# 1. Employment outlook

Following an increase in employment which was close to the EU-28 average in 2011-16, Czech Republic is expected to show a moderate employment growth up to 2030, as shown in Figure 1. Employment growth is expected to peak in 2016-21 and then slowdown in the subsequent periods up to 2030. Czech Republic's employment growth (7%, similar to Italy and Greece) is expected to be slightly above the EU-28 average over the period 2016-2030.

Figure 1 Percentage employment growth in Czech Republic and the EU-28, 2011-30
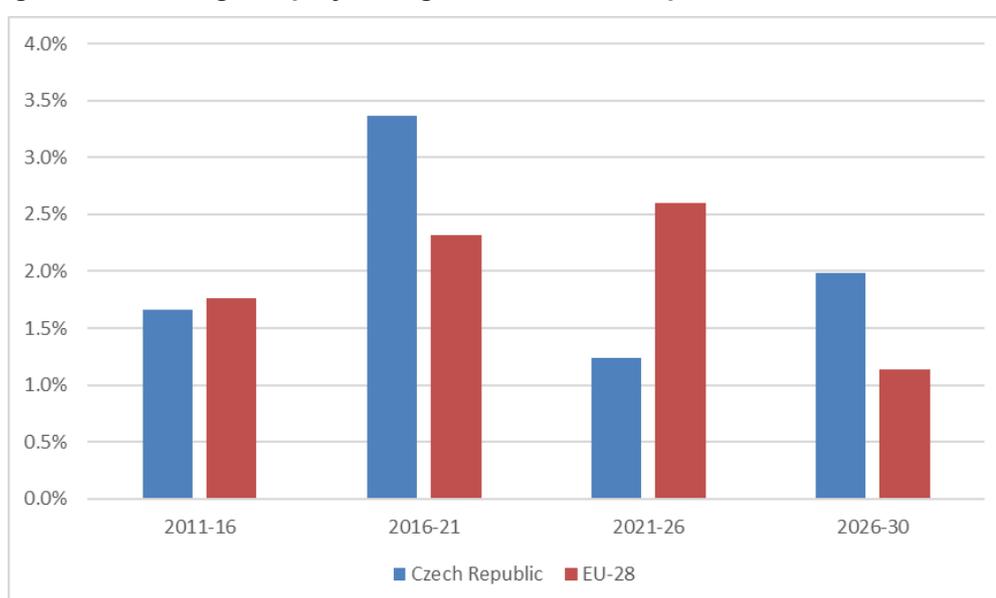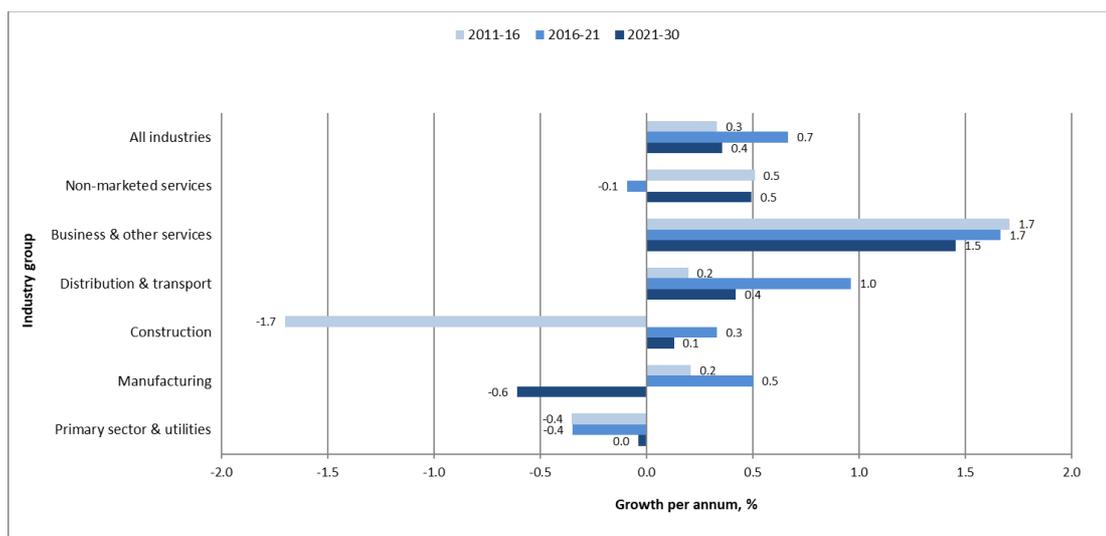

Source: Cedefop (2018 Skills Forecast)

2. Labour force overview

Czech Republic is the only Member State where the labour force is expected to remain at the same level over the period 2016-30. Within the population, a decrease in age cohorts 25-44 is expected to go hand in hand with an increase in cohorts aged 45-59, while both groups have similar participation rates. The cohorts of population that are expected to show the highest growth are those aged 15-19 and 65+, these two groups have a low participation in the labour market. Overall participation rate of the working age population is expected to decline by 0.9 pp in over the period 2016-30.

3. Sectoral employment trends

The growth in employment among sectors is expected to be uneven, as shown in Figure 2. The *business and other services* sector is by far the sector that is expected to grow the most in both 2016-21 and 2021-30. Other sectors showing a sizable employment growth are *distribution and transport* in 2016-21 and *non-marketed services* in 2021-30. After a moderate increase up to 2021, *manufacturing* is expected to be the sector with the strongest decrease over the period 2021-30, while *primary sector and utilities* is expected to continue to shrink. In terms of subsectors, those belonging to the broad sector *business and services* are expected to highest growth rates up to 2030, i.e. *banking and insurance*, o*ther business services* and *miscellaneous services*. The subsectors that will contract the most in 2016-30 are *public admin and defence* and *engineering*.

Figure 2 Employment growth by broad sector of economic activity, 2011-30
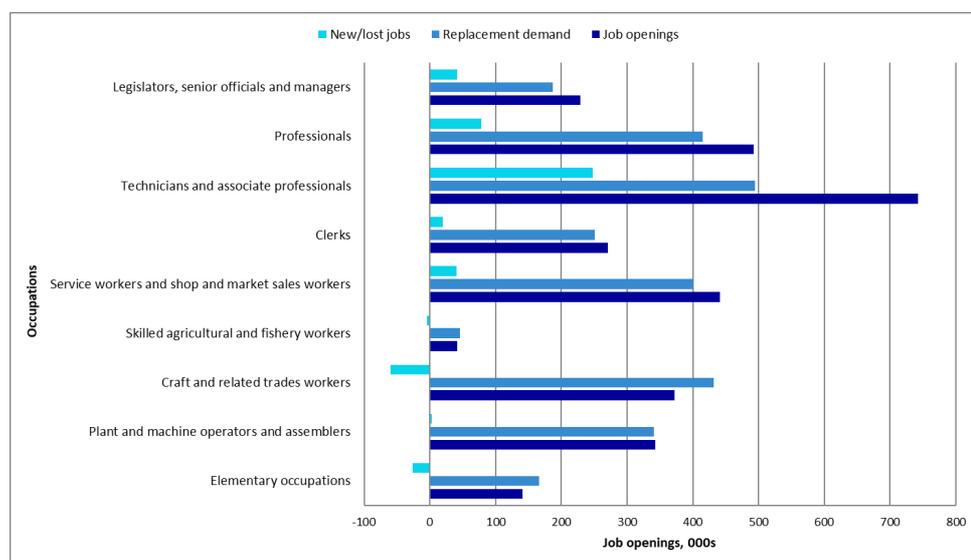

Source: Cedefop (2018 Skills Forecast)

4. Job openings by occupational group

Cedefop skills forecasts estimate the total job openings by occupational group as the sum of net employment change and replacement needs. Net employment change refers to new jobs created due to the expansion of the employment in that sector or occupation. Replacement needs arise as the workforce leaves the occupation due to

retirement or career changes. Replacement needs, generally, provide more job opportunities than new jobs, meaning that significant job opportunities arise even in occupations declining in size (i.e. agricultural workers are a typical example, as ageing workers employed in the sector will need to be replaced).

Figure 3 shows the total job openings by broad occupational group over the period 2016-30. The number of job openings is determined by the amount of jobs lost/newly created and by the amount of jobs that are created following the retirement of old workers. Generally, most job openings will come from the need to replace workers retiring or changing occupations. The occupation expected to have the highest number of job openings, of which one third will come from the creation of new jobs, is *technicians and associate professionals*, accounting for 24% of **total job openings**. Other occupations like *service workers and shop and market sales workers* are also expected to provide a sizable amount of job openings, although these will be due mostly to replacement demand. *Craft and related trade workers* and *elementary occupations* are expected to shrink in employment, although the need to replace retiring workers will still provide numerous job openings.

Figure 3 Job openings by broad occupational group, 2016-30

Source: Cedefop (2018 Skills Forecast)

When occupational groups are analysed in more detail, most of the **new jobs** are expected to be created in *legal, social, cultural and related associate professionals*, *science and engineering associate professionals* and *customer service clerks*. The occupations expected to provide the highest number of **total job openings** are similarly *legal, social, cultural and related associate*

professionals and *science and engineering associate professionals*, plus *business and administration associate professionals*.

5. Drivers of occupational change

Within the Cedefop skills forecasts, future employment growth (or decline) of occupations is further broken down by separating national economic components from regional industrial and economic effects, helping to interpret what is driving the \change. From this perspective employment growth can be explained by three possible drivers: (a) overall trends of the economy (i.e. growth or decline), (b) shifts of employment between sectors and (c) changes in the occupational structure within sectors (i.e. factors making some occupations more important/ others).

The sectoral shift toward the service sector is expected to create demand for medium-level occupations such as *customer service clerks*, *personal care workers* and *personal service workers*. On the other hand, the shrinking in *manufacturing* and *primary sector and utilities* is expected to decrease employment for *assemblers*, *metal machinery and related trades workers* and *market-oriented skilled forestry, fishery and hunting workers*.

Developments in technology will shrink significantly employment in occupations such as *retail and other service managers*, and such as *food preparation assistants*, because of the routine content of their work. Changes in occupations by sectors will also negatively affect *health associate professionals* and *hospitality.*

Taking into accounts the both occupation and sector effects, the occupations which are expected to show the highest increase in employment are *customer service clerks*, *personal care workers* and *administrative and commercial managers*.

6. Demand for and supply of skills

Within the Cedefop skills forecasts, skills are proxied by the highest level of qualification held by individuals in the labour force and employment. Three levels are distinguished, high, medium, and low, which correspond to the official ISCED classification. The occupational group also offers an indication of the skill level required, as some occupations (e.g. professionals) typically require high-level skills, while some others (e.g. elementary) typically require only basic ones. Therefore, occupational groups are also linked to a skill level.

Figure 4 shows the shares of **total job openings** for qualifications needs. More than half of the job openings (58%) are expected to require a medium-level of qualification, 12 pp more than the EU-28 average, while 38% are expected to require a high-level qualification, 5 pp below the EU-28 average. Only 4% of job openings are expected to require a low-level qualification, 7 pp below the EU28 average.

Figure 4 Share of total job openings by level of qualification, 2016-30
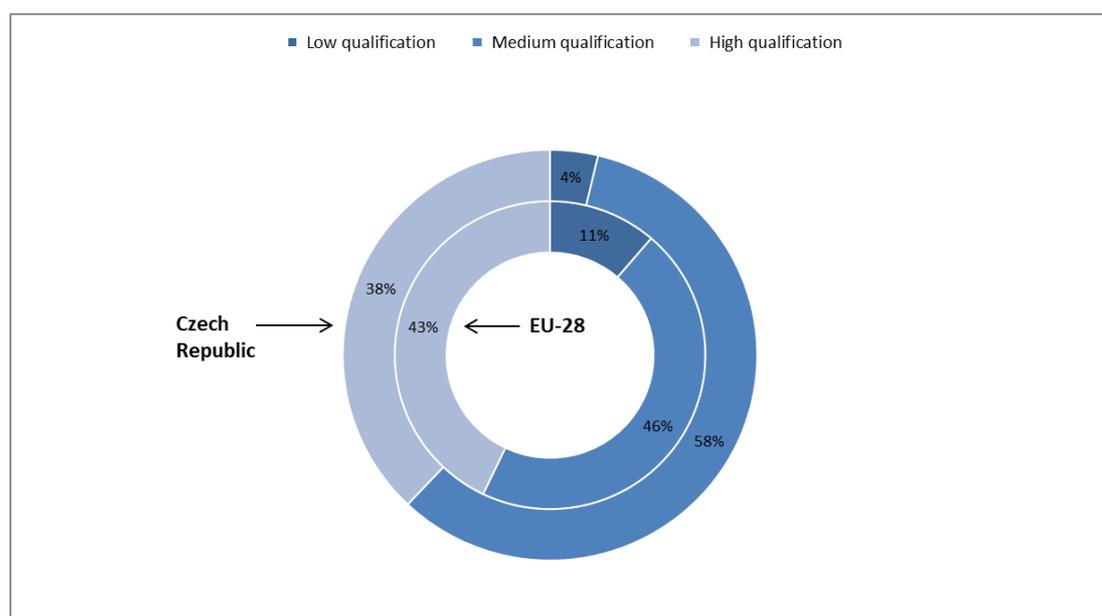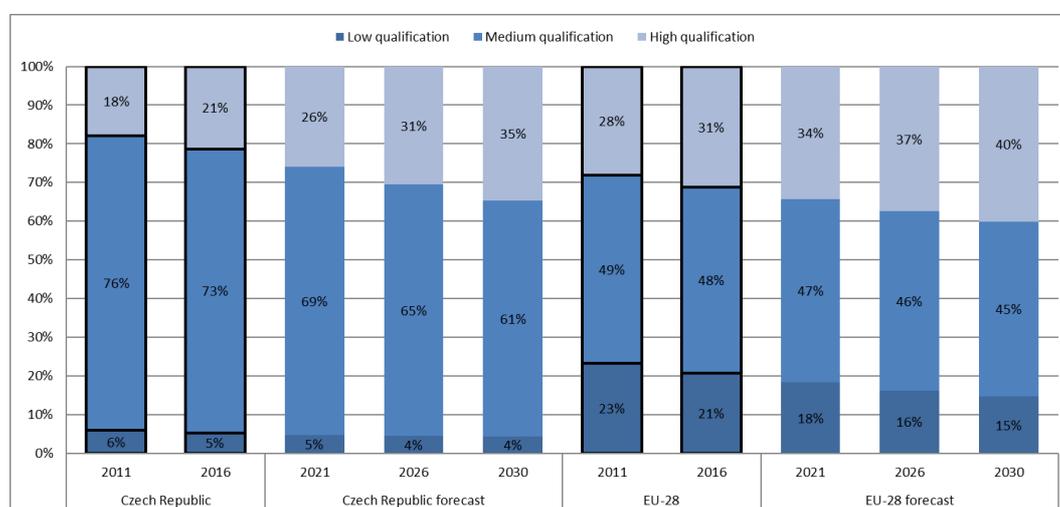

Source: Cedefop (2018 Skills Forecast)

The number of job openings requiring high-level qualifications is expected to increase in traditionally high-skill occupations such as *business and administration associate professionals*, *science and engineering associate professionals* and *teaching professionals*.

Future labour supply trends depend on the size of the working age population (defined as aged 15 or older), the labour market participation rates, and the extent to which people acquire formal qualifications.

As seen in Figure 5, the share of workers with high-level qualifications in the labour supply is expected to increase while still remaining below the EU-28 average. The share of medium- qualified workers is expected to decrease substantially, while above the EU-28 average. On the other hand, the share of low-qualified workers in the labour supply is expected to slightly shrink while remaining much below the EU-28 average.

Figure 5 Labour force share by level of qualification, 2011-30

Source: Cedefop (2018 Skills Forecast)

Starting from a situation of shortage of highly-qualified workers and surplus of medium-qualified workers, the supply of and the demand for these qualifications are expected to converge by 2030. The demand for low-qualified workers is expected to match the supply.

Cedefop methodology and scenarios

Cedefop skills forecasts offer quantitative projections of future trends in employment by sector of economic activity and occupational group. Future trends on the level of education of the population and the labour force are also estimated. Cedefop's forecasts use harmonised international data and a common methodological approach allowing cross-country comparisons about employment trends in sectors, occupations and qualifications. The forecasts and methodologies applied are validated by a group of national experts. These forecasts do not substitute national forecasts, which often use more detailed methodologies and data, while they also incorporate in-depth knowledge of a country's labour market.

The latest round of forecasts covers the period up to 2030. The forecasts take account of global economic developments up to May 2017. Despite cross-country differences, the EU economy as a whole is expected to show modest growth, after a better-than-expected performance in 2017. Over 2018 and 2019, the EU economy as a whole is expected to grow, albeit at a slower pace compared to 2017, supported by increased household expenditure and falling unemployment, although wage growth remains muted. Investment is also expected to pick up given favourable financing conditions and an improved economic outlook. The key assumptions of the baseline scenario incorporate the Eurostat population forecast available in 2017 (Europop 2015) ([1]) and the short-term macroeconomic forecast produced by DG ECFIN in May 2017 ([2]).

For the latest update and access to more detailed Cedefop skills forecast data please visit:

http://www.cedefop.europa.eu/el/events-and-projects/projects/forecasting-skill-demand-and-supply

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([1]) https://ec.europa.eu/eurostat/web/population-demography-migration-projections/population-projections-data

([2]) https://ec.europa.eu/info/business-economy-euro/economic-performance-and-forecasts/economic-forecasts/spring-2017-economic-forecast_it