system of secondary vocational education**, in which through theoretical and school teaching and work-based learning with the employer, students acquire knowledge, skills, capabilities and stand-points (i.e. competencies) in conformity with the standard of qualification and the curriculum.

Purpose of adoption of the Law on Dual Education is:

- improvement of secondary vocational education that will be adapted to the needs of the economy;
- increasing the scope and quality of practical teaching;
- ensuring the quality of the practical part of teaching through the contractually defined rights and obligations of pupils, schools, and employers;
- developing curricula that are in line with the current and future needs of the economy;
- a systematic, rational and gradual approach to the introduction and development of dual education with a comprehensive understanding of the process, from beginning to end of education;

- creation of a system in which the qualification acquired at the end of dual education is indeed an expression of the acquired competencies, thus increasing the employability of the youth;
- companies investing in education, i.e. in its future workers, that will, in the long run, solve the problem of the lack of certain quality personnel;
- reduction of the resources allocated by the Ministry of Education, Science and Technological Development for vocational education, primarily for equipping school classrooms, work shops for the realization of a practical part of teaching;
- increasing the chances that students will get employed in one of the companies where work-based learning was taking place,
- the development of entrepreneurship among young people and the incentive to start their own business, as well as continuing education in vocational studies and at higher education institutions.

The Law on Dual Education itself also defines goals of dual education (Article 4).

Furthermore, the Law regulates the content and manner for achieving dual education, mutual rights and obligations of pupils, parents, schools and employers, in-kind and financial support to students, and other issues of importance for dual education.

The Law also defines, *inter alia*, the conditions for licensing companies that conduct work- based learning and regulates participation of different actors in defining the standards of qualifications.

1.2. Institutions, organisations and bodies involved in implementing the Law on Dual Education

1.2.1. Core institutions, organisations and bodies

1. Ministry of Education, Science and Technological Development

The Ministry of Education, Science and Technological Development (MESTD) is in charge of: research, planning and development of pre-school education, primary, secondary and higher education and the living standards of learners; inspection in pre-school, primary, secondary and higher education; participation in the development, equipping and maintenance of facilities; practical implementation and other issues. Further, the duties

of MESTD include professional evaluation and inspection of skills upgrade of staff at education establishments; recognition and equivalence of school certificate and diplomas acquired abroad; improvement of social care for talented pupils and students in need of special support in education; and other duties provided for by the Law.

Department for Secondary Education in MESTD is responsible for: vocational education, general and art secondary education, adult education, regulations in secondary education and administrative issues, while the **Department for dual and entrepreneurial education deals with dual education**, entrepreneurship, carer guidance and counselling, and financial literacy at all the levels of education.

School Administrations (as regional MESTD units) are in cooperation with the competent authorities of the autonomous province in charge of, *inter alia*, development of a municipal or city proposal for the enrolment plan for secondary school students.

The Law on Dual Education - Article 4

Dual education shall aim to:

- provide the conditions for acquiring, upgrading and developing one's competences in accordance with the labour market needs;
- contribute to enhancing the competitiveness of the Serbian economy;
- ensure the conditions for employment upon completion of education;
- provide the conditions for further education and lifelong learning;
- develop entrepreneurship, innovativeness, creativity, professional and career advancement of each and every individual;
- provide the conditions for personal, economic and overall social development;
- develop ability for teamwork and a sense of personal accountability at work;
- raise awareness of the significance of health and safety, including occupational health and safety;
- develop the ability of self-evaluation and expression of one's opinion, as well as of independent decision-making;
- respect for mutual rights and obligations of students and employers.

2. Chamber of Commerce and Industry of Serbia

The Chamber of Commerce and Industry of Serbia (CCIS), along with MESTD, has a leading role in the implementation of dual education as a key centre of cooperation between the education and employment sector. A number of assignments are delegated by LDE to the CCIS. Among others, its responsibilities are in the area of employers' accreditation for work-based learning, instructors' training and licensing, managing registries of employers and dual education contracts (contracts that are signed between schools and companies). Representatives of CCIS are, also, members of the Sector Councils and the National Qualifications Framework Council in accordance with the Law on the National Qualifications Framework in Serbia.

3. Commission for the Development and Implementation of Dual Education

The LDE envisages in Article 40 formation of the Commission for the Development and Implementation of Dual Education (Commission) with the aim to implement and improve dual education and evaluate results achieved in a three- year period. Based on this Article and the Law on Government (Article 43, paragraph 1), the Government of the Republic of Serbia decided to set up the Commission (on January 18th 2018). The Commission has its own Rules of Procedure regulating its work, manner of decision-making and the types of official documents it adopts. Mandatory acts are Annual Work Plan and Annual Report. Annual report is submitted to the Government of the Republic of Serbia.

Members of the Commission for the Development and Improvement of Dual Education are:

Ms Gabrijela Grujić, Assistant Minister, MESTD, president of the Commission

Ms Mirjana Kovačević, Head of Education Department, CCIS, Vice-President of the Commission ;

Mr Vukašin Grozdić, Cabinet of the Prime Minister

Mr Aleksandar Marković, MESTD, Head of Legal Department

Ms Stanka Pejanović, Gorenje, CEO

Mr Dragan Tucaković, Technical school, Užice, school principal

Mr Goran Cvijović, Aviation Academy, school principal

Mr Nikola Matković, Chemical-Technological School, Subotica, School principal

Ms Slađana Grujić, Standing Conference of Towns and Municipalities

Ms Ursula Renold, KOF Swiss Economic Institute – expert support

Administrative and technical support for the work of the Commission will be carried out by the Centre for Education Policy (CEP), an implementation partner in the project ‘Support in Development and Establishment of National Model of Dual Education’.

1.2.2. Other institutions, organisations and bodies

1. Council for Secondary Vocational and Adult Education

The work of the Council for Vocational and Adult Education (CVAE) work is regulated by the Law on Foundations of Education System (LFES) (“Official Gazette of the Republic of Serbia”, Nos. 55/2013, 88/2017 and 27/2018). The Council is established by the Government of the Republic of Serbia. It is responsible for development and improvement of vocational and adult education, including dual education.

Tasks of the Commission

- Coordination of activities in the implementation of dual education based on the requirements of the labour market at the national level;
- Supervision of the quality of realization of secondary vocational education, which is realized according to the model of dual education, with the aim of evaluation of the achieved results in a three-year timeframe;
- Coordination of the activities of domestic and international projects aimed at developing and improving dual and entrepreneurial education;
- Submitting annual reports to the Government (in the first quarter of the current year for the previous reporting period), which will contain data on opportunities and challenges in the process of implementation of the Law on Dual Education and the opinions of all relevant participants in the implementation of dual education.

CVAE is composed of 17 members, including representatives of CCIS and other employers’ association, VET experts, labour, employment and social policy institutions, VET schools and members of representative trade unions. CVAE is an advisory body with no decision-making authority. It focuses on giving opinions and submitting proposals.

CVAE also monitors and analyses the state of education in the terms of complementarity with the needs of the labour market and suggests measures

for its promotion; participates in the preparation of strategies in the field of VET and adult education; follow, encourage and direct activities that link education and employment.

CVAE gives an opinion on:

- Standards of achievement for secondary VET;
- Additional standards for the quality of work of vocational schools and schools for adult education;
- VET and adult education curricula
- Programmes of: specialist exam, the final exam for education for work, examination of professional training, examination for training and models of recognition and validation of prior learning in accordance to legislation;
- Qualifications' standards;
- Proposal related to *Matura* and final exam in secondary VET;
- Implementation of system for career guidance and counselling.

CVAE gives proposals on:

- List of educational profiles;
- Different standards in VET and adult education;
- The need for new textbooks;
- Appropriate measures for prevention of dropout and early school leaving
- Draft legislation and network of vocational and adult education.

2. Institute for the Improvement of Education

Institute for the Improvement of Education (IIE) is a professional institution, founded by a Government of the Republic of Serbia with a purpose of monitoring, assuring and improving the quality and development of the education system, through performing developmental, advisory, research and other professional activities. This Institute has three organizational units:

- Centre for programme and textbook development,
- Centre for vocational education and adult education,
- Centre for professional development of employees in education sector.

Also, IIE/Centre for VET and Adult Education was in charge for development of the training programme for company instructors.

Tasks of the Centre for VET and Adult Education

- Preparation of standards for vocational subjects;
- Preparation of parts of curricula for vocational subjects;
- Preparation of programme for the final exam for the profiles that are based on the qualification standards;
- Preparation of standards of quality of the textbooks for VET and adult education;
- Giving professional evaluation of the textbooks in the field of VET and adult education;
- Preparation of parts of the national qualifications' framework;
- Initiates introduction of pilot profiles;
- Preparation of projects, analyses, researches, and other activities related to VET and employment;
- Supporting coordination of social partners.

3. Council for National Qualification Framework

The Council for National Qualification Framework (CNQF) is an advisory body that gives recommendations on the process of planning and development of human potential in accordance with public policies in the field of lifelong learning, employment, career guidance and counselling. The Council is foreseen in the Law on National Qualification Framework (LNQF) (Official Gazette of the Republic of Serbia, No. 27/2018) and it was established on the 28th of August 2018 by the decision of the Government of the Republic of Serbia. The Council has 25 members, representing the range of stakeholders.

Responsibilities of the CNQF:

- Proposes qualification standards for all levels of the NQF;
- Proposes to the Government the establishment of a Sector Council for a specific sector of work or activity;
- Make recommendations on the process of planning and development of human resources in accordance with the strategic documents of the Republic of Serbia;
- Make recommendations on improvements in linking education and labour market needs;
- Give opinion to the minister responsible for education on the recommendations of the sector councils regarding the enrollment policy in secondary schools and higher education institutions;
- Monitor the work of the sector councils and make recommendations for the improvement of work based on regular reports on the work of the sector councils;
- Gives opinion on standards for self-evaluation and external quality assurance of publicly recognized organizers of adult education activities.

4. Agency for National Qualification Framework

Agency for National Qualification Framework (ANQF) is foreseen by LNQF as a professional organisation which deals with quality assurance and provides professional support to the CNQF and other relevant organizations in all aspects of the development and implementation of the NQF.

Out of the number of its important functions ANQF is in charge for initiatives for the introduction of new qualifications; provide expert support to the sector council and prepare a proposal for the standard of qualification; prepare development projects, analysis and research relevant for the development of qualifications; monitor and measure the effects of the implementation of (new) qualifications on employment and lifelong learning.

5. Sector Councils

Sector Councils (SCs) **are expert and advisory bodies that are to be established in accordance with the Law on NQF** and whose main function is to determine the demand for equalisations on the Serbian labour through dialogue and cooperation of representatives of labour and education sectors. Mandatory members of each council are representatives of economy sector – delegated by Chamber of Commerce and Industry of Serbia (CCIS) and

members delegated by CVAE; Conference of the Universities of Serbia/Conference of Vocational Colleges; National Employment Service (NES); ministries responsible for education, labour and employment; Associations of VET schools; trade unions; IIE and other relevant institutions and organizations.

SCs should take care of qualifications acquired through initial vocational education (IVET), continuing vocational training (CVET) and higher education (HE).

Responsibilities of Sector Councils

- analyze existing and determine the necessary qualifications in a particular sector;
- identify the qualifications to be modernized;
- identify qualifications that no longer meet the needs of the sector;
- make a decision on the drafting of standards of qualifications within the sector;
- give an opinion on the expected outcomes of knowledge and skills within the sector;
- promote dialogue and direct cooperation between the world of work and education;
- promote opportunities for education, training and employment within the sector;
- identify opportunities for adult education within the sector
- consider the implications of the national qualifications framework on qualifications within the sector;
- propose lists of qualifications by levels and types that can be acquired by recognizing prior learning.

The Government of the Republic of Serbia has adopted a list of sectors that will cover the existing qualifications and labour market, and there are, currently, defined 12 sector councils awaiting their formation:

1. Education
2. Art
3. Social sciences, journalism and information
4. Business administration and law
5. Natural sciences, mathematics and statistics
6. Information and communication technologies
7. Engineering, production

8. Construction
9. Agriculture, forestry, fishery and veterinary medicine
10. Health and social welfare
11. Services
12. Traffic

LDE also stipulates that the **Ministry of Labour, Employment, Veteran and Social Policy** and will be in charge of the oversight concerning working conditions and occupational safety at the employer.

Although not stipulated in the LDE, few other institutions might have an important role in the implementation process such are the **National Employment Service (NES)**, **Standing conference of towns and municipalities (SCCM)** and **local self-government units**. **Key implementation actors at the local level are schools and employers.**

1.3. Main Duties and Timeline in the Law on Dual Education

LDE was adopted at the end of 2017. However, its full implementation is foreseen as of the school year 2019/2020.

This decision was made in order to enable the system to meet all the pre-requisites necessary for the systemic and sustainable implementation of dual education (e.g. training and licensing of instructors, licensing companies).

In that sense, the key pillars of LDE implementation was the creation and adoption of several bylaws, both by MESTD (3 rulebooks) and CCIS (2 acts) that are presented in the table below:

Table 1. Bylaws related to the Law on Dual Education

Ministry of Education, Science and Technological Development	
Regulative document	Time of adoption
The Rulebook on training programme, detailed conditions and other issues of importance for taking instructor examination	Official Gazette of the Republic of Serbia, No. 70/2018 of 21 st September 2018
The Rulebook on the placement of students to work-based learning	Official Gazette of the Republic of Serbia, No. 102/2018 of 21 st December 2018

The Rulebook on Detailed Conditions on the Work, Activities and Composition of a Career Guidance and Counselling Team at a Secondary School Implementing Educational Profiles in Dual Education	Official Gazette of the Republic of Serbia, No. 2/2019 of 9 th January 2019
Chamber of Commerce and Industry of Serbia	
Regulative document	Time of adoption
The Act on the organization, composition and working method of the commission for determining the fulfilment of conditions for the realization of work-based learning the employer	Official Gazette of the Republic of Serbia No. 46/2018 of 15 th June 2018
The Act on the amount of training costs and passing exams for instructors	Expected to be adopted during 2019

As for the duties, in general, MESTD has a key role in introduction and implementation of dual education, owing to the fact that dual education is subsumed to the education system and all general goals and principles of education which are under the direct responsibility of MESTD. LDE defines its main responsibilities in the areas of adoption of dual education curricula, enacting student enrolment plans, oversight and inspection.

According to LDE, CCIS is responsible for checking the fulfilment of the conditions for conducting work-based learning of the employer through the work of the Commission for determining the fulfilment of the conditions for conducting work-based learning with an employer for an educational profile or a group of educational profiles; it keeps a register of eligible employers for implementation of work-based learning, CCIS is support to schools and MESTD in the search of employers who will realize work-based learning. In addition to these, CCIS is also in charge of keeping the register of dual education contracts (contracts between schools and companies), informing employers through regional chambers of commerce on dual education, conducting exams for instructors, issuing a license to instructors and keeping a register of issued instructor licenses.

Also, as already mentioned, there is the Commission for the development and implementation of dual education that has a strategic role in the whole process of development and implementation of the national model of dual education and of the LDE as well.

More details on tasks, processes and timelines envisaged in the LDE will be presented in the following chapters.

2. KEY PROCESSES

Implementation reflects a complex change process where decisions, policies, laws are transformed into programmes, procedures, regulations, or practices aimed at fulfilment of declared goals. Implementing a law in the VET sector is a very complex mission as, among other, it requires coordinating a wide range of activities, overseeing the organizational structure and the implementation team, managing budgets and resources, and communicating with stakeholders and the public — among other things.

Table 2. Key implementation processes emerging from the Law on Dual Education

Cooperation and institutional partnership on all political levels
Education process – Curricula development, realisation and valuation (curriculum value chain)
Student enrolment to schools and placement for work-based learning with employer
Career guidance and counselling of students
Quality assurance, accreditation and monitoring
Financing dual education
Communication with stakeholders
Permeability – access to work sector and higher education

2.1. Cooperation and institutional partnership on all political levels

Even main institutions, organisations and bodies involved in implementation of the LDE are already mentioned under 1.2. It is important to mention that, at the highest political level, the Government of the Republic of Serbia shows its strong commitment to the implementation of dual education, thus guaranteeing continuing political support at the national level which is a necessary component of the success of such a system-wide education reform.

At the national level, key institutional partnership in the implementation of a national model of dual education, as well of LDE, is between MESTD and CCIS. The partnership is evident in the division of key responsibilities stipulated by the LDE and the current composition of the Commission – the chairperson and deputy chairperson of the Commission are representatives of these two institutions.

At the moment, the Commission also includes representatives from the Cabinet of the Prime Minister, Standing Conference of Towns and Municipalities, VET schools and one company.

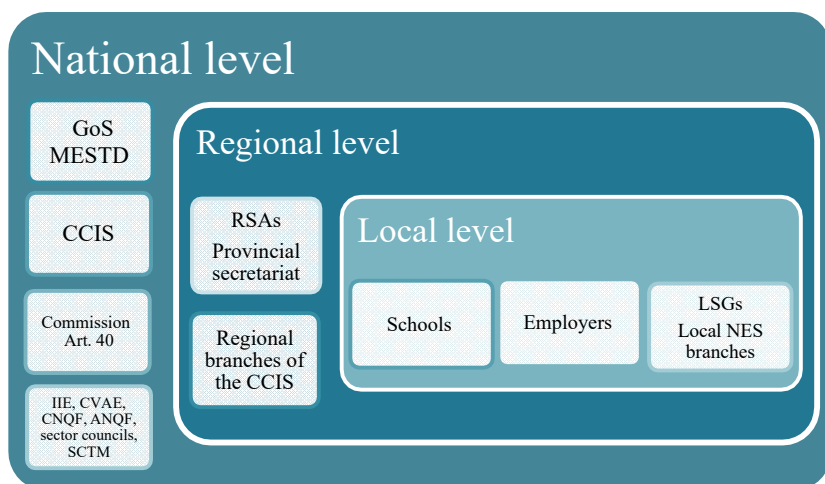
Regional level of implementation is also the responsibility of the main actors from the national level (since regional level in Serbia is not a political level, i.e. level at which political decisions are going to be made) - MESTD and CCIS - i.e. their regional organisational units (regional administration units of MESTD - RSA MESTD, and regional CCIS – RCCIS are in charge to implement policies agreed between main actors at the national level. At the level of the autonomous province of Vojvodina, the Provincial Secretariat for Education, Regulations, Administration and National Minorities – National Communities is MESTD direct partner in implementation of all the educational policies including those related to dual education.

There are 16 regional school administrations – Sombor, Novi Sad, Beograd, Valjevo, Uzice, Kragujevac, Cacak, Kraljevo, Zrenjanin, Pozarevac, Jagodina, Zajecar, Krusevac, Nis, Novi Pazar, Leskovac.

Regarding to regional branches of the CCIS (17 in total), they are placed in the following cities: Subotica, Sombor, Novi Sad, Sremska Mitrovica, Valjevo, Beograd, Uzice, Kraljevo, Kikinda, Zrenjanin, Pancevo, Pozarevac, Kragujevac, Zajecar, Krusevac, Nis and Leskovac.

At the local level main partnership and cooperation rests with VET schools and employers, with support from RSAs and regional branches of the CCIS, local self-governments (LSG) and the local branches of National Employment Service (NES).

Figure 1. Main actors in the implementation of dual education at different political levels



Roles of these levels will be specified within every key process presented further in the text and in the tables at the end of the text.

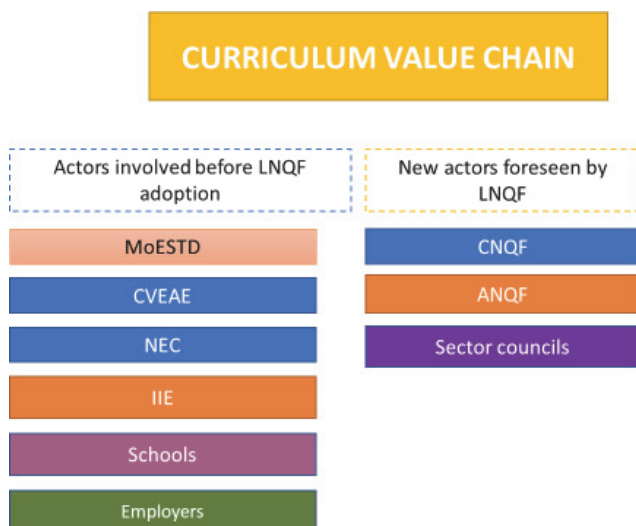
2.2. Education process – Curriculum Value Chain

The good structural linkage between the education system and the employment system results in an optimal match between the skills supplied by the education system and the skills required by the employment system. This is the reason why it is so important to include both actor groups in all phases of the curriculum value chain (CVC) (Renold et al., 2016). The CVC, as an analytical framework, consists of three phases: curriculum design, curriculum application and curriculum feedback. In the curriculum design phase, the qualification standards, the examination form and the targeted quality are determined.

In the curriculum application phase, the implementation is arranged, such as the determination of the learning place, the workplace regulation, the cost sharing, equipment provision, teacher provision and the examination. In the curriculum feedback phase information on the process is gathered and evaluated as well as the next updating time of the curricula defined.

In Serbia, for the last 15 years, in accordance to the Law on Fundamentals of Education System, main actors in the CVC in Serbia were the following: Ministry of Education, Science and Technological Development; Council for Vocational and Adult Education; National Education Council; Institute for Improvement of Education; and schools and employers at the implementation level. The Law on National Qualification Framework in Serbia specifically regulated the process of development and adoption of qualification standards introducing new actors: NQF Council, NQF Agency, and sector councils. **Even not explicitly mentioned as organisation in LFES and LNQF, CCIS has significant influence in CVC by mandatory participation in some of the mentioned bodies (e.g. CVAE, CNQF, Sector Councils).**

Figure 2. Curriculum value chain - actors involved



VET and dual education curricula – general notes

Each of the curricula for each of the VET profile, including dual, profiles, consist of three main parts. General subjects (A); vocational theoretical subjects (B1) and practical teaching - vocational practice (B2). The vocational part of curriculum (B1 + B2) is a composition of theoretical vocational subjects and various forms of practice. The ratio of general education and vocational subjects is prescribed by legislation and is approximately 35%:65% for three-year profiles or 45%: 55% for four-year profiles. This relationship is less flexible depending on the specific qualification.

As for the ratio between vocational theory and practice within the vocational part of the curriculum (B1: B2), it is in favour of practice.

For 3-year VET profiles that are based on qualification standards, the currently established standard for practical classes is: during the first year of schooling one day per week; two days per week in the second grade and three days per week in the third grade. In certain number of schools, practical classes take place in school workshops and cabinets, in other there is combination of work in school workshops and cabinets and companies, and in the case of dual profiles, students have practical classes in companies, i.e. maximum of 25% of work-based learning classes foreseen by curricula can be implemented in school.

According to the Law on Dual Education, the day of learning and practice in the company lasts 6 hours. Before going to practice in the company, students pass safety and occupational safety training. In the final year, in addition to practice, students also have a block teaching in companies, for 2-week duration, at the end of the school year.

For four-year VET profiles, curriculum leaves less time for practice even this has been changed in the case of dual profiles.

Curriculum defines in detail the outcomes of practical teaching and practice of the related work- based learning, and schools and employers can change up to 30% of the prescribed requirements to accommodate the outcomes of education to the needs of employers.

However, despite the fact that significant number of practice classes must be implemented in companies, it is important to mention that there is no difference in structure of the curriculum between dual and other VET profiles.

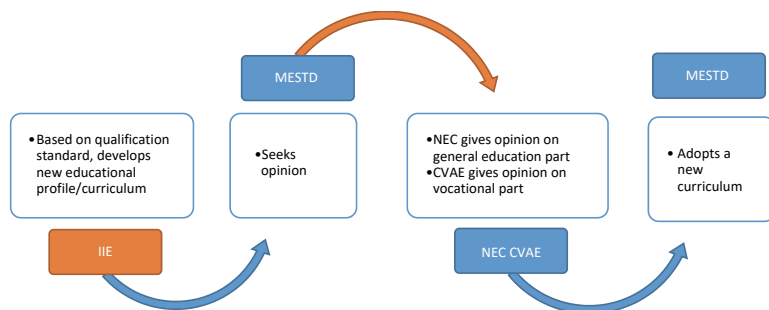
2.2.1. Curriculum design

Dual education curricula

The LDE (Article 5) stipulates that the basis for developing dual education curricula are qualification standards, but beside close cooperation in developing qualification standards, quality of education-employment linkage is to be seen in defining curricula, i.e. the level of the partnership established during the process.

Based on the qualification standards, IIE makes a proposal for a dual education curriculum and submits it to the MESTD (LDE, Article 5). MESTD seeks for an opinion of the NEC (for general education part) and CVAE (for vocational part of the curriculum). After its reception, the Minister adopts the dual education curriculum.

Figure 3. Creation of new education profile/new curriculum



Curricula are defined for occupations, not for individual companies.

It is worth mentioning that in some education and training systems (like in Switzerland) the vocational education and training part of the VET profile curriculum is designed by a project team usually led by branch employer association. For instance, the training plan for a Mechanical Engineer (secondary VET profile) is developed by a national Reform committee led by Swissmem (leading association for SMEs and large companies in Switzerland's mechanical and electrical engineering industries (MEM industries) and related technology-oriented sectors) which involves VET instructors from companies, supervisor from cantonal VET office, didactic specialists from Swiss Federal Institute for Vocational Education and Training SFIVET, and teachers from VET schools.

Bearing in mind that, as mentioned, there is no difference between curriculum structure between dual and other VET profiles, it is important to explain how some VET profile is acquiring a status of 'dual' education profile. Curricula for each educational profile in Serbia contain theoretical part (general subjects, vocation specific general subjects and vocational subjects), and the practical part which is legally named as students' professional practice.

Since the LDE sees dual education **as a model of implementation of the vocational education** within the formal secondary vocational education system curricula for each of the education profile could be implemented as a dual one (with strong in-company work-based learning segment) and school-based one (where, for instance, practical part of training is mainly done in school workshops), i.e. a certain VET profile will get dual 'designation' if it is going to be implemented in cooperation with companies and exclusively upon the request of the schools and the companies and only in situation in which company(ies) clearly demonstrate possibility to accept all the students for practical classes, i.e. work-based learning. The following table provides insight in the mentioned situation.

Table 3. Number of cases in which same profile is offered as dual and non-dual (2018/19 school year)

Educational profile	Dual	Non-dual
Waiter	6	41
Cook	9	52
Fashion tailor	14	8
Machine processing operator	11	9
Pastry cook	4	16
Technician for computer management	3	38
Mechatronics technician	2	23
Tourist-hotel technician	4	43
Butcher	7	20
Operator in food processing industry	1	10
Baker	7	40
Trader	12	32

This situation could cause a series of serious problems. In more concrete terms, there is no difference between dual and school-based profiles in curricula and that cooperation with companies is not forbidden within the later (including the fact that students can send the same number of hours in the company as those in dual), the only difference between those two is that employers participating in dual education have a range of obligations to fulfil in accordance to the Law on Dual Education, while, on the other hand, employers hosting students for practice in classic profiles do not have any of such obligations. Therefore, if a school cannot provide support of the companies to implement a profile as dual, it will ask MESTD to allow the implementation of this profile as classic, which means that students will have WBL in the company, but they will not be paid for, companies will not have to have accreditation, nor they have to have licensed instructors. The question arises, why would employers participate at all in dual education when they can host students in classic profiles without any obligations and costs? Also, if the

students in classic profiles spend the same amount of time in the companies as the ones in dual, and they are not paid, the system of cheap labour force is created, where employers, unlike the dual model of education, do not take on responsibilities for the student to acquire knowledge and skills as prescribed in the curriculum.

All of the mentioned should be taken into account in further development of dual education since there is a risk that employers will give up on dual education and continue to cooperate with schools within patterns of not enough regulated students' professional practice and WBL.

Qualification standards

The Law on National Qualification Framework in Serbia (LNQF) is adopted in April 2018. This law regulates fundamental issues which are of great importance for the introduction of dual education in Serbia. Inter alia, LNQF regulates the procedure for adoption of qualification standards.

The initiative for the development and adoption of standards for a new qualification can be submitted by the sector council, but also by various other bodies, such as CVAE, NEC, National Council for Higher Education, higher education institution, company, etc. The initiative also contains a study on the justification of the qualification and an initial proposal of the qualification standard, and when submitted on the prescribed form to the Qualifications Agency, the ANQF submits a recommendation on the development of the qualification (if proposed is not already covered by another qualification standard it informs the submitter of the initiative, and the development of the qualification is not approached).

A decision to develop new qualification standards is brought by sector councils (it might follow an initiative of various bodies).

Upon the positive decision of a Sector Council, ANQF is responsible for drawing a proposal of qualification standard and its submission to CNQF for approval.

in the final instance, CNQF submits approved proposal of qualification standard to the MESTD which brings the legal act of the adoption of qualification standards.

Figure 4. The process of adopting new qualification standard according to LNQF



Basic prerequisite of Education-Employment Linkage²⁷ rests in the composition of both Sector Councils and CNQF. Employment sector will participate through intermediary organisations that should improve the process by aggregating the information of individual firms. However, that alone would not assure the effectiveness of Education-Employment Linkage (Renold *et al*, 2016).

Full implementation of the LNQF in respect of the procedure of adopting new qualification standards awaits CNQF, ANQF and sector councils to become fully functioning). CNQF was formed by the decision of the Government of the Republic of Serbia on August 28th 2018. ANQF and sector councils are formed by the end of 2018. LNQF stipulates that relevant institutions, organizations and bodies are obliged to harmonize its work and organization with this Law within one year from the day this Law enters into force.

Pending adoption of the LNQF, development of qualification standards was done by IIE, i.e. its Centre for Vocational Education and Adult Education, while the CVAE was the instance for consolidating/giving an opinion about the proposed qualification standards. Since 2010, 86 curricula (VET profiles programmes) have been developed based on the qualification standards.²⁸

A database of all qualifications in the Republic of Serbia as well as the website dedicated to NQFS (<http://noks.mpn.gov.rs/>) has been established

27 Effective connection between education and employment is a balance of power between actors from the system of education and employment in secondary vocational education, where the two systems share power in cooperation in developing, providing and continuously updating secondary vocational education so that the path of secondary vocational education can maximize market outcomes youth work. (Renold, U, et al, Feasibility Study for a Curriculum Comparison in Vocational Education and Training: Intermediary Report II: Education-Employment Linkage Index; 2016

28 <http://zuov.gov.rs/dokumenta-centra-za-strucno-obrazovanje-i-obrazovanje-odraslih/>

within the MESTD. 140 qualifications have been entered into this database. Entry of new qualification is ongoing.

The concept of Matura examination and final examination in secondary vocational education

The LDE (Article 32) prescribes that the content of the final or Matura examination is to be stipulated in the curriculum. The final examination is envisaged for three-year profiles and Matura examination for four-year profiles. Both examinations are to verify the acquired competencies and standards of achievements in accordance with the qualification standards and the purpose of continuation of education (Law on Secondary Education, Article 62).

At the beginning of 2018, the Professional Matura and Final Examination Programme were adopted. It determines the goal, content and structure and other important elements of the Matura and Final examinations, and are developed based on the concept of final examinations in secondary education completed and presented in March 2017 by a working group formed by MESTD. Students who complete four-year general secondary education, arts education or secondary vocational education will take Matura starting from the school year 2020/2021, while the students who complete a three-year secondary vocational education and training will take the final exam as of the school year 2019/2020. The process of organizing and implementing Matura exams will be implemented through a project funded by the EU IPA 2015 funds.

Up to now, IIE prepared around 80 final/Matura examination programmes with the corresponding manual (the goal is to have one for each VET profile). Manuals contain the programme of final/Matura exam, description of the exam, standards of qualification, a collection of theoretical tasks/items, practical assignments and performance assessment forms. For the purpose of improving assessment practices in VET school, IIE developed (within an EU IPA project) the publication *Competence-based assessment in vocational education* where the overall approach of competence-based assessment is elaborated. The manuals for the final/Matura exam in VET are based on this approach.

The role of companies in the process of designing examinations is not legally defined. The Rulebook on Professional Matura and Final Examination Programme or any other legislation do not stipulate the role of employment sector in the process of examination design. All the responsibilities are delegated to the IIE. However, IIE generally prepares final/Matura exam programmes in consultations with, and responding to, the requirements of social partners - Union of Employers, Serbian Chamber of Commerce, appropriate business associations and with the active participation of teachers of secondary vocational schools in which educational programme is realised.

2.2.2. Curriculum implementation

In the curriculum application phase, the implementation of dual education is arranged, such as the determination of the learning place, the workplace regulation, the cost sharing, equipment provision, teacher provision and the examination. Career guidance and counselling is also part of this phase. We will elaborate on that in section 2.4.

Learning place

VET programmes can achieve mutual engagement of actors from the education and employment systems when workplace training complements learning in the school environment. Students learn some skills more easily in the school environment, whereas others are more suited to learning in the workplace (Rageth & Renolds, 2017)

LDE (Article 6) stipulates the scope, period and location of work-based learning. Work-based learning may account for at least 20%, but no more than 80% of the total number of vocational subject classes. Work-based learning may be organised during the school year in keeping with the school calendar, between 8 am and 8 pm, with a maximum duration of six hours per day, or 30 hours per week. Work-based learning should be organised entirely at one or more companies. If work-based learning cannot be delivered entirely at company, a maximum of 25% of work-based learning can be implemented in the school. This may have an impact on several aspects, e.g. number of companies that cooperates with schools could be significantly increased (e.g. one school can sign agreement on implementation of work-based learning with as many as needed companies and each company will be in charge of implementation of certain working operations which make students' placement particularly challenging).

Workplace regulation and contract management

Like learning in a school environment, workplace learning requires goals that determine the tasks in which students engage. To support the acquisition of prescribed practical skills instead of pure familiarization with work, workplace learning needs to be structured and regulated (Billett, 2011).

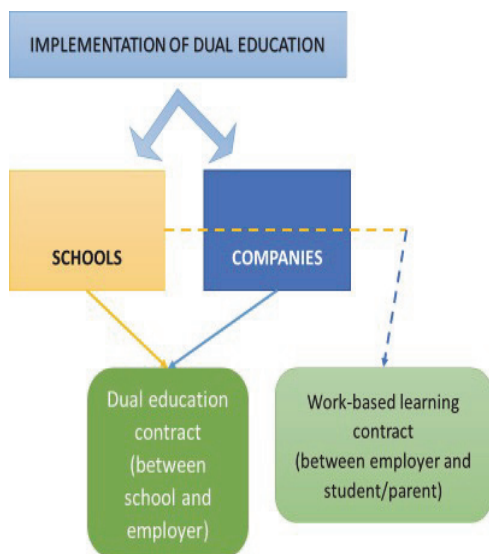
According to LDE – Article 5, work-based learning is partly regulated by the prescribed curriculum and partly, on a local level, by work-based learning delivery plan as a part of the school programme. In practical terms it means that, guided by the prescribed learning outcomes, school coordinator of work-based learning and in-company instructor are going to develop planning document for implementation of the work-based learning in companies (i.e. work-based learning delivery plan) before 1st September when students start with their activities.

Working/learning conditions are the same as for the employed in a company, which means according to all necessary safety and health standards prescribed by legislation.

An additional form of regulating workplace learning is envisaged in the LDE by identification of two types of contracts which need to be accepted and signed by companies and schools and students' parents.

The first type is a *Dual education contract*, concluded between school and

Figure 5 Two types of contract in dual education



employer, for a minimum period of three or four years, as appropriate, in accordance with the relevant curriculum. This contract includes, inter alia: employer's obligation to deliver work-based learning at its own cost; school's obligation regarding the delivery of work-based learning; employer's obligation with regard to the delivery of work-based learning; work-based learning delivery plan and programme; location and timetable of work-based learning delivery; maximum number of students referred by the school to work-based learning; number of licensed instructors provided by the employer for these purposes.

The second type of contract is *Work-based learning contract* concluded between an employer and a parent or other appointed guardian of the student. The contract includes the employer's obligation to organise and deliver work-based learning for the student in accordance with the curriculum; time and location of work-based learning delivery; student's obligation to attend work-based learning regularly student's obligation regarding the time the student is obliged to spend in the company, learning process, and student's occupational health and safety during the work-based learning process at the employer.

Examinations

The LDE envisages that company instructors continually monitor students' progress in cooperation with work-based learning coordinators with a view to

acquiring competencies prescribed by qualification standard. The assessment of students shall be done in accordance with the curriculum, the law and the rule-book regulating in more detail the student assessment in second ary education.

During the Final and Matura examinations in the part of the verification of competences acquired through work-based learning, the participation of employers' qualified representatives is mandatory (without any compensation). The employers' representatives are to be approved by the Serbian Association of Employers or CCIS or other professional association or chamber. Upon passing the final or Matura exam, a student receives an official document, stating the education profile that was completed. Furthermore, a diploma supplement will be issued to a student that will contain the data on the scope of completed work-based learning and the list of employers where work-based learning was delivered.

Staff

The Law on Dual Education introduced categories of instructors and co-ordinators of work-based learning. The instructor is a person employed by the employer, who directly ensures that the contents prescribed by the curriculum are realized during the work-based learning. The instructor is responsible for attaining the competencies prescribed by the standard of qualification. The instructor must have a working experience of at least three years, have completed the instructor training and have a certificate of passed exam for the instructor.

The coordinator of work-based learning is a person employed in a secondary vocational school, that is, a teacher of practical teaching, who, in cooperation with the instructor, plans, monitors, realizes and evaluates the realization of work-based learning with the employer. The relationship between in-company instructors and coordinators is a significant novelty in the educational system of Serbia because it indicates the concept of teamwork in the process of acquiring student competencies.

It is important to mention that the position of the coordinator of practical training exists in nearly every vocational school depending on the number of classes. The task of the coordinator of practical training is a comprehensive contact with the business environment of the school, providing an adequate block of teaching, support for the employment of graduate students, etc. In the context of the LDE and schools that are implementing dual profiles, those two functions are practically identical, i.e. the LDE introduces the term work-based learning instead of practical training.

Instructor training and licensing

Delivery of training for instructors is the CCIS responsibility. However, the training programme, detailed conditions and other matters relevant to

taking the instructor examination are prescribed by the MESTD, at the proposal of the IIE. Rulebook on a training programme, detailed conditions, and other issues of importance for taking instructor examination is adopted at the end of 2018.

The training should last 40 hours, including the basics of didactic teaching knowledge and skills. The draft rulebook envisages that the training programme comprises five fields: implementation of work-based learning legislative framework, planning and preparation of work-based learning, work-based learning delivery, monitoring and evaluation of work-based learning competencies, and support to student development in work-based learning (training programme is attached to this Rulebook and it is an integral part thereof).

Following the completion of the training, the candidate will take the examination. For that purpose, the CCIS will set-up Examination Boards and organise instructor examinations. Boards will include, apart from an expert in the specific field, at least one representative proposed by MESTD and the IIE.

The CCIS issues a licence to a candidate who has passed the instructor examination and keeps a registry of issued licences. The costs of issuing the licence and maintaining the registry of issued licences will be covered by the CCIS.

The costs of training and taking the instructor examination will be covered by employers. The level of the costs of training and taking the instructor examination will be regulated by the CCIS.

2.2.3. Curriculum evaluation

The curriculum evaluation phase contains two sub-processes that affect Education-employment linkage. The first sub-process evaluates whether the necessary data exists to make evidence-based revisions of the curriculum. The second sub-process assesses actors' relative decision power over when the curriculum and/or qualification standards are revised.

Regular information gathering that will secure evidence-based revisions of the curriculum is not foreseen in the LDE. However, this Master plan envisages the establishment of the Monitoring and Evaluation Framework - Centre for Education Policy is commissioned for its development (more on this, please see in Section 7).

The second question relates to the procedures and involvement of different actors in deciding on up-date of the curriculum and/or qualification standards. The LDE stipulates that standards of qualifications and curricula should be updated at least every 5 years or earlier if it is required by the needs of the economy and technological development.

2.3. Student enrolment in schools and companies

Student enrolment encompasses policy considerations at the level of school enrolment and the level of placement in companies.

2.3.1. Student enrolment in schools

Planning of enrolment policy is a strategic process in which MESTD, schools, local self-governments and other stakeholders plan the implementation of educational profiles in the up-coming school year. The group of stakeholders is guided by the criteria which are established by the MESTD. Nevertheless, despite the consultation process existing on the local level, the final decision is made by MESTD and CCIS when it comes to dual education profiles.

The LDE (Article 7) stipulates that enrolment quotas by sectors and profiles in dual education need to be determined in accordance with the needs of the economy and students' further education possibilities.

School Administrations in cooperation with the competent body of the autonomous province (in the case of Vojvodina) need to develop municipal or city-level proposals for secondary school student enrolment plans. The proposals for enrolment plans need to be developed with the involvement of employers, local branches of the NES, regional branches of CCIS, and other stakeholders. In the development of the plans, conditions for inclusion of students with developmental disabilities and from vulnerable groups need to be provided. Further elaboration of these general principles of enrolment is presented in the official instructions made by MESTD.

After that follows the announcement of the Public invitation for enrolment in secondary schools (Konkurs), containing all the information on schools and profiles offered by each of the school including number of students that school can receive per profile in particular school year. This Public invitation is a kind of guide for parents and their children who are going to enrol in secondary school. In order to create the Public invitation for enrolment in secondary schools, the MESTD during December sends to regional school administrations, local self-governments and, in the case of dual profiles, the CCIS and NES the guidelines for planning the enrolment in secondary school at local and regional level.

Below is a detailed explanation of the enrolment process conducted in previous years, including a graphic presentation in Figure 6.

Enrolment policy for the whole VET is based on the inputs that schools send to MESTD by 31st December each year and relates to the next school year that starts on 1st September. These inputs are practically proposals for the education profiles the school would like to offer for the upcoming school year and includes number of classes for each profile (inputs are submitted electronically to information system "Dositej" that is located in MESTD department for digitalisation

in education and science). If the school would like to introduce the dual profile, it is mandatory that the school in addition to this proposal attaches the letter of intent signed by company/ies as the evidence that the school will be able to provide the work-based learning for students in dual profiles.

After this, the next step in defining enrolment policy is taken by competent unit in local self-government (LSG) that facilitates joint meetings with all the actors placed in the respective LSG, i.e. representatives of all secondary schools, companies, RCCIS, NES, association of employers etc., with a goal to reach consensus. The role of representatives of RSA in this process is important since they advise the actors, as the “extended arm” of the MESTD, e.g. provides relevant information such as number of students that graduated from primary schools in the territory, priorities of the Government and MESTD (e.g. reducing the number of education profiles in sector of economy, law and administration but increasing the number of schools in dual education, etc.).

The consensus is reflected in the local document, proposal for the enrolment plan proposal for all secondary schools in the LSG²⁹, signed by all school principals, CCIS representatives and relevant LSG representatives. This plan should, as much as possible, reflect the needs of the economy so it takes into account needs of employers for certain occupations provided by business sector and the NES. In addition, the plan should take into account the possibilities of further education of future students, which is not clear how is reflected in these local plans.

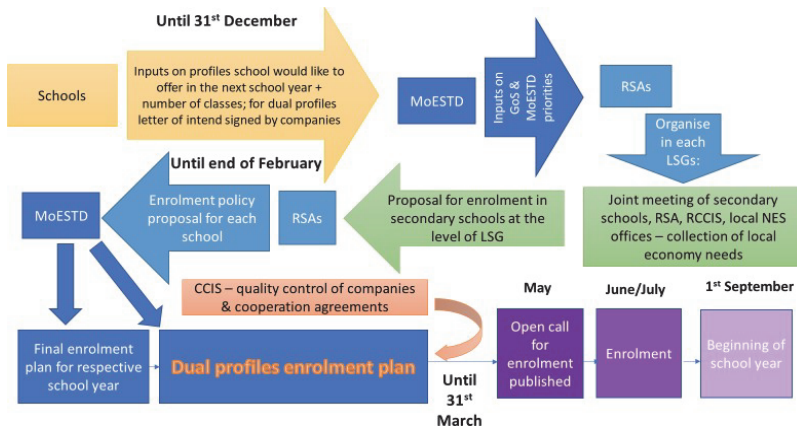
The next step included gathering of all local plans in respective territory by RSA, after which RSA gives its “approval” to the plans by the end of February.

The MESTD makes a final decision on enrolment plan by 31st March, and in the case of dual profiles, it strongly relies on the data provided by CCIS since MESTD takes these data as corrective and controlling mechanisms. More precisely, MESTD and CCIS are jointly deciding on prospective dual profiles, governed by several criteria, such is letter of intent, if the school is verified to implement profile in desired economic sector etc. So far, mentioned letter of intents are submitted by schools but have several instances of “checking”, i.e. RCCIS and CCIS double check whether the company wants to fully engage in dual education, e.g. to provide and educate an instructors who will be engaged in work-based learning.

It is important to stress that MESTD and CCIS closely work together to overcome potential challenges that may happen in the process of creation of enrolment plan, e.g. in situations in which school is interested to introduce dual profile but have no established cooperation with companies (not at all or not enough letter of intents are provided), CCIS is providing its data and available contacts.

29 When determining the plan of enrollment in a school in which instruction is conducted in the language of a national minority, it is necessary to obtain the opinion of the National Council of the National Minority.

Figure 6. Student enrolment to schools



2.3.2. Student placement in companies

The LDE (Article 7) regulates student placement in companies to work-based learning in very general terms, leaving the details to be prescribed in detail in a by-law. The LDE only determines that students should be placed to work-based learning through cooperation between students, parents or other appointed guardians of students, employers and schools.

The Rulebook on the placement of students to work-based learning was adopted during December 2018. It defines: who the participants are in the process of student placement, how information flow goes when it comes to informing students about the placement manner, implementation manner of employer's interview with students, expression of students' and employers' preferences, and matching of students' and company' preferences as well as creation of the final student placement list.

This Rulebook regulates the placement of students during work-based learning in situation where school is cooperating with several companies in charge for different parts of the work-based learning process. I.e. in the case when different parts of the curriculum are delivered within different companies in a way that all students must undertake a part of work-based learning in each of the companies, placement manner is regulated by the dual education contract between the school and company.

The Rulebook stipulates that participants in the student placement are teachers, professional associates and representatives of companies implementing work-based learning, who are the members of the career guidance and counselling team (CGC Team), in cooperation with students and their par-

ents or other legal representatives (bearing in mind that students are minors), by matching students' stated preferences to undertake work-based learning with a particular company with company' preferences for particular students.

Representatives of companies that implement work-based learning take part in student placement only in case of educational profiles they are involved in.

The CGC Team organises the presentation of all the involved companies to students and their parents or other legal representatives, and introduce them to the student placement manner and a number of vacancies, as well as companies'. This is to be done no later than the end of the second week after school year begins. The CGC Team should support students in preparation for the context in which work-based learning is going to happen, as well as for the interview with companies' representatives. The CGC Team is, also, in charge for organisation of the interviewing process.

Following the interviews of all companies' representatives with all the students, students declare their preferences, in a way that the students draw up their list of companies they would like to be placed in by ranking companies from the most to the least desirable. The same process is applicable for the companies, and they're making their own list of preferences.

The CGC Team, based on both preference lists, do a review and matching students and companies. In the case that two or more employers prefer the same student, the student will be placed with the employer having the higher ranking in that student's list of preferences. Students not placed in this manner will be placed to work-based learning by the CGC Team by taking into account:

1. The proximity of student's residence in relation to the employer's premises where work-based learning is organised;
2. Equal gender representation of students with all employers;
3. Other circumstances of relevance for both students and employers.

If work-based learning is going to be implemented from the second year of students schooling, students' placement should be based on equal distribution among employers of students with excellent, very good, good and sufficient academic achievement and evaluation or recommendation of the work-based learning coordinator.

Following the placement of all students, the CGC Team compiles the final student placement ranking.

2.4. Career Guidance and Counselling of Students

The LDE (Article 8) stipulates that schools will encourage and monitor students' career development.

For the purpose of enhancing career management skills and making sensible and responsible decisions about one's professional development, a school needs to establish career guidance and counselling team (CGC Team). This is in line with Law on Secondary Education which prescribes obligations of school to form CGC team and develop the programme of career guidance and counselling (Article 15) which should be an integral part of school programme (Article 11). Just recently (in 2018), Career Guidance and Counselling Standards (CGC standards) were enacted based on the law regulating the National Qualifications Framework. Standards are covering: career management skills, competencies of career practitioners (counsellors), organizational standards, and programme standards.

The LDE further defines that CGC team may include representatives of school staff, professional associations, local self-government units and employers, without any compensation. Team meetings may be attended by representatives of parents or other appointed guardians of students and student parliament. Detailed conditions on operation, activities and composition of the team, as LDE envisages, will be prescribed by the Minister.

An adequate by-law has also been drafted - the Rulebook on detailed conditions, operation, activities and composition of the career guidance and counselling team in secondary schools delivering dual education profiles. The Rulebook prescribes that CGC team is comprised of representatives of the school staff, professional associations, local government units, and employers. The CGC Team coordinator is the representative of the School.

Representatives of the School staff, comprising the CGC Team, should involve professional associates, teachers of vocational subjects in dual education profiles, work-based learning coordinators, and other teachers. The appropriate professional association operating in the local self-government of the school's seat will recommend representatives of professional associations to join the CGC Team. The competent authority of the local self-government of the school's seat will propose LSG representatives to join the CGC Team.

Representatives of employers, members of the CGC Team, will be persons working for the employer that is implementing work-based learning; if of interest for the implementation of career guidance and counselling activities, the CGC Team members may include representatives of other employers and employers' associations.

The CGC Team may also involve representatives of the National Employment Service, local youth offices, youth organisations and civil society organisations dealing with career guidance and counselling, and higher education institutions.

The School plans and organizes, pursuant to the Career Guidance and Counselling Standards enacted based on the law regulating the National

Qualifications Framework, the professional development of the CGC Team members.

Activities of CGC Team:

- 1) participates in the preparation of the School Program and the Annual school plan related to career guidance activities and consultations and monitors their implementation;
- 2) organisation and implementation counselling, information, and training on career management skills, in line with the CGC Standards and by cross-linking outcomes and contents of different subjects,
- 3) carrying out activities for placing students to work-based learning, in accordance with the rulebook governing the placement of students to work-based learning,
- 4) continuous monitoring students' and employer's satisfaction and motivation during work- based learning,
- 5) empowering and supporting students in identifying and documenting (hereinafter: The Portfolio) their experiences and benefits from work-based learning and special achievements and accomplishments, and encourages students to plan and set further career development goals based on work-based learning,
- 6) assessment and evaluation of the career guidance programme based on the upshot of career management skills, in accordance with the Standards,
- 7) cooperation with other School teams, with the CCIS, National Employment Service, companies and higher education institutions in planning career guidance and counselling activities, and development of a network of external collaborators and organisations for student guidance based on their individual needs and best interests,
- 8) cooperation with primary schools' professional orientation teams in ensuring continuity of career guidance, counselling, and information services for students and their parents on the subject of their future study options in dual education profiles and work-based learning requirements and context in which it unfolds.

2.5. Quality assurance, accreditation and monitoring

The LDE stipulates supervision of its implementation to MESTD, as well as inspection through education inspectorate. MESTD also has a supervisory role over the assignments delegated by this Law to the CCIS. Quality evaluation

of schools implementing dual education falls under the same regime of quality evaluation as all other educational institution (at preschool, primary and secondary level) - external evaluation and pedagogical supervision within the framework of quality standards of work of educational institutions.

Development and implementation of monitoring and evaluation framework and regularly conducted implementation research will provide evidence to assure and improve the quality of dual education provision (see chapters on the M&E framework and Research, respectively).

An additional element of quality assurance of dual education rests in the process of accreditation of employers for the provision of work-based learning (see below) and training and licensing company instructors (see section Education process - Curriculum value chain).

The LDE defines eligibility requirements for employer's involvement in the delivery of work-based learning.

To be eligible for the delivery of work-based learning, employers have to:

- 1) be engaged in economic activities that enable the delivery of work-based learning content specified in the relevant curriculum;
- 2) have adequate space, equipment and instruments for work, in accordance with the rulebook specifying the detailed requirements in terms of space, equipment and teaching aids for the occupational profile concerned;
- 3) have a sufficient number of licensed instructors, in accordance with the curriculum;
- 4) ensure the implementation of occupational safety and health measures, in compliance with the law;
- 5) not be the subject of bankruptcy proceedings or winding-up;
- 6) fulfil the condition that their responsible officers and instructors have not been finally convicted of criminal offences for which they received an unconditional sentence of at least three months of imprisonment, or of criminal offences of domestic violence, abduction of minors, neglect and abuse of minors or incest, giving or accepting bribe; criminal offences from the group of offences against sexual freedom, against economic interests, against official duty, against legal instruments, and against humanity and other rights guaranteed by international law, irrespective of the imposed penalty; misdemeanours in the field of labour relations; or found to have committed discriminatory conduct, in compliance with the law;
- 7) not be finally convicted of sanctionable acts prescribed by the law regulating prevention of workplace abuse.

Verification of eligibility for the delivery of work-based learning is conducted by the CCIS. It will establish Commission for Verification of Fulfilment of Requirements for Delivery of Work-Based Learning for the relevant occupational profile or group of occupational profiles.

At the Commission's proposal, CCIS issues a Certificate of Fulfilled Requirements for Delivery of Work-Based Learning to an employer that fulfils all stipulated requirements. The certificate could be revoked if the CCIS establishes that the employer concerned no longer fulfils the requirements.

The CCIS is delegated with the task of maintaining and regularly updating the registry of employers to whom the Certificates have been issued and whose Certificates have been revoked.

The details of the organisation, composition and operation of the Committee will be regulated by the CCIS rulebook.

2.6. Financing dual education

Cost sharing

The Law on Dual Education envisages material and financial support to students. Article 33 stipulates that employers should provide the following support to students engaged in work-based learning:

- 1) personal occupational protective means and equipment;
- 2) reimbursement of the actual cost of transportation from the school to the location of work-based learning, and back, up to the amount of the public transport fare, unless the employer has made its own transportation arrangements;
- 3) reimbursement of the cost of meals, in conformity with the employer's internal by-law;
- 4) insurance against injury during work-based learning at the employer.

The employer may also cover the costs of students' accommodation and meals at student dormitory.

The LDE stipulates in Article 34 that students are entitled to a compensation for work-based learning. Compensation for work-based learning shall be paid once per month, at the latest by the end of the current month for the preceding month, per hour spent in work-based learning, in the net amount not lower than 70% of the minimum wage. The compensation is to be borne by employers.

By recent changes in the two laws - the Law on Income Tax and the Law on Contributions for Mandatory Social Insurance, the material and financial

remuneration of students enrolled in dual education profiles were introduced into laws in the field of finance, stating also that there is no pay of income tax on the income earned on the basis of scholarships and student loans (in the monthly amount up to 11,741 dinars) and that the body, organisation or institution or other person where a student is in compulsory production work professional practice, practical training or work-based learning in the dual education system is obliged to pay contribution for pension and disability insurance in case of disability and physical injuries due to occupational injuries and occupational diseases, and contributions for health insurance in the event of an injury at work and professional illnesses.

Financial support to employers involved in dual education

The LDE imposes certain obligations and responsibilities to employers, as well as material and financial expenditures. Even it is still not defined, the CCIS and some other stakeholders are underlining that, in order to successfully implement the dual model of education, employers might receive support on the basis of a) exemption from tax payment on the compensation for work-based learning, transport, accommodation and meals from taxation b) financial compensation to employers based on the employers' payment of the compensation to students for their work-based learning.

However, international experiences advise that it is better to streamline financial support to capacity development as in this way the costs of employers are reduced and their profit does not increase.

The technical advisory team of KOF/CEP suggests waiting with such financial incentives until the implementation phase has been completed and, in particular, there is evidence of the cost-benefit analysis of in-company training. The introduction of such measures at this stage is contrary to the legal mandate. Only after evaluation of the three-year implementation phase measures should be taken on the basis of evidence.

Cost-benefit analysis

Cost-benefit analysis will also provide insight into the possibility of increasing the number of dual profiles by looking at total costs and profits of the employers involved. The net costs of employers' participation in dual profiles and the savings after the completion of these programs will provide estimates of the total net costs of dual profiles. Information on costs and benefits is directly related to the amount of funds that the Government of Serbia should pay to employers for their participation in the programme. This analysis is described in more detail in Chapter 6 of this document.

2.7. Communication with stakeholders

The LDE does not deal with the question of communication with stakeholders, however, it is evident that there is a need to strengthen communication channels between stakeholders, increase visibility and improve the image of dual education in the professional and wider audience.

However, as a special measure of support for the development of dual education, the MESTD budget for 2017 provided funds for the project 'Promotion of dual education' in Serbia. The project is planned for 2017-2019, and during 2017 it was implemented in 34 towns and municipalities throughout Serbia. The objectives of the project are: promotion of the concept of dual education through the implementation of educational and promotional workshops in primary and secondary schools in Serbia, linking with companies and organizations that will increase the capacities of this type of education, and raise the awareness of the public about the importance and role of this type of youth education.

Also, the budget of the Republic of Serbia for 2018 envisages the funds for the promotion of the National Dual Education model available to the sector for dual and entrepreneurial education of the MESTD. The aim of the promotional campaign is to increase the visibility of the results achieved in the field of dual education, and also to increase the general awareness of the public opinion about dual and entrepreneurial education in Serbia, its importance in accelerating the transition from the education system to the labour market and improving employment and employability.

In October 2018 the Ministry of Education, through a public invitation, selected an association that will support the Ministry in creating and implementing promotional activities³⁰ that will be in the form of visits to cities, municipalities where schools, employers, parents, pupils of primary, secondary schools and others will be interested in dual education, law, regulations, procedures, and have the opportunity to get responses from the representatives of the Ministry to the concerns and challenges they face. Each of the activities will contain two parts. The first part where the representatives of the Ministry and other city officials and local self-government officials address the participants and share some basic information on dual and entrepreneurial education, present examples of good practice from the local level and from the Ministry's activities. In the second part of the activity, each target group will be accessed according to needs, in the following way:

- Students (elementary school students and secondary school students)
 - for this group interactive workshops will be used aimed at informing

30 <http://www.mpn.gov.rs/konkursi-i-javni-pozivi/opsti-konkursi-i-javni-pozivi/>

them about the model of dual and entrepreneurial education, the advantages of the model and the current results of the implementation of this model. Workshops will also serve as a tool for education on the establishment of student cooperatives and the opportunities they offer. At the end of it, students will be educated on financial literacy. The workshops will be designed to be interesting and informative for students at the same time.

- Teaching staff (teachers) - will be informed on the topic of career guidance and counselling and the opportunities that dual and entrepreneurial education offers to students.
- Teaching staff (directors) - will be informed on the topic of the National Qualifications Framework in Serbia (NQFS). Directors will be introduced the legal framework, the classification system for qualifications - KLASNQF, as well as the European Qualifications Framework (EQF).
- Companies - for the representatives of this group public discussions will be organized to discuss how the Ministry and schools can better cooperate with employers and what the employers' experiences are in employing trained staff in this way. The legal framework of the model of dual and entrepreneurial education will also be presented.

Additionally, many promotion and visibility related activities are supported by donor organisations. For example, the CCIS, in cooperation with the Austrian Chamber of Commerce, and with the financial support of the Austrian Development Agency, implements promotional activities aimed at informing employers about the advantages of dual education and the ways in which they can support schools and engage in this model of youth education, with the aim of improving youth skills and easier transition to the world of work.³¹

The German Agency for Development and Cooperation (GIZ), within the project "Reform of Secondary Vocational Education", implements promotional activities aimed at both schools and employers with a special emphasis on educational profiles fashion tailor, locksmith-welder, electrician, industrial mechanic, mechanic of motor vehicles and fitter of electric networks and plants. Promotional activities aim at increasing the attractiveness of these profiles and attracting young people to enrol them.³²

In May 2018, the Swiss Agency for Development and Cooperation (SDC) signed a Memorandum of Understanding with the MESTD with the aim of implementing the project "Supporting the Development and Establishment of the National Model of Dual Education". One of the components of this

31 <http://pks.rs/Vesti.aspx?IDVestiDogadjaji=25161>

32 <http://www.kooperativnoobrazovanje.org>

project is the improvement of the image of dual education and within which the national communication strategy, logo and slogan of dual education will be created.³³

During spring and autumn of 2018, the Institute for Improvement of Education organized a number of promotional workshops and training seminars for teachers on work-based learning as well as a review of student achievements titled 'Work-based Learning and Development of Entrepreneurial Competencies of Students' in Subotica. Some of these activities were registered within the European Vocational Skills Week. These activities were realized within the Danube Transnational Programme 'Learning by Doing - Targeted Capacity Building of VET Partnerships in the Danube Region for the Effective Modernization of VET Systems'.³⁴

Implementation research will regularly generate evidence of how well the stakeholders involved are informed about the LDE. This is an important instrument for organising further targeted information campaigns.

2.87. Permeability – access to work sector and higher education

The LDE stipulates that students can enrol in the next level of education in accordance with legislation (Article 32). The Law on Higher Education prescribes that right to higher education have all persons who have passed general, professional or artistic Matura in compliance with the Law on Secondary Education. Students who have completed three-year educational profiles take the final exam, not Matura exam. To secure better permeability of those students towards higher education, the Law on Secondary Education stipulates that the candidate after the completion of the three-year dual VET has a right to take vocational or general Matura if he/she has attained the programme for acquiring competencies required by Matura programme. The candidate gets the right to do so at least two years after the completion of secondary education.

A diploma supplement issued to a student who has passed the final or Matura examination will contain the data on the scope of completed work-based learning and the list of employers where work-based learning was delivered. This diploma supplement might have a sort of signalling effect, easing access to work sector for dual VET graduates.

33 <https://www.eda.admin.ch/countries/serbia/en/home/international-cooperation/projects.html/content/dezaproyects/SDC/en/2019/7F09785/phase1?oldPagePath=/content/countries/serbia/en/home/internationale-zusammenarbeit/projekte.htm>

34 <http://zuov.gov.rs/projekat-learning-by-doing/>

3. DUAL EDUCATION SYSTEM BUILDING PROCESS

This chapter presents a summarised overview of the building of dual education system in Serbia, i.e. the development of the “road map” as a foundation of this Master Plan and the key process for the commencement of dual education in the school year 2019/2020 .

The above described key processes are related to the parts of the system that is already built and is functioning based on national legislative and strategic framework, including LDE and accompanying bylaws. However, for the full functionality of the system further complex system building needs to take place. This process involves different activities at different political and administrative levels, establishment of various key processes of the system, their interdependencies and all of that in a tight timeframe. It also presumes engagement of various actors and stakeholders (their roles are presented within chapter 5.).

Therefore, Figure 7 rather illustrates a map of system building processes with inserted links (via numbers) for recognized risks and possible mitigation strategies further in the document.

For better understanding the mentioned “road map” presented in Figure 7, it is important to mention that **processes presented are grouped into national/regional and local level.**

National/regional level

At the national level processes are divided into:

1. Steering the system building
2. Further regulation of the system aside the LDE
3. National enrolment policy.

As for the segment of **steering the dual education system building** it was already stated that the Government’s Commission for the development and implementation of dual education is tasked, *inter alia*, with a coordination of the implementation activities. This is the reason why it is presented in this graph, together with its working groups. Working groups as enlisted in this document (see Section Organization structure) will be formed during 2019. All this, however, does not belittle the importance and legally prescribed functions of all the other key partners, e.g. MESTD and CCIS. Apart from the conclusions and decisions made at the meetings of the Commission Art. 40 and work of working groups, steering the system at this level presumes evidence-based policy making. For this reason, KOF/CEP research and survey findings will feed in the work of the working groups and the Commission itself.

Within the **system of legal regulation** that goes further than the adoption of LDE in 2018, until February 2019 several key rulebooks/legal acts were adopted:

- The Rulebook on training programme, detailed conditions and other issues of importance for taking instructor examination;
- The Rulebook on the placement of students to work-based learning;
- The Rulebook on detailed conditions, operation, activities and composition of the career guidance and counselling team in secondary schools delivering dual education profiles;
- The Rulebook on organisation, composition and operation of the Commission for Verification of Fulfilment of Requirements for Delivery of Work-Based Learning.
- The Act on the amount of training costs and passing exams for instructors.

In that sense, it can be stated that all the main building blocks of dual education system have been regulated by the beginning of 2019. Further operationalisation of system building process includes the **adoption of this Master plan in May 2019**. It is important to put forward big developments in the field of national qualification framework - both Council and Agency for NQF have been established together with 12 sector councils. However, their full functionality, however, is to be achieved during 2019. Finally, building the system of dual education could not be realized if there were no education profiles that had been modernized in the previous years. Modernization of curricula, based on qualification standards, is ongoing process and will underpin all envisaged efforts in this field.

Policy of students' enrolment in secondary education is defined at national level, but it heavily relies on regional and local inputs. These inputs come from matching schools' and companies' interests (in VET subsystem) and from the process of intensive regional/local consultations on enrolment plans (which happens until end of February). National enrolment policy – as seen through enrolment quotas for particular profiles in particular schools – is defined in **March-April**. Open invitation for enrolment in secondary schools is usually published **in May**.

Local level

At the local level, specific responsibilities and tasks could be divided by companies, schools and students.

Many of the processes are, expectedly, interdependent or require close cooperation of these actors.

As for companies, their entry in the system begins with recognizing their own interest for accommodating WBL and signing up by submitting formal request. Matching companies' and schools' needs and goals is a prerequisite for being considered in creation of local, and subsequently national enrolment

plans. At the same time, companies should send some of their workers to training to acquire needed competencies, pass exam and become licensed instructors. Moreover, companies should undergo the process of verification of fulfilment of requirements for delivery of WBL. For both of these processes, procedures have been regulated by appropriate rulebooks. The CCIS is responsible for organizing and implementing both of these quality assurance mechanisms. Getting closer to **beginning of school year 2019/2020** companies make dual education contracts with schools (its required elements are prescribed in the LDE). Next steps for companies presume developing WBL delivery plan (done jointly with schools), participation in student placement procedure and making WBL contracts with students/their parents (at the beginning of the school year). The whole process for companies continues with providing WB on their premises, together with disbursing financial means for WB as stipulated in the LDE.

As for schools interested to take part in dual education, the process begins with being **active to find employers** or to accommodate their request for cooperation. This matching between schools and companies might result in changing education profiles offered by school. If this is the case, it requires big organizational adjustments on the side of the schools, for which school might be reluctant to engage in. School's responsibility is also to **form CGC team** and make its work efficient and effective. Part of its work is organizing student placement in companies (if needed) – organizing interviews and matching wish lists and placement criteria (all prescribed in the Rulebook on student placement). School's task is also to take lead in the process of developing WBL delivery plan. When WBL starts during the school year, school coordinators are tasked to supervise and evaluate WBL.

With regard to students, their foremost responsibility is taking seriously the decisions that affect their professional and private life in such a tremendous manner, like deciding which secondary school to enrol. However, since they are still in the young age, adults have key role in guiding and advising them, being that parents or other adults. This is where the system for career guidance and counselling becomes of critical importance. The system should become functional when students are still at primary schools and continue through further education. The system still relies on school capacities, but the offer should be spread to out-of-school settings as well. **In June**, students make their wish lists, take the final exam and based on points they aggregate are placed in certain school. If they are enrolled in profiles which are implemented as dual profile, they will be involved in the above-mentioned procedure of student placement in which they will get the opportunity to participate in work-based learning.

This process will be a critical path in 2019 and probably also in 2020, because the system is not yet fully developed and, according to initial surveys, there is a lack of resources and information. The master plan lists, therefore, the risks of the 'critical path', which the Commission must take note of in order to discuss and initiate appropriate measures.



The following risk analysis is a first draft. Based on this, measures have been developed to get these risks under control (risk mitigation strategy). Since there are many measures involved, it is indispensable that specific working groups take care of solving any problems. A corresponding organizational structure is presented in Chapter 4.

Table 4. Risk analysis

No.	Risk	Risk mitigation strategy	Working group to address the risk ³⁵
1.	Drafting Qualification standards is the responsibility of ANQF. Explanation of how employers will be utilized in this process is not defined. LNQF only stipulates that for the realization of activities on specific qualifications, the Sector Council may propose to the Agency to establish expert teams.	Explanation of how employers will be utilized in the process of drafting new qualification standards needs to be defined or the procedure for a consultation process among stakeholders before the new qualification standards is enacted (maybe in a form of ANQF internal document regulating the procedure for developing a proposal of Qualification standards).	WG on Development and Implementation of Dual Profiles Curricula (WG1)
2.	By adopting LNQF, the old procedure for establishing qualification standards has been abolished. New procedure awaits the formation of new bodies which requires time until they become fully operational. This could result in stalling the process of development of new qualification standards.	Given the complexities of introducing dual education into the Serbian education system, development of new qualification standards is not among the highest priorities.	WG on Development and Implementation of Dual Profiles Curricula (WG1)

³⁵ Composition and scope of work of working groups are described under chapter 4.

3.	Up to now around one-quarter of education profiles have been developed based on the qualification standards. This process has been ongoing since 2010, so large portion of modernized profiles already may be regarded as outdated. The number of profiles that awaits modernization is high.	There is a need to create a system for regular updating of qualification standards and curricula. It should include definition of the criteria for prioritizing the profile modernization process (both qualification standards and curriculum).	WG on Development and Implementation of Dual Profiles Curricula (WG1)
4.	Role of companies in curriculum development is not precisely legally defined. This can be an obstacle to their effective involvement in this process.	Some lessons are learnt from the experience with modernized profiles in recent years, where curricula were developed with strong support of economy representatives. This could be used to draft standards/ guidance or IIE internal act on companies' involvement in curriculum design.	WG on Development and Implementation of Dual Profiles Curricula (WG1)
5.	There can be a tendency that in curriculum development are involved only the employers who will be directly involved in work-based learning for such profiles. This, sometimes, can cause unfavourable situation since number of profiles that are/going to be implemented by just one company and one school and (in some cases just for one year) may increase.	The education authorities have to clearly convey the message that curricula are defined for occupations, not for individual companies, and to adhere to this by designing transparent and inclusive curriculum development process.	WG on Development and Implementation of Dual Profiles Curricula (WG1)

6.	Parallel existence of a dual and non-dual implementation of the same education profile may affect the prospects of strengthening the dual approach in the VET system in Serbia. For example, companies might incline to support non-dual profiles as they would not need to pay apprentices.	KOF/CEP will track the number of companies and schools (and students) participating in the two types through multiple surveys, thus gathering data on the trends. Analysis of this data should assist in making decisions on the matter.	WG on Development and Implementation of Dual Profiles Curricula (WG1) & WG on Employers' Involvement
7.	Assigning a certain education profile's status of a dual one so far was not based on clear-cut criteria or procedures, making room for potentially arbitrary and doubtful decisions.	The LDE is clear on this issue. At least 20% of time devoted to vocational subjects has to be work-based learning. Maximum 25% of WBL hours can be realized in school. Adherence to this criterion should be used for assigning a certain education profile the status of being implemented as dual, as of school year 2019/2020.	WG on Development and Implementation of Dual Profiles Curricula (WG1)
8.	There are companies ready to be a part of dual education, but instead of implementation of the whole WBL process as prescribed by a curriculum they can implement just a part. Thus, potential risk is that such company will not get accreditation and will not be motivated for cooperation with other companies in the process of securing WBL implementation.	There is a need to work on building joint ownership over apprenticeship among a group of companies sharing groups of students. If that is achieved, companies will reach agreement on their own how best to develop workplace competencies.	WG on Development and Implementation of Dual Profiles Curricula (WG1) & WG on Employers' Involvement

9.	Work-based learning delivery plan is only briefly mentioned in the LDE. Its form, content and designing procedure are not determined. At the same time, developing WBL delivery plan requires certain skills both from WBL school coordinator and company instructor.	There will be a need for centrally initiated investments in capacity building in terms of local competencies for developing WBL delivery plan and monitoring of its implementation.	WG on Development and Implementation of Dual Profiles Curricula (WG1) & WG on Quality Assurance
10.	MESTD supervises the work of schools based on the standards of quality adopted in 2018. However, these standards have not been adjusted to accommodate specific features of VET schools, let alone new quality expected in the work-based learning in a dual VET.	MESTD should initiate the process of development of new quality standards of VET schools (or refining existing drafts) and its adoption.	WG on Quality Assurance
11.	Employer is eligible for apprenticeship programme if, among other requirements, has licensed instructors. It means that the employer needs to invest in training and licensing of its employees to become instructors, while in the end he may not be issued a certificate to accommodate work-based learning.	Some bridging solutions might be developed, like granting conditional verification to employer if all other requirements are satisfied, pending the required licensed instructors (if they are involved in the instructors' training).	WG on Quality Assurance

12.	The obligatory two-year pause before the student can start attaining the programme for acquiring competencies required by Matura programme and then taking Matura exam might be considered as a disincentive for making a decision to continue further education.	There is a need to reconsider this measure and make a well justified proposal for its adjustment.	WG on Development and Implementation of Dual Profiles Curricula (WG1)
13.	Consultations about local enrolment plans are time-consuming and require active participation of many stakeholders who might not have the same level of interests in the process. This might turn into inefficient process.	KOF/CEP survey may investigate the perceptions of the process and subsequent analysis of the data might show whether existing arrangements do create a problem and how it can be resolved, if needed.	WG on Student Enrolment
14.	Matching students and companies entail a number of steps and adherence to various criteria which might result in time-consuming and inefficient process	KOF/CEP survey may investigate the perceptions of the process and subsequent analysis of the data might show whether existing arrangements do create a problem and how it can be resolved, if needed. Moreover, experience of existing procedures of student placement from pilot projects might be consulted.	WG on Career Guidance and Counselling

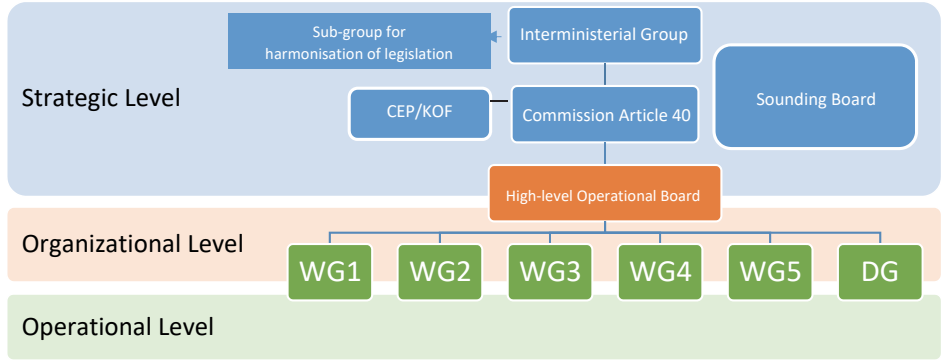
15.	There are a lot of tasks for CGC team to perform on top of its members' existing duties. Moreover, responsibilities of the CGC team presents a mix of administrative and operational tasks – it might be a risk to have such different competencies assigned to the same team.	KOF/CEP survey may investigate the perceptions of the process and subsequent analysis of the data might show whether existing arrangements do create a problem and how it can be resolved, if needed.	WG on Career Guidance and Counselling
16.	There is a chance that not all the companies interested to take part in WBL will be verified until the beginning of September 2019.	There is a need to prioritize companies in terms of verification (based on timing of WBL per curriculum). Moreover, additional investments in the CCIS capacities to lead the verification process are needed. Finally, legislative changes might be taken in consideration as well.	WG on Quality Assurance
17.	Not many companies might be authentically interested to take part in dual education. They might not have a clear perception of the benefits they might have from it.	Additional efforts might be invested in communication campaign explaining possible benefits for economy in general and for individual companies.	WG on Employers' Involvement

18.	Companies might opt out from dual education, when financing students becomes obligatory from September 2019.	Central funds need to be secured that might be used for reducing costs for companies (e.g. covering instructors' training costs of companies). The system should be very cautious of central measures (taxation, subsidies) that would increase direct financial benefits from WBL for companies.	WG on Employers' In volvement
19.	Schools might be reluctant to accept opportunities to change the education profiles they are offering because it may require from them huge organizational changes (including losing some of the personnel).	There is a need to design a set of implementation tools (both pressure and support providing tools) that would make these transitions easier to accommodate and being less painful for all involved.	WG on Student Enrol ment

4. ORGANIZATION STRUCTURE

Organization structure of the actors and their relations within the dual education system building process is to be divided between three levels: strategic level, organizational level, and operational level, as presented in the Figure 8.

Figure 8. Three levels of organizational structure



4.1. Strategic Level

Interministerial Group

This is a high-level structure composed of high-level representatives of institutions and bodies that will, on the highest level, meet two times a year to lead a Policy Dialogue on dual education by overseeing and steering the reforms in the field of education. The group will be chaired by the Prime minister and it will bring together representatives of the MESTD, Ministry of Finance, Ministry of Economy, and Ministry of Labour, Employment, Veteran and Social Affairs.

Sub-group for harmonisation of legislation acts as Interministerial Group subgroup and is composed by representatives of different ministries and experts for particular issues the mentioned ministries are in charge of, and the main task of this sub-group is harmonisation of legislation between different sectors bearing in mind that dual education, by its nature, is closely connected with labour, finances, economy, health, etc., the fields that are regulated within sectors' related regulations that are developed before dual education legislation. Therefore, it is necessary to harmonise all the legislation and adapt it to newly developed regulations and circumstances.

Commission for the development and implementation of dual education

The LDE envisages in Article 40 formation of the Commission for the development and implementation of dual education with the aim to implement and improve dual education and evaluate results achieved in a three-year period. Commission reports to the Government once a year. Chairperson and members of the Commission are enlisted at the beginning of the document.

Centre for Education Policy and KOF Swiss Economic Institute at ETH Zurich

Administrative and technical support to the work of the Commission will be provided by the Centre for Education Policy, an implementation partner in the project 'Support in Development and Establishment of National Model of Dual Education'. Within the framework of the same project, KOF will have a backstopping function. Based on research and practice it provides critical advisory support for the development and implementation of dual education on Serbia, as well as its monitoring and evaluation.

Sounding Board

The purpose of the Sounding Board will be to provide opinions or to test new ideas or policies for acceptance or applicability. Moreover, its members, who should be well-known leaders and champions in their own field (often from a business sector), will be active in spreading ideas on dual education around, presenting examples and success stories. Meetings of the Sounding Board will be convened by chairperson of the Commission referred to in Article 40.

4.2. Organizational Level

High-level operational board

This Board will be chaired by chairperson of the Commission and will be composed by the leaders of the working groups at the operational level. The purpose of the group is to ensure effective communication and coordination between the working groups. Meetings of the High-level operational board will be held at least once in two months.

4.3. Operational Level

Operational working groups will be established for each broad segment of introducing dual education in Serbia. These working groups will develop their plans of activities and will coordinate its activities closely. Each working group will have a leader coming from an institution that is a leading institution for that segment of dual education. Working groups will be established by the decree of the Minister of MESTD.

Working groups are not to be seen as overtaking responsibilities of existing institutions. Responsibilities of involved institutions (e.g. MESTD, IIE, CCIS) are clearly prescribed in appropriate laws and rulebooks. Working groups, rather, dominantly have function to ensure effective communication and coordination between the responsible institutions, thus making the system building process more efficient. For that reason, membership of the working groups will consist only of representatives of implementing institutions, as foreseen in legislation. Moreover, to underline once more, leader of a working group will be coming from the institution that has key responsibility for implementing that segment of dual education.

There will be five working groups: 1) Working Group on Development and Implementation of Dual Profiles Curricula, 2) Working Group on Employers Involvement, 3) Working Group on Student Enrolment, 4) Working Groups on Career Guidance and Counselling, and 5) Working Group on Quality Assurance. Additionally, it is planned to have a Donor Group, thus recognizing their important role in the field of development and introduction of dual education in Serbia.

1. Working Group on Development and Implementation of Dual Profiles Curricula (CVC Working group)

This is a core working group with a purpose to coordinate and oversee development and implementation of dual profiles curricula with a specific focus on establishing effective and efficient education-employment linkage. Working group leader will come from CVAE. Other members will be representatives from MESTD, CCIS, IIE and ANQF.

Working group responsibilities are to coordinate and oversee:

- Curriculum design processes
- Curriculum application processes
- Curriculum feedback

2. Working Group on Employers' Involvement

This working group has a purpose to ensure participation of wide range of employers in apprenticeship system. Planning active promotion of dual education and disseminating relevant information to employers will be key tasks of this working group. The CCIS will have a leading role in this. Members will also include representatives of IIE and MESTD.

3. Working Group on Student Enrolment

The purpose of this working group is to ensure effectiveness and efficiency of the student enrolment both at the level of school enrolment

and the level of enrolment in companies. The group should coordinate and oversee the process of creating enrolment policy in dual education at the national level and at the level of regional school administrations and local self-governments. At the same time, it should ensure that student enrolment in companies is efficient and fair process. The leader of this working group will be the MESTD. Members should also come from the CCIS, with representatives from regional branches of both institutions (RSAs and RCCIS) as well. Representative of the SCTM should also be invited to take part in the work of this working group.

4. Working Group on Career Guidance and Counselling

The purpose of this working group is to enhance the system of career guidance and counselling so as to effectively provide students with career management skills and enable them to make prudent and responsible decisions about their own professional development. It will take a lot of planning, coordinating and overseeing CGC, especially at the level of schools and its cooperation with employers and other important partners.

The lead in this working group will take representatives of the IIE as the lead institution in developing the recently adopted Career Guidance and Counselling Standards. Other members will be representatives of MESTD, CCIS and NES, relevant CSOs (e.g. BOS, EURO Guidance, etc.).

5. Working Group on Quality Assurance

The purpose of this working group is to lift the quality assurance of dual education so to ensure that it produces expected outcomes. The working group will coordinate and oversee the process of accreditation of companies, instructor training and licensing, monitoring and evaluating dual education overall. The leader of this working group will come from the CCIS. Members will also include representatives from MESTD, IIE, Institute for Evaluation of Quality in Education and CEP.

6. Donor coordination group (DG)

The purpose of the donor group is enhancing coordination between the donors themselves and the public institutions responsible for implementing dual education. It will require a continuous dialogue that would become more effective if it is formalized in such a way. Aligning independent initiatives, joining ideas and resources for capacity building and other forms of technical assistance needed for dual system will be in the focus of this working group. Working group will have 6-month rotating leadership, starting with representatives from the Swiss Agency for Development and Cooperation.

5. DUAL SYSTEM OPERATIONS OVER THE NEXT THREE YEARS

Having built the operational system of dual education by September 2019, its functionality will be sustained by regular activities of responsible institutions. Three following tables depicts activities of various implementing partners at three levels (national, regional and local) over the course of next three years per key processes.³⁶

The Commission will regularly monitor this plan and check whether the implementation of the LDE is on track. The working groups will be asked to develop more detailed plans on how and when the tasks assigned to them will be implemented. The regular monitoring of this implementation process should identify the critical path so that the Commission can take any measures necessary to overcome problems.

36 Green cells designate that the action is completed, while blue cells designate that the action is ongoing or are going to start.

Table 5. Dual system operations over the next three years
NATIONAL LEVEL

Actions per key processes	Year					
	2018	Jan/June 2019	July/Dec. 2019	Jan/June 2020	July/Dec. 2020	2021
Cooperation and institutional partnership						
1. Adopting Act on working procedures of Commission from Article 40 and Annual working plan	Comm. Art 40					
2. Establishment of a high-level strategic Inter-ministerial group and its sub-group for harmonisation of legislation		Government				Permanent meetings and continuous work
3. Establishment of Commission from Art. 40 High-level Operational Board		Comm. Art 40				Permanent meetings and continuous work
4. Establishment of working groups		Comm. Art 40				Permanent meetings and continuous work
5. Adopting the Master plan for dual education		Comm. Art 40, MESTD				Permanent meetings and continuous work
6. Establishing the Sounding board		CCIS				Permanent meetings and continuous work
Education process – Curriculum value chain						
7. Forming NQF Agency	Government					Fully operational and implementing assigned duties
8. Forming Sector Councils	Government					Fully operational and implementing assigned duties

9. Forming NQF Council	Government	Fully operational and implementing assigned duties				
10. Continual development and adoption of new qualification standards		MESTD /ANQF/ CNQF/SC	MESTD/ANQF/ CNQF/SC	MESTD/ANQF/ CNQF/SC	MESTD/ANQF/ CNQF/SC	MESTD/ANQF/ CNQF/SC
11. Development and adoption of internal act of ANKQ on defining employer's involvement in developing qualification standards			MESTD/ANQF			
12. Development and adoption of internal act of IIE on continual development and adoption of new VET curricula based on qualification standards		MESTD/IIE/ CVAE/NEC	MESTD/IIE/ CVAE/NEC	MESTD/IIE/ CVAE/NEC	MESTD/IIE/ CVAE/NEC	MESTD/IIE/ CVAE/NEC
13. Act on defining of employers' involvement in developing VET curricula and examination programme			IIE			
14. Defining prioritization criteria for developing qualification standards and VET curricula (ticketing system)		MESTD/CCIS				
15. Develop clear guidance for schools and employers on criteria and procedures for obtaining the status of dual education profile		MESTD/CCIS				

16. Adopting the Rulebook on training programme me, detailed conditions and other issues of importance for taking instructor examination	MESTD							
17. Organizing training for work-based learning co ordinator on developing, monitoring and evaluating local work-based learning including the development of delivery plans			MESTD/IIIE	MESTD/IIIE	MESTD/IIIE	MESTD/IIIE		
18. Adopting the Act on costs of training and taking the instructor examination		CCIS						
19. Recruiting the trainers for trainings of instructors	CCIS							
20. Organizing trainings for instructors		CCIS	CCIS	CCIS	CCIS	CCIS	CCIS	
21. Establish examination boards and organizing instructor examination		CCIS	CCIS	CCIS	CCIS	CCIS	CCIS	
22. Establishing and keeping registry of issued in structor licenses			CCIS	CCIS	CCIS	CCIS	CCIS	
23. Establishing and maintaining dual education contract registry			CCIS	CCIS	CCIS	CCIS	CCIS	

24. Implementation research	KOF/CEP		KOF/CEP		KOF/CEP	
Student enrolment to schools and companies						
25. Formulating, implementing and monitoring student enrolment policies and procedures	MESTD	MESTD	MESTD	MESTD	MESTD	MESTD
26. Adopting the Rulebook on placement of students to WBL		MESTD				
27. Developing labour demand forecast methodology			ANQF			
Career guidance and counselling of students						
28. Adopting the Rulebook on detailed conditions, operation, activities and composition of the career guidance and counselling team in secondary schools delivering dual education profiles	MESTD					
29. Organizing nation-wide training campaigns for CGC school teams and educational advisors			MESTD/IIE	MESTD/IIE	MESTD/IIE	MESTD/IIE

Quality assurance, accreditation and monitoring						
30. Adjusting Quality standards of educational institutions with standards specific for VET school and work-based learning		MESTD/IEQE				
31. Training of educational advisors in new standards		MESTD/IEQE				
32. Training of educational inspectors for inspecting dual education		MESTD				
33. Adopting the Rulebook on organisation, composition and operation of the Commission for Verification of Fulfilment of Requirements for Delivery of Work-Based Learning	CCIS					
34. Establishing and coordinating the work of commissions for verification of fulfilment of requirements for delivery of WBL		CCIS	CCIS	CCIS	CCIS	CCIS
35. Establishing and maintaining a registry of employers verified for provision of work-based learning		CCIS	CCIS	CCIS	CCIS	CCIS
36. Development of Monitoring and Evaluation Framework	CEP	CEP	CEP	CEP		

37. Capacity building of institutions and organisations involved in M&E					CEP	CEP	
Financing dual education							
38. Development of financial support scheme to employers involved in dual education		Government	Government				
39. Cost-benefit analysis			KOF	KOF	KOF		
Communication with stakeholders							
40. Developing and maintaining web-site devoted to dual education			MESTD	MESTD	MESTD	MESTD	MESTD
41. Organizing annual conference on developments in dual education			MESTD		MESTD	MESTD/CEP	
42. Writing of and publication of yearly progress report			MESTD		MESTD	MESTD	
43. Developing and maintaining web portal on dual education for employers			CCIS	CCIS	CCIS	CCIS	CCIS
44. Development of guides for schools, parents and pupils and employers		CEP	CEP				

45. Public relation campaign on dual education		Comm. Art 40	Comm. Art 40	Comm. Art 40	Comm. Art 40	Comm. Art 40
46. Development of Communication Strategy for dual education and logo.		CEP				
Permeability – access to work sector and higher education						
47. Develop and implement the system of final exams and professional Matura		MESTD /IIE/ IEQE	MESTD /IIE/ IEQE	ME MESTD /IIE/ IEQE	MESTD /IIE/ IEQE	MESTD /IIE/ IEQE
48. Develop format of diploma supplement			MESTD	MESTD	MESTD	MESTD
49. Referencing NQF to European Qualifications Framework				MESTD/ANQF	MESTD/ANQF	MESTD/ANQF

REGIONAL LEVEL

Actions per key processes		Year				
		2018	Jan/June 2019	July/Dec. 2019	Jan/June 2020	July/Dec. 2020
Cooperation and institutional partnership						
1. Mediating contacts between schools and employers	RSA MESTD/ RCCIS	RSA MESTD/ RCCIS	RSA MESTD/ RCCIS	RSA MESTD/ RCCIS	RSA MESTD/ RCCIS	RSA MESTD/ RCCIS
Education process – Curriculum value chain						
2. Nominating employers' representatives in final and Matura examination					RCCIS	RCCIS
Student enrolment to schools and companies						
3. Organizing consultations with schools, employers and other stakeholders		RSA MESTRSA		RSA MESTD		RSA MESTD
4. Creating district and local enrolment plan		RSA MESTD		RSA MESTD		RSA MESTD
Career guidance and counselling of students						
5. Continual support to school CGC teams		RSA MESTD	RSA MESTD	RSA MESTD	RSA MESTD	RSA MESTD

6. Nominating employers' representatives in school CGC teams		RCCIS					
Quality assurance, accreditation and monitoring							
7. External evaluation & pedagogical supervision encompassing WBL				RSA MESTD	RSA MESTD	RSA MESTD	RSA MESTD
8. Organizing work of commissions for verification of companies for WBL		RCCIS	RCCIS	RCCIS	RCCIS	RCCIS	RCCIS
Financing dual education							
Communication with stakeholders							
9. Organizing local round tables on implementation of dual education		RSA/MESTD/ RCCIS	RSA/MESTD/ RCCIS	RSA ESTD/ RCCIS	RSA MESTD/ RCCIS	RSA MESTD/ RCCIS	RSA MESTD/ RCCIS
Permeability – access to work sector and higher education							

LOCAL LEVEL

Actions per key processes	Years					
	2018	Jan/June 2019	July/Dec. 2019	Jan/June 2020	July/Dec. 2020	2021
Cooperation and institutional partnership						
1. Matching the needs of local employers and schools	Schools/ Employers	Schools/ Employers	Schools/ Employ ers	Schools/Em- players	Schools/ Employers	Schools/ Em players
2. Contracting dual education arrangement between school and employers	Schools / Employers	Schools/ Employers	Schools/ Employ ers	Schools/ Em players	Schools/ Em players	Schools/ Em players
Education process – Curriculum value chain						
3. Assign the position and job description of work- based learning coordinator		Schools	Schools	Schools	Schools	Schools
4. Develop work-based learning delivery plan			Employ ers			
5. Organize final exam or Matura with employers’ representatives				Schools		Schools
6. Select and send staff to instructor training		Employers	Employers	Employers	Employers	Employers

7. Organize work-based learning on company premises			Employers	Employers		
Student enrolment to schools and companies						
8. Participate in local consultations on enrolment plan	Schools/ Employers	Schools/ Employers		Schools/ Employers		Schools/ Employers
9. Organize interviews of students and parents with employers			Schools		Schools	Schools
10. Assign students to employers			Schools		Schools	Schools
11. Develop a preference list of students and employers			Employers & students		Employers & students	Employers & students
12. Interviewing candidate students for work-based learning			Employers		Employers	Employers
Career guidance and counselling of students						
13. Form the Team for Career guidance and counselling		Schools	Schools			
14. Develop programme for Career guidance and counselling and incorporate it in school programme		Schools	Schools			

15. Implement CGC activities in school		Schools	Schools	Schools	Schools	Schools
Quality assurance, accreditation and monitoring						
16. Monitor and evaluate work-based learning	Schools	Schools	Schools	Schools	Schools	Schools
17. Submit an application and go through the process of verification for WBL		Employers	Employers	Employers	Employers	Employers
Financing dual education						
18. Securing material and financial support to student enrolled in WBL			Employers	Employers	Employers	Employers
Communication with stakeholders						
Permeability – access to work sector and higher education						

6. RESEARCH

6.1. Implementation research

Context and purpose. This research presents a three-year investigation of implementation of the Law on Dual Education. Key responsibility for the implementation research is with KOF Swiss Economic Institute in partnership with Commission for the development and implementation of dual education and Centre for Education Policy.

Implementation research purpose is to combine longitudinal and cross-sectional observation of the implementation process and the specific success factors and barriers that affect the LDE. The main research questions of this study are:

1. What enables and/or prevents implementation of the Law on Dual Education?
2. What changes to the initial Law on Dual Education will facilitate implementation?

The answers on the mentioned questions will strongly inform potential revisions of the Dual law after its initial trial phase.

Through survey of opinions of the main stakeholders' specific challenges and opportunities will be examined. Collected information will be used in the process of development of recommendations for the Law on Dual Education improvement.

Methodology. The study would combine document analysis, interviews, survey research, etc.

- **Document analysis:** Legal framework, existing analyses, etc. will be used as the foundation for identification of stakeholder types and key moments. Stakeholder types are the groups involved in or affected by the reform, possibly including actors like VET teachers and school leaders, the CCIS, the MESTD, regional education authorities and economy representatives, international donor agencies, employers, trade unions, students and parents.
- **Interviews with key stakeholders:** The interviews will be applied as key qualitative method for framing and interpreting the survey. A representative group of key stakeholders based on document analysis, including as many stakeholder types as possible will be identified. Identification of specific interviewees will rely on the MESTD and CCIS. In the first round of interviews, we will discuss how interviewees foresee implementation of the Dual Education law and what

they think the major success factors and barriers will be. This will feed into survey development. In the second round of interviews at the end of the project, we will discuss major issues and opportunities to determine why they arose and what might be done to improve them. This will feed final recommendations.

- **Stakeholder survey:** We will design repeated stakeholder surveys of respondents' perceptions of implementation progress, plus the major success factors and barriers they face. Success factors and barriers will be based on document analysis, interviews, and situation in the field. The survey will go out multiple times through the course of the project. Timing will be based on feasibility and document analysis of key moments in implementation. Again, we will rely on MESTD and CCIS for contact information and introductions.
- **Desk research & document analysis:** This will fill out the remainder of the information and will be especially important for context and data triangulation.

Timeline and deliverables. The project will last three years until tentative revision of the current law. The project will end with a report that assesses implementation progress, highlighting key success factors and barriers as well as lessons learned from initial implementation. The report will conclude with recommendations.

6.2. Cost-Benefit Analysis for firms

Context and purpose. The aim is to survey all firms that are or have been involved in the National Model of Dual Education. This is necessary since the National Model of Dual Education is very heterogeneous across sectors, which increases the sample size required to create reliable information on firms' net benefits. Therefore, the cost-benefit analysis will address programme scalability by examining overall costs and benefits for participating employers. To calculate net gains/benefits to participating employers, an adapted cost-benefit survey tool developed in Switzerland and Germany to measure the costs and benefits of apprenticeship training for firms will be used.

The methodology to be applied adheres to an accounting framework that determines the costs arising from the model, the profits during the implementation of the national dual education model and the profits that arise after the completion of the training programme if trained students remain in the company. Data for the accounting framework are obtained from surveys of training companies.

Part of the cost-benefit instrument will be used to measure companies' costs and benefits during training (learning by doing) as well as to calculate the company's net costs per student in training (learning by doing) within the national dual education model. Training costs include the following.

We will use the cost-benefit part of the tool to measure the costs and benefits to the firms during the period of training and to calculate firms' net costs per National model of dual education trainee. Training costs comprise the following categories:

- Labour costs of trainees
- Costs for on-the-job learning
- Costs for planning the National model of dual education
- Costs for hiring the trainees and administering the National model of dual education
- Other costs related to dual education

An additional model will be included in the survey that assesses recruitment opportunity costs – the benefits arising after the training period. They are:

- Saved hiring costs
- Saved adjustments costs

Cost-benefit information is directly related to the amount of funding the Serbian government would have to pay to employers for them to participate. Combining net costs of participation during the programme with the costs saved after the programme ends yields the total net cost of the programme.

In order to assess how Serbia can further enhance the programme and extend it to more firms, we will also survey similar firms not already participating. This step checks for external validity and identifies potential obstacles to programme adoption. It also enables us to calculate how the propensity of firms to participate in the training programme depends on factors like sector, firm size, and ratio of skilled to unskilled employees. Control companies should be as similar as possible to training companies, ideally in the same sectors and of similar sizes. The CCIS should identify and provide contact information for appropriate companies.

The results of this study will provide a research baseline for reviewing the design of the National model of dual education. The study addresses dual education scalability by examining overall costs and benefits for participating employers.

Methodology. The methodology follows a mixed-method design. For the quantitative portion, we will gather data using a computer-based survey using the LimeSurvey application. The cost-benefit tool calculates gross costs and benefits of training, then net costs or net benefits. The model also allows

analysing differences of net costs across occupations, sectors, firm size and the demand of firms for skilled employees. This can be done by regression models in which net costs (or benefits) enter as dependent variables, with firm characteristics (e.g. sector, occupations, etc.) as explanatory variables.

Two rounds of interviews accompany the quantitative survey with participating firms before and after the survey conduction. These serve to test the applicability of the quantitative survey and to validate the results from it. Furthermore, these interviews provide a background and context to the quantitative data, thereby clarifying the interpretation and conclusions that drawn from the quantitative analysis. The interviews also serve to discuss issues that are more difficult to quantify such as the general satisfaction with the programme.

The study will address the following research questions:

- i. What is the financial net gain/benefit to employers who participate in the programme?
- ii. How does Serbia's model compare to those in other countries?
- iii. What are the success factors for the programme?
- iv. How can Serbia further enhance the programme?

Timeline and deliverables. The project starts as soon as we have a definitive list of companies involved in the dual education law according to the new LDE (most probably in the 4th quarter of 2019). The first internal report is delivered in September 2020 (or later). The final publication and workshop take place in November 2020 (or later).

7. MONITORING & EVALUATION FRAMEWORK

7.1. Monitoring & Evaluation Framework – Concept

The main purposes of a Monitoring and Evaluation Framework are: providing clear identification of situation, trends and patterns; generating data for decision making (such is enrolment policy) during implementation of policy; securing progress in implementation of policy allowing analyses of progress track against the set goals and flexible approach through corrective actions etc.

The concept of monitoring and evaluation (M&E) will be created within the three-year implementation of the LDE and will include defining common, general and specific goals, principles and scope of M&E. The M&E concept is be based on three pillars important for dual education:

1. Realisation/fulfilment of the preconditions necessary for the implementation of high-quality dual education (i.e. fulfilment of preconditions set forth by the Law on Dual Education),
2. Implementation process, including qualitative and quantitative data on implementation of work-based learning/dual education in Serbia and,
3. Realized outcomes on two levels:
 - 3.1. The level of achieved educational outcomes, including assessment of knowledge, values, skills and attitudes, and
 - 3.2. The degree of employability, employment and satisfying the fluctuation needs in the labour market; having in mind the project duration and the time needed for this kind of longitudinal research that exceeds project duration; it is important to note that the education sector system will get with this project practical knowledge to independently conduct monitoring of the students graduates of dual education.

Such comprehensive concept of monitoring and evaluation will result in development of an adequate methodology and several sets of instruments for data collection. They will be piloted and then fine-tuned against the results of piloting process.

Development of each segment of monitoring and evaluation include validation through focus groups, group interviews, interviews and small-scale researches.

Regarding the purpose of monitoring and evaluation, the CEP will prepare an explanation of the implementation by developing a roadmap and

framework for monitoring and evaluation and strengthen the capacity of institutions and organizations involved in monitoring and evaluation.

7.2. Monitoring and evaluation –development steps and timeline

- Development of monitoring and evaluation framework (based on the state of affairs and over view of international best practices in monitoring and evaluation of dual education) - by September 2019
- Consultations on the first draft of the Monitoring and Evaluation Framework; Piloting and fine tuning of instruments of the Monitoring and Evaluation Framework; Public presentation of Framework - by November 2020
- Piloting the monitoring and evaluation framework - by July 2020.
- Development of a “Roadmap” for the implementation of the monitoring and evaluation by August 2020.
- Capacity building of institutions and organisations involved in monitoring and evaluation – by September 2020

8. YEARLY PROGRESS REPORT

This section will be written in the next iterations of the Master plan when first reports on the status of dual education in Serbia become available through regular monitoring and evaluation exercises. Until then KOF/CEP implementation research will provide such information in three directions: 1) Yearly achievements, 2) Obstacles and challenges during implementation process, and 3) Topics for legal revision process.

8.1. Yearly achievements

This section will depict the most important achievements of the preceding school year, including qualitative and quantitative data on implementation of work-based learning/dual education in Serbia. This may subsume elements of Education-Employment Linkage Index (EELI) and Youth Labour Market Index (YLMI).

8.2. Obstacles and challenges during Implementation process

Key feature of successful implementation of educational change is to be sensitive enough to recognize and to respond to obstacles and challenges of implementation process. It is well known fact that the implementation gap is the biggest challenge in education policy cycle. This section will present major obstacles and challenges encountered during the implementation process and learned about through regular monitoring and implementation research and various means of consultations at different implementation levels.

8.3. Topics for legal revision process

It is expected that at least some of the obstacles and challenges are to be addressed through a legal revision process. This section will explain all of the issues that will emerge during the implementation of dual education and, where possible, offer suggestions for revisions.

A GUIDE FOR STUDENTS AND PARENTS THROUGH DUAL EDUCATION IN SERBIA

September 2019

The Project
“Support in the development and establishment
of the National Model of Dual Education”

The publication was created within the project "Support in the development and establishment of the National Model of Dual Education" implemented by the Centre for Education Policies in partnership with the Ministry of Education, Science and Technological Development of the Republic of Serbia, thanks to funding from the Swiss Agency for Development and Cooperation.

The views and opinions expressed in this publication do not necessarily reflect the views of donors.

All terms used in the Guide in the grammatical masculine gender imply the natural masculine and feminine gender of the persons to whom they refer. The word (s) "parent (s)" is used to mean the biological parent (s), guardian (s) and means all those who have taken or are taking primary care of students.

INTRODUCTORY WORD

Dear students and parents,

This Guide is primarily intended for you to get acquainted with the characteristics of the National Model of Dual Education. In addition, this Guide can serve as a source of information for all those who want to get information about secondary dual education in the education system of the Republic of Serbia. In it you will find answers to the questions of what is considered the term dual education in Serbia (i.e. the National Model of Dual Education) and what its characteristics are, how to enrol in a dual educational profile, how to implement a curriculum in dual educational profiles, which are the advantages of education within dual educational profiles, what the possibilities of students are after completing the dual educational profile, as well as many other issues.

We believe that the Guide will be of the greatest benefit to high school students and their parents because, although some elements of dual education are not new in secondary vocational education, for the quality implementation of the Law on Dual Education, which came into force on 1 September In 2019, it is important to be well informed about the most important participants in the education process, and that is students.

The guide is divided into several parts (chapters). The first part describes the characteristics of dual education and provides an explanation of the most important terms related to dual education, i.e. clarifies the terminology that you will encounter while reading the Guide, but also when reading other texts related to dual education. The second chapter describes the process of applying for enrolment in secondary schools with special reference to enrolment in dual educational profiles, the way in which companies or employers who will accept students to work-based learning are included in dual education and the process of preparing all participants before the beginning of the realization of dual education. The third chapter, which is crucial for understanding the process of teaching and learning in dual educational profiles, describes the way students are assigned to companies, the roles and responsibilities of instructors and work-based learning coordinators, how to regulate the relationship between students and company, etc. The fourth part contains information on the vocational matura and the final exam, while the fifth chapter deals with the possibilities that the student has after completing the dual educational profile. At the very end is the additional information that we thought might be useful to you, as well as attachments.

For ease of reference and better visibility, the main topics covered in that chapter are listed at the beginning of each chapter.

All information contained in the Guide is based on legal regulations that govern the field of education in more detail, with a special focus on regulations related to dual education.

We hope that this Guide will contribute to fully informing everyone, especially students, about all important aspects of dual education in Serbia.

Authors Team

LIST OF ABBREVIATIONS

Abbreviation	Full name
CCIS	Chamber of Commerce and Industry of Serbia of Serbia
CGC	Career Guidance and Counselling
IEQE	Institute for Education Quality and Evaluation
IIE	Institute for the Improvement of Education
LDE	Law on Dual Education
LSE	Law on Secondary Education
LNQF	Law on National Qualification Framework of the Republic of Serbia
LSG	Local Self-Government
MESTD	Ministry of Education, Science and Technological Development
RCCIS	Regional Chamber of Commerce and Industry of Serbia
RSA	Regional School Administration
SCTM	Standing Conference of Towns and Municipalities
SVE	Secondary Vocational Education

1. BASIC FEATURES OF DUAL EDUCATIO IN SERBIA

You will find out in this chapter:

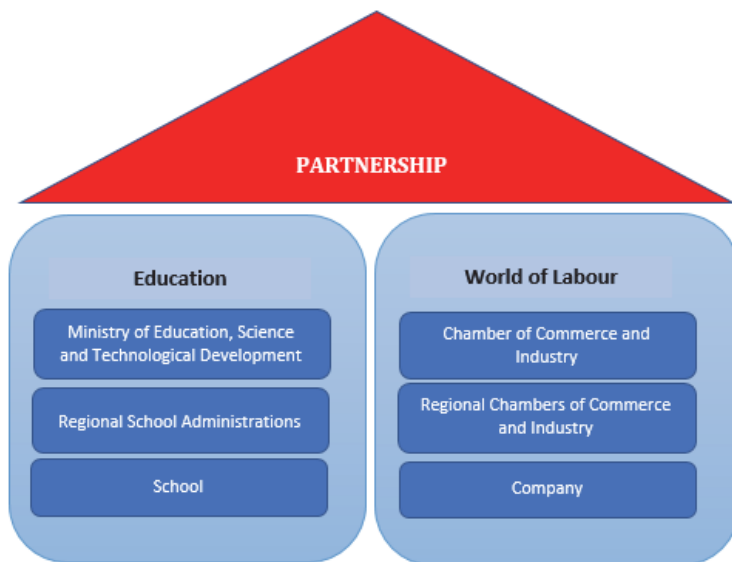
- What is meant by dual education in Serbia, i.e. what does the National Model of Dual Education look like?
- What are the most commonly used terms related to dual education in Serbia and what is their meaning?
- What are the differences and similarities between dual and non-dual educational profiles?
- What dual education advantages are

1.1. National Model of Dual Education in Serbia

Based on the Law on Dual Education (LDE) ("Official Gazette of the Republic of Serbia", No. 101/17), dual education is a model of teaching in the system of secondary vocational education (SSVE) in which the curriculum is taught and teachings must be conducted in two places - at school and in the company (at the employer). More precisely, students acquire knowledge, skills and attitudes (competencies) in the school where theoretical classes and exercises are conducted, and with the employer when work-based learning is conducted, all in accordance with the qualification standard and curriculum (LDE), Article 2)

Apart from the fact that the curriculum is implemented in two places, dual education in Serbia has another "dual" characteristic. Namely, the process of achieving dual education in Serbia includes two main partners, namely the Ministry of Education, Science and Technological Development (MESTD) and the Chamber of Commerce and Industry of Serbia (CCIS). The inclusion of the Chamber of Commerce and Industry of Serbia in dual education ensures, among other things, that dual educational profiles are in line with the needs of employers and the labour market, but also the quality of work-based learning with employers through company accreditation and training of instructors for work with students.

Figure 7. Partnership in educating Students Attending Dual Education



Dual education is implemented differently in different countries, and some of the countries that have a long history of implementation are Austria, Germany and Switzerland. In each of these countries, dual education is conducted in accordance with the context in that country. Thus, the National Model of Dual Education was created in Serbia, which

For more information, please see the Law on Dual Education, "Official Gazette of RS", No. 101/17, which can be found at this link: www.mpn.gov.rs/dokumenta-i-propisi/zakonski-okvir/

relies on experiences and examples from countries that have developed dual education, but which is adapted to the characteristics of the situation in Serbia in the fields of education (strategic goals of education, school structure, number of students, etc.) and economy (economic development and strategic directions of its development, company structure, etc. For example, given that the Republic of Serbia has set inclusion in education as one of its priorities and that strategic development relies on the assumption that increasing equity should lead to increased quality in education, some features of dual education in Serbia are specific in consistent with that assumption. Therefore, students work-based learning with an employer are placed under the auspices of the school and no student enrolled in a particular dual educational profile will remain unassigned for work-based learning with an employer, allowing all students

enrolled in a particular educational profile to have the opportunity to acquire competencies in the company as well, and not only in school. In contrast to the described situation in Serbia - in some other countries, the process of placing students takes place completely outside the school - students are obliged to find a company where they can acquire competencies during schooling.

In dual education in Serbia, the student DOES NOT WORK, but learns based on work, which means that the Labour Law does not apply to him, but the laws and all other legal regulations in the field of education. The student is not in the sphere of work, but in the sphere of education. The student first enrolls in school, and then is assigned to the employer. The school is responsible for both the part of the curriculum that is realized in the school and for the part that is realized with the employer.

Considering that dual education in Serbia is a model of teaching in the system of secondary vocational education, it is important to know that there are dual educational profiles, but, except for one (Aviation Academy in Belgrade), there are no "dual schools". In other words, one secondary vocational school may have several educational profiles, some of which are dual educational profiles, and which imply compliance with the provisions of Law on Dual Education, in addition to other laws and bylaws in the field of education applicable to secondary vocational education. This means that if a secondary vocational school also has dual educational profiles, that school must comply with another law in the field of secondary vocational education, which is the Law on Dual Education.

1.2. The most commonly used terms related to dual education in Serbia and their meaning

The most commonly used terms related to dual education in Serbia and their meaning are given below. All definitions of the term are based on the Law on Dual Education (Official Gazette of the Republic of Serbia, No. 101/17) and the Law on the National Qualifications Framework of the Republic of Serbia (ZNQF), Official Gazette of the Republic of Serbia, No. 27 / 18). In case the definitions are literally taken, after the definition are correctly stated the Articles of the mentioned laws from which they are taken, while in situations where a single definition was created using different parts of the text of the law and where it was not possible to specify a specific Article, the definition does not contain such reference.

Table 7. Terms commonly used related to dual education and their meaning

Term	Meaning
Dual education	Dual education is a model of teaching in the system of secondary vocational education in which through theoretical teaching and exercises in school and work-based learning with the employer, acquire and improve, i.e. build knowledge, skills, abilities and attitudes (competencies) in accordance with the standard qualifications and the curriculum (LDE, Article 2).
Work-based learning	Work-based learning is a part of dual education which implies an organized process during which students in a real work environment acquire competencies to work in certain occupations or groups of occupations.
Employer	An employer is a legal entity or entrepreneur who directly provides conditions for work-based learning in dual education. An employer who is involved in dual education must meet the requirements prescribed by the Law on Dual Education, i.e. to be accredited for the realization of work-based learning in accordance with the curriculum for a particular educational profile. The Chamber of Commerce and Industry of Serbia accredits companies for participation in dual education.
Coordinator of work-based learning	Coordinator of work-based learning is a person who is employed in a secondary vocational school, i.e a teacher of practical classes, and who in cooperation with the instructor plans, monitors, implements and evaluates the realization of work-based learning with the employer (LDE, Article 2).
Instructor	An instructor is a person employed by the employer, who ensures that during work-based learning the contents prescribed by the curriculum are realized and who is responsible for acquiring knowledge, skills and attitudes of students with the employer (LDE, Article 2).
Curriculum	The curriculum is a document that determines which subjects will be taught, in what order by grades and with how many hours per subject and grade. This document prescribes the teaching contents by subjects as well as the goals, tasks and contents of teaching, as well as the annual and weekly fund of classes for each subject.

Plan for the realization of work-based learning	The plan for the realization of work-based learning is a document that contains a description of activities, place and dynamics of achieving work-based learning. This plan is created jointly by the school and the employers, ie the work learning coordinator and the instructor. The implementation plan is an integral part of the contract between the employer and the school and between the employer and the student / parent.
Enrolment policy	Enrolment policy is a process of planning educational profiles that will be realized during one school year. This process takes place in cooperation with the school, school administration, local self-government, employers, regional chambers of commerce, the National Employment Service and other relevant institutions at the local level. The criteria for creating an enrolment policy are prescribed by MESTD. The final decision on educational profiles in the school is made by MESTD, and when it comes to dual educational profiles, the final decision is made by MESTD in cooperation with CCIS, but it is important to emphasize that the school launches an initiative to approve dual educational profiles to MESTD, enclosing the proof of the cooperation existing with employers.
Placement of students for work-based learning	Placement of students for work-based learning is the process of placing students who have enrolled in a dual education profile to attend work-based learning at the employer (s). This process is regulated by the Rulebook on how to place students for work-based learning and implies active participation of students (and parents), schools and employers.
In-kind support to students	In-kind support to students includes the provision of means and equipment for personal protection at work, insurance in case of injury at work, compensation for food costs, compensation for transportation or providing transportation for students from school to company, etc., by the employer to the student who is studying based on work (LDE, Article 33).
Financial support to students	Student financial support implies mandatory compensation to the student by the employer for work-based learning. The financial support of the student must be an integral part of the contract (both the one signed by the school with the employer and the one signed by the student, i.e. the parent, with the employer). Remuneration for work-based learning is paid for each hour spent on work-based learning, once a month, in a net amount of at least 70% of the minimum labour price (LDE, Article 34).

Dual education contract	The dual education contract regulates the rights and obligations of the school and the employer who is involved in work-based learning. The duration of the contract is three or four years, or as long as it takes for the generation that started schooling to complete it.
Contract for work-based learning	The contract for work-based learning regulates the rights and obligations of students and employers when work-based learning will be conducted. The contract is concluded by the student (or parent) and the employer. The contract is signed no later than the beginning of the school year in which the realization of work-based learning begins. This means that some contracts will be signed in the second year when work-based learning for that dual educational profile begins.
Career guidance and counselling (CGC)	Career guidance and counselling involves the process, services and activities aimed at supporting the individual to make decisions regarding education, training and occupation and to manage their career.
Competency	Competency implies a set of knowledge, skills and attitudes.
Qualification standard	A qualification standard is a document established at the national level that contains a set of qualification data with a detailed description of learning objectives and outcomes as well as qualification data on the basis of which the level is determined, classified and evaluated (LNQF, Article 2).
Higher education institutions	Higher education institutions that independently perform higher education activities are universities (faculties and art academies within them), colleges, academies of vocational studies and colleges of vocational studies. All but the university (and its institutions) are non-university institutions.
Qualification	Qualification is a formal recognition of acquired competencies. An individual acquires a qualification when the competent authority determines that he has achieved learning outcomes within a certain level and according to a given qualification standard, which is confirmed by a public document (diploma or certificate) (LNQF, Article 2).
Occupation	A set of jobs whose main tasks and duties are characterized by a high degree of similarity.
Occupational standard	A document containing a description of the duties and tasks, as well as the competencies required for an individual to perform work efficiently in a particular occupation, determined in accordance with the regulations governing employment (LNQF, Article 2).

1.3. Differences and similarities between dual and non-dual education profiles

The final list of educational profiles offered by all high schools in Serbia in each school year is passed by the Ministry of Education, Science and Technological Development and they are in the Public Invitation for enrolment of students in secondary schools for that year (issued by the Official Gazette, and more details about the Public Invitation can be found in section 2.4.). In one vocational secondary school, dual and non-dual educational profiles can be realized at the same time. The key difference between these two types of educational profiles is that learning in the dual educational profile is realized through work-based learning, which makes up 20% to 80% of the total number of hours of vocational subjects, in accordance with the appropriate curriculum (LDE, Article 6). Another key difference is that for work-based learning within dual educational profile, students are financially secured, i.e., students are paid compensation for each hour spent in work-based learning, in the net amount of at least 70% of the minimum labour price, no later than the end of the current month for the previous month (LDE, Article 34). Third, but no less important, is that employers and instructors working for employers had to meet a number of legally prescribed conditions in order to participate in the process of work-based learning in a company which is an integrated part of student education in the dual education system.

The following table lists specific topics that may be of interest to students followed by the examples that illustrate the similarities and differences between the dual and non-dual educational profiles. Information on the characteristics of dual education and secondary vocational education is based on the provisions of the Law on Secondary Education (LSE) "Official Gazette of the Republic of Serbia", numbers 55/13, 101/17 and 27/18 - other law), and Law on Dual Education ("Official Gazette of the Republic of Serbia", No. 101/17). As in the case of the definitions presented in the previous table, literal transposition of the text of the law is accompanied by a reference to the specific Article of the law from which it was taken.

Table 8. Similarities and Differences between Dual and Non-Dual Edycation Profiles

Topic	Dual Education Profile	Non-Dual Education Profile
Applicable legal regulations	Laws and bylaws related to the education system, and especially those related to the secondary education system. Law on Dual Education and accompanying bylaws.	Laws and bylaws related to the education system, and especially those related to secondary education system
Mandatory place of schooling	In school and compulsory work-based learning with the employer in accordance with the Law on Dual Education.	In school and conducting practical classes at school and with the employer in accordance with the Law on Secondary Education.
Connection with the world of work	Work-based learning, which must be organized by an accredited employer.	The connection with the world of work is possible if the school organizes practical classes and professional practice with a company, institution and the like (LSE, Article 30).
Employer participation	<p>Employers' participation is mandatory and regulated.</p> <p>Employers must go through the accreditation process, i.e. meet the conditions for conducting work-based learning with the employer.</p> <p>The CCIS maintains a database of employers who meet the requirements for conducting work-based learning and this database is publicly available.</p>	<p>Employers' participation is not mandatory or regulated.</p> <p>Although the Law on Secondary Education refers to the possibility of internships with the employer, there are no defined conditions that the employer must meet in order to admit students to practical classes and professional internships.</p> <p>There is no base of employers with practical training and professional practice.</p>

Who teaches students with the employer?	Employees with an employer who have relevant work experience, who have been trained as an instructor and obtained a license	Employees with the employer determined by the employer
The manner of regulating the rights and obligations between the school and the employer	Dual education contract – The Law on Dual Education prescribes the mandatory elements of a contract (LDE, Article 15).	The conditions for the implementation of practical classes or professional practice are regulated by a contract (LSE, Article 30).
The way of regulating the rights and obligations between the student and the employer	The contract on work-based learning signed by the student (or representative, if the student is a minor) and the employer – Law on Dual Education prescribes the mandatory elements of the contract (LDE, Article 22).	The conditions for the implementation of practical classes or professional practice are regulated by a contract (LSE, Article 30).
The way students are placed for work-based learning	The placement of students for work-based learning takes place in accordance with the Rulebook on student placement for work-based learning.	There are no defined criteria for assigning students for practical classes and professional practice.
Material security of students	The employer must provide the learner with means and equipment for personal protection at work, reimbursement of transportation costs from school to the place of work-based learning and back, reimbursement of food costs in accordance with the general act of the employer and insurance in case of injury during work-based learning. The employer can also cover the costs of accommodation and meals in the student dormitory, but it is not obligatory.	Material provision of students during practical classes and professional practice is not mandatory.

Financial support to students	<p>The employer must provide the student who conducts work-based learning compensation in the net amount of at least 70% of the minimum price of work per hour; for each hour spent on work-based learning.</p> <p>Practically, for a third-grade student who spends two days a week for six hours (maximum time) on work-based learning, the employer should provide a net compensation of 652.3 dinars from the company's funds for each such day. This data is valid for 2019. Note that the minimum labour cost according to which the amount is calculated is defined each year.</p>	Financial support to students during practical classes and professional practice is not mandatory.
Student safety and health	<p>The rules on the safety and health of students are prescribed by a set of laws in education.</p> <p>The rules on safety and health of students who are work-based learning with the employer are additionally prescribed by the Law on Dual Education (LDE, Article 11, Articles 29, 35).</p> <p>When submitting a request for determining the fulfilment of conditions for the realization of work-based learning, employers enclose a set of documents confirming that the student will learn through work in a safe and healthy work environment (LDE, Article 11).</p>	The rules on the safety and health of students are prescribed by a set of laws in the area of education.
Continuation of schooling after completing the four-year long educational profile	Students who complete a four-year educational profile have the right to continue their education at higher education institutions in accordance with the laws in the field of education, regardless of whether they have completed a dual or non-dual educational profile.	

<p>Continuation of education after completing the three-year long educational profile at non-university higher education institutions (colleges, academies of vocational studies and colleges of vocational studies)</p>	<p>Students who complete a three-year secondary vocational education have the right to apply to one of the non-university higher education institutions, regardless of whether they have completed a dual or non-dual educational profile, in accordance with the statute of that higher education institution.</p>
<p>The right to take the Matura exam</p>	<p>In accordance with the planned changes and the introduction of the state matura school 2021/22, students who complete three years of secondary vocational education in profiles that are not dual, after passing the general or vocational matura have the right to higher education in accordance with regulations (LSO, Article 63a).</p> <p>In accordance with the planned changes and the introduction of the state matura school 2021/22, students who complete a three-year secondary vocational education in dual profiles have the right to take the vocational matura exam or general matura exam at least two years after completing secondary education if they have mastered the programme to acquire the competencies according to the Matura programme me.</p> <p>After passing the general or vocational matura exam, they have the right to higher education in accordance with the regulations (LSE, Article 63a).</p>
<p>Career Guidance and Counselling</p>	<p>The Rulebook on Career Guidance and Counselling for Students in Dual Education further defines the composition of the Career Guidance and Counselling Team, which must include employers in its work, as well as working conditions and a set of activities tailored to the needs of students in dual education.</p> <p>The Rulebook prescribes mandatory individual counselling activities of the Career Guidance and Counselling Team for each student.</p> <p>All high schools are required to have a CGC Team, but the work of this team is not further defined and harmonized with the needs of students who implement practical classes / professional practice in companies (e.g. mandatory individual counselling activities are not prescribed).</p>

1.4. Advantages of Schooling Within Dual Education Profiles

Although dual education is a model of teaching in the system of secondary vocational education, it can be said that it has certain advantages in relation to the rest of the system of secondary vocational education in Serbia. The Ministry of Education, Science and Technological Development has introduced dual educational profiles into the system for several reasons, the most important of which is the one related to improving the quality of youth competencies. Through this model, the competencies of young people are improved by learning in two places - at school and with the employer (at school through theoretical classes and exercises and in the company by work-based learning). This approach enables, in addition to professional competencies, the development of "soft" skills (for example, communication skills, decision-making skills, teamwork and teamwork skills, etc.) that together lead to the empowerment of young people who will be able to work and compete after graduation on the labour market, at the same time contributing to the reduction of youth unemployment with completed high school.

Work-based learning in dual education directs the student and the school towards development of the competencies that are necessary for the realization of work tasks and for solving real problems encountered by employees in a certain sector or company. The competencies that are thus acquired are important for the student himself and his competitiveness on the labour market, but also for the development of the entire society.

The state strengthens the competitiveness of its economy by supporting work-based learning, because it acquires future workers who will be more competent and competitive in the labour market

Students increase their chances for employment after acquiring high school education because they have acquired competencies that are modern and relevant. At the same time, the scope and quality of engagement of students who learn through work has increased, students gain conditions for further education and lifelong learning, develop entrepreneurship and creativity in contact with real work processes and challenges, developing teamwork and personal responsibility. In well-equipped companies, students learn through work using the latest technologies and have the opportunity to see the entire technological process of production, which creates a stimulating environment for the development of innovation and research among young people involved in work-based learning, which consequently contributes to.

The introduction and implementation of dual education creates an educational system in which the acquired qualification is a reflection of the actually acquired competencies. More specifically, after graduating from secondary school, the student has the necessary knowledge, skills and attitudes

that are prescribed for his profession, which increases the chances of youth employment.

The most important interest of companies involved in dual education is to address the lack of qualified / competent staff in the long run. Employers invest significant resources in improving the competencies of their employees through various forms of non-formal education and additional training, and this time they have the opportunity to influence the quality of future qualified staff by participating in formal education.

Potential benefits of dual education for students:

- Contact with a real work environment in which they acquire, improve and develop professional competencies and gain professional experience,
- Possibility to check through work-based learning whether what they learn / what they will do corresponds to their interests,
- Possibility to continue education under the conditions prescribed by law,
- Development of entrepreneurial competencies among young people in order to start their own business,
- Development of communication, cooperation, teamwork and responsibility skills,
- Opportunity to develop work ethic,
- Development of awareness of the importance of health and safety, including safety and health at work,
- Increased ability to develop innovation and creativity,
- Development of self-confidence, self-expression and decision-making,
- Increased employability of students with easier transition to the world of work.

2. PREREQUISITES FOR THE IMPLEMENTATION OF DUAL EDUCATION

You will find out in this chapter:

- How to find out which school offers educational profiles according to the dual model
- How companies, i.e. employers, get involved in dual education
- How the relationship between the school and the company that implements dual educational profiles is regulated

2.1. Offer of Dual Education Profiles

When proposing educational profiles to offer students for enrolment in the next school year, vocational high schools consider several aspects: labour market needs, regional development policy, number of students graduating from primary school, experiences related to enrolment in previous years (for example, whether there were enough students interested in enrolling in a certain educational profile), existing teaching staff (for example, whether there are teachers who could teach subjects required by the realization of a certain educational profile), etc.

After these considerations, schools make a decision on which educational profiles to report to the Ministry of Education, Science and Technological Development for implementation in the next school year, including a decision on whether to report educational profiles that will be implemented according to the dual model. Schools make this decision in cooperation with the local branch of the National Employment Service, with companies, and/or employers, regional chambers of commerce, school administration, etc. When it comes to dual educational profiles, schools can apply for a dual educational profile only if they have the support of employers (companies) for its implementation, or if they can provide each student with work-based learning in a company accredited to implement work-based learning.

The final offer of educational profiles in one school is made by MESTD. Information on educational profiles for each school can be found in the Competition for enrolment of students in secondary schools (explained in more detail in Chapter 2.4). You can also find information on educational profiles on the website of the secondary vocational school you want to enrol in (usually in the section Entrance exam for enrolment in secondary school),

including information on educational profiles that will be realized according to the dual model.

2.2. Involvement of companies, i.e. employers in dual education

All employers, and/or all companies that want to participate in dual education must meet the legally prescribed conditions for conducting work-based learning, i.e. to meet the conditions for accreditation. This means that employers must meet the prescribed standards, which ensures quality implementation of work-based learning for all students in dual education.

The conditions that a company must meet in order to realize work-based learning are listed in Article 11 of the Law on Dual Education, while the detailed procedure is defined by the Rulebook on the organization, composition and operation of the Commission for determining the fulfilment of conditions for work-based learning with the employer ("Official Gazette of the Republic of Serbia", No. 46/18).

Pursuant to the provisions of the LDE, employers wishing to participate in the implementation of dual educational profiles apply to the Chamber of Commerce and Industry of Serbia by submitting the required documents as evidence, and the CCIS forms a Commission to determine if conditions for conducting work-based learning with the employer are fulfilled in all companies that have applied for accreditation based on the requirements prescribed in the Law on Dual Education. When this Commission determines that a certain company meets all the prescribed conditions, it proposes to the CCIS to issue a certificate of fulfilment / accreditation to that company in order for such company to be able to implement work-based learning. The CCIS keeps a register of all companies, i.e. employers, who have met the conditions for conducting work-based learning. If any of the companies ceases to meet the conditions for the realization of work-based learning, the CCIS makes a decision to terminate the conditions.

The Law on Dual Education, Article 11
Conditions for Conducting Work-Based Learning
with the Employer

The conditions for conducting work-based learning with the employer are:

- 1) performing activities that enable the realization of the content of work-based learning prescribed by the appropriate curriculum;
- 2) disposal of space, equipment and means for work in accordance with the rulebook on detailed conditions regarding space, equipment and teaching aids of a certain educational profile;
- 3) disposing of the required number of licensed instructors in accordance with the curriculum;
- 4) ensuring the application of safety and health measures at work in accordance with the law;
- 5) that no bankruptcy proceedings have been opened against the employer or liquidation proceedings have been initiated;
- 6) that the responsible person with the employer and the instructor have not been convicted by a final judgment of a criminal offense for which an unconditional sentence of imprisonment of at least three months has been imposed, as well as of criminal offenses of domestic violence, confiscation of a minor, neglect and abuse of a minor or incest, criminal offenses from the group of criminal offenses against sexual freedom, against the economy, against official duty, against legal traffic and against humanity and other goods protected by international law, regardless of the criminal sanction imposed, that they have not been convicted of a misdemeanour in the field of labour relations which has not, in accordance with the law, established discriminatory conduct;
- 7) that the employer has not been convicted of criminal offenses prescribed by the law governing the prevention of harassment at work.

2.3. The Relationship between Schools and Companies in Dual Education in Serbia

In achieving dual educational profiles, schools and employers establish cooperation in various ways. Sometimes it is at the initiative of the school, sometimes at the initiative of the employer, while sometimes some other entity encourages cooperation, such as local self-government, the Regional Chamber of Commerce and the like. When the school has been approved a dual education profile by MESTD and when the employer has received a decision from CCIS on the fulfilment of the conditions for the realization of work-based learning, then the school and the employer sign the Agreement on dual education. All elements of the Agreement on Dual Education are prescribed by law (Annex 1 - Example of the Contract on Dual Education),

The contract on dual education is signed for three or four years, i.e. as long as the education for the profile for which the contract is signed, in order to ensure that the student in accordance with the curriculum according to the dual model has secured work-based learning in the company. The school can conclude a contract on dual education with one or more companies, i.e. employers, for the realization of work-based learning. The reasons for concluding learning agreements through work with several companies are as follows:

- one employer is not able to accept for work-based learning all students who have enrolled in a certain educational profile and / or
- one employer is not able to provide work-based learning for all work operations provided by the curriculum, and it is thus necessary to include one or more other employers who will implement the remaining curriculum units.

Only the employers with whom the school has signed a contract on dual education can realize work-based learning, i.e. students can go to work-based learning only with such employers. The relationship between the student (or parents because the student is usually not of legal age at the time of signing the contract) and the company is regulated by the work-based learning contract about which you can read more in chapter 3.

The school and the Chamber of Commerce and Industry of Serbia post on their respective website basic information on the curriculum and other information relevant to the implementation of work-based learning no later than 15 days after the conclusion of the contract on dual education (LDE, Article 17).

As provided by the Law on Dual Education, in addition to the above, the CCIS maintains and regularly updates the register of dual education contracts. The contract register contains various information from the contract: contract number, name and address of the school and the employer, number of students for whom the employer organizes work-based learning, address of the place of work-based learning, date and time of the contract conclusion, date of start of the work-based learning, etc. (LDE, Articles 27 and 28).

Respect for Key Principles in Dual Education Implementation

In order for dual education to be successfully implemented, it is important that both schools and companies, i.e. employers, adhere to several important general principles.

The agreement on dual education and the plan for the realization of work-based learning should establish a clear division of obligations and responsibilities between the school and the company.

The process of dual education itself should be open enough to include all interested representatives of different groups from the local community.

The dignity and personality of students must be respected at all times, and both the school and the company must be fully committed to increasing the student's chances of employment after secondary school and help him develop the skills to manage his career and make decisions that are of the greatest interest to him.

2.4. Enrolment in dual education profiles

The procedure provided for enrolment in secondary schools also applies to enrolment in dual educational profiles, from taking the final exam at the end of primary school to enrolling in a dual educational profile. Based on the achieved success and the wish list of students, students enrol in high schools. Due to the importance of this topic, the procedure of enrolment in high school and the method of calculating the points that a student earns for enrolment in high school are briefly described here.

All students who complete primary school have the right to enrol in high school. In the document called **Public Invitation for enrolment of students in the first grade of secondary school**³⁷ you can find important information about enrolment of students in secondary school such as: general and special conditions for enrolment in secondary school, criteria and method of candidate selection, dates of the final exam, health conditions, required documents, number of students provided by educational profile,

37 Full name of the document issued for the school year 2019/2020, relating to the competition for enrollment in secondary schools is: **Public Invitation for enrollment of students in the first grade of secondary school whose founder is the Republic of Serbia, autonomous province or a local self-government.** This document is available on the following website: <http://www.upis.mpn.gov.rs/Dokument/download/konkurs/2019-2020-KONKURS-ZA-UPIS-U-SREDNJU-SKOLU.pdf>

etc. The competition for enrolment of students in the first grade of secondary school states which educational profiles are provided in dual education, followed by an excerpt from the mentioned competition in which the label "DUAL" is clearly visible.

Figure 8. View of the page from the competition for enrolment in the first grade of secondary school

6. ПОЛИТЕХНИЧКА ШКОЛА
24000 СУБОТИЦА, МАКСИМА ГОРКОГ 38, ТЕЛ: 024/663-100
office@politehnicka.edu.rs, www.politehnicka.edu.rs

ГЕОДЕЗИЈА И ГРАЂЕВИНАРСТВО				
SBSU SE 41085	АРХИТЕКТОНСКИ ТЕХНИЧАР	30	4 ГОД	
SBSU SE 41086	АРХИТЕКТОНСКИ ТЕХНИЧАР	30	4 ГОД	МАЂАРСКИ ЈЕЗИК
SBSU SE 31404	КЕРАМИЧАР – ТЕРАЦЕР – ПЕЉАР	15	3 ГОД	МАЂАРСКИ ЈЕЗИК
SBSU SE 31424	ДЕКОРАТЕР ЗИДНИХ ПОВРШИНА	15	3 ГОД	МАЂАРСКИ ЈЕЗИК
SBSU SE 31435	ОПЕРАТЕР ОСНОВНИХ ГРАЂЕВИНСКИХ РАДОВА	ДUALНО	15	3 ГОД
SBSU SE 31436	РУКОВАЛАЦ ГРАЂЕВИНСКОМ МЕХАНИЗАЦИЈОМ	ДUALНО	15	3 ГОД
КУЛТУРА, УМЕТНОСТ И ЈАВНО ИНФОРМИСАЊЕ				
SBSU SE 41115	ЛИКОВНИ ТЕХНИЧАР	10	4 ГОД	
SBSU SE 41145	ТЕХНИЧАР ДИЗАЈНА ЕНТЕРИЈЕРА И ИНДУСТРИЈСКИХ ПРОИЗВОДА	10	4 ГОД	
ХЕМИЈА, НЕМЕТАЛИ И ГРАФИЧАРСТВО				
SBSU SE 41335	ТЕХНИЧАР ЗА ОБЛИКОВАЊЕ ГРАФИЧКИХ ПРОИЗВОДА	30	4 ГОД	
SBSU SE 41375	ТЕХНИЧАР ЗА ДИГИТАЛНУ ГРАФИКУ И ИНТЕРНЕТ ОБЛИКОВАЊЕ	ДUALНО	30	4 ГОД
ШУМАРСТВО И ОБРАДА ДРВЕТА				
SBSU SE 31035	ОПЕРАТЕР ЗА ИГРАДУ НАМЕШТАЈА	ДUALНО	30	3 ГОД
SBSU SE 41131	ТЕХНИЧАР ЗА ОБЛИКОВАЊЕ НАМЕШТАЈА И ЕНТЕРИЈЕРА	30	4 ГОД	ХРВАТСКИ ЈЕЗИК

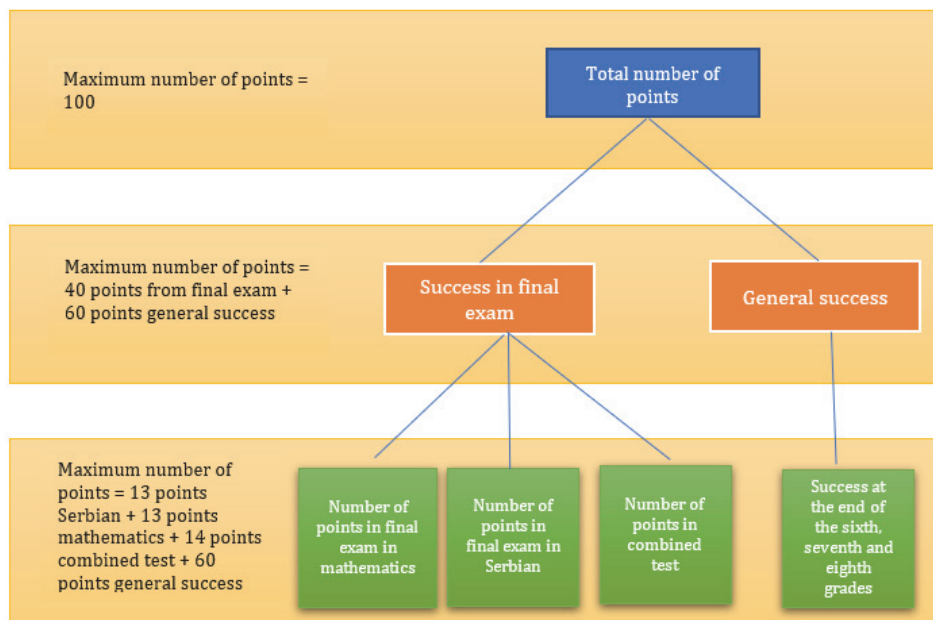
Additionally, the Educational Review publishes a High School Enrolment Newsletter, in which you can also find important information about high school enrolment such as tips for calculating the total number of points and information about the number of points for enrolling in all schools over the past three years.

The student's success is shown by the total number of points that the student achieved during schooling (general success) and which the student achieved at the final exam. The general success from the sixth to the eighth grade of primary school is expressed by the number of points by adding the general success achieved at the end of the sixth, seventh and eighth grade, rounded to two decimal places, and then multiplying by the number four. Based on the general success from the sixth to the eighth grade, the candidate can achieve a maximum of 60 points.

Success in the final exam is expressed by the number of points won on the test in Serbian, or mother tongue, language, mathematics and on the combined test in natural sciences and social sciences (biology, geography, history, physics and chemistry). Based on the success in the final exam, the candidate can win

a maximum of 40 points, or a maximum of 13 points on the test in Serbian, ie mother tongue and mathematics and 14 points on the combined test (Figure 9).

Figure 9. Schematic presentation for calculating the number of student points for enrolment in secondary school



When students find out the results of the final exam, they fill in the list of school wishes in their primary school, ie the educational profiles they would like to enrol in, which can contain a maximum of 20 commitments (wishes) for further education. Before filling in the wish list, it is good for students to get acquainted with the number of points needed in previous years to enrol in the educational profile in the school that the student wants to enrol, so that they can assess their chances of enrolling in the desired school (for example, by search for the last year: <http://www.upis.mpn.gov.rs>)

Based on the Rulebook on enrolment of students in secondary school ("Official Gazette of the Republic of Serbia", No. 23/18 and 30/19), when ranking students for enrolment in high school, the following is taken into account:

- 1) success in the final exam (maximum number of points 40),
- 2) general success from the sixth to the eighth grade of primary school (maximum number of points 60),
- 3) results achieved in competitions of eighth grade primary school students.

The ranking list of students is then published. The students who are admitted to one of the desired schools, which they listed in the form for filling

out the wish list, submit the original documents for enrolment in the school to which they are assigned. Students who are not admitted to any of the schools listed on the wish list will be able to enrol in those schools where there are vacancies left. They are re-filling out the wish list, but now they can only choose between schools that have not filled all the planned places.

All students who have achieved a total of at least 50 points have the right to ranking for enrolment in the educational profile of a secondary vocational school lasting four years.

Equality and Equity

All children have the right to education, but some children find it difficult to participate in education and complete it for various reasons. That is why the Republic of Serbia is implementing measures that should lead to a higher level of justice and equality in society.

Given that students belonging to the **Roma national minority** have a particularly sensitive position in society, the Republic of Serbia has introduced certain measures to ensure full equality in the acquisition of education. For example, the number of points of students belonging to the Roma national minority who applied for enrolment in school under more favourable conditions increases by 30% of the number of points they lack up to 100 points. This means that if a student belonging to the Roma national minority achieved a total of 60 points (general success and success in the final exam), the final number of points will be 72 points (30% of the missing number of points up to 100 points). If the family of that student uses financial social assistance, the final number of points will be 74 (35% of the number of points missing up to 100 points).

You can find more information on this topic from the class teacher of the elementary school that the student attends, the Group for Social Inclusion of the MESTD (<http://www.mpn.gov.rs/grupa-za-inkluziju/>), or the National Council of the Roma National Minority (<https://romskinacionalnisavet.org.rs/>). You can also see the Rulebook on enrolment of students in high school, Article 75–81 ("Official Gazette of RS" No. 38/17, 51/17, 81/17) available on the website <https://www.paragraf.rs/propisi/pravilnik-o-upisu-ucenika-u-srednju-skolu.html>

A student with disabilities enrolls in high school after the final exam, in accordance with their motor and sensory abilities, or conditions required by the type of disability, or in accordance with the needs for support in relation to the content and manner of conducting the exam. You can find more information on this topic from the class teacher of the elementary school that the student attends or the Group for Social Inclusion of the MESTD (<http://www.mpn.gov.rs/grupa-za-inkluziju/>). For more information on this topic, see the Rulebook on enrolment of students in high school, ("Official Gazette of RS" No. 38/17, 51/17, 81/17) available on the website <https://www.paragraf.rs/propisi/pravilnik-o-upisu-ucenika-u-srednju-skolu.html>.

3. IMPLEMENTATION OF DUAL EDUCATION

This chapter of the Guide will describe the process of implementing dual education with a special emphasis on work-based learning that is implemented in the company because work-based learning is one of the main characteristics of dual education.

After reading this chapter, you will get answers to the following questions:

- How are students placed to work-based learning?
- Who are the instructor and coordinator of work-based learning and what are their responsibilities?
- What is the relationship like between students and the company regulated?
- What does the material and financial provision of students in dual education mean?
- What does the assessment of work-based learning look like?
- What are the characteristics of career guidance and counselling of students in dual education?
- What do you need to know about safety and health at work of students in dual education?

3.1. Placement of students for work-based learning

If the school cooperates with only one employer / company, it is clear that all students are placed to work-based learning with that particular employer. When a school has a dual education contract with several companies for the implementation of work-based learning for students from one class of dual education profile, then the provisions of **Rulebook on the manner of placement of students to work-based learning** ("Official Gazette of the Republic of Serbia", No. 102/18) are used, and in the contract on dual education signed by the school and each employer, the manner of allocating students is also determined. The Team for Career Guidance and Counselling (CGC) formed at the school organizes introductions and interviews between students and employers³⁸. The following describes the steps in the placement of students in chronological order:

38 More information about the career guidance and counselling, as well as about the CGC team can be found in chapter 3.7.

1. The CGC team (teachers, professional associates, representatives of employers who learn through work) acquaints students and parents with the way students are assigned, the number of vacancies with each employer, the conditions and environment for the realization of work-based learning, etc. This process is realized no later than the end of the second week from the beginning of the school year in which, in accordance with the curriculum, the realization of work-based learning begins, i.e. at the end of the school year preceding the realization of work-based learning (if the work-based learning starts from the second year).

2. The CGC team prepares students for the context in which work-based learning is conducted, what they can expect, how to prepare for an interview with employers (for example, what an interview looks like, what are the most common questions, what is expected of students etc.).

3. The CGC team organizes the presentation of all employers to students and their parents.

4. Employers interviewing students is the next step. All employers interview all students who are enrolled in that class, i.e. the student will have as many interviews as the company participates in conducting work-based learning for the profile that the student enrolled. The presence of parents is mandatory at the interview.

5. Students make a wish list of employers with whom they would like to do work-based learning, ranking them from the most desirable to the least desirable. This wish list is signed by the parent or other legal representative. If the parent is not able to, the student's wish list is signed by the school pedagogue or psychologist.

6. Based on interviews with each student, employers make their own ranking list of students who want to be admitted to work-based learning.

7. Reconciling the wishes of students and employers is done by the CGC Team. The CGC team "matches" the wishes of students and employers from the first to the last. In the event that two or more employers vote for the same student, the student's wish is respected.

8. The CGC team makes a final list of student schedules and makes a record. The minutes are signed by the CGC Team Members, the employer representative, the school principal and the parents.

Rulebook on the manner of placement of students to work-based learning Article 6 ("RS Official Gazette", No. 102/18)

If a student remains unplaced in the previously described process, the CGC Team places him according to the following criteria:

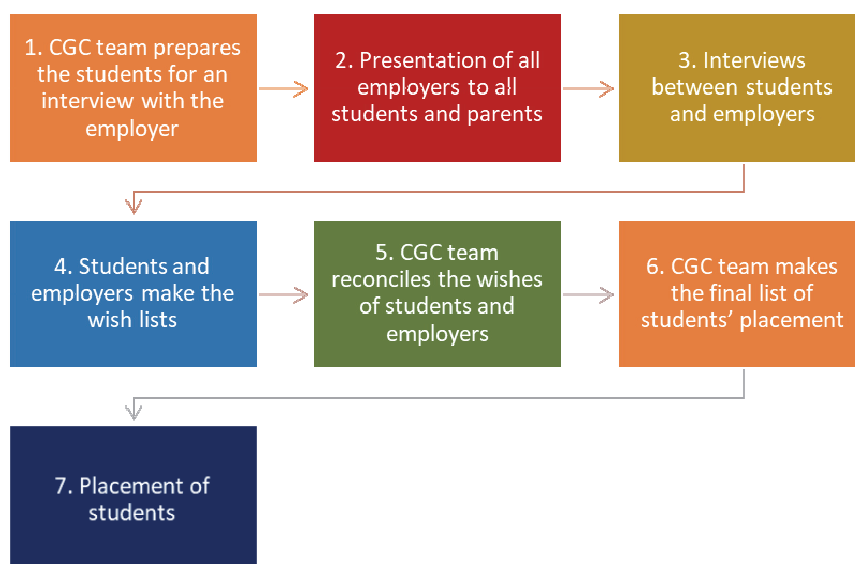
- 1) the proximity of the student's residence in relation to the employer's premises where work-based; earning is realized;
- 2) equal gender representation of students with all employers;
- 3) other circumstances that may be important for the student and the employer.

If work-based learning is realized from the second grade, during the final placement of students the following is taken into account:

- 1) even placement of students with excellent, very good, good and sufficient success with all employers;
- 2) evaluation / or recommendation of the work-based learning coordinator.

The student is obliged to attend work-based learning according to the schedule, i.e. the final list of students' assignments, determined by the minutes (Article 7 of the Rulebook on the manner of placement of students to work-based learning). Work-based learning can also be realized with another employer who has signed a contract on dual education with the school, but with the prior consent of the school, the employer and the parents.

Figure 10. Steps in Placing Students for Work-Based Learning



It should be noted that in high schools where different parts of the curriculum are realized with different employers so that all students must do part of the work-based learning with each of the employers, the method of student assignment is determined by a dual education contract between school and employers. (Rulebook on the manner of placement of students to work-based learning, Article 1, paragraph 2).

3.2. Instructor and Coordinator of Work-Based Learning – their Roles and Duties

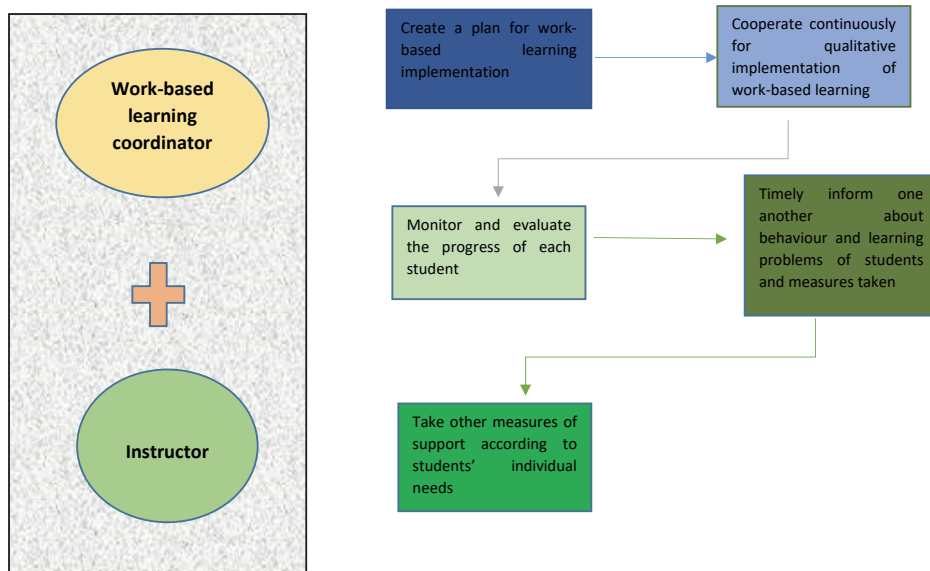
The instructor and coordinator of work-based learning have important roles in the implementation of work-based learning. They are in direct contact with students, and the successful realization of many aspects of dual education depends on their mutual cooperation.

The **instructor** is a person employed by the employer who directly ensures that during work-based learning the contents prescribed by the curriculum are implemented and is responsible for the students to acquire the envisaged competencies for the profession for which they are studying. In order to ensure the quality of work-based learning and quality work with students, the instructor attended the training and passed the exam which proves that he is qualified to implement work-based learning in the company. The instructor realizes work-based learning in the language in which the educational profile is realized.

The coordinator of work-based learning is a person who is employed in a secondary vocational school and who, in cooperation with an instructor, plans, monitors, implements and evaluates work-based learning with the employer.

Instructor and coordinator of work-based learning are obliged to continuously communicate on issues of student achievement and progress.

Figure 11. Areas of Cooperation of Instructors and Coordinators



3.3. Student-Company Relationship

The relationship between the student and the company is regulated by a work-based learning contract signed by the student (or parent if the student is a minor) and the employer. This contract is concluded no later than the beginning of the year in which work-based learning is conducted (some educational profiles imply the beginning of work-based learning from the second year of secondary school).

The Law on Dual Education prescribes all the obligatory elements of the Contract on work-based learning, such as mutual obligations, the duration of the contract, the manner of resolving disputes, etc. An integral part of the contract is the Plan for the realization of work-based learning, and some of the mandatory elements of this contract will be explained below. An example of a Work-Based Learning Contract can be found in Attachment 2.

Just as a school can conclude several Dual Education Contracts with different companies, for the same reasons a student can conclude several Work-Based Learning Contracts with companies with which the school cooperates (for example, it is not possible to implement everything planned by the curriculum for the concrete education profile with one employer only).

The Law on Dual Education also prescribes the reasons for the termination of the Contract for Work-Based Learning, and some of them are presented below.

Termination Of Contract for Work-Based Learning

The Law on Dual Education prescribes when a Contract for work-based learning can be terminated (LDE, Articles 24–26).

According to the LDE, termination of the contract **by the employer** is possible if the student loses the status of a student (for example, drops out of school), violates the obligations set by the work-based learning contract and the law, permanently loses health ability to work in the profession for which he is studying (here, the emphasis is only on contract termination if the student loses permanently the ability to work in that particular occupation; momentary loss of ability to work that will be remedied after a particular treatment or intervention is not meant).

Termination of the contract **by the student (parent)** is possible, *inter alia*, if the employer does not fulfil its contractual obligations, violates the rights of students (more closely defined in Article 10 of the Law on Dual Education, and concerns the prohibition of discrimination, abuse, neglect, etc.), rights of students prescribed by law, the CCIS passes a decision stating that the conditions for conducting the work-based learning have ceased with the employer, etc. If the termination occurs for these reasons that are on the side of the employer, the school is obliged to organize the work-based learning for the student in the same educational profile with another employer with which he has a contract on dual education. In such a case the work-based learning contract is resigned with the new employer.

If the school does not have a contract on dual education with another employer that could implement the work-based learning, then the school in cooperation with the MESTD and CCIS should provide within 15 days the conditions for resumption of work-based learning in the appropriate educational profile. The school notifies the MESTD and the employer notifies the CCIS of the termination of the contract,

For more information please see the Law on Dual Education at: <https://www.paragraf.rs/propisi/zakon-o-dualnom-obrazovanju>

3.4. In-kind and Financial Support to Students in Dual Education

In-kind support to students (LDE, Article 33) means that the employer will provide the student with whom he has signed a contract on work-based learning:

- means and equipment for personal protection at work,
- reimbursement of actual transportation costs from school to the place of work-based learning and back, maximum in the amount of the price of a public transport ticket if the employer did not provide own transportation of students,
- reimbursement of food costs in accordance with the general act of the employer,
- insurance in case of injury during work-based learning with the employer.

The employer is not obliged to, but can also provide the student with coverage of the cost of accommodation and meals at the student dormitory.

Financial support to students (LDE, Article 34) during work-based learning implies mandatory compensation to the student by the employer for work-based learning. The financial support to the student must be an integral part of the contract (both the one signed by the school with the employer and the one signed by the student, and/or parent, with the employer). This means that each student who has signed a contract for work-based learning **receives a compensation for work-based learning** once a month, no later than the end of the current month for the previous month for each hour spent on work-based learning (in the company) in a net amount of at least 70 % of the minimum labour cost in accordance with the law, which means that, if the employer is able, this compensation may be higher. It is important to emphasize that the minimum price of labour changes every year. Therefore, when calculating the minimum amount of compensation you should keep in mind what the minimum labour price for that year is.

Example of calculation of the minimum compensation for work-based learning in 2019

The minimum labour price for 2019 is 155.30 dinars per hour (Decision of the Government of the Republic of Serbia on the amount of the minimum labour price for the period January-December 2019 - "Official Gazette of RS", No. 69/18). More precisely, the employer must provide 108.71 RSD for each hour of work-based learning (70% of the minimum price of work per hour). Practically, for a third-grade student who spends two days a week, six hours each day (maximum time per day) on work-based learning, the employer should provide a net compensation of 652.3 RSD from the company's funds for each such day.

3.5. Implementation of work-based learning in a company

Work-based learning is conducted by the employer, and in the case of dual educational profiles, it is managed by a work-based learning coordinator and an instructor.

Based on the LDE, the scope of work-based learning is at least 20% and at most 80% of the total number of hours of the professional part of the programme. To make this clearer, you need to know that each curriculum (for each profile of secondary vocational education, including profiles of dual education) consists of three main parts: general education subjects (A), vocational subjects (B1) and practical teaching - professional practice, work-based learning (B2).

The professional part of the programme (B1 + B2) is a combination of theoretical professional subjects, exercises, practical classes / professional practice and work-based learning.

The ratio between general education subjects (A) and the professional part of the programme (B1 + B2) is prescribed by the Law on Secondary Education ("Official Gazette of the Republic of Serbia", numbers 55/13, 101/17 and 27/18 - other law) and approximately 30% (A): 65% (B1 + B2) for three-year profiles and 40% (A): 55% (B1 + B2) for four-year profiles. This relationship is more or less flexible depending on the specific qualification. This means that students in a three-year professional profile have about 30% of general education subjects and about 65% of vocational subjects and practical teaching / professional practice that can be realized as work-based learning. Also, students in a four-year educational profile have about 40% of general education subjects and about 55% of the professional part of the programme. **This applies to all educational profiles in secondary vocational education, including dual educational profiles. When work-based learning is mentioned, then dual education is meant.**

In some schools, practical classes / professional practice are performed entirely in school workshops and classrooms, in other schools is held in school workshops and classrooms and in companies, **and in the case of dual education, work-based learning is mandatory in companies, while in the school, a maximum of 25% of learning hours can be realized through the work provided by the curriculum.**

Work-based learning is realized in accordance with the school calendar during the school year, and is possible to be organized only in the period from 8 to 20 hours, maximum six hours a day, or 30 hours a week, in accordance with the curriculum. Before going to work-based learning in a company, students undergo training on safety and protection at work.

In addition to the mentioned curriculum, the **Plan for the realization of work-based learning** is also important. The Plan for implementing the work-based learning is a document that is jointly created by the coordinator of work-based learning and the instructor and serves to plan and evaluate work-based learning in the company. It contains a description of activities, place and dynamics of achieving work-based learning. The basis for the development of this plan is the learning outcomes (which is what the student should know after one teaching unit).

The instructor is responsible for the Plan application through work-based learning, which leads the student towards acquiring competencies for a certain profession.

3.6. Assessment of work-based learning

Assessment of students in secondary education is performed in accordance with the curriculum for each of the educational profiles, and is regulated by various legal acts: Law on the Fundamentals of the Education System ("Official Gazette of the Republic of Serbia", numbers 88/17, 27/18 - other law and 10/19), Law on Secondary Education ("Official Gazette of the Republic of Serbia", numbers 55/13, 101/17 and 27/18 - other law; Articles 48-58), Rulebook on the assessment of students in secondary education ("Official Gazette of the Republic of Serbia" No. 82/15), etc. The Law on Dual Education is also important for students who are educated in dual education, because the engagement and progress of students in the company, and/or in work-based learning, is also taken into account for assessment.

The instructor is responsible for the implementation of a part of the curriculum and it is his responsibility to continuously monitor the progress of each student in work-based learning in cooperation with the work-based learning coordinator. This means that the instructor and the work-based learning coordinator work together and exchange information about each student throughout the year thus enabling the student to acquire the prescribed competencies. The instructor and work-based learning coordinator should deal with:

- improving work with each student and adapting the work to the individual needs of students,
- taking appropriate support measures if the student does not achieve the expected results,
- monitoring progress and assessing the competencies that the student has acquired during work-based learning, etc.

The instructor, in cooperation with the work-based learning coordinator gives a proposal, based on the analysis of the student's progress, for the student's assessment relating to the part that is carried out in the company.

The assessment of students in all other subjects is carried out in accordance with the above-mentioned legal acts.

3.7. Career Guidance and Counselling of Students in Dual Education

Career guidance and counselling (CGC) is a series of activities aimed at supporting an individual in connection with his career and includes:

- identification of competencies and interests of students,
- support in decision-making related to education, profession, further training,
- support in decision management in the field of learning, work and other areas in which the acquisition and application of skills and competencies can be.

Career guidance and counselling is given special attention within dual education.

The school should encourage and monitor the career development of students, in order for them to strengthen their career management skills and make thoughtful and responsible decisions about their professional future, and it does so by forming a Team for Career Guidance and Counselling that deals with these issues.

The CGC Team consists of representatives of school employees, professional associations, local self-governments and employers. Meetings of this Team may be attended by representatives of parents and the student parliament. One of the tasks of this Team is to cooperate with primary schools, primarily for the purpose of planning the enrolment of students in secondary schools.

Based on the Law on Dual Education, a **Rulebook on detailed conditions, manner of work, activities and composition of the Team for Career Guidance and Counselling in secondary school that implements educational profiles in dual education** (Official Gazette of the Republic of Serbia, number 2/19) was adopted. This Rulebook prescribes that the school principal forms this team, which usually consists of teachers (teachers of professional subjects in the field of educational profile in dual education, as well as other teachers), coordinator of work-based learning and professional associates of the school (usually a psychologist or pedagogue) from among school employees, as well as representatives of professional associations, local self-government units and employers. Among the representatives of the school is the coordinator of the CGC Team.

Some of the CGC Team activities listed in the mentioned Rulebook are:

1) organizes and implements counselling, information and training activities for career management skills. We will state in more detail what these three groups of activities mean because it is important that each student is aware of the opportunities available to him (Table 9 which is based on Rulebook on standards of career guidance and counselling services, "Official Gazette of the Republic of Serbia", No. 43/19),

2) participates in the process of placing students to work-based learning with employers. This means that the CGC Team organizes the presentation of employers to students and their parents, prepares students for interviews with employers, organizes interviews and makes a final list of which student is placed with which employer. It is highly important that the CGC Team prepares the student for the context in which work-based learning will be realized (in the company), what the student can expect, what is expected from the student, and the like,

3) continuously monitors the satisfaction and motivation of students and employers during work-based learning,

4) encourages and supports students in identifying and documenting the experience and benefits from work-based learning as well as special achievements and successes (portfolio), and encourages them to plan and set further career development goals on the grounds of the work-based learning experience,

5) cooperates with other teams in the school, the Chamber of Commerce and Industry of Serbia, the National Employment Service, businesses and higher education institutions in the process of planning career guidance and counselling activities and develops a network of external associates and organizations to guide students to individual needs and in the best interests of students (for example, the CGC team can organize interviews with people already employed in the areas for which the student is studying, in order to be as fully informed as possible about the possible future occupation),

6) cooperates with the team for professional orientation of primary school in order to establish continuity of career guidance and counselling and informing students and their parents about the possibilities of schooling in educational profiles in dual education, conditions and context in which work-based learning with employer is implemented, etc.

*Table 9. Counselling, Information and Training Activities
for Career Management Skills*

Field	Activities	Activity description
Counselling work	Assessment of student characteristics	The career counsellor (school psychologist or another person who has the competencies of a career counsellor) uses various instruments to (self)assess the student's characteristics (personality tests, career orientation tests, etc.), then interprets the test results and communicates them adequately to the student.
	Supporting students in planning and setting career guidance and counselling goals	Career counsellor guides and supports the user (student) in the process of researching their own characteristics, motives and needs, empowers the user to take responsibility for managing their own career, applies various methods and techniques for setting and evaluating goals and strategies.
	Providing support to the student in making decisions important for career development	Encourages the student to think about criteria, outcomes and risks in the decision-making process. Applies support techniques in coping with stress and managing transition or crisis periods and unexpected changes.

Informing students	Using different sources of information on educational and career opportunities	Introduces students to various sources of information on educational and career opportunities and encourages them to critically evaluate them.
	Organizing and storing information about educational and career opportunities	Encourages the student to use and maintain a portfolio on a regular basis.
	Providing support to students in using information about educational and career opportunities	The career counsellor answers students' questions regarding further education and career and directs the student to relevant websites or literature where he can look for answers to his questions.
Career management skills training	Implementation of a career management skills development programme	Organizing and conducting activities for students related to the effective development of career management skills.

What is also new about this CGC Rulebook for students in dual education is that the CGC Team has an obligation to conduct counselling activities with each student of the school for at least one hour during the school year. All activities are carried out by the CGC Team in accordance with the individual needs of each student.

One of the tools available to the student in this area is career portfolio management. The career portfolio is continuously developed during the career development of a person, which in the case of students includes the period of education and work-based learning in the company.

The career portfolio is a personal document and contains observations and evidence on the career development of an individual, but also the plans and thoughts on career development in the future.

Since this portfolio is a personal document, there is no defined form of portfolio - each student can create and manage a portfolio that suits him best (e.g. in electronic form, can contain photos, tables, charts, videos, etc.). Below are suggestions on how a portfolio can be created.

Proposed elements for the student portfolio developed by the Tempus Foundation - Euroguidance Centre in Serbia

- ✓ Personal observations on career goals and aspirations,
- ✓ Results of (self) assessment of personality traits, professional interests, values and other personal characteristics,
- ✓ Independently compiled list of relevant resources for career guidance and counselling (links to local organizations engaged in career guidance and counselling, online platforms etc.),
- ✓ Notes and personal observations made during and after career guidance and counselling activities (individual counselling with the CGC Team, workshops, learning through work, educational fairs, etc.),
- ✓ Observations on acquired competencies as preparation for writing a quality biography such as self-assessment of knowledge and skills acquired through formal education (primary and secondary school), non-formal education (trainings, courses, seminars) education and informal learning (so-called "life school"). which we do not necessarily learn in school or in courses, and yet serves to acquire competencies), then self-assessment of professional knowledge and skills as well as "soft" skills acquired during practice and other work experiences, volunteer activities and the like,
- ✓ Information on relevant educational and career opportunities,
- ✓ Career plan that contains goals and steps in their achievement, time dynamics, anticipated possible obstacles to achieving goals and mechanisms for overcoming them.

Since students in the dual educational profile also learn through work, the instructor also has an important role in the process of career guidance and counselling of students. Based on the Rulebook on the training programme, closer conditions and other issues of importance for taking the instructor exam ("Official Gazette of the Republic of Serbia", No. 70/18), instructors are trained in this area so that they can adequately:

- inform the student about the specifics of the profession chosen by the student, about the qualifications he will acquire during the vocational training, as well as about the possibilities of professional advancement,
- inform the student about the possibilities of professional development in the company where the student realizes work-based learning and support the student to think about his career development,
- provide support to the student in portfolio management (e.g. documenting the student's successes and acquired knowledge and skills, interests, experiences and other important information that will

later help the student to make career decisions and manage their changes,

- involve students in activities and tasks that encourage the development of employment skills, participate in advising students on the development of career management skills, encourage students to analyze the learning experience through work and use feedback from the work environment for further personal and professional development, etc..

More information about the career guidance and counselling, please see the webpage: <https://euroguidance.rs/resursi/bazaaktivnosti/>

3.8. Safety and Health at Work of Students in Dual Education

Although students do not have the status of workers or employees in the company, but are in the company on the basis of a contract on work-based learning, since they spend part of their time during schooling in a real work environment, it is very important to apply all those provisions for safety and health at work, as well as those related to the protection of young people of their age.

Although they are not employed, the right to safety and health is exercised by students who are on compulsory work-based learning, so that, in addition to regulations in the field of education, they are also subject to the application of the Law on Safety and Health at Work ("Official Gazette of the Republic of Serbia", numbers 101/05, 91/15 and 113/17 - other law). As defined by the said law, safety and health at work imply the provision of adequate working conditions which minimize injuries at work, occupational diseases and diseases related to work.

It is important to emphasize that when creating the curriculum, the safety and risk that every occupation for which students are educated takes with them are taken into account. The curriculum is created in such a way so as to provide safe schooling for all students for each educational profile in accordance with the age of the students.

If students are educated for occupations that are assessed as risky, then the curriculum is created to reduce the risks to which students are exposed and which are common for a full-time employee (for example, the student instead of being in the real production process first simulates the "exercise", in a separate room that is not exposed to risk).

When the employer submits to the Chamber of Commerce and Industry of Serbia a request to be determined if the conditions are fulfilled for conducting the work-based learning, according to the Rulebook on the organization, composition and manner of work of the Commission for determining the fulfilment of conditions for conducting work-based learning with the employer ("Official Gazette of the Republic of Serbia", No. 46/18), some of the documents submitted by the employer are also:

- decision on appointing a person for safety and health at work;
- excerpt from the Act on Risk Assessment for workplaces where students will perform work-based learning;
- expert finding on the performed inspection and inspection of work equipment on which students will perform work-based learning, if the work equipment is subject to inspection and inspection;
- report on inspection and testing of electrical installations for all work and auxiliary rooms in which work-based learning will be performed;
- statement of the employer on sound operating condition of the equipment on which the student will perform work-based learning, and applied safety measures;
- expert finding on the performed examination of the working environment conditions; training programme for safe and healthy work of students;
- instructions for safe and healthy operation of work equipment on which the student will perform work-based learning.

All these documents are checked by the Commission for checking the fulfilment of the conditions for performing the work-based learning, and takes them into consideration when deciding whether the company meets the conditions for performing work-based learning.

The Commission is obliged to determine that the student will not perform jobs that are harmful to the health, safety or morals of children, jobs that are performed within dangerous circumstances or dangerous activities, in terms of regulations that determine dangerous work for children. The Commission also checks whether the employer, based on the assessed risks, has taken all preventive measures in accordance with the regulations in the field of safety and health at work (Article 8 of the Rulebook on the organization, composition and operation of the Commission for determining employer) in order for the employer to meet the conditions for implementation of work-based learning.

Article 33 of the Law on Dual Education stipulates that the employer provides the student with funds and equipment for personal protection at work and insurance in case of injury during work-based learning with the employer.

One of the important innovations of Law on Dual Education in relation to other legislation that regulates secondary vocational education is that it precisely prescribes the standards that must be achieved in relation to safety and health at work when it comes to students' work-based learning. Namely, students who are not in dual education can be in a real work environment during part of schooling if the school organizes practical classes and professional practice with a company, institution, etc., but according to current regulations, these companies do not have to go through the accreditation process.

The Rulebook on the training programme, closer conditions and other issues of importance for taking the instructor exam ("Official Gazette of the Republic of Serbia", No. 70/18) stipulates, as one of the areas of training for instructors, the planning and preparation of work-based learning that includes provision of the necessary conditions for implementation of work-based learning as well as for organizing the introduction of students to work-based learning, which includes informing students and parents about internal rules and the application of safety and health measures at work.

The Decree on the Determination of Dangerous Work for Children ("Official Gazette of the Republic of Serbia", No. 53/17) is another document that must be respected in dual education, and the goal is to ensure the protection of children from dangerous work in accordance with regulations governing the rights of the child as well as regulations in the field of work, safety and health at work, health care and education, and in accordance with international agreements to which the Republic of Serbia is a signatory.

In addition to the above, the MESTD issued in 2014 an **Instruction³⁹ for institutions responsible for the safety and protection of children and students (preschools, primary and secondary schools)** which states that institutions have an obligation to adopt a general act on the protection and safety of children and students, that is, to ensure the safe stay of children

39 The Instruction was passed on 22.12.2014 (number 610-00-953/2014-01). The Instruction can be accessed at: <http://www.mpn.gov.rs/wp-content/uploads/2017/12/uputstvo.pdf>.

and students. Children and students have the right to protection and safety in the school building, school yard, but also outside the school building and school yard during the implementation of educational work or other activities organized by the institution (for example, work-based learning, practical classes, etc.

Protection of the rights of students in dual education is exercised in accordance with the following laws: Law on the Fundamentals of the Education System, Law on Secondary Education, Law on Safety and Health at Work, Decree on Determining Dangerous Work for Children, Instruction of the MESTD concerning safety and protection of children and students, as well as with other regulations governing the protection of children's rights, prohibition of discrimination and dangerous work.

For more information, you can contact the Directorate for Safety and Health at Work at the Ministry of Labour, Employment, Veterans and Social Affairs and / or the Ministry of Education, Science and Technological Development - names of institutions, contact numbers and websites are at the end of this Guide.

4. COMPLETION OF DUAL EDUCATION

You will find out in this chapter:

- What awaits students at the end of dual education
- What is the final exam
- What is the vocational matura
- What do the vocational matura and final exam look like and what is expected of students

4.1. Completion of secondary dual education

Final exam or vocational matura awaits students in dual education at the end of secondary school just as it awaits all other students in secondary school, depending on whether they attended a three-year or four-year educational profile.

Just as the completion of primary school is not possible without taking the final exam at the end of primary education, all secondary vocational school students at the end of their secondary education must also pass the final exam (three-year educational profiles) or vocational matura (four-year educational profiles) as a confirmation of the completion of the secondary schooling level.

Both the final exam and the vocational matura are taken in accordance with the Rulebook on the Vocational Matura and Final Exam Programme ("Official Gazette of the Republic of Serbia - Educational Review", No. 1/18). The final exam and the professional matura are taken on the territory of Serbia in the terms prescribed by the school calendar for secondary schools, and include two regular exam terms: June and August. Students who do not pass them within these deadlines take the next exam period in accordance with the prescribed calendar.

The language of taking the final exam and the professional matura is the language in which the student acquired secondary education. Students who have received education in the language of a national minority may choose to take the vocational matura / final exam in whole or in part in the Serbian language.

On the website of the Institute for the Improvement of Education you can find a more detailed description of taking the vocational matura and final exam as well as the database of work assignments: www.zuov.gov.rs/zavrsni-ispit-i-maturski-ispit-srednje-strucno/

4.2. Final Exam

The final exam is an exam taken at the end of secondary education by students who have attended a three-year educational profile. The final exam checks whether the student has acquired the professional competencies prescribed by the qualification standard by attending a three-year vocational education for the appropriate educational profile, i.e. whether the student has acquired knowledge, skills and attitudes in accordance with the curriculum.

Each student is obliged to submit an application to the school for taking the final exam within the deadline prescribed by the school calendar. The final exam is realized through a practical exam which consists of one or more standardized tasks which check professional competencies on the basis of an established list of standardized tasks. From this list of standardized tasks, an appropriate number of work tasks are made for the final exam, i.e. the school forms a school list in each exam period based on the list of work assignments.

The contents of the final exams are prescribed by the appropriate regulations for each educational profile and you can see them at the following link (they are grouped by areas, for example: geodesy and civil engineering, electrical engineering, traffic, etc.): www.zuov.gov.rs/zavrsni-ispit-i-maturski-ispit-srednje-strucno/

The student takes the final exam before a commission consisting of two teachers of professional subjects (one of whom is the chairperson of the commission) and one representative of employers, an expert in that field of work. In order for an employer to participate in the commission, it must be proposed by the school, and the appropriate association must give its consent (i.e. the Chamber of Commerce and Industry of Serbia).

The assessment of the acquired professional competencies is given by the mentioned commission. A student who achieves at least 50% of the total number of points on each individual work task showed competence, i.e. passed the final exam.

The final exam is conducted in the school and the premises where there are jobs and conditions for the realization of the final exam. After passing the final exam, the student is issued a public document on passed final exam for the appropriate educational profile and a diploma supplement (according to Article 32 of the LDE, the diploma supplement of the student who passed the final exam contains data on the scope of the work-based learning and a list of employers where the work-based learning was performed).

Students with developmental disabilities and disabilities take the final exam in accordance with their motor and sensory abilities, or conditions required by a particular type of disability, in accordance with the law.

4.3. Vocational graduation exam (Vocational Matura)

The vocational matura includes three exams that are taken at the end of a four-year secondary vocational education, which checks whether the student has acquired competencies for work and continuing education, in accordance with the curriculum.

Every student is obliged to submit an application to the school for taking the vocational matura exam within the deadline prescribed by the school calendar.

The vocational matura consists of three exams and the student must pass all three exams in order to pass the vocational matura.

The **first exam** is in the Serbian language and literature, and/or mother tongue and literature.

The **second exam** is in mathematics, except for educational profiles that have not had mathematics in the last two years, because instead of mathematics, these students choose a subject from the list of general education subjects, with the possibility to choose mathematics as well. The list of general education subjects consists of: Serbian language and literature / mother tongue and literature, foreign language, mathematics, physics, chemistry, biology, geography, history and Serbian as a non-mother tongue (this list of subjects is expected to expand in the coming school years). Within the professional matura, the student takes exams in general education subjects that have the same content and structure as for the general matura (eg for high school students).

The **third exam** is a professional exam based on the competencies defined by the qualification standard, i.e. the contents of professional subjects in accordance with the curriculum. The professional exam consists of two parts: the first part is theoretical and the second part is graduation practical work.

The contents of the professional exam are prescribed by the appropriate regulations for each educational profile and you can see them at the following link (grouped by areas, for example: geodesy and construction, electrical engineering, traffic, etc. www.zuov.gov.rs/zavrsni-ispit-i-maturski-ispit-srednje-strucno/

The **theoretical part** is a test / exam that checks the professional-theoretical knowledge necessary for performing jobs and tasks for which the

student is trained during schooling in the subjects that are important for the educational profile (these subjects are prescribed by the appropriate Rule-book for each educational profile). The theoretical test is taken in writing and contains a maximum of 50 tasks, and it is necessary for the student to achieve at least 50.5% of the total number of points in order to pass the test. The test review commission consists of three teachers of vocational subjects.

Graduation practical work implies that the student performs work tasks that are on the list of standardized work tasks. From this list of standardized tasks, an appropriate number of work tasks is made, i.e. the school forms a school list in each exam period based on the list of work tasks.

The student takes the graduation practical work in front of a Commission consisting of two teachers of professional subjects (one of whom is the chairperson of the Commission) and one representative of employers, an expert in that field of work. In order for the employer to participate in the work of the Commission, it must be proposed by the school, and the appropriate association must give its consent (i.e. the Chamber of Commerce and Industry of Serbia). The assessment of the acquired professional competencies is given by the mentioned commission. A student who achieves at least 50% of the total number of points on each individual work task has shown competence, i.e. it is considered that he has passed. Graduation practical work is carried out in the school and on the premises where there are jobs and conditions for the realization of graduation practical work.

If a student receives an insufficient grade in one or two individual exams of the vocational matura, he / she is referred to taking remedial exam(s).

After passing all exams at the vocational matura, the student is issued a public document on passed vocational matura for the appropriate educational profile and a diploma supplement (according to Article 32 of the LDE, the diploma supplement of students who passed the matura exam contains data on the scope of work-based learning and a list of employers where the work-based learning was performed).

Only if the student decides, he can take an additional, elective, part of the vocational matura and it is identical to the elective part of the general matura - it is important to emphasize that this is not mandatory.

A student with developmental disabilities and disabilities, specific learning difficulties or language and social barriers takes the vocational matura exam in the conditions that ensure overcoming physical and communication barriers, and may be exempted from taking part of the Matura exam in subjects for which achievement standards have been adjusted, or to take that part in accordance with the individual education plan, which is decided by the appropriate school teams (for more information see the Law on Secondary Education, Article 63).

5. OPPORTUNITIES UPON COMPLETION OF DUAL EDUCATION PROFILE

The previous chapters describe all the important aspects during schooling in dual educational profiles, and this chapter is dedicated to the question - what after dual education. Upon completion of dual education, students can decide to enter the labour market with the acquired qualification or to continue their education at one of the higher education institutions in accordance with the law.

5.1. Entering the labour market

One of the challenges facing the Republic of Serbia is that it has both a high youth unemployment rate and a shortage of qualified staff needed by the labour market⁴⁰, so it is clear why the strategic commitment is to prioritize the activities related to the introduction of dual education. Namely, it is assumed that students who complete dual education will have competencies that are appropriate to the labour market, which makes them faster and easier to employ, especially if we keep in mind that students in dual education during formal schooling were in contact with the real work environment of one or more companies.

In this sense, the transition from the world of education to the world of work should be facilitated for students who have completed a dual educational profile. Although the Law on Dual Education does not oblige employers to hire students for whom they have organized work-based learning, the latest research relating to work-based learning in Serbia shows that many employers with work-based learning hire students after graduating from high school.⁴¹

Work-based learning can also be seen as the first work experience that gives the student a better starting position when applying for a job. The student can be employed by the employer where he realized work-based learning or by another employer.

40 Government of the Republic of Serbia (2018), Third National Report on Social Inclusion and Poverty Reduction in the Republic of Serbia, available at the link: http://socijalnoukljucivanje.gov.rs/wp-content/uploads/2019/02/Treci_nacionalni_izvestaj_o_socijalnom_ukljucivanju_i_smanjenju_siromastva_2014%E2%80%932017.pdf

41 European Training Foundation (2018). *Reviewing the quality of work based learning in initial VET in Serbia*.

Pursuant to the Law on Dual Education (Article 32), the school is obliged to issue a diploma supplement to students who have completed their education according to the dual model, stating with which employer (or with which employers) they have realized work-based learning together with information on the scope achieved work-based learning. By participating in work-based learning, employers have been investing their resources in youth education for several years. The crown of successful co-operation between the company and the student during dual education is the situation in which the employer offers an employment contract to the student after completing the formal education

5.2. Continuation of Education at Higher Education Institutions

Students who have completed some of the dual educational profiles have the opportunity for further education at higher education institutions.

Students who complete a four-year educational profile have the right to continue their education at higher education institutions in accordance with the laws in the field of education, regardless of whether they have completed a dual or non-dual educational profile. Therefore, the same rules for enrolment in higher education institutions apply to students who have passed the vocational matura at the end of secondary education as apply to all other students who have successfully completed secondary vocational education, regardless of whether it is a university or non-university higher education institution.

Students who complete a three-year education profile are entitled to continue their education, but there are differences depending on whether they want to enrol in a higher education institution that is a university or a higher education institution that is a non-university institution. Namely, higher education institutions differ, although they all belong to the level of higher education, so university institutions are the faculties and art academies within them, and non-university institutions are colleges, academies of vocational studies and colleges of vocational studies. If a student who completes a three-year educational profile **wants to enrol in a university institution**, he must first pass the vocational or general matura, and is entitled to take the vocational or general matura at least two years after completing secondary education if he has mastered the programme for acquiring the competencies needed according to the Matura (graduation) programme. After passing the general or vocational matura, the student has the right to higher education in accordance with the regulations, as do all other students who have passed the general or vocational matura. If a student who completes a three-year educational profile **wants to enrol in a non-university higher**

education institution, he is entitled to do so in accordance with the rules of that higher education institution. Each of the non-university higher education institutions has its own rules - some are open to enrol candidates who have completed three years of high school and some are not. Precise rules for enrolment in each non-university institution can be found on the official website of that higher education institution. In any case, students who complete a three-year dual educational profile have the same rights as students who complete a non-dual three-year educational profile.

6. IMPORTANT INFORMATION

If you have additional questions, concerns or want to contact the institutions responsible for the implementation of dual education, below is the recommendation how to do it.

Table 10. Institutions and Contacts

Institution	Contacts (internet addresses, email addresses, phone numbers)
Ministry of Education, Science and Technological Development - Sector for dual and entrepreneurial education	dualno.obrazovanje@mpn.gov.rs 011 3616 289 011 3616 519
Chamber of Commerce and Industry of Serbia -Education Centre, dual education and education policies	www.pks.rs obrazovanje@pks.rs 011 3304 539
The school you want to enrol in	You can find the school's contacts on the school's official website (e.g. enter in internet search engine the name of the school you are interested in). If you do not find the official website of the school, you can try to find information about the contact of the school at the following links www.upis.mpn.gov.rs www.srednjeskole.edukacija.rs www.mpn.gov.rs/skolske-uprave
Regional Chamber of Commerce covering the territory where the school is located and the school you are interested in	www.pks.rs/regionalne-komore obrazovanje@pks.rs 011 3304 539

Table 11. Topics You are Interested in and a Recommendation on How to Learn More

Topic	Recommended internet presentation and / or other ways you can find out more
Information and news about dual education on the MESTD website	www.mpn.gov.rs/dualno-o/
Laws and regulations related to dual education	www.mpn.gov.rs/dokumenta-i-propisi/zakonski-okvir/ https://www.paragraf.rs/propisi/zakon-o-dualnom-obrazovanju
Public Invitation for enrolment in the first grade of secondary school for 2019/20. school year, and other important information such as the schedule of all activities (Calendar)	www.mpn.gov.rs/upis-ucenika-u-srednju-skolu-2019-20/
Rulebook on enrolling students in high school	www.paragraf.rs/propisi/pravilnik-o-upisu-ucenika-u-srednju-skolu.html
Feasibility study of dual education	www.kooperativnoobrazovanje.org/predstavljena-studija-izvodljivosti-uvodenja-dualnog-obrazovanja-u-srbiji/
Secondary Vocational Education Reform Project	www.kooperativnoobrazovanje.org/
Curricula on the IIE website	www.zuov.gov.rs/nastavni-planovi-i-programi/#1557128435959-aaba5be0-1eed
Career guidance and counselling materials	www.zuov.gov.rs/karijerno-vodjenje-i-savetovanje/ www.euroguidance.rs/resursi/bazaaktivnosti/ www.vodiczaosnovce.nsz.gov.rs
Manuals on final and matura exams	www.zuov.gov.rs/zavrsni-ispit-i-maturski-ispit-srednje-strucno/

Safety and Health at Work	Directorate for Safety and Health at Work 011 3347 391 011 3347 392 www.minrzs.gov.rs/sr/struktura/organi-uprave-u-sastavu-ministarstva/uprava-za-bezbednost-i-zdravlje-na-radu
	Labour Inspectorate 011 2017 485 011 2017 495 www.minrzs.gov.rs/sr/struktura/organi-uprave-u-sastavu-ministarstva/inspektorat-za-rad
	MESTD Educational inspection 011 3616 293 011 2401 911 prituzbe-prosvetnainspekcija@mpn.gov.rs

7. ATTACHMENTS

Attachment 1: Sample of a dual education contract

(SCHOOL NAME)

(Draft contract)

Reference number: _____

Date: _____ 2019

Based on Articles 13–14 of the Law on Dual Education ("Official Gazette of the Republic of Serbia", numbers 101/17), and Rulebook on the curriculum for the acquisition of education for three years / four years in a secondary vocational school for the field of work _____ ("Official Gazette of the Republic of Serbia - Prosvetni glasnik", No. _____) (hereinafter: Curriculum)

1. Secondary vocational school "_____" (name) based in _____, st. _____ No. _____, tax identification number _____, identification number _____, represented by the principal _____ (hereinafter: "School")

and

2. Company / entrepreneur "_____" (name of the Employer), based in _____, st. _____ No. _____, tax identification number _____, registration number: _____, registration number of the Certificate of fulfilment of conditions for performing work-based learning _____, represented by the director _____ (hereinafter: "Employer") conclude

DUAL EDUCATION CONTRACT

Article 1

The contracting parties agree:

- that the Employer in the form of his activity performs the work _____, for the performance of which he is registered with the Agency for Business Registers of the Republic of Serbia, which enables the realization of learning content through work prescribed by the Curriculum;
- that the educational profile of the School, which is attended for three years / four years by a student who is sent to study through work with the employer, _____.

Article 2

The subject of this Agreement is the regulation of mutual relations, rights and obligations of the School and the Employer.

Article 3

Work-based learning will be realized on the business premises of "_____" (name of the Employer) at the address of the headquarters / branch of the Employer.

If work-based learning is conducted on the premises of the employer's headquarters, state:

Work-based learning will be realized on the business premises of "_____" (name of the Employer) at the address of the employer's headquarters.

If work-based learning is not conducted on the premises of the employer's headquarters, but at a branch, state

The work-based learning will be realized on the business premises of "_____" (name of the Employer) at the address of the **branch** _____ (specify the address of the branch) of the Employer whose headquarters are in _____).

Article 4

The Employer and the School conclude a Contract on Dual Education for the realization of the content of learning through the work prescribed by the curriculum starting from _____ 2019.

Article 5

If work-based learning, in accordance with the curriculum, is conducted in the language of a national minority, the Employer is obliged to organize and implement work-based learning in the language of students belonging to the national minority **only for educational profiles for which work-based learning in the language of a national minority is approved.**

Article 6

The contracting parties undertake to, in mutual cooperation, develop a plan and programme for the realization of work-based learning, which contains a description of activities, place and dynamics of work-based learning with which the student, after signing the contract on work-based learning, will be acquainted of by the Employer.

Article 7

The employer commits to:

- implement work-based learning at its own expense;

- ensure quality and uninterrupted performance of work-based learning, in the period in which the student performs work-based learning with the Employer, in accordance with this contract, the curriculum and the plan for the realization of work-based learning;
- appoint _____ (number) of licensed instructors, employees / employees of the Employer, who directly ensure that during the work-based learning the contents prescribed by the curriculum are realized and are responsible for the students in acquiring the competencies prescribed by the qualification standard;
- provide training for students in the field of safety and health at work, both in the theoretical and in the practical part before starting work-based learning;
- apply all general and special measures and regulations in the field of safety and protection at work, and especially regulations governing the safety and protection of children and youth at work;
- enable the implementation of monitoring of the curriculum and the plan of realization of work-based learning in agreement and cooperation with the coordinator of work-based learning in the facilities of the Employer, in pre-defined terms;
- the instructor shall inform the coordinator of practical instruction if the student has an urgent need to leave work-based learning.

Article 8

The school commits to:

- ensure the presence of students in accordance with the specified schedule of work-based learning, pursuant to Article 4 of this Contract;
- inform the student before starting work-based learning about his / her rights, obligations and responsibilities while performing work-based learning with the Employer;
- ensure that the coordinator of work-based learning in cooperation with the instructor plan, monitor, implement and evaluate the achievement of work-based learning outcomes of students at the Employer, visit students during work-based learning at the Employer in a pre-agreed time, which will in no way disrupt the work of other employees at the Employer;
- involve the Employer in the process of placing students to work-based learning in accordance with the valid Rulebook on the manner of placement of students to work-based learning ("Official Gazette of the Republic of Serbia", No. 102/18);

- ensure the implementation of sanitary check-up for students (for certain educational profiles).

Article 9

The maximum number of students with whom the instructor realizes work-based learning is ____ (specify the number), and it is determined in the agreement between the School and the Employer, guided by the curriculum.

The number of licensed instructors provided by the employer for the purpose of work-based learning is ____ (specify the number), and is determined by the number of students sent to work-based learning with the Employer, bearing in mind that one instructor is hired to work with a group of ____ (specify the number) of students, and when choosing an instructor, the Employer is obliged to comply with the conditions provided for in Article 29 of the Law on Dual Education.

Article 10

The Contracting Parties may terminate the Contract by mutual consent.

Unilateral termination of the Contract by the School is possible in case of non-fulfilment of contractual obligations by the Employer provided for in Article 7 of this Contract, as well as the reasons provided for in Article 25 of the Law on Dual Education.

Unilateral termination of the Contract by the Employer is possible due to breach of obligations by the School under Article 8 of this Contract as well as the reasons provided for in Article 18 of the Law on Dual Education.

The School shall notify the Ministry of the termination of the Contract in accordance with Article 19, paragraph 2) of the Law on Dual Education.

Article 11

The Contracting Parties shall in all respects act in accordance with the principle of good faith and fairness and shall not abuse their rights.

Article 12

The relevant provisions of the **Law on Dual Education** and the **Law on Obligations** shall apply accordingly to everything not regulated by this Contract.

Article 13

The Contracting Parties shall settle all possible disputes amicably. If the contracting parties are unable to resolve any disputes amicably, the resolution of the same will be entrusted to the competent court.

Article 14

This Contract is made in two identical copies, of which each contracting party keeps one copy. The Contract in question is an expression of the free will of the contracting parties, made without fraud, coercion and delusion, and as such the contracting parties sign it in agreement.

For the Employer:

For the School:

director

principal

Forwarded to:

1. The school;
2. The employer.

Attachment 2: Sample of Work-Based Learning Contract

(EMPLOYER NAME)

(Draft contract)

Reference number: _____

Date: _____ 2019

Pursuant to Articles 13 and 21 of the Law on Dual Education (Official Gazette of the Republic of Serbia, No. 101/17), Rulebook on the curriculum for the acquisition of education for three years / four years in a vocational school for area of work _____ ("Official Gazette of the Republic of Serbia - Education Gazette", No. _____) (hereinafter: Curriculum), as well as the Contract on Dual Education (No. _____), concluded between _____ (title) Employer) and _____ schools, in _____ (city) on _____,

The company / entrepreneur _____ (name of the Employer), based in _____, st. _____ no. ____, tax identification number _____, identification number: _____, registration number of the Certificate of fulfilment of conditions for conducting work-based learning _____, represented by the director _____ (hereinafter: "Employer")

and

_____ (name and surname of the student), with residence in _____, st. _____ no. ____, represented by _____ (name and surname of the student's parent or other legal representative), in the capacity of legal representative, residing in _____, st. _____ no. ____ (hereinafter: "Student") conclude

WORK-BASED LEARNING CONTRACT

Article 1

The Contracting Parties agree:

- that the Contract on dual education number _____ from the day has been concluded between the school and the Employer;
- that the employer in the form of his activity performs the work _____, for the performance of which he is registered with the Agency for Business Registers of the Republic of Serbia, which enables the realization of work-based learning content prescribed by the Curriculum;

- that the student is enrolled in the Secondary Vocational School " _____ " in _____, with its registered office at the address _____ number ____, tax identification number _____, identification number: _____, represented by the principal _____ (hereinafter: the School);
- that the student is determined for the educational profile _____ for a period of three years / four years.

Article 2

The subject of this Contract is the regulation of mutual relations, rights and obligations of the Employer and the Student, or the parents or other legal representative of the Student.

Article 3

Work-based learning with the Employer is a mandatory segment during the education of students for the educational profile _____ in accordance with the qualification standard and the Curriculum. Accordingly, students are obliged to perform work-based learning at the Employer in the manner prescribed by this Contract.

Article 4

The Employer and the Student conclude a Contract on work-based learning for the realization of the content of the work-based learning prescribed by the curriculum starting from _____ 2019.

A student, and/or a parent or other legal representative of a student may conclude a work-based learning contract with several employers with whom the school has concluded a dual education agreement, if this is necessary for the implementation of the curriculum.

Article 5

Work-based learning will be realized on the business premises of " _____ " (name of the Employer) at the address of the seat of the Employer in the period _____ which will be determined by the Employer and the Student in accordance with the business obligations of the Employer in accordance with the school schedule.

(If work-based learning is conducted on the premises of the employer's headquarters, state:

Work-based learning will be realized on the business premises of " _____ " (name of the Employer) at the address of the headquarters of the Employer.

If work-based learning is not conducted on the premises of the employer's headquarters but in the branch, state:

Work-based learning will be realized on the business premises " _____ " (name of the Employer) at the address of the branch _____ (specify the address of the branch) of the Employer whose headquarters are in _____.

Article 6

If work-based learning, in accordance with the curriculum, is conducted in the language of a national minority, the Employer is obliged to organize and implement work-based learning in the language of students belonging to a national minority only for educational profiles for which work-based learning in the language of a national minority is approved.

Article 7

Work-based learning will be performed in accordance with the Plan for implementation of the work-based learning which contains a description of activities, place and dynamics of work-based learning with which the student, after signing this Contract, will be acquainted by the Employer, as well as the Curriculum, entirely in cooperation with the school that the student attends in order for the contracting parties to timely harmonize the time frame for the realization of work-based learning with business obligations and mandatory attendance at school.

Article 8

The employer commits to:

- organize and realize work-based learning in accordance with the Curriculum;
- enable the Student to acquire and develop competencies in accordance with the qualification standard and the Curriculum;
- enable the Student to perform work-based learning in the period from 08:00 a.m. to 08:00 p.m., for a maximum of 6 (in words: six) hours per day, or 30 (in words: thirty) hours per week;
- acquaint the Student and his / her parents / legal representatives with the provisions of all general acts that exist with the Employer, which the Student is obliged to adhere to during the work-based learning, as well as with the consequences of possible non-compliance or violation thereof;
- apply all general and special regulations in the field of safety and protection at work, and especially regulations governing the safety and protection of children and youth at work;
- provide training of students in the field of safety and health at work, both in theoretical and practical part, before starting work-based learning;

- provide the Student with a licensed instructor who directly takes care that during the work-based learning the contents prescribed by the Plan and Programme are realized;
- teaching and learning and are responsible for acquiring the competence of the Student prescribed by the qualification standard;
- provide for the Student:
 - means and equipment for personal protection at work,
 - reimbursement of actual transport costs from school to the place of work-based learning and back, maximum in the amount of the price of a public transport ticket (fare), if the Employer has not provided own transport,
 - reimbursement of food costs in accordance with the general act of the Employer,
 - insurance in case of injury during work-based learning with the Employer,
 - compensation for each hour spent on work-based learning in the net amount of at least 70% of the minimum labour price during one calendar month, paid once a month, no later than the end of the current month for the previous month,
 - pertaining contributions in accordance with applicable regulations,
 - the amount is paid to the current account of the Student number _____ at the bank _____,
 - inform the Student in writing about the prohibition of abuse, rights, obligations and responsibilities of the parties in connection with the prohibition of abuse at work and work-based learning.

Article 9

The student commits to:

- submit a certificate from the competent institution that he meets the health requirements for the educational profile, which is an integral part of this Contract;
- come regularly, on time and spend the planned time on work-based learning with the Employer in accordance with the plan for the realization of work-based learning;
- inform the Instructor if there is an urgent need to leave work-based learning;
- respect the discipline and rules of conduct applied by the Employer while performing work-based learning and adhere to the general acts of the Employer;
- respect all instructions, and perform conscientiously every task entrusted to him by the Instructor;

- adhere to safety and health measures at work and fire protection, and use protective equipment, if it is intended for work at a specific workplace after training for the application of safety and health measures at work and fire protection that was performed before the start of training through work, in accordance with the law, bylaws, risk assessment act and other acts of the employer in the field of safety and health at work;
- compensate in full, if he intentionally or through gross negligence causes material damage to the Employer;
- submit proof of actual transport costs from the school to the place of work-based learning and back, in the form of a public transport ticket, if the Employer has not provided its own transport.

Article 10

Supervision over the realization of work-based learning of the Student is performed by _____ (name and surname of the Instructor) in the capacity of a **licensed instructor** in cooperation with the **work-based learning coordinator** of the employer at the school that the Student attends.

In the procedure of performing the supervision referred to in paragraph 1 of this Article, the instructor, appointed to supervise the realization of work-based learning, submits to the Employer monthly reports on the success and work of the Student.

Article 11

The Employer reserves the right to provide the Student with a special reward for performance of the jobs carried out by work-based learning, as well as an increased amount of compensation relative to the basic compensation of the Student to which he is entitled by this Contract, according to the economic possibilities of the Employer.

The student is responsible for the damage he caused to the Employer, alone or with other employees, during work-based learning, intentionally or by extreme negligence.

The existence of the damage, its amount, the circumstances under which it occurred, who caused the damage and the manner of its compensation, is determined by the Employer.

Article 12

The Contracting Parties may terminate the Contract by mutual consent.

Unilateral termination of the Contract by the Student, and/or parents or other legal representative is possible in case of non-fulfilment of obligations by the Employer provided for in Article 8 of this Contract, as well as the reasons provided for in Article 25 of the Law on Dual Education.

Unilateral termination of the Contract by the Employer is possible due to the breach of obligations by the Student under Article 9 of this Contract, the reasons provided for in Article 24 of the Law on Dual Education, as well as the general acts of the Employer.

The employer shall notify the Chamber of Commerce and Industry of Serbia of the termination of the Contract in accordance with Article 26 of the Law on Dual Education.

Article 13

The Contracting Parties shall in all respects act in accordance with the principle of good faith and fairness and shall not abuse their rights.

Article 14

The relevant provisions of the **Law on Dual Education** and the **Law on Obligations** shall apply accordingly to everything not regulated by this contract.

Article 15

The Contracting Parties shall settle all possible disputes amicably.

If the contracting parties are unable to resolve any disputes amicably, their resolution will be entrusted to the competent court.

Article 16

This Contract is made in three identical copies, of which each contracting party keeps one copy, and the third is delivered to the school.

The contract in question is an expression of the free will of the contracting parties, made without fraud, coercion and delusion, and as such the contracting parties sign it in agreement.

For the Employer:

director _____

The Student:

(name and surname)

Parent/Student's legal representative:

(name and surname)

Forwarded to:

1. Student _____ (*date and Student's signature*);
2. Employer
3. School

8. THE SOURCES USED:

- Law on Dual Education, "Official Gazette of the Republic of Serbia", number 101/17
- Law on National Qualification Framework of the Republic of Serbia, "Official Gazette of the Republic of Serbia", number 27/18
- Law on Secondary Education, "Official Gazette of the Republic of Serbia", numbers 55/13, 101/17 and 27/18 – other law
- Law on the Bases of Education System, "Official Gazette of the Republic of Serbia", numbers 88/17, 27/18 – other law, and 10/19
- Law on Safety and Health at Work, "Official Gazette of the Republic of Serbia", numbers 101/05, 91/15 and 113/17 – other law
- Rulebook on Enrolment of Students in Secondary School, "Official Gazette of the Republic of Serbia", numbers 23/18 and 30/19
- Rulebook on the manner of placement of students to work-based learning, "Official Gazette of the Republic of Serbia", No. 102/18
- Rulebook on detailed conditions, manner of work, activities and composition of the team for career guidance and counselling in high school that realizes educational profiles in dual education, "Official Gazette of the Republic of Serbia", No. 2/19
- Rulebook on the training programme, closer conditions and other issues relevant to taking the instructor exam, "Official Gazette of the Republic of Serbia", No. 70/18
- Rulebook on the organization, composition and manner of work of the Commission for determining the fulfilment of conditions for conducting work-based learning with the employer, "Official Gazette of the Republic of Serbia", No. 46/18
- Rulebook on the Vocational Matura and Final Exam Programme of Serbia - Prosvetni pregled, No. 1/18
- Rulebook on student assessment in secondary education, "Official Gazette of the Republic of Serbia", No. 82/15
- Rulebook on standards of career guidance and counselling services, "Official Gazette of the Republic of Serbia", No. 43/19
- Decree on Determining Dangerous Work for Children, "Official Gazette of the Republic of Serbia", No. 53/17
- Third National Report on Social Inclusion and Poverty Reduction in the Republic of Serbia, Unit for Social Inclusion and Poverty Reduction - Government of the Republic of Serbia, 2018.
- Reviewing the quality of work-based learning in initial VET in Serbia, European Training Foundation, 2018.

Annex 17 – Communication Strategy to Support the Implementation of Dual Education in Serbia



The Government of the Republic of Serbia
COMMISSION FOR DUAL EDUCATION DEVELOPMENT
AND IMPLEMENTATION

COMMUNICATION STRATEGY
TO SUPPORT THE IMPLEMENTATION
OF DUAL EDUCATION IN SERBIA
AND THE ACCOMPANYING ACTION PLAN

SUPPORT: The development of this document was made possible by the Government of Switzerland within the project "Support in the Development and Establishment of the National Model of Dual Education". This document does not represent the official position of the Government of Switzerland.

NOTES: All terms used in the document in the masculine grammatical gender include both the masculine and feminine genders of the persons to whom they refer.

September, 2019

List of Abbreviations

ADA	Austrian Development Agency
GIZ	German Organization for International Cooperation
CEDEFOP	European Centre for the Development of Vocational Training of the European Union
CEP	Centre for Education Policies
LSG	Local Government Units
KOF	Swiss Institute of Economics, Zurich, Switzerland
MYS	Ministry of Youth and Sports
MESTD	Ministry of Education, Science and Technological Development
ME	Ministry of Economy
MLEVSA	Ministry of Labour, Employment, Veterans and Social Affairs
MF	Ministry of Finance
CCIS	Chamber of Commerce and Industry of Serbia
OECD	Organization for Economic Cooperation and Development
RCCIS	Regional Chamber of Commerce and Industry of Serbia
SDC	Swiss Agency for Development and Cooperation in Serbia
CVAE	Council for Vocational and Adult Education
UNESCO	UN Education, Science and Culture Organization
WBL	Work-based learning
LDE	Law on Dual Education
IIE	Institute for Improvement of Education

1. INTRODUCTORY NOTES AND METHODOLOGY

The draft communication strategy to support the implementation of dual education in Serbia (hereinafter: the Communication Strategy) was developed within the project "Support in the development and establishment of the National Model of Dual Education", which is implemented with the support of Switzerland (SDC) and which after several rounds of consultations was adopted by the Commission for the Development and Implementation of Dual Education (the Commission), making it the official Communication Strategy to support the implementation of dual education. Thus, the Communication Strategy, in line with the Commission's tasks, has become a tool that the Commission will use to coordinate and monitor the promotional activities at the national level.

The communication strategy aims to provide a framework and directions for improving communication in the process of further development of dual education in Serbia, so that all stakeholders can make the best use of opportunities provided by the introduction of dual education and contribute to further improvement of dual education in Serbia.

The Communication strategy is based on the analysis of experiences and practices in the implementation of dual education, previous activities and processes of communication and perception of the general and professional public about dual education in Serbia. The communication strategy also takes into account the existing regulations and solutions that regulate dual education, given that this aspect is crucially related to the motivation of all stakeholders in the further process of development of dual education in Serbia. Finally, the Communication Strategy is based on the insights of key partners involved in the introduction and development of dual education in Serbia and takes into account the resources and capacities available for the implementation of the Communication Strategy.

In the process of preparing the Communication Strategy, talks were held with representatives of the Government of Serbia - Strategic Project Implementation Unit, Ministry of Education, Science and Technological Development (MESTD), Swiss Institute of Economics, Chamber of Commerce and Industry of Serbia (CCIS) and representatives of development partners (ADA, SDC and GIZ), which in Serbia support the development of dual education through various programmes.

The Communication Strategy was prepared from April to June 2019, and after the adoption of the Communication Strategy at the end of 2019, the

Commission became responsible for assessing the degree of implementation of the Communication Strategy, i.e. assessing the implementation of activities from the Action Plan and proposing improvements in the strategic approach and the process of implementing the Strategy.

The Communication strategy is organized into several logical units. At the very beginning, there is a brief overview of the process of introducing dual education, followed by a presentation of the situation analysis and key challenges related to the implementation of dual education as well as an analysis of key public perceptions regarding dual education in Serbia. The following are the goals and the most important elements of the Communication Strategy, key messages, means of communication and, finally, the action plan for the implementation of the Communication Strategy, which refers to the activities planned for realization by the middle of 2021.

2. SUPPORTS FOR THE INTRODUCTION OF DUAL EDUCATION IN SERBIA

The introduction of dual education in the system of secondary vocational education and, consequently, the adoption of the Law on Dual Education were explained by the Government by the findings of numerous studies, which show that dual education contributes to better educational outcomes compared to the classical system of secondary vocational education, especially taking into consideration the labour market for young people (e.g. Rageth & Renold, 2017)⁴².

Dual education, practice and work-based learning as secondary vocational education policies are recommended by the OECD (OECD, 2015) and UNESCO (UNESCO, 2015). The European Centre for the Development of Vocational Training of the European Union (CEDEFOP) also points out that increasing the share of work-based learning in all vocational education programmes is the main direction for the development of secondary vocational education in the future (CEDEFOP, 2018).

Broadly speaking, the system of secondary vocational education in the Republic of Serbia is characterized by insufficient harmonization with the labour market. This is reflected in the fact that the supply and structure of the education system, outdated curricula, as well as the secondary school enrolment plan do not reflect the real needs of the economy. Although in the existing system of secondary vocational education there is cooperation between education and the economy, which in a number of cases is reflected in the joint realization of student practice, it is not realized in an orderly manner and, based on the results of numerous researches, the expected results are not achieved in terms of competencies, which can be concluded on the basis of statements of employers who believe that students after completing secondary vocational education are not ready to immediately engage in work in a real work environment. The data also show that 65% of young people who have completed secondary vocational school are classified as long-term unemployed, and almost 150,000 young people aged 15 to 24 are neither in school nor employed.⁴³

The basic idea of dual education implies the acquisition of theoretical knowledge in school, and practical competencies in companies in a real work environment. This idea is based on the assumption that companies can keep

42 Rageth, L. & Renold, U. (2017). *The Linkage Between the Education and Employment Systems: Ideal Types of Vocational Education and Training Programs*, KOF Working Papers, No. 432, July 2017.

43 The Government of the Republic of Serbia (2017). Rationale for passing the Law on Dual Education

up with the speed of technical and technological changes that are happening in the market faster than in schools. In addition, the introduction of work-based learning and the development of curricula in which the economy is involved ensures adequacy of work-based learning and creates a system in which qualifications are an expression of actually acquired competencies, which ultimately leads to increased employability of young people. In this way, the economy invests in its future employees through timely investment in education and in the long run solves the need for appropriate staff.

Although dual education in the form in which we have it today in Serbia is a novelty, it represents a traditional system of vocational education, primarily in Germany, Austria and Switzerland. The dual system that exists in these countries has proven to be very effective for the faster transition of young people from the education system to the world of work and is considered one of the main reasons for the low youth unemployment rate in these countries. However, this system of education is part of the overall political, economic and cultural environment of these countries and it is not possible to simply copy it to other countries, but what is common to these systems and the National Model of Dual Education in Serbia is that this type of education implies implementation in two locations - in an educational institution (school) and in a company, although the relationship between these two parts differs significantly in all the mentioned countries.

In analysing the effects of the Law on Dual Education Proposal, the Government pointed out that the Serbian economy and its development largely depend on the quality and availability of labour, and that in Serbia, despite high unemployment (especially among young people), there are vacancies for skilled labour, primarily in crafts and technical occupations, for which employers cannot employ appropriate staff. Due to the lack of appropriate skills, "employers are much more likely to organize trainings to cover shortcomings in the education of young people during their schooling than to conduct or send young people to those highly sophisticated and advanced trainings."⁴⁴

It is important to point out that the framework for the introduction of dual education was provided by the current Strategy for the Development of Education in Serbia until 2020 ("Official Gazette of the Republic of Serbia", No. 107/12), which recognizes the harmonization of the offer of educational profiles with the needs of the labour market, the involvement of employers in the process of programming, development and implementation of secondary vocational education, and so on.

All this should be kept in mind when developing and implementing a Communication strategy to support the implementation of dual education,

44 Dr Ristic, Z., Rajic, D., Pavlovic, Lj. (2013). Better conditions for youth employment. Belgrade: Union of Employers of Serbia, 14

because it is obvious that in Serbia there is a need to improve the vocational education system and, consequently, increase youth employability, and this should be clearly indicated. That is, when communicating with all stakeholders, it is important to be aware that the decision to introduce dual education stems from the real needs of education and the economy in Serbia and that the vision of dual education in Serbia is to improve student learning and increase youth employability.

3. A BRIEF OVERVIEW OF THE PROCESS OF INTRODUCING DUAL EDUCATION

The Law on Dual Education (LDE) in Serbia was adopted at the end of 2017, and will be fully implemented in 2019/2020 school year. This will make the transition of the part of secondary vocational education to the modality of dual education, which implies a more intensive and more regulated system of work-based learning (WBL). Although there has been cooperation between a number of schools in Serbia and companies for years, "work-based learning has not been clearly defined so far and, when it comes to dual education, it becomes regulated by the law," the First Report on Obstacles and Drivers in the phase preceding the implementation of the Law on Dual Education were prepared by the CEP and KOF.

More precisely, practical classes and professional practice were performed in companies in the case of students in many secondary schools, but precise regulation was lacking. The LDE introduces the terms "dual education" and "work-based learning", **whereby dual education means a model of teaching in the system of secondary vocational education in which competencies are built in accordance with the qualification standard and curriculum in schools (theoretical classes and exercises) and with the employer (work-based learning).**

The Law on Dual Education has long been prepared and promoted in consultation with various stakeholders and represents only the first step in the development of dual education and the regulation of cooperation between education and the business sector.

The Law on Dual Education aims to ensure the improvement of the quality of practical teaching, by more actively involving the economy in the implementation of practical aspects of vocational education.

It is important to note that, instead of copying the system, in the process of developing dual education in Serbia, elements of dual education from Austria, Switzerland and Germany were selectively taken over and adapted, which can bring the greatest benefit to students, labour market and economy, structures and conditions. In that regard, the National Model of Dual Education, although inspired by foreign practice, contains contextualized solutions and, for example, enrolment policy that applies to other institutions of secondary education, also applies to dual education, then the school is responsible for allocating all students to work-based learning while respecting equality, while in the mentioned foreign countries students and companies connect mainly outside the school, i.e. the student finds a company in which to perform practice, and/or work-based learning, and only then becomes a candidate for a certain educational profile in school, and so on.

The introduction of elements of dual education in secondary vocational education in Serbia began in 2013 with the project of the German Organization for International Cooperation (GIZ), "Reform of secondary vocational education in Serbia". At that time, three educational profiles were introduced into the regular school system - industrial mechanic, electrician and locksmith-welder. Within the project, a cooperative model was developed as a specific form of implementation of secondary vocational education with elements of dual education, adapted to the conditions in Serbia.

Previous experiences within projects supported by the Swiss Confederation, the Federal Republic of Germany and the Republic of Austria indicate good practices regarding the development of dual education in Serbia. The number of vocational schools, companies and students enrolling in one of the dual educational profiles is increasing. At the beginning of the pilot phase, dual education was enrolled by students with lower success, but the structure of students in dual education has changed in recent years, especially when it comes to four-year profiles enrolled by students with better academic achievement. In the coming period, the focus should be on monitoring and analysing the results of education in dual education. GIZ has been particularly committed to this issue in the past, but further involvement of researchers and organizations is needed and stronger promotion of successful examples of cooperation between companies and schools, as well as student success.

The main elements of the model of dual education in Serbia are the increased scope and improved quality of work-based learning and active participation of the economy in education.

The Law on Dual Education started to be applied from the 2019/2020 school year. In September of the 2019/2020 school year, a total of 72 secondary vocational schools have implemented one or more dual educational profiles for first grade students out of a total of 35 dual educational profiles for this school year. Preliminary data on enrolment of students in secondary schools in 2019/2020 show that about 2,600 students enrolled in the first grade according to the dual model of education.

According to internal data from the MESTD and CCIS, there are a total of 7,000 students in the entire dual education system, 37 created dual educational profiles, 104 schools and 460 companies that will implement work-based learning on their premises in compliance with the provisions of Law on Dual Education.⁴⁵

The Law on Dual Education opens the possibility for schools and students to opt for dual education, which is one of the modalities in the system of secondary vocational education. Also, a clearly regulated system of rights and obligations of schools, employers and students in the law itself should

45 Internal data of MESTD and CCIS

ensure the inclusion of more companies and schools in work-based learning and provide an opportunity for companies to get the right staff and students the right competencies, which will enable faster and easier youth employability.

The project "Support in the development and establishment of the National Model of Dual Education", which is implemented with the support of Switzerland, has made a strong contribution to the development and further completion of regulations that define the implementation of dual education. The project contributed to the preparation of three by-laws that define important aspects of dual education: training instructors in dual education, placing students to work-based learning and providing support to students in the process of career guidance and counselling.⁴⁶

46 Rulebook on the training programme, detailed conditions and other issues of importance for taking the instructor exam ("Official Gazette of RS", No. 70 of 21 September 2018); Rulebook on the manner of placement of students to work-based learning ("Official Gazette of RS", No. 102 of 21 December 2018); Rulebook on detailed conditions, manner of work, activities and composition of the Team for career guidance and counselling in secondary school that implements educational profiles in dual education ("Official Gazette of RS", No. 2 of 16 January 2019).

4. SITUATION ANALYSIS AND KEY CHALLENGES RELATED TO THE IMPLEMENTATION OF DUAL EDUCATION

The First Report on Obstacles and Drivers in the Pre-Implementation Phase of the Law on Dual Education (hereinafter: the First Report), prepared by the CEP and KOF, indicates that “there is almost general information about the forthcoming changes, as well as motivation to participate in the implementation of dual education. Respondents from all groups are ready to make changes in their own work, adapt to changes and coordinate with other participants. The report also estimates that “leading actors, leaders in dual education reform, as well as those in charge of dual education at the operational level are making significant efforts to align the existing dual education system with the provisions of the Law on Dual Education, even before its official implementation, with general optimism”.

The First Report also summarizes a number of experiences around the world, which show that “implementing dual education can be challenging (OECD, 2009)”. This primarily refers to the additional costs and resources necessary for the successful implementation of dual education. Also, an important factor of success is the coordination and management of a large number of institutions, participants and various systemic mechanisms.

Respondents interviewed during the preparation of the First Report point out that the LDE is not fully clear and fully aligned with the current national context, in part because the by-laws detailing the process are still new or not well known to all stakeholders. As specific challenges in the process of further development of dual education, the relevant interlocutors point out the lack of staff, expertise and funding in the process of implementing dual education. There are concerns, which have arisen on several occasions and relate to financial compensation paid to students, the willingness of companies to participate, the need for additional information, especially for those participants from the middle and operational level, the need for stronger involvement of intermediaries, and so on.

Participants from the national level are generally satisfied with the Law on Dual Education, but participants from the local and regional levels have ambiguities regarding certain legal provisions. Schools report that there are still “many things that are not clear to companies and schools.” This refers to compensation of students for work-based learning, curriculum and transition from the existing to dual profiles. Schools that are not in dual education state that “teachers are still confused about the distribution of responsibilities, while companies are confused about paying students.” One school cites the case of a company that gave up cooperation with the school within the

framework of dual education because "companies are not fully aware of their obligations to pay students." These misunderstandings can adversely affect the proper implementation of dual education, which is why it is important to work on improving communication between stakeholders and reducing misunderstandings, especially on the issues that are already clearly defined and regulated.

Stakeholders' understanding and awareness of new regulations on career guidance and counselling in dual education are moderate. The Chamber of Commerce and Industry of Serbia (CCIS) is the most informed, but it is not largely involved in the implementation of career guidance and counselling. Awareness is lowest among several groups of participants at the local level, such as companies and schools that are not in dual education, and this issue is a serious challenge in the process of full implementation and expansion of dual education.

Stakeholders were somewhat informed about the training process for instructors. However, school administrations and schools that are not in dual education are not sufficiently informed, and companies outside of dual education are almost not fully informed. On the other hand, those familiar with instructor training are concerned about the feasibility of that training.

Regional chambers of commerce are concerned that "training costs may be a problem for employers' involvement, and the opinions of the surveyed companies confirm this because they state that "training lasts too long (40 hours) and it is difficult to relieve people of regular duties for so long", and that the process requires a long absence of staff from their jobs" thus jeopardizing the optimal work process.⁴⁷

International development partners and foreign companies, especially those from Germany, Austria and Switzerland, have experience in the development of dual education in their environments. They react more positively to the concept of dual education, and often give direct remarks and suggestions for further development of dual education in Serbia. The interlocutors point out that the companies from Germany, Switzerland and Austria do not question the payment of students when they are in the dual education system - these employers usually need help to find a school and help them with administrative obligations. The communication strategy should encourage the exchange of information between employers and schools.

47 Centre for Education Policies and KOF (2019). Implementation of the Dual Education Act - The first report on obstacles and drivers in the pre-implementation phase of the Dual Education Act, available at <https://www.research-collection.ethz.ch/handle/20.500.11850/337794>

The first report indicates that it would be useful to have more ways of informing and disseminating information to parents and students, such as e.g. a problem-solving telephone line and a campaign to disseminate information to parents and students. In addition, participants involved in dual education at the operational level point to a lack of knowledge on all aspects related to the implementation of dual education. Then, they point out that the flow of information to them is slow and that they do not perform exactly everything required by the Law. Schools and companies also state that parents and students are not fully aware of new opportunities in dual education, so that improving communication with parents and students would support schools' efforts to attract new participants.

Decision-makers' support to the introduction of dual education has been at the highest level and decision-makers continue to provide strong support to the introduction of dual education. It is necessary to use all the advantages of this support for the functioning of dual education, the adoption of sustainable solutions and instruments for the effective and efficient implementation of dual education. In addition, it is necessary to ensure that strong political support to the introduction of dual education does not neglect a participatory approach and involve a wide range of stakeholders in the further development of dual education policies, which ensures the development of sustainable dual education policies.

The First Report concludes that initiating the reform process at a high political level can be good from the point of view of vertical involvement of different participants from different levels. However, this is not a guarantee that the implementation of the Law will be simple when the law is fully in force, and it is necessary to strengthen the awareness of actors involved in the implementation of dual education and open dialogue with the public in order to hear and consider different opinions regarding the implementation of dual education.

Regarding the cooperation and communication of key partners in the process of introducing dual education, participants generally agree that there was a lot of misunderstanding among stakeholders at this level. Noises in communication arose for different reasons, and some of them are different expectations of different actors, as well as a bad public image of dual education or overall secondary vocational education. It is also noticeable that there is a lack of substantive dialogue between those who support and those who oppose the introduction of dual education, probably due to ideological differences, which are an integral part of the wider discussion on dual education. The communication strategy should therefore open up space for dialogue on practical solutions based on data and facts related to the implementation of dual education and, as far as possible, avoid general discussions on dual education.

The interlocutors who participated in the talks on the development of the communication strategy generally agree that the issue of dual education in Serbia is dealt with by an insufficient number of experts and expert organizations, and that this needs to be changed and improved in the coming period.

This report emphasizes that the implementation of dual education requires greater resources than those currently available for its functioning. Also, the management of the dual education system requires greater cooperation and coordination in the vocational education system than the existing one and is mainly based on school teaching, and in the future the implementation of dual education will require even more intensive cooperation than the current one.

One of the challenges in implementing dual education is the lack of means of transportation, as schools are unable to provide sufficient funds for transportation costs for teachers visiting companies involved in dual education. That is why companies complain that their coordinators often do not visit them. In addition, the challenge relates to the issue of the quality of teacher visits and more meaningful joint monitoring of learning progress through work.

As obstacles to cooperation, the actors cited the lack of interest of some institutions and participants, lack of willingness of companies to pay students, low capacity of small companies and micro-companies, implementation of the Law without flexibility and lack of human resources in relevant institutions and organizations. The interlocutors pointed out that the dual education system is currently largely based on legal solutions that are not yet fully implemented, as well as on the enthusiasm of the actors involved, and stressed that enthusiasm without the system cannot reach sustainable solutions.

Given that the Law on Dual Education is fully implemented from the 2019/2020 school year, the financing of high legal standards remains the biggest unknown. The issue of subsidies to employers for participation in dual education programmes is not currently provided by regulations, but some stakeholders occasionally point out this idea. On the other hand, as an argument against the introduction of subsidies in dual education, subsidies are viewed as not a valid solution or policy in any of the countries that have developed a dual education system, so that their use would be a kind of experiment without enough information and evidence on how such a system of financing would work. In the coming period, within the SDC project, a cost-benefit analysis will be done for companies participating in dual education, which should provide data on this topic.

However, it is quite certain that only after the full implementation of legal solutions will the real state of affairs be seen, with all the challenges and

possibilities when it comes to the implementation of the regulations on dual education in Serbia. It is assumed that in the first period of application of the Law, the number of companies participating in the implementation of dual education will decrease. On the other hand, all participating companies will be accredited and will be able to meet all the conditions for quality work-based learning, in accordance with the high standards of Law on Dual Education, which has been fully implemented since the beginning of the 2019/2020 school year.

5. ANALYSIS OF PUBLIC PERCEPTION IN RELATION TO DUAL EDUCATION IN SERBIA

Generally speaking, the biggest supporters of the introduction of dual education in Serbia are the President of the Republic of Serbia and the Government of the Republic of Serbia, including the Ministry of Education, Science and Technological Development, and the Serbian Chamber of Commerce. International donors ADA, GIZ, and SDC (which have an agreement on mutual cooperation, aimed at supporting the development of dual education) through various projects and activities also support the establishment of the National Model of Dual Education in Serbia. All these actors use their resources and influence for the introduction and development of dual education in Serbia.

On the other hand, the biggest opponents of the introduction of dual education are parts of the academic community and a number of civil society organizations, primarily organizations operating in the fields of human rights and labour. The arguments used by the opponents of dual education can be divided into several groups:⁴⁸

- **Political and ideological arguments:** the introduction of dual education is a political act, not the result of strategic thinking; dual education will contribute to the training of cheap labour for industrialized countries and their needs; dual education is a project of Germany, Austria and Switzerland, not a project of Serbia.
- **Procedural and legal:** there are fears of child labour abuse and exploitation; the inclusion of underage students in the work process can endanger their health, safety, morals and education; legal solutions are not clear enough; the current Strategy for the Development of Education in Serbia until 2020 does not explicitly recognize

48 The stated argumentation is taken from the analysis of the public debate on the introduction of dual education in Serbia from 2015 to June 2017, which was conducted within the project "By Knowledge to Work", which is financed by the Government of Switzerland. This analysis was methodologically based on the analysis of various media contents in order to point out the main objections and advantages of dual education by the public. The analysis was done in the period before the adoption of the Law on Dual Education while it was still in the process of writing and public debate and does not refer to significant changes in the Draft LDE, which occurred after the public debates.

the development of dual education, so it is necessary to first adopt a new strategy for education, and then approach the adoption of laws in this area.

- **Economic arguments:** lack of funds and resources for quality implementation of dual education; there are no strong companies in Serbia that can afford to invest in youth education through dual education; compensation for the work of students in companies that are in the system of dual education is twice lower than the minimum wage in the Republic; dual education is not a long-term solution to the issue of youth unemployment and further encourages low-paid work.
- **Social arguments:** dual education maintains a low degree of social mobility and a high degree of inequality; there are fears that involving students in dual education would make it impossible for them to continue their education.

Along with these two groups, which are at different poles of support, there is a so-called reserved public. This group primarily includes some companies that are reserved, partly due to insufficiently clear procedures, and partly due to large obligations to which they are exposed if they are involved in the implementation of the Law on Dual Education (going through the process of accreditation of companies for learning, financing of workers who are obliged to attend trainings for instructors, pass the exam for instructors and who then train students, which in practice leads to lower productivity in the work process.

In addition, the group of reserved public often includes schools and parents, who give their participation and support to dual education based on the assessment of their interests when it comes to dual education and consideration of the general perception of the public regarding the development of dual education.

6 . OBJECTIVES AND KEY ELEMENTS OF THE COMMUNICATION STRATEGY

Building trust is extremely important in creating and implementing public policies. Trust is very often cited in research on social cohesion as the most important ingredient or “glue” that holds society together (Bergger-Schmitt, 2000). Trust influences the acceptance of society and the social system in which one lives, secures and builds social capital in society and is a key component of cohesive societies. Trust creates high social capital and an “economic and political environment conducive to economic growth” and can “reduce transaction costs and overcome market imperfections caused by uncertainty” (The World Bank, 2013: 129).

Since the general goal of the Communication Strategy is to build trust in relation to the development of dual education and improve the image of dual education in the professional and wider public, all in order to improve the position of young people in the labour market, their transition to the world of work and their active participation in social events.

If trust is violated, then the whole framework and all mechanisms lose strength. Insufficient information of the target and general public, inadequate mechanisms for involving all key factors and lack of social dialogue have led to an insufficient level of trust, which further leads to the creation and spread of different, often misconceptions about dual education and also jeopardizes the effective functioning and sustainability of dual education.

The analysis of the situation and stakeholders indicates that the communication strategy should be developed towards three specific goals:

- improving internal communication and information of actors conducting dual education;
- improving communication with the professional public and its involvement in the process of monitoring and analysis of the application of dual education;
- improving the information of the general public about dual education, with special emphasis on parents and students.

Each of the three specific objectives is further elaborated below.

1. Improving internal communication and information of actors conducting dual education

A special goal and aspect in the communication process should be the improvement of internal communication in the education system, among all actors involved in the implementation of dual education, including employers. This goal contributes to improving coordination at the horizontal and vertical levels and thus facilitates the implementation of regulations and the use of resources for the application of dual education at all levels and makes it more efficient.

Achieving this goal will accomplish better information of decision makers on the implementation of dual education, improve cooperation between different actors in the education system and other systems for more efficient implementation of quality dual education, reduce resistance and inefficiency due to lack of information, and fears of loss of interest due to introduction of dual education, etc.

This goal will be implemented by various means of communication between the MESTD - other ministries, MESTD - other sectors and bodies within the education system, MESTD-schools, MESTD-CCIS, CCIS-RCCI, RCCI-employers, CCIS-employers, schools-companies. All interlocutors recognize the MESTD as the key actor in relation to this task, which has the greatest competence for the job of introducing dual education.

For the system to be successful there needs to be a shared vision of a dual education system. It is necessary that all sectors of MESTD, especially the sector for secondary and adult education and the sector for dual education, IIE, CVAE, CCIS and RCCIS, regional school administrations, have a common understanding and identical messages on dual education in order to send unambiguous messages in connection with dual education. Therefore, it is necessary to improve coordination between the mentioned actors through coordination meetings, but also to better inform the actors within the education system.

The aim is to improve the level of information on practical solutions related to dual education, promote good practices and cooperation with other parts of the education system, administration and other partners. This is important in order to avoid a situation of negative campaign in relation to dual education from the education system itself or public administration. This, in turn, can only be achieved if parts of the education system have sufficient information about it and do not perceive it as a threat to their functioning and work.

The communication strategy should have a special focus on improving internal communication between all actors in dual education and other parts of the education system. For example, the Articles of the Commission for the

Development and Implementation of Dual Education should be informed about various aspects of dual education in order to be able to point out its benefits to the general public, but also to support its improvement and conduct a three-year evaluation of results.

Education counsellors and school administrations should be particularly well informed about the specific tasks and responsibilities of the school in relation to dual education. Special attention in information should be paid to the Articles of the teams for professional orientation in primary schools, as well as to the teams for career guidance and counselling of secondary schools that implement dual educational profiles.

In the existing system, in which the financing of work-based learning in the companies themselves depends on the employers, it is necessary to listen carefully to the needs indicated by the employers. It is necessary to further improve cooperation and communication at all levels and with all actors, such as supporting regional chambers of commerce for the most effective communication with employers. Also, it is necessary to encourage cooperation between the economy and researchers in order to conduct investment and profit analyses related to the company's participation in dual education.

In addition to improving information and internal communication regarding the development of dual education, participants also mentioned the need to develop common identities for all projects dealing with dual education. In the previous period, a logo of dual education was created, which is used at all events whose topic is dual education. In addition to the visual identity of dual education, the preparation of short informative (video) articles should be considered, which will talk about various and insufficiently clear aspects of dual education, most frequently asked questions about dual education, advantages of dual education, educational profiles, education cycle within dual education, etc).

2. Improving communication with the professional public and its inclusion in the process of monitoring and analysis of the application of dual education

Improving communication with the professional public and its involvement in the process of monitoring and analysing the application of dual education would reduce politicization and avoid ideological debate on this issue and promote a fact-based discussion approach.

The term professional public in this communication strategy means institutions and organizations such as: the Institute for the Improvement of Education, the Institute for the Evaluation of the Quality of Education,

the Council for Vocational and Adult Education, the Qualifications Agency, the National Education Council, institutes (e.g. faculty professors, young researchers, etc.), organizations dealing with the topics of education and employment of young people and other professional public dealing with the same or related topics.

In the long run, it is not favourable for the dual education system if there is no cooperation between decision makers and the professional public, and it is even more unfavourable if the information gap on the development of dual education is not reduced. Therefore, in the coming period, a space should be opened for discussion on practical solutions for the implementation of Law on Dual Education and the involvement of the professional public in the development and monitoring of the implementation of dual education.

In this regard, it would be important to encourage the participation of the professional public in the creation of educational policies at different levels, but also leave room for research that will analyze certain aspects of dual education such as: how dual education affects student mobility, assessment degree of employability of students who complete dual education, cost of work after completion of dual education, whether dual education creates cheap labour or not, profile analysis in dual education, how many students need to be in dual education to be considered successful, etc.

International donors can provide great support for the implementation of this strategic goal. With the support of donors, programmes could be developed to conduct expert research on certain aspects of dual education. This approach would increase the level of information of the professional public about dual education, encourage participation and their contribution to its further development.

3. Improving the information of the general public about dual education, with special emphasis on parents and students

The specific goal 3 is aimed at the general public and the promotion of positive aspects of the introduction of dual education - promotion of companies, educational profiles needed by the economy and student success, but also practical solutions and obligations of all actors in the dual education system.

The key actors for communicating with parents and students are schools, while the promotion of the profile should be done by both the school and the employer. This direction of communication strategy should indicate the importance, strengths and practical solutions offered by dual education. Also, this strategic direction should reduce the misunderstanding, ambiguity and

misinformation that occur in the process of achieving dual education. Finally, this strategic direction should indicate the obligations and responsibilities during participation in dual education in order to reduce opportunities for dropouts from the education system, and reduce misunderstandings and possible dissatisfaction with schools and employers.⁴⁹

International donors can play a significant role in implementing the communication strategy through various mechanisms: promotion of good practices and solutions from other countries where dual education is implemented to support the establishment of the National Model of Dual Education adapted to the educational, economic and social context of Serbia; programmes or priorities related to the development of dual education, but also support the improvement of transparency and communication between the relevant public and stakeholders when it comes to dual education.

The communication strategy stipulates that it is necessary for companies and schools to be regularly informed about how the dual education system in Serbia really works in order to reduce ambiguities or misconceptions about practical solutions and how companies and schools can make informed decisions about inclusion in dual education.

The GIZ website contains useful information, stories and lessons learned regarding the introduction of dual education in Serbia: : <http://www.kooperativnoobrazovanje.org/biblioteka/>.

49 For example, in practice there have been cases of termination of contracts between the employer and the school when students did not come to school regularly or were often late

7. INTERESTED PARTIES

Parents and Students

Parents (guardians, i.e. other legal representatives) of students are one of the key stakeholders when it comes to the implementation of dual education. They have a great interest, which refers to recognizing the benefits of education for their children, but also a significant influence on the choice of children's education, and thus, indirectly, on the implementation of dual education. Parental perception is crucial for guiding students towards profiles in dual education and it is largely based on a broader public perception of dual education. Therefore, an important goal in the communication strategy should be to properly inform parents (and students) in order to better understand the opportunities and practical aspects related to the functioning of dual education in Serbia.

As far as students are concerned, they gain a lot by participating and completing dual education. First, they are in contact with the real work environment, gaining professional experience, knowledge, skills and experience of working in real conditions. Dual education, more precise work-based learning in companies, facilitates the transition of young people to the world of work and increases their employability immediately after the completion of formal education. In addition to these key benefits for students, they also receive a certain fee for work-based learning. The communication strategy envisages the development of various means of communication that will improve students' information. February is a key month for intensive informing of students (and parents), since even then preparations for enrolment in high schools begin.

Employers

Employers are a key link in the development of quality dual education. Their interest is based on the need for a trained and quality workforce. Modern business processes are complex, so school training for certain profiles is often not enough preparation for the labour market. In this sense, employers represent a highly interested party, which, in addition to students and their parents, has the greatest interest in the development of quality dual education. Employers provide a large part of students' knowledge, as well as resources for their education.

Since the dual education system is very precisely regulated, companies will encounter strict procedures and significant levies in the accreditation process. Given that the full implementation of LDE began on the 1st of September 2019, it is important to ensure that employers also understand their obligations (resources and resources to be provided for the implementation of dual education) and the clear benefits of participating in the process of implementing dual education (influence on the profiles that are developed and the quality of the programmes that students go through, etc).

According to the regulations in Serbia, employers are involved in making decisions on drafting qualification standards. However, the interlocutors suggested that at the moment there are insufficient employers in the sector councils, taking into account the key role and significant resources of employers in the implementation of dual education. In the long run, this situation can create a feeling of lack of trust, which is why it should be ensured that employers have an important role in defining educational profiles. That is why it is important that a special part of the Communication Strategy refer to encouraging information and involvement of employers in the implementation of dual education.

A large number of comments during the meetings with partners referred to insufficiently effective and efficient communication between schools and the economy, as well as to the statement that schools do not always give the economy the right information, do not communicate the right obligations, etc. Also, the school is often not well informed about certain practical solutions and obligations, although there are very positive examples throughout Serbia. Although the general campaign to promote dual education was at times strong, the economy still lacks a significant amount of practical information: what the obligations of employers are, what the obligations of the school are, what the content is of the contract the employer signs with the student, does the employer have to employ students upon schooling, etc. Therefore, schools and regional chambers of commerce should be an important source of information during the implementation of the Communication Strategy.

Experience shows that some companies cannot meet the high standards set by the Law on Dual Education. This primarily refers to smaller domestic employers, who often comment that they have an interest and would like to enter the dual education system, but are afraid of the obligations they have under the Law on Dual Education. Although this represents a certain loss from the point of view of the wide application of the Law on Dual Education, this data also indicates the precise regulation and quality control in dual education. The communication strategy should use such examples to further emphasize the concern for the quality of the implementation of dual education.

The Chamber of Commerce and Industry of Serbia (CCIS) is perceived by the public as a key actor in discussing the development of dual education in Serbia and often appears in the media when this topic is discussed. In its activities, the CCIS is primarily focused on cooperation with employers. The first report on obstacles and drivers in the pre-law enforcement phase records schools' comments that: "there are many things that are not clear to companies and schools." This primarily refers to the payment of students, the curriculum and the transition from the existing to dual profiles.⁵⁰ Therefore, the CCIS and regional chambers of commerce should play a more significant role in the campaign to inform employers about the implementation of dual education. In addition, it would be desirable to involve other employers 'and businesses' associations in support of employers so that the widest possible range and number of employers have access to quality information and support in the process of implementing dual education. It is extremely important that employers are regularly informed about dual education. However, the key period for effectively informing employers is September.

Education System – Policy Makers, Schools and Teachers

Dual education to a large extent enables educational profiles to be adjusted to the economy and the needs of the economy, and not to the limitations of the education system and teachers. Educational profiles in dual education are regularly improved, taking into account technological progress. Dual education in this sense introduces a strong change in relation to the general system of secondary vocational education, which is changing more slowly.

Although it was initially thought that teachers in schools that are involved in dual education will lose their jobs or will not have a sufficient fund of classes - this did not happen in schools that have been training educational profiles with elements of dual education since 2013. It turned out that the teachers kept the previous assignments, and in the case of practical teachers it can be said that the previous assignments were expanded due to more intensive cooperation with companies (e.g. they should communicate daily with instructors, jointly create a plan for work-based learning, etc.).

By participating in dual education, teachers are better acquainted with trends in a particular sector and companies, have access to facilities,

50 Centre for Education Policies and KOF (2019). Implementation of the Dual Education Act - First report on obstacles and drivers in the pre-implementation phase of the Dual Education Law, available at <https://www.research-collection.ethz.ch/handle/20.500.11850/337794>

machines and innovative technologies owned by companies, cooperate with companies and thus influence the offer of educational profiles. This role of teachers has significantly reduced resistance in schools compared to dual education.⁵¹

Schools state that dual education has returned students to their benches.⁵² So far, it has not happened that schools have failed to enrol a class, although there have been cases that only one-half of the expected number of student enrolled. However, enrolment depends on many factors, primarily on the school's relationship with companies. Additionally, when companies known for good business are involved in dual education, students with better school achievement are more likely to enrol in dual profiles offered by the schools that work with these companies.

Professional Public

Part of the professional public reacted unfavorably to the introduction of dual education. Part of the reason for this lies in the ideological perception of dual education as an education that will further increase inequalities and reduce social mobility. The second part is political and arises from the fact that the introduction and development of dual education is strongly supported by political representatives of the government, which is interpreted as a political initiative that ignores important professional objections. The third part of the reason why part of the professional public reacted against the introduction of dual education is the perception of a low degree of involvement of the professional public in the processes related to the development of dual education and in that sense occasionally insufficient information of this public about certain practical solutions.

Local Self-Governments (LSGs)

LSGs should be well informed about dual education in Serbia as they can play a significant role in supporting the implementation of dual education. LSGs are interested in having a strong economy, high employment and low emigration rates, which is why they can support the implementation of dual

51 The interlocutors emphasize that in practice it often remains unclear who evaluates the students: the instructor or the coordinator

52 Centre for Education Policies and KOF (2019). Implementation of the Law on Dual Education - The first report on obstacles and drivers in the pre-implementation phase of the Dual Education Act, available at <https://www.research-collection.ethz.ch/handle/20.500.11850/337794>

education in various ways: financing student transport, student insurance, equipping schools, promoting dual education or dual education profiles.

Unions

The unions were initially very critical of the introduction of dual education, primarily because they expected it to affect the dismissal of teachers from secondary vocational schools due to the introduction of dual education and an increase in the number of school hours students spend in companies instead in school. Recently, trade unions have become less and less negative about the introduction of dual education and are increasingly cooperating in its implementation by participating in the work of sector councils.

International Donors

Of the international donors, SDC, GIZ and ADA are particularly interested in the development of dual education. This is partly the result of the promotion of the education system that exists in these countries, partly the demands of investors and companies coming from these countries, and partly the response of the mentioned development partners to strategic commitments and policies that indicate the need for stronger integration of education and labour market. Areas of intervention of development partners are defined by agreement between the two governments, most often by bilateral agreements. SDC, ADA and GIZ have signed a memorandum of cooperation according to which these three donors should work together on the introduction of systemic institutional solutions and strengthening the actors involved in the implementation of dual education.

8. KEY MESSAGE

The dual education system guarantees quality education.

The quality of education is guaranteed by the application of precise legislation and the achievement of high standards. In order to increase the level of trust of stakeholders regarding the development of dual education, it is necessary during the implementation of the Communication Strategy to

The key messages are the ideas we want other people to get on our topic. They serve to reduce the complex topic to the main messages. These are not formulations that are necessarily communicated to any group in this way - they are ideas that are further adapted to the respective target groups. They are our point regarding the topic, taking into account the challenges and perceptions.

point out the existing regulations and instruments that control quality and ensure the application of standards within dual education - quality profiles met the conditions for the realization of work-based learning, trained instructors, cooperation with the school in monitoring the progress of work-based learning and so on.

The dual education system has provided access to quality educational profiles. The communication strategy should indicate the existence of a wide range of quality educational profiles in dual education that increase employment opportunities - aeronautical profiles, profiles related to information and communication technologies, and other profiles that educate students for deficit occupations with above-average salaries for the Republic of Serbia. In dual education, students are not educated for a job, but for a profession. A student who completes the educational profile in dual education will be able to get a job not only in the company in which he achieved work-based learning, but also in other companies. Dual education provides students with the opportunity to develop critical and creative thinking in an innovative and stimulating environment. When promoting dual profiles, gender stereotypes are not reproduced in the choice of occupation - dual education is equally attractive and accessible to both girls and boys. Dual education provides inclusive access and equal conditions for all when it comes to access to quality dual education.

Dual education is aimed at the well-being of students and the economy and is not aimed at criticizing the rest of the education system. The communication strategy should enable stakeholders to better understand the benefits of dual education. Dual education does not aim to replace secondary vocational education as a whole, but it is part of the secondary

education system that aims to bring secondary school students closer to the labour market and thus improve their chances for employment and work in well-paid jobs. When promoting good practices related to dual education, it is important to avoid belittling regular secondary vocational education, so as not to encourage dissatisfaction and resistance in the education system, as this does not bring benefits in the short or long term.

Dual education is an option that exists in the system of secondary vocational education in Serbia. Dual educational profiles are an option in the education system in Serbia that has a specific focus on work-based learning and where work-based learning in companies is an integral and mandatory part of student learning. Work-based learning acquires, improves, i.e. builds competencies (knowledge, skills, attitudes) in accordance with the standard of occupation and the curriculum. Next, it is important to emphasize volunteering in relation to participation in dual education, for all stakeholders. The basic principles of dual education in accordance with the Law are accessibility - which means that everyone has quality access to dual education under equal conditions and the right to choose - which means free choice of occupation and educational profile.

Dual education increases students' chances for employment, but also enables them to continue their education in accordance with the valid regulations. Dual education increases employability and gives the student the opportunity to go through a controlled learning process through work and to be educated at higher education institutions after completing dual education. Dual education, in addition to building competencies in general education subjects, emphasizes the combination of acquisition of both theoretical and practical knowledge in two places - in school and in company. Through dual education, students acquire communication skills, as well as other "soft" skills needed for working in a company. The success of dual education is measured by the speed at which students are employed after graduation, the level of earnings and the quality of jobs found by students who have completed dual education.

The number of students in dual education depends on the needs of the economy for specific quality profiles. The number of students in dual education primarily depends on the needs of the Serbian economy and the quality of dual education, so any number based on these two assumptions is a desirable and appropriate number. Each number of students in dual education is an optimal number if it reflects the real need of the economy.

Advice. - When mentioning dual education, it is important to use sentences that depict the essence / main idea of dual education, such as the following:

- *Student learning is enhanced by direct insight into work processes in companies.*
- *Work-based; learning acquires, improves, i.e. builds competencies (knowledge, skills, attitudes) in accordance with the standard of occupation and the curriculum.*
- *Both students and companies benefit from dual education.*

9. MEANS OF COMMUNICATION

The communication strategy envisages the use of certain means of communication in order to achieve the stated goals of communication. Since the described target groups have different characteristics, the means of communication are also different and diverse.

- **Development of a website for dual education, which will contain all relevant information related to the implementation of dual education**

This website should be intended for all key stakeholders, easy to use, avoid project approach (primarily for sustainability) and promote a comprehensive insight into various issues related to dual education. This would be a kind of **resource centre** for dual education in Serbia, which contains information on all key aspects mentioned in the Communication Strategy and **brings together** all analyzes, studies, videos, brochures, blogs and other materials that will be prepared for dual education. That is, this website should become a place where all practical information and all open issues that are important for the development of dual education will be collected (hub).

Given that the Chamber of Commerce and Industry of Serbia has recently launched an official website for dual education (with an adequate domain "dual education"), it is proposed that it be used for posting all relevant information regarding the implementation of dual education.

Support for the development and maintenance of this website will be provided by the Austrian ADA.

It is also important to consider various activities that will ensure the sustainability of this website and coordinate the contribution of all interested institutions, international partners and other actors, and it is especially important to maintain close cooperation with the CCIS, its Sector for Dual Education for more effective and efficient communication via the mentioned platform.

In order to make communication through this website more interactive, it would be useful for stakeholders on this website to regularly answer various questions. For this, it is important to prepare answers to the most frequently asked questions regarding the implementation of dual education, in order to provide a quality and reliable answer as soon as possible.

In addition, it should be ensured that the dual education website has a subpage where research on dual education is disclosed. This will ensure the contribution and involvement of the research community and the professional public in the implementation of dual education, and encourage further research on important issues related to it.

- **Supplementing the Facebook profile of MESTD with data related to dual education in order to intensify information on dual education**

Similar to the website, the MESTD Facebook profile would become another resource centre for information on dual education by supplementing information related to dual education.

This is important because informing through the Facebook profile serves, above all, informing the wider interested public, but also enables easy access to information for students and parents. In that sense, the Facebook profile should contain information relevant to the issues of dual education on a regular level and in a customized form.

In all this, it is important to take into account the provisions of the Law on Data Protection (for example, when it comes to publishing photos, etc.).

- **Development of manuals on dual education for different target groups**

The project "Support in the development and establishment of the National Model of Dual Education" envisages the development of a manual on dual education for key target groups on which its implementation depends. The process of drafting the manual is managed by the Centre for Education Policies.

The manuals should provide an overview of the dual education system and give answers to key practical questions and dilemmas regarding inclusion in dual education. Manuals will be prepared for individual target groups (employers, schools, parents and students) and from their perspective, and will serve as information material.

These materials will be prepared in electronic form and will be posted and shared via the website for dual education. These manuals will be written in accordance with the current legislation and with the mode of implementation of dual education. Any changes to the LDE education and implementation system will require revised versions of these manuals.

- **Preparation of periodic official announcements and media presentation on the implementation of dual education**

Announcements on the implementation of dual education should provide an answer on key indicators (number of students, number and type of profiles, number of schools, number of employers, etc.) and additionally some of the current issues related to the implementation of dual education.

Semi-annual announcements on dual education and media representation by MESTD aim to promote the principle of transparency and ensure that stakeholders are informed about the implementation of dual education.

It is important to keep in mind that this is not the backbone of promotional activities, but should establish the practice of official and regular informing the general public about the implementation of dual education, which contributes to the transparency of work.

- **Organizing regular meetings of the Ministry of Education, Science and Technological Development with representatives of various stakeholders on dual education**

These half-day events aim to present the trends related to the application of dual education, enhance dialogue, increase the involvement of key partners and generate strategic and practical ideas relevant to the process of implementing dual education. Workshops will be organized every two months and will focus on specific key stakeholders (employers, schools and the education system, representatives of parents and students, international partners).

- **Development of promotional material based on research results**

In the coming period, all partners who will conduct various research and analyses should make them available. In this way, on the one hand, the approach of making decisions based on facts and data is promoted, and on the other hand, the results of research and analysis are used to inform the general public and / or specific groups. It should also be noted that, in the case of the general public, complex research materials and language need to be adapted to the target groups.

- **Organizing conferences dedicated to dual education**

In the forthcoming period, MESTD and partner organizations will organize conferences dedicated to dual education, with the aim of gathering and mobilizing all relevant stakeholders, presenting progress in the implemen-

tation of dual education, pointing out major successes and challenges, and enabling to define and harmonize next steps regarding dual education development.

If any of the conferences has an international character, it should be organized with the aim of generating knowledge and ideas necessary for the future development of quality dual education, and it is recommended to involve the expert community in issues of importance for the development of dual education. This type of conference is suitable for presenting the results of the analyses and researches relating to dual education.

- **Monitoring the implementation and capacity building of the key actors related to the Communication Strategy**

Meetings of the Commission will be organized every six months, at which, among other things, the implementation of the Communication Strategy will be discussed, i.e. the activities envisaged by the Action plan. These meetings should ensure appropriate monitoring of the implementation of planned activities, assessment of the effects of implemented activities, and suggestion of priority activities for the new six-month period.

In the periods between the meetings, it is necessary to establish constant communication and coordination between all actors in order for the activities to be implemented in accordance with the action plan. In addition, within this group of activities, trainings will be organized for capacity building of partners involved in the implementation of the Communication Strategy (capacity building for public speaking, public relations in crisis, etc.).

Alternatively, the following can also be considered:

- **Preparation of periodical newsletters on dual education**

The intention of preparing this format is to improve information on dual education and increase the use value of all materials, analyses and reports that will be prepared within the communication strategy.

The newsletter should contain a variety of information related to dual education: success stories, work on improving regulations, findings of new studies on dual education, information on the events and conferences that are organized, questions and answers on topics of particular interest to the public, and the like.

The newsletter would be prepared and sent to all stakeholders on a quarterly basis.

To implement this activity, it is crucial to generate and create an e-mail list of the recipients of the monthly newsletter on dual education.

Given that the CCIS will be responsible for creating and maintaining a dual education website that will bring together all key information on dual education, it would be good for the CCIS to be in charge of preparing a monthly newsletter on dual education with the support of other partners who would send information, data that will be an integral part of the newsletter, where the CCIS would work on gathering information and sending it to e-mail addresses to all who are interested in dual education topics.

- **Production of short brochures on dual education**

In addition to manuals that will be comprehensive and contain information on the entire dual education system in Serbia, special short and periodical brochures on dual education should inform certain target groups and / or the public about specific thematic units in dual education (e.g. career guidance and counselling in dual education). Brochures will be a means by which the target groups will be introduced to innovations in the dual education system, examples of good practice from the country and abroad and many other topics that are current at the time. Brochures can be specially intended for parents, students, schools, employers, but also school administrations, regional chambers of commerce, local governments and other actors, depending on the priorities and innovations in the system. It is planned to print brochures, which would enable their distribution at conferences, meetings, visits, but also publication in electronic form so that they are available to all who are interested in getting acquainted with the topic discussed in the brochure.

- **Making videos on various issues important for dual education**

Video contributions should be short in form (lasting up to one minute), which would informatively present some of the important issues and dilemmas about dual education, and promote success stories.

Video contributions should be modelled on the contributions prepared by the [World Economic Forum](#). In addition, GIZ has previously prepared videos on dual education, which should be promoted through the website for dual education, as well as the means of communication of other partners involved in the implementation of dual education.

- **Announcing a competition for the best amateur videos of students about dual education**

The aim of this format is to include in the promotion of dual education the students themselves who are in the dual education system and

to promote their perspective of dual education. The best videos would be promoted through various resources that will be developed within the communication strategy.

A team to select the best videos would include representatives of all key actors (employers, schools, MESTD, international partners, etc.). GIZ has carried out a similar activity in the previous period, so until the launch of a new competition, it would be useful to promote existing video materials that have already been prepared.

Annex 18 – Summary of the First Report on Obstacles and Drivers in the Pre-Implementation Phase of the Law on Dual Education



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

**Swiss Agency for Development
and Cooperation SDC**

IMPLEMENTATION OF THE LAW ON DUAL EDUCATION IN SERBIA

The first Report on obstacles and drivers
in the pre-law enforcement phase

SUMMARY REPORT

Authors

Prof. Dr. Ursula Renold

Dr. Katherine Caves

Karina Maldonado-Mariscal

Maria Esther Oswald-Egg

Jasminka Marković

Žaklina Veselinović

Dejan Stanković

Ivana Cenerić

Milica Todorović

The Report was prepared in cooperation with the Swiss Institute of Economics in Zurich, Switzerland (KOF) (www.cemets.ethz.ch) and the Center for Educational Policies in Belgrade, Serbia (www.cep.edu.rs).



Centar za obrazovne politike
Centre for Education Policy

ETH zürich

A statement of gratitude

We would like to thank the Swiss Agency for Development and Cooperation in Serbia (SDC) for the financial support in drafting the report, as well as for the support during the drafting of this report. The authors are grateful to the Ministry of Education, Science and Technological Development (MESTD) and the Chamber of Commerce and Industry of Serbia of Serbia (CCIS) for cooperation within this project. We are extremely grateful to all research participants for their time and expertise.

LIST OF ABBREVIATIONS

ADA	– Austrian Development Agency
GIZ	– German Organization for International Cooperation
CEDEFOP	– European Centre for the Development of Vocational Training of the EU
CEP	– Centre for Education Policies
EUD	– EU Delegation in Serbia
ETF	– European Training Foundation
KOF	– Swiss Economic Institute, Zurich, Switzerland
MESTD	– Ministry of Education, Science and Technological Development
COMMISSION, Article 40	– Commission for the Development and Implementation of Dual Education
OECD	– Organization for Economic Cooperation and Development
CCIS	– Chamber of Commerce and Industry of Serbia
SDC	– Swiss Agency for Development and Cooperation in Serbia
UNESCO	– United Nations Education Science and Culture Organization
WBL	– Work-based learning
LDE	– Law on Dual Education

INTRODUCTION

The Law on Dual Education in Serbia (LDE), whose implementation is scheduled for 2019/2020 school year, envisages the transition of part of secondary vocational education to the modality of dual education, which implies a more intensive and more regulated system of work-based learning (WBL). Although a number of schools in Serbia already have cooperation with companies, work-based learning has not been clearly defined so far and, when it comes to dual education, it becomes regulated by the said law.

Research shows that dual education achieves better outcomes than the classical system of secondary vocational education, especially given the labour market for young people (e.g. Bolli, Egg, & Rageth, 2017). Dual education, practice and work-based learning, as a policy for secondary vocational education, are recommended by the OECD (OECD, 2015) and UNESCO (UNESCO, 2015). The European Centre for the Development of Vocational Training of the European Union (CEDEFOP) also points out that "increasing the share of work-based learning in all vocational education programmes" is the main direction of development in the future of secondary vocational education (CEDEFOP, 2018).

Yet, although dual education is important and valuable in many respects, implementing dual education can be challenging (OECD, 2009). Unlike vocational education and training programmes implemented exclusively in schools, dual education requires various actors outside the education system (e.g. participants and institutions within the employment system) to get involved, participate, and even take on the role of leader and someone who bears the costs (Bolly, Caves, Renold, & Buergi, 2018). Managing a large number of institutions, participants and managing different systemic mechanisms is challenging in itself, while existing research on VET reforms provides only limited guidance (Caves & Baumann, 2018).

To support the law enforcement process, this research report is the first in a series and addresses the drivers and obstacles to the implementation of dual education in Serbia. We intend this report to be useful for the Ministry of Education, Science and Technological Development (MESTD), the Chamber of Commerce and Industry of Serbia (CCIS) and the body in charge of developing and monitoring the implementation of dual education in Serbia - the Commission for Development and Implementation of Dual Education (Commission, Article 40 of the LDE). We hope that this report will be useful for other state bodies, local governments and schools, companies and communities that will apply the law and participate in dual education.

As part of the research on which this report is based, 206 respondents were interviewed from November 2018 to February 2019. Most of the interviews were conducted directly or by telephone by the team of the Centre for Education Policies (CEP), in Serbian. In several cases answers were submitted by e-mail, based on questionnaires (guides), which were created jointly by both teams (KOF and CEP). The CEP team translated the answers into English and sent them to the KOF team. Quantitative data were generated based on Yes / No questions, Likert five-point scales, or multiple-choice questions. Qualitative data collected represent participants' answers to open-ended questions, supplementary questions, or requested comments and clarifications. The KOF team analyzed quantitative data and used content analysis to analyze qualitative data. Both teams worked intensively to interpret the results.

To present the overall picture of dual education in Serbia, we interviewed a large number of participants representing each group involved in dual education, the schools, students and parents who are part of the system of secondary vocational, but not dual, education. More specifically, the main groups of interviewees were representatives of the Government of the Republic of Serbia and related state institutions and bodies, the Chamber of Commerce and Industry of Serbia (CCIS), trade unions, regional school administrations, MESTD and regional chambers of commerce, schools, companies, students, parents, donors and representatives of the international community. In interviews with schools, companies, students and parents, we spoke with those already involved in dual education profiles and those not involved in dual education. Table 1 summarizes the sample of interviewed respondents by different groups, participants within these groups and functions of respondents.

Table 1: Sample			
Group	Participants within the group	Persons	Number of respondents
Government and government bodies	MESTD	Assistant minister for dual education	3
		Assistant minister for secondary education	
		Head of the sector for secondary vocational education	
	Council for Vocational and Adult Education	President	1
	Office of the Prime Minister	Person in charge of dual education	1
	Standing Conference of Towns and Municipalities (SCTM)	Person delegated to the Commission	1
	Institute for Improvement of Education (IIE)	Director	1
Chamber of Commerce and Industry of Serbia (CCIS)	CCIS	CCIS president	1
	CCIS Centre for Education, Dual Education and Education Policies	Manager	1
	Sector for strategic analyses, analytics, services, service and product packages	Manager	1
	Regional CCIS	Directors	15
Unions	Professional union	President	1
	Trade union in education	President	1
	Union focused on labour issues	President	1

Regional School administrations	Management	Heads	14
Secondary vocational schools	Schools involved in dual education from 2013/2014. when the first pilot dual educational profiles were introduced	Directors	3
		Coordinators of work-based learning	3
	Schools involved in dual education from 2017/2018. when the official application of dual education began	Principals	9
		Coordinators of work-based learning	9
	Secondary vocational schools of dual education	Principals	19
Students	Students involved in dual education	Students	30
	Students involved in other secondary vocational education profiles	Students	30
Parents	Parents of the students involved in dual education	Parents	15
	Parents of the students involved in other secondary vocational education profiles	Parents	15
Companies	Companies cooperating with schools within the framework of dual education	Managers / HR directors	18
	Companies not participating in dual education	Managers / HR directors	8
International community & donors	Major donor organizations in dual education	SDC, GIZ, ADA	3
	Major international organizations working in the field of education	EUD, ETF	2

RESULTS

In short, there is a general awareness of the forthcoming changes as well as a motivation to participate in the implementation of dual education. Respondents from all groups are ready to make changes in their own work, adapt to changes and coordinate work with other participants.

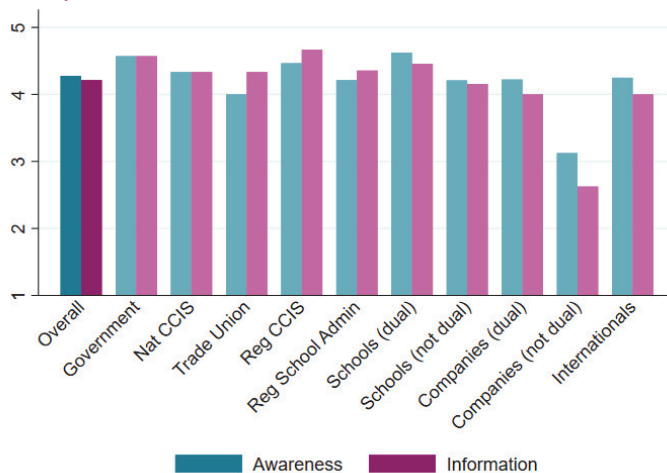
Companies, schools and parents already involved in dual education profiles are excited about their experiences and show enthusiasm when it comes to extending the model to other schools in Serbia. Leading actors, leaders in dual education reform, as well as those in charge of dual education at the operational level, are making significant efforts to align the existing dual education system with the provisions of the Law on Dual Education even before its official implementation, with general optimism.

Respondents also cite potential challenges. The law is not fully clear and fully aligned with the current situation in the country and the national context, in part because bylaws detailing the process are still new and not well known to all stakeholders. Respondents are able to identify specific challenges such as lack of staff, expertise and funding in the process of implementing dual education. There are concerns that have arisen on several occasions, which relate to student reimbursement, the willingness of companies to participate, the need for additional information, especially for intermediate and operational level participants, the need for greater involvement of intermediaries, and so on.

Information about Dual Education

Overall, the information about dual education is at a very high level. Respondents are familiar with secondary vocational education and dual education in Serbia (4.3 out of 5 on average), and are well informed about the new Law on Dual Education, (4.2 out of 5). Students are well informed about dual educational profiles - 89.8% report being familiar with new profiles, 3.4% of students do not know about them, while 6.8% were unsure. Students rely on schools, peers and the Internet for information, and parents from both groups rely on schools or the media.

Figure 1: How aware are you of vocational and dual education in Serbia generally? How well informed are you about the new dual education law in Serbia?



Reading guide: Responses range from not at all (1) to very much (5) on the vertical axis. Teal bars represent awareness, and pink bars information. The first, darker bars show the overall average response, and the lighter bars to the right show each actor group's average responses.

Contextual fit

Some of the central themes of our research are the Law understanding and its effectiveness. We asked all respondents, except students and parents, to what extent the Law fits into the context of Serbia, how well it deals with important aspects of dual education and how clear the Law is. The majority of respondents agree that the Law meets all these criteria, but a smaller number of respondents do not. Their reasons can help identify challenges that can be addressed before law enforcement, that is, before they become important issues during the full implementation of the Law.

Although parents did not answer these specific questions about the details of the Law, they indicated that they would recommend dual educational profiles to other parents - 86% of parents said they would do so, and these data indicate that dual educational profiles can become successful in Serbia and suit her needs.

Compliance with the needs of Serbia

For the majority of respondents (82.5%), the Law meets the needs of students and companies in Serbia. Some respondents believe that the Law meets the needs of one group of participants, but not others. One respondent from the Government stated: "It fully fits the needs of students, but

companies are not satisfied, sometimes they do not see the benefits of dual education.” In contrast, a CCIS respondent argued that “the initiative to adopt the Law on Dual Education came from companies”, and the Law fits into the context of Serbia.

Another CCIS representative disagrees, arguing that the Law is not appropriate because it is not compliant with the existing vocational education system.

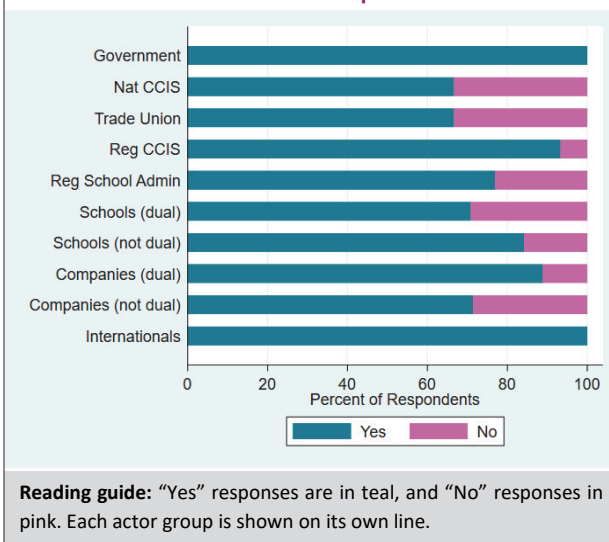
Schools that are already in dual education have experienced great success with dual educational profiles, as this experience shows: “The feedback we get from companies is great” (school principal). In contrast, other schools are worried about how the adjustment to the new Law will take place. For example, it states that “companies are not satisfied with the expected procedures as well as the financial requirements, especially smaller companies that are negatively affected by the Dual Education Law” (a company involved in dual education).

Overall, there can be a strong tension in the statements, between the excitement - what dual education can potentially achieve, and the concern about whether companies will find what they need.

Companies already in dual education agree that the Law meets their needs, although some companies complain that, according to the Law, “companies take all the risks and all the costs” (a company that is not in dual education).

As expected, companies that are not in dual vocational education are less secure, “especially in terms of meeting all the requirements, such as the number of instructors and the manner and time of training for instructors” (a company that is not in dual vocational education).

Figure 2: Do you think the dual education fits with the needs of Serbian students and companies?



CLARITY AND COMPREHENSIBILITY OF THE LAW

The Law is clear and understandable for 82.7% of respondents.

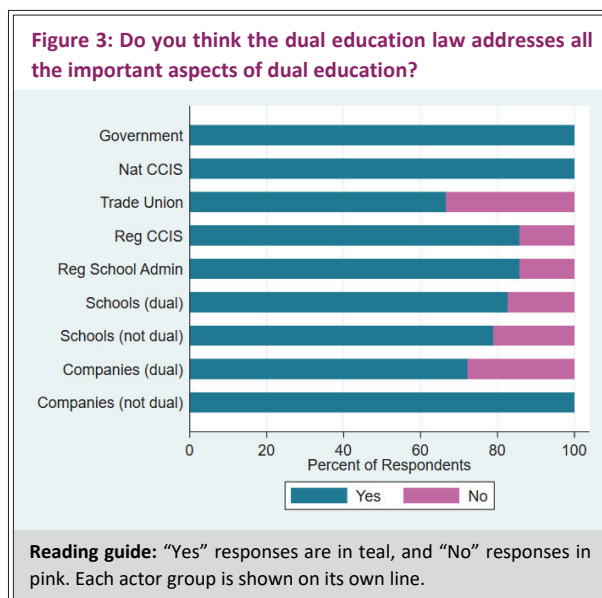
Participants at the national level are generally satisfied with the Law, but there are ambiguities among local and regional participants.

Schools report, “There are many things that are not clear to companies and schools.” This includes paying students, curriculum and transition from existing to dual profiles.

Non-dual education schools state, “Teachers are still confused about the distribution of responsibilities, while companies are confused about paying students.”

From previous statements, we can conclude that some misunderstandings are serious enough to disrupt the proper implementation of dual education.

One school reports a company that has given up on cooperating with the school as part of dual education because “companies are not fully aware of their obligations to pay students. We had one big company, we started cooperation and we got a profile... and now this company wants to get out of the whole arrangement because they don't have the money to finance it” (school in dual education).



WILLINGNESS TO IMPLEMENT

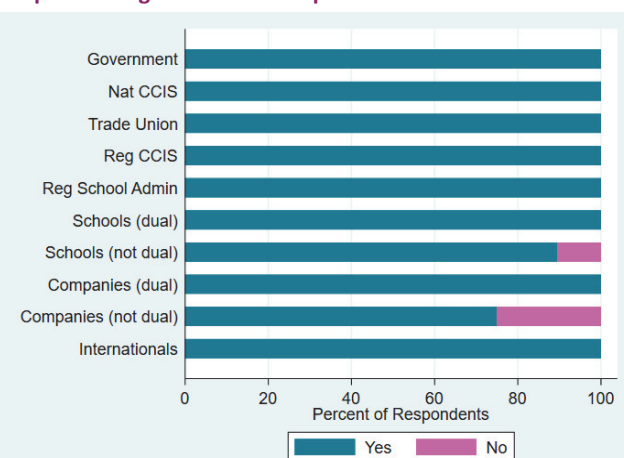
Motivation for the implementation of dual education in Serbia is extremely high - 97.3% of respondents state that they are motivated to participate in the Law enforcement.

Almost every company interviewed states that the development of a skilled workforce to meet employment needs is the main motivation for participation in the implementation of dual education.

Companies that already participate in dual education state that "we want to be part of the educational process of future employees" and "we see the company's interest in participating".

Schools are motivated to participate in dual education mainly because it is in the interest of their students. Schools are most concerned with establishing cooperation with employers, ensuring student payments and compliance with instructors in the company.

Figure 4: Is your organization motivated to participate in implementing dual education profiles?

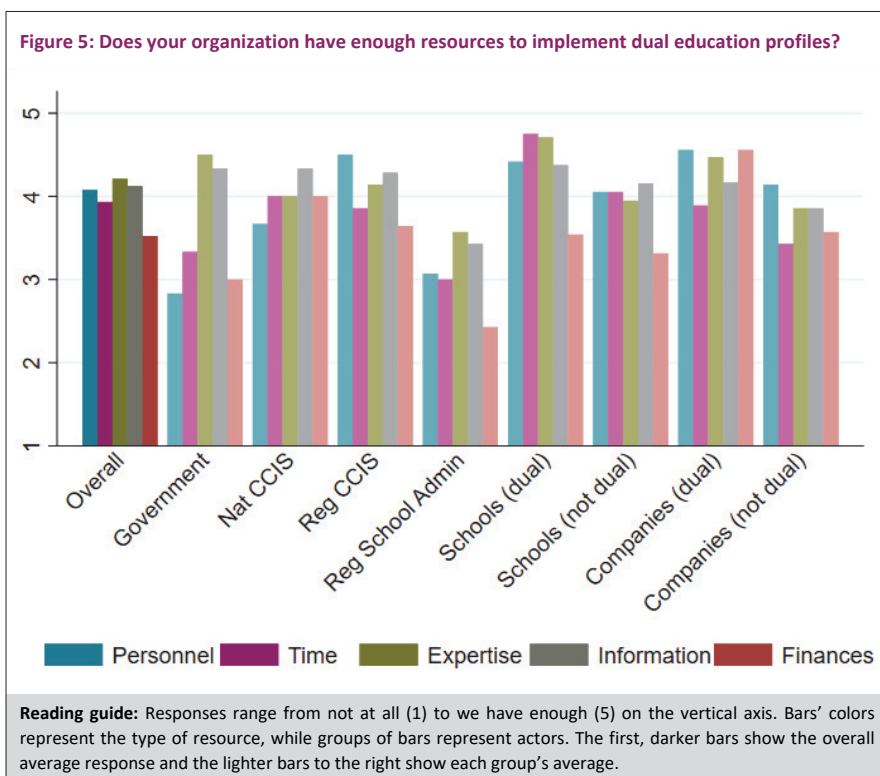


Reading guide: "Yes" responses are in teal, and "No" responses in pink. Each actor group is shown on its own line.

ABILITY TO IMPLEMENT

Implementing dual education requires more resources than are currently needed to function.

More broadly, current resources are not entirely sufficient, but there are more than expected. Even when there are challenges, participants are positive: "Time is always a problem, but we are willing to invest time in training potential future employees" (a company in dual education).



COOPERATION

The management of the dual education system will require greater cooperation and coordination than is currently the case in the vocational education system, which is mainly based on school teaching, and in the future the implementation of dual education will require even more intensive cooperation than at present.

However, it should be emphasized that almost all actors report that they are ready to cooperate (98.2%).

The following comment, from the regional CCIS, illustrates the general attitude that responds to all groups of respondents: "We are ready to cooperate in implementing dual education with all participants" (regional CCIS).

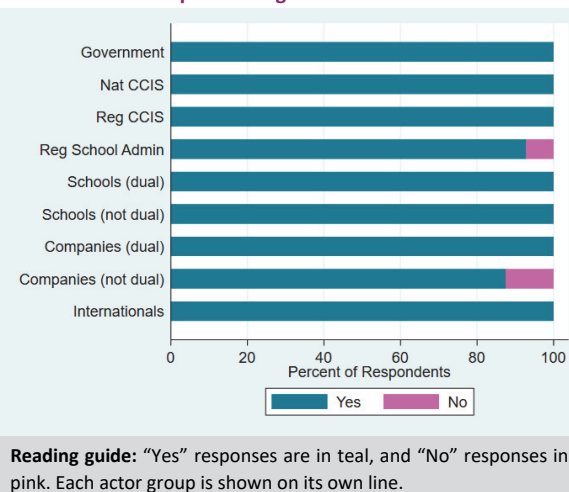
According to the respondents, the initiators of cooperation are mainly schools and companies.

One school principal stated, "My experience is that schools play the most important role in establishing and maintaining cooperation with companies" (school principal in dual education).

Regional CCIS, for example, recognized the important role of all participants by stating: "All participants: institutions, companies, schools, students who actively participate in the implementation of work-based education are drivers of dual education" (regional CCIS).

Issues cited by actors as barriers to cooperation are lack of interest of some institutions and participants, lack of willingness of companies to pay students, low capacity of small businesses and companies, law enforcement without flexibility, and lack of human resources in relevant institutions and organizations.

Figure 6: Is your organization prepared to cooperate with other actors on implementing dual education?



COORDINATION

The current and projected level of coordination is a key challenge.

Respondents state that participants are not sufficiently coordinated (34.5% say they are not), and most of them do not believe that everyone will be coordinated until the beginning of the next school year, when the implementation of all provisions of Law on Dual Education officially begins (55.9%).

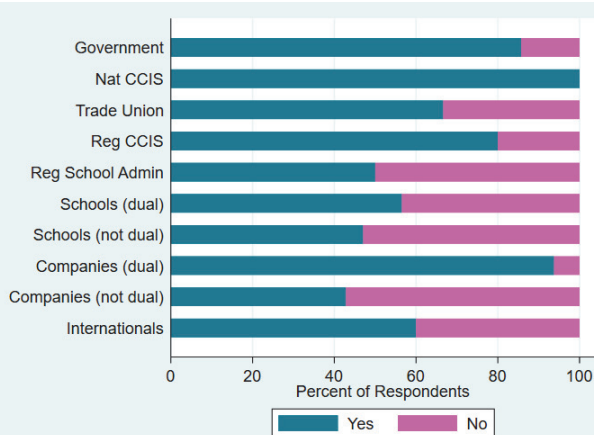
Many of the comments were about things that work well at one level, in one region, or in one local environment, but probably not in other environments.

It is clear from the respondents' comments that there have been efforts to establish better coordination within secondary vocational education, while this Law will be an extension of that effort.

Another common theme, especially among schools where dual profiles are implemented, is the difference between involvement and coordination.

It seems that the groups of participants are mostly involved in issues related to vocational education, but that they are not fully coordinated. Participants from the local level in particular seem to feel that there is not enough vertical coordination. The need for increased horizontal coordination between the education system and the employment system is obvious in building dual education, but vertical coordination is also a key issue.

Figure 7: Right now, are all of the relevant actors and institutions coordinated to implement dual education?



Reading guide: "Yes" responses are in teal, and "No" responses in pink. Each actor group is shown on its own line.

Career guidance and counselling

Awareness and understanding of the new regulations on career guidance and counselling in dual education is moderate (2.8).

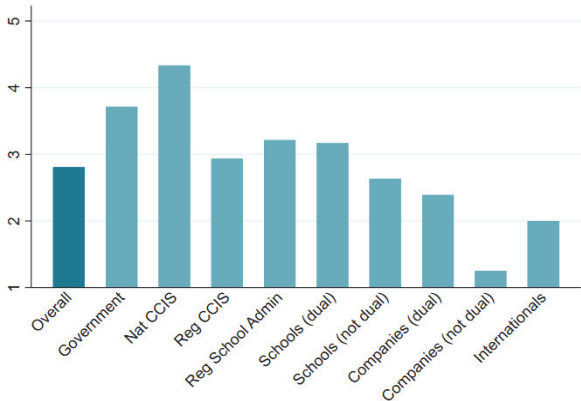
National CCIS is the most informed, but is not widely involved in the implementation of career guidance and counselling.

Awareness is lowest in several groups of participants at the local level, such as companies and schools that are not in dual education, and these are the participants who need to conduct career guidance and counselling, so this is a significant challenge.

One respondent sees this when he says he is concerned about the inclusion of companies in career guidance and counselling teams “because I am not sure they will have enough time to devote to these activities” (school in dual education).

Ensuring that every student who is entitled to a dual educational profile in the 2019/2020 school year has access to quality career guidance and counselling before making a decision must be a priority, which requires additional time, energy and resources.

Figure 8: How well informed are you of the career guidance and counseling plans for the new dual education program?



Reading guide: Responses range from not at all (1) to very much (5) on the vertical axis. The first, darker bar shows the overall average response, and the lighter bars show groups.

Training of instructors in companies

Participants were somewhat informed about the training process for instructors (3.1).

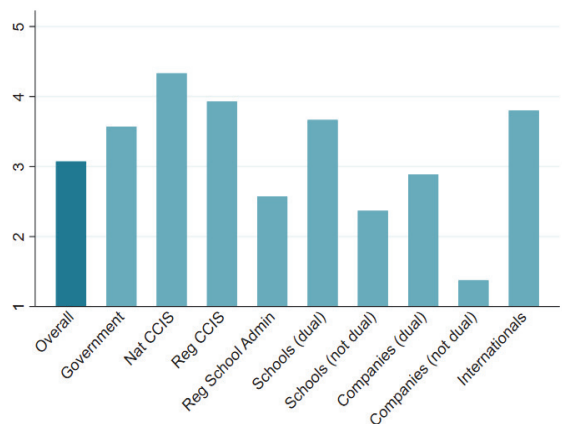
However, school administrations and schools that are not in dual education are not sufficiently informed, and companies outside of dual education are almost completely uninformed.

Those familiar with instructor training are concerned about the feasibility of that training.

There are concerns about various aspects of training for instructors such as e.g. selection of instructors, convenience of selected company workers to perform this function, the possibility of small companies to appoint and send their workers for training, the possibility for small companies to invest time and financial resources in the training of instructors, etc.

However, the key issue is summarized in the following statement: “Thousands of instructors must be trained in a very short period of time” which is certainly a significant challenge (representative of the international community).

Figure 9: How aware are you of the planned processes for choosing and training in-company instructors?



Reading guide: Responses range from not at all (1) to very much (5) on the vertical axis. The first, darker bar shows the overall average response, and the lighter bars show groups.

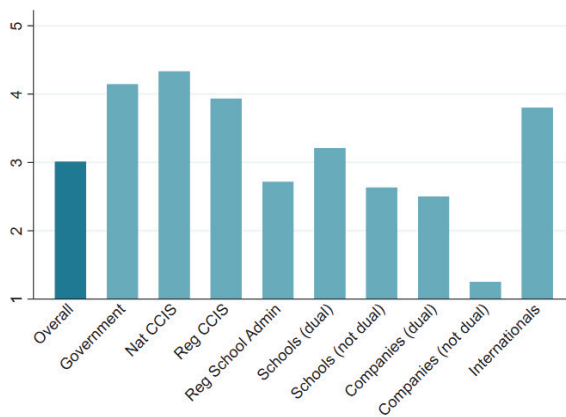
Placement of students

Participants were somewhat informed about the planned pairing process of students and companies (3.0), while awareness was higher among participants coming from higher levels.

Respondents are particularly concerned that this is a “long-term process” (regional CCIS), that it may create inconsistencies, and that equality issues may arise for students from vulnerable groups. A respondent from the regional CCIS summarizes the risk of short deadlines, saying: “There is a risk that career guidance and counselling teams will not have enough information for a good distribution of students in the first year.”

However, one coordinator for work-based learning in dual education believes that the proposed process: “Seems complicated but logical. It is necessary to approach the process seriously.”

Figure 10: How well informed are you about the planned processes for matching students and companies?



Reading guide: Responses range from not at all (1) to very much (5) on the vertical axis. The first, darker bar shows the overall average response, and the lighter bars each groups.

Instructor licencing

The skills of the instructor should be determined before beginning the implementation of work-based learning. Despite the time pressures associated with this process, awareness of the by-laws related to instructor licensing is low (2.6).

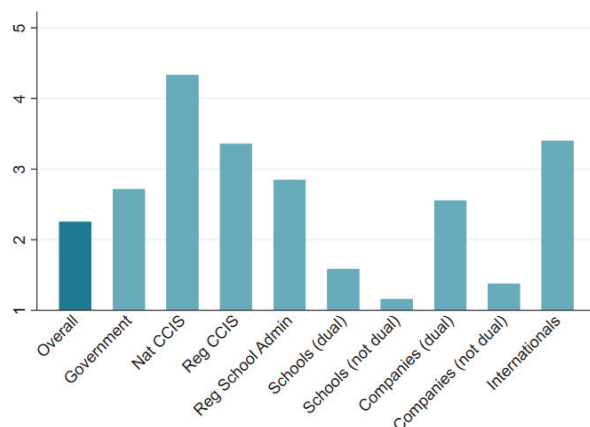
This may also mean that key actors in the process and the institutions in charge have the necessary information, but not enough time or resources to disseminate it in a way that other actors can understand that information.

With this in mind, one of the recommendations would be that responsible institutions, including the CCIS, need more resources and support to share their knowledge.

Those who are familiar with the process of instructor licensing are convinced that this will help ensure the quality of work-based learning and that instructors will be provided with the pedagogical knowledge they need.

However, as one regional CCIS respondent pointed out, “There is not enough time for all instructor candidates to undergo instructor training,” again indicating a lack of time rather than a lack of willpower.

Figure 11: How well informed are you about costs of training and exams for instructors?



Reading guide: Responses range from not at all (1) to very much (5) on the vertical axis. The first, darker bar shows the overall average response, and the lighter bars show groups.

Costs of instructor training and licencing

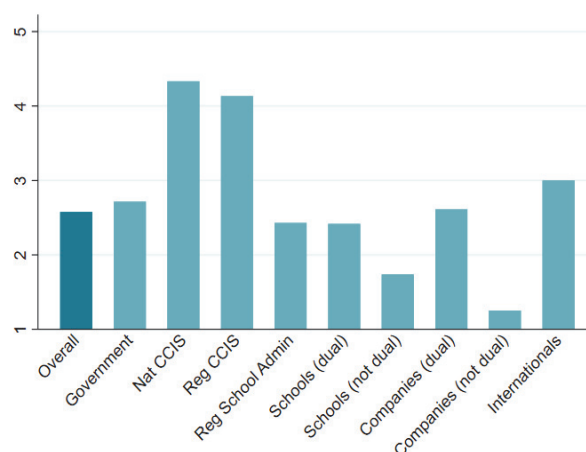
This CCIS internal act provides guidance on the distribution of training and examination costs for instructors.

Awareness of this act is similar to that of others – the CCIS is well informed while other actors are not.

Overall, awareness is low (2,3), which indicates that there is a serious gap in communication.

Regional CCISs worry that "training costs can be a problem for employers' involvement", and the opinions of the surveyed companies confirm this because they state that "training takes too long (40 hours) and it is difficult to relieve people of regular duties for so long" and "the process requires long absences from their jobs. The optimal work process is at stake. "

Figure 12: How well informed are you about the planned processes for training for instructors, exams for obtaining licenses and the license registry?



Reading guide: Responses range from not at all (1) to very much (5) on the vertical axis. The first, darker bar shows the overall average response, and the lighter bars show groups.

Checking if company's conditions are fulfilled for implementing work-based learning

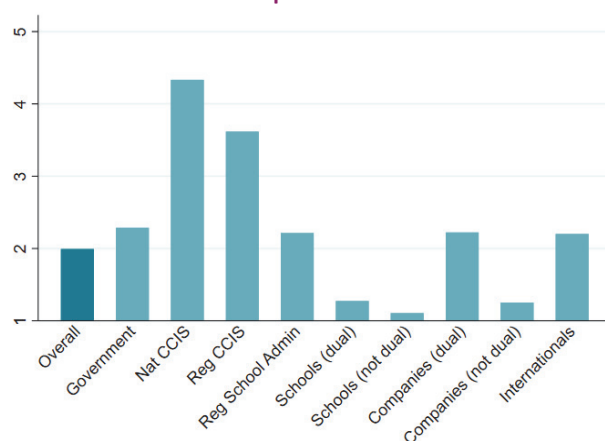
Ensuring the quality of work-based learning is a condition for quality dual education. This process ensures that students learn what they should learn while in the workplace, because without it the programme can never have a high status or good results for students. This process is not clearly specified bearing in mind that information is extremely low - 2.0.

One respondent from the Government stated that the drafting of the by-law was still ongoing, while a respondent from the CCIS said that the process was fully organized.

Representatives of regional CCISs seem to have a very good understanding of the by-law, clearly articulating who is involved in the processes described in this act.

However, most of the interlocutors are not familiar with the planned process for ensuring the quality of work-based learning, and further information should be worked on.

Figure 13: How well informed are you about the planned processes for checking performance requirement fulfillment for WBL in companies?



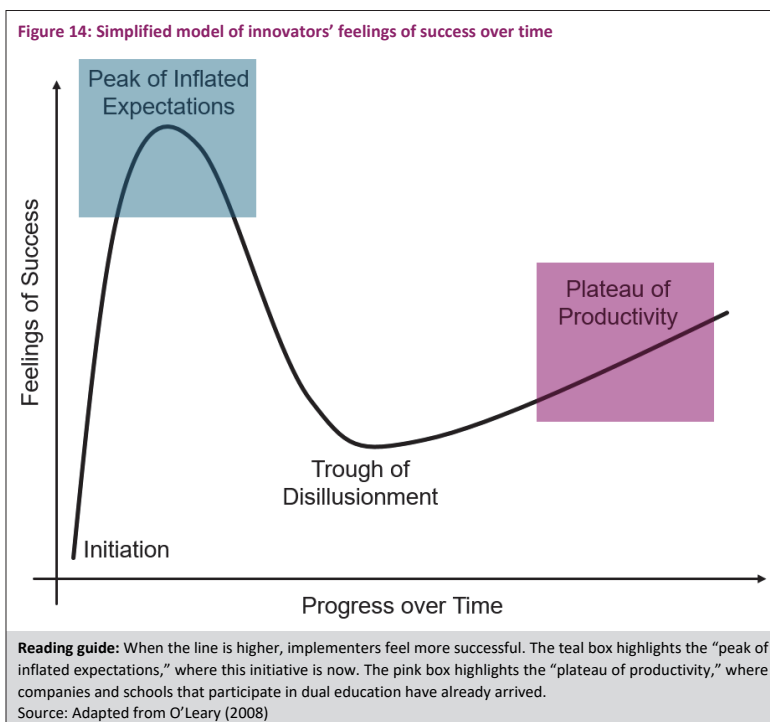
Reading guide: Responses range from not at all (1) to very much (5) on the vertical axis. The first, darker bar shows the overall average response, and the lighter bars show groups.

CONCLUSIONS AND RECOMMENDATIONS

The overall picture of the information, readiness and motivation of the actors for the implementation of the Law on Dual Education is very positive. While there are reasons to take this optimism with restraint, it is nevertheless an achievement of all the people leading this initiative and represents a great strength in the forthcoming implementation efforts. Two key points can help further build a dual education system: preparation for “decline” (deflation) and further commitment of all resources to system building.

Preparation for deflation

High levels of motivation, readiness, and even available resources indicate that there may be a certain level of “inflated” expectations at some point. The model of positive feelings over time in the innovation process, called “hyper-curve” (O’Leary, 2008) shows a common cycle of initiation, mass excitement that leads to peak expectations and then a sudden drop and disappointment before reaching the plateau of productivity at the end of the process.



In this case, it appears that most pre-implementation stakeholders are at the peak of inflated expectations, highlighted by a teal box. However, the schools and companies that already participate in dual education can be a source of hope because they—highlighted with the pink box—are already closer to the plateau of productivity. It is clear from the data that experienced stakeholders are happier and more confident with dual education profiles.

At the peak of expectations, we can predict a lot of optimism, and this can be seen from the results of this research.

However, we also see that sporadic problems - for example, by-laws - are beginning to point to some important difficulties. This is likely to increase as actors understand how much the dual education implementation process will actually require of them both in terms of resources and in terms of change and adaptation. One of the symptoms of an initial decline towards disappointment is a possible negative media image (O’Leary, 2008), and this could be part of the challenge that is yet to emerge.

Starting the reform process at a higher level is a good thing and helps to involve different participants from different levels, as well as different groups of participants. However, this does not guarantee that it will be easy to implement when the Law is fully in force. Therefore, we recommend moderate optimism, with the creation of a community to support all participants and enable dialogue with the public, thanks to which different opinions will be heard.

System building resources

There is an interesting pattern in respondents’ responses that indicates that respondents’ overall resource needs are not consistent with their individual statements. As we move from general to specific questions and from participants at higher to participants at lower, operational levels, there are more and more discrepancies in the answers. The first major inconsistency relates to company costs, and the second to supporting the process itself. Both inconsistencies can be resolved by investing in the construction of a system that should address intermediaries, information and communication.

Companies - especially those already in dual education - state that they have everything they need to start participating in dual education. In contrast, however, other participants report that companies will need either more resources or simply different incentives to participate. Companies report that they have enough resources and give statements such as: "We have everything we need" (the company). However, the government, regional CCISs, unions and even some schools state that companies do not have what they need.

Many respondents raise the issue of subsidizing the participation of companies in the WBL. They refer to "specific changes in the field of tax rights and obligations for employees who hired students" (MESTD), while some vaguely state that it will be necessary for the Government to "provide benefits for companies in dual education" (MESTD). The most specific plan is "provision of financial resources for companies from the budget by the Ministry of Finance" (MESTD).

The CCIS is even more specific, especially when raising the issue of subsidies for companies. One respondent states: "Companies bear all the burdens and responsibilities of dual education. Given that the early stage of implementation of dual education is underway, companies that have decided to participate in dual education should be provided (e.g. through financial subsidies) with various benefits" (regional CCIS). Another joins: "If companies have had some financial incentives (for example, subsidies), it is expected that companies will indeed have the announced benefits of dual education, such as saving money on training new employees, higher employee productivity and saving money and time." (regional CCIS). This last statement is particularly interesting because it calls for subsidies and highlights the benefits that companies already achieve by participating in work-based learning.

The lone voice of disagreement, apart from the companies themselves, comes from the unions, who argue that public funds should not go to private companies, especially not to subsidize WBL, which is already profitable for companies. We completely agree with this view. The companies themselves do not seek subsidies for WBL, companies will benefit from WBL as stated by the CCIS, and there is no evidence that such subsidies are necessary for the success of the system. Moreover, subsidies are not provided for in the Law on Dual Education. At this point, subsidies for in-service learning companies would be an investment in an untested concept outside the bounds of the law to be enforced.

However, there is a need for greater resources and there is a way to invest in their development in order to reduce the costs of companies and other stakeholders to participate in dual education without simply donating money. Investing in building a system to reduce resistance, improve communication, support start-up costs and resolve issues is the right way to develop the necessary resources in the implementation process.

The CCIS, both regionally and nationally, is one of the central actors in dual education. Several respondents highlighted the importance of the CCIS and the need for its presence - not only indirectly but also personally - in processes ranging from career guidance to instructor training and company recruitment. Investing in additional temporary staff for CCIS would facilitate implementation and allow for lower start-up costs for each group of participants.

Informing is another question that often occurs among respondents, which indicates that it would be useful to have more ways of informing and disseminating information to parents and students, such as a problem-solving telephone line and a campaign to disseminate information to parents and students.

Lower-level participants are concerned that they do not know everything they should, that the flow of information to them is slow, and that they do not do exactly what is required by law. These measures would help to solve the mentioned problems. Schools and companies also state that parents and students are not fully aware of new opportunities in dual education, so some degree of marketing would support schools' efforts to attract new participants.

In conclusion, it could be stated that, in the pre-law enforcement phase, expectations and hopes are very high. Challenges lie ahead, but a high degree of excitement and readiness of all participants are good signs. The start of law enforcement is likely to bring some deflation when expectations are adjusted and work begins, so building a strong support system for participants can help reduce challenges. Instead of investing only in subsidies for companies to solve a problem that does not yet exist, one should invest in system building measures such as the CCIS staffing, stakeholder campaigns and a telephone hotline to improve communication and support to all participants in the implementation of dual education.

ATTACHMENT 1: LITERATURE

- Bolli, T., Caves, K. M., Renold, U., & Buergi, J. (2018). Beyond employer engagement: measuring education-employment linkage in vocational education and training programmes. *Journal of Vocational Education & Training*, 1–40.
- Bolli, T., Egg, M. E., & Rageth, L. (2017). *Meet the need: The role of vocational education and training for the youth labour market* (No. 429). KOF Working Papers.
- Caves, K., & Baumann, S. (2018). Getting there from here: A literature review of VET reform implementation. KOF Working Papers, 441.
- Cedefop (2018). *What future for vocational education and training in Europe?* Cedefop. http://www.cedefop.europa.eu/files/9133_en.pdf
- Nilsen, P. (2015). Making sense of implementation theories, models and frameworks. *Implementation Science*, 10(1), 53–65.
- OECD (2009). *Working Out Change: Systemic Innovation in Vocational Education and Training*. Paris, France: Organization for Economic Cooperation and Development (OECD), Centre for Educational Research and Innovation (CERI).
- OECD (2015). *OECD Reviews of Vocational Education and Training: Key Messages and Country Summaries*. OECD Publishing, Paris. http://www.oecd.org/education/skills-beyond-school/OECD_VET_Key_Messages_and_Country_Summaries_2015.pdf
- O’Leary, D.E. (2008) Gartner’s hype cycle and information system research issues, *International Journal of Accounting Information Systems*, 9(4), 240–252. <https://doi.org/10.1016/j.accinf.2008.09.001>
- UNESCO (2015). *Recommendation concerning technical and vocational education and training (TVET)*. UNESCO, Paris. http://portal.unesco.org/en/ev.php-URL_ID=49355&URL_DO=DO_TOPIC&URL_SECTION=201.html

