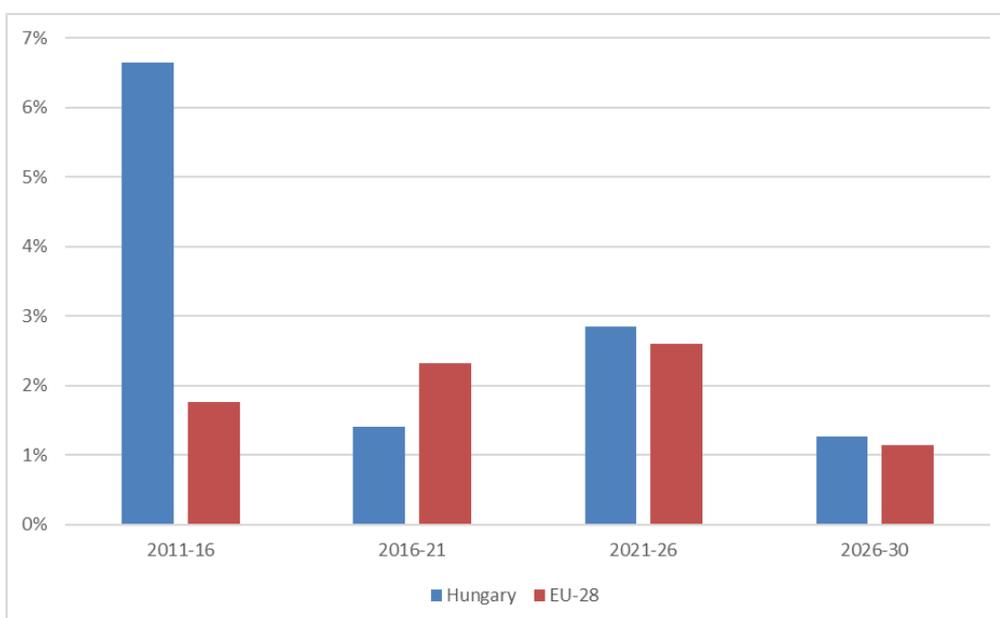


1. Employment outlook

After a significant increase in employment over the period 2011-16, employment growth up to 2030 is expected to be moderate, as shown in Figure 1. Employment growth is expected to be around 1 pp below the EU-28 average in 2016-21 and then to align with EU-28 average up to 2030. A total employment growth of 6% is expected over the period 2016-30, a rate similar to Finland and the Netherlands, and in line with the EU-28 average.

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



Source: Cedefop (2018 Skills Forecast)

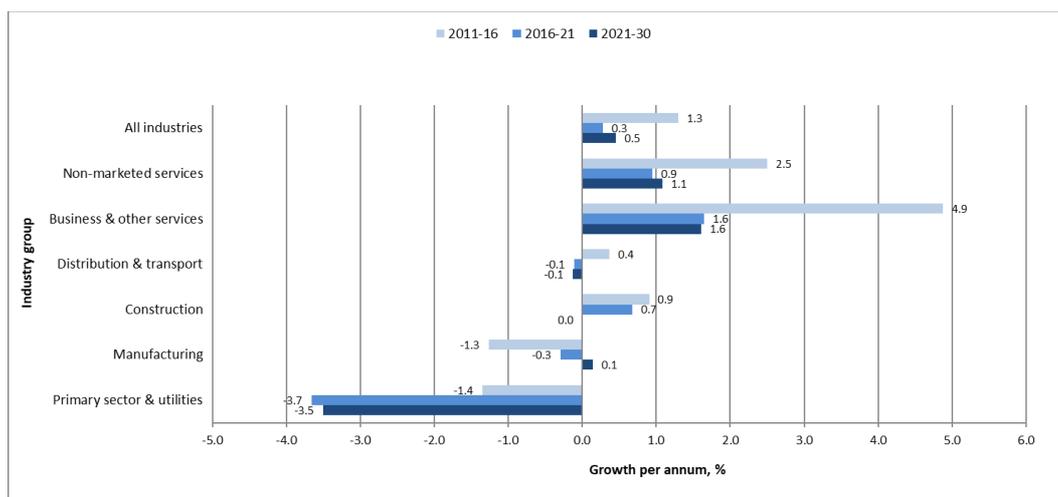
2. Labour force overview

Hungary's labour force is expected to decline by 0.6% over the period up to 2030, a rate similar to Germany. This stagnation in the labour force is driven by a general decline among different age cohorts within the population. The working age population is expected to decline by 2%. All age cohorts contribute to the decrease except those aged 50-59 and 65+, which are expected to increase. The increase in the cohorts aged 50-59 with a high participation rate (83% on average) and the increase in the 65+, with very low participation rate, partially offsets the decline in the other age cohorts, thus limiting the decline in the labour force.

3. Sectoral employment trends

Employment growth is expected to be concentrated in a few sectors, while the majority of sectors are expected to stagnate or decline up to 2030, as shown in Figure 2. *Business and other services* sector is expected to be the fastest growing sector in all periods up to 2030, followed by *non-marketed services*. After some moderate growth in 2016-21, *construction* is expected to stagnate in 2021-30, while *distribution and transport* and *manufacturing* are expected to stagnate both in 2016-21 and 2021-30. The *primary sector and utilities* is expected to be by far the fastest shrinking sectors in all periods up to 2030, driven by the decline in *agriculture*. In terms of subsector, *banking and insurance* and *health and social work* are expected to have the highest increase in employment over 2016-30, driving the increase in their respective broad sectors (*business and other services* and *non-marketed services*).

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



Source: Cedefop (2018 Skills Forecast)

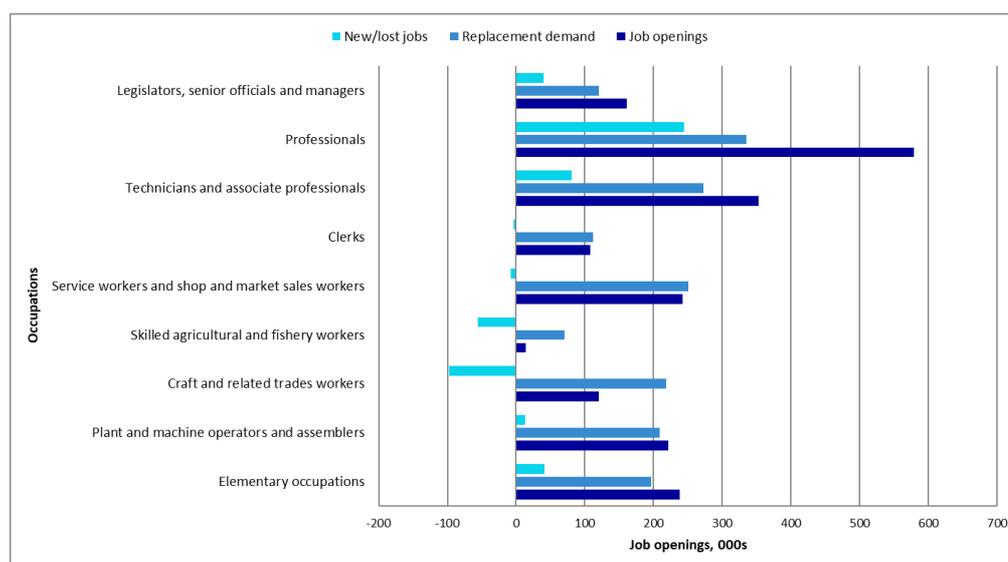
4. Job openings by occupational group

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. Most jobs will come from the need to replace workers retiring or changing occupations. The occupation expected to have the highest number of job openings, 42% of which are due to new jobs, is *professionals*, which accounts for 29% of total job openings. *Technicians and associate professionals* are also expected to provide a significant amount of jobs openings, 23% of which are newly created jobs. *Craft and related trades workers* is expected shrink by 2030, although the need to replace retiring workers will still provide numerous job openings. However, replacement needs are expected to be insufficient in compensating the shrinkage in *skilled agricultural and fishery workers*, thus creating very few job openings by 2030 for this occupation.

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



Source: Cedefop (2018 Skills Forecast)

The more detailed analysis of occupational groups shows that most of the **new jobs** are expected to be created for *science and engineering professionals*, *legal, social and cultural professionals* and *business and administration associate professionals*, which are expected to have also the highest number of **total job openings** among detailed occupational groups.

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 *non-marketed services* and *business and other services* is expected to create demand for high-skills occupations such as *health professionals* and *associate, legal, social, cultural and related associate professionals* and *science and engineering professionals*. On the other hand, the decline in *primary sector and utilities* and *distribution and transport* is expected to decrease employment in *market-oriented skilled agricultural workers*, *food preparation assistants* and *drivers and mobile plant operators*.

Developments in technology are expected to decrease employment in occupations such as *handicraft and printing workers* and *other clerical support workers* because of the routine content of their job, and *information and communication technicians* because of automation and the shifting demand towards higher skills (resulting in an increase in the demand for *information and communication technology professional*).

Taking into accounts the both occupation and sector effects, the occupations which are expected to show the highest increase in employment are *personal care workers*, *science and engineering professionals* and *legal, social, cultural associates professionals* and *legal, social, cultural associates professionals*. On the other hand, among *health professionals* there will be both positive (sectorial change) and negative effects (within occupation shifts); in the case of this occupation, the positive effects are expected to outweigh negative effects over the period up to 2030.

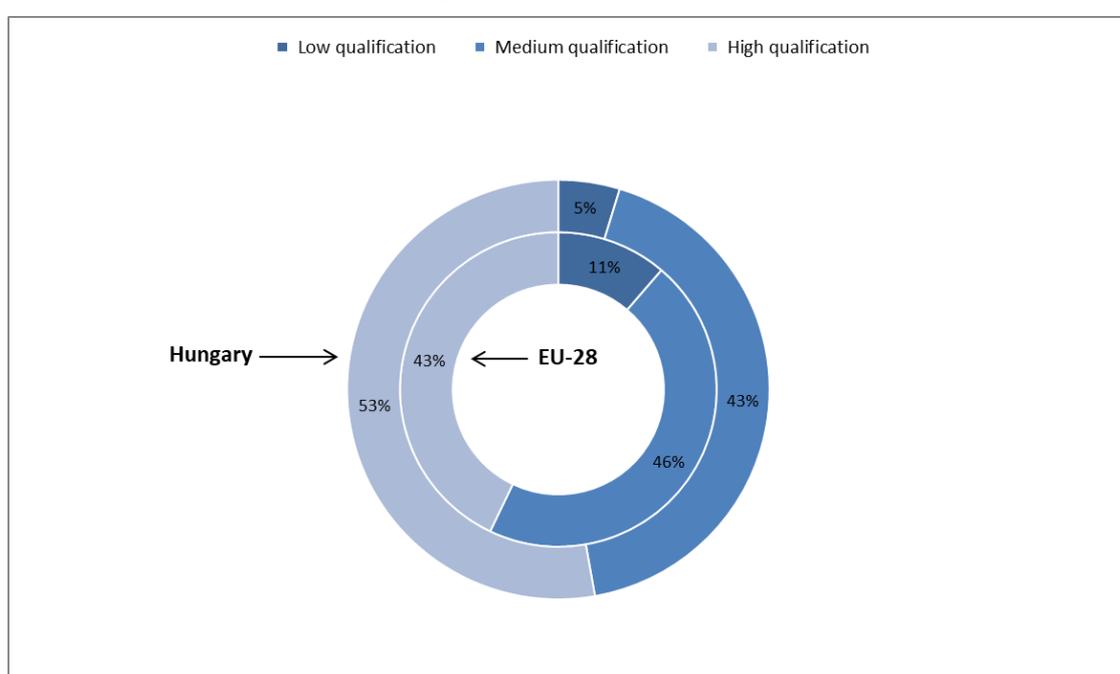
6. Demand for and supply of skills

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 share of **total job openings** by qualification needs. The share of job openings requiring high-level qualifications is expected to be 53%, 10 pp above the EU-28 average, while 43% of job openings are expected to require medium-level qualifications, 3 pp below the EU-28 average. Only 5% of job openings are expected to require low-level qualifications, 6 pp below the EU-28 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 within occupations such as *business and administration associate professionals*, *science and engineering professionals*, and *legal, social and cultural 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 is expected to increase to 42% in 2030, 2 pp above the EU-28 average. The share of medium-qualified workers is expected to decrease to 50% in 2030, 5 pp above the EU-28 average. The share of low-qualified workers is expected to decrease over time, staying 7 pp below the EU-28 average in 2030.

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



Source: Cedefop (2018 Skills Forecast)

The demand for high-qualified workers is expected to exceed their supply, while the demand for medium-qualified workers is expected to be lower than the supply, possibly giving rise to skills mismatches. The supply of low-qualified workers is expected to exceed their demand over the forecast period,

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>



⁽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

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