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Reference: (2019). The KOF education system factbook: Czech Republic. Edition 1. Zurich, Switzerland : ETH Zurich, KOF Swiss Economic Institute.

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KOF Swiss Economic Institute

The KOF Education System Factbook:
Czech Republic

Edition 1, December 2019

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List of Abbreviations

GCI	Global Competitiveness Index
GII	Global Innovation Index
GDP	Gross Domestic Product
ISCED	International Standard Classification of Education
KOF	Swiss Economic Institute
MEYS	Ministry of Education, Youth and Sports
NUV	The National Institute of Education
OECD	Organisation for Economic Co-operation and Development
PET	Professional Education and Training
UNESCO	United Nations Educational, Scientific and Cultural Organization
VET	Vocational Education and Training
VPET	Vocational Professional Education and Training
VPETA	Vocational and Professional Education and Training Act
WEF	World Economic Forum
YLMI	Youth Labour Market Index

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FOREWORD

The increasing competitiveness of the world economy as well as the high youth unemployment rates after the worldwide economic crises have put pressure on countries to upgrade the skills of their workforces. Consequently, vocational education and training (VET) has received growing attention in recent years, especially amongst policy-makers. For example, the European Commission defined common objectives and an action plan for the development of VET systems in European countries in the *Bruges Communiqué on Enhanced European Cooperation in Vocational Education and Training for 2011-2020* (European Commission, 2010). In addition, a growing number of US states and other industrialized, transition, and developing countries (for example Hong Kong, Singapore, Chile, Costa Rica, Benin and Nepal) are interested in either implementing VET systems or making their VET system more labour-market oriented.

The appealing outcome of the VET system is that it improves the transition of young people into the labour market by simultaneously providing work experience, remuneration and formal education degrees at the secondary education level. If the VET system is optimally designed, VET providers are in constant dialogue with the demand-side of the labour market, i.e. the companies. This close relationship guarantees that the learned skills are in demand on the labour market. Besides practical skills, VET systems also foster soft-skills such as emotional intelligence, reliability, accuracy, precision, and responsibility, which are important attributes for success in the labour market. Depending on the design and permeability of the education system, VET may also provide access to tertiary level education (according to the ISCED classification): either general education at the tertiary A level or professional education and training (PET) at the tertiary B level. PET provides occupation-specific qualifications that prepare students for highly technical and managerial positions. VET and PET systems are often referred to together as “vocational and professional education training (VPET)” systems.

Few countries have elaborate and efficient VPET systems. Among these is the Swiss VPET system, which is an example of an education system that successfully matches market supply and demand. The Swiss VPET system efficiently introduces adolescents to the labour market, as shown by Switzerland’s 2007-2017 average youth unemployment rate of 8.1 percent compared to 14.8 percent for the OECD average (OECD, 2017).

Though not many countries have VPET systems that are comparable to Switzerland’s in terms of quality, efficiency and permeability, many have education pathways that involve some kind of practical or school-based vocational education. The purpose of the KOF Education System Factbook Series is to provide information about the education systems of countries across the world, with a special focus on vocational and professional education and training.

In the KOF Education System Factbook: Czech Republic, we describe Czech Republic's vocational system and discuss the characteristics that are crucial to the functioning of the system. Essential components comprise the regulatory framework and the governance of the VPET system, the involved actors, and their competencies and duties. The Factbook also provides information regarding the financing of the system and describes the process of curriculum development and the involved actors.

The Factbook is structured as follows: First, we provide an overview of Czech Republic's economy, labour market, and political system. The second part is dedicated to the description of the formal education system. The third section explains Czech Republic's vocational education system. The last section offers a perspective on Czech Republic's recent education reforms and challenges to be faced in the future.

EDITING AND ACKNOWLEDGEMENTS

This Factbook is edited by Jutta Bürgi. We want to thank Aaron Grünwald for the elaboration of the contents, and Clair Premzic for the excellent language and content editing. Without you, the realization of this Factbook would have been impossible!

The KOF Education System Factbooks has to be regarded as work in progress. The authors do not claim completeness of the information which has been collected carefully and in all conscience. Any suggestions for improvement are highly welcome!

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Suggested citation:

KOF Swiss Economic Institute (year). KOF Education System Factbook: [CountryName]. KOF Education System Factbooks, ed. 1. Zurich: Swiss Federal Institute of Technology

1. The Czech Republic's Economy and its Political System

One of the main purposes of an education system is to provide the future workforce with the skills needed in the labour market. The particularities of a country's economy and labour market are important factors determining the current and future demand for skills. Therefore, these will briefly be described in the first part of this Factbook. In addition, this part provides an overview of the Czech Republic's political system with emphasis on the description of the education politics.

1.1 The Czech Republic's Economy

In 1989, Czechoslovakia became independent from the Soviet Union and began its transformation towards a market economy. It opened its markets for foreign trade and investments, privatized state enterprises and introduced various tax reforms. Even though annual GDP (Gross Domestic Product¹) growth dropped in the years right after independence, e.g. to -11.6 percent in 1991 (Figure 1), the Czech economy recovered quickly in the years after the establishment of the the Czech Republic on January 1, 1993: with an average growth rate of around 3 percent per annum (p.a.) from 1993-1996. The Czech economy had several advantages over its neighboring countries such as Slovakia: a well-educated workforce, the proximity to Western Europe and low foreign debt. In addition, it managed to keep unemployment and inflation low while maintaining steady growth. Large flows of visitors encouraged the rapid development of the tourism and service industries, creating new jobs and helping to limit some of the usual hardships of economic restructuring. Czech Republic's economic growth after independence is said to be one of the greatest economic successes of post-communist Eastern Europe. (Britannica, 2018).

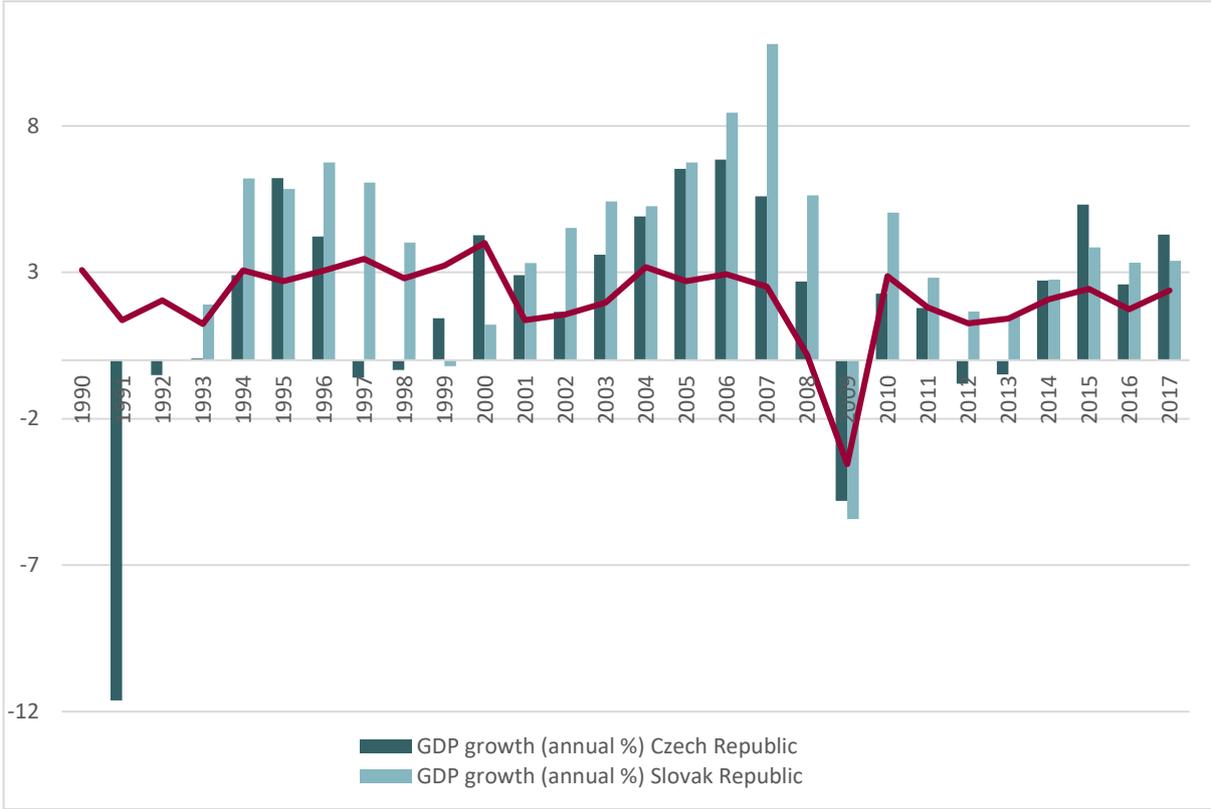
However, only a few years after independence, it turned out that the Czech economy was not as efficient as expected. The government failed to push the restructuring of important economic sectors and to create transparent financial market regulations. Poor management and corruption in the banking sector (much of which remained largely state-controlled) led to the collapse of eight banks in 1996. In 1997, the government responded to the economic crisis with an austerity package and the introduction of a variable exchange rate, which led to a significant devaluation of the Krona, the national currency. Despite these economic measures and the establishment of a new Securities Commission, the Czech Republic fell into a

¹ Annual percentage growth rate of GDP at market prices based on constant local currency. Aggregates are based on constant 2010 U.S. dollars. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources.

recession in the years 1997 and 1998, marked by negative GDP growth rates, a growing foreign trade deficit and rising unemployment (Britannica, 2018). However, from 1999 onwards, the Czech economy started to recover again, and experienced positive growth rates in the years 1999-2008 with GDP growth peaking at 6.5 percent growth in 2006 (Figure 1). This stable growth was supported by the Czech Republic's accession to the European Union and the associated development of further markets. As many other economies, also the Czech economy was hit by the global financial crisis in 2009. Its recovery was similar to that in many OECD countries (see red line in Figure 1), reaching comparable GDP growth rates as before the crisis from 2014 onwards.

From 1990 to 2017, the income per head, hence the living standard, in the Czech Republic increased by more than 50%: GDP per capita rose from US\$ 19,502² in 1990 to US\$ 31,806 in 2017. In relative terms, the Czech GDP per capital is still lower than the OECD average of US\$ 38,898 in 2017 (OECD, 2018a).

Figure 1: GDP growth (annual %) for the Czech Republic, the Slovak Republic and OECD Members



Source: (OECD, 2018a)

² Constant prices, constant purchasing power parity (PPP), reference year 2010.

Table 1: Value added and employment by sector in 2017 in the Czech Republic and EU28 average

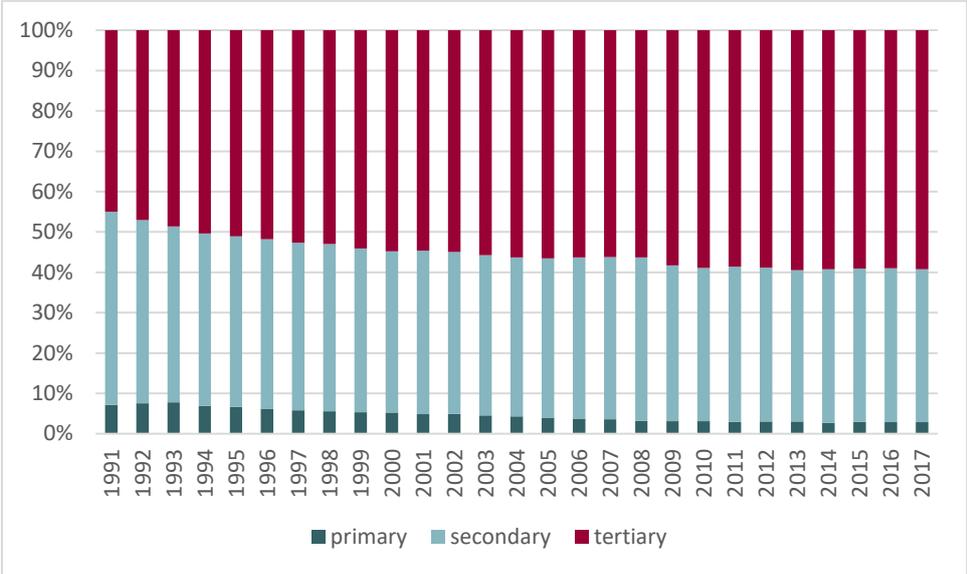
Sector	Czech Republic: Value added (%)	EU-28: Value added ³ (%)	Czech Republic: Employment (%)	EU-28: Employment (%)
Primary sector	2.3	1.7	3.0	4.4
Agriculture, hunting and forestry, fishing	2.3	1.7	3.0	4.4
Secondary sector	37.0	25.1	36.6	21.6
Manufacturing, mining and quarrying and other industrial activities	31.7	19.7	29.1	15.3
of which: Manufacturing	26.8	16.4	26.7	13.8
Construction	5.3	5.4	7.5	6.3
Tertiary sector	60.7	73.2	60.3	73.9
Wholesale and retail trade, repairs; hotels and restaurants; transport; information and communication	24.2	24.0	26.5	27.8
Financial intermediation; real estate, renting & business activities	19.3	27.2	12.1	16.5
Public administration, defence, education, health, and other service activities	17.2	22.0	21.7	29.6

Source: Eurostat (2018a; 2018b).

Table 1 shows total value added and employment by sector for the Czech Republic and EU28 average for 2017. As it is typical for a developed country, the tertiary sector is important for the Czech economy as it accounts for roughly 60.3 percent of total employment and 60.7 percent of overall value added in 2017. However, the Czech economy still lags behind the EU-28 average where about 73.9 percent of the workforce was employed in the tertiary sector in 2017, which was responsible for about 73.2 percent of total value added. The secondary sector was much more important in the Czech Republic than the EU28 countries on average. It employed 36.6 percent of the total workforce, as opposed to 21.6 percent for the EU28 average and was responsible for 37 percent of total value added, while the secondary sector only accounted for 25.1 percent of total value added in the EU28 average in 2017. The primary sector does not display substantial differences between both metrics for the Czech Republic and the EU28 average. It is of low importance in both cases.

³ Due to rounding differences, the sum of all sector falls below 100 percent.

Figure 2: Employment by sector (as % of total employment), 1991-2017 for the Czech Republic



Source: (World Bank, 2018).

Figure 2 shows the development of the employment shares in the Czech Republic’s tertiary, secondary and primary sector from 1991-2017. In this period, the tertiary sector slowly but steadily gained importance in terms of its share in overall employment, while the importance of the primary and the secondary sector shrunk.

According to the WEF Global Competitiveness Index (GCI) (WEF, 2018a) ranking 2017-2018, the Czech Republic ranked 31th out of 138 countries. The GCI report indicates that the strengths of the Czech economy are its stable macroeconomic environment, its good position in terms of financial market development and technological readiness. On the contrary, the tax regulations, inefficient government bureaucracy and tax rate are identified as the most problematic factors for business activity. In comparison, the Slovak Republic ranked 59th out of 138 countries on the GCI (WEF, 2018a).

The Global Innovation Index (GII) (Dutta, Lanvin, & Wunsch-Vincent) 2018 ranks the Czech Republic 27th out of 126 countries with an overall-score of 48.75 out of 100. This is mainly due to its improvements in the infrastructure (ecological sustainability), market sophistication (intensity of local competition), knowledge and technology outputs (knowledge impact, high - and medium high-tech manufactures, high-tech net-exports) and creative outputs like creative goods and services. The GII notes, that in order to improve its innovative capacity, the Czech Republic has to perform better in some other market sophistication indicators (investment, ease of protecting minority investor, market capitalization) and in human capital and research (expenditure on education). On the other hand, the Slovak Republic ranks 36th out of 126 countries with an overall-score of 42.88 out of 100 (Dutta, Lanvin, & Wunsch-Vincent, 2018).

1.2 The Labour Market

In the first part of this section, we will describe the general situation of the Czech Republic's labour market. In the second part, we will refer to the youth labour market in particular.

1.2.1 Overview of the Czech Republic's Labour Market

The Czech Republic has a relatively high level of labour market regulation. According to the OECD Index of Employment Protection (OECD, 2013), which is a multidimensional index that quantifies the strictness of Employment Protection legislation (EPL) across countries, the protection of permanent workers in the Czech Republic is the 13th strictest out of a total of 72 countries. With respect to the protection of temporary workers, the Czech Republic ranks on position 37th (OECD, 2013). According to World Bank Doing Business Indicators (World Bank, 2018a), Czech employees have a full-time wage of at least 600 US dollars. The standard working day is at least eight hours per day and the maximum working days per week amount to six days per week. There are no restrictions on overtime work. Unemployment protection is guaranteed after one year of employment (World Bank, 2018a).

Trade unions play an active role in defending the economic, legal and social interests of Czech workers. Czech trade unions suffered a steady decline in membership after 1989. According to the oldest available OECD data, only 67.2 percent of all employees were members of a trade union. This rate declined to 27.2 percent in 2000 and 10.5 percent in 2017 (OECD, 2018c). However, the membership figures give a misleading impression of the influence of trade unions. In June 2008, the Bohemian-Moravian Confederation of Trade Union (ČMKOS)⁴ called on 900,000 participants to go on a general strike to protest against the government's proposals to cut the country's social system. This shows the union's ability to mobilise members on a large scale. In particular, the main federation has retained the ability to influence policy decisions in key areas of unions, such as e.g. the protection of workers (Myant, Martin, 2010).

Table 2: Labour force participation rate, unemployment rate by age 2017

Age Group	Labour force participation rate		Unemployment rate	
	The Czech Republic	OECD average	The Czech Republic	OECD average
Total (15-64 years)	75.9	72.1	2.9	5.9
Youth (15-24 years)	31.7	47.3	7.9	11.0
Adults (25-64 years)	83.3	77.7	2.6	5.1

⁴ The Bohemian-Moravian Confederation of Trade Unions (Czech: Českomoravská konfederace odborových svazů, ČMKOS; is a trade union Centre in the Czech Republic. With almost 400,000 members (2011), ČMKOS is by far the largest trade union confederation.

Source: OECD (OECD, 2018)

Like almost all developed countries, the Czech Republic faces a major challenge in the ageing of its population and workforce. Table 2 shows the labour force participation and unemployment rate by age for the Czech Republic and the OECD average in 2017. Table 2 shows that the Czech Republic had a higher overall (people aged 15-64 years) labour force participation rate than other OECD countries (75.9 percent versus 72.1), but lower participation of youth (31.7 versus 47.3 percent) in 2017. The Czech Republic's unemployment rate was considerably below the OECD average for all age categories in 2017 (OECD, 2018).

Table 3: Labour force participation rate, unemployment rate by educational attainment 2016 (persons aged 25-64)

Education Level	Labour force participation		Unemployment rate	
	The Czech Republic	OECD average	The Czech Republic	OECD average
Less than upper secondary education	55.8	64.0	19.2	11.6
Upper secondary level education	83.4	80.2	3.2	6.9
Tertiary education	87.2	88.3	1.8	4.6

Source: (OECD, 2018d)

Table 3 highlights that the labour force participation rate for people with less than upper secondary education was significantly lower in the Czech Republic than in the OECD countries on average (55.8 percent versus 64 percent) in 2017. People with upper secondary education were relatively more and people with tertiary education relatively less likely to be in the labour force than in the OECD average (83.4 vs. 80.2 percent for upper secondary; 87.2 vs 88.3 for tertiary education) (OECD, 2018d). For both, the Czech Republic and the OECD average, the risk of becoming unemployed was lower, the higher educational attainment in absolute terms according to 2017 data. In relative terms, people with less than upper secondary education were substantially more likely to become unemployed in the Czech Republic than the OECD average, while the opposite hold for people with at least upper secondary or tertiary education.

1.2.2 The Youth Labour Market

The KOF Swiss Economic Institute developed the KOF Youth Labour Market Index (KOF YLMI) to compare how adolescents participate in the labour market across countries (Renold et al., 2014). The foundation for this index is the critique that a single indicator, such as the unemployment rate, does not suffice to describe the youth labour market adequately nor provide enough information for a comprehensive cross-country analysis. To increase the amount of information analysed and to foster a multi-dimensional approach, the KOF YLMI consists of twelve labour market indicators⁵ that are grouped into four categories.

Dimensions of the KOF YLMI
Activity state - Unemployment rate - Relaxed unemployment rate ⁶ - Neither in employment nor in education or training rate (NEET rate)
Working conditions Rate of adolescents: - with a temporary contract - in involuntary part-time work - in jobs with atypical working hours - in work at risk of poverty ⁷ - vulnerable unemployment rate ⁸
Education - Rate of adolescents in formal education and training - Skills mismatch rate
Transition smoothness - Relative unemployment ratio ⁹ - Long-term unemployment rate ¹⁰
Source: Renold et al. (2014).

The first category describes the *activity state* of youth (ages 15-24 years old) in the labour market. Adolescents are classified according to whether they are employed, in education, or neither (unemployed, discouraged and neither in employment nor in education or training; see info box to the right). The category *working conditions* and the corresponding indicators reflect the type and quality of jobs the working youth have. The *education* category accounts for the share of adolescents in education and training and for the relevance of their skills on the labour market. The fourth category, *transition smoothness*, connects the other three categories by capturing the school-to-work transition phase of the youth. Each country obtains a score of 1 to 7 on each particular indicator of the KOF YLMI. A higher score reflects a more favourable situation regarding the youth labour market and a more efficient integration of the youth into the labour market. One of the major drawbacks of the KOF YLMI is data availability. When data is lacking, a category can occasionally be based on a single indicator or must be omitted entirely when not a single indicator for that category exists in a given country. A lack of indicators can make comparisons across certain countries or groups of countries problematic and sometimes even impossible.

⁵ The data for these indicators are collected from different international institutions and cover up to 178 countries for the time period between 1991 and 2015.

⁶ It is calculated as the number of unemployed and discouraged workers as a share of the entire labour force. Discouraged workers have given up the search for work (not actively seeking), although they have no job and are currently available for work (also: "involuntary inactive").

⁷ Those who cannot make a decent living out their earnings, being at risk of poverty as a percentage of the working population.

⁸ Share of the employed population working on their own account or those working in their family business and thus contributing to the entire family income. Both are less likely to have formal work arrangements and are therefore less protected by labour laws and more exposed to economic risk.

⁹ Is defined as the youth unemployment rate (15-24 years) as a share of the adult unemployment rate (25+). If the youth cohort is affected in the same way than the adult group with respect to unemployment, then the relative unemployment ratio will be equal to one. If the youth are relatively more affected, then the ratio will be bigger than one.

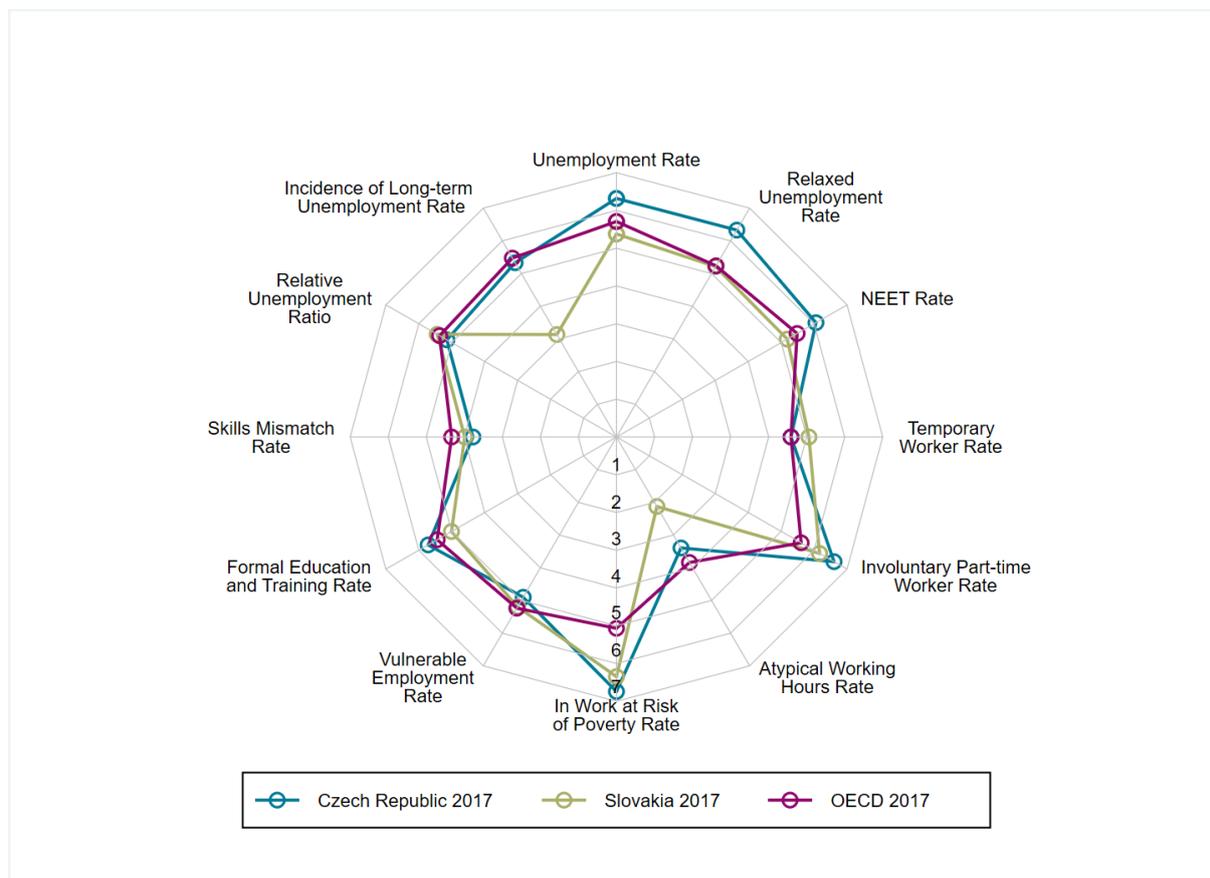
¹⁰ Those unemployed for more than one year (52 weeks) in the total number of unemployed (according to the ILO definition).

1.2.3 The KOF Youth Labour Market Index (KOF YLMI) for the Czech Republic

In case of the Czech Republic, data availability for the KOF YLMI is not an issue, at least from 2005 onwards. In 2017, the KOF YLMI score for the Czech Republic was above the OECD average for almost half of all indicators and higher than the scores for Slovakia in almost all categories (Figure 3). Compared to the OECD average, the Czech Republic had lower values in 5 out of 12 dimensions: the “incidence of long-term unemployment rate”, the “relative unemployment ratio”, “skills mismatch rate”, “vulnerable employment” and “atypical working time rate”. Despite the small difference between the “relative unemployment rate” in the Czech Republic and the OECD average, showing that youth are not significantly much more likely to become unemployed as adults. The remaining indicators show that, as in many countries worldwide, also Czech youth constitute a vulnerable group in the labour market.

According to a study conducted by Araújo and Maleček (2015), despite the increasing demand of the Czech economy for skilled labour long-term and youth unemployment has been and is persistent, mainly affecting low-skilled youth and older workers. According to the authors, young Czechs are relatively more vulnerable to fluctuations in economic performance than the rest of the labour force (Araújo and Maleček , 2015).

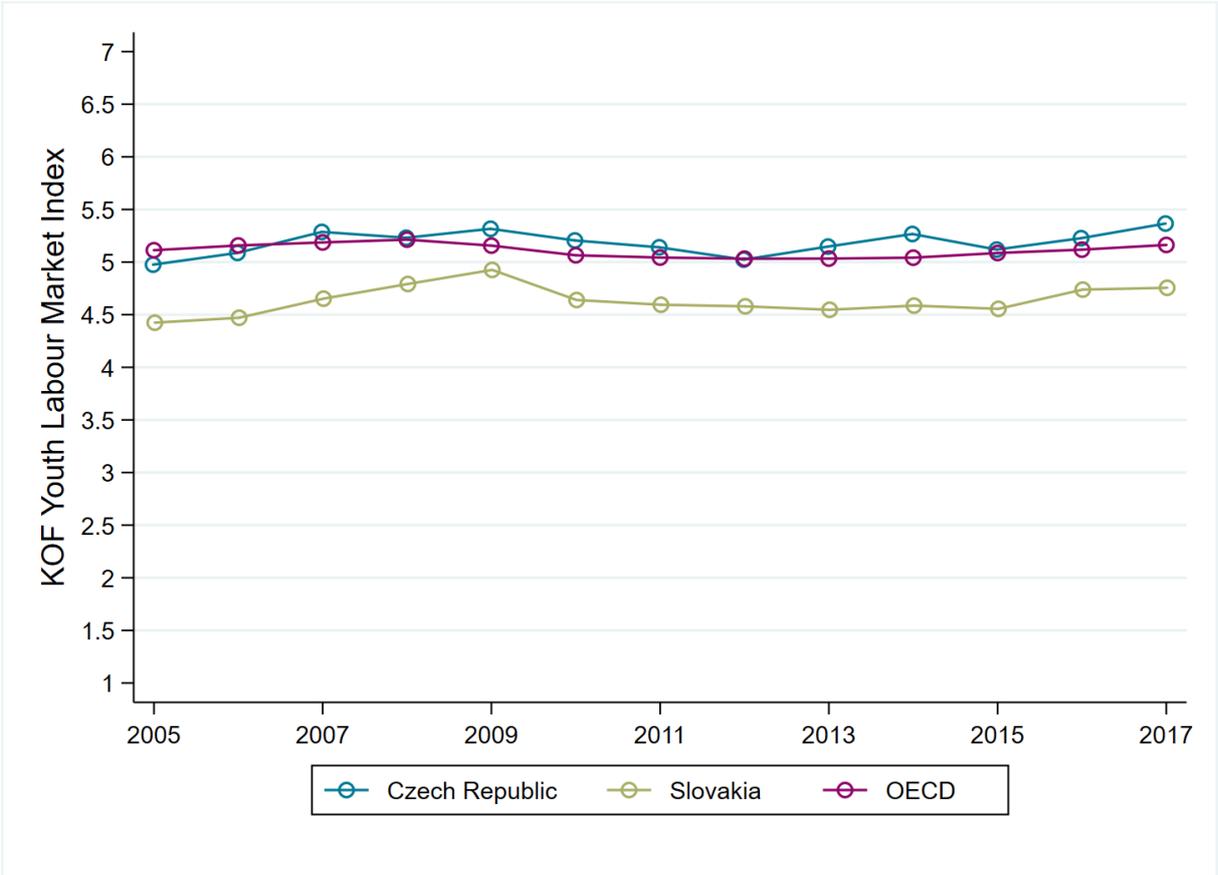
Figure 3: YLM Scoreboard: The Czech Republic versus OECD average, 2017



(KOF, 2018)

Figure 4 below illustrates the evolution of the aggregated KOF YLMI for the Czech Republic, the OECD average and Slovakia from 2005 to 2017. For this period, all twelve indicators are available for both Countries and the OECD average, making a cross-country comparison feasible. It shows that, the Czech youth labour market has mainly excelled the OECD average in recent years. Furthermore, in comparison to the OECD average and the Czech Republic, Slovakia does not perform so well and is way under the OECD average and the Czech Republic's rates (KOF, 2018).

Figure 4: YLM-Index: The Czech Republic versus OECD, 2005-2017



(KOF, 2018)

1.3 The Political System

Understanding the basics of a country's political system and getting to know the political goals with respect to its education system are crucial points for the understanding of the education system in a broader sense. In the first part, we explain the Czech Republic's political system in general. The politics and goals regarding the education system will be referred to in the second part.

1.3.1 Overview of the Czech Republic's Political System

The legislature of the Czech Republic belongs to the Parliament, which consists of the Chamber of Deputies and the Senate. The Chamber of Deputies has 200 members of Parliament, who are elected for 4-year cycles. The Senate consists of 81 senators elected for a six-year term. Every citizen of the Czech Republic aged 18 and over has the right to participate in elections. The election of the deputies (lower house) is based on the proportional system and the senators on the simple majority system. Both chambers form commissions and committees as separate bodies. For example, the education sector is represented in the Chamber of Deputies by the Committee on Science, Education, Culture, Youth and Sport and in the Senate by the Committee on Education, Science, Culture, Human Rights and Petitions (European Commission, 2009).

The executive branch of the Czech Republic is headed by the President and the Cabinet. The President is the Head of State and is elected for a five-year term in a joint session of both Houses of Parliament. The President appoints and dismisses the Prime Minister and the members of the Cabinet. The Cabinet is the supreme executive power and accountable to the Chamber of Deputies. In addition to the Cabinet, the executive bodies also include ministries and other administrative bodies. Their establishment and the definition of their function can only be effectuated by law. The Ministry of Education, Youth and Sport, for example, is responsible for the concept, the state of the art and the development of the education system. Other organisational units of the schools in other ministries are the Ministry of Defence, the Ministry of Justice and the Ministry of the Interior. The Ministry of Education cooperates with the Ministry of Social Affairs in the areas of social affairs, the labour market and vocational guidance. In the field of health education, the Ministry of Education cooperates with the Ministry of Health (European Commission, 2009).

The Czech legal system consists of a constitutional court and an ordinary court system. The system of ordinary courts consists of the Supreme Court (*nejvyšší soud*), the Supreme Administrative Court (*nejvyšší správní soud*), the Supreme Courts (*vrchní soudy*), the Regional Courts (*krajské soudy*) and the District Courts (*okresní soudy*). The central state administrative body for the courts is the Ministry of Justice of the Czech Republic. The Ministry of Justice administers the higher, regional and district courts. The regional courts may also be administered by the Ministry of Justice through the presidents of the regional courts (European Commission, 2009).

The Czech Republic is divided into municipalities, which are the basic territorial self-governing units and regions (14 overall), which are the higher territorial self-governing units. The municipality is always a part of a region. Territorial self-governing units are public corporations

with their own assets, which are administered by elected bodies for a term of four years. They take care of the general development of their territory and the needs of their citizens, and they protect the public interest in the fulfilment of their tasks. The municipality is administered by a committee of representatives headed by a mayor elected from the members of the committee. Other bodies are the municipal council, the municipality and special municipal council. If a municipality is a statutory city, it is headed by the mayor. (European Commission, 2009).

The Economist Intelligence Unit's Democracy Index¹¹ (Economist, 2017) ranks the Czech Republic on the rank 34th out of 165 countries in 2017. With an overall score of 7.62 out of 10, the Czech Republic classified among the ranks in the category: "flawed democracy" (rank 20 – 40). The Czech Republic performs very well in the category "electoral process and pluralism" and is equal in comparison to Switzerland in this case. Both countries score 9.58 in this category. The Czech Republic, on the contrary, does not perform well in the categories "functioning of government" (6.43 out of 10) and "political participation" (6.67 out of 10) (Economist, 2017). In addition, according to Transparency International, who annually publish the Corruption Perceptions Index¹² (Transparency International), the Czech Republic ranks on place 42 out of 180 Countries. The Czech Republic reached 57 points out of 100 (Transparency International, 2018).

1.3.2 Politics and Goals of the Education System

The Ministry of Education, Youth and Sport (MEYS) maintains the integrated state education policy by framing every four years long-term policy objectives for education and development of the education system, which must be approved by the government. The MEYS is primarily responsible for

- the conceptual development of the education system;
- determines the educational content;
- approves framework programmes for education, which form the basis for the development of programmes for school education;
- accredits educational programmes for higher education institutions;
- is responsible for the state's support policy in the education sector and

¹¹ The Economist Intelligence Unit's Democracy Index provides a snapshot of the state of democracy worldwide for 165 independent states and two territories. The Democracy Index is based on five categories: electoral process and pluralism; civil liberties; the functioning of government; political participation; and political culture. Based on their scores on a range of indicators within these categories, each country is then itself classified as one of four types of regime: "full democracy"; "flawed democracy"; "hybrid regime"; and "authoritarian regime".

¹² Transparency International (TI) has published the Corruption Perceptions Index (CPI) since 1995, annually ranking countries "by their perceived levels of corruption, as determined by expert assessments and opinion surveys.

- is responsible for drawing up the education budget and defining the principles for its distribution (Ministry of Education, Youth and Sports, 2011).

The regions are given a high degree of autonomy. They are responsible for education on their territory. Every four years, the regional authorities formulate long-term policy objectives for their territory in accordance with national objectives. The regions also organise institutions, in particular for upper secondary education and higher vocational schools. The municipalities are responsible for ensuring the conditions for compulsory school attendance and therefore establish and manage primary schools (Ministry of Education, Youth and Sports, 2011).

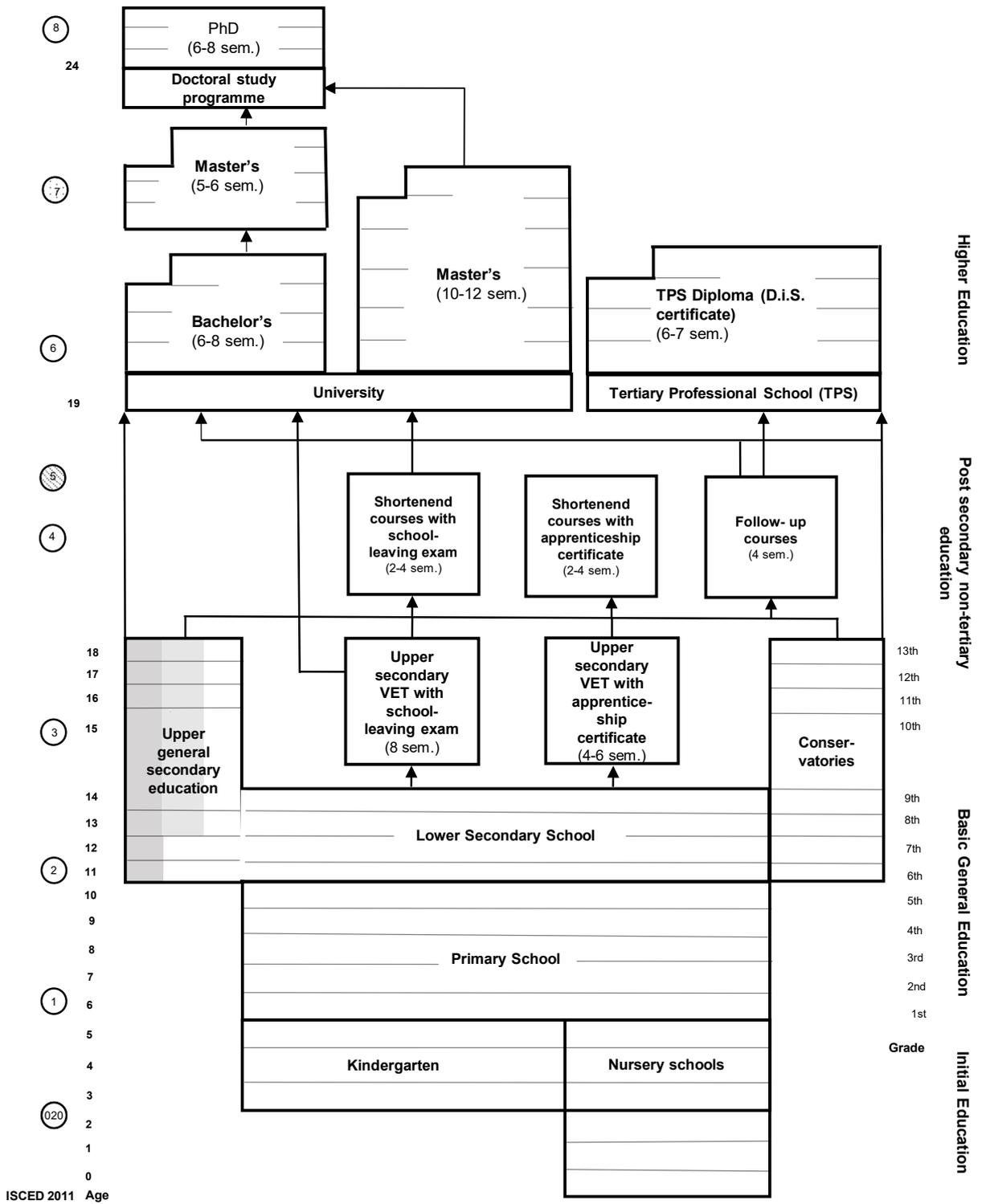
In recent years, politics has undergone increased pressure to reconsider the starting points on which the organisation of education in the Czech Republic is based on and to set priorities for the further development of the education system. Despite some progress in various areas, a number of objectives set out in the “2001 National Programme for the Development of Education” have either not been achieved or have not been addressed systematically. The development of the education system is not anchored in a long-term vision and comprehensive strategy, and there is a tendency towards isolated and random solutions (Ministry of Education, Youth and Sports, 2015).

The Strategy for Education Policy in the Czech Republic until 2020 aims to assess the current state of affairs and define a new basic framework for the further development of education. Following a thorough evaluation of the current state of the education system, the government’s strategy sets out three priorities for the coming period, covering all components of the system: reducing inequalities in education, supporting quality teaching and teachers as a prerequisite for such teaching, responsible and efficient management of the system. However, the government’s strategy does not aim at a radical transformation of the existing system. (Ministry of Education, Youth and Sports, 2015).

2. Formal System of Education

The Czech Republic education system is divided into three levels: primary, secondary and tertiary level. Primary education starts at age six and lasts for five years. Lower secondary school starts at age 10/11 and lasts four years. Primary and lower secondary school are compulsory for all. Students can continue at the upper secondary education level, typically with the age of 15. Upper secondary education takes 2-4 years (depending on school type). Tertiary education lasts from 2 to even 6 years, depending on programme of study. An illustration of the Czech Republic's education system with the various education paths can be found in Figure 5 below.

Figure 5: The Czech Education System



Source: Own Illustration

Table 4: Net Enrolment Rate (NER) and Gross enrolment ratio (GER) for the Czech Republic in 2016

Educational level	ISCED 2011	Net Enrolment Ratio	Gross Enrolment Ratio
Early childhood educational development programmes	010	n/a ¹³	n/a
Pre-primary education	020	83.06	105.15
Primary education	1	n/a	100.23
Secondary education	2 – 3	91.00	104.63
<i>Lower secondary education</i>	2	84.59	99.41
<i>Upper secondary education</i>	3	82.66	110.18
<i>Percentage enrolled in vocational secondary education</i>	2-3	n/a	n/a
Compulsory education age group	1-3	n/a	n/a
Post-secondary non-tertiary education	4	n/a	57.52
Tertiary education	5 – 8	n/a	63.75

Source: (UNESCO, 2018)

Table 4 shows the gross enrolment ratio (GER) and net enrolment ratio (NER) by education level for the year 2016. The NER quantifies the total number of students in the theoretical age group for a given education level enrolled at that level expressed as a percentage of the total population in that age group. The GER quantifies the number of students enrolled at a given education level - irrespective of their age - as a percentage of the official school-age population corresponding to the same level of education. For example, for the primary education level, the NER tells how many students in the typical primary school age are actually enrolled in primary school, while the GER sets the actual number of students in primary education - irrespective of their age - in relation to those who are in the official age to attend primary education¹⁴ (UNESCO, 2018).

Unfortunately, the NER for primary education is not available for 2016. However, the NER for lower secondary education shows that, in 2016, only 84.59 percent of all children in the schooling age for lower secondary education actually attended this level. In contrast, the GER indicates that the number of students enrolled at the primary and lower secondary education level somewhat correspond to the size of the cohort in the typical compulsory schooling age (GER close to/larger than 100 percent). The difference between NER and GER may indicate that there are be many grade repeaters. The same tendency holds for the upper secondary education level.

¹³ The numbers are not available.

¹⁴ A GER of 100 corresponds to a situation where each child in a given country is enrolled in the corresponding education level. A value above 100 could occur due to students who are older than the typical enrolment age for primary education (e.g. have to repeat grade, adult learners). A value below 100 implies that not everyone who is in the typical age for primary education is actually enrolled.

2.1 Pre-Primary Education (Kindergarten / Nursery schools)

Children from one year until the beginning of compulsory schooling at age 6 can attend children groups, which provide regular childcare, no pre-school education. Children's groups can be set up by employers (private, public and state organisations) for their staff and by various non-profit organisations (municipalities, regions, church organisations, charities) (European Commission, 2018a).

In contrast, pre-primary education (ISCED 020) takes place in kindergartens intended for children between the ages of 3 and 6. They can also be attended by children over 6 years of age (with compulsory schooling postponed) and finally by children under 3 years of age (not earlier than 2 years). Pre-school education is free of charge (Ministry of Education, Youth and Sports, 2018).

Kindergartens for children with special educational needs are preparatory classes set up by a regional authority or the Ministry of Education, which correspond to the pre-school educational level. They are for children who have been granted a postponement of school attendance in the year preceding compulsory schooling if it is assumed that their inclusion in the preparatory class can compensate for their development (European Commission, 2018a).

The role of institutional pre-school education is to complement family education and to provide children with an environment that is sufficiently diverse and appropriate for their active development and learning. The largest founding unit of the kindergartens is the community. Private companies and churches have founded a small number of kindergartens. Kindergartens are set up with all-day operation (more than 6.5 hours a day, but no more than 12 hours a day), half-day operation (no more than 6.5 hours a day) and boarding school operation (day and night care) (Ministry of Education, Youth and Sports, 2018a).

Kindergarten teachers have predominantly completed secondary education with a Maturita Examination specialised in pre-school pedagogy (graduates of secondary pedagogical schools). They can also complete training at higher technical colleges or universities in a Bachelor's or Master's degree programme. The training must always be geared towards pre-school education. The weekly scope of a kindergarten teacher's direct pedagogical activity is set at 31 hours (Ministry of Education, Youth and Sports, 2018a).

2.2 Primary and Lower Secondary Education

Primary and lower secondary education are compulsory for all students. Primary education comprises the first to the fifth grade. Students typically enter primary school at the age of six

and stay until they are 10 years old. Lower secondary education lasts from grade six to nine, when pupils are typically aged 11 to 14 (Ministry of Education, Youth and Sports, 2007).

Even though the majority of students move on to upper secondary education at the age of 15 years and after successful completion of lower secondary education, about 10% (as in 2007/2008) of lower secondary students are selected to continue directly in prestigious general education gymnasium *before* finishing lower secondary school (Kuczera, 2010). These students stay in the gymnasia for 8 years, including four years of lower and upper secondary education (Ministry of Education, Youth and Sports, 2011; Kaňáková, M.; Czesaná ,V.; Šímová, Z., 2018).

Primary and lower secondary education include the following subjects: languages, mathematics, information – communication – technology, people and society, people and nature, art and culture, people and their health, people and the world of work. The cross-curricular themes include: Personal and social education, education for democratic citizenship, education for thinking in a European and global context, multicultural education, environmental education and media studies (Ministry of Education, Youth and Sports, 2011).

2.3 Upper Secondary Education and Vocational Education

Students typically enter upper-secondary programmes at the age of 15. Three types of schools offer upper secondary education: upper secondary general education schools, conservatories offering arts education (music, singing and theatre) and vocational education and training schools (VET schools) offering different VET programmes. While upper secondary general education schools mainly aim at preparing youth for university education, vocational schools aim to prepare youth for entering the labour market directly and conservatories.

As mentioned in the previous section, upper secondary general education schools and conservatories can be entered either directly after primary education, resulting in an 8-year programme or after lower secondary education, resulting in a 4-year programme. In addition, secondary general education or conservatories can be entered after two years of lower secondary education (6-year program); but normally, only a few students take this route.

Upon graduation of general education schools students receive the school leaving Maturita certificate. (European Commission, 2018).

Conservatories are independent schools. Until 2004, they were defined as a subtype of vocational secondary schools. A certain number of educational conditions at conservatories still are comparable to these. Conservatoires offer art education in the form of a six or eight

year programme. Graduates can complete their studies with a Maturita certificate (National Institute of Education, 2018).

Most VET schools are public. Vocational training is school-based, with a high proportion of in-classroom practical training (in schools, workshops, practice centres and authorised companies) and/or internships. (CEDEFOP, 2016).

VET is provided as post-compulsory in two or four year programmes. Students typically typical entry age of students are 15 years old. It offers a wide range of vocational specialisations. There are two options for vocational and educational training. A three-year vocational programme under ISCED 3 can be absolved (leaving with a final "vocational certificate"), which enables graduates to enter the labour market directly and perform manual tasks (e.g. bricklayer, hairdresser). Graduates of these programmes can subsequently complete a two-year follow-up programme (ISCED 3) and take a matriculation exam, which gives them access to higher education. Otherwise, a four-year technical programme (completed with a school-leaving examination, ISCED 3) can be completed. This training path enables graduates to further their education in higher education or to carry out technical, commercial and other similar activities at an intermediate level (e.g. civil engineering technician, IT-system administrator) Upper general education programmes (2) with a high proportion of general education (up to 70 percent of curricula) prepare graduates for university studies. (CEDEFOP, 2016).

- Secondary school leaving certificate with apprenticeship certificate (completed with a final examination)

vocational training courses with a professional certificate (ISCED 3).

2.4 Post-Secondary Non-Tertiary Education

Follow-up courses offered at the post-secondary non-tertiary education level provide graduates of the upper-secondary general education programme or conservatories the opportunity to top-up their Maturita examination with an upper secondary VET track professional certificate or a post-secondary school leaving examination (ISCED 4). Graduates of the upper secondary VET track can either get a professional certificate in another field or a post-secondary school leaving examination (ISCED 4) (CEDEFOP, 2016).

2.5 Higher Education

Three different types of institutions offer tertiary education: higher professional schools providing diplomas, non-university higher education institutions offering Bachelor courses, and

normal universities offering Bachelor, Master and Doctoral study programmes (Ministry of Foreign Affairs of the Czech Republic, 2018).

The Maturita examination is the minimum requirement for all higher education programmes. In addition, each institution decides on the number of enrolled students and, if necessary, determines its own admission criteria and the content of the entrance examination.

With a few exceptions, higher education at public institutions is free of charge for Czech citizens. Private universities can set their own fees. The structure of the academic year is determined by each institution. It usually begins in September and is divided into two semesters: winter and summer, with a five-week examination period at the end of each semester. (CEDEFOP, 2016).

The tertiary professional schools prepare secondary school graduates (with Maturita Examination) for the fulfilment of demanding professional tasks (e.g. nutritionist, dental assistant). The course lasts three to three and a half years and is completed by an Absolutorium (ISCED 6) with a Diploma (DiS.). These programs offer a practice-oriented university training and are aligned closely to the qualification need of the employers. Although most graduates enter the labour market, there is also vertical permeability for universities (CEDEFOP, 2016).

2.6 Continuing Education (Adult Education)

Continuing education in the Czech Republic is provided for people who have not completed primary or lower secondary education, for people who want to pursue further education at the upper secondary education level or want to be retrained in specific occupations. In addition, continuing education and training is provided by employers, public administration, non-governmental non-profit organisations or companies and organisations (businesses, institutions, government bodies, etc.) that provide training for their employees either by offering courses through their own teachers and institutions or by contracting teachers or institutions (schools, non-profit or commercial organisations) (EAEA, 2011).

In addition to the above-mentioned courses, also universities offer lifelong learning courses in addition to their regular courses for upper secondary school graduates that do not lead to a level of qualification or academic degree. These are, for example, preparatory courses for higher education, retraining, or specialisation courses designed to enhance knowledge and skills for a particular occupation. Formally, these courses are post-secondary education programmes. (EAEA, 2011). The participants are not university students, but are regarded by

the state as students, e.g. for social security and pension purposes (Kaňáková, M. Czesaná, V. Šímová., 2016).

2.7 Teacher Education

The education for the teaching profession varies according the level of school for which the prospective teacher are considered to be qualified and normally requires the candidates to attend university programmes.

Kindergarten teachers, however, are not required to attend the university and obtain their qualifications at the end of a four-year programme. Nevertheless, they also have the opportunity to study at higher education institutions and universities, where they can enrol in a Bachelor degree programme.

Primary school teachers must complete a five-year-long cycle programme at teacher training faculties. Graduates obtain a qualification to teach general subjects with a speciality in music, art or physical education.

Secondary school teachers usually specialize in two teaching subjects. Therefore, they need to complete a master's programme. The duration of the programme leading to the award of a Master degree lasts five-years (UNESCO, 2011).

A new system of continuing education for primary and secondary school and higher professional school teachers was established in 1996, when the MEYS founded six teacher training centres. The 2004 Act on Pedagogical Staff stipulates that pedagogical staff has the duty to constantly renew, improve and supplement their qualifications (UNESCO, 2011).

3. The System of Vocational and Professional Education and Training

This section of the Factbook describes the vocational education and training (VET) system at the upper secondary level and the professional education and training system (PET) at the tertiary level for the Czech Republic in more detail. Thereby, the term vocational and professional education and training (VPET) refers to both, the VET and the PET system.

3.1 Vocational Education and Training (VET; Upper Secondary Education Level)

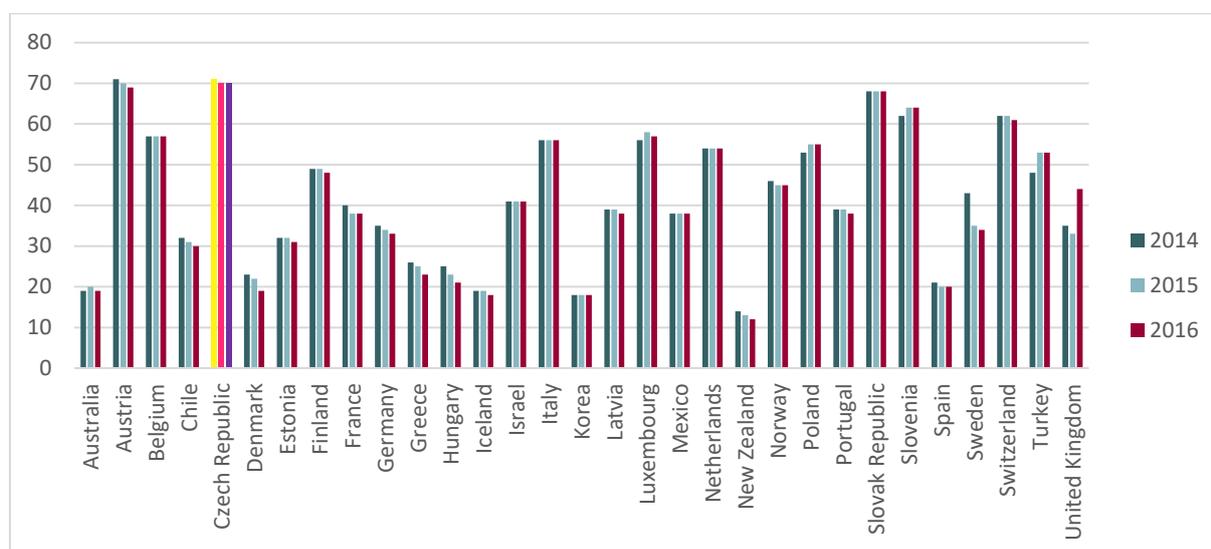
Secondary technical schools (SOŠ) and secondary vocational schools (SOU) provide upper secondary VET in the Czech Republic. They offer a mix of vocational and general education, translating into 1000 vocational qualifications in 29 different sectors (National Institute of Education, 2018).

About three quarters of all secondary school leavers in the Czech Republic have earned a VET degree. VET graduates either receive a matriculation examination (44.2 percent of all graduates of upper secondary level in 2015), which enables progressing to further education at higher education level, or a degree without matriculation (30 percent). The remaining students complete general secondary education (25.6 percent) with a “vocational certificate”. VET graduates without a Maturita examination degree certificate have less job opportunities than experienced workers and are therefore more sensitive to cyclical fluctuations. The VET-programme without matriculation examination is often seen as a second choice for those who are unable to study at the university level. Graduates of the latter often lack motivation for the profession itself. More graduates of upper secondary vocational education programmes are unemployed than graduates of upper secondary general education programmes. This is also due to the fact that almost all graduates of upper secondary general education programmes continue tertiary education and do not enter the labour market at this point in time with only their secondary Maturita Examination certificate (CEDEFOP, 2016a).

There is no apprenticeship system (or dual VET system) in the Czech Republic. VET is mostly school-based. The apprenticeship certificate is only the name of the graduation/school programme. However, mandatory practical work-based training and work placement are integrated into VET curricula. Upper secondary vocational education is open to all applicants. The entrance criteria depends on basic compulsory school performance and in most cases an entrance examination is required. Most VET programmes at upper secondary level last three or four years (CEDEFOP, 2016).

In the Czech Republic, the training contract is signed between the school and the company. This rule contrasts with, for example, Switzerland, where the student signs the contract with the employer. Apprenticeship training offers students the opportunity to acquire work experience with all rights and duties. During the training, students follow the rules that apply to all employees, such as punctuality and compliance with safety regulations. By signing a contract, students accept its terms. This helps to develop a sense of responsibility among the students and is an important element for the integration to a professional career (Kuczera, 2010).

Figure 6: Share of Students (15-19 years) enrolled in upper secondary vocational education (2014-2016) among OECD countries



(OECD, 2018e)

Figure 8 shows the enrolment of students aged 15 to 19 in upper secondary vocational education for most of the OECD countries. As visible in the Figure, Austria, the Czech Republic, the Slovak Republic, Slovenia and Switzerland are the five countries with the highest enrolment rates in upper secondary vocational education. Another noticeable fact is that in most of the countries the enrolment rates shrunk or remained stable, but did not increase over the years 2014 to 2016 (OECD, 2018e). The Czech Republic is one of the countries where the enrolment rates in upper secondary vocational education have remained quite stable over the recent time-period. The enrolment rate for the Czech Republic amounts to 70 percent in all years and therefore the Czech Republic performs better than countries like Germany or France in case of VET enrolment rates of 15 to 19 year old students (OECD, 2018e).

Secondary Technical School – (SOŠ střední odborná škola)

Four-year technical courses entitle graduates to apply for higher education or to carry out technical, commercial and other similar activities at an intermediate level (e.g. electro mechanics, food analysis, economy and business or information-technology). The courses are offered by secondary technical schools (*SOŠ střední odborná škola*) and are completed with the Maturita Examination. A successful graduate receives a Maturita Examination certificate, which is a prerequisite for admission to higher education and warrants the professional qualification for the labour market. Depending on the degree programme, the study programme comprises general and vocational subjects. The professional subjects include practical exercises, laboratory work, etc., as well as work experience in companies and other institutions

that averages six to eight weeks. The exact proportion of general and vocational subjects varies depending on the field of study and degree. It is around 45:55 in favour of vocational subjects (CEDEFOP, 2016).

The examination in SOŠ vocational education subjects consists of a theoretical and a practical part. After successfully passing the Maturita Examination, students receive the Maturita Examination certificate. For those who have already completed upper secondary education in another subject, the schools can also offer vocational training in reduced programmes. Graduates of SOŠ can continue their studies at universities or tertiary professional schools (National Institute of Education, 2018).

Vocational Secondary Schools (SOU - střední odborná učiliště)

Vocational secondary schools (SOU - střední odborná učiliště) offer VET and prepare students for a profession (National Institute of Education, 2018). Three-year vocational training programmes enable graduates to carry out craft activities in services and similar professions (e.g. plumber, tiler, electrician, chef, and hairdresser). The degree includes a final examination and a vocational certificate. SOU graduates usually enter the job market or can register for a two-year follow-up program to pass the Maturita Examination and continue their education at a university or at Tertiary Professional Schools (TPS). The three-year vocational training courses cover general subjects such as mother-tongue and foreign-language communication, mathematical, scientific, technical, digital, interpersonal, intercultural, social and civic skills, entrepreneurship and cultural expression. The minimum distribution of general and vocational subjects and practical training is laid down in the national curricula and varies according to programme and grade. As a rule, 30-35 percent of the teaching time is allocated to general subjects, 20-30 percent to vocational subjects and 35-45 percent to practical training. According to the law, the final examination (theoretical and practical) and the issuing of the professional certificate must be supervised by an expert of a company (member of the examination board)(CEDEFOP, 2016).

Lyceum

In order to meet the high demand for secondary general school programmes, four-year lyceum programmes were developed at the technical secondary schools in addition to the vocational programmes. About 70 percent of the curricula are general subjects. The remaining 30 percent are vocational subjects with a focus on health care, technology, economics, natural sciences or teacher training. Graduates of this programme are prepared for studies in similar subjects (Kaňáková, M. Czesaná, V. Šimová., 2016).

3.2 Professional Education and Training (PET; Post-Secondary Level)

The following chapter contains a brief description of the various providers.

Tertiary Professional Schools (TPS) / (vyšší odborná škola- VOS)

TPS provide students a practical oriented education on the ISCED level 5. Tertiary professional schools represent more professional degree programmes and are therefore more practice-oriented than most Bachelor's degree programmes in the Czech Republic. In 1995/1996, the higher education institutions in the Czech Republic began to establish TPS in sequence to offer non-university tertiary education. In order to be included in the TPS programmes, students must complete upper secondary education and take the school leaving examination. Practical training in a specific field is an essential part of the TPS programmes. The TPS programmes are completed by the Absolutorium, a professional examination consisting of theory of professional subjects and a thesis with defence. The degree entitles the student to study at a university. TPS are comparable to USA's College and Switzerland's "Höhere Fachschulen". The study duration is usually 3 years and ends with the degree Diploma specialist (DiS¹⁵). In contrast to universities, the TPS is not divided into faculties and usually offers one or two courses of study with possible sub-disciplines. The most common fields of study are tourism, hotels and gastronomy, economics and management, agriculture, veterinary medicine, law or journalism (Czech Universities, 2018).

Until 1998, all existing institutions had the status of a university. Vyšší odborné školy (VOŠ) deepen the qualification of the position and prepare for qualified work in complicated professions. In the Czech school system, these schools are not regarded as part of higher education, but as part of post-secondary education. (CEDEFOP, 2017).

Follow-up courses

Students who have obtained a vocational qualification at the upper secondary education level can register for the follow-up courses organised by upper secondary schools with Maturita Examination courses in the respective subject area. The two-year course ends with a Maturita certificate. The number of graduates who are interested in subsequent courses is increasing, as their degree allows access to higher education after graduation. This segment of the education system offers a second chance and significantly improves the further options to pathways through the education system. Thus, instead of a four-year upper secondary VET programme with Maturita Examination, several pupils choose a three-year programme that

¹⁵ "Qualified Specialist" is a non-academic title awarded to graduates of tertiary professional schools and conservatories.

leads to a professional certificate and then add a two-year follow-up course, which also ends with the Maturita Examination (Kaňáková,M. Czesaná ,V. Šímová., 2016).

Shortened programmes at technical and vocational schools

Since 2005, the so-called "shortened programmes" in VPET have been available at vocational schools. Full-time studies last one to two years. A part-time equivalent can be 12 months longer than a full-time programme. Shortened programmes are aimed at people who have already completed secondary education and intend to obtain a qualification in another field, or who have general secondary education and wish to obtain a vocational qualification. Candidates who already have a Maturita may obtain a vocational qualification or a Maturita in another field; shortened courses are particularly suitable for adults. Although the number of applicants is small for shortened programmes, an increasing tendency can be noticed (Kaňáková,M. Czesaná ,V. Šímová., 2016).

3.3 Regulatory and Institutional Framework of the VPET System

3.3.1 Central Elements of VPET Legislation

VET legislation is governed by the Act on pre-school, basic, secondary, tertiary professional and other education – the School Act. Higher education institutions are governed by the Higher Education Act. The Act on Pedagogical staff stipulates a definition of the position of pedagogical staff, lays down requirements for the performance of the occupation, as well as for the continuing training and career system. Training provided within the public employment services is regulated by the Employment Act (CEDEFOP, 2016a).

3.3.2 Key Actors

a) Vocational Education and Training

Government

The MEYS is the main actor for VPET at national level. The MEYS is responsible for the development of the national education strategy and priorities, the development of curriculum policy, ensuring the quality of VPET based on the objectives and content of education, and the coordination of public administration and funding (UNESCO, 2013). The Ministry of Labour and Social Affairs is responsible for retraining under the auspices of the Public Employment Service. The Ministry of Health is responsible for training health personnel, the Ministry of the Interior for accrediting training for public administration personnel, etc. (Kaňáková,M. Czesaná ,V. Šímová., 2016).

At regional level, the self-governing bodies, the Regional Assembly and the Regional Council are directly responsible for setting up public vocational training institutions at upper secondary and tertiary level (Kaňáková, M. Czesaná, V. Šímová., 2016). The Regional Assembly is responsible for setting up and dismantling vocational schools and school facilities. The Assembly is obliged to set up an Education and Employment Commission, which decides on the number and structure of schools and their educational provision, the quality of schools and the financing of education in the regions. The Regional Council is elected by the Assembly and has executive powers. Additionally, it forms commissions of experts (e.g. for youth and education) in various fields which perform advisory functions (UNESCO, 2013).

The Regional Council is a regional body of the state administration. One of its departments deals with education. The authority is responsible for the implementation of state administration in the region. The main tasks in the field of education includes the development of a regional long-term plan for the development of the education system and the preparation of a report on the state of education in the region. The regional authority provides the schools with funds from the state budget to cover the wages and direct training costs of pedagogical staff and monitors expenditure (UNESCO, 2013).

The school directors have considerable powers and their tasks include the preparation and implementation of curricula based on approved national curricula. The quality of pedagogical work and personnel policy, education and efficient management and the use of financial resources is monitored by the national curricula (UNESCO, 2013).

An important key-actor in the education system of the Czech Republic is the National Institute for Education, Educational Guidance Centre and Teacher Training Centre (NÚV). The Institute is responsible for: the development of general, vocational, artistic and linguistic education, the schools in the field of pedagogical-psychological, the educational and vocational guidance and for the methodology of teacher training. All these services focus on lifelong learning and maintenance to the close cooperation with the EU (NÚV, 2018). In addition, the National Institute of Technical and Vocational Education is a coordinating, advising and research institution in the field of secondary vocational education and training. It provides guided services through its Vocational Guidance Centre and is managing and developing the NQF¹⁶ (UNESCO, 2013).

¹⁶ A national qualifications framework (NQF) is a formal system describing qualifications. 47 countries participating in the Bologna Process are committed to producing a national qualifications framework. Other countries not part of this process also have national qualifications frameworks.

A further important organisation is the Centre for International Cooperation in Education (DZS). It was founded by the MEYS and is a Quango organization (i.e. the organisation has a government mandate and operates independently and is partly or entirely financed by the government. The DZS carries out tasks related to ensuring educational, training and other relations with foreign countries. The DZS is responsible for a number of international programmes and carries out activities to promote education. The services of the DZS can be utilized by individuals, pupils, teachers and directors of all types of schools. Likewise, other professional groups, as well as organisations and companies involved in education and local government can make use of such services (Centre for International Cooperation in Education, 2018).

Representation and advisory bodies

The National Institute of Education (NÚV) is a functional institution within MEYS and receives its funds from the state budget. The NÚV is a coordinating, advisory, expert and research institution in VET. It develops and revises the framework for vocational training programmes in all areas of secondary vocational education. Additionally, it provides guidance services through its Career Guidance Centre and focuses on research, methodology and distribution of information related to vocational guidance. In addition, the NÚV supports the placement of labour market relevant subjects and contributes to the development of the National Qualifications Framework (NQF¹⁷) and the National Register of Vocational Qualifications (NSK) (UNESCO, 2013). Vocational schools have school councils as advisory bodies. The councils include representatives of the founding body of the school, pedagogical staff, parents and sometimes pupils (Kaňáková, M. Czesaná, V. Šímová., 2016).

Social Partners

The social partners (employers & employees associations, trade unions) can influence vocational education and training at national and regional level, in particular through cooperation in curriculum development. Their representatives take part in the final examination committees of the upper secondary level. They cooperate in the newly introduced uniform tasks for the final examinations and profile (professional) parts of the Maturita Examination. One of the current national priorities is to reinforce the role of employers and increasing their participation in vocational training (Kaňáková, M. Czesaná, V. Šímová., 2016).

Education and training providers

¹⁷ Further Information on qualifications in the Czech Republic: <http://www.narodnikvalifikace.cz/en-us/select-qualification/>

Upper secondary vocational education in the Czech Republic is provided by secondary technical schools (SOŠ), secondary vocational schools (SOU) and conservatories. For more information on the education and training providers, refer to chapter “3.1, Vocational Education and Training (VET; Upper Secondary Education Level)”.

About 165 educational institutions provide VET in the Czech Republic. Most providers are vocational schools. Institutions such as conservatories, vocational adult education centres and vocational institutions (for pupils with mental and physical disabilities) are the other providers which offer VET in the Czech Republic (European Commission, 2018).

3.4 Educational Finance of the VPET System

The Czech education system has three different financing systems. The first system is defined by the School Act and finances upper secondary education and higher vocational schools. The second system defines the financing of higher education institutions and is subject to the Higher Education Act. The third and last system comprises the training of the Labour Market Service and is subject to the Employment Act. The following section deals only with the financing of general education schools and higher vocational institutions (Kaňáková, M. Czesaná, V. Šímová., 2016).

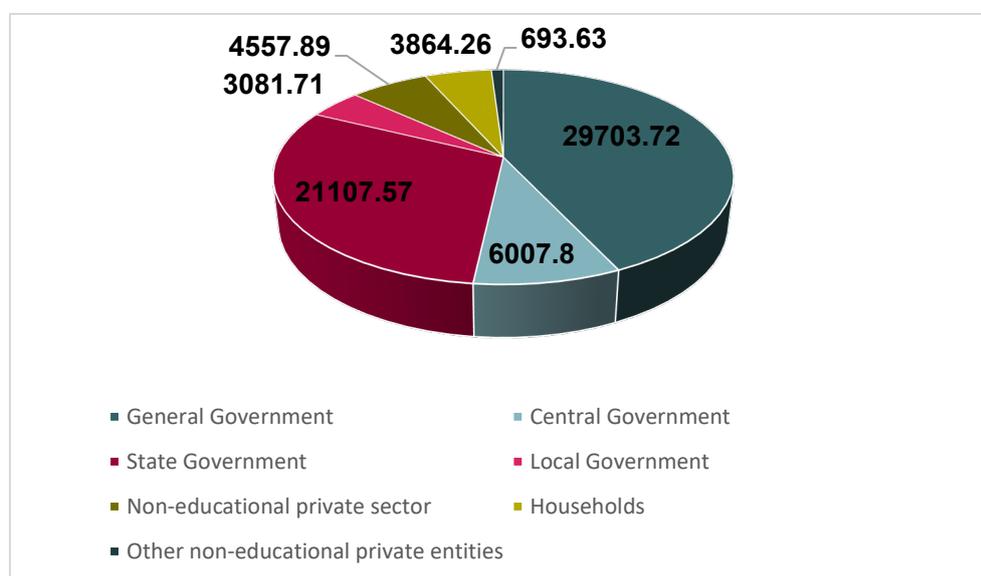
The responsibility for financing general schools and higher vocational institutions is shared between MEYS and those responsible for school construction, the regional authorities or, in some cases, private institutions and churches. The MEYS provides the largest part of the education budget and covers the direct costs, with the exception of investments. School founders cover operating and investment costs. Funding from the public budget (for direct and operational costs) is per capita and depends on the type of school and the educational sector. Schools are motivated to accept many pupils in order to achieve a higher level of funding, which often means lowering selection criteria and reducing school quality (Kaňáková, M. Czesaná, V. Šímová., 2016).

In 2016, the government adopted a reform of regional school funding, which will come into force in 2019. New criteria will be introduced for determining the level of funding, such as the number of lessons or the number of children with special needs in the classroom. The new criteria will also be introduced for the level of funding. It also transfers the main responsibility for school funding to MEYS. Schools can also receive funds from the MEYS budget for development programmes. The content and purpose of these programmes are announced by MEYS for each financial year; the funds allocated to these programmes represent only about 0.5% of the total budget. In addition, individual subsidies (e.g. capital investments) can be

defined within the framework of approval by Parliament at budget's (Kaňáková, M. Czesaná, V. Šímová., 2016).

The MEYS budget also provides funding for private schools and schools established by registered churches or religious associations and registered in the school register. The grant is determined as a percentage of the per capita funding of a comparable public education programme. Another source of funding for private secondary schools and public VOŠ are fees. The maximum level of fees for public VOŠ is set by law and varies according to the subject area. Fees are generally low and range from 97 to 195 euros per year. The amount of tuition fees for private schools is not regulated (Kaňáková, M. Czesaná, V. Šímová., 2016).

Figure 7: Expenditures for upper secondary education (VET and general upper secondary education for the Czech Republic in 2015 (in Euro)



Source: (OECD, 2015)

As outlined in Figure 10, the general government¹⁸ takes the most of the costs of the upper secondary education, which amounts to 29'703.72 million in 2015. Furthermore, the local government¹⁹ takes the other big part of the costs with 21'107.57 million. In addition, central government²⁰ have to fund way less than the other two institutions, with 6'007.8 million. Another part in the financing of the VET system play the non-educational private sector with 4'557.89 million and the households as they take 3'864.26 million (OECD, 2015).

¹⁸ General government spending, as a share of GDP and per person generally consists of central, state and local governments, and social security funds.

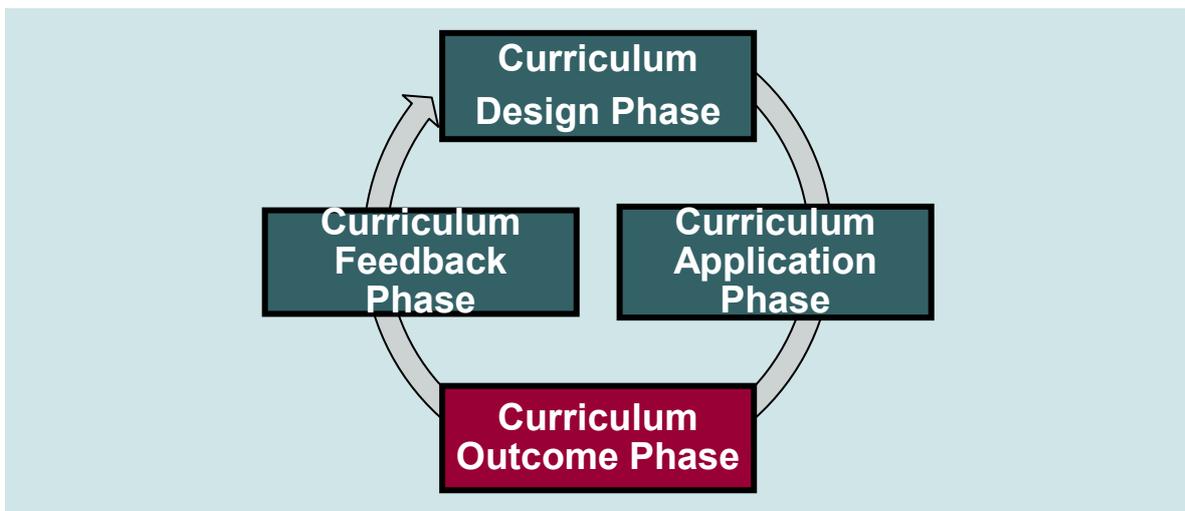
¹⁹ Local government units are institutional units whose fiscal, legislative and executive authority extends over the smallest geographical areas distinguished for administrative and political purposes.

²⁰ The central government sub-sector consists of the institutional units making up the central government plus those NPIs (non-profit institutions) that are controlled and mainly financed by central government. The political authority of central government extends over the entire economy.

3.5 Curriculum Development

The curriculum is a central element for the functioning of a VPET system by defining the framework and the (quality) standards for the education system. The development of a curriculum can be decomposed into a three-step process with a curriculum design, a curriculum application and a curriculum feedback phase. This theoretical concept is called the Curriculum Value Chain and is depicted in the picture below (CVC; for more details see (Renold, et al., 2016)).

Figure 8: Curriculum Value Chain (CVC)



Source: (Renold, et al., 2016)

In the curriculum design phase, VET curriculum content and qualification standards are decided upon by the relevant actors. Therefore, the discussion in the respective subchapter below focuses on the degree and the amount of stakeholder participation concerning curriculum design in the Czech Republic. The curriculum application phase revolves around the implementation of the curriculum. Because learning environments differ heavily across countries—especially with respect to the prevalence of workplace learning—the curriculum application phase subchapter in this factbook focuses those learning environments. Specifically, it addresses where learning takes place and whether the curriculum dictates both school and workplace learning or only one of the two. Finally, curriculum outcomes can be collected and analysed in the curriculum feedback phase. This evaluation process is important as it may render a more refined curriculum design than was possible in the first place.

3.5.1 Curriculum Design Phase

The design phase is crucial for the whole curriculum process. In order to ensure that the skills taught in the VPET programmes correspond to the needs of the labour market, experts from

companies should be involved in defining the qualification standards and learning contents of the curricula.

In the Czech Republic, companies and educational institutions work together to design an upper secondary vocational education curriculum that fits the needs of the labour market. The sector councils (*SR - sektorové rady*) have been active nationwide over the last ten years, particularly in defining occupations and qualifications. They bring together representatives of key stakeholders in specific areas. Established gradually since 2006, the number of sector councils is increasing. There are currently 29 sector councils, consisting of 350 representatives of employers, educational institutions and ministries. Their job is to deal with the required qualification, analysis of the labour market in sectors and the development of qualification and assessment standards for vocational qualifications in relation to professions defined in the National Register of Occupations. The National Institute of Education (NÚV) is responsible for the coordination and methodological accuracy of the curricula developed for upper secondary education. The NÚV submits the proposals of the developed qualification standards to the approval authorities for feedback. The final approval of the standards is the responsibility of MEYS (Kaňáková, M. Czesaná, V. Šimová., 2016).

There are 25 so-called field groups, consisting of experts from the fields of education, labour market and professions. The field groups have been working for more than twenty years, with the support of MEYS, to promote the creation of national curricula with objectives and content that meet the needs of the labour market. Their expertise covers the full range of vocational training opportunities. The field groups support the continuous development of VET curricula and the implementation of the European instruments - ECVET²¹, EQAVET²² and the mapping of qualification levels to EQF²³ levels (Kaňáková, M. Czesaná, V. Šimová., 2016).

The formal Czech VET-System develops curricula up to upper secondary level. The MEYS is responsible that the national curricula (*RVP - Rámcové vzdělávací programy*) contains

²¹ The European Credit System for Vocational Education and Training (ECVET) is a European credit system for VET. Since 2004, the EU Commission has set up a working group from various European countries (social partners and experts) to develop the system. The aim is to promote training mobility, to increase the attractiveness of vocational education and training and to define the recognition of vocational education and training for higher education.

²² European Quality Assurance in Vocational Education and Training (EQAVET) brings together the EU Member States, the Social Partners and the European Commission to develop and improve quality assurance in European VET systems within the context of the implementation of the European Quality Assurance Reference Framework.

²³ The European Qualifications Framework (EQF) acts as a translation device to make national qualifications more readable across Europe, promoting workers' and learners' mobility between countries and facilitating their lifelong learning. The EQF aims to relate different countries' national qualifications systems to a common European reference framework.

the minimum educational requirements established by the state. They focus mainly on learning outcomes and key competences. On the basis of the national curricula, the upper secondary schools design their own curricula (*Školní vzdělávací programy - School educational programmes*). The aim is to make graduate profiles more flexible, taking into account regional needs, the development of the subject area and the interests and capacities of students (Kaňáková, M. Czesaná, V. Šimová., 2016).

3.5.2 Curriculum Application Phase

The way in which a curriculum is implemented, especially with respect to learning environments, is important to achieve the intended learning outcome. As described in section 3.1., VET programs in the Czech Republic have a school and an in-company based component. In-company education may take place in different institutions. Vocational secondary school (SOS) and secondary technical school (SOU) final examinations include theoretical and practical parts and an expert must supervise the issue of the professional certificate.

According to the “Act on the Verification and Recognition of Learning Outcomes”²⁴, the examination in vocational qualifications is held before an authorized person (an examiner is a representative of the authorized entity or individual authorized to validate, in the name of an authorized entity, the attainment of the vocational qualification) to validate the target vocational qualification. The examiner is responsible for ensuring that the examination is carried out in accordance with the applicable assessment standard. The assessment standard specifies the preparation time for the examination and the duration of the examination. The form of the examination or its parts will depend on the amount of work for which the student is trying to obtain professional qualifications through the examination. The authorized examiner creates a report concerning the procedure and result of the examination. Afterwards it is sent together with a copy of the applicants’ certificate to the licensing authority from which it received the authorization (Ministry of Education, Youth and Sports, 2006).

The National Institute for Education (NÚV) is a central actor in vocational guidance at the national level, as already described in chapter “2. Formal System of Education”. The NÚV focuses on research, methodology and dissemination of information related to vocational guidance, and supports the mediation of issues related labour market issues. The NÚV also offers specific training courses focusing on counselling services, and the development and introduction of new diagnostic methods in this field. In addition, it is pursuing the development

²⁴<http://www.msmt.cz/areas-of-work/further-education/the-act-on-the-recognition-of-further-education-results> (06.12.2018)

of an integrated information system (ISA) and its website www.infoabsolvent.cz²⁵. The NÚV offers e-learning courses to enable counsellors and teachers to improve their vocational guidance skills. Three qualifications (vocational counsellor, vocational counsellor for educational and vocational careers and vocational counsellor for vulnerable, endangered and disadvantaged groups) for the profession "vocational counsellor" have been included in the National Qualifications Register - NSK²⁶ (Kaňáková, M. Czesaná, V. Šímová., 2016).

3.5.3 Curriculum Feedback Phase

The curriculum feedback phase deals with the question, whether and how educational outcomes are analysed. Based on this, the curriculum could be re-worked and improved. The subchapter below deals with the respective monitoring and quality assurance issues.

The Czech Republic has developed a system for the recognition and validation of learning outcomes. The legal framework was established by the "Act on the Verification and Recognition of Learning Outcomes". Every person who has acquired certain skills and knowledge in a professional field can acquire a nationally valid certificate of qualification generally recognised by employers after fulfilling the relevant requirements. As of June 2016, 991 qualification standards were adopted and included in the national qualification register (Kaňáková, M. Czesaná, V. Šímová., 2016).

3.6 Supplying Personnel for the VPET System (Teacher Education)

Teachers at upper secondary vocational schools include teachers of general and vocational subjects, vocational education and training and teachers of practical training.

- Teachers of general subjects acquire their professional qualifications at a higher education institution by completing an accredited master's degree in pedagogy. The training of the teachers is focused on general subjects for secondary schools or on the corresponding field in case of more specific education.
- Teachers of vocational subjects acquire professional qualifications at a higher education institution by completing an accredited Master's programme: either in the field of pedagogical sciences, which focuses on the training of teachers of vocational subjects for

²⁵ The website collects information on the employment of school leavers in the labour market and is a useful source of information for professional decisions of students, counsellors and adults.

²⁶ The National Register of Qualifications (Národní soustava kvalifikací - NSK) has been under development since 2005. It is a public register of complete and partial qualifications and their qualifications and assessment standards. Part of the NSK is a system of qualification levels, whose eight levels correspond to the eight levels of the European Qualifications Framework (EQF).

secondary schools. A teacher of vocational subjects is qualified to manage the internship or vocational training of students.

- Vocational training teachers acquire professional qualifications at a higher education institution by completing an accredited course of study in that field or by tertiary vocational training by completing an accredited educational programme at a higher education institution in a field corresponding to the type of subjects to be taught in vocational training. The other pathways are a secondary education Maturita diploma or vocational qualification in a field appropriate to the type of subject to be taught.
- Teachers of the practical course acquire professional qualifications at a higher education institution by attending an accredited course of study in a field corresponding to the type of subjects to be taught. The other pathway is by attending an accredited course of study at upper secondary level at Matura in a field corresponding to the type of subject to be taught. A teacher of the placement is qualified to manage the professional placement of pupils (Kaňáková, 2016).

In addition to the formal qualification of the different professions mentioned above, the teacher must demonstrate their pedagogical competence. This competence is achieved by a bachelor's degree in pedagogy from a higher education focusing on secondary school teacher training or through the completion of a lifelong learning programme. This is organised by a higher education institution, responsible for the focus on training secondary school teachers (Kaňáková, 2016).

The number and type of training for teachers or its duration are not regulated. This data has not been centrally monitored in the last five years, but are published in the annual reports of individual schools, different sub-studies or databases. Annual overviews of training and its participants in individual projects carried out. The number of teachers participating in further education within a particular supervised school, the type of training programmes and the interests of teachers with regard to the focus of education are centrally monitored by the Czech School Inspectorate within the framework of quality control of school education (Kaňáková, 2016).

The statutes of the individual higher education institutions regulate the qualification requirements for the academic staff of their teachers in tertiary professional schools. The employment of academic staff is generally regulated by the Labour Code. Some employment conditions are laid down in the Higher Education Act. The Details are regulated by the rules of procedure of the higher education institutions registered with the MEYS in accordance with the Education Act. The principal offers further and continuing education to the educational staff of the tertiary professional school. The law obliges educational staff to continuously renew,

strengthen and supplement their qualifications. The principal organises the further training measures in a further training plan, which is developed with the responsible trade union. Each headmaster is responsible for the completion of the training plan for educational staff (European Commission, 2018).

According to Kaňáková, in 2013, overall 57'048 Teachers were employed in VET programmes in the Czech Republic. Thereof, 6'031 Teachers were employed in secondary vocational schools (SOU) and 17'078 in secondary technical schools (SOS). About 23'000 Teachers worked at the upper secondary and post-secondary non-tertiary level in 2013 (Kaňáková, 2016).

4. Major Reforms in the Past and Challenges for the Future

4.1 Major reforms

There have been several reforms in different areas of Czech VET in recent years. Most of the reforms in the past years affected the curriculum and its examinations and curricula. For example, since 2015, the adopted reform of the Education Act has introduced the obligation for schools to use uniform, centrally prepared tasks for the final examinations in the secondary school sectors. These are completed with an apprenticeship certificate. The National Institute of Education, with the financial support of the MEYS, prepared the implementation of the change. The new final examination was successfully implemented into the vocational education system. The reform was financially supported by the European Social Fund and the State Budget of the Czech Republic through the national projects Quality (2005-2008). New Final Examination (2009-2012) and New Final Examination 2 (2012-2015). One year before the uniform tasks became compulsory, 90 percent of schools already organised the final examinations according to the standard task (European Commission, 2018b).

Another Reform affected the labour market needs in specific regions. In 2016, the programme to encourage vocational training was announced. The aim is to improve the quality of vocational secondary education in those areas of education, which are considered irreplaceable in the respective region in view of the needs of the labour market or because of uniqueness and tradition (European Commission, 2018b). In addition, in 2017, the MEYS decided to increase the number of mathematics hours in secondary vocational education. The minimum number of hours per week for mathematics will be increased from 8 to 10 hours. The time required for mathematics training will also be increased for the three-year vocational

training courses with apprenticeship qualifications. The successful completion of which is a prerequisite for entry into following training courses (European Commission, 2018b).

In 2018, the MEYS decided to review and update the Education Framework Programmes (FEPs) established more than a decade ago. The FEPs provide a generally binding framework for the establishment of school education programmes by schools in all areas of pre-school, primary and secondary education as well as arts and language education. The revision of the FEPs for education and training is currently planned until 2022. Implementation has been transferred to the National Institute for Education (NÚV). The aim of the revision is to clearly define what the student really needs to know. This means which knowledge and skills the student has and which he can prove (whose performance can be tested in the centrally administered examinations). The aim is to create conditions under which each student from schools in the Czech Republic has the opportunity to achieve the expected learning outcomes that form the basis for life relevant knowledge and skills (European Commission, 2018b).

The revision will make it possible to combine the learning outcomes defined for each educational sector with key competences. The tool for creating and developing the key competences of children and pupils is diverse educational content. The content is the learning background in which competences are formed, developed and consolidated. For this reason, the learning outcomes defined for interdisciplinary topics are also assigned to different educational areas. Parallel to the preparation of the FEP as a binding document, an illustrative part should also be prepared which has the character of recommendations and methodological support. It should include examples of learning activities to support the achievement of learning outcomes, examples of tasks, examples of pupils' work, and recommended methods for verifying pupils' learning outcomes. On the one hand, the aim of the illustrative part is to support schools. On the other hand, it is to draw teachers attention to how pupils learn, what learning activities produce, and what criteria applies to the assessment of pupils' outcomes (European Commission, 2018b).

4.2 Major challenges

The lack of attractiveness of secondary VET is regarded as one of the greatest challenges facing Czech VET. This is mainly due to low average salaries in comparison to other highly qualified specialists and limited career development opportunities. Internships in companies, or cooperation between schools and employers are getting more promoted. Several recent actions have encouraged cooperation between schools and employers, including tax incentives, the development of VET examinations in cooperation with employers and legislative changes to allow the employment of business experts in schools (CEDEFOP, 2016).

Another challenge is to better match skills supply and labour market demand. Twenty-nine sector councils (gradually established since 2005) monitor the coverage of their sectors by qualifications, identify new qualification trends and propose new qualifications (see Chapter 3.5.1 Curriculum Design Phase). Several qualification improvement projects have been launched, but a system at national level is still lacking. The creation of training opportunities tailored to the needs of low-skilled and socially disadvantaged groups also requires increased attention. Changes in legislation are intended to ensure that continuing vocational training better meets the needs of the labour market. This corresponds to the recognition and validation system, defined in the NSK and is better linked to active employment policy instruments such as retraining courses (CEDEFOP, 2016).

According to various Czech and international expert studies, the difference in educational opportunities and aspirations in the Czech Republic is a chronic problem. Educational opportunities are primarily determined by family background and are often extended by early external differentiation of students in the educational system. The "Strategy for Education Policy of the Czech Republic until 2020" aims to ensure that no social group is disadvantaged in access to school education. Additionally, educational opportunities should not be influenced by factors such as socio-economic status, region, nationality or cultural background (immigrants). Officially, the school system in the Czech Republic offers the opportunity to switch between all its components. However, in reality there are a number of dead ends that block progress through the system, maintaining inequality and lastly reduce the efficiency of the use of public resources (The Ministry of Education, Youth and Sports, 2014).

The transfer of decision-making powers from the central administration to the regional or local level is the most groundbreaking change in the management of the Czech education system in recent years (last 15 years). This decision triggered excessive fragmentation and even disintegration of central and regional management. There are an enormous number of bodies which are responsible for only one school. This leads to fragmentation of resources, misrepresentation of information and communication, and weakening mutual trust between stakeholders. The decentralization resulted in significant decline in the system administration, fragmentation of support capacity, and problems with the coordination of education policies at the national, regional and municipal level (The Ministry of Education, Youth and Sports, 2014). Furthermore, the Czech Republic lacks at any system of training for management positions in education. The responsibility for the training and professional development of managers is the task of the institutions or even of the individuals. The MEYS recommends a document, which would define standards of training for management positions in the field of education (The Ministry of Education, Youth and Sports, 2014).

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