

Kraj Vysočina – Vysocina Region

The Business Register of the Region, which contains all identification numbers issued to organisations, comprised 111,800 businesses as at the end of 2016. This number placed the Region last but one in the CR. The biggest number of businesses was reported for the Žďár nad Sázavou District (more than 25 thousand) and the lowest one for the Pelhřimov District (more than 17 thousand).

Economic performance of the Region in comparison with other regions of the CR is below the average. Share of the Region at GDP of the CR was during the last years about 4 %. In 2016 GDP per capita of the Region was more than 373,000 CZK, i.e. about 83 % of the national average.

The 2016 average monthly gross wage of an individual in the Vysočina Region was 24,534 CZK. /960 EUR/ Average wages in the Region were under the average of the CR more than 2 thousand CZK.

The proportion of unemployed persons in the population aged 15-64 years has reached the number of 5,17 % and was the eighth lowest in the Czech Republic at the end of 2016 and the number of unemployed has been permanently decreasing. The number of job applicants also decreased against the year 2015 by 17 %. There were 3 job applicants per vacancy. Now the offer for qualified labour force is high. Nowadays thanks to jobs created in new or emerging companies, the Vysočina Region is among the regions with very low unemployment rate lower than 4%, the same as the whole Czech Republic. The extremely low unemployment rate influences the whole economy.

The road and railway network in the Region is strategic from the national as well as from the European point of view. The territory is a part of Central-European urbanised axis (Berlin-Praha-Vienna/Bratislava-Budapest) and D1 highway thus fulfils its function in national and European transport. Recently the good strategic location of the Region has attracted plenty of foreign investors who deploy not only production plants but also research and development units there.

The economy in Vysočina is mainly focused on the production sectors. Compared to the Czech Republic's average, there is a higher share of people employed in agriculture (Vysočina 6.8%, Czech Republic 3.1%) and in industry (Vysočina 49%, Czech Republic 38.1%).

For example, in professional, scientific and technical activities, only 2.9% of people are employed in the Vysočina Region, while in the Czech Republic it is 4.3%.

In terms of economic performance measured by GDP, the Vysočina Region does not belong to the most important economic areas in the Czech Republic. In 2011, production in the region was more than CZK 150 billion, equivalent to 4.1% of the total output of the Czech Republic. GDP development over time copies actual economic situation, therefore, the indicator in the Vysočina region increased significantly until 2007, when the growth was stopped by the decline of industrial production, but the recovery was only in 2011. Firm's investments have been balanced over the last years and are slightly above CZK 30 billion per year.

The traditional metalworking and engineering industries dominate the industries in Vysočina region. However, the automotive industry, mainly the automotive component manufacturers, is particularly important here, and it developed in the Vysočina region after 2000, in connection with the large investments of foreign companies.

In the last five years, the value of foreign investments has ranged from CZK 50 billion to CZK 60 billion a year, and in contrast to the Czech Republic. In the first phase, investments in the Vysočina region were mainly for a cheap and yet qualified workforce (even today there is an average salary of more than CZK 2.5 thousand lower than the average of the Czech Republic). The largest investments were aimed at the automotive industry (Bosch Diesel, Automotive Lighting, Mann + Hummel). These large businesses use many local smaller businesses as their subcontractors.

The most important industrial company in the Vysočina Region is a manufacturer of diesel injection pumps for the Bosch Diesel automotive industry, which is the largest employer in the Vysočina Region and the third largest manufacturing company in the Czech Republic (joint-stock companies ŠKODA AUTO and ArcelorMittal Ostrava). Between 1993 and 2006, the company invested 650 million euros in Jihlava and increased its number of employees by 8 times between 1999 and 2007. However, the crisis in the automotive industry was not avoided by this company, and in 2008 and 2009 it had to leave about 1,800 employees. The unfavourable development is reversed in 2010 and the company recruits 500 new employees, but only for a short time. Another major engineering company in the region is Motorpal Jihlava, which has a similar production program as Bosch Diesel. Producer of Automotive Lighting - Automotive Lighting started in Jihlava in 1997 (it is a greenfield investment). At the end of 2007, 1,813 people were employed in the company. The crisis in the form of a downturn stopped in 2010 in Automotive Lighting, German Automotive Lighting Reutlingen GmbH, which is part of the Magneti Marelli Holding S.p.A. established in Italy.

Leading managers were asked why they chose the Vysočina Region for starting their business:

- the land was available here for a quite favourable price, close to the D1 motorway and a sufficient supply of highly qualified labour.
- people are hard-working, they are interested in their work and they are teachable because they are educated.
- an ideal starting point for a further expansion to the east.
- the quality of the infrastructure, including good accessibility to the main road and motorway.
- The location within the Czech Republic generally is priceless. For example, in two hours you are in Vienna, in three hours you are in Germany. "I do not know another such area that has such an ideal position for the export of goods." Rudolf Kaláb, Chief Executive, Böhm – producer of quality furniture

General way of cooperation of school and companies in the Czech Republic

In secondary vocational education, the government scales up the extent to which experts in the field are involved in teaching, and tries to expand cooperation between schools and businesses. The aim is to enhance the prestige, professionalism and employability of those who have apprenticeships and study technical subjects at secondary schools. Even if some people talk about apprenticeships, it does not exist – dual system is not a part of organisation scheme in secondary education. Nowadays the way of company involvement is a lot dependent on a school management. Nevertheless school founding bodies /regions/ tries to motivate school to cooperate in real business world. The Czech Republic has been suffering for last 3 or 4 years from a lack of working force that is way companies are fully involved in cooperation as well. Companies from Austria and Germany would appreciate the change towards a dual system but it is not currently "on the table". The critics emphasises the fact that companies would like to hire for apprenticeship good learners with significant motivation but

there are also learners who have weak skills and competences and furthermore the whole change would require also change in a tax system.

Nowadays possible ways of cooperation

- practical vocational training organised in companies
- financial support for buying machines and equipment
- training activities for vocational teachers
- internship for learners and teachers
- motivating visits and career guidance activities
- partnership built between schools and companies
- ESF projects promote partnership activities

Cooperation between schools and companies from the point of view companies and teachers

Companies:

1. Name of company: MANN+HUMMEL, <https://www.mann-hummel.com/en/>

Position in a company: MARCELA MARÁZOVÁ - Coordinator for schools and universities

What is a challenge for vocational education from your point of view?

Schools desire to prepare their students for the work reality. Their management is open and discuss the best approach, how to bring up graduates, who apply in practice. Above the hard skills, nowadays students are able to present themselves, follow the modern technologies, are used to cooperate in teams, practice is becoming a part of students life. The biggest challenge is to attract enough young people to start technical education.

What is the best way of cooperation of schools and companies from your point of view?

We appreciate if the length of practice is longer. It is changing to better, the schools understand why we prefer to have a student for a month or longer, not just a week or two, in the company. So from my point of view internships and practical training organised in our company is the best way of cooperation.

2. Name of company: CEZ GROUP, <https://www.cez.cz/>

Position in a company: LINDA NAVRATILOVA - Recruitment Specialist, CEZ Group, Dukovany NPP

What is a challenge for vocational education from your point of view?

The challenge for vocational education in the Czech Republic is to minimize cooperation with companies. In my opinion, vocational training should include min. 1/3 - 1/4 dual training in companies. Students should have a chance to get experience and also to have possibility acquainted with specific work / company / working conditions, but they should also be able to make money.

Specific work done and a specific reward could make students more motivated to study and better choose their professional career in future.

What is the best way of cooperation of schools and companies from your point of view?

I think that a collaborating company should have mentors who would support learners in their study path in a company. Companies should find practitioners who want to devote themselves to the youngsters and work with learners. I consider an interesting project a "dual system of education", which is taking place in the Moravian-Silesian Region. Generally saying our company support the idea of dual system scheme.

Schools

1. Name of school: Střední průmyslová škola Třebíč

Position in the school: headteacher

What is the challenge for vocational education from your point of view?

A big challenge is to hire qualified teachers. Nowadays the unemployment rate is extremely low and companies can offer much better salaries that is why that young ambitious professionals often prefer a company to become a teacher. Even large companies struggle with hiring employees.

Technical education should be popularized at lower secondary schools more, primary schools should reopen their workshops which were often closed during a previous reform at the end of 90s.

Identify and build more partnership activities between upper and lower secondary schools.

What is the best way of cooperation of school and companies from your point of view?

Long term internship in companies, internships of teachers in companies and training events with company professionals at schools I find as a best way of cooperation.

Erasmus+ KA1 gives excellent opportunity for students and teacher for sharing knowledge and competence abroad. It is a great tool for cooperation with companies.

2. Name of school: Střední průmyslová škola Třebíč

Position in the school: vocational teacher

What is the challenge for vocational education from your point of view?

- to involve new practices and equipment into study process
- better support from companies - study programs, equipment etc.

What is the best way of cooperation of school and companies from your point of view?

- internships for learners
- support for using modern technologies at schools, using the same equipment at schools and in companies

Evaluation of project activities:

The core activities were focused on training events for students and teacher. During 3 years learners and teachers visited workshops in all involved countries. Technical schools and companies prepared activities in partner countries - Finland, Germany, Spain, Portugal, Czech Republic, Poland and Spain.

While talking to teachers the most significant benefit for all learners were:

- building social competence like working in a team
- taking own responsibility for being abroad
- communication in English

Learners:

Learners worked in international teams, this arrangement was very useful in situations when learners had different level of previous knowledge. Learners always used various kinds of presentation techniques - CREATE studio, mobile applications etc. During the final presentation all teams of 2 learners presented their tasks for teachers. This was good feedback for teachers who could find out what their students had learned the previous 2 weeks.

Learners were not on the same level at the beginning of the blended mobilities, not all were studying the same course in terms of ICSED. There were differences in previously achieved knowledge and study programs.

Germany – ICSEED 3

CR, Poland, Spain, Finland, Spain - ICSED 4

Portugal – ICSED 5

Spanish teachers said that learners were chosen in a selection process where learners had to present a level of knowledge and language, it was not clear from the others what was the selection process like. It seems that German learners and Finnish learners were chosen with an intention to support their personal and professional development and encourage them for their further learning, on the other hand Czech and Poles were chosen as the best learners from their classes.

The processes and methods:

ECVET ideas are very important for the Finish school system and its principles are implemented in everyday learning process, for the rest of partners ECVET is a system of agenda which is not connected to school curricula directly. For example ECVET system in the Czech Republic is connected mostly with international projects but not with school curricula.

The project gave possibility to share various approaches and build professional self-confidence among learners and teachers. Teachers appreciated that they could exchange information from teaching process. Education is organised slightly differently in all countries involved – some countries developed dual system, traditionally in Germany but also in Poland in September 2015 work-based learning was the main goal of the legal changes, in Spain November 2017 marked the fifth anniversary since dual VET was first introduced. On the other hand in the Czech Republic the dual system has not been established yet but this discussion has already started. There are also differences in the length of study programmes in Finland programmes varies and are dependent on competences and motivation of learners in some other countries the time of study programmes is fixed.

Even if there many differences the goal of all people involved in the education process is the same – educate young people who will be able to control their future career, will be able to find a right place in world of work and life. Project MICA was designed to fulfil desired goals and it also became a very useful platform for continuing in bilateral partnerships organised in scheme of Erasmus+ KA1. Some partnerships have officially started because Erasmus+ KA1 projects have been approved. Also other partnerships from consortium have been preparing for the next call Erasmus+ KA1. MICA project seems to be a beginning of wide European cooperation among schools focused in engineering.