The project is financed by the International Visegrad Fund

Improving the employability of young people through dual vocational training

Possibilities in the V4 economic area

Country examples: Czech Republic, Poland, Slovakia and Hungary

Czech Republic, AMSP ČR, Asociace malých a středních podniků a živnostníků ČR

Introduction

Generally the educational system of the Czech Republic is considered as qualitatively on the relatively high level nevertheless currently the whole system is facing quite the same challenges, similarly as the rest of developed countries of the Europe, especially in terms of vocational and technical education. Student learning outcomes in the Czech Republic are around or slightly below the OECD average, depending on the skills assessed. However, there is some evidence from international student surveys (for example PISA) of a significant decline in student learning outcomes in the last decade. There are also indications that both performance and choice of educational track are strongly influenced by family background. Another concern relates to the basis for attending a special school, sometimes as a result of learning difficulties and/or a social disadvantage and not following the identification of a learning disability. Since the 1989 Revolution, schools benefit from considerable autonomy including over the content of instruction, teaching methods, student assessment criteria, and management of the teaching body. In this context, the role of evaluation and assessment as key tools to achieve quality and equity in education was reinforced. While there are provisions for evaluation and assessment at student, teacher, school and system levels, challenges remain in strengthening some of the components of the evaluation and assessment framework, in ensuring articulations within the framework to ensure consistency and complementarity, and in establishing improvement - oriented evaluation practices.[1]

[1]Zpráva OECD o hodnocení vzdělávání v České republice/OECD Reviews of Evaluation and Assessment in Education Czech Republic (2012)

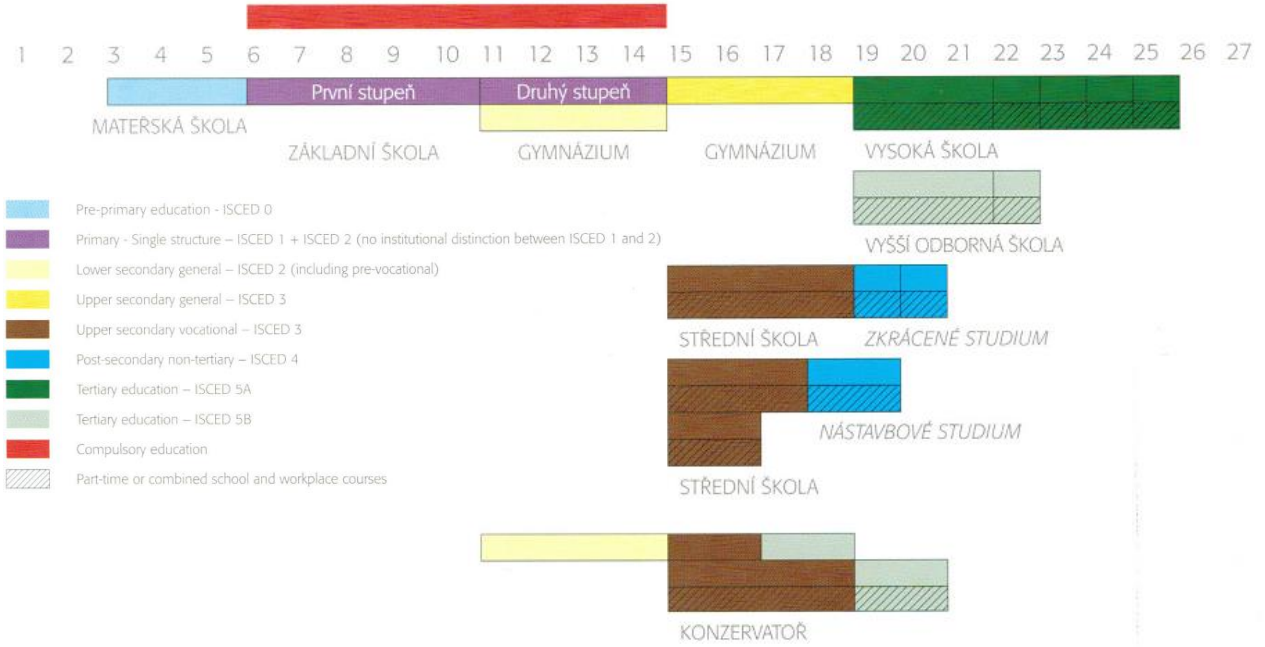


Figure 1: The Education System of the Czech Republic: Ministry of Education, Youth and Sports of the Czech Republic

School attendance is compulsory for nine years in the Czech Republic, usually from the ages of 6 to 15. All pupils start in comprehensive single structure institution called "základníškola" – Elementary School, consisting of two stages. During the second stage it is possible to proceed to a "gymnázium" – a secondary school providing general education. After finishing compulsory education lasting nine years, pupils can proceed to the schools providing vocational and technical education – it means that young people start their professional preparation usually in age of 15.Basically they can choose among schools that provide secondary education with vocational certificate, secondary vocational education with "maturita" exam (leaving exam guaranteed by the state) and secondary general education with "maturita" exam as well. The simplified structure of educational system in the Czech Republic is shown on figure 1.

Vocational and technical education

Schools providing technical and vocational education have a long tradition in the Czech Republic. Political changes and economic transformation after 1989 had a substantial impact on the Czech system of vocational education and training (VET).State-owned companies, which previously used to be the main providers of VET and employers of VET graduates, fell apart in the course of the privatization. Practical training shifted largely to school workshops and laboratories (equipment did not match existing needs and rapid development and the teachers themselves started to lose contact with new technologies).Lack of skilled workers particularly in the fields of craft became major obstacle to further business development. The mismatch between employers' needs and the capacity of the school system to satisfy those requirements thus led to the recovery of the employers' interest in cooperation with schools.

In principle in the Czech Republic the initial vocational education and training (IVET) is organized as a part of secondary education in the form of 3 years lasting study (closed by Apprenticeship/Vocational Certificate examination) or in the form of 4 years lasting study (closed by "Maturita" examination). In addition there is a possibility to follow 3 years study programme by additional 2 years extension study (follow-up courses) leading to obtaining "Maturita" Exam as well.

	Percentage	Description
Secondary education (ISCED 2C) [4]	0.6%	basic working habits, primarily children with learning difficulties
Secondary education with vocational certificate (ISCED 3C)	**26.7%**	**mainstream of IVET, high share of WBL**
Secondary education with *maturita* exam – vocational (ISCED 3A)	**48.3%**	
Secondary education with *maturita* exam – general (*gymnázia*, ISCED 3A)	**24.4%**	general education preparing for HE

Figure 2: Secondary education programmes – description and share of graduates in the academic year 2012/13

Secondary education with vocational certificate is provided usually by secondary vocational schools (SOU – střední odborná učiliště – ISCED 3C). From those who participate on secondary education approximately one quarter is attending this type of education obtaining Apprenticeship (Vocational) Certificate. Secondary education with "Maturita" exam is typically provided by secondary technical schools (SOŠ – střední odborné školy – ISCED 3A). This type of education is attending by almost one half of young people involved in secondary education. The remaining approximately one quarter is attending general secondary education.

The unpleasant trend is in decreasing number of students in the vocational secondary education in favour of general secondary education. Anyway, the number of graduates of vocational secondary education still remain on relatively high level compared to the European average. (IVET students as % of all upper secondary – ISCED 3 – students in 2006: EU-28 – 51.9% and ČR – 79.3%; in 2012: EU-28 – 50.4% and ČR – 72.7%1).
On the other hand as a positive point could be mention the fact that the Czech Republic always recorded a high proportion of persons with upper secondary education (ISCED 3).

In conditions of Czech Republic we can't speak about the formal apprenticeship programme i.e. about the dual system of education since there doesn't exist any programme that includes contract between the apprentice and the employer. There also absent the shared responsibility between employer and the school related to the professional training. Only the schools are exclusively responsible for education and training and curriculum shows a high proportion of theory in comparison with practical training. However it is necessary to say that of course practical, work-based training and work placements are integrated into IVET (Initial Vocational Education and Training) curriculum as a mandatory part. In apprenticeship type of education the proportion between theoretical education and practice vary around 50:50. In case of vocational education with "Maturita" exam it is dedicated to the practical aspect of

education between 5 and 20% of time (depending on study field) – usually at school laboratories. The work placements in real conditions took place only for a 2x 2 weeks per whole study.

Career guidance

Career guidance, counselling services provide a wide range of subjects in the Czech Republic. The most of them work in frame of the Ministry of Education, Youth and Sports (school advisory system) and the Ministry of Labour and Social Affairs (advisory system in the Ministry of Labour and Social Affairs). To some extent, both used the same methods and techniques, differences are more in degree of specificity and focus. The school advisory system is focused on counselling to students and parents when considering a change or choice of further education and in vocational orientation and preparation for entry into the labour market. Attributes of the school guidance system is the wide availability and the ability to attract and satisfy the greatest proportion of the target population.[2]

The Ministry of Education, Youth and Sports provide career counselling through pedagogical and psychological counselling centres, i.e. via special pedagogical centres and individual staff working directly in schools. Into the school counselling there is involved school counsellor, methodologist of school prevention, eventually a school psychologist and school special pedagogue. Furthermore on counselling cooperate: class teachers and teachers of the different subjects (primarily subjects of sociological nature) and school management. The form of career guidance in individual schools varies. Not at every school works psychologist, or school special pedagogue. Advisory system in the Ministry of Labour and Social Affairs focuses mainly on issues related to the optimal choice of occupation and preparation for it, the problems of the profession changes, and changes in qualifications as a wide range of problems and issues related to job loss and its recovering.

The base of school advisory system are educational, career counselors working directly in schools. These workers should be the main pillar of career guidance, but due to their working capacity allocated to them (1-3 hours per week depending on the size of school) is this background relatively weak. Their main task is currently solving educational problems of pupils, while consultancy aimed at professional and educational orientation is for them marginal activity, generally limited to providing of elementary information about the existence of schools in the region and realization of administration associated with the filing of applications for the secondary schools. A network of educational, career counselors is associated with system of school psychologists who have contracts usually always for several schools and for these schools they afterward carry out specialized psychological services. In the framework of the existing districts then work pedagogical and psychological counseling centers. Again, the network of these centers, however, is more focused on solving educational problems and to coordinate the activities of educational advisers over the activities of career counseling. Function of the educational resort in the area of youth career guidance is

[2]Metodický materiál pro kariérové poradce/Methodical material for career guidance, PaedDr. Jiří Knoll, 2010

increasing significantly nowadays, because of a fact that this support in included directly into the education - at the elementary schools is being gradually introduced segments of career choice directly into the education, at the secondary schools are provided subjects with introduction to the world of work.

Students exchange programmes

Students' exchange in vocational education and training is mainly organized in frame of European Commission programme Erasmus+, Key Action 1 - Mobility projects for VET learners and staff. Responsible body for programme implementation in the Czech Republic is called "Dům zahraniční spolupráce" (DZS / Centre for International Cooperation) which is actually state organization established by the Ministry of Education, Youth and Sports of the Czech Republic. There is opened a Call for proposals allowing to submit project proposals every year. Simplified method for applying for a grant is possible via obtaining VET Charter for experienced organization under some particular conditions. Beside that in daily practice the international students' exchange is organized on bilateral base between particular schools and in frame of industrial concerns as well.

Additional information

Regarding the issue of drop-outs, the rate of early school leaving has been traditionally very low in the Czech Republic. In the respective period 2012 (according to EUROSTAT indicator), the proportion of people in age group 18 - 24 years with only the basic education was one of the lowest in whole Europe – representing only 5.5%.[3]

The latest developments in unemployment rate of youth in the Czech Republic is quite optimistic in comparison to the rest of Europe. The rate was reaching 15.6 % and was significantly below the EU 28 average in end of 2014. At the same time these results were also the best among V4 countries.[4]Nevertheless it is necessary to underline that there is still quite significant mismatch in our society between the structure of study fields provided by schools and the real demand of the labour market. Schools usually open classes with those study fields according to pupils' demand without any restriction and regardless their future employability. There exist a strong appeal from the side of employers for adjusting capacity of study fields according to short-term predictions (3 – 5 years) in correlation with real demand of labour market.

In this context there can be mentioned additional interesting observation that the Prague as a Capital of the Czech Republic (and at the same time as a separate NUTS II region) had the lowest unemployment rate among all NUTS II regions from the all EU28 countries, reaching only 2.5 % in the 2014.[5]

[3]Zpráva o předčasných odchodech ze vzdělávání / Report onprematureschoolleaving, Jiří Tillner, MBA, 2013http://www.nuv.cz/uploads/Predcasne_odchody_12_2013.pdf

[4]Youth unemployment rate in EU member states as of November 2014 (seasonally adjusted) http://www.statista.com/statistics/266228/youth-unemployment-rate-in-eu-countries/

[5] EUROSTAT 2015, http://ec.europa.eu/eurostat/documents/2995521/6797549/1-22042015-AP-EN.pdf/5da0f7cc-de7e-456b-b752-54b4c2d412e9

POLAND, Związek Rzemiosła Polskiego

How does the career orientation system operate before the start of vocational training?

Primary schools: There is vocational orientation and council in primary school, teachers organize some events and lessons for pupils (1st phase in classes I-III and 2nd phase IV-VI) for example: "introducing into world of professions", "acknowledgment of labour role in the life of a human". This kind of activities are done by institutions under Ministry of National Education. Those actions are done within pedagogic-psychological councils (PPP), Schools Career Centres (SzOK) and Internal-School Vocational Advisory System (WSDZ).

Gymnasium: in that type of school teachers, psychologists and vocational guide are coming to aid. With their help pupils should know their weak and strong points of character, know kinds of professions, know structure of upper-gymnasium schools, have knowledge on functioning of labour market and know where can find help in the moment of choosing profession. They should be also prepared for filling documents needed for applying for job. Those activities are combined with class discussions, competitions (like: "Professions of the future"," Professions characteristics", etc.

How to encourage students in the primary schools to learn a trade, how does the knowledge of the craft professions reach the children and the families?

Teachers do it through games, riddles and inviting some specialists to schools. There are also some guidebooks like: https://wyszukiwarka.efs.men.gov.pl/product/orientacja-zawodowa-poradnik-dla-doradcow-zawodowych-nauczycieli-i-pedagogow-szkolnych-kl-iv-vi/attachment/1223

There are some basic terms to introduce, like vocational preferences, abilities. Except of lessons, excursions for the companies and inviting professionals there are also competitions, educational fairs and other non-formal initiatives.

As for the crafts – Polish Craft Association (ZRP) together with craft chambers for about three years now organizes competition "What kind of profession do you know". It is done for pre-school kids, primary schools (drawing posters), gymnasium students (photographic competition) and secondary-school pupils (making short movies) with attractive prizes. Each year few thousands works – posters, photos and movies are beying send to craft chambers. Moreover from the money of Educational Fund ZRP (Fundusz Oświatowy ZRP) we have financed 30' movie "I choose craft" with presentation of famous, fortunate polish craftsmen.

Brief description of the dual education system in secondary vocational education with special emphasis on the rate of participation of young people in secondary vocational schools. What are the proportions of practical training in secondary schools?

There are two kinds of VET secondary level schools in Poland.

a) 3 years Basic Vocational School (ZSZ) with possibility to learn profession in craft company as juvenile worker/apprentice
b) 4 years Technical school with possibility to access matura exam

One of the main topics highlighted by Ministry of National Education in the process of VET modernisation was to equalize level of general knowledge of first year secondary school students (gymnasium graduates). That's why medium proportion between general subjects and vocational subjects in VET schools is 1:1. Nevertheless in the first year of the secondary school all students have increased number for general subjects and in most cases only 1 day in the workshop (technical schools or some ZSZ) or in the company (ZSZ).

As for the ZSZ usually there is 1 day in 1st class, 2 days in 2nd class and 3 days in 3rd class, but since 2012 it depends on school's director. School is bounded by the regulation on the basic curricula for vocational education. Till 2012 there were 2 and 3 years learning professions in ZSZ. During three years learning period there were about 280 days (about 1640 hours) for practice in the school's workshop or in the company. Starting from 01.09.2012. there is new legal order (due to the VET modernisation) and there is regulation on number of minimum hours for vocational preparation – it is about 850 hours set as a minimum (60%). It can be increased by the school's director, but in some cases it does not take place. In many cases it is derivative of the relations between craft guild or chamber with the school, or even self-government unit. In Poland there is about thirty VET schools conducted by craft guilds or chambers associated in ZRP.

This is the problem connected also with demography and so called "pensum" for teachers – a minimum number of weekly worked hours. In schools with domination of workshops and vocational laboratories often there is a situation, where practical vocational preparation is done in the minimal manner and more time is spend in the classroom (more teachers can stay in the employment).

ZSZ students are divided for two groups:

a) Students who have practical vocational preparation done only in school (classroom and workshops or vocational education centres - CKP)
b) Students – juvenile workers (definition is set in the Labour Code), who have theory in the classroom and practical vocational preparation is done on the ground of the working-learning contract (alternate training). That is the case of **apprenticeship**, with contract, payment (small salary with social charges) and fulfilment of the curricula finished with the journeyman exam.

As for the vocational preparation of technical school, usually there is 1 day training during 3 years in the school-workshop and 2 months **internships** in the company (generally without payment).

Are there subjects of general education in secondary level vocational training not offering maturity exam paper?

Yes, there are subjects like: chemistry, history, knowledge about society (WOS), defensive preparation (PO), and environment protection. In most cases you have your maturity exam from polish language, mathematics and foreign language

Is the minimum number of hours devoted to practical training the same in school type training and education and adult training? Regarding the different trades / professions where there are both school type and adult training opportunities, are the numbers of lessons the same, or adult training is much shorter?

No, in the case of Adult's vocational preparation it is shorter and lasts about 12 months (however is very practically oriented). As for the vocational qualification courses (KKZ) it may last longer 2-3 semester, depending on the content of the qualification and organisation processes in the school.

Can those who have completed a secondary level vocational school continue their education and obtain higher level vocational qualification?

Only by finishing complementary lyceum (complementary technical schools were eliminated in 2012). After matura you can go to University of Technology and became an engineer.

In secondary level professional education and training, where does practical education and training take place? In vocational training centres, or at companies, or both, and what is their proportion ratio? In other words, what do you mean by dual training?

School (workshops, laboratories, practical education centres developed for the school needs) and in the company (apprenticeship and practical training in the form of internships)
Dual training is done only in the way of apprenticeship, when you have mixed methods of vocational preparation – in school (theory) and in the company (practical part) but based on the working-learning contract with the employer (with salary, curricula leading to the final validation).

What is the size of youth unemployment, and what percentage of the young people learns trades / professions (missing trades and over-trained trades)? What is the unemployment rate of the age group between the age of compulsory education and 30 years of age?

In the year 2012/2013 in Poland there were:

- 2352 high-schools with 580.000 students
  - 1978 technicalschools with 520.000 students
- 1378 Basic Vocational Schools (ZSZ) with 184.000 students
- 2735 after-lyceum schools with 323.000 students (age 19-21)[6]

Overall youth unemployment rate in Poland is about 27%

Unemployment rate of young people in Poland (2005-2013) – division on the education levels (15-24 years old, percentage)

Year	**All levels**	Primary education	Secondary education	Tertiary education
2005	***36,9***	*41,2*	*37,0*	*29,3*
2006	***29,8***	*36,3*	*29,5*	*23,2*
2007	***21,7***	*22,8*	*21,7*	*20,0*
2008	***17,3***	*20,6*	*16,9*	*16,8*
2009	***20,6***	*24,5*	*20,2*	*19,6*
2010	***23,7***	*30,3*	*23,1*	*20,7*
2011	***25,8***	*31,8*	*25,4*	*22,0*
2012	***26,5***	*33,2*	*26,0*	*22,5*
2013	***27,3***	*32,3*	*27,2*	*23,5*

Source: Sedlak&Sedlakon the base of Eurostat (LFS)

[6]Źródło URL: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Main_Page

What is the proportion ratio of unskilled, skilled at secondary level, having passed the maturity exam and those with university degree among the unemployed young people?

In 2014 (II. quarter) among higher education graduates 11,6 % were unemployed

VET with matura (technical) – 21,9%

High-school graduates – 10,9%

IVET schools (ZSZ) – 27,7%

Gymnasial, primary school graduates – 27,9%

How big is the drop-out rate: what is the number / proportion ratio of those young people who do not finish the elementary school and what is the number / proportion ratio of those young people who drop out of secondary vocational training?

Generally it is 10% of drop-outs in Poland, we can estimate drop-outs among ZSZ graduates on the level of 15% (average)

Could vocational training supported with good practical training promote to increasing the chances to find a job?

Yes, researches done by one of labour observatory in Krakow made comparison analysis, that confirm observations from few craft chambers (Białystok, Lublin, Mazowsze). There is greater chance to find a job after apprenticeship than after strictly school way with workshops. After apprenticeship system you have about 10% of NEETS and after school system 20% of NEETs on the ZSZ graduates level.

Which are the institutions promoting the exchange of skilled workers?

Craft chambers and guilds (in a pilotage way through ESF funds projects like "Flexicurity Platform for SME's…" led by ZRP and craft chamber in Szczecin. Other activities are done mainly by labour offices, temporary agencies of employment and sometimes through associations and NGO's.

What are the opportunities for the exchange of young skilled workers in the area of practical training within the V4 countries?

Erasmus + and maybe in the international projects taken from operational programmes.

Are there targeted projects to promote this exchange and how typical is it that young people visit other V4 countries to see the trades / professions there?

I assume that, there are some solutions to promote this kind of exchange between our countries and organisations, however it is not typical to make exchange of students between V4 countries, in the previous period more popular were study visits of apprentices in Spain, Italy, France and Germany.

Conclusions which are considered to be important according to your organization in your own country for the promotion of dual education.

Important issues are:

1. Dual system clear definition
2. EU Financing instruments for development of dual system (apprenticeship and development of examination system)
3. Cross-organizational and media promotion company
4. Continuuing development of quality assesment system in craft exams

Slovak Republic, SZZ SK, Slovenský Živnostenský Zväz

Slovak education system

In Slovakia, young people finish the 9 grades of the primary school. Entrance to the Primary (Elementary) school: 6 Years old.

School attendance is compulsory up to 10 Years. Elementary School + 1 Y. secondary school.

Pupils could start secondary **vocational school** after the completion of 9 grades of primary schools.

Duration of the secondary vocational education could be :

2 Years: with limited vocational content
3 Years: finished with a vocational certificate or: + 2 Years ends with Graduate exam

Secondary vocational schools and secondary high schools
Duration of Secondary schools could be 4 or 5 Years
The full secondary education is finished with the Graduate exam.

In Slovakia there are secondary vocational branches: electrical technology, geodesy, tourism, conservatory, industrial, medical, commercial academy, sports, art, agricultural, timber, pharmaceutical, chemical, pedagogical, etc.

Gymnasiums: **Duration 4 or 8 Years** - if attended after 4 or 9 Years in Elementary school.
Gymnasiums: generaly pupils continue their studies in College or University

Details of ISCED 3C vocational schools

Duration of the education 3 Years: finished with a vocational certificate

Tasks of education	Education in Weeks	Education in hours
General education	22,5 (x 32 óra)	720
Professional education	61,5	**1968**
Variable education	15	480
Total	**99**	**3168**
Professional education	**61,5**	**1968**
Economical education	3	96
Communication	**2**	**64**
Technical and technological education	**9**	**288**
Practical training	47,5	1520

Practical training

General education represents 25% of the total training hours / 75 % is professional education including practical training which is approximately 50 % of the total training hours.

Practical training is carried out according to the current legislation, to the extent at least **1520 hours** per study. It's curricula is formed according to the final examination requirements and the current legislations. For the implementation of qualified education it is an absolute requirement to create the possibilities of acquiring professional practical knowledge by receiving practical training in school workshops, or companies and getting professional knowledge at school. At the theoretical and practical training students could be divided into groups, especially for the interest of safety and health in accordance with the actual rules and in compliance with hygiene requirements. The number of students per professional instructor is prescribed by law.

Variable education is 480 hours

The available hours for variable education means that the training material could be modified in the school curriculum and at the same time the external and internal differentiated study is possible in secondary school. School management decides on its implementation on the basis of the school' education and training concept**.** The content of the teaching takes into account the needs of students and parents, the needs of the region and the human resources of the school.

Overall, the ISCED 3C vocational training means 1968 vocational training hours from which the practical training is 1520 hours.

Adult training - retraining courses (e.g. through NUCZV, Institute of Life-long learning). The duration of the adult education generally **500-600 hours**. For example, a re-training course for tiler profession takes 500-600 hours from which the theory is 200-250 hours and the practice is 300-350 hours. The pre-condition for enrollment: vocational qualification in a close profession, like bricklayer.

The youth unemployment ratio under 25 years of age is more than 35%.

But usually the problem is not the age, but the education level. The youth unemployment ratio doesn't contain the students at college and university. Employment rate of people with only basic education is **30 %**, but with secondary education is **66%.**

This situation is not just a problem for young people. Education is simply not aligned with labor market needs, and any form of support does not help to young unemployed if this basic condition has not been resolved. Only education reform can help on it.

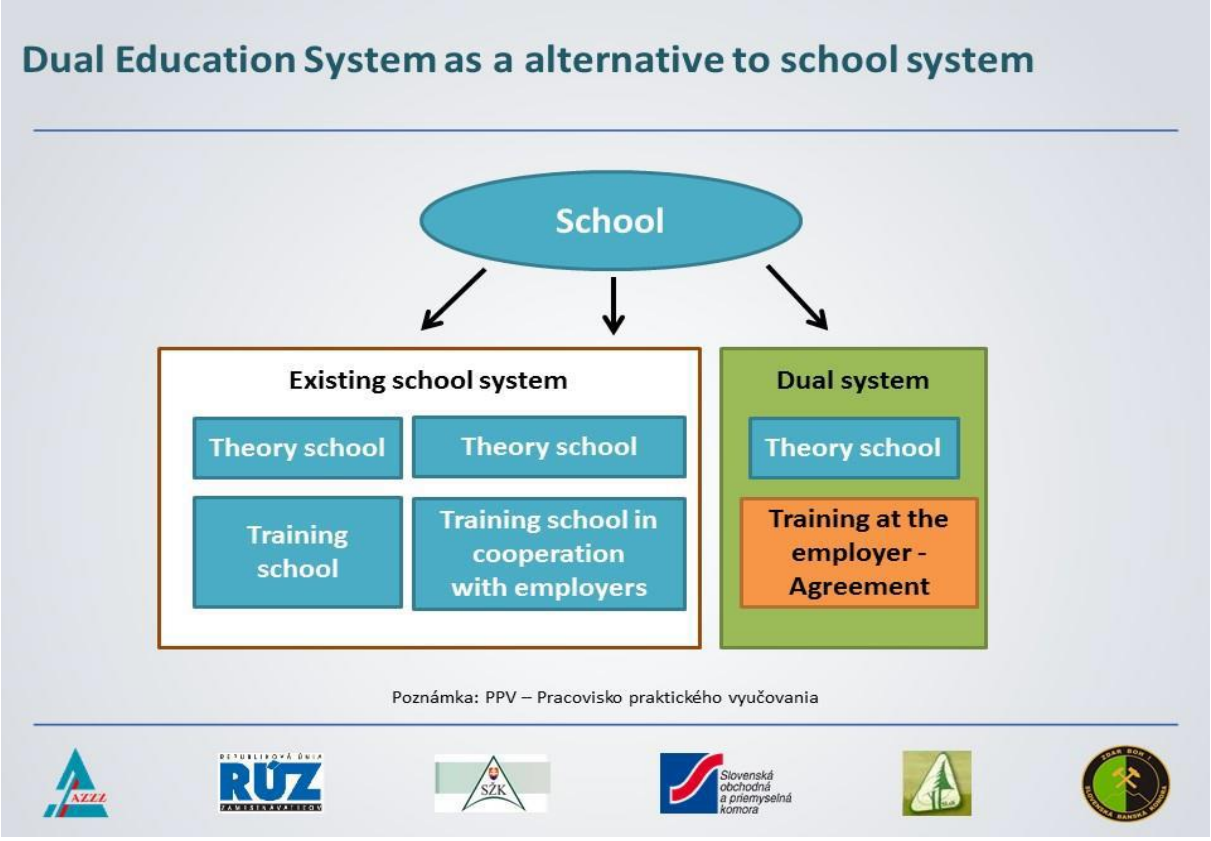
Why do we need to restructure vocational training, which will be adapted to the needs of the labour market

According to the labour market needs of 2013 – 2018, 30,000 secondary-level skilled workforce would need each year. In secondary schools the number of graduates per year is less than 50 000 people (100%). From this number 30,000 persons go to colleges, universities

(60%), unemployment will be around 15 000 people (30%). Less than 5 000 people who learn the requested professions (<10%). More than 30,000 skilled workers retire each year, but only less than 5000 !!! qualified students coming out from secondary vocational education system!

It did not come further major investment in the territory of the Slovak Republic since 2006. Any discussion with any potential investment partners begins about the appropriate number and quality of labour force, because there is a shortage in it.
There is a lack of practice-oriented cooperation between schools, educational organizations and businesses.

The **dual system** of education (school + company)



The dual educational system means the coexistence of the school + factory / plant. Such an educational system successfully worked until 1989, but after 1989 most of the companies went bankrupt or had economic problems, therefore terminated their professional-training centers. All passed under the leadership of the state or discontinued.

The ZZZ, RUZ and other representative employer and trade organizations (Chamber of Commerce, Agriculture, Small Enterpreneurs), which are involved in vocational education and training under Law 184/2009 agreed in order to improve vocational education and training it is necessary to adopt a new law.
A set of principles should be laid down in this new Act under which **the dual education system can be launched again.**

The new law proposal was accepted by the government and forwarded to the Parliament on 9 January 2015.

The debate will be on what obligations the government requires from the employers and what will be the corporate incentives (tax credits, financial aid, etc.) What kind of support will be given to professional and trade associations, which will participate in the dual training (development of training materials, the organization of professional exams, etc).

The Slovak organization considers the followings as important elements of the dual training:

• The existence of a contract between students and employers
• Contract on dual education between the school and the employer
• Students remuneration
• Checking the suitability of the employer
• The review of the human resource, training and financial conditions that the employer is prepared to receive students in the dual education system
• The proper ratio of theoretical and practical education for the benefit of practical education

Existing Projects which contain elements of the dual training to promote vocational education and training in an innovative way, with the involvement of enterprises.

Volkswagen Projekt from 01. September 2013

2013.09.01- től, training for mechanics, electronic, high voltage electronic equipment mechanics, toolmakers

T-Systems Slovakia Projekt, post-secondary study, a higher degree of computer systems

ŽELPO Projekt

WKÖ – MIBA - ŠIOV Projekt, co-operation of 10 Austrian companies and MIBA in West-Slovakia – in metal mechanic, mechanic - set / adjustment occupations,

Danube Dual Academy, VW and its suppliers, cooperation of V4 countries in Danube Region

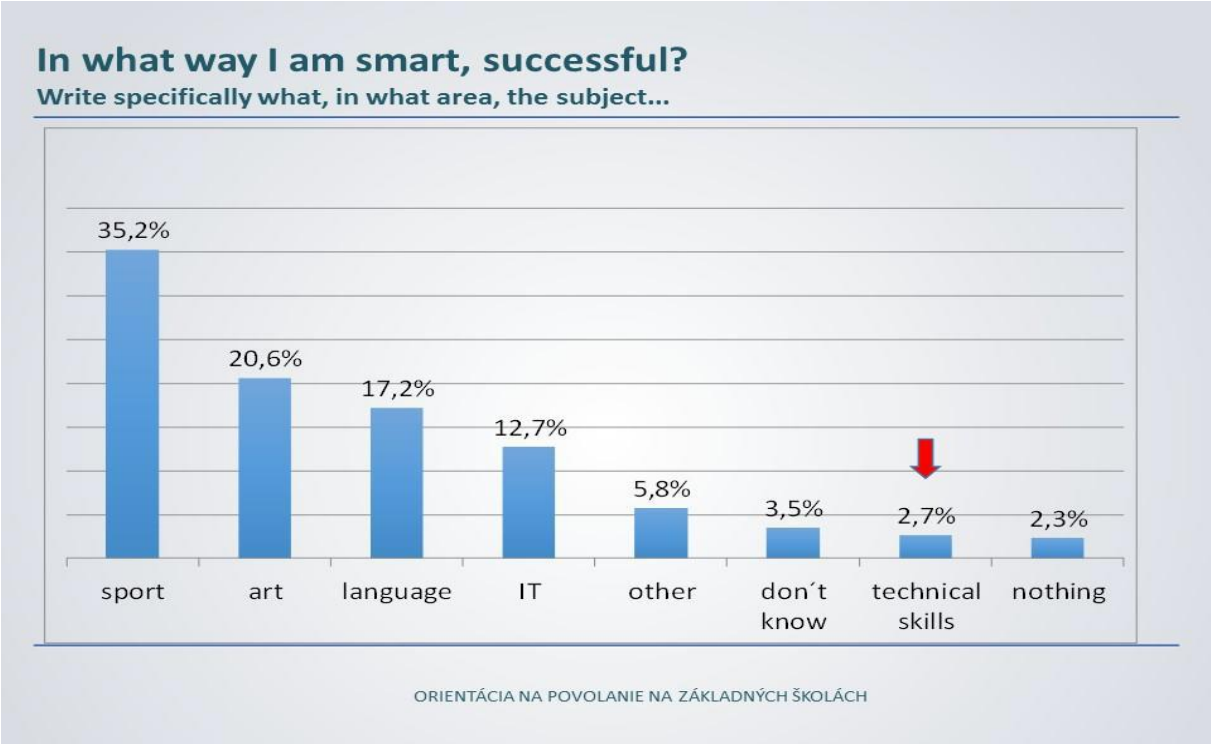
COMMON GOAL

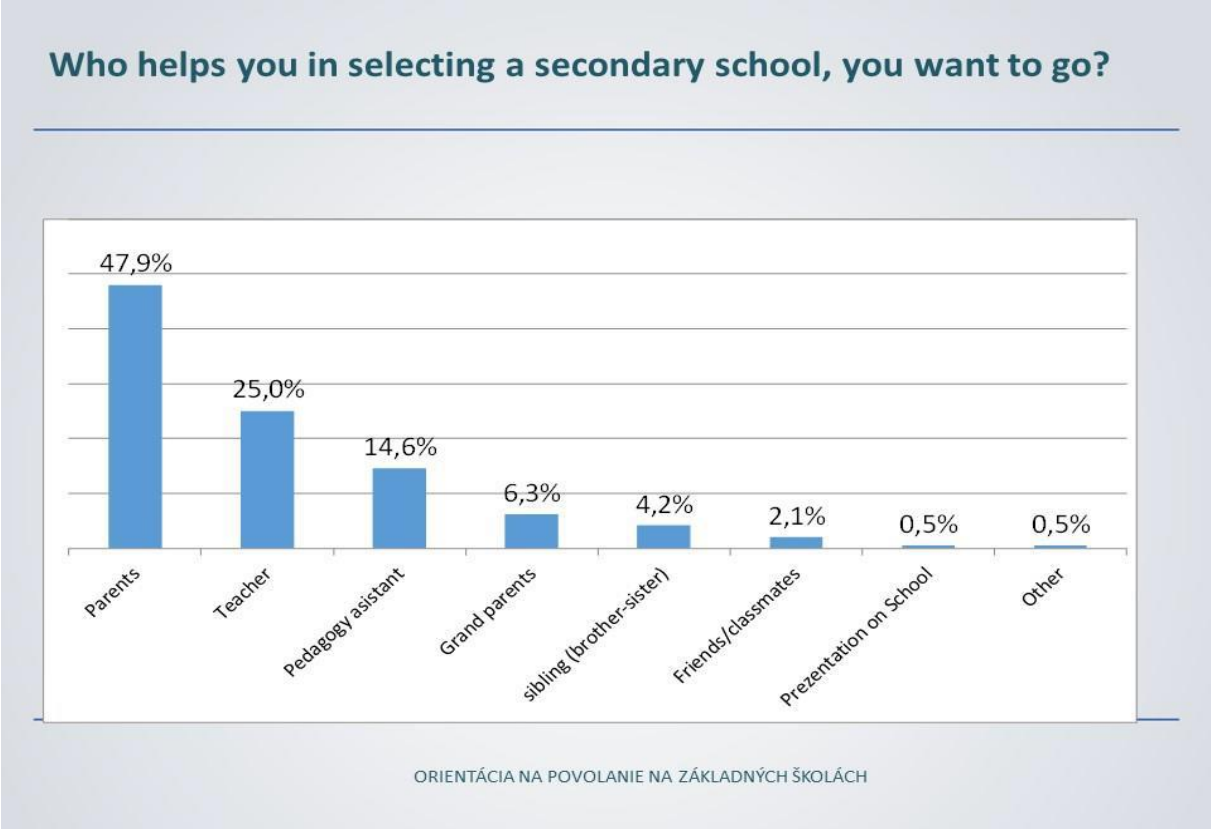
Vocational education and training should start already in primary school with the development of polytechnic education, which aims to develop skills in the workplace and to find the talents.

Only 2.7% of primary school students are skilled in technical issues.

The table below shows that primary school students in what areas can imagine to prosper in their life.

As shown in table 2.7% of primary school pupils think that will work as skilled craftsmen to earn money.


In what way I am smart, successful?
Write specifically what, in what area, the subject...
35,2%
20,6%
17,2%
12,7%
5,8%
3,5%
2,7%
2,3%
sport
art
language
IT
other
don´t know
technical skills
nothing
ORIENTÁCIA NA POVOLANIE NA ZÁKLADNÝCH ŠKOLÁCH


Who helps you in selecting a secondary school, you want to go?
47,9%
25,0%
14,6%
6,3%
4,2%
2,1%
0,5%
0,5%
Parents
Teacher
Pedagogy asistant
Grand parents
sibling (brother-sister)
Friends/classmates
Prezentation on School
Other
ORIENTÁCIA NA POVOLANIE NA ZÁKLADNÝCH ŠKOLÁCH

Parents and their children are not interested in the direction of vocational training schools.

Everyone wants to send their children to seondary vocational schools or secondary high schools, independently whether it is appropriate for the child's ability or not. This is complemented by the fact that there are few students in classes, so the schools can not pay the qualified teachers, there’s not enough money for the preparation of academic and professional educational materials.

So it is very difficult to apply the dual training system. More motivation discussion is needed with students and their parents.

Hungary, IPOSZ, Ipartestületek Országos Szövetsége

Dual training as a means to facilitate youth employment. Practical training of skilled workers in the V4 countries.

On 05 March 2015, an international conference was organised about the above-mentioned topic, with the participation of four organizations from the V4 countries. The experiences of these four organizations were summed up in a short study. You find below the summary of the Hungarian experience.

In Hungary, young people finish the 8 grades of the primary (elementary) school. Subsequently, they can either attend a secondary grammar school with 4 years of study, providing maturity exam, or a secondary vocational school with 4 years of study, providing maturity exam and vocational certificate or a vocational school with 3 years of study giving vocational certificate for skilled workers. The present study mainly focuses on school type secondary vocational education and its environment.

The environment of vocational training in numbers

In Hungary, the number of employed persons was 3,781,000 in 2010, and increased to 4,122,000 in 2014. This number also contains public workers. If we examine the employment rate of persons under the age of 25 by educational level, we find the following employment rates in comparison to the relevant figures of the EU:

Ratio of employed persons in

	Hungary	EU
with		
Primary education	5,3 %	19,9 %
Secondary education	31,3 %	42,9 %
Higher education	50,0 %	54,8 %

If we examine the unemployment rate of 20-24 year-old persons during the past 8 years, we get the following picture:

	2006	2009	2013	2014, Q1
Max. primary education	28%	42%	42%	31%
Vocational school	15%	25%	24%	18%
Secondary grammar school	16%	21%	23%	20%
Secondary vocational school	14%	19%	23%	14%
Colleges and university	17%	19%	18%	15%

The figures show the impacts of the economic crisis and the results of the employment policy efforts introduced in the recent years.

The overall unemployment rate of the 20-24 year old persons in 2013 was 25% in Hungary, while the EU average was 22%, but - for example - in Spain, this ratio was 51.8% and 56.2% in Greece.

System and structure of secondary vocational education

In 1990, approx. 174,000 students started their secondary education, while in 2013 their number was only a little bit more than 120,000. The difference is cc. minus 50,000 students at the 9th grade, which affected almost exclusively admission to vocational schools. It means that the number of children decreased, and the reduction was even bigger in the number of those who want to learn a profession, resulting in the development of so-called shortage occupations for which it is difficult to find young people.
It is therefore very important to start career guidance already in primary schools, which is done by the chambers, trade associations and other organizations. Nevertheless, we can conclude that the relationship between schools and the economy in this area should be strengthened, in particular with regard to the support mechanisms granted for professional organizations. The base for skilled workers can be composed also of those who have not completed the 8 years of primary education, or the young people who dropped out of the school system. For these young people, dual training, cooperation between vocational schools, the families and micro enterprises, in short, the world of working life offer assistance to social and behavioural adjustment, and breakout points. Special vocational schools help this work, working closely especially with family and micro enterprises. The government also operates a programme called BRIDGE to help those who haven't finished the 8 grades of primary school to reach the entry level to vocational schools.

Within the secondary vocational education system, students can opt for 3-year vocational training, which ends with apprenticeship exam and provides vocational certificate or 4-year secondary vocational education, which also provides maturity exam. The current government measures intend to develop both types of education into a 5-year education, meaning that after 3 years of vocational training it will be possible to obtain maturity certificate with 2 extra years of education, while in the case of secondary vocational schools, after 4-years of training, it would be possible to obtain skilled worker or technician degree in 1 year. Dual training is present in both systems, which can be started after the completion of 8 grades of primary school (school attendance is compulsory up to 16 years of age).

Dual training

There are several forms of dual vocational training in Hungary. It can be realized with the co-operation between schools and medium and large companies, or between schools and micro and small enterprises, craftsmen, and also in the form of apprenticeship contract. In a broader sense, training at school workshops, laboratories is also seen as dual training.

Based on the German, Austrian and Swiss vocational training patterns, IPOSZ has a very definite idea on the interpretation of dual training. The followings are the main ideas of this interpretation: The key element of dual vocational training is that practical training takes place in handicraft enterprises in a real market environment. Theoretical part of the training takes place at vocational schools, and the school workshops also have their role in certain phases of the training. However, practical training provided at the companies is the dominant, core part of the whole training exercise. Concerning to the ratio of teaching hours between professional theory and practice, the number of practical teaching hours must be dominant, which, in reality means professional practical training provided in work environment. General education in vocational schools should be kept at minimum level, since primary school system is the appropriate venue for the provision of general knowledge. The curricula, the theoretical and practical training materials should be continuously consulted, in advance, with the trade organizations representing real economy, in the area of craft trades too. Practical training, especially in craft occupations, should be start at the right age. Vocational training system must be aligned with and adjusted to the needs of the economy.

Apprenticeship contract can be concluded in grades 2 and 3 of the 3-year vocational training, and the first grade shall be spent in the school workshops. In the dual training system, the enterprise and the pupils assume the obligations arising from practical training by signing the apprenticeship contract. Apprenticeship contract might be concluded for the first qualification recognized by the government. The apprenticeship contract contains various benefits for the apprentices: cash benefits, other benefits (e.g. cheap meals, working clothes, protective clothing, and reimbursement for travel expenses). In the case of shortage professions, in addition to the above, study grant can also be awarded to students. Decisions on the structure of the profession issued annually in the form of government decree intend to match vocational training to the needs of the labour market. The decree lists those professions that can be taught within the school system and divides the secondary vocational branches into three categories for each county for the purpose to be funded from the central budget:

a) Funded professional qualifications: schools are entitled to enrol students without any restriction, and are entitled to receive budgetary support without limitation;

b) Unfunded professional qualifications: schools are not entitled to receive budgetary support, but are entitled to enrol students and to launch courses for a fee,

c) Professional qualifications funded with limitations: schools are entitled to receive budgetary support but only for a limited number of students

A significant part of the costs deriving from the apprenticeship contract can be reimbursed from the Vocational Training Fund. The majority of businesses with employees are obliged to pay a certain amount of money into the Vocational Training Fund.
In 2015, the government issued the document "Vocational training in the service of the economy" in the form of a government decree. This was necessitated by the fact that more skilled workers, technicians are needed than the training system was able to emit during the

past years, and there is a lack of well-trained and reliable employees with a broad knowledge base who could be involved into modern production, completed with the fact that nowadays the need for unskilled, cheap labour force is quite low.
Unemployment and lack of skilled labour force simultaneously characterise the labour market.
Transformation of the vocational training system became necessary. Its purpose **is to increase the attractiveness of the vocational training system,** restore the honour of manual labour, ensure interoperability between different school types, increase the attractiveness of vocational training **in order to assure that in the future more people opt for professional qualifications provided by secondary vocational education.**

For this purpose, it is necessary to increase / eliminate the age limit in full-time school-based vocational training. The so-called BRIDGE programmes should be extended to those students who haven't finished the 8 grades of the primary school, but are older than 14, so that every student leaves the education system with a vocational certificate. The number of young people choosing shortage professions shall be increased via fine-tuning the scholarship system. The scope of shortage professions supported with scholarships and grants shall be extended. The different forms of school-based adult education (evening, correspondence) on practice-oriented professions shall be broadened. The primacy of company training shall be emphasised with the introduction of the "Guarantee by the chamber" system. The supervision of practical training and its efficacy shall be improved with the introduction of sector-specific regulations. The share of apprenticeship contracts shall be increased also in vocational (technician) professions. In the case of some state and EU subsidies, the companies participating in practical training should enjoy advantages. With the active involvement of the chambers of commerce, more practical work placements should be created at small and medium-sized enterprises and more workshops at large companies. Intention: increase the number of businesses participating in practical training from 8,000 to 20,000 till 2018. At the same time, the number of apprenticeship contracts should be increased from the actual 50,000 to 70,000 till 2018. The National Office for Vocational and Adult Education was established for the purpose to manage and coordinate these tasks.

If we examine the numbers of dual training, then we find the followings:
At the 3-year vocational schools, the ratio of the number of lessons teaching general and practical knowledge between 1990 and 2013 was the following:

	Practical lessons	General education lessons
before 1990	2500	924
in 2006	1922	1512
in 2011	1903	959
in 2013	1826	1348

Currently, 1-2% of the enterprises are engaged in apprenticeship training. It means that especially the willingness of micro-enterprises declined. In a ten-year perspective, the number of apprentices learning in vocational schools has increased barely with 1% (in 2012-2013

academic year 22% of the students), the number of secondary vocational school students dropped from 46% to 41%, and the number of secondary school graduates increased from 34% to 36%. All this happened, as we have seen, simultaneous with the decrease of the total number of children. **The feasibility of the Governmental objectives presupposes that small and micro enterprises are more involved in this activity, that the professional organizations have a greater role in it, in addition to the role the Chamber of Commerce plays and the need to launch a comprehensive campaign to improve the social status of vocational education**.

The 2015 enrolment data show the followings: 2.2 and 2.8 percent more students attend secondary schools and vocational secondary schools than in the previous academic year. However, 1.4 percent less pupils enrolled in vocational schools. The majority of recruits, 40.5 per cent of the students (more than 32 and a half thousand students) will study in secondary vocational schools, which is 0.5 percent higher than last year. The proportion of secondary school students slightly increased compared to the previous academic year: from 34.3 to 34.6 percent, a total of nearly 28 thousand students. Vocational schools were the least preferred school types also this year. In 2015, a little bit more than 20 thousand students will begin their studies at vocational schools, 24.9 per cent of the enrolled students compared to last year's 25.7 percent.

In Germany, the practical part of the training period represents 90% and the general theoretical part only makes up 10%. In Hungary, this ratio is 67% and 33%, respectively. In Germany, 70% of professional practical training is done in a real work environment, at companies and only 30% of it is done at school workshops. In Hungary, 46% of practical training takes place at enterprises and 54% at school workshops. In Hungary, the proportion of students learning in dual training is cc. 33%. This rate is 39% in Austria, 51% in Germany, and 63% in Switzerland among young people.

In the society today, there is a debate about dual training. Many people have not realized the socializing and educational importance of practical employment/training at a real workplace**. Undoubtedly, the apprenticeship contract is one of the means to reduce youth unemployment and it is a great achievement that the number of apprenticeship contracts increased from about 6,600 to 48,000 between 1998 and 2014. However, we cannot be satisfied with the actual number of existing practical lessons and the structure of companies providing practical training for pupils.**

<u>Some arguments in favour of the advantages of dual training</u>

Apprentices often stay and continue as workers at the receiving enterprises after completing their practical training. This solution reduces youth unemployment, because the number of practical training places is in harmony with labour market demands. Trained pupils acquire professional certificates, and their practical skills have become known for the company during the years of practical training. Experiences show that those who have received such training

are more loyal to the businesses. The trainees contribute to the enterprises' value creating activities during their practical training. The apprenticeship exam and its document is transparent and recognized all over the country, transacted according to specific criteria, it's a public exam.

Vocational certificate issued pursuant to dual vocational training offers a competitive advantage compared to other skilled workers who have been trained in school workshops due to its proximity to practice. Remuneration granted during practical training assures a certain level of economic independence to the pupils. Training costs are shared between the company and the state, and it makes these costs bearable. Practical training conveys a customer-oriented behaviour and a professional attitude. Practical training takes place in everyday business and in real professional situations. It is possible to gradually introduce the trainees into service and professional life. Practical training provides great mobility, thus in case of technical changes the trainees can relatively easily switch to related professions. **Single-minded, creative and responsible work has a personality forming effect.**

At an early stage, it contributes to the development of the capability to act independently and the liability towards clients and colleagues. It facilitates for the parties to experience the joy of work with the execution of actual orders and creation of real products (in contrast to school workshops.) Based on the above we can say that dual training can connect to numerous training forms and provides a career, to become a manager, or self-employed including further education at universities and colleges as well.

Acquisition of practical experience in V4 countries

It can be seen that a decisive part of dual vocational training is professional practical training, mostly executed in real economic environment. In this small study, the V4 countries' four craft organizations reviewed the secondary vocational education system. It can be concluded that there are differences in the systems of the participating countries in this area, but dual training exists everywhere and is constantly evolving.

The opinion of the four organizations is clearly the same regarding the evaluation of the importance of dual training and the positive role it plays in providing employment opportunities for young people. It was also their unanimous opinion that societies have become too academician and the honour of craftsmanship should be restored. The heads of the V4 countries uniformly **underline the need to develop a more unified economic area** with the participation of the four countries. **This can only be achieved if contacts among professions and relationships between young professionals become more intense, if many of them pursue practical training in other countries, and mutually recognize their existing economic opportunities in these countries.**

For this purpose, in this area better cooperation should be built between the craft organisations. The current situation should be mapped, together with the identification of those professions where the chances are the best to take the first steps. It is also necessary to identify the available sources and areas for funding.

It is a huge task, and the present study only tried to present the situation without being exhaustive and introduce two sources of support, namely the possibilities under the Erasmus + programme and the International Visegrad Fund. The Hungarian situation and views can be briefly summarized as follows:

Practical training at the companies undoubtedly helps the employment of skilled workers not only within their country but also in other countries. There are support programmes to facilitate it. Erasmus + programme is the most important to promote the exchange of trainees, young skilled workers. The support of the mobility of vocational students, participation of students in foreign internship, establishment of strategic partnerships, improvement of the quality of vocational training are all possible under the Erasmus+ programme, which thus helps to increase students' employment opportunities and develop their skills required for a successful life and strengthen European cooperation in the field of vocational training.

The programme supports several weeks or even months of internships abroad. It may also support the learning activities of groups of disadvantaged students accompanied by a trainer. However, experience has shown that a much higher proportion of realized student exchange is implemented among secondary high school and university students than among vocational school students. Of course, we should not forget about the language problems either, thus linguistic preparation is a must. Students may also hold professional presentations with the host students in vocational schools in other countries, and they can investigate the technical and organizational conditions. The acquired new vocational skills could be integrated into the curriculum. Techniques related to the organization of professional practice could be incorporated in the institutional documents and daily management practice.

Many projects could be developed to learn about vocational training schools and educational workshops in other countries, including V4 countries. They can also be very useful. **The most direct means of strengthening the region's common economy is the visit and work at production companies by young skill workers, where professional relationships could be developed, not only among young people but also with entrepreneurs providing practical training for trainees.**

In 2014, the Hungarian mobility projects show the following figures: 2,275 students' and 536 staff members' mobility was implemented. Out of these numbers 57 people went to Slovakia (previous year it was only 26), 31 people to the Czech Republic (previous year it was only 7) and 64 people to Poland (previous year it was only 48 people). However, these figures include the data from all school types. A growing trend could be seen in the V4 countries. In the case of Germany, the figure was 1,214 people (previous year 999), and to

Austria 173 people (previous year 69). This shows that Germany is the most important destination for mobility. **It will not be an easy task to divert the professional interest of young skilled workers towards the V4 countries. Efficient help from the professional organizations is required for that.**

Up until now, mobility in the V4 countries mainly focused on the hospitality industry, tourism, agriculture and technical studies. **An important task is therefore to make a wider assessment of the trades with the involvement of professional organizations regarding the craft trades and service areas where mobility be achieved with the involvement of micro and small enterprises.**

Students who have not as yet finished their studies can also participate in mobility programmes, together with the newly qualified skilled workers, if they completed their studies within a year. International practical vocational training can take place for a period of maximum one year from 2 weeks. The next time when applications could be submitted will be in March 2016.

Practical training is mainly carried out at the vocational training institutions. A series of issues must be more precisely evaluated in order to assure that practical training is realized at smaller companies. It should be mentioned also that so far we talked about school-based vocational training, **but in many trades more and more training is carried out in adult education**. This would require the extension of age limit in the projects in order to be able to support cooperation between older or even adult skilled workers. **We should also take into account that it is easier to arouse the interest of companies employing skilled workers if they can send abroad, also to V4 countries to acquire professional experience, those employees who have been working with them already for a couple of years. It requires an ongoing assessment of the economic needs among family, micro and small entrepreneurs.**

The Erasmus+ programmes are managed by National Agencies in every Member States. The National Agencies of the V4 countries:

Czech Republic: Dům zahraniční spolupráce (DZS) Centre for International Cooperation in Education - www.dzs.cz

Hungary: Tempus Közalapítvány - www.tka.hu

Poland: Foundation for the Development of the Education System
www.erasmusplus.org.pl

Slovakia: Slovenská akademická asociácia pre medzinárodnú spoluprácu
www.saaic.sk

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