

ANALYSIS

LEGAL FRAMEWORK, RESOURCES AND OTHER PROCESSES AND RESPONSIBILITIES IN THE FORMAL VOCATIONAL EDUCATION AND TRAINING IN THE REPUBLIC OF NORTH MACEDONIA

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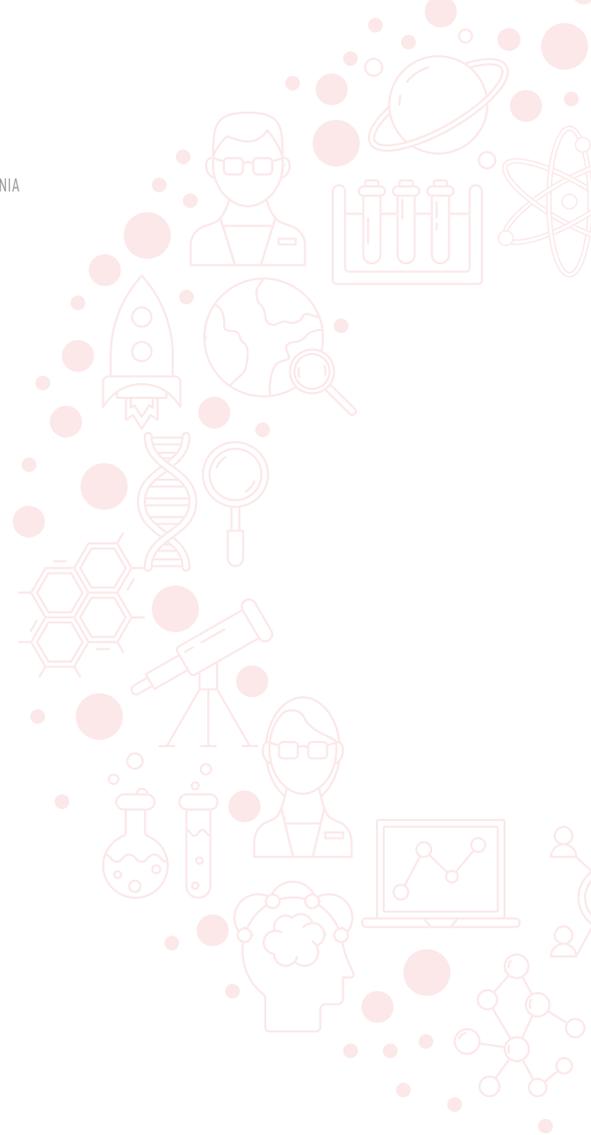
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ABBREVIATIONS

- ESARM** - Employment Service Agency of the Republic of Macedonia
- BDE** - Bureau for Development of the Education
- NEC** - National Examinations Center
- SEI** - State Educational Inspectorate
- EC** - European Commission
- EU** - European Union
- LBDE** - Law on the Bureau for Development of the Education
- LHE** - Law on Higher Education
- ZELS** - Association of the Local Self-Government Units
- LC** - Law on Craftsmanship
- LAE** - Law on Adult Education
- LOCULL** - Law on Open Civic Universities for Lifelong Learning
- LEI** - Law on Educational Inspection
- LSE** - Law on Secondary Education
- LVET** - Law on Vocational Education and Training
- MES** - Ministry of Education and Science
- MLSP** - Ministry of Labor and Social Policy
- RM** - Republic of Macedonia
- VET** - Vocational Education and Training
- SVS** - Secondary vocational schools
- VETC** - VET Center
- AEC** - Adults Education Center



INTRODUCTION

For some longer period now, the vocational education in the Republic of North Macedonia has been facing a number of challenges arising from various factors: decline in the number of students, bad economic situation, divided competences between different institutions and at different levels, unaligned legal regulations and absence of full implementation thereof, lack of interest of the business community, absence of motivation and capacities for innovations on the part of the teachers and the principals.

On the other hand, the vocational education and training is a system affected by the global transformational processes, even in our country. The technological innovations cause rapid changes in the type of jobs and the content thereof, permanent changes in the demand for qualifications and new skills among young people. These needs of the labor market impose novelties and flexibility in the structure, the organization, the content, the financing methods, and the resources distribution in the vocational education and training.

In this regard, in March 2018, the Education for Employment in Macedonia Project (E4E@mk) was initiated with the cooperation and support from the Swiss Agency for Development and Cooperation (SDC) in the Republic of North Macedonia. The main objective of the Project is to contribute to a more decent employment of young people, especially vulnerable groups, in a socially inclusive and sustainable manner. This is expected to be achieved through a systemic approach that will strive to provide development of vocational skills which would be more market-oriented, through informal education and training, through better cooperation between secondary vocational education and employers especially in internship/practical training for students, as well as through improved legal framework for vocational skills development. In its first phase (2018-2022), the project is focused on 7 sectors (health and social care, personal services, hospitality, agriculture, food technology, machinery and electrical engineering – IT profiles) in 4 regions in the country (Southeast, Southwest, Polog and Skopje). The project is being implemented by a consortium composed of the Helvetas Swiss Intercooperation, the Macedonian Civic Education

Center and the Chamber of Commerce of Macedonia, in close cooperation with the Ministry of Education and Science, the Ministry of Labor and Social Policy, the Vocational Education and Training Center, the Adults Education Center, the business sector and many other relevant government and non-governmental organizations.

The team of the Institute for Strategic Research and Education (ISIE) was engaged by E4E@mk Project to conduct an analysis of the current situation and the challenges with a special focus on the legal framework, the resources and other processes and competences within the formal vocational education. The analysis is based on empirical research conducted in the period August - October 2018.

This document covers: research methodology (the instruments used for data collection and the respondents, the timeframe of the research and the data analysis); a brief statistical overview of the the situation in 2017 (the year before the launch of the project) in the secondary VET in the regions, schools and sectors of particular interest for the project; the main findings and recommendations related to the legal framework for vocational education and training and the findings related to the financing of VET (sources, amount, legal framework, resources, their distribution and use).

The analysis of the legal framework governing VET resulted with several key findings and thereto conclusions that are closely related to the mandate of the project, which are general sublimates of the overall picture:

1. There are a number of laws that only disperse and fragment the matter, which leads to inconsistency in their implementation and thus tend to lose their overall coherence (Law on Secondary Education, Law on Higher Education, Law on Vocational Education and Training, Law on Adult Education, Law on Open Civil Universities for Lifelong Training, etc.). Hence, our considerations and recommendations are in the direction of adopting a sublimated legal regulation that would integrate all types of VET.
2. The large number of laws resulted in formation of large number of institutions and advisory bodies that cover VET, often with overlapping mandates. Hence, one can not see which of these institutions in the field has the role of coordinator and leader. Although it is assumed that this is the responsibility of the VET Centre, that should be clearly and precisely regulated in the legislation.
3. There are no precise provisions which would clearly define mechanisms and programs for financial and logistical support of VET/VSD providers by state authorities and local self-government.
4. The existing legal framework is not customized enough for the students/participants with disabilities/difficulties. There are no specific provisions that would require fulfilment of obligatory conditions so that this category of persons can take part in VET, especially fulfilment of conditions for conducting practical training in a company as well as for provision of adequate teaching and monitoring devices and textbooks.

5. There is no coordination between the relevant monitoring bodies in terms of comprehensive monitoring. This is reflected in the part for monitoring of the safety requirements during the practical training in a company, as well as in the monitoring of the quality of training.

The Analysis of the Financing of Secondary Schools showed that:

1. The total revenues of the secondary schools in the four regions in 2017 amounted to more than 1.1 billion MKD.
2. The schools are mostly financed through transfers from the central and local self-government, amounting to 96,6%, of their total revenues. The schools are also provided resources from tax revenues and other income fees which amount to 2,9%, while the other 0,5% are non-tax revenues and donations. None of the schools involved in this research have generated capital revenues in 2017.
3. Most of the funds, i.e. 65% were used for salaries and allowances for the employees (590 million MKD), 33,5 % were used for procurement of goods and services (304 million MKD), 1% for capital expenditures (almost 9 million MKD) and 0,5% were used for subsidies, transfers and interest payments (4 million MKD).

1. RESEARCH METHODOLOGY

Primary and secondary sources of information were used for the preparation of this research.

The primary sources of information are based on respondents' replies from 1) conducted semi-interviews and 2) submitted requests for access to public information to schools and municipalities.

The interviews with representatives of the key stakeholders were conducted in the period 15 September - 5 November 2018 in Skopje, Ohrid, Strumica and Tetovo, with a total of 30 representatives of secondary vocational schools, the municipalities and the City of Skopje, the Ministry of Education and Science (MES), the VET Center (VETC), the Bureau for Development of Education (BDE), the National Examination Center (NEC), the State Educational Inspectorate (SEI), the Adults Education Center (AEC), etc. When conducting the interviews, special attention was put for the interviewed person to come from higher position in their respective institutions and be authorized to present the position of their respective institution (principals, head of sectors, etc.).

In August 2018 ISIE sent requests for access to public information to 30 secondary vocational schools and 11 municipalities in the abovementioned regions for certain research aspects. A total of 27 schools replied to the requests for access to public information. Replies to the submitted requests were not received by the secondary schools "Marija Kiri Sklodovska" – Skopje, "Kiril i Metodij" - Ohrid and "Dimitar Vlahov" - Strumica. A total of 9 municipalities replied to the requests for access to public information, the municipalities of Radovish and Kichevo did not reply.

The secondary sources of information were provided through analysis of the legal framework pertaining to the vocational education and training. A total of 17 laws and 24 bylaws, norms and standards were analyzed, and also 11 strategies, program documents, reports and other documents were considered. A detailed list of sources that were part of the legal analysis is annexed to this document.

2. KEY TRENDS IN SECONDARY VOCATIONAL EDUCATION

This Chapter describes the trends in the number of regular secondary schools in the country, the total number of classes sections, students and teachers in the last five school years. It also includes specific information about the vocational education and training in the regions and in the sectors of interest for the project Education for Employment in Macedonia (E4E@mk).

A. Data for secondary education

According to the data published by the State Statistical Office, the total number of public and private secondary schools in the school year 2016/2017 (calendar year 2017) was 131, with a total of 72 482 students in 3 481 classes (21 students per class in average). The teaching process was realized by 7 533 teachers (teacher-student ratio 1:10). The number of students (regular and part-time) who completed the secondary education in 2016/2017 school year, was 21 577. Out of them 60 per cent (12 968 students) completed vocational education, 8 298 students completed general education (gymnasias), and 311 students completed arts education. The largest number of schools, classes, students and teachers are in the Skopje Region.

Structured by the ethnical affiliation in the same school year, most of the secondary school students in regular education were Macedonians, followed by Albanians, Turks, Roma, Bosniaks, Serbians and Vlachs.

B. Data for VET education in Project sectors and regions

In terms of the needs of the Education for Employment in Macedonia Project (E4E@mk), a special focus was put on vocational education and training in 4 planning regions in the country (Southeast, Southwest, Polog and Skopje region) in 7 sectors (health and social care, personal services, hospitality, agriculture, food technology, machinery and electro technical sector – IT profiles). Based on these limitations, the analysis focused on 29 schools that offer educational profiles within the sectors of interest, located in the four regions¹.

¹ There are also 3 centers/schools in the Skopje Region for students with disabilities that also offer some of the mentioned vocations, but due to the specifics of the schools and the project goals they were not taken into consideration in this analysis.

According to the data obtained from the VET Center, in the school year 2016/2017, the total number of students in respective schools included in the analysis (for all occupations/profiles) was 15 565 students in 807 classes.

Table 1. Number of VET schools, by region

REGION	NUMBER OF SCHOOLS
Southwest	7
Southeast	5
Polog	5
Skopje	12+3
TOTAL	29 +3

It is obvious that more than 40 per cent of the schools are in the Skopje Region.

Below are given the data on the number of students and classes in the schools included in the E4E@mk project. The data refer to the total number of students, or classes in these schools, for all occupations/profiles that exist in the schools.

Table 2. Students and classes in the schools included in E4E@mk in the 2016/2017 school year (total number and percentage)

REGION	STUDENTS		CLASSES	
	Total	Percentage	Total	Percentage
Southwest	3124	20%	179	22%
Southeast	3469	22%	135	17%
Polog	1472	10%	162	20%
Skopje	7500	48%	331	41%
ВКУПНО	15565	100%	807	100%

Source: VET Center Database.

Note: Data regarding SCS “Marija Kiri Sklodovska” and VET school “Mihajlo Pupin” are not included in the calculations.

From the table it can be concluded that the number of students and classes is the highest in the Skopje Region, which is consistent with the fact that most of the analyzed schools geographically belong to this planning region. However, if we compare the average number of students in a class section in each of the different regions, it can be noted that on average the largest classes are in the Southeast Region, and the average size of the class section is the lowest in the Polog Region. The number of the students per class can seriously affect the quality of the teaching process in these schools.

Table 3. Average size of classes in the schools under the E4E@mk project in the school year 2016/2017

REGION	AVERAGE SIZE OF CLASS (NUMBER OF STUDENTS PER CLASS)
Southwest	17,5
Southeast	25,7
Polog	9,1
Skopje	22,6

Source: VET Center Database.

Note: Data regarding SSCS “Marija Kiri Sklodovska” and VET school “Mihajlo Pupin” are not included in the calculations.

The secondary vocational education in the schools in the four regions is organized as four-year technical education (four-year educational program) and three-year vocational education of occupations (three-year educational program). Below is presented the gender structure of students in four-year and three-year vocational education for the respective profiles, or occupations, in the abovementioned 7 sectors.

In the analyzed year in the four-year technical education within the occupations, or profiles, in the abovementioned sectors, according to the data obtained from the VET Center, a total of 9647 students were registered - 5683 students (58 per cent) of them are male, while the share of female is 42 per cent (3864 students).

Table 4. Total number of students in the four-year technical education, by gender (in the school year 2016/2017)

REGION	MALE	FEMALE	TOTAL	PERCENT FEMALE
Southwest	911	867	1778	49%
Southeast	1628	747	2375	31%
Polog	849	98	947	10%
Skopje	1895	2252	4447	50%
TOTAL	5683	3964	9647	42%

Source: VET Center Database.

Note: Data regarding SSCS “Marija Kiri Sklodovska” and VET school “Mihajlo Pupin” are not included in the calculations.

In terms of gender representation, the female students are less represented in the vocational education of occupations (3 year VET), where 76 per cent of students were male, while only 24 per cent of the total number of students was female.

Table 5. Total number of students in the three-year vocational education for occupations, by gender (in the school year 2016/2017)

REGION	MALE	FEMALE	TOTAL	PERCENT FEMALE
Southwest	143	24	167	14%
Southeast	252	56	308	18%
Polog	186	40	226	17%
Skopje	785	308	1093	28%
TOTAL	1366	428	1794	24%

Source: VET Center Database.

Note: Data regarding SCS “Marija Kiri Sklodovska” and VET school “Mihajlo Pupin” are not included in the calculations.

In both cases (Table 4 and Table 5) the lowest percent of female students in the four-year and in the three-year vocational education are in Polog Region.

According to the analyzed data from the VET Center, a total of 58 students with disabilities/difficulties attended the technical four-years education and the vocational education of occupations. Although the share of these students in the total number is very small, it is noticeable that in relation to the total number of students, this category of students shows a relatively higher interest for the three-year education, compared to the four-year education.

Furthermore, a huge discrepancy was noted in the ratio between the number of students and teachers. Thus, the teachers in vocational subjects in the Southeast Region work on average with the largest number of students (27 students per teacher), while the teachers in the Polog Region with the lowest number of students (6 students per teacher).

3. RESULTS

This section provides a description of the situation, the effects of the functioning of the legal framework governing vocational education and training, as well as the recommendations for its improvement.

Subsequently, an analysis of the financing of secondary vocational education is provided with conclusions and recommendations.

3.1. Results from the research related to the legal framework

The legal framework on vocational education and training covers the formal and non-formal education in the country and is composed of number of regulations on different levels: A) horizontally with various legal acts, B) vertically with by-laws and C) documents for implementation and operationalization of legislative policies, such as various strategies. This part of the Report covers the main features of the secondary vocational education system through a legal prism, the key findings and recommendations. The detailed analysis of the legal framework is available in another document.

At first glance, there is a network, that is the interconnection of various legal acts, which: 1) do not comply with the time series, i.e. the newer legal regulations are not fully aligned with the older ones; 2) they are not functional, i.e. different laws contain provisions for regulating the same concepts that create duality and does not guarantee the principle of rationality (in other words, there is a recurrence); and 3) the material conformity of the regulations is not visible.

A range of earlier drafted program documents, strategies and researches find certain challenges in the legal framework that need to be overcome. The Adult Education Strategy 2016-2020, on page 17, concludes that there are "...*partial inconsistencies and overlapping of competences of different bodies and institutions that work in this sector. Frequently, the amendments to the laws are not accompanied with timely*

revision of by-laws, especially the ones that regulate the competences on national level, local level and school level, which creates contradictions and inconsistencies in the implementation of the legal provisions and slow implementation of interventions. The most obvious example of this lack of alignment can be seen in the established competences of the VET Center, BDE, AEC and SEI". Furthermore, the Strategy for Vocational Education and Training in the context of lifelong learning 2013-2020 concludes that there have been "attempts to strengthen the legislative environment of VET education". The National Employment Strategy 2016-2020 concludes that "NQF can play a crucial role in reducing the mismatch between the labor force demand and supply, by providing specific definition of the qualifications standards (with the involvement of employers)".

The initial impression shows that a number of stakeholders are included in this system that seem to strictly abide by the legal regulation applicable to them. They treat such provisions as secondary and they often avoid applying them (this was also confirmed during interviews). Although there is an overlap among different institutions and bodies, certain strategies envisage establishment of new bodies/institutions in this area.²

On the other hand, there have been delays in the establishment of the some entities envisaged in the existing legal regulations, for example the NQF Law was enacted in 2013, the National Board for MQF was established in 2015, and sector commissions in 2018.

The starting presumption of this analysis is that the basis of the entire system is the Law on Secondary Education³. This is due to two reasons: firstly, most of the so-called providers are public secondary vocational schools and secondly, most of the participants/students, in the secondary vocational education and training attend these schools and are part of the three-year and four-year secondary vocational education and other forms of VSD education and training. What is important in this part is to make a correlation between this Law and the Law on Vocational Education and Training. This analysis also includes 17 other laws and 24 by-laws, as well as strategies and other program documents⁴.

Considering the complexity of the process of implementation and organization of vocational education and training, different entities with separate roles have been included for the needs of the implementation and organization of these processes. In this direction, we can list the competent ministries and other institutions, providers, local self-government units, employers, trade unions, as well as schools, teachers and others that implement the programs at micro level.

² In this direction, in accordance with the Strategy for Vocational Education and Training in the context of Lifelong Learning 2013-2020, the establishment of the following bodies is envisaged: Council for Qualifications, Expert councils in VET, Municipal centers for human resources development planning, Council for monitoring the implementation of VET Strategy, etc.

³ Official Gazette of the Republic of Macedonia no. 44/1995, 24/1996, 34/1996, 35/1997, 82/1999, 29/2002, 40/2003, 42/2003, 67/2004, 55/2005, 113/2005, 35/2006, 30/2007, 49/2007, 81/2008, 92/2008, 33/2010, 116/2010, 156/2010, 18/2011, 42/2011, 51/2011, 6/2012, 100/2012, 24/2013, 41/2014, 116/2014, 135/2014, 10/2015, 98/2015, 145/2015, 30/2016, 127/2016, 67/2017 and 64/2018.

⁴ The analyzed sources are listed at the end of this document.

The employers have a specific role in the realization of internships, considering the fact that the internship should be mainly conducted at the employer's location, and not in schools and classrooms. In general, employers are obliged to conduct the objectives of the curricula during students' internship. This implies that the internship should be complementary to the curricula.

In terms of the institutional setup of the vocational education and training system, two ministries play a key role, namely the Ministry of Education and Science and the Ministry of Labor and Social Policy. These ministries define the national framework for vocational education and training, and coordinate and monitor its implementation. In this context, the competences of the Ministry of Education and Science are particularly emphasized in the organization of (the secondary) vocational education, curricula and teaching programs, textbooks, etc. At the local level, the local self-government plays a special role through its councils that analyze the local labor market and give proposals and directions for the local needs in the part of the enrolment policy.

The VET Center, the Bureau for Development of the Education and the Adults Education Center are specialized entities with competence to coordinate, organize, support and align the vocational education and training, as well as to draft documents for policy implementation at macro and micro level.

The legal framework envisages the establishment of national advisory and coordinative bodies (the Law on VET⁵ in article 9 - establishment of the Vocational Education and Training Council; the Law on AE in article 9 - establishment of the Adults Education Council).

The pedagogical service office established under the Law on Pedagogical Services⁶, acts upon a range of activities, which provides expert opinions, advisory activities etc., directed to the educational process, and especially the pedagogical aspects of the educational process.

Pursuant to the Law on Educational Inspection (LEI)⁷, the inspection role belongs to the State Educational Inspectorate, as well as to authorized inspectors within the municipalities and the City of Skopje, who through their supervisory and inspection competences inspect and monitor the implementation of the regulations in the vocational education and training.

Representatives of the business community are also included in the vocational education and training processes through their forms of organization, through their chambers (economic chambers and chambers of crafts). In accordance with the Law on VET, the trade unions are laterally included in this process under a provision in

⁵ Official Gazette of the Republic of Macedonia no. 71/2006, 117/2008, 148/2009, 17/2011, 24/2013, 137/2013, 41/2014, 145/2015, 55/2016 and 64/2018.

⁶ Official Gazette of the Republic of Macedonia no. 18/2011, 41/2014, 55/2016 and 64/2018).

⁷ Official Gazette of the Republic of Macedonia no. 52/2005, 81/2008, 148/2009, 57/2010, 51/2011, 24/2013, 137/2013, 164/2013, 41/2014, 33/2015, 145/2015, 30/2016 and 64/2018.

Article 12, according to which the majority trade union submits proposals for improving the conditions of the students' internship with employers. Furthermore, the trade unions play certain role in the adult's education process defined under Article 13 from the LAE⁸ (for example regarding the conditions for practical training, training programs, etc.).

The key components of the secondary vocational education system that were included within the analysis conducted and afterwards analyzed with the above-mentioned methodology are: providers, verification, program participants, contracts, employers, institutions, teaching personnel, teaching programs and curricula, textbooks, monitoring and safety at work.

Considering the organizational setup and the role of all relevant institutions, as well as the above-mentioned legal sources, key findings and recommendations were formulated and presented in Table 6.

Table 6. Key findings and recommendations for improving the legal framework

KEY FINDINGS AND RECOMMENDATIONS FOR IMPROVING THE LEGAL FRAMEWORK		
Component	Findings	Recommendations
PROVIDERS	<ul style="list-style-type: none"> The most important providers of vocational education and training are public secondary vocational schools. The scope of the other providers is small. They do not have sufficient resources. Private initiatives and private providers (where possible, in accordance with the present law) are not developed. There are no providers founded by the local self-government units, except for the secondary vocational schools. The funds allocated by the state to encourage and support providers are insignificant, and almost non-existent (except for the budget for compulsory secondary vocational education). 	<ul style="list-style-type: none"> Development of the existing vocational education and training providers and establishment of new providers by promoting the initiative among the business community and the local self-government. The law should define specific ways of supporting these entities (state aid, subsidies, relieves, tax exemptions, exemptions from payment of program verifications, investments, etc). Development of public-private partnership in the area of establishing and organizing providers. To stimulate the establishment of private secondary vocational schools. To introduce the self-assessment concept concerning the market-orientation of the offer of the formal and informal education providers in certain time periods.

⁸ Official Gazette of the Republic of Macedonia no. 7/2008, 17/2011, 51/2011, 74/2012, 41/2014, 144/2014, 146/2015, 30/2016 and 64/2018).

<p>TEACHING PROGRAMS AND CURRICULA</p>	<ul style="list-style-type: none"> • The teaching programs and curricula in general are not adapted to the labor market needs and are not adjusted to the technical and technological development with regard to the use of teaching aids and materials. • There is no strong formal connection between the creators of the teaching programs and curricula and the business community. • The concept of modernization of the technical education emphasizes the need and ways of cooperation with the business community, but the implementation is inadequate. Exceptions exist, but only spontaneous and ad-hoc solutions. • Apart from the labor market analyses performed by the Employment Service Agency, there are no other relevant analyses, particularly at local level, within the local self-government units. • In some teaching plans the volume of vocational courses and practical training is smaller compared to the general education subjects. 	<ul style="list-style-type: none"> • Part of the teaching programs and curricula are inovated, the remaining ones need to be redesigned. • The volume of the general education subjects to be reviewed and adjusted to the level needed for students in the specific sectors in vocational education. • Increase of vocational subjects, as well as increase of the scope of the practical training, and the focus to be put on the vocational subjects and practical learning.
<p>SCHOOLS AND TEACHERS' CAPACITIES</p>	<ul style="list-style-type: none"> • In accordance with the Law, the secondary vocational schools do not have large independency in the decision-making and management processes. In this context, they are strongly connected to the founder (the municipality) and the Ministry of Education and Science. • The school board as a school management body and as a link to the business community often shows to be ineffective. The representative of the business community is only a formal part of the board, and rarely participates actively in the operations and decision-making. The involvement of parents' representatives in the board through their initiatives is rarely observed. • Insufficient trainings for teachers who participate in secondary vocational education. There are almost no trainings in which teachers could directly improve their skills at the employers' (even in large industrial complexes). • Considering the specifics for managing secondary vocational schools, there are no tailor-made trainings for the management of these schools, aligned with the needs of these schools. 	<ul style="list-style-type: none"> • To increase the level/decision-making rights of schools (especially in the part of better connections with the business community). • The representative of the business community should have the right to vote in the school boards. The number of the business community representatives in the school boards should be increased (to 2 representatives). • A strategy for more active participation of parents' representatives in the school board should be created, and a students' representative should be included in the school boards as well. • Drafting a provision for the school boards in the secondary vocational schools to mandatory include representatives of professors who teach vocational subjects/practice; • It is recommendable that the founder's representatives in the school board (the local self-government or the state) are connected to the educational process (more precisely, with the secondary vocational education); • Special measures to be undertaken for the improvement of the capacity of teachers teaching vocational subjects and school management through their increased participation in trainings.

<p>STUDENTS WITH DISABILITIES</p>	<ul style="list-style-type: none"> • In general, schools and other providers do not have the capacities to respond to the needs of students with disabilities/difficulties. • The financing of this segment is particularly low. • The teaching programs and curricula are not adapted to the specifics of the students with disabilities/difficulties. Proper teaching aids for bigger participation of these students is absent. • The students with disabilities face problems in school access, access and conditions in student dormitories, availability to transport, etc. • There are no opportunities for internship at employers', tailored to the specifics of students with disabilities/difficulties that attend secondary vocational schools. • Most of the schools do not have defectologists and special assistants. • Most of the schools do not have School Inclusive team. 	<ul style="list-style-type: none"> • Introduction of precise and concrete framework for protection against discrimination of students with disabilities. Proper implementation of the concept of inclusion in the Law on Vocational Education and Training is needed. • Provisions on access for students with disabilities in the facilities for vocational education and training, the providers' facilities and the verified employers' facilities should be introduced (the fulfillment of these conditions would be the basis for obtaining verification); • Amendments to the legal provisions in the part of the compulsory obligation for preparation of customized teaching materials accommodating the students' needs. • Quality assessment of the abilities and skills of students with disabilities. • Mandatory engagement of defectologists and supporting assistants in schools/ School Inclusive teams. • A system to be strengthened for financial support of students with disabilities and other marginalized groups (for example through the Law on Students' Standard or another law).
<p>DEVELOPMENT OF POST-SECONDARY EDUCATION</p>	<ul style="list-style-type: none"> • There are no modalities that connect secondary vocational schools and other providers on one hand, and the universities and institutions for higher education and the business community in a single process of cooperation. • Universities and faculties do not use the various forms regulated under the Law on Higher Education (engineers' bureaus, workshops, center for legal and business advice, social works centers and centers for other assistance to the citizens, production and testing centers, galleries, radio and TV stations, technology parks) to offer informal vocational education 	<ul style="list-style-type: none"> • The higher education institutions to be included in the vocational education process (through formal vocational studies or informal education). • Strengthening the role of post-secondary (not tertiary) vocational education. • In order to increase the potential for vocational education development and to direct national policies, universities should use opportunities of their internal organizational units for linking practice and knowledge, where the students can participate.
<p>INFORMAL EDUCATION</p>	<ul style="list-style-type: none"> • There is no visible strong connection between the business community and the open civic universities for lifelong learning • These universities failed to better connect especially with big foreign investors. 	<ul style="list-style-type: none"> • Harmonization of the provisions in the Law on Open Civic Universities for Lifelong Learning in order to include representatives of the business community in the management boards (at least one representative). This provision can be considered for private open civic universities, given that they also perform activities of public interest.

<p style="text-align: center;">STUDENTS</p>	<ul style="list-style-type: none"> • For the most part, students are deprived of the opportunity to obtain efficient and effective internship with employer. This segment is often realized in school classrooms where the conditions are not compatible with the employers' conditions and needs and cannot be considered as a substitute for an internship with employer. • In terms of the students' rights, the existing regulations do not guarantee the right to compensation during internship with employer, nor the rights of occupational safety and health as well as the rights determined under the Labor Law (for students under 18). • The content of the contracts between students (or interns) and employers does not cover all aspects necessary for the regulation of mutual rights and obligations. • The apprenticeship as a process of acquiring skills and qualifications is basically outside the vocational education and training system. • There is no serious and organized quality control and monitoring (including inspection) over the internship with employer within the workplace itself. • There are situations where employers use students for technical tasks outside of the curricula and the goals that need to be met by the internship. 	<ul style="list-style-type: none"> • The rights of students and participants in the vocational education and training process should be better regulated with legal regulation, and the content of the contracts should be expanded and better specified. The right to compensation, as well as the rights to safety at work should be put in the focus (alignment with and implementation of the Law on Occupational Safety and Health), • including the rights defined under the Labor Law, in particular Section XXIII. • Possibilities to subsidize the interns' right to compensation should be considered in the spirit of the present Law on Craftsmanship (payment of monthly compensation by the practicing craftsman or the Budget of RM through an operational plan for active employment programs and measures of ESA, or projects and other source). • When designing the legal framework and determining the right to compensation, particular attention should be paid to the correlation to the rights resulting from unemployment. • Obligatory provisions should be included in the contract regulating the relationship between participants in the education process. It is recommended to use standardized forms. • The content and the fulfillment of the contracts in all aspects should be subject to comprehensive monitoring. A more appropriate solution for registering contracts is needed (the current solution is not sufficiently efficient and complete). • The right to absence from work due to participation in adult education program should be regulated in details, and a distinction should be made when the participants is sent to a training by an employer or under his/her own initiative. • A separate strategy should be defined for the development of craftsmanship in the context of secondary vocational education and the formalization of this type of competence acquisition. Such strategy should determine where the apprenticeship will become part of the forms under LVET or will remain at this level.
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<p>COOPERATION WITH THE BUSINESS COMMUNITY</p>	<ul style="list-style-type: none"> • There is no systemic and efficient connection between the business community and the state institutions. • There is no alignment in the planning of the potentials of the vocational education with the labor market needs. • The business community does not adequately perceive the opportunities and the importance of the cooperation with vocational schools and other providers and there is no long-term connection (for example: there is no serious system of scholarships for good students that would attract them by the potential employers). Most often, all (few) initiatives in this direction occur when the business community is forced to provide workers and they are in the form of short-term solutions. 	<ul style="list-style-type: none"> • Development and improvement of the necessary skills or qualifications of managers to recognize the advantages of internship of secondary school students in companies. • Clarification of the legal provisions that provide for the involvement of the business community in various segments of vocational education and training, including possibilities for subsidies. • Considering the limited opportunities for small and medium-sized enterprises to appear as employers in accordance with the Law on Vocational Education and Training, it is advisable to harmonize the legal framework so that these small entities could group and act together as organizers of internships in order to rationalize their resources.
<p>COOPERATION BETWEEN STATE BODIES</p>	<ul style="list-style-type: none"> • The system has a number of state institutions (ministries and other bodies and institutions) that often are not coordinated in their activities. There is an evident need of connecting/merging these institutions (number of competences are given to one or two institutions), in order to ensure coordination and efficiency of the system. • There is no coordination at local level between all stakeholders (municipalities, business community and employers, schools, students, parents, local units of ministries, etc.) • The local self-government (the municipality and the City of Skopje) is neglected; their role and importance are unjustifiably limited in favor of the central authorities. • There is also no efficient cooperation, coordination and synchronization within responsible institutions (BDE, VETC, AEC, SEI, SEC) as well as professional bodies (the councils under for Vocational Education of Adults and Vocational Education and Training), competent bodies and commissions (under the Law on Textbooks). 	<ul style="list-style-type: none"> • More efficient coordination and communication between state institution's is needed. Such system can be built by defining a special centralized body (ex. certain ministry) that will be the decision maker, as well as a single and special, efficient, competent and professional institution responsible for the vocational education and training system. • It is advisable to have a central coordination of the operational activities, which would lead to an effective dialogue between the business community and the institutions, or providers, by increasing the role of the Employment Service Agency, as well as coordination at the local level. • It is advisable to have all the registries, which are kept by different institutions on various grounds, publicly available on the websites of the institutions authorized by law to keep these registries. • Increasing the role, autonomy and competences of the VET Center (in the part of research, teaching programs and curricula, preparation of textbooks, coordination with the business community). • Review the competencies related to vocational education and training that are under the BDE.

3.2. Results regarding funding and resource allocation in formal occupational education and training

This section includes the results of the analysis of the financing in the formal vocational education and training, in the 7 sector and the 4 regions in the country. The findings are based on information from a number of sources: the revenues and expenses from the annual financial reports of the schools, the answers to the questions in the questionnaires on the situation in the schools regarding resources and resource allocation, information from the local self-government units and the City of Skopje, as well as information from the conducted interviews

A. Revenues and expenses of schools

A.1. Revenues

The analysis of the revenues of the secondary schools included an analysis of the data on the financial performance of schools provided in the annual financial reports. The analysis of revenues by regions showed that:

- The total revenues of schools in 2017 were more than 1.1 billion MKD.
- Schools are mostly financed through transfers from other levels of government (central and local government) with almost 97 per cent of the total revenues in the schools.
- The schools almost did not have non-tax revenues and did not have capital revenues in 2017.

Table 7. Revenues structure of VET schools (in MKD)

REVENUE	Southwest Region	Southeast Region	Polog Region	Skopje Region	TOTAL
Fees	1.015.800	2.322.565	13.006.779	16.659.292	33.004.436
Other non-tax revenues	124.487		407.221	174.920	706.628
Transfers from other levels of government	69.524.675	77.360.684	248.540.365	723.529.189	1.118.954.913
Donations from abroad	578.384		1.726.525	2.927.546	5.232.455
Current donations				20.000	20.000
TOTAL	71.243.346	79.683.249	263.680.890	743.310.947	1.157.918.432

Source: Financial statements of VET schools in 2017.

A.2. Expenses

The analysis of the expenses was based on the purpose the funds of the secondary vocational schools were used for. The data were collected from the balance of the income and expenditures in financial statements. Basically, expenses were organized in five categories, grouped identically as in the Income statement. Thus, the category “salaries and allowances” includes salaries, benefits and all other contributions paid to the employees of the school. The “goods and services” item includes expenses for traveling and daily expenses, public utilities, heating, communication and transport, materials and fixtures and fittings, repairs and ongoing maintenance, contractual services, temporary employment and other current expenses. “interest costs” include interest payments to non-resident creditors, national creditors and other levels of government. The subsidies for public and private enterprises and the transfers to non-governmental organizations are included under the category “subsidies and transfers”. The last category “capital expenses”, includes expenses for the purchase of equipment and machinery, construction facilities, furniture, vehicles, etc.

The table below shows the total expenses of the schools for each of these categories separately, grouped by region. The data refer to 2017.

Table 8. Structure of expenses of VET schools (in MKD)

EXPENSES	Southwest region	Southeast region	Polog region	Skopje region	TOTAL
Salaries and allowances	86.023.050	44.393.665	198.449.310	261.537.255	590.403.280
Goods and services	18.959.009	33.243.437	131.915.736	120.231.544	304.349.726
Interest costs	0	0	250.791	14.050	264.841
Subsidies and transfers	2.306.742	0	677.095	810.660	3.794.497
Capital expenses	137.373	0	353.368	8.412.970	8.903.711

Source: Financial statements of VET schools in 2017.

If the expenses structure is closely analyzed, it can be noted that in all four analyzed regions, schools spent most of their funds on salaries and allowances for employees (65 per cent). The share of expenses for procurement of goods and services is high as well (33,5 per cent). The capital expenses are less than 1 per cent of the total amount of expenses. Below are the amounts of total expenses and revenues per student for the four regions.

Table 9. Total revenues and expense per student in 2017, by region in MKD

REGION	Number of students	Total expenses	Total revenues	Expenses per student	Revenues per student
Southwest	3124	214.714.975	72.383.633	68.731	23.170
Southeast	3469	155.274.204	82.005.814	44.761	23.640
Polog	1472	662.939.232	277.094.890	450.366	188.244
Skopje	7500	773.599.988	760.145.159	103.147	101.353
TOTAL	15565	1.806.528.399	1.191.629.496	116.064	76.558

A.3. Donations

The Law on Secondary Education includes a possibility for public secondary schools to acquire funds in other ways than through subsidies from the ministry. One of the most important proactive mechanisms in order to encourage social responsibility is the donation. The research showed that an one third of the total number of schools included in the study received donations in 2017; one third of schools that did not receive donations; and one third of school did not submit answers to this question. The total amount of donated funds to schools in 2017 is MKD 23,043,838, and the table 10 contains the allocations by regions.

Table 10. Donations in 2017 by regions

REGION	Total amount of donations received by schools (in MKD)
Southwest	0
Southeast	0
Polog	4.870.117
Skopje	18.173.721
TOTAL	23.043.838

Source: Responses received to the request for free access to public information

Most often, the Ministry of Education and Science and the City of Skopje also appear as donors, and sporadically associations of citizens and private companies. Part of the secondary schools in the selected regions received donation in 2017 from the Chinese government, mostly in the form of IT and computer equipment.

A.4. Equipment of classrooms for vocational subjects and practical training

The next question related to allocation of financial resources to secondary vocational schools refers to the procurement of teaching and educational means in the classrooms for vocational subjects and for the needs of practical training. Two information was requested for this part: 1) the amount of funds the school spent for procurement of machines/equipment/materials or any teaching or instructional means for the classrooms for vocational subjects and practical training in 2017, by occupation, and 2) the value of the machines/equipment/materials, or all teaching and instructional means for the classrooms for practical training that the school possesses, 2017 inclusive⁹.

Out of the total number of schools included in the study, 18 schools (60 per cent) replied to the first question. Out of them, 11 schools replied for allocated funds for this purpose in 2017, while the remaining 7 schools, for various reasons, did not allocate funds for procurement of new teaching and instructional means. The total amount of allocated funds for this purpose is MKD 8,321,372.

Table 11. Expenses for procurement of machines/equipment/materials, or teaching and instructional means for classrooms for vocational subjects and student practical training

SECTOR	TOTAL EXPENSE (IN MKD)
Agriculture	0
Electro technical (IT sector)	2.792.795
Machinery	107.985
Personal services	211.359
Food technology	415.907
Health and social care	587.188
Hospitality	0

Source: Responses received to the request for free access to public information

The analysis by sectors (occupations) shows that the highest total amount of funds spent on procurement of machines/equipment/materials or any teaching and instructional means for the classrooms for vocational subjects and practical student training in 2017, is in the electrotechnical schools (including IT profiles), while schools in the field of agriculture and hospitality did not allocate any funds in 2017 for this purpose.

Besides in sectors, this obvious disproportion can be noticed in the regional structure as well. Thus, the highest amounts for the abovementioned need are allocated by the schools in the Skopje region, and none of the schools in the Southwest planning region that answered to this question, allocated funds.

⁹ The schools were asked to submit a list of machines/equipment/materials or teaching and instructional means for the schoolrooms for practice that the schools own as of 2017, as well as a separate list of the means procured only in 2017 (for the whole school and per department). We received answers from 15 schools, however the data were incomplete, non-standardized or imprecise, and therefore there was no possibility to compare and make conclusions regarding the vocations and regions.

Table 12. Expenses for procurement of machines/equipment/materials, or any teaching and instructional means for the classrooms for vocational subjects and practical training in 2017, by region

REGION	TOTAL AMOUNT (IN MKD)
Skopje	8.213.919
Southwest	0
Southeast	51.931
Polog	55.522

Source: Responses received to the request for free access to public information

The following table shows the value of the machines, equipment, materials and other teaching and instructional means for the classrooms for practice school owns, as of 2017, by occupation. The obvious imbalance between the situations in different occupations can be noticed in this table.

Table 13. Value of machinery, equipment, materials, or all other teaching and instructional means for the classrooms for practical student training the school owns 2017 inclusive.

SECTOR	VALUE
Agriculture	0
Health and social care	855.264
Personal services	286.694
Hospitality	165.580
Electro technical (IT profiles)	987.760
Machinery	10.231.826
Food processing	387.585
Total	12.914.709

Source: Responses received to the request for free access to public information

A.5. Funding for trainings

One of the basic prerequisites for quality secondary vocational education is continuous investment in education and knowledge-upgrade of the existing teaching personnel. The trainings of the teaching personnel are an important form of investment in human capital in this area and provide continuous innovation and modernization of the educational process. The study showed that in 2017 only 11 of the schools in the selected 4 regions allocated funds for organizing or including the teaching personnel to training, 10 schools reported that they had not allocated funds for this purpose, the rest of the schools did not answer the question.

Based on the data received from the schools, it was calculated that the total amount of allocated funds for this purpose in 2017 was MKD 1.515.266. The distribution of allocated funds by region is interesting as well: the leader in this category is the Skopje Region again, where the schools allocated a total of MKD 1.429.035 to organize or include the teaching personnel to training.

Table 14. Expenses for organizing or including teaching personnel to training in 2017

REGION	TOTAL EXPENSES (IN MKD)
Skopje	1.429.035
Southwest	0
Southeast	47.280
Polog	38.951

Source: Responses received to the request for free access to public information

On the other hand, an important segment in the provision of quality VET education is the organization of internship. Namely, schools by investing resources in organizing internship with employer can greatly improve the opportunities for students to be able to quickly and easily overcome the entry barriers of the occupation, and thus be more effectively prepared for the needs of the labor market.

However, the responses received to the request for free access to public information showed that a small part of the secondary vocational schools allocate funds for this purpose.

Table 15. Number of schools that spent funds to organize internship with employer in 2017

INTERNSHIP WITH EMPLOYER	NUMBER OF SCHOOLS
Schools has spent funds	3
School has not spent funds	17
School has not answered	10

Source: Responses received to the request for free access to public information

The total amount of spent funds in 2017 was MKD 34.958; MKD 23.444 were spent by SSCS 8-mi Septemvri in Skopje, whereas SSCS Vlado Tasevski spent a total of MKD 11.614; SMVS Ilinden replied that funds had been allocated for transport related to organization of internship at employer's location, however there was no precise information about the amount of these funds.

In this direction, the schools were asked whether and how much they spent on the employees (teaching and non-teaching personnel) involved in vocational training with an employer in 2017. The distribution of answers to this question is similar to the previous question. Namely, only 2 schools out of 30 replied affirmatively to this question. SSCS Brakja Miladinovci from Skopje had allocated MKD 163.700 for this purpose, whereas SMVS Ilinden answered that it had allocated funds for transport to the place of employer, but without specific information about the total costs.

Table 16. Funds for school employees involved in vocational training with an employer in 2017

FUNDS	NUMBER OF SCHOOLS
Schools has spent funds	2
School has not spent funds	18
School has not answered	10

Source: Responses received to the request for free access to public information

A.6. Costs borne by students or parents

Regarding the last question in this section, about the amount of the costs borne by students, or parents, in 2017/2018 for insurance (for some profiles a special type of insurance), medical examinations, equipment, uniforms, travel expenses of the student to the company where the training is held, most of the schools replied that they did not have such information.

Table 17: Recommendations on revenues and expenses of schools

REVENUES AND EXPENSES OF SCHOOLS
Recommendations
<ul style="list-style-type: none"> • The total revenue of the schools in the four regions is almost 1,16 billion MKD. There are obvious differences in the total revenues of schools by regions. Almost all school revenues (more than 96%) are transfers from other levels of government. The share of non-tax revenues is insignificant. • The regional disproportions in the provision of funds for formal vocational education and training need to be overcome in order to ensure quality education. • The schools need to be encouraged to seek and create alternative sources of funding and increase their own revenues. • The share of unproductive expenses to be reduced. • To encourage the increase of capital expenses, in particular the procurement of equipment and machinery for the classrooms for practical teaching. • Donations as practice should be encouraged, a more proactive approach (and training as well) from schools to find alternative sources of funding is needed. • The awareness of the need for corporate social responsibility and donations from companies should be raised. • Schools should allocate more funds to finance internship with an employer. • Schools should allocate more funds for the organization or participation of the teaching personnel to trainings.

B. Legal framework for Funding and Subsidizing

The research also covered an analysis of the legal framework for funding and subsidizing secondary vocational education. This analysis is related to the regulations on budgeting public institutions involved in the process of vocational education and training (formal and informal).

In accordance with the Law on Secondary Education¹⁰, funding secondary schools may be done through the budget (through public funds), with additional funds allocated in the local self-government (the founder of the school) and through own funds that schools earn while performing their activities. In accordance with Article 101 from the Law on Secondary Education, the budgeting funds for the public secondary education shall be provided from the Budget of RM, in a manner and according to a procedure determined with the Law on Budgets of the Republic of Macedonia, the Law on execution of the Budget of the Republic of Macedonia, and the Law on financing the local self-government units. These funds shall be allocated to the municipalities by way of block-subsidies and earmarked subsidies, in accordance with the Decree on methodology on establishment of the criteria for allocation of funds and the Decree on the methodology on distribution of capital and earmarked subsidies as determined by the Law on financing the local self-government units. These decrees regulate the distribution of funds from the block-subsidy and the earmarked subsidy, which is performed base on a formula and according to the phases for fiscal decentralizations determined with the Law on financing the local self-government units.

The Formula for distribution of the funds is derived primarily from the number of students in secondary schools in the relevant area. The following objective factors may influence the derivation of the formula: age of students, the occupation and curricula realized in the school, the type of school facility, location of the school, etc. In addition, according to article 101-a the municipality may complement the received block subsidy, i.e. earmarked subsidy for education, by means from its own sources, except for the salaries of the schools' employees. According to Article 103 from the Law on Secondary Education, i.e. educational facilities for adults may obtain funds from provision of educational services to citizens, which are not determined as needs and interests of the State, and the State does not provide funds for such purposes.

According to Article 104, public schools may also obtain funds from the following: participation fee for service beneficiaries; sale of goods and services as a result of performance of main activity; trade companies, public enterprises, institutions and bodies of the State administration which implement practical training for students; projects approved by the Minister; interest based proceeds and dividends from funds placed on the market; legates, gifts, wills and other sources. Such funds shall be intended for promotion, modernization and development of the activity of

¹⁰ Law on Secondary Education (Official Gazette of the Republic of Macedonia No. 44/1995, 24/1996, 34/1996, 35/1997, 82/1999, 29/2002, 40/2003, 42/2003, 67/2004, 55/2005, 113/2005, 35/2006, 30/2007, 49/2007, 81/2008, 92/2008, 33/2010, 116/2010, 156/2010, 18/2011, 42/2011, 51/2011, 6/2012, 100/2012, 24/2013, 41/2014, 116/2014, 135/2014, 10/2015, 98/2015, 145/2015, 30/2016, 127/2016, 67/2017 and 64/2018).

public schools, for which they will report to the Ministry, i.e. the competent body of the local self-government units. The manner of obtaining and distribution of own funds shall be regulated by the Minister, upon proposal from the BDE and the VET Center. Accordingly, it should be emphasized that the Rulebook on the manner of obtaining and distribution of the funds in the public schools No. 20-17268/1 as of 30.12.2016, i.e. Article 6 of this Rulebook contains the methodology for distribution of the funds. Article 6 (related to the activities of the project) includes the part of the funds in the amount of 40% which may be used for the following: Procurement of equipment, tools and machinery for practical education; procurement of materials for implementation of practical education; maintenance of the premises and classrooms for performing theoretical and practical education; maintenance of the existing equipment in the school; procurement of means of protection at work for the students and teachers - instructors; training and vocational enhancement of teachers; practical training of students with other partner schools in the country and abroad, and visiting companies, fairs, seminars, forums and conferences of students and teachers in function of the vocation in the country and abroad.

The Law on Adult Education¹¹ regulates the issue of financing adult education with a special chapter. According to Article 29 of this Law, funds for financing and promotion of adult education are provided with the Budget of RM, the budgets of the local self-government units (public funds), from participants in adult education and other sources determined by law. Article 30 defines the costs funded by the Budget, as follows: costs for implementation of programs for the mandatory adult education, costs for implementation of the programs for secondary adult education for persons who have completed only primary education, i.e. other programs, operating maintenance of the adult education facilities which have been established by the State, and the costs for monitoring and development of adult education.

The budgets of the local self-government units shall provide funds for the following: costs related to the implementation of the programs in the facilities for adult education established by the local self-government unit, ongoing maintenance of the adult education facilities established by the local self-government unit and investments in the adult education facilities established by the local self-government units. The Budget of RM and the budgets of the local self-government units may approve funds for the following: equipping the facilities with means of education and other means – development and implementation of innovative programs for adult education. The budget funds, as determined by Article 30, paragraph 1, lines 1 and 2 from the Law, are allocated to institutions, i.e. adult education facilities, based on a public call announced by the AE Center. The budget funds from the local self-government units, as determined by Article 31, paragraph 1, line 1 and from the Law, are allocated to institutions, i.e. adult education facilities, based on a public call announced by the local self-government unit.

Article 16 of the Law on Open Civil Universities for Lifelong Learning¹² prescribes

¹¹ ("Official Gazette of the Republic of Macedonia" No. 7/2008, 17/2011, 51/2011, 74/2012, 41/2014, 144/2014, 146/2015, 30/2016 and 64/2018).

¹² ("Official Gazette of the Republic of Macedonia" No. 36/2011, 41/2014, 145/2015, 55/2016 and 64/2018).

that the funds for open civil universities for lifelong learning may be provided by own revenues from performing services, by the founder of the institutions, from the Budget of the Republic of Macedonia, as well as from legates, donations and gifts, and from other sources. It seems that this segment, in different regulations contains provisions on state aid, however, it has neither been defined in detail, nor it contains rule for mandatory action by the state institutions. According to Article 15 from the Law on vocational education and training, the employer is entitled to financial, customs, and tax subsidies as regulated by law. According to Article 47 from Law on craftsmen, it is prescribed that funds for the monthly fee determined for the apprentice shall be provided by the performer of the craftsmanship work or from the Budget of RM, through an operating plan for active employment programs and measures of the ESA, or through projects and other sources.

The conducted interviews related to funding of the secondary vocational education identified several important tendencies and positions.

As expected, the main remark in the segment of funding was that *not enough funds are allocated*. The biggest identified problem was insufficient level of equipment and obsolete equipment in the schools, as well as limited investments in the secondary vocational education. In the segment of functioning of secondary vocational education, it is important to emphasize that secondary vocational schools encounter problems related to provision of equipment for the needs of the educational process (*obsolete equipment costs a lot*). There were several concrete proposals – such as, projecting items in the State budget to equip laboratories.

The conversations during the interviews presented a general position that *schools face challenges in provision of adequate teaching professionals*. For example, it is impossible for schools with curricula, which include subjects *related to IT to attract adequate professionals (such as lectures for AutoCAD programming), considering the fact that such profiles in other sectors earn several times more than the salaries in the secondary education*.

In addition, insurance of students in practical training has not been regulated in several municipalities, which poses a challenge for the labor inspectorate in the realization of practical education.

An interesting tendency with secondary schools is also visible as regards availability of their own revenues. Part of the schools have their own revenues, part of them do not. Schools with their own revenues (several schools in Project regions) *most of them have employees in additional sectors where the school is implementing its activities, and they face challenges with the distribution of the funds from their own revenues, as well as with the employment and engagement of new employees*. On the one hand, it

should be pointed out that several schools have implemented good practices – for example, one school has a driving school, auto mechanic shop, brokerage company (ASUC “Boro Petrusevski”) etc. On the other hand, there are examples for schools which have lost essential resources for their work as a result of external circumstances (for example, the School for agriculture in Strumica lost their agricultural land by an Act of the State). In this context, target of criticism is also the Rulebook on the manner of acquisition and distribution of funds in the public schools.

The current funding conditions are most obvious in the data that part of the schools included in this research had their accounts blocked, and a special challenge is the issue of the small number of students per class, which additionally increases the costs.

Within the conducted interviews, in the segment of funding, it was stated that the provisions on financing and subsidies are too general and lacking criteria, i.e. the secondary vocational education should have higher coefficients considering the costs thereof. Furthermore, there is a lack of a monitoring system for the distributions/spending of the funds from the block subsidies for schools, especially in context of funds intended for persons with disabilities.

Table 18: Recommendations on financing and subsidizing

FINANCING AND SUBSIDIZING
Recommendations
<ul style="list-style-type: none"> • Promote organization of activities which shall provide for own sources of funds for the schools, by reasonable financing of the work of teachers (reviewing the methodology of the Rulebook on the Manner of acquiring and distribution of funds by public schools). • Concrete measures prescribed with Article 15 from the Law on vocational education and training, through precisely defined plans and programming, as well as introducing others as an example "active measures" for compensating students involved in practical training, • Encouraging employers to support and donate recourses to schools. • Increasing the funds initially allocated by the local self-government units, outside block subsidies and earmarked subsidies. • Allocation of specific/additional earmarked funds for students with special educational needs.

C. Resources for organization of the educational process

A number of research questions were included regarding the educational process in secondary schools. The organization of the educational process largely depends on the scope and quality of the resources the school has on its disposal. In this context, this part of the analysis includes an analysis of the material and human resources of schools and mobility thereof.

C.1. Teaching and non-teaching personnel

Data on teaching and non-teaching personnel in secondary vocational schools in the Southeast, Southwest, Polog and Skopje Region, show that the total number of employees in the schools is 2.789 people ; 81 per cent of them are teaching personnel, while the remaining 19 per cent are non-teaching personnel. The highest share of employees in vocational schools is in the Skopje region.

Table 19. Teaching and non-teaching personnel in secondary vocational schools by region (2016/2017)

REGION	Teaching personnel	Non-teaching Personnel	TOTAL
Southwest	465	99	564
Southeast	321	75	396
Polog	590	106	696
Skopje	873	260	1133
TOTAL	2249	540	2789

Source: Ministry of education and science of RM.

However, in order to make more precise comparison between the regions, the number of teaching and non-teaching personnel was enumerated per the number of schools in the region, as well as the number of students in the schools. The results obtained are presented in table 20.

Table 20. Teaching and non-teaching personnel in secondary vocational schools by school and by student (the school year 2016/2017)

REGION	Teaching personnel per school	Non-teaching personnel per school	Teaching personnel per student	Non-teaching personnel per school
Southwest	66.4	14.1	0.11	0.02
Southeast	64.2	15.0	0.09	0.02
Polog	118	21.5	0.11	0.02
Skopje	62.4	18.6	0.1	0.03
AVERAGE	72.5	17.4	0.1	0.02

Source: Ministry of education and science of RM.

It can be noted that the only region with a drastically higher number of teaching and non-teaching personnel is the Polog region, where on average there are 118 teachers in one school and 21.5 persons are non-teaching personnel. If the number of teaching and non-teaching personnel is compared to the number of students in the respective region, it can be noticed that in the Southwest and Polog regions there are 11 teachers on 100 students; 10 teachers in the Skopje region, and 9 teachers work with 100 students in the Southeast region. The highest number of non-teaching personnel per student is in the Skopje region (3 on 100 students).

It is interesting to present these data as a number of students with which one teacher works in average in each region. Compared in such way, the data show that the teachers in the Polog and the Southwest region, on average work with 9 students, teachers in the Skopje region with 10 students, while in the Southeast region this ratio is 11 students per teacher. On average, one teacher in the specified regions and sectors works with 10 students.

C.2. Training of teaching personnel

The educational process is closely connected with continuous investment in improving the knowledge and skills of the teaching personnel who teaches at secondary schools. For this reason, information from each school was requested separately for the total number of teachers and the number of teachers in vocational subjects and practice who attended training in 2017/2018. Based on the answers received the following results were calculated:

Table 21. Number of teachers who attended training in 2017/2018

REGION	Total number of teachers who attended training	Number of teachers in vocational subjects who attended training
Southwest	216	150
Southeast	91	N/A
Polog	N/A	33
Skopje	357	218
TOTAL	664	401

Source: Responses received to the request for free access to public information

In terms of the total number of teachers working in schools in the four planning regions, we concluded that 29.5 per cent of the total number of teachers attended training in 2017/2018. Almost twice as high is the participation at trainings of teachers in vocational subjects and practice (58.5 per cent in relation to the total number of teachers in vocational subjects).

C.3. Realization of internship

An important segment of the educational process is the organization and implementation of internship. The study includes information of the implementation of internship in the technical (four-year) education and in the vocational education of occupations (three-year education). The tables below provide information on the number of students who completed practical training in 2017/2018 in all sectors and profiles in four Project regions.

Table 22. Internship in technical (four-year) education in secondary vocational schools (2017/2018 school year)

REGION	Total number of students who completed practical training at employer	Total number of students who completed practical training in school premises	Total number of students who completed summer (ferial) practical training	Total number of students who completed professional training
Southwest	2352	100	992	138
Southeast	1576	124	718	211
Polog	3294	38	2277	104
Skopje	5482	291	2671	274
TOTAL	12704	553	6658	727

Source: VET Center.

Table 23. Internship in vocational education of occupations (three-year) in secondary vocational schools (2017/2018 school year)

REGION	Total number of students who completed practical training at employer	Total number of students who completed practical training in school premises	Total number of students who completed summer (ferial) practical training	Total number of students who completed professional training
Southwest	105	141	105	52
Southeast	132	144	128	0
Polog	223	105	216	30
Skopje	888	1061	931	69
TOTAL	1258	1451	1380	151

Source: VET Center.

C.4. Success rate in completing the school year

Although the schools were asked for data on the number of students who failed to complete the previous school year within the stipulated deadline, pursuant to the law, for each occupation separately and by teaching year (first, second, third, fourth), the received answers referred to the school in general. So, based on the data thus obtained, it was calculated that a total of 152 students did not manage to complete the school year within the determined deadline, and most of them – round 140 students are from the Skopje region. Nevertheless, if we compare these data with the total number of students by region, we come to the conclusion that almost all students in the vocational schools manage to complete the year within the legally determined time limit.

Table 24. Number of students who failed to complete the school year

REGION	NUMBER OF STUDENTS
Southwest	6
Southeast	4
Polog	2
Skopje	140
TOTAL	152

Source: Responses received to the request for free access to public information

C.5. International mobility

In terms of international connections of secondary vocational schools, two aspects were examined: whether the students attended internship with employer(s) in a company(ies) with dominantly foreign capital in the 2017/2018 school year, and whether the school had applied and implemented programs for international mobility of students and teachers in 2017/2018.

Regarding the first question we received answers only from 16 schools. In addition, the reply from 11 of these schools was that their students had not attended training with employer in a company with dominantly foreign capital.

Table 25. Number of students who attended internship with an employer-company with dominantly foreign capital in the 2017/2018 school year, by region

REGION	NUMBER OF STUDENTS
Southwest	17
Southeast	0
Polog	196
Skopje	52
TOTAL	265

Source: Responses received to the request for free access to public information

A total of 19 replies from schools were received on the second question regarding international mobility. Schools mostly apply for the Erasmus+ mobility program. Only 8 schools of them have implemented programs for international mobility of students and teachers in 2017/2018.

Table 26. Number of schools that have applied to programs for international mobility of students and teachers, by region

REGION	NUMBER OF SCHOOLS
Southwest	6
Southeast	2
Polog	1
Skopje	10
TOTAL	19

Source: Responses received to the request for free access to public information

Table 27: Recommendations on resources for realization of the educational process

RESOURCES FOR ORGANIZATION OF THE EDUCATIONAL PROCESS
RECOMMENDATIONS
<ul style="list-style-type: none"> • The regional disparities in the teaching and non-teaching personnel by school and student should be reduced, so that an equal access to education could be ensured for students from different regions and occupations. • More than 40 per cent of teachers in vocational subjects and internship did not attend training in 2017. It is necessary to increase the participation of teaching personnel, especially teachers in vocational subjects and practice, in training for further improvement of the knowledge and skills of the teachers. • International mobility in secondary education should be encouraged, i.e. the schools should be stimulated to apply and implement international mobility programs for students and teachers and to increase the number of students who attend internship with employers in companies with dominant foreign capital.

D. Financing of the vocational education by local self-government units

This part of the research focuses on the financing of public secondary education by the local self-government units. The main research tool used in this part was the requests for free access to public information which was sent to municipalities from the Polog, Southeast and Southwest regions and the city of Skopje. The requests were identical for each local self-government unit and included questions referring to the financing of secondary education. The City of Skopje and the municipalities of Ilinden, Tetovo, Strumica, Gevgelija, Valandovo, Makedonski Brod, Ohrid and Struga responded to the questions, while there was no reply from the municipalities of Radovish and Kichevo.

The results of the conducted research show that the main sources of funding for secondary education, including vocational education, are subsidies. Subsidies are funds allocated by the state to organizations or enterprises to cover regular expenses or for other purposes. The amounts of the subsidies are determined under the Decree on methodology on establishment of the criteria for allocation of earmarked subsidies for secondary education per municipality and the City of Skopje for 2017¹³. Basically, the amount of the total subsidies from the municipalities to

¹³ Available at: <http://www.slvesnik.com.mk/Issues/3b8be53e03d949a3b67dfce77ae975b8.pdf>

the secondary schools depends primarily on the number of students in the secondary schools in their area, and on other objective factors: the students' age, the plan and the programs that are realized in the schools, the type of school facility, the school location, etc. The highest amount of subsidies has been allocated by the City of Skopje in which there are a total of 30 public secondary schools, while the lowest amount of subsidies has been allocated by the municipality of Ilinden with only one school in its territory.

Table 28. Total amount of subsidies from municipalities for secondary schools in 2017 in Project regions

MUNICIPALITY	REGION	TOTAL AMOUNT OF SUBSIDIES (IN MKD)
City of Skopje	Skopje	1.071.988.575
Ilinden	Skopje	16.645.000
Tetovo	Polog	420.571.000
Strumica	Southeast	188.068.825
Radovish	Southeast	43.747.000
Gevgelija	Southeast	51.897.000
Valandovo	Southeast	19.630.000
Makedonski Brod	Southwest	17.058.000
Ohrid	Southwest	119.100.000
Struga	Southwest	129.000.000
Kichevo	Southwest	99.503.000
TOTAL		2.177.208.400

Source: Responses received to the request for free access to public information sent to the local governments units and data obtained from Ministry of education and science

Apart from subsidies, the Law on Secondary Education envisages the possibility for secondary schools to provide financial means in other ways as well, such as the participation fees of service users, the sale of products and services resulting from the performance of the primary activity, funds from companies, public enterprises, state administration bodies and institutions in which internship for students is carried out, projects approved by the minister, interest payments and dividends, gifts, legacies, heritage etc. (Article 104). The Law does not exclude the possibility for secondary schools to receive donations and for the municipalities to appear in the capacity of donors. The practice in this area shows that five out of the ten municipalities included in the research have donated funds to public schools in the given municipality. Below is information on the donor municipalities and the total amount of funds donated in 2017.

Table 29. Total amount of donations from municipalities to public secondary schools in the municipality in 2017

MUNICIPALITY	REGION	TOTAL AMOUNT OF DONATIONS FROM LOCAL SELF GOVERNMENT (IN MKD)
Skopje	Skopje	11.202.553
Ilinden	Skopje	814.836
Strumica	Southeast	99.600
Ohrid	Southwest	89.350
Struga	Southwest	135.900
TOTAL		12.342.239

Source: Responses received to the request for free access to public information

Regarding the questions related to processes in secondary education that support inclusiveness, we did not receive encouraging answers.

Namely, only the municipality of Strumica out of all 10 municipalities responded that in 2017 allocated and spent a total of MKD 62.000 for secondary education for children with disabilities; the only municipality that allocated and spent funds for secondary education of Roma children in 2017 was municipality of Ilinden, which helped a total of 3 Roma students; the only municipality that allocated and spent funds for secondary education for children with unfavorable social status in 2017 is the municipality of Ohrid which allocated MKD 216.000.

The analysis of the answers received through the requests for free access showed that 44 per cent of the municipalities that replied to this question have rulebooks or other documents that regulate the amount or purpose of financial resources for secondary vocational education. Thus, the City of Skopje has adopted a Methodology for allocation of subsidies in the secondary education in the City of Skopje, the Municipality of Tetovo has a Decision of the Municipal Council, the Municipality of Ohrid has a Methodology for allocation of subsidies for primary and secondary education in the Municipality of Ohrid (2012 and 2018), whereas the Municipality of Struga adopted a Decision on determining the criteria for allocation of subsidies for secondary education.

All the municipalities that responded to the request for free access to public information replied affirmatively to the question whether they had submitted a proposal to the Ministry of Education and Science for the required number of classes, or students by vocation for the 2017/2018 school year.

Table 30. Recommendations on financing vocational education by local self-government units

FINANCING OF THE VOCATIONAL EDUCATION BY THE LOCAL SELF-GOVERNMENT UNITS	
RECOMMENDATIONS	
•	The municipalities should establish better connections with the schools and the business community within their territories and identify their real needs for a consistent implementation of the educational process.
•	It is necessary to develop additional acts that would regulate the process of financing formal vocational education and training by the municipalities, taking into account the specific features of the occupations.



REFERENCES

LAWS

1. Law on Secondary Education („Official Gazette of the Republic of Macedonia“ no. 44/1995, 24/1996, 34/1996, 35/1997, 82/1999, 29/2002, 40/2003, 42/2003, 67/2004, 55/2005, 113/2005, 35/2006, 30/2007, 49/2007, 81/2008, 92/2008, 33/2010, 116/2010, 156/2010, 18/2011, 42/2011, 51/2011, 6/2012, 100/2012, 24/2013, 41/2014, 116/2014, 135/2014, 10/2015, 98/2015, 145/2015, 30/2016, 127/2016, 67/2017 and 64/2018).
2. Law on Vocational Education and Training („Official Gazette of the Republic of Macedonia“ no. 71/2006, 117/2008, 148/2009, 17/2011, 24/2013, 137/2013, 41/2014, 145/2015, 55/2016 and 64/2018)
3. Law on Higher Education („Official Gazette of the Republic of Macedonia“ no. 82/2018)
4. Law on institutions („Official Gazette of the Republic of Macedonia“ no.32/2005; 120/2005 and 51/2011)
5. Law on National Qualification Framework („Official Gazette of the Republic of Macedonia“ no. 137/2013 and 30/2016)
6. Law on the Bureau for Development of Education („Official Gazette of the Republic of Macedonia“ no. 37/2006; 142/2008; 148/2009; 69/2013; 120/2013; 148/2013; 41/2014; 30/2016 and 64/2018)
7. Law on the National Examination Centre („Official Gazette of the Republic of Macedonia“ no.142/2008; 148/2009; 41/2014; 55/2016; 142/2016 and 64/2018)
8. Law on Open Civil Universities for Life-Long Learning („Official Gazette of the Republic of Macedonia“ no. 36/2011, 41/2014, 145/2015, 55/2016 and 64/2018)
9. Law on Safety at the Workplace („Official Gazette of the Republic of Macedonia“ no. 92/2007, 136/2011, 23/2013, 25/2013, 137/2013, 164/2013, 158/2014, 15/2015, 129/2015, 192/2015 and 30/2016)
10. Law on Adult Education („Official Gazette of the Republic of Macedonia“ no. 7/2008, 17/2011, 51/2011, 74/2012, 41/2014, 144/2014, 146/2015, 30/2016 and 64/2018).
11. Law on Pedagogical Service („Official Gazette of the Republic of Macedonia“ no. 18/2011, 41/2014, 55/2016 and 64/2018)

12. Law on Employment Relations („Official Gazette of the Republic of Macedonia“ no. 62/2005, 106/2008, 161/2008, 114/2009, 130/2009, 149/2009, 50/2010, 52/2010, 124/2010, 47/2011, 11/2012, 39/2012, 13/2013, 25/2013, 170/2013, 187/2013, 113/2014, 20/2015, 33/2015, 72/2015, 129/2015, 27/2016 and 120/2018).
13. Law on Primary and Secondary Education Textbooks („Official Gazette of the Republic of Macedonia“ no. 98/2008, 99/2009, 83/2010, 36/2011, 135/2011, 46/2012, 24/2013, 120/2013, 29/2014, 146/2015, 217/2015, 30/2016 and 21/2018)
14. Law on Craftsmanship („Official Gazette of the Republic of Macedonia“ no. 215/2015
15. Law on Chambers of Commerce („ Official Gazette of the Republic of Macedonia“ no.54/2002 and 84/2005
16. Law on Education Inspection („Official Gazette of the Republic of Macedonia“ no. 52/2005 81/2008, 148/2009, 57/2010, 51/2011, 24/2013, 137/2013, 164/2013, 41/2014, 33/2015, 145/2015, 30/2016 and 64/2018)
17. Law on Teachers in Primary and Secondary Schools („Official Gazette of the Republic of Macedonia“ no.10/2015, 145/2015, 30/2016, 127/2016 and 67/2017)

STRATEGIC DOCUMENTS

1. Strategy for Adult Education (2016-2020)
2. 2020 Employment and Social Policy Reform Program
3. National Strategy for Employment in the RM (2016-2020)
4. National Youth Strategy (2016-2025)
5. Strategy for Vocational Education and Training in the Context of Lifelong Learning 2013-2020 with action plan.
6. Concept for Modernization of Technical Education, 2016
7. Concept for Post-secondary Education, 2010.
8. Concept for Vocational Education for Professions, 2010
9. UN Convention on the Rights of People with Disabilities.
10. Convention on the Rights of the Child
11. UNESCO Salamanca Statement and Framework for Action on Special Needs Education

BYLAWS AND STANDARDS

1. Guide for classification and coding of standards of professions, 2017.
2. Regulation for the state educational inspectors on the valorization of fulfillment of professional responsibilities of the teachers and vocational associates in primary and secondary education.
3. Methodology for development of standards of qualifications, 2017.
4. Methodology for development of standards for qualifications, 2017.
5. Regulation for teachers in VET, Ministry of Education and Science, VET Center, 2008.
6. Norms for teaching aids and equipment, Ministry of Education and Science, VET Center, 2008.
7. Guidelines on planning of educational work of teachers of vocational subjects in the secondary schools of Macedonia, Ministry of Education and Science, VET Center, 2008.

8. Rulebook on the basic professional competences of teachers in the primary and secondary schools, by fields.
9. Rulebook on the examinations and evaluating the students' results in state matura on general, vocational and artistic education
10. Rulebook on the manner of verification of secondary schools and the maintaining of registries.
11. Rulebook on international Matura
12. Rulebook on the conditions and manner of taking professional exam for teachers and professional associates in public secondary schools
13. Rulebook on the manner of monitoring, assessment and grading, taking exams and progression of students in secondary schools
14. Rulebook on the manner of maintaining, form and content of the pedagogical records and documentation in secondary schools
15. Rulebook on the manner of taking exams and evaluating student results from state Matura exams in general, vocational and secondary art education
16. Rulebook on the form, content and the manner of maintaining the professional dossier of the teacher and vocational associate in the secondary school.
17. Rulebook on the manner for monitoring of the classes, taking exams regarding pedagogical, psychological and methodological training and manners for accreditation of higher education institutions.
18. Rulebook on the manners and procedure for granting diploma for completed secondary education and the form of diploma
19. Standards for realization of practical training of the students, VET Center, 2008.
20. Standards for professional and other staff regarding the realization of practical training of the students, VET Center, 2008.

RESPONDENTS

The table lists the institutions that have been approached to collect information and data.

VET SCHOOLS
Panche Karagozov - Skopje
Cvetan Dimov - Skopje
Braka Miladinovci - Skopje
Marija Kiri Sklodovska - Skopje
Shaip Jusuf - Skopje
8-th September - Skopje
Boro Petrushevski - Skopje
Vlado Tasevski - Skopje
Lazar Tanev - Skopje
Dimitar Vlahov - Skopje
Ilinden - Ilinden
Mihajlo Pupin - Skopje
Sv. Naum Ohridski – Makedonski Brod
Niko Nestor - Struga
Mirko Mileski - Kicevo
Drita - Kicevo
Sv. Naum Ohridski - Ohrid
Vancho Pitoseski - Ohrid
Sv. Kiril I Metodij - Ohrid
Dimitar Vlahov - Strumica
Nikjola Karev - Strumica
Josif Josifovski - Gevgelija
Goce Delcev - Valandovo
Kosta Susinov - Radovish
Mosha Pijade - Tetovo
Nikola Shtejn - Tetovo
Goce Stojceski - Tetovo

Municipalities/local self-government units
City of Skopje
Ilinden
Tetovo
Strumica
Radovish
Gevgelija
Valandovo
Makedonski Brod

Ohrid
Struga
Kicevo
BUSINESS-SECTOR AND STATE INSTITUTIONS
240 employers in whom practical training was organized (a contact email was sent to 194 employers, a Facebook message was sent to 46 employers)
Adult Education Centre
State Educational Inspectorate
State Examination Centre
Ministry of Education and Science
Vocational Education and Training Centre
Bureau for Development of Education

DATA COLLECTION INSTRUMENTS

The table lists the instruments used for data collection.

INSTRUMENT	DESCRIPTION OF THE INSTRUMENT
Request for access to public information for schools.	10 questions related to financing 27 questions related to the educational process
Request for access to public information for municipalities.	7 questions related to the financing of VET
Questionnaire for employers.	7 questions about the company 22 questions related to the practical training of the students
Semi-structured interviews and, if necessary, in-depth interviews with key institutions at different levels (national, local, schools).	5 to 10 general questions on average about 10 questions specifically adapted for the relevant institution
Protocol for analysis of the relevant documents.	17 laws 11 strategies and concept documents 24 by-laws, norms and standards of program documents reports and other relevant documents

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