

Proposal for further changes to the existing system of vocational education and training for a vocational training system considering labor market demand.

Recommendations for amendments to legislation in the field of vocational training and to the preparation of dual education system.

Introduction

The main factors which influence the transformation of the vocational education and training in society are mainly the fast technological changes based on the results of science and research. Changes appeared mainly by the innovation of materials, energy, production facilities and technological processes of production. The transformation of vocational education and training is significantly caused also by the information and communication technologies changes as well as by the globalization and liberalization of trade and production.

Increasing employers' request on a faster change on the composition, content and forms of vocational education and training are based on the currently changing production conditions due to the Fourth Technology Revolution, called "Industry 4.0". This change fundamentally has changes the way of living, working and the way of common communication. However, these changes in their extent, scale and complexity will be so fundamental for humanity that had not been any other technological change in the past. It is not predictable how these changes will be evolved. Response to that must be an integrated, comprehensive and by involving all stakeholders. The "Industry 4.0" or other "Digital Revolution" or "Intelligent Industry" is characterized by merging technologies that remove the boundaries between physical, digital and biological spheres¹.

Start of Industry 4.0 strongly influence also vocational education and training. It can be expected that the digitization of production might positively influence the attractiveness of vocational training between young people².

The Educational processes leading to a skilled workforce in a line with the rapid implementation of Industry 4.0, are "running" at a different speed and direction than the technological progress. With the transformation of industry and trade exist an growing need to change the way of education and training of the future generations. Regarding to the technologies that have been identified as essential for the future in production and the digital era of trade, it is necessary to analyze the main knowledge and skills requirements for current and future implementation of the Intelligent Industry Principles.

Rapid changed and evolving changes in the labor market demands for qualifications caused that knowledge are faster outdated. Moreover, production innovation cycles are being shortened,

¹ www.industry4.sk

² Newsletter 06/2017, Slovensko-nemecká obchodná a priemyselná komora

the technological innovation is being accelerated. These trends necessarily require the academic cooperation, cooperation with representatives of educational institutions, representatives of science, research, innovation, and industry.

Professionalization of the vocational training is the key for a strategic direction of education in order to prepare a qualified workforce for Industry 4.0. There must be sufficient quality training offers available for both teachers and pupils and employees in their lifelong learning, which requires that the processes leading to qualifications and lifelong learning processes will be national priorities.

The impact of Industry 4.0 on education could be deduced from the history of education. Therefore, under its influence, the "Education 4.0", is being implemented on the educational area. Education 4.0", should provide a skilled workforce, fully adaptable to the expected changes associated with Industry 4.0.

The problem of learning in the future will not be a lack of jobs in the labor market, but a lack of the required skills on the labor market side pupils the workforce.

Changes affect robotization, automation. Radical changes are also in the delivery of services. For these reasons, an effective system of lifelong learning is needed. Education becomes the essence of a new "knowledge society". Learning will no longer be a one-off event before the beginning of working life, but will in particular represent a lifelong learning processes in response to the constantly changing demands of the labor market for qualifications. This change influences a new processes for acquiring a new knowledge and skills in working life and their acceptance qualifications recognition. *"You can learn when you are working, not learning when you are studying."* Importance of collectively acquired knowledge and skills is being increased. Professional qualifications must be readable and understandable to anyone who works.

The new knowledge society will dramatically increase and will diversify the demand for education and vocational training, which will be repeated, will be diverse, changing and increasingly unpredictable. These facts offers an opportunities for universities - to maintain a continuous communication with businesses, to respond to the needs of employers, sole traders, to ensure the presence of students at workplaces with employers and to accompany graduates in lifelong learning.

In response to these demands, the modern societies go through many reforms and invest more in the national education and training systems. Responsibility for reforming and renewing of education policies, legislation, primary education systems and vocational training systems in connection with the social partners of education remains mainly in the hands of the state, but with increasing cooperation with other stakeholders such as professional and professional organizations, employers' associations , guilds, non-profit organizations of the third sector and in cooperation with employers as providers of practical training, for example in the dual education system.

Education plays the most important role in the development of society, focusing on fundamental changes in our way of life and behavior. Education is thus a force for the future because it is the one of the strongest tools of change. In the interest of the positive changes is redesigning of our education policies and programs very needed.

"Strategy of VET Transformation in the Slovak Republic" propose some concept of vocational education and training, covering the long-term goals and objectives of the Slovak Republic in

the field of education and training of the skilled labor market. It is divided into four significant pillars:

- I. Secondary Vocational Schools
- II. Business entities
- III. Elementary schools and parents
- IV. Coordination and cooperation

The defined strategic objectives represent the main objectives. These objectives are intertwined with all thematic areas and fields of vocational education and training in secondary schools. Examples of VET transformation activities are linked to strategic objectives and indicate the ways to fulfill the strategic objectives.

The "Europe 2020 Strategy" is also the starting point for identifying VET transformation strategies. Nowadays, it is a fundamental international framework defining education objectives for EU Member States. It contains the following six indicators linked to education³:

1. The proportion of people who left a school earlier.
2. The Share of university-educated population aged 30-34.
3. The proportion of low-skill 15-year-old pupils.
4. The Employment rate of fresh graduates.
5. The Participation of children in pre-primary education.
6. The Participation of adults in lifelong learning.

The "Strategy of VET Transformation in the Slovak Republic" aims to achieve a change in the vocational education and training from the "band nature of education", which is very typical for the second and third industrial revolution (division of education into belts - study fields, study fields, division of education fields) according to the length of study, pupils included in classes, the lesson enclosed by the ring as the beginning and the end of the work change, the determined standards of education from which it is not possible to divert, etc.) to the "knowledge character of education", towards a knowledge-based society for need of labor market 4.0. For which more flexible learning, direction to qualifications, personification of education, change of mentor role to mentor, virtual education and focus on projects in education will be characterized.

I.Pillar

Secondary vocational schools

Every school system is primarily influenced by legislative. But also political, social, historical and, last but not least, economic factors play an important role in their constitution and functioning. The current school system in Slovakia is characterized by a high degree of lability, as reform strategies are declared and adopted in relatively rapid succession. However, their implementation and effective linkage with the needs of practice are insufficient and inconsistent.

³ Oznámenie komisie EURÓPA 2020 „Stratégia na zabezpečenie inteligentného, udržateľného a inkluzívneho rastu“, Brusel 3.3.2010

A Basic definition of the school system, it means: the definition of levels, types and types of schools is determined by the Education Acts; further regulations and regulations, based on specific historical traditions and current economic possibilities of the state, determine its functioning in more detail. An important part of the education system consists of vocational education and training. In condition of our country is based on a long tradition of craftsmanship, which persisted as a dominant form in the interwar period (an assistant worker became a skilled craftsman after completing training in the workshop of craftsman, composition of the exam before the commission of the Territorial Trades Licensing Chamber and making the prescribed test product).

Towards the Vocational education and training of qualified middle-class staff was dedicated guide a bit importance in the period of popular-democratic and socialist establishment, when an extensive and differentiated network of vocational and secondary vocational schools was built. Pupils were provided with the appropriate qualifications needed for practical life. After 1989, the tradition was disrupted, several elements of the vocational training system were abolished, and the company resigned from systematic care in this area. Vocational education and training has suffered a significant downturn which has caused a clear mismatch between vocational education and training and labor market needs in the coming years⁴.

VET takes place in the study and learning departments in the form of full-time study, which is mainly attended by primary school graduates after the 9th grade of primary school. Compulsory school attendance in Slovakia is 10 years. The pupil fulfills the tenth year of a compulsory school by his/her attendance in the first year of secondary school. VET at the secondary vocational school may take place after the completion of compulsory schooling also by an external form of study, in the form of evening study or distance learning. Distance learning can also be done by distance learning.

VET is provided in a 2-year and 3-year study departments, in a 4-year learning departments with a practical training in the form of professional practice, in a 4-year study departments with extended range of practical training through vocational training. A VET graduate in the study department and in the field of study with vocational training will also receive a certificate of apprenticeship with a certificate of completion. Practical training providing pupils with practical skills, abilities and habits necessary for the pursuit of a profession, group of occupations or professional activities is carried out in a school workshop or directly under the employer's real conditions.

VET can also be provided in these forms of VET, which are:

- shortened 1-year or 2-year study in a learning department for a candidate with a minimum of vocational education,
- 2-year post-secondary qualification in a study department for applicants with full secondary education,
- Higher professional 2-year or 3-year study in a study department for applicants with at least full secondary education.

The first amendment of the dual education system was by the Act no. 61/2015 Z.z. on Vocational Education and Training with taking into the force from 1 September 2015, starting with the first year of study. Based on practical experience, the system of dual education was modified by an amendment to the Act on Vocational Education with effect from September 1st, 2018.

⁴ Analýza odborného vzdelávania a prípravy na Slovensku s dôrazom na kľúčové faktory ovplyvňujúce modernú školou, NP Duál, 2018

Major changes following the amendment to the VET Act and other legislation:

- ✓ Simplifying the process of employer certification for Dual education system,
- ✓ new incentives for employers in the form of financial contribution aiming to provide an practical training in the dual education system,
- ✓ A common workplace of practical training established by the Employers' Association,
- ✓ Normative financing of the school without reductions,
- ✓ A new position of the teacher at the employer “main instructor” alongside the instructor,
- ✓ An extended deadline for concluding a learning agreement from 31 August before the pupil's first year to 15 September or until 31 January of the first year of the pupil,
- ✓ The dual learning system does not follow model curricula for studying and learning departments,
- ✓ The highest proportion of practical training that an employer can provide in a school workshop or other employer with a dual education certificate increases from 40% to 50%,
- ✓ The self-governing region determines the highest number of pupils admitted to the first year in the given field according to the criteria set out in the decree and not in the form of determining the number of 1st year classes,
- ✓ Finding out the incorrect procedure for determining the highest number of admitted pupils to change the data of the self-governing region, the change will be published on its website and the date of publication is binding for the self-governing region,
- ✓ The employer's ability to provide a scholarship to a pupil is extended from 10 teaching months to each month of the calendar year,
- ✓ the remuneration for productive work is provided by the employer at least 50% of the minimum wage,
- ✓ The employer has the possibility to determine the beginning and the end of the day of practical training starting from 6.00 and finishing at 22.00 without taking into account the age and year of the pupil's studies; the length of the teaching day is not changed,
- ✓ A private secondary vocational school established by a legal entity may use the name: “The corporate school”, when it meets the statutory criteria. The Ministry of Education decides on the matter, the performance of the company school is determined by the school founder and not by the self-governing region, the employer can deduct the capital assets provided by the employer to the company school.

Strengths

- Historical tradition of vocational education and training in the Slovak Republic linkage to employers,
- Two-stage system of creating educational programs (The State education program, The School education program) with legislative regulation of employers' participation in the creation of educational programs,
- The Council of the Government of the Slovak Republic for Vocational Education and Training,
- The Council of Employers for the Vocational Training System for the purpose of coordinating professional and professional organizations with competence in the field of education,
- The law on vocational education and training with the adaptation of the dual education system,

- The factual competence of professional and professional organizations in secondary education and legislative regulation of professional and professional organizations in the field of VET.

Weaknesses

- Absence of career counsellors,
- Big amount of the Secondary vocational schools without a systematic approach to its optimization, school development and specialization,
- Modernization debt of the state towards secondary vocational schools without a systemic solution,
- The absence of innovative training for vocational teachers and masters of vocational training, with no permanent link to employers,
- Low involvement of employers in the development of school education programs,
- Financing of schools by a financial norms for a school based on a number of pupils, without not specified quality criteria,
- Greater degree of physical and moral wear and tear on vocational training and workshop equipment,
- High qualification requirement for the performance of vocational teacher activity, preventing the entry of practitioners into the teaching process in vocational subjects,
- High age average of vocational teachers, vocational training masters,
- Lack of vocational textbooks for low-school education and non-systematic updating of vocational textbooks,
- A great deal of obsolescence in learning materials,
- Completion of studies and the topics of the final examination and topics of the School leaving examination component in the individual competence of each school with the presence of external chairmen of the Examination Committees and the Employer Examining Representative in the Dual Education System or the Examination Representative of the Professional and Professional Organizations, if delegated ; incomparable test contents, related unrealizable school quality comparisons),
- Lack of afternoon and evening activities for the public in the school premises (under-utilization of school premises as vocational education and training centers for providing accredited courses in lifelong learning, inadequate provision of school sports facilities for families, for the public).

Opportunities

- Need for involvement of practitioners through professional and professional organizations with a substantive competence in secondary education in vocational education and training processes - processing of a school education program,
- An Innovative training of vocational teachers and masters of vocational training at employers, at the universities,
- Possibility of participating in projects aimed at promoting and developing vocational education and training and the dual education system,
- An active foreign employers in the Slovak Republic from countries with advanced dual education,
- Standards developed within the National Qualifications System and National System of Professions,
- Working with practitioners to reach primary school pupils,
- Exchange of teaching experience outside schools in schooling and conferences,
- Introduction and use of a functional system of professional psychological, career and other counseling,

- International mobility with EU support for high school teachers and pupils.

Threats

- Unfavorable demographic development - lower number of pupils in relation to the educational capacity of schools in the SR,
- Insufficient amount of normative funding for schools, without financing the modernization of school capital goods,
- Lack of parent's interest about education at the schools,
- Interest of pupils only for obtaining a School leaving examination without orientation for qualifications,
- Lack of interest from pupils and parents in interest circles,
- low support for SMEs to engage in vocational education and training by providing practical training for the employer,
- Different approach of self-governing regions to changes in the school network, to school performance planning without coordination within the SR.

Strategic objectives and examples of transforming vocational education and training activities for the "Vocational Schools" pillar.

Strategic goals:

1. A new structure of education departments for secondary vocational schools aimed at acquiring qualifications with a flexible content structure of education and length of education.
2. A new network of secondary vocational schools focused on the regional representation of the economic sectors and the regional structure of employers using schools with nationwide activities in selected fields of education and campus schools in regional cities.
3. Use of practitioners without the required qualifications, expressed as a degree of full-time undergraduate studies, as a specialist subject teacher.
4. Innovative training of vocational teachers and masters of vocational training extended by compulsory internships with employers linked to pay.
5. A secondary vocational school transformed into a modern secondary vocational school whose main objective is to accompany the pupil in vocational education and training.
6. Completion of the study by the final examination, carried out within the competence of the professional and professional organization on the basis of the mid-term examination and the final examination after completion of the education based on uniform themes created by the professional and professional organization with a substantive competence in the field of education in which the final an exam.
7. Educational and training courses with vocational training transformed into the education departments, preparing for vocational training by a dual education system with a final examination and with the possibility of obtaining a vocational certificate.
8. Examination for Masters in the Vocational Education and Training System, which is a prerequisite for the performance of a trade, a condition for recruitment and a condition for providing practical training in the dual education system.
9. Active tools to support the provision of practical teaching in the dual education system.

Examples of VET Transformation Activities:

1. Establishment of a new structure of education departments based on the principle of qualifications with modules of a modular character, enabling flexible content creation through a basic module, selection of main and special modules of different VET lengths.
2. Setting the of factual competence for individual fields of education and not for groups of education departments.
3. Linkage of qualifications by EKR and SKKR for each education sector.
4. Analysis of the current network of secondary vocational schools and designing criteria for the creation of a new network of secondary vocational schools using a school campus consisting of a pre-school facility, a primary school and a secondary school with a more sectoral focus on education and using the services of schools and pupils with their involvement providing VET practical training and career guidance for primary school pupils.
5. Introducing the basic factors of a modern secondary vocational school whose main activity is to accompany the pupil in his / her vocational training.
6. Determining a minimum number of secondary school pupils.
7. Legislative regulation of processes of transition of founding competence to secondary vocational school from self-governing region to employer subject.
8. Admission procedure to secondary school, based on a uniform entrance examination for a grammar school.

II. pillar

Business entities

Vocational education and training in Slovakia is being carried out through a school education system or a dual education system.

The school education system is vocational education in the range of theoretical and practical education provided by the school in the school workshop. Practical training in the school education system can also be carried out at the employer, while the practical training of the pupil at the employer is based on:

- a) contractual relationship between the school and the employer (practical training contract),
- b) placing the pupil at the employer's based on a agreement with schools,
- c) without a contractual relationship between the employer and the pupil.

Practical training in the school education system is the practical training of pupils in the school or employer according to the school's decision based on a practical training contract. The choice of employer for practical training is given to a school. The content of education in practical education is determined by the school. Practical training with the employer in the school education system is most often done in the last year or the last two years of study.

The dual education system is a pupil's VET system based on:

- a) the contractual relationship between the employer and the pupil (learning agreement),
- b) the contractual relationship between the employer and the Secondary vocational school dual education Agreement);
- c) practical training of the pupil directly at the employer at the workplace of practical training
- d) the employer's responsibility for the practical teaching and financing of the employer's practical training.

Practical training in the dual education system is being carried out at the employer at the workplace of practical training that has concluded a learning agreement with the pupil. The choice of pupil for the employer is decided by the employer. The employer's competence for practical training is determined by the professional or professional organization by verifying the employer's competence for practical training - by the process of validating the employer's ability to provide practical training in the dual education system. The content of education in practical training is determined by the employer in cooperation with the school in accordance with the state education program. The pupil's financial and material security is determined by the employer and agreed in the learning agreement. An employer can take advantage of the possibility of placing a pupil up to 50% of the total range of practical training for practical training in a school for which he or she has concluded a dual education contract, and up to 50% of the total practical training for practical instruction to another employer certified to provide practical teaching in dual education system.

Employers' entry into the dual learning system is done by verifying the employer's ability to provide practical training in the dual education system. The employer's ability to provide practical training in the dual education system is confirmed by the professional and professional organization by issuing an employer qualification certificate for the training sector.

Current status of employer certification in the form of a certificate: 668 employers, 1,336 workplaces of practical training. Number of pupils with a learning agreement: 3,937. Number of schools with pupils with a learning agreement: 100.

Strengths

- An increasing share of employers with foreign participation from countries with a developed dual education system,
- Interest of larger employers to enter the vocational education and training processes in the form of providing practical training in their premises,
- Tradition of providing practical training to the employer,
- the Legislative regulation of the provision of practical training at the employer,
- Activity of larger employers to address the shortage of skilled labor by engaging in VET processes,
- Legislative setting of the roles of employers' associations in VET.

Weaknesses

- Administrative difficulties for entering employers into the dual education system,
- Low interest of SMEs in entering the dual education system,
- Absence of a system of support organizations to involve entrepreneurs in dual learning processes,
- Lack of non-VET training centers for out of company vocational training also called more than companies' training centers,
- Inefficient financial support for employers in the dual education system
- Insufficient capacity of internal VET experts and VET tasks on the part of professional and professional organizations,
- Employers has been offering an limited education and low financial benefits for pupils with a learning agreement.

Opportunities

- Transfer of experience from dual education abroad through foreign investment,
- National project Dual Education and Development of Attractiveness and Quality of VET,
- Unification of VET processes within EU cooperation through joint structures to support and develop VET systems.

Threats

- First negative experiences of employers in the dual education system with the passivity of pupils and contracting schools,
- Pupils are leaving employers after completing dual education to study at the higher education institutions or other employers,
- State passivity in developing career guidance for primary school pupils,
- Poor promotion of VET and dual education by the State.

Strategic objectives and examples of VET transformation activities for the "Entrepreneurs" pillar.

Strategic goals:

1. Need of a separate law on vocational education and training that comprehensively regulates all VET processes.
2. The system of financing the practical training with the employer with the possibility of creating individual accounts or open credits to involve employers in the dual education system.
3. The Council of Employers for the Dual Learning System on an Institutional Principle with the Extension of its Vocational Activity.
4. Entering the system of dual education also during the course of the study in the transition period to a sustainable state of dual education.
5. Other educational organizations aimed at addressing and selecting pupils for the dual education system and providing practical training in basic VET with the possibility of concluding a learning agreement and moving it to an employer in higher grades - a triplicate VET system.

Examples of VET Transformation Activities:

1. A summary of legislative provisions governing VET processes that will be part of a comprehensive law on vocational education and training.
2. Modeling a triplicate VET system with versions of use of learning agreements and forms of practical training.
3. Developing an institution model for the role of the employers' council for the dual education system and other roles of professional and professional VET organizations.
4. Making a example of a financial support for employers to provide hands-on training in the open credit or individual account system for the benefit of the employer.

III. pillar

Elementary schools and parents

The primary school, in accordance with the principles and aims of education, supports the development of the pupil's personality based on the principles of humanism, equal treatment, tolerance, democracy and patriotism, both intellectually, morally, ethically, aesthetically, professionally and physically. To pupils it provides basic knowledge, skills and abilities in the

areas of language, science, social science, arts, sports, health, transportation and other knowledge and skills necessary for his / her orientation in life and in society and for his / her further education and training. The Constitution of the Slovak Republic ensures the right of every citizen to free education in state primary schools and the possibility to establish other schools than state schools.

The compulsory content of education to acquire competencies in primary schools is defined by state education programs.

In the primary school with the Slovak language, pupils in the 2018/2019 school year are trained as follows:

- pupils of grades 1 to 4 according to innovative state education programs for primary education,
- pupils of the 5th and 8th grades according to innovated state education programs for lower secondary education
- 9th grade pupils continue their education according to their original school curricula.

By successfully completing the relevant curriculum or its integral part, a pupil can receive one of the levels of basic education:

- Primary education (ISCED 1) is provided by successful completion of the last year of a comprehensive part of the education program of the education sector for the first stage of primary school, or which the pupil with intellectual disability obtains the last year of elementary school, Evidence of the level of education received is a certificate with a clause.

- Lower secondary education (ISCED 2) will be achieved by successfully completing the last year of a coherent part of the education program for the second level of primary school; evidence of the level of education received is a certificate with a clause⁵.

Strengths

- For primary school pupils and their parents there is a big interest in continuing their studies at secondary school,
- Primary school education is geared towards continuing to study at secondary school,
- Expectations of elementary school pupils and their parents are higher than the basic education.

Weaknesses

- Absence of independent career guidance in primary school,
- Low level of professional orientation of pupils,
- Poor practical training for the world of work,
- Giving priority to the secondary school studies before attending the high school, irrespective of the pupil's achievements at primary school,
- Negative perception of study in learning,
- Choice of a secondary school without focusing on the choice of profession or industry,
- Choice of high school influenced by the vision of continuing university studies.

Opportunities

- A sufficient network of primary schools,
- Modernization of primary school buildings and equipment,
- Legislative regulation of career guidance for primary school pupils,
- Increasing employers' offer of learning places in the dual education system,

⁵ www.minedu.sk, Regionálne školstvo, Vzdelávanie v základných školách

- Employers' interest in linking career guidance to primary school with the world of work,
- An active approach of professional and professional organizations, associations of employers and individual employers to the development of cooperation of elementary schools with practice in the field of career counseling and professional orientation of primary school pupils.

Threats

- Insufficient legislative regulation of employer involvement in career guidance,
- Lack of organizations for implementation of a career guidance activities such as "Professional Orientation Center",
- Insufficient support for state and higher education vocational training in teaching and learning courses,
- Low state information activity to support dual education, vocational guidance and career guidance,
- Low number of websites suitable for primary school pupils with information on the economic sectors, occupations and vocational training opportunities.

Strategic Objectives and Examples of Transforming Vocational Education and Training for the Primary Schools and Parents Pillar:

Strategic goals:

1. Education and training at the primary school is based on the development of the personality of man and citizen with an emphasis on knowledge, skills, values, attitudes and will.
2. Elementary school is based on activities resulting in versatile literacy, ICT competence, competence for working life and entrepreneurship, cultural competences, thinking and learning, self-care, security and planning of day-to-day activities, career orientation and sustainable building future.
3. Increasing tendency of successful completed primary education in the 9th grade of primary school.
4. A two-week period in the 8th grade of a primary school should be dedicated to pupil activities focusing on career orientation and career orientation.

Examples of VET Transformation Activities:

1. Implementation of elementary school attendant elements with emphasis on career education and pupil's professional orientation.
2. Education of primary school teachers aimed at developing the personality of pupils from disadvantaged groups with a view to their participation in basic vocational education, with the possibility of continuing VET, providing at least secondary vocational education.
3. Elaboration of project proposals for supporting pupils activities aimed at his/her professional orientation and occupation selection linked to the employer sector in the form of student internships at the employer - "tasting selected professions".
4. Activating a portal targeted at a primary school pupils with active teacher access and using online tools to process documentation and manage pupil routing processes.

IV. pillar

Coordination and cooperation

Vocational education and training, school performance planning, the development of the state education programs, expected labor market needs forecasts, finishing secondary vocational schools, and many other processes related to vocational training and employing VET graduates in the labor market require the coordination of all stakeholders and permanent cooperation aimed at building a knowledge-based society.

The coordination of vocational education and training for the labor market is regulated by the Act on Vocational Education and Training and is implemented on:

- a) the national level
- b) the level of the self-governing region.

Coordination of vocational education and training for the labor market on the national level is regulated by the:

- a) The central government authorities:
 1. Ministry of Education, Science, Research and Sport of the Slovak Republic
 2. The Ministry of Labour, Social Affairs and Family of the Slovak Republic
 3. Ministry of Health of the Slovak Republic
 4. Ministry of Economy of the Slovak Republic
 5. Ministry of Transport and Construction of the Slovak Republic,
 6. Ministry of Agriculture and Rural Development of the Slovak Republic
 7. Ministry of Environment of the Slovak Republic
 8. Ministry of Culture of the Slovak Republic

- b) the Self-governing regions,
- c) The Professional organizations,
- d) The trade union associations.

Coordination of vocational education and training for the labor market on the level of the self-governing region is regulated by:

- a) The self-governing region,
- b) The district office in the regional Headquarters,
- c) Central Office of Labour, Social Affairs and Family in the regional Headquarters,
- d) The regional chambers of professional organizations, professional organizations and employers who contribute to the development of regional employment;
- e) Employees' representatives;
- f) Founders of secondary schools in the self-governing region,
- g) Center for Educational-Psychological Counseling and Prevention in the Regional Headquarters.

The bodies of VET coordination at the state level are the Council of the Government of the Slovak Republic for Vocational Education and Training, whose members are representatives of subjects of VET coordination at the national level.

Regional self-governing councils are established at the level of self-governing regions, acting as an advisory body to the chairman of the self-governing region. The members of the Regional Council are the subjects of coordination at the level of the self-governing region.

To co-ordinate professional and professional organizations in the dual education system, was establish a Council of Employers for the Dual Learning System, which includes representatives of subjects with competence in vocational training.

Professional and professional organizations are formed by training committees and similar bodies as an advisory and coordinating body for the management of the organization.

Coordination and cooperation in the field of VET is also ensured by the State Institute of Vocational Education, which is directly coordinated by the Ministry of Education, Research and Sport of the Slovak Republic. It was founded by the Youth Preparation Institute, which was active in 1991-1994.

The State Institute of Vocational Education⁶ provides a basic pedagogical documents for teaching and study fields, further education of pedagogical staff and co-ordinates cooperation with domestic and foreign subjects with the aim of equipping schools with current tasks, especially in the area of retraining. Since 1993, he has expanded his activities to provide methodological support for apprenticeships. It performs tasks related to the pedagogical and organizational provision of education and training in secondary vocational schools, practical training centers and practical training workplaces. It focuses on the preparation of documents and opinions on the design of conceptual materials, laws, standards, regulations and basic pedagogical documents for the field of vocational training, on the development of methodological materials, provision of advisory, consulting, methodological and information services in the field of practical teaching and conducting activities related to international activities coordinated and coordinated by the Ministry of Education, Science, Research and Sport of the Slovak Republic.

In the framework of international cooperation in the field of VET, the Slovak National Observatory of Vocational Education and Training (SNO) was established by the European Educational Foundation in Turin also in cooperation with MŠVVaŠ SR and the Ministry of Labor, Social Affairs and Family. The SNO Office began operating on August 1st 1998 at the ŠIOV as the host organization of the Observatory.

The aim of the SNO is to collect, analyze and disseminate information on vocational training in the Slovak Republic and to do comparisons with the situation in the European Union and other countries seeking to join the EU.

As part of the integration process of Slovakia into the EU structures, the Observatory expanded its activities to co-operate with the European Center for the Development of Vocational Training (Cedefop).

After Slovakia's accession to the EU, SNO started to fully cooperate with Cedefop and became the national coordinator of Cedefop's ReferNet network in Slovakia. The role of the network is to collect, process and disseminate information on developments in vocational training in EU countries, compile documentation on the research situation in Member States and promote contacts between professionals and key organizations.

Practical experience in implementing of VET elements suggests the need to build an institutional capacity to coordinate VET employers and to promote employers 'and stakeholders' collaboration using knowledge from abroad. Objectives of this institution are:

- Forecasting of labor market needs,
- Forecasting of skills and knowledge needs,

⁶ Štátny inštitút odborného vzdelávania, www.siov.sk

- Activity of councils sections for the national system of professions and the national qualifications system,
- Training of vocational teachers and masters of vocational training,
- Preparation of the main instructors,
- Training of employers' examiners and examiners of professional and professional organizations with the aim to complete their studies at secondary vocational schools,
- Making comments to the graduation process,
- Coordination of professional and professional organizations in the performance of VET activities,
- Participation in the creation of state education programs, graduate profiles, equipment norms, etc.
- Participation in career guidance for the primary school pupils
- Promotion of VET, etc⁷.

Strategic objectives and examples of VET transformation activities for the "Coordination and cooperation" pillar:

Strategic goals:

1. A joint institution of professional institutions with a substantive competence in secondary vocational education at the Center for the Development of Vocational Education and Training, with an international link to similar foreign institutions on the principle of a "Vocational Training Observatory for a Knowledge Society".
2. Unification of the representation of practitioners in the Sector Councils of the National System of Occupations and the National Qualifications System with the representation of practitioners in working groups on the development of state education and material-technical and spatial security training programs for education departments.

Examples of VET Transformation Activities:

1. Elaborating of a Memorandum on the establishment of a joint institution of professional organizations governing the establishment procedures of the institution, the organizational structure, the subject matter, the management and funding arrangements, the staff structure and the cooperating entities.
2. Legislative regulation of the activities, financing and role of the joint institution of professional and professional organizations.
3. Establishment of a joint institution of professional organizations.
4. Transformation of the Regional Councils for VET into advisory bodies of the joint institution of professional and professional organizations.
5. Unification of the composition of sector councils NSP and NSK and transform the council into a common institution of professional and professional organizations.
6. Establishment of "regional learning offices" as allocated workplaces of the joint institution of professional and professional organizations for the entry of employers into the dual education system, the registration of learning contracts and the registration of dual education contracts and practical training contracts.
7. Establishing of cooperation between a joint institution of professional and professional organizations with employers' associations of non-material interest in the vocational education and training sectors of VET and state institutions.

⁷ Slovenské národné observatórium odborného vzdelávania a prípravy, Štátny inštitút odborného vzdelávania, www.siov.sk

8. Creation of a database of creators of uniform themes for the completion of studies and a database of examiners for the completion of studies by the professional and professional organizations.

Conclusion

Development of a strategic goals and designing of VET transformation activities requires participation of stakeholder in order to identify the underlying trends in VET transformation and also in identifying of a key questions and driving forces of VET transformation towards a knowledge society.

The final VET strategy and transformation of dual education system responds to discussion of stakeholders who are active in the field of a vocational education and training.

The VET transformation strategy has an ambition of being a guidelance that should be accepted by partners working in VET field with the aim to create a common idea for building VET system according to the needs of the knowledge society.

One of strategic objectives of VET transformation is also increasing the quality and attractiveness of VET systems.

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