EU SKILLS PANORAMA 2015

April 2015

European Commission

ANALYTICAL HIGHLIGHT

PROSPECTS FOR The Czech Republic

- The Czech Republic's employment rate was 72.5% in 2013 – lower than both the national and EU-28 2020 target of 75%.
- Skill demand is still driven by the industry, but the importance of services is rising fast.
- The Czech labour market shows signs of polarisation; demand is rising for high-skilled and to a lower extent for low skilled workers.
- Employment growth is expected to be slower than the EU as a whole.
- Healthcare and social services together with business & other services are expected to create the majority of new jobs in years to come.
- The lack of high-skilled workers with a degree in technical and natural sciences remains a key concern and a potential hindrance for the provision of technology and knowledge-intensive production and services.
- In OECD's Adult Skills Survey the Czech Republic reached average results; but a low share of people with the highest level of skills may indicate a lack of the ability to develop and support talent.
- IT skills (especially high-level ones) remain of short supply in the country.

The low qualified, women and young people experience difficulties in finding jobs despite high employment rate

The Czech employment rate (for persons aged 20-64) was 72.5% in 2013 slightly below the national EU2020 target (75%) but above the EU-28 average (68.4% in 2013).[1] This was mainly caused by lower unemployment, while the activity rate remained at a similar level as in the EU-28. Whilst the national EU2020 target has been set at 75%, Czech Republic has stipulated more structured employment targets for some specific groups – especially for women with children and for older people (aged 55-64).

The recession has resulted in a significant rise in unemployment. However, at 6.8% it is significantly lower than the EU-28 average (10.6%)[2], although the economic recovery has yet to have a significant effect on job creation.

Although employment rates are above the EU-28 average for both men and women, the situation in the specific segments of population vary substantially. The employment rate of women aged 25-39 is below average EU-28 level and this pattern is caused mainly by the employment gap between women with children and childless women which is among the highest in the OECD. Difficulties with harmonization of professional and family life may originate because of a variety of reasons. Low availability of part time jobs, unsufficient capacities of children care facilities and long period of paid maternity leave are the most important of them. As a result, the skills of mothers are not being fully utilised which may have many consequences on both an individual and societal level.

Young and low-skilled people have the highest risk of becoming unemployed with the unemployment rate for low qualified (ISCED 0-2)

1 Eurostat (2015), Employment and unemployment database, [lfsa_ergaed], extracted on 20.01.2015

2 Ibid.

persons aged 20-24 being around 39% in 2013.[3] There are less early school leavers in the Czech Republic than in the EU-28, but this small group belongs to the most disadvantaged people in the labour market. Long-term unemployment constitutes a major problem – representing 43.4% of the unemployed in 2012.[4]

A high proportion of long-term unemployment is closely related to structural unemployment. Even in the peak of economic growth and high demand for labour there were many unemployed whose qualifications did not match the requirements of the labour market. During the recession (characterised by more than 18 unemployed people per vacancy) employers still reported difficulties recruiting for certain jobs; in particular a long-term shortage of technical graduates on the labour market has been identified.[5]

The Czech Republic remains an open manufacturing-driven economy

Unemployment structure and development are strongly influenced by labour demand in economic sectors. In that regard the Czech Republic remains a manufacturing economy. The manufacturing industry employed 27% of the workforce in 2013, despite the loss of 70,000 jobs since 2008. The automotive industry has performed best since then – an increase of 13% between 2008 and 2013 means that employment in car and car parts production is very close to 200,000 persons.[6] Czech "Autoland" still produces more cars per 1,000 inhabitants than any other EU country – with the exception of Slovakia[7]. Technology-intensive industries contributed to the growth as well – namely the pharmaceutical and the electronics industry.

Besides manufacturing, the importance of the services sector is gradually increasing. Between 2008 and 2013, the ICT sector added almost 26,000 jobs (+22%), professional services and R&D added 25,000 jobs (+13%), and the education and healthcare sectors increased employment by more than 70,000 workers.[8]

Prague still leads job creation from a regional perspective

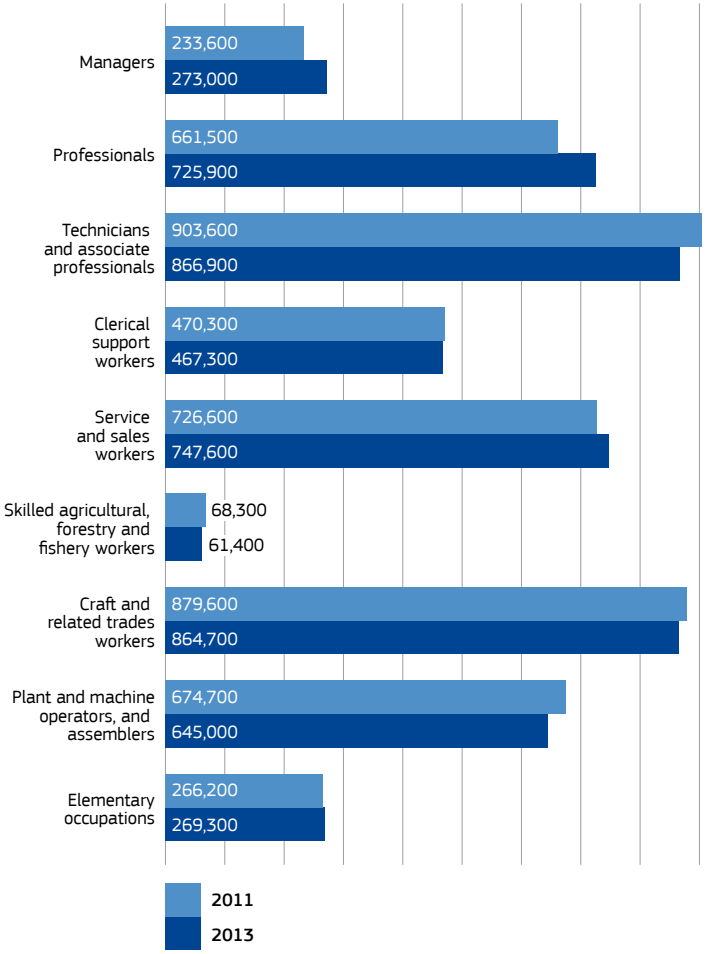
Labour market prospects also vary significantly in particular regions. Only four of 14 Czech regions experienced employment growth in the period 2008-2013: the Capital Prague, Central Bohemia region and to a smaller degree also South Moravia region and Pilsen region. The Prague and Central Bohemia region represent a major growth pole in Czech labour market – employment growth in 2008-2013 was more than 30,000 jobs. Mostly services contributed to the growth in these regions.[9]

3 Ibid.
4 Ministry of Labour and Social Affairs (2014), Labour market database (2014)
5 Confederation of Industry of the Czech Republic (2014), Sectoral agreements – solution for H&R development
6 Czech Statistical Office (2014), Labour Force Survey, own calculations.
7 E-trend (2014), Slovakia is world leader in car production per capita http://spectator.sme.sk/c/20046552/e-trend-slovakia-is-world-leader-in-car-production-per-capita.html
8 Ibid.6
9 Czech Statistical Office (2014), Regional statistical yearbooks.

Labour market shows signs of polarisation in terms of demand for jobs

From an occupational point of view, employment growth shows signs of labour market polarisation. As displayed in Figure 1, the number of jobs for high skilled occupations (managers and professionals) has increased by 17% in just two years – an increase of more than 100,000 jobs. Service and sales workers employment increased by 20,000 jobs; but all other medium-skilled occupations are on the decline. Surprisingly, elementary occupations performed better with a slight increase in the period 2011-2013.[10]

▼ Figure 1 – Employment development in occupations



Source: Czech Statistical Office: Labour Force Survey, own calculations.

Employment of professionals increased significantly. On the other side, business and administration associate professionals lost a significant number of jobs. This may be the result of digitalisation of many sectors such as trade and financial services – many routine tasks are now secured by IT technology and this increases demand for high skilled occupations such as IT professionals and decreases demand for medium-skilled administration workers.

10 Ibid.6

Share of tertiary level graduates still behind EU-average but catching up

The Czech Republic has a very high proportion of the population with upper secondary education (ISCED 3) as the highest educational attainment. In 2014, around 72% of the population aged 25-64 had an upper secondary education (compared to the EU-28 average of 46.8%). At the same time a very low share of people remained with only basic education or even without completed basic education (6.8% of the population is in the ISCED 0-2 category) – almost four times less than the EU-28 average (see Table 1).

▼ Table 1 – Structure of population (aged 25-64) according to the highest level of education attained

	2008			2014		
ISCED Level	0-2	3-4	5-6	0-2	3-4	5-6
EU-28	28.7%	47.1%	24.1%	24.1%	46.8%	29.1%
Czech Republic	9.0%	76.7%	14.3%	6.8%	72.0%	21.3%

Source: Eurostat, Employment and unemployment database (LFS). Table: lfsq_pgaed. Own calculations (2014).

The proportion of the population with tertiary education in the country is below the EU-28 average. In 2014, only 21.3% of the Czech population had a tertiary qualification compared with the EU average of 29.1%. However, the share of tertiary educated is growing very fast. In 2013, 26.7% of the population aged 30-34 had acquired tertiary level education. This indicator has risen by 11.3 percentage points in five years.

Future employment growth should be slower in the Czech Republic

According to Cedefop forecasts (2014), the total Czech employment is expected to rise by 2% till 2025. Growth is expected to be lower than for the EU-28 as a whole. According to the forecast, the share of total employment in the EU-28 is forecasted to be 2.2% in 2025 and its share of total EU-28 job opportunities[11] until 2025 is expected to be 1.9%.

From a sectoral point of view the forecast predicts a significant rise in healthcare and social work activities (almost 14%), as well as business and other services (more than 11%). In absolute terms, business and other services will be the source of most newly created jobs (more than 100,000). Public administration and defence, compulsory social security and the primary sector will shrink most compared to 2013. The manufacturing industry – albeit slightly declining – is expected to remain the economy power engine.[12]

The Cedefop occupational forecast for the Czech Republic clearly demonstrates the increasing demand for skills. Future jobs will require not only a higher level of educational attainment but also more high skilled workers (the share of ISCO 1-3 groups on total employment is expected to rise significantly). On the other hand the groups of armed forces occupations, elementary occupations, skilled agricultural, forestry and fishery workers are expected to shrink most compared to 2013 reflecting the decline of industries that are sources of such occupations.

Participation in tertiary education increases rapidly

There are increasing numbers of people enrolling in higher education in the Czech Republic and education achievement is increasing in line with demand, particularly for high skilled workers. Between the school years 2003-4 and 2012-13 the largest increase occurred at the ISCED 5A level (59%); the number of doctoral students (ISCED 6) increased also significantly, by 24%.[13] Growth in the number enrolled in tertiary education has been the result of expanding educational opportunities provided by both tertiary professional schools and higher education institutions (see Table 2).

▼ Table 2 – Students in tertiary education by ISCED level

	2003/04	2012/13
ISCED 5A	223,683	356,392
ISCED 5B	34,224	28,980
ISCED 6	20,040	24,880
ISCED 5, 6 Total	277,947	410,252

Source: Ministry of Education, Youth and Sports: Statistical Yearbooks (2014).

The European objective is that at least 40% of the EU population (aged 30-34) should have tertiary education by 2020. The country objective is set at 32% by 2020. The tertiary education reform, which is under preparation, should contribute to the achievement of this goal. While there is now a wide range of educational opportunities and the interest of young people to enter higher education is strong, the main policy challenge is now to assure the excellence of the education provided.

Table 3 shows that a remarkable doubling of the share of technical and natural sciences graduates between 2005 and 2012 has aligned the Czech Republic with the EU average.[14] However, demand for high-skilled workers with a degree in technical and natural sciences remains higher than supply. For a country which sees itself as an important provider of technology and knowledge-intensive production and services this represents a key concern and a potential hindrance for growth. Significant effort is being made to increase the attractiveness of technical and natural fields of study at university level; but as recent surveys indicate[15], there is still much to improve both in terms of quality and quantity.

11 Total job opportunities include created/lost jobs and replacement needs.
12 Cedefop forecasts (2014)
13 Ministry of Education (2014), Youth and Sports: Statistical Yearbooks
14 Eurostat (2015), Education and Training database, [educ_thflds], extracted on 20.01.2015
15 Technology Agency of the Czech Republic (2014), INKA – Mapping of Innovation Capacity 2014+. Preliminary results

The lack of skilled workers with technical/natural sciences degrees now plays an important role in the shaping of educational and labour market policy. Almost every regional or national strategy related to the labour market or education touches upon this topic; significant sources are expected to be allocated to closing the gap within the new EU 2014-2020 programming period.[16]

▼ **Table 3 – Tertiary education graduates in technical and natural sciences per 1000 inhabitants aged 20-29**

	2005	2012
EU-28	13.2	17.1
Czech Republic	8.2	16.7

Source: Eurostat: Education and Training. Table: educ_thflds (2014).
Note: non-weighted average.

The Czech Republic performed average in PIAAC

The topic of skills has not been sufficiently addressed in recent years and the scope of national projects has been limited in this respect.

According to the OECD's Adult Skills Survey (PIAAC), the scores for literacy and problem solving in technology-rich environments are average compared with other OECD countries; numeracy skills were found to be above the OECD average. A comparison with the results of the IALS survey conducted in 1998 suggests that the skills of younger cohorts decreased, however this decline is slower than in most other OECD countries.

The distribution of all skills measured in PIAAC is rather narrow. On the one hand this is a positive sign as only a very low share of the population has skills on the lowest level. The same, however, is true for the high skill end which may point to Czech Republic's inability to develop and support talent – this problem has been already identified in initial education and corresponds very strongly with outcomes of PISA for the country.

The skills of the tertiary educated population decreased since 1998 but they are still significantly above OECD average. Among the upper secondary educated population there are high differences between graduates from technical fields with "maturita" exam (ISCED 3A) and vocational education without "maturita" exam (ISCED 3C). The share of the population with vocational education without "maturita" exam is still very high in the Czech Republic in comparison with other countries.

Comparison between skills and job requirements from the PIAAC survey revealed that the share of population which can be classified as "matched", according to the methodology used in the international report, is relatively high in comparison with other countries.

ICT skills remain in demand

As for other skills-related research, the focus is usually on ICT. The Czech Republic has an above average share of ICT professionals and technicians among the EU-28 countries. With ICT services being one of the most rapidly growing sectors in the economy, the number of ICT professionals and technicians is growing fast. In 2013 it reached 3% of employment – twice as high as in 2004. The average in EU-28 is 2.3%. High and rapidly growing wages (especially for tertiary educated ICT professionals) show that the supply of these specialist skills in the labour market is not yet satisfied.[17]

The ICT skills of the Czech workforce are not significantly different from the EU average. The share of people with high ICT skills in total employment is very slightly above the EU average (2.6% compared with 2.4% in 2012) which corresponds to a somewhat higher share of ICT specialists. The share of persons employed with ICT user skills is slightly below the EU average (18% compared with 18.5%) and whilst these have been increasing the trend seems to have been slowing down in the past three years[18]. ■

16 Ministry for Regional Development (2013), Draft of partnership agreement between the Czech Republic and the European Commission http://www.mmr.cz/getmedia/9cde059e-50e8-4ad2-8186-f6b91e93c468/draft-partnership-agreement-for-the-2014-2020-programming-period.pdf

17 Skarlandtová, Eva (2014), IT Professionals still on the rise http://www.piaac.cz/attach/PIAAC_publikace_web.pdf

18 Eurostat (2015), Information society statistics, [isoc_ic_biski] and [isoc_ic_bispe], extracted on 20.01.2015

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