MASTER PLAN

Implementation of Dual Education Law in Serbia

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Contents

List of abbreviations

ANQF	Agency for National Qualification Framework
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
CVEAE	Council for Vocational and Adult Education
GoS	Government of Serbia
EU IPA	European Union Instrument for Pre-Accession Assistance
IIE	Institute for Improvement of Education
LDE	Law on Dual Education
LFES	Law on Foundations of Education System
LFS	Labour Force Survey
LSG	Local Self-government
LNQF	Law on National Qualification Framework in Serbia
MoESTD	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

Master plan concept

A **master plan** is a **planning instrument** that contains all relevant information about the implementation of a complex change (reform) process. It gives all involved stakeholders:

- an **overview** of the **organization structure** of the implementation
- a summary of the **roles, responsibilities, deliveries** and **monitoring** of all units (commissions, committees, working groups, stakeholder groups)
- information about **intended implementation processes** for each involved unit
- information about **intended implementation processes** for each part of the project
- an **overview** of the highlights of **the dual education system building process** ('critical path') within the change process

Also, it is important to mention, that the Master Plan will contain various data collected through primary research since approach to its development respect principles of evidence-based policy making. In other words, research to be implemented as a part of the process of development of the Master Plan are to provide the Commission with the necessary empirical evidence to support future active policy decisions, in order to overcome system inertia and maintenance of the status quo.

Status of the report

The report serves to coordinate all activities related to the implementation of the Dual Education Law in Serbia. It is recommended that this report be sent to the leading personalities of the institutions involved after its adoption by the Commission.

It should also be discussed at the Commission meeting whether parts of the report can be made public.

The critical path and risk analysis of the master plan will be discussed at each meeting of the commission. If necessary, the Commission will initiate appropriate measures.

1. Context of Master plan

Country Background

During the last three years, labour market outcomes in Serbia improved - the average activity rate continued to increase from 53,3% in 2016 to 54% in 2017, and 55,5% in the first quarter of 2018. Employment rate constantly grew while unemployment rate declined. Average salaries increased by 4,2% in the first half of 2018 compared to the same period of the last year (Statistical Office of the Republic of Serbia (SORS) – Labour Force Survey (LFS), 2018).

Data provide by Social Inclusion and Poverty Reduction Unit of the Serbia Government (SIPRU) show that those who have only primary school diploma are at the highest risk of poverty (SIPRU, 2018) and that the unemployment rate is highest among those who completed secondary school (ISCED 3 and 4) (SORS - LFS, 2018).

However, Serbia is still suffering from the occupational mismatch. The last available data (from 2016) point out that 7,1% of upper-secondary graduates working in low-skilled jobs (ISCO 9) and that 24,2% of tertiary graduates working in semi-skilled jobs (ISCO 4-9) (ETF, 2018).

The position of young people on the labour market seems still unfavourable, with a three-fold lower employment rate compared to the population aged 25 – 64 while the number of young people who are not in education, employment or training (NEET) is still high - in 2017, the NEET rate in EU28 was 11.5 percent while in Serbia in the same year it was 17,2 percent.

Secondary education in Serbia – main characteristics and statistic

Statistical Office of the Republic of Serbia reported that, at the end of 2017/18 school year, there were 510 secondary schools (460 public and 50 private schools), among which 111 gymnasiums, 310 VET schools, 40 art schools, 45 mixed gymnasium and VET schools and 4 mixed VET and art schools.

About 25% of students attended general education – high school while VET schools were attended by around 75% of students.

The most popular educational profiles were from the following fields of education: Economics, Law and Administration (13.3%), Electrical Engineering (10.9%), Health Care and Social Protection (9.6%), Mechanical Engineering (8.7%) and Trade, Catering and Tourism (8.1%) (MoESTD, 2018).

Regarding a number of active VET profiles, the latest data reports that in September 2018, 156 four-year and 94 three-year education profiles divided within 15 fields of work/economic sectors were available to students (IIE, 2019).

According to the internal MoESTD data, student-teacher ratio in secondary vocational education (headcount basis), as a reflection of the negative demographic trends, in 2012/13 school year ratio was 8,9 while the ratio for 2017/18 school year was 7,9.

Data on public expenditure on vocational education and as a share of gross domestic product (GDP) as well as data on the share of VET funding by the source are not available.

1.1. Law on Dual Education – foundation and main notions

The Strategy for Development of Education in Serbia by 2020 (SEDS) 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 main principles of the quality education system, including VET, in the Republic of Serbia by 2020 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 and entrepreneurial education were priority goals of the Government of the Republic of Serbia for the last few years, and in accordance to such directions the Law on Dual Education is developed and adopted.

In more concrete terms, the Law on Dual Education (LDE) was adopted in November 2017 (Official Gazette of the Republic of Serbia, 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 learning through work with the employer, students acquire competencies in accordance with the standard of qualification and the curriculum of teaching and learning.

Purpose of development 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 contractual designation of 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 expenses allocated by the Ministry for vocational education, primarily for equipping school classrooms, workshops 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 faculties.

The Law on Dual Education itself defines goals of dual education (Article 4).

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 after finishing education;
- Provide the conditions for further education and lifelong learning;
- Develop entrepreneurship, innovativeness, creativity, professional and career advancement of every individual;
- Provide the conditions for personal, economic and overall social development;
- Develop teamwork ability 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 of mutual rights and obligations of students and employers.

Furthermore, the law regulates the content and the way of achieving dual education, mutual rights and obligations of pupils, parents, schools and employers, material and financial security of pupils, as well as other issues of importance for dual education. Among others, the law defines needs for licensing companies for conducting work-based learning, regulating participation of different actors in defining the standards of qualifications.

1.2. Institutions, organisations and bodies involved in implementation of 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 (MoESTD) 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; inspection; and other issues. Further, the duties of MoESTD include professional evaluation and inspection of skills upgrade of staff at education establishments; recognition and equivalence of public certificates acquired abroad; improvement of social security for talented pupils and students; improvement of social security for pupils and students with special needs; and other duties provided for by the Law.

Department for Secondary Education in MoESTD is responsible for: vocational education, general and art secondary education, adult education, regulations in secondary education and administrative issues, while **Department for dual and entrepreneurial education** is deal with dual education, entrepreneurship, carer guidance and counselling and financial literacy at all the levels of education.

The Regional School Administration (as regional MoESTD units), in cooperation with the competent authority of the autonomous province are, among other, in charge for development of a municipal or city proposal for the enrolment plan for secondary school students.

2. Chamber of Commerce and Industry of Serbia

Chamber of Commerce and Industry of Serbia (CCIS), along with MoESTD, 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 (Commission Art. 40)

LDE in Article 40 envisages 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. Based on this article and Law on Government (Article 43, para 1), Government of the Republic of Serbia made a decision to form the Commission (on January 18th 2018).

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.

Commission has its own Rules of Procedure regulating its work, manner of making decisions and kind of official documents adopt. 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

Ms Gabrijela Grujić, Assistant minister, MoESTD, President of the Commission

Ms Mirjana Kovačević, Head of Education Sector, CCIS, Vice-president of the Commission

Mr Vukašin Grozdić, Cabinet of the Prime Minister

Mr Aleksandar Marković, MoESTD, Head of the 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 – Honourable member

Administrative and technical support for the work of the Commission Art. 40 will be carried out by the Centre for Education Policy, 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 Vocational and Adult Education

The Council for Vocational and Adult Education (CVEAE) work is regulated by the Law on Foundations of Education System (LFES) (Official Gazette of the Republic of Serbia, no. 55/2013, 88/2017 and 27/2018) and it is responsible for development and improvement of vocational and adult education, including dual education. It is established by the Government of the Republic of Serbia.

CVEAE 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. CVEAE is an advisory body with no decision-making authority. It focuses on giving opinions and submitting proposals.

CVEAE 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.

CVEAE 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.

CVEAE 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 Improvement of Education

Institute for 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 program 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

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 August 28th 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 labor 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 sectoral 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 a 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 to the Law on NQF** and whose main function is to determine the demand for qualifications 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 CVEAE; 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).

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 sectoral councils that await its formation:

01 - Education
02 - Art
03 - Social sciences, journalism and information
04 - Business administration and law
05 - Natural sciences, mathematics and statistics
06 - Information and communication technologies
07 - Engineering, production
08 - Construction
09 - Agriculture, forestry, fishery and veterinary medicine
10 - Health and social welfare
11 - Services
12 - Traffic.

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.

LDE also designates that the **Ministry of Labour, Employment, Veteran and Social Policy** will be in charge of the oversight concerning working conditions and occupational safety at the employer.

Although not designated in 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 prerequisites necessary for the systemic and sustainable implementation of dual education (e.g. training and licensing of instructors, licensing companies).

In that sense key pillars of implementing LDE was the creation and adoption of several bylaws, both by MoESTD (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 21st September 2018
The Rulebook on the placement of students to work-based learning	Official Gazette of the Republic of Serbia, No. 102/2018 of 21st 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 9th 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 with the employer	Official Gazette of the Republic of Serbia No. 46/2018 of 15th June 2018
The Act on the amount of training costs and passing exams for instructors	Expected to be adopted suring 2019

As for the duties, in general, MoESTD 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 the general goals and principles of education which are under the direct responsibility of MoESTD. 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 group of educational profiles; it keeps a register of eligible employers for implementation of work-based learning, CCIS is support to schools and MoESTD 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 compa-

nies), 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 case strategic role in the whole process of development and implementation of the national model of dual education and LDE as well.

More details on tasks, processes and timelines envisaged in LDE will be presented in the following chapters.

2. Key processes

Implementation reflects a complex change process where decisions, policies, laws are transformed into programs, 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 – Curriculum value chain
Student enrolment to schools and companies
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 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 MoESTD and CCIS. The partnership is evident in the division of key responsibilities stipulated by LDE and the current composition of Commission Art 40 - president and vice-president 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 make) - MoESTD and CCIS - i.e. their regional organisational units (regional administration units of MoESTD - RSA MoESTD, and regional CCIS – RCCIS are in charge to implement policies agreed between main actors at the national level. At the level of the auton-

omous province of Vojvodina, the Provincial Secretariat for Education, Regulations, Administration and National Minorities – National Communities is MoESTD 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
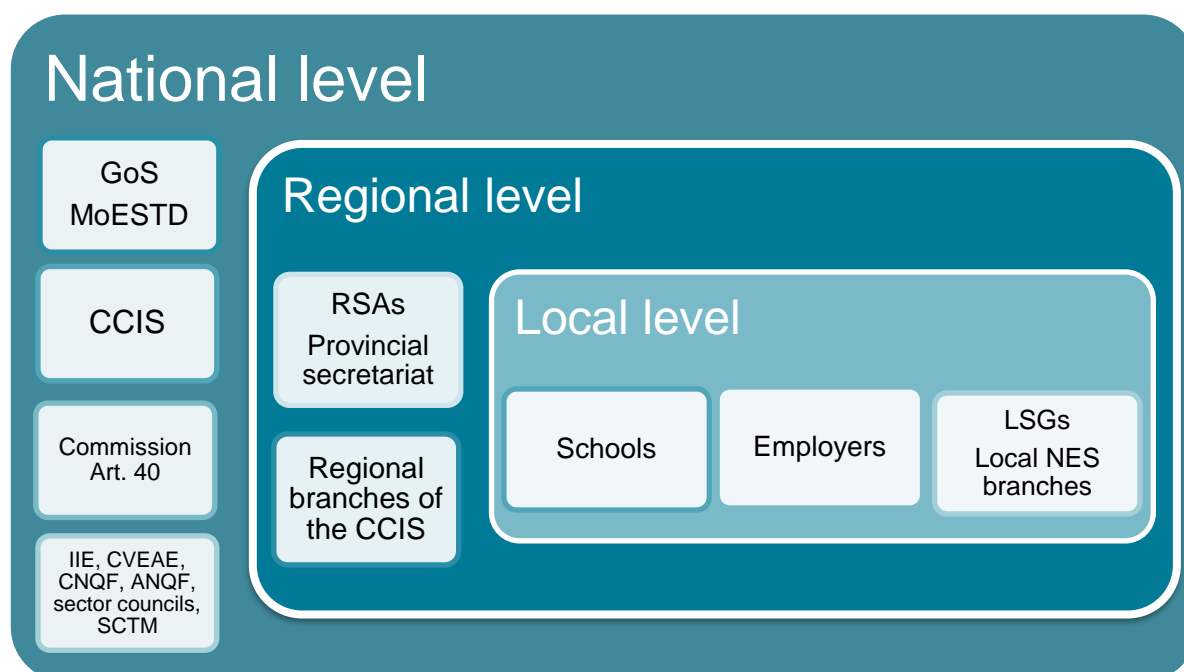
Roles of these levels will be specified within every key process presented further in the text and in the tables at the end of the text.

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). 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
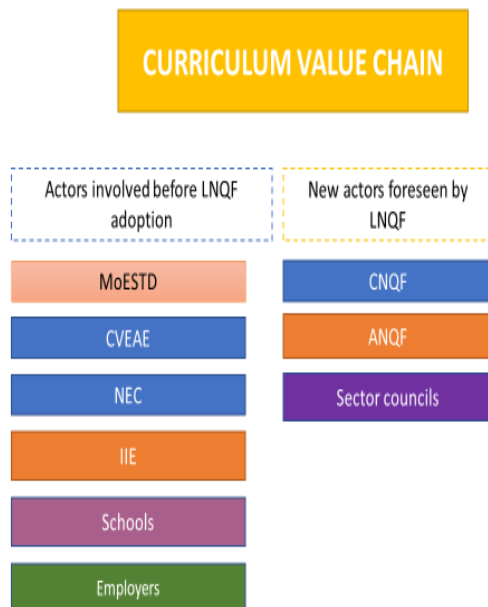
VET and dual education curricula – general notes

In Serbia, synonym for curriculum is Teaching and Learning Programme (TLP).

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 relation between vocational theory and practice within the vocational part of the curriculum (B1: B2), it is in favour of practice in particular in dual profile.

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 enterprises, for a duration of 2 weeks, 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 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

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 MoESTD (LDE, Article 5). MoESTD seeks for an opinion of the NEC (for general education part) and CVEAE (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
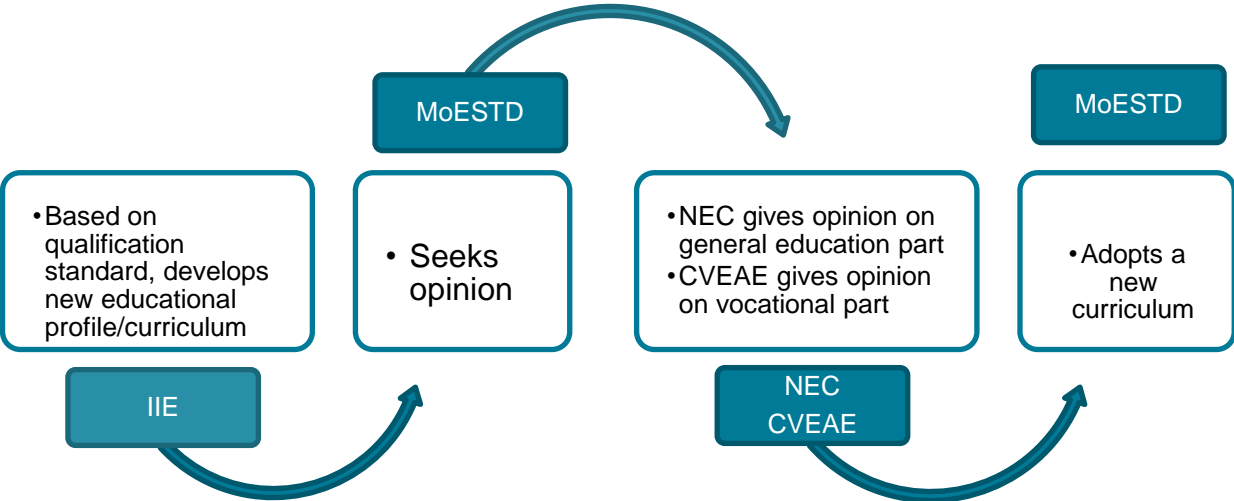
Curricula are defined for occupations, not for individual companies.

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 form 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, 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 no-dual (2028/19 school year)

Educational profile	Dual	No-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 MoESTD 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 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.

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 MoESTD which brings the legal act of the adoption of qualification standards.

Figure 4. The process of adopting new qualification standard according to LNQF

Various actors	Sector council	ANQF	CNQF	MoESTD
• Initiative to develop new qualification standards	• Makes decision for developing new qualification standard	• Draws proposal of new qualification standard	• Gives approval for new qualification standard	• Brings the legal act of the adoption of qualification standard
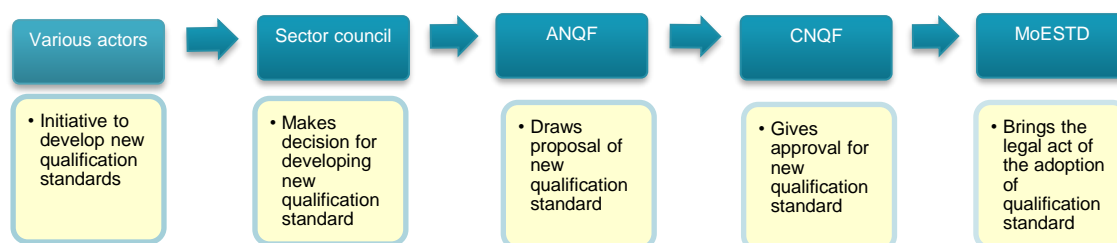
Basic prerequisite of Education-Employment Linkage[1] rests in the composition of both Sector Councils and CNQF. Employment sector will participate through intermediary organisations that should improve the process by aggregating the information of individual firms. However, that alone would not assure 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.

Until the LNQF was adopted, development of qualification standards was done by IIE, i.e. its Centre for Vocational Education and Adult Education, while the CVEAE 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.[2]

A database of all qualifications in the Republic of Serbia as well as the website dedicated to NQFS (http://noks.mpn.gov.rs) have been established within the MoESTD. 140 qualifications have been entered into this database. Entry of new qualification is ongoing.

Design of examinations

LDE (Article 32) prescribes that the content of the final or Matura examinations 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 Program 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 MoESTD. 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.

[1] Effective Education-Employment Linkage is an equilibrium of power between actors from the education and employment systems in VET, where these two systems share power to cooperate in designing, providing, and continually updating VET, so the VET pathway can maximally improve outcomes on the youth labour market (Renold, U, et al, Feasibility Study for a Curriculum Comparison in Vocational Education and Training: Intermediary Report II: Education-Employment Linkage Index; 2016)

[2] http://zuov.gov.rs/dokumenta-centra-za-strucno-obrazovanje-i-obrazovanje-odraslih/

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 assessment forms. For the purpose of improving assessment practices in VET school, IIE developed (within an EU IPA project) 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.

Role of companies in the process of designing examinations is not legally defined. The Rulebook on Professional Matura and Final Examination Program, nor any other legislation does not stipulate the role of employment sector in the process of examination design. All the responsibilities are delegated to IIE. However, IIE generally prepares final/Matura exam programs in consultations and responding to 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 program is implemented.

2.2.2. Curriculum application

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 programs 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 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 entirety 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 much as needed companies and each company will be in charge for implementation of certain working operations which make students placement particularly challenging).

Work-place 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 work-place learning is envisaged in LDE by identifying two types of contracts which needs to be accepted and signed by companies and schools and students' parents.

Figure 5. Two types of contract in dual education
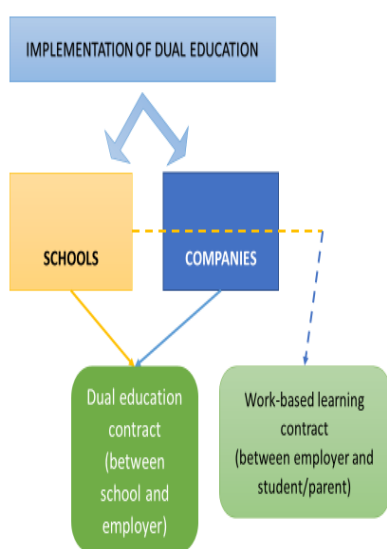
The first type is a *Dual education contract,* concluded between school and employer, for a minimum period of three or four years, as appropriate, in accordance with the relevant curriculum. This contract includes, inter alia: employer's obligation to deliver work-based learning at its own cost; school's obligation regarding the delivery of work-based learning; employer's obligation regarding 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. 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.

Examination

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 rulebook regulating in more detail the student assessment in secondary 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 examination, 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 of teaching and learning 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 LDE and schools that are implementing dual profiles, those two functions are practical identical, i.e. LDE introduces term work-based learning instead of practical training.

Instructor training and licensing

Delivery of training for instructors is CCIS responsibility. However, the training programme, detailed conditions and other matters relevant to taking the instructor examination are prescribed by the MoESTD, 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 for 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 forms its integral part).

Following the completion of the training, the candidate will take the examination. For that purpose, CCIS will establish Examination Boards and organise instructor examinations. Boards will include, apart from an expert in the specific field, at least one representative proposed by MoESTD and the IIE.

CCIS is issuing a license 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 CCIS.

The costs of training and taking the instructor examination will be covered by employers. The level of costs of training and taking the instructor examination will be regulated by CCIS.

2.2.3. Curriculum feedback

The curriculum feedback 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 in Section 7).

The second question relates about procedures and involvement of different actors in deciding on up-date of curriculum and/or qualification standards. 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 to schools and companies

Student enrolment encompasses policy considerations at the level of school enrolment and the level of placement in companies.

2.3.1. Students' enrolment in schools

Planning of enrolment policy is a strategic process in which MoESTD, schools, local self-governments and other stakeholders plan the implementation of educational profiles in the upcoming school year. The group of stakeholders is guided by the criteria which are established by the MoESTD. Nevertheless, even there is a consultation process on the local level, the final decision is made by MoESTD and CCIS when it comes to dual education profiles.

LDE (Article 7) stipulates that enrolment quotas by sectors and profiles in dual education needs to be determined in accordance with the needs of the economy and students' further education possibilities.

Regional School Administrations, in cooperation with the competent body of the autonomous province (in the case of Vojvodina), are 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 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 needs to be provided.

Further elaboration of these general principles of enrolment are presented in the official instructions made by MoESTD.

After that, the Public Call 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, is announced. This Public Call is a kind of guide for parents and their children who are going to enrol secondary school.

In order to create the Public Call for enrolment in secondary schools, the MoESTD during December sends to regional school administrations, local self-governments and, in the case of dual profiles, CCIS and NES the guidelines for planning the enrolment in secondary school at local and regional level.

Below is in detail explanation of the enrolment process conducted in previous years, including graphical presentation in Figure 6.

Enrolment policy for the whole VET is based on the inputs that schools send to MoESTD by December 31st each year and relates to the next school year that starts on September 1st. 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 MoESTD 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 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 concensus. The role of representatives of RSA in this process is important since they advise the actors, as the "extended arm" of the MoESTD, e.g. provides relevant information such as number of students that graduated from primary schools in the teritorry, priorities of the Govrenment and MoESTD (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 LSG[3], 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 NES. In addition, the plan should takes 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 teritory by RSA, after which RSA gives its "approval" to the plans by the end of February.

The MoESTD makes a final decision on enrolment plan by March 31st, and in the case of dual profiles, it strongly relies on the data provided by CCIS since MoESTD takes these data as a corrective and controlling mechanisms. More precisely, MoESTD 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 MoESTD 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 intersted 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.

Figure 6. Students' enrolment to schools

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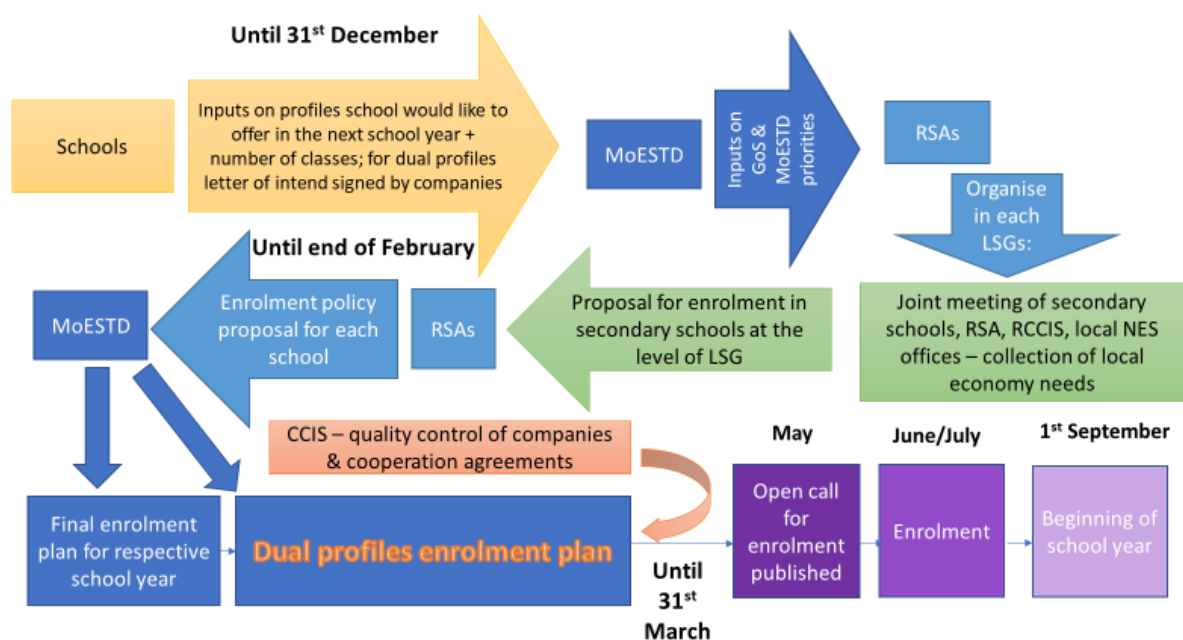
[3] When determining the plan of enrolment in a school in which instruction is conducted in the language of a national minority, it is necessary to obtain the opinion of the National Council of the National Minority.

2.3.2. Students' placement in companies

LDE (Article 7) regulates student placement in companies, i.e. assignments to work-based learning in very general terms, leaving the details to be prescribed in detail in a by-law. LDE only determines that students should be assigned 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 are participants 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 parents 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 preferences lists, do review and matching students and companies. In the case that two or more employers prefer the same student, the student will be assigned to 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 in 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

LDE (Article 8) stipulates that schools will stimulate 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 a career guidance and counselling team (CGC team). This is 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.

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.

Indeed, adequate by-law has 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 unit 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.

Work of 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, pursuant to the Career Guidance and Counselling Standards, enacted based on the law regulating the national qualifications framework will plan and organise the professional development of the CGC Team members.

Activities of CGC Team:

1) participate in the preparation of the School's program and the School's Annual Work Plan regarding career guidance and counselling activities, and monitor their implementation,
2) organise and implement 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) carry out activities for placing students to work-based learning, in accordance with the rulebook governing the placement of students to work-based learning,
4) continuously monitor students' and employer's satisfaction and motivation during work-based learning,
5) empower and support 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) assess and evaluate the career guidance programme based on the upshot of career management skills, in accordance with the Standards,
7) cooperate with other School's teams, with the CCIS, National Employment Service, companies and higher education institutions in planning career guidance and counselling activities, and develop a network of external collaborators and organisations for student guidance based on their individual needs and best interests,
8) cooperate 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

LDE stipulates supervision of its implementation to MoESTD, as well as inspection through education inspectorate. MoESTD also has a supervisory role over the assignments delegated by this Law to the CCIS. Quality evaluation of schools implementing dual education fall 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).

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 CCIS. It will establish Committees for Verification of Fulfilment of Requirements for Delivery of Work-Based Learning for the relevant occupational profile or group of occupational profiles.

At committee'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 CCIS establishes that the employer concerned no longer fulfils the requirements.

CCIS is delegated with the task of maintaining and regularly updating a 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 CCIS rulebook.

2.6. Financing dual education

Cost sharing

Law on dual education envisages in-kind 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 vice versa, 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.

5. employers may also cover the costs of students' accommodation and meals at a hall of residence.

In regards to financial support to students involved in work-based learning, LDE stipulates (Article 34) that they 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 Compulsory 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 for income tax on the income earned on the basis of scholarships and student and student loans (in the monthly amount up to 11,741 dinars) and that body, organisation or institution or other person where a student is in compulsory production work professional practice, practical training or work based learning in a 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

LDE imposes certain obligations and responsibilities to employers, as well as material and financial expenditures. Even it is still not defined, CCIS and some other stakeholders underlining that, in order to successfully implement the dual model of education, employers might receive support on the basis of a) Exemption of compensation for work-based learning, transport, accommodation and meals from taxation b) Financial support for employers for compensating students for their work-based learning.

However, international experiences do advise that it is better to streamline financial support to capacity development so it will reduce the costs of employers, but not increase their benefits.

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

The cost-benefit analysis will address program scalability by examining the overall costs and benefits for participating employers. Combining net costs of participation during the program with the costs saved after the program ends yields the total net cost of the program. Cost-benefit information is directly related to the amount of funding the Serbian government will have to give employers for them to participate. This analysis is explained in more details under chapter 6 of this document.

2.7. Communication with stakeholders

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 MoESTD 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 is 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 raise the capacities of this type of education, and raise the awareness of the public opinion 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 MoESTD. 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 activities[4] 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 about 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 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.

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[4] http://www.mpn.gov.rs/konkursi-i-javni-pozivi/opsti-konkursi-i-javni-pozivi/

- 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 - KLASNOKS, 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 are the employers' experiences in employing in this way trained staff. 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. E.g. CCIS, in cooperation with the Austrian Chamber of Commerce, by 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.[5]

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.[6]

In May 2018, the Swiss Agency for Development and Cooperation (SDC) signed a Memorandum of Understanding with the MoESTD 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 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.[7]

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'.[8]

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.

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[5] http://pks.rs/Vesti.aspx?IDVestiDogadjaji=25161
[6] http://www.kooperativnoobrazovanje.org
[7] https://www.eda.admin.ch/countries/serbia/en/home/international-cooperation/projects.html/content/dezaprojects/SDC/en/2019/7F09785/phase1?oldPagePath=/content/countries/serbia/en/home/internationale-zusammenarbeit/projekte.htm
[8] http://zuov.gov.rs/projekat-learning-by-doing/

2.8. Permeability – access to work sector and higher education

LDE stipulates that students can enrol the next level of education in accordance with legislation (Article 32). Law on higher education prescribes that right on 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 are taking the final exams, not Matura exam. To secure better permeability of those students towards higher education 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. Right to do so, the candidate gets 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.

3. Dual education system building process

Building of dual education system in Serbia, i.e. development of 'critical path', is a cornerstone of this master plan and the key process for its full commencement in the school year 2019/2020 are summarised in this chapter.

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 'critical path' presented in the 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 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, to coordinate 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 in during 2019. All this, however, does not demean the importance and legally prescribed functions of all the other key partners, e.g. MoESTD and CCIS. Apart of conclusions and decisions made at meetings of the Commission Art. 40 and work of working groups, steering the system building at this level presumes evidence-based policy making. For that reason, KOF/CEP research and survey findings will feed in the work of working groups and Commission itself.

Within the aspect of **system regulation** that goes further than the adoption of LDE - in 2018, up to February 2019 several key rulebooks/legal acts have been 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 Committee for enterprises 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 operationalization 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). Nationally enrolment policy – as seen through enrolment quotas for particular profiles in particular schools – is defined in **March-April**. Open call 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. 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 LDE). Next steps for companies presume developing WBL delivery plan (done jointly with schools), participation in student placement procedure and making WBL contracts with student/their parents (at the beginning of school year). The whole process for companies continues with providing WBL learning in its premises, together with disbursing financial means for WBL as stipulated in 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.

When it comes 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. System-wise, 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 and in the forthcoming get the opportunity to participate in WBL.

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 therefore lists the risks to the 'critical path', which the Commission must take note of in order to discuss and initiate appropriate measures.

Figure 7. Flowchart of dual education system building process

Legend:
Green shapes – completed activities;
Blue shapes – ongoing or pending activities;
Purple shapes – inputs/entry requirements for system building;
Yellow shapes – key system building processes;
Numbers refer to risks to be found in the Risk analysis section of the text.
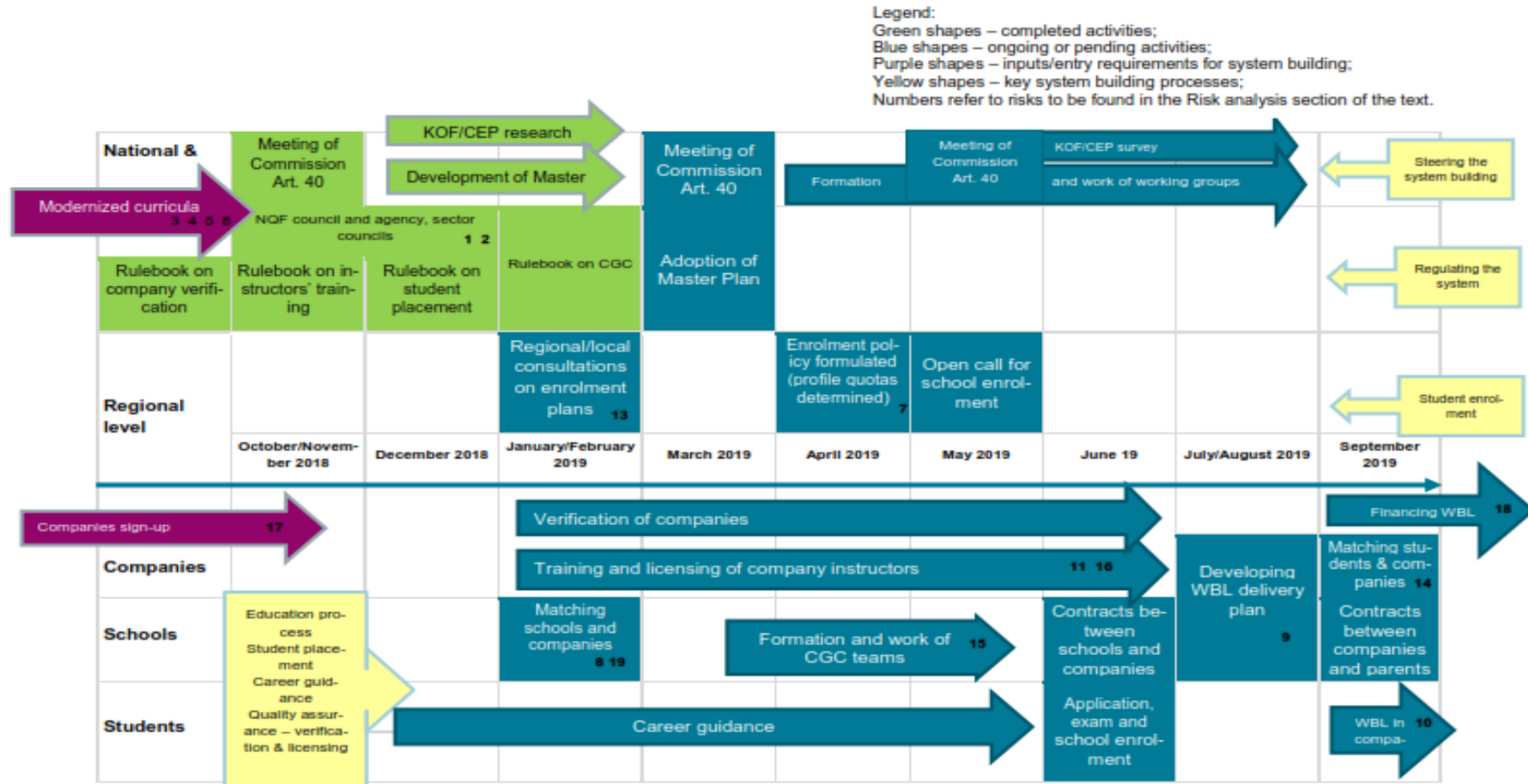
The following risk analysis is a first draft. Based on this, measures have been developed to get these risks under control (risk mitigation strategy). Since there are many measures involved, it is indispensable that specific working groups take care of solving any problems. A corresponding organizational structure is presented in Chapter 4.

Table 4. Risk analysis

No.	Risk	Risk mitigation strategy	Working group to address the risk[9]
1.	Drafting Qualification standards is the responsibility of ANQF. Explication 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.	Explication of how employers will be utilized in the process of drafting new qualification standards needs to be defined or the procedure of consultation process among stakeholders before the new qualification standards is enacted (maybe in a form of ANQF internal document regulating the procedure of developing a proposal of Qualification standards).	WG on Development and Implementation of Dual Profiles Curricula (WG1)
2.	By adopting LNQF, the old procedure of establishing qualification standards has been abolished. New procedure awaits the formation of new bodies which require time until they become fully operational. This could result in stalling the process of developing 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)
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 criteria about 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 for 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)

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[9] Composition and scope of work of working groups are described under chapter 4.

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5.	There can be a tendency that in curriculum development are involved only those employers that 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 the 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. Adhering to this criterion should be used for assigning a certain education profile a 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 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.	MoESTD 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.	MoESTD 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 programmes 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 it 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 with 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 same level of interests for 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 the top of its members' existing duties. Moreover, responsibilities of CGC team presents a mix of administrative and operational tasks – it	KOF/CEP survey may investigate the perceptions of the process and subsequent analysis of the data might show whether existing	WG on Career Guidance and Counselling

	might be a risk to have such different competencies assigned to the same team.	arrangements do create a problem and how it can be resolved, if needed.	
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 make a prioritization of companies in terms of verification (based on timing of WBL per curriculum). Moreover, additional investments in CCIS capacities to lead the verification process is 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, subsides) that would increase direct financial benefits from WBL for companies.	WG on Employers' Involvement
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 Enrolment

4. Organization Structure

Organizational 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
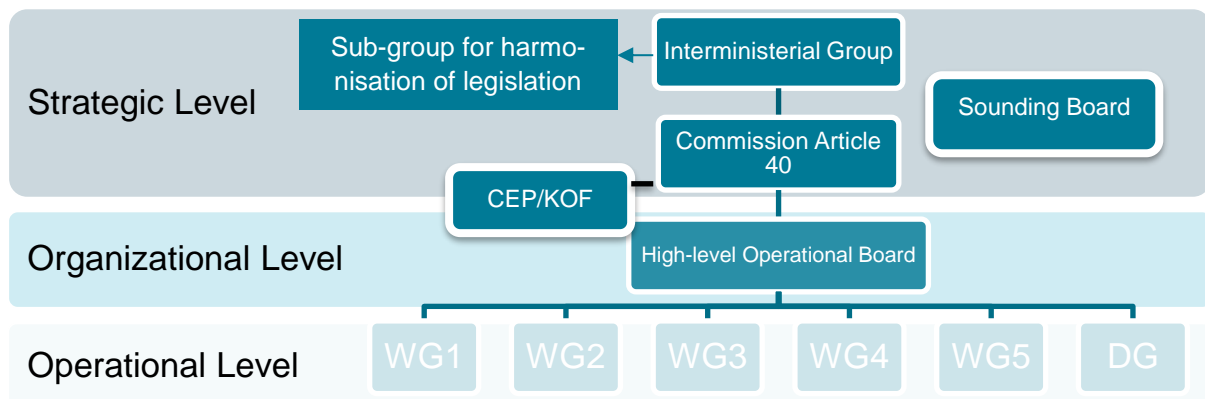
4.1. Strategic Level

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 gather representatives of the MoESTD, 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 mentioned ministries are in charge 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. 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 (Commission Art. 40)

LDE in Article 40 envisages 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 for the work of the Commission Art. 40 will be carried out 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 Commission Art. 40.

4.2. Organizational Level

High-level operational board

This board will be chaired by chairpersons of the Commission Art. 40 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 last 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 MoESTD.

Working groups are not to be seen as overtaking responsibilities of existing institutions. Responsibilities of involved institutions (e.g. MoESTD, 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 recognising 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 CVEAE. Other members will be representatives from MoESTD, 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. Leading role in this will have CCIS. Members will also include representatives of IIE and MoESTD.

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 MoESTD. Members of should also come from CCIS, also with representatives from regional branches of both institutions (RSAs and RCCIS). Representative of 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 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 IIE as the lead institution in developing recently adopted Career Guidance and Counselling Standards. Other members will be composed of representatives of MoESTD, 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 CCIS. Members will also include representatives from MoESTD, 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.[10]

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.

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 Art 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			

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[10] Green cells designate that the action is completed, while blue cells designate that the action is ongoing or are going to start.

3. Establishment of Commission 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, MoESTD	Permanent meetings and continuous work			
6. Establishing 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		MoESTD/ANQF /CNQF/SC	MoESTD/ANQF /CNQF/SC	MoESTD/ANQF /CNQF/SC	MoESTD/ANQF /CNQF/SC	MoESTD/ANQF /CNQF/SC
11. Development and adoption of internal act of ANKQ on defining employer's involvement in developing qualification standards			MoESTD/ANQF			
12. Development and adoption of internal act of IIE on continual development and adoption of new VET curricula based on qualification standards		MoESTD/IIE/ CVEAE/NEC	MoESTD/IIE/ CVEAE/NEC	MoESTD/IIE/ CVEAE/NEC	MoESTD/IIE/ CVEAE/NEC	MoESTD/IIE/ CVEAE/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)		MoESTD/CCIS				
15. Develop clear guidance for schools and employers on criteria and procedures for obtaining the status of dual education profile		MoESTD/CCIS				

Task						
16. Adopting the Rulebook on training programme, detailed conditions and other issues of importance for taking instructor examination	MoESTD					
17. Organizing training for work-based learning co-ordinator on developing, monitoring and evaluating local work-based learning including the development of delivery plans			MoESTD/IIE	MoESTD/IIE	MoESTD/IIE	MoESTD/IIE
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
21. Establish examination boards and organizing instructor examination		CCIS	CCIS	CCIS	CCIS	CCIS
22. Establishing and keeping registry of issued instructor licenses			CCIS	CCIS	CCIS	CCIS
23. Establishing and maintaining dual education contract registry			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	MoESTD	MoESTD	MoESTD	MoESTD	MoESTD	MoESTD
26. Adopting the Rulebook on placement of students to WBL		MoESTD				
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	MoESTD					

guidance and counselling team in secondary schools delivering dual education profiles						
29. Organizing nation-wide training campaigns for CGC school teams and educational advisors			MoESTD/IIE	MoESTD/IIE	MoESTD/IIE	MoESTD/IIE
Quality assurance, accreditation and monitoring						
30. Adjusting Quality standards of educational institutions with standards specific for VET school and work-based learning		MoESTD/IEQE	MoESTD/IEQE			
31. Training of educational advisors in new standards			MoESTD/IEQE			
32. Training of educational inspectors for inspecting dual education			MoESTD			
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			MoESTD	MoESTD	MoESTD	MoESTD
41. Organizing annual conference on developments in dual education			MoESTD		MoESTD	MoESTD/CEP
42. Writing of and publication of yearly progress report			MoESTD		MoESTD	MoESTD
43. Developing and maintaining web portal on dual education for employers			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		MoESTD/IIE/ IEQE	MoESTD/IIE/ IEQE	MoESTD/IIE/ IEQE	MoESTD/IIE/ IEQE	MoESTD/IIE/ IEQE
48. Develop format of diploma supplement			MoESTD	MoESTD	MoESTD	MoESTD
49. Referencing NQF to European Qualifications Framework				MoESTD/ANQF	MoESTD/ANQF	MoESTD/ANQF

REGIONAL 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. Mediating contacts between schools and employers	RSA MoESTD/ RCCIS	RSA MoESTD/ RCCIS	RSA MoESTD/RCCIS	RSA MoESTD/ RCCIS	RSA MoESTD/RCCIS	RSA MoESTD/ 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 MoESTD		RSA MoESTD		RSA MoESTD
4. Creating district and local enrolment plan		RSA MoESTD		RSA MoESTD		RSA MoESTD
Career guidance and counselling of students						
5. Continual support to school CGC teams		RSA MoESTD	RSA MoESTD	RSA MoESTD	RSA MoESTD	RSA MoESTD
6. Nominating employers' representatives in school CGC teams		RCCIS				
Quality assurance, accreditation and monitoring						
7. External evaluation & pedagogical supervision encompassing WBL				RSA MoESTD	RSA MoESTD	RSA MoESTD

8. Organizing work of commissions for verification of companies for WBL		RCCIS	RCCIS	RCCIS	RCCIS	RCCIS
Financing dual education						
Communication with stakeholders						
9.Organizing local round tables on implementation of dual education		RSA MoESTD/ RCCIS	RSA MoESTD/ RCCIS	RSA MoESTD/RCCIS	RSA MoESTD/RCCIS	RSA MoESTD/ 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/ Employers	Schools/ Employers	Schools/ Employers	Schools/ Employers
2. Contracting dual education arrangement between school and employers	Schools/ Employers	Schools/ Employers	Schools/ Employers	Schools/ Employers	Schools/ Employers	Schools/ Employers
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			Schools/ Employers			

5. Organize final exam or Matura with employers' representatives				Schools		Schools
6. Select and send staff on instructor training		Employers	Employers	Employers	Employers	Employers
7. Organize work-based learning in company's premises			Employers	Employers	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. Interview 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 MoESTD, 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 MoESTD 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 MoESTD 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 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 program 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 follows an accounting framework that assesses the costs arising from the model, its benefits during the implementation of the National model of dual education, and the benefits that occur after the training programme ends if training participants remain in the company. The data for the accounting framework comes from a survey of training companies.

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 training
- 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

We will include an additional module in the survey that assesses recruitment opportunity costs - the benefits arising after the training period. They include the following categories:

- Saved hiring costs
- Saved adjustments costs

Cost-benefit information is directly related to the amount of funding the Serbian government will have to give employers for them to participate. Combining net costs of participation during the program with the costs saved after the program ends yields the total net cost of the program.

In order to assess how Serbia can further enhance the program 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 program adoption. It also enables us to calculate how the propensity of firms to participate in the training program 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. 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 program.

The study will address the following research questions:

     i.   What is the financial net gain/benefit to employers who participate in the program?

    ii.   How does Serbia's model compare to those in other countries?

   iii.   What are the success factors for the program?

   iv.   How can Serbia further enhance the program?

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 4th quarter of 2019). A 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 creation of the concept of M&E Framework, within the three year of implementation of LDE, will be done and will include defining common goals and objectives, tenets and scope of M&E. The M&E concept will be based on three pillars important for dual education:

1. Realisation/fulfilment of preconditions necessary for the implementation of high-quality dual education (i.e. fulfilment of preconditions prescribed 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 level of employability, employment and compliances with fluctuations of needs in the labour market; having in mind the project duration and needed time for this kind of longitudinal research that exceeds project duration, it is important to note that the education sector system will be equipped with know-how by the project to independently conduct graduate tracer studies.

Such comprehensive concept of M&E Framework will result in developing robust methodology and several sets of instruments for data collection and will be piloted and then fine-tuned against the results of piloting process.

Development of each segment of M&E Framework will include validation through focus groups, group interviews, interviews and small-scale researches.

Considering the purpose of the effort, the project will prepare elaboration for implementation through the creation of Roadmap for M&E Framework and will provide capacity building effort for institutions and organisations involved in M&E.

7.2. M&E Framework - development steps and timeline

- Development of M&E Framework (based on Analysis of the state of affairs and Overview of international best practices in monitoring and evaluation of dual education) - till August 2019
- Consultations on the first draft of M&E Framework; Piloting and fine tuning of instruments of M&E Framework; Public presentation of M&E Framework - till October 2020

- Piloting M&E Framework - till June 2020
- Development of "Road map" for implementation of M&E framework - till July 2020
- Capacity building of institutions and organisations involved in M&E - till August 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 Labor 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 legal revision process. This section will explicate all of the issues that will emerge during the implementation of dual education and where possible offer suggestions for revisions.

Annex

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