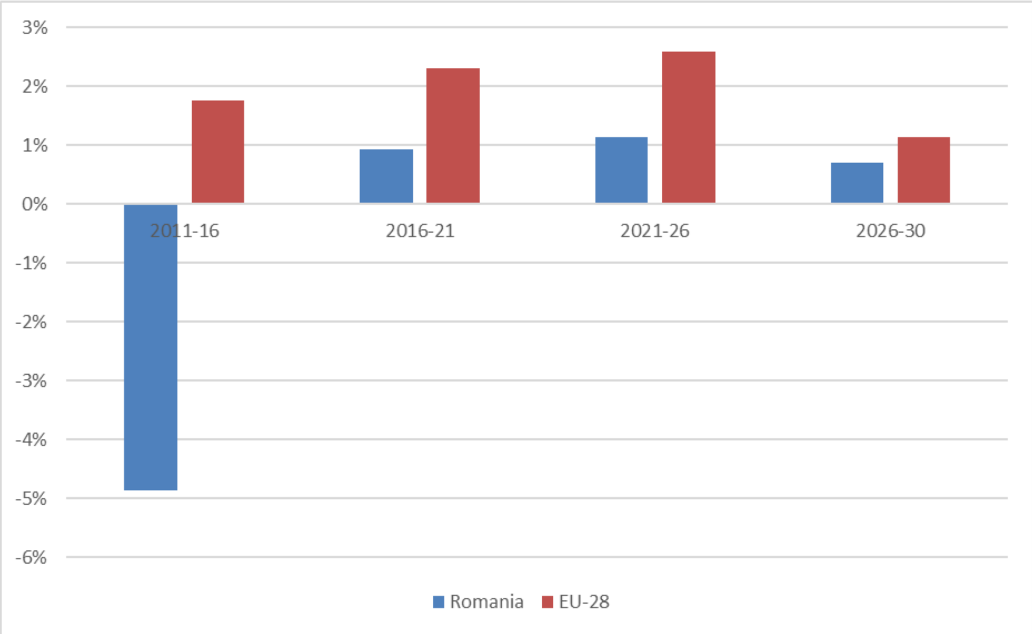
1. Employment outlook

Following the decline over the period 2011-16, the employment levels in Romania are expected to slowly increase from 2016 onwards, as shown in Figure 1. This trend is projected to continue up to 2026 and then stagnate towards the end of the forecast period (2026-30). Over the whole forecast period, Romania's employment growth (2.8%) is estimated to be significantly below the EU-28 average (6%).

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



Source: Cedefop (2018 Skills Forecast)

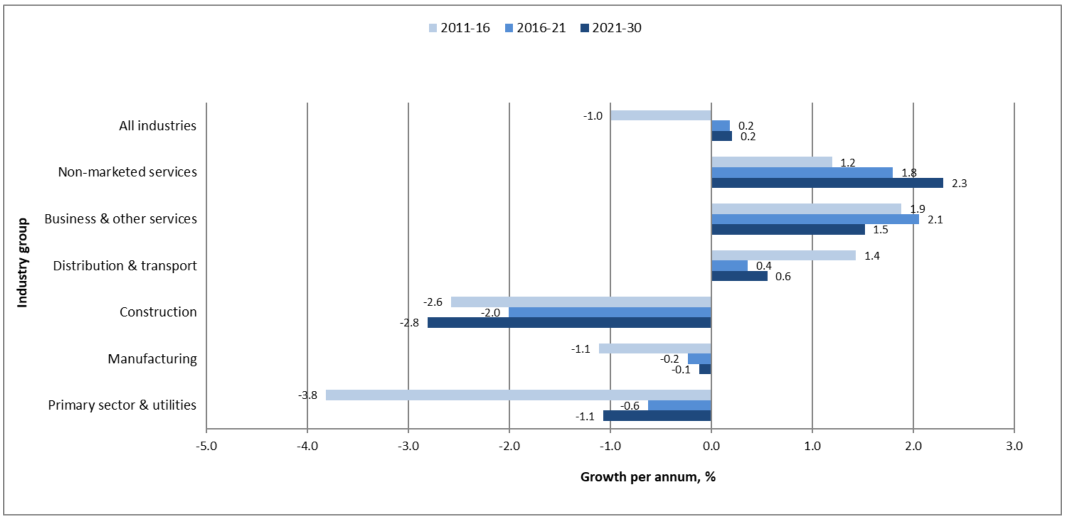
2. Labour force overview

Romania's labour supply is expected to experience a substantial decline (almost -10%) over the period up to 2030, which is mostly the result of a diminishing working age population (-8.1%) over the same period. The overall labour supply composition is changing due to a decline in the 25-49 age cohort by around 25% on average; this age cohort has the high participation rates, i.e. 85% on average. While the number of workers with traditionally low participation rates (e.g. 60+) is expected to increase (23%).

3. Sectoral employment trends

Employment growth in Romania will be uneven across the economy, as shown in Figure 2. Some sectors are expected to grow throughout the forecast period and others to shrink. Among the growing sectors, the highest increase during the period 2016-21 is expected in the *business and other services* sector, while during the period 2021-30 it will be in the *non-marketed services* sector. Among the shrinking sectors, *construction* is expected to be the sector experiencing the sharpest decrease up to 2030, with other shrinking sectors being *manufacturing* and *primary sector and utilities*.

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



Source: Cedefop (2018 Skills Forecast)

At the level of sub-sectors, *health and social work*, *other business services* and *education* are the sectors where the highest increase in employment is expected. Among the *manufacturing* sub-sectors, *engineering* will have the sharpest decline in the 2016-21 period, followed by a small increase in the 2021-30 period that will, however, not offset the previous decline.

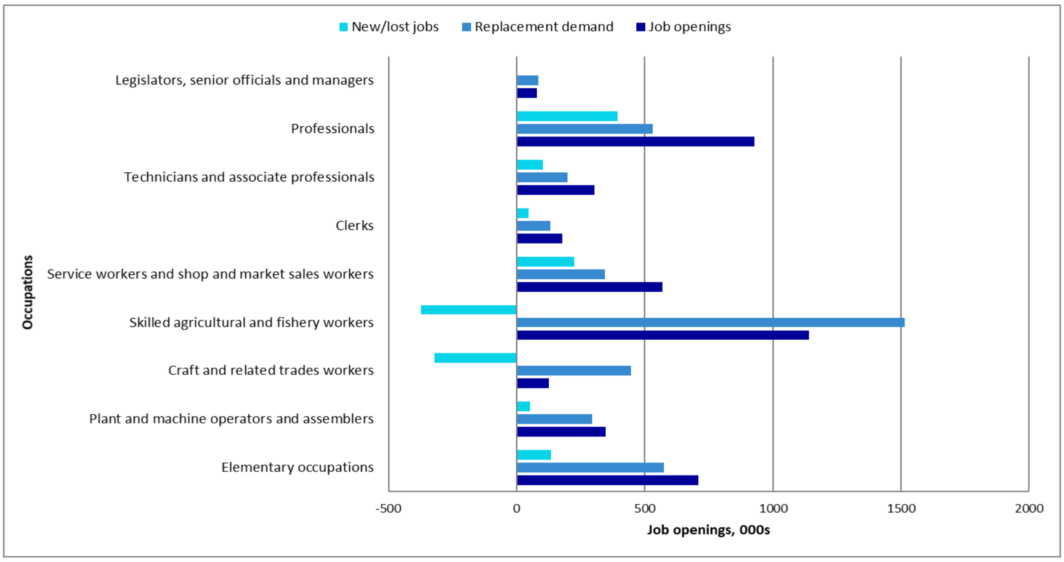
4. Job openings by occupational group

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 as a replacement for people leaving an occupation, predominantly because of the retirement of older workers.

Most jobs will come from the need to replace workers retiring or changing occupations. The occupations expected to have the highest number of openings are *professionals* and *skilled agricultural and fishery workers*. However, while the former will have new jobs being created, the latter will actually shrink, and most job openings arise from replacement needs. These occupations are expected to account for 21% and 26% of **total job openings**, respectively. The other occupation expected to shrink in employment is *craft and related trades workers*, where replacement needs will be enough to create some 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, it is possible to see that most of the **new jobs** are expected to be created in *legal, social and cultural professions*, *health professionals* and *agricultural, forestry and fishery labourers*. The occupation that is expected to provide the highest number of **total job openings** is *market-oriented skilled agricultural workers* because of massive replacement needs.

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 towards *non-marketed services* sector is expected to create demand for occupations such as *health professionals* and *personal care workers*. On the other hand, the significant shrinking in *construction* and *primary sector and utilities* is expected to decrease employment for *building and related trades workers* and *agricultural, forestry and fishery labourers*.

The demand for higher skills in the health sector is expected to substitute *health associate professionals* with *health professionals*, thus reducing their employment. Developments in technology are expected to shrink employment in occupations such as *science and engineering associate professionals*, *hospitality, retail and other service managers* and *metal, machinery and related trades workers*.

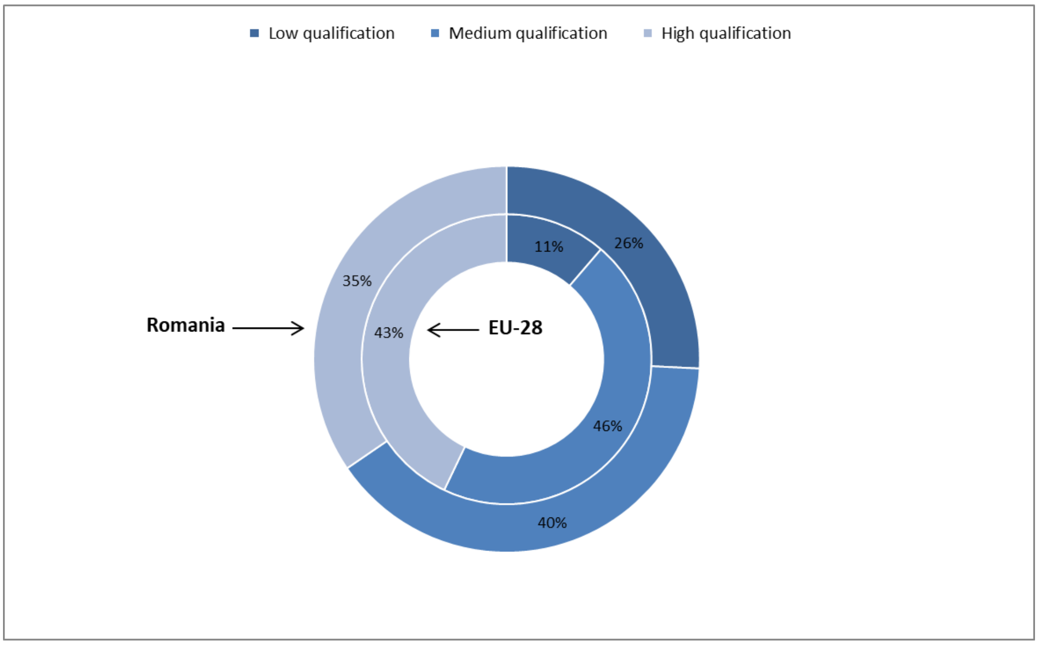
Taking into account both occupation and sector effects, the occupations that are expected to show the highest increase in employment are *legal, social, cultural and related associate professionals* and *health professionals*. On the other hand, as described above, among *health associate professionals* there will be both positive (sectoral 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 shares of **total job openings** for qualifications needs. More than one third of the job openings (35%) are expected to require a high level of qualification, 8 pp below the EU-28 average. Most of the job openings (40%) are expected to require a medium level of qualifications (6pp less than the EU-28 average), while 26% of job openings will require low qualifications, 15 pp than the EU-28 average.

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



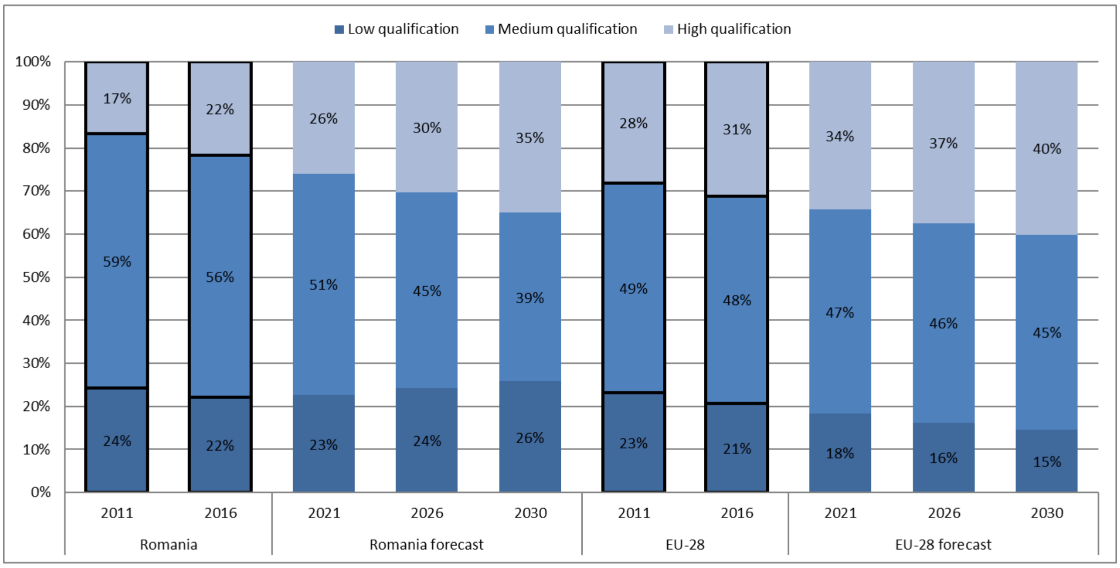
Source: Cedefop (2018 Skills Forecast)

The number of jobs requiring a high-level qualification is expected to increase within occupations such as *legal, social and cultural professionals*, *health professionals*, *teaching professionals* and *science and engineering 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 35% up to 2030, although remaining quite below the EU-28 average. The share of workers with medium-level qualifications is expected to shrink to 39% in 2030, below the EU-28 average. At the same time, the share of low-qualified workers is expected to increase, reaching 26% in 2030, 11 pp above the EU 28 average.

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



Source: Cedefop (2018 Skills Forecast)

The supply and demand for highly-qualified workers are expected to match in 2030. However, the demand for medium-qualified workers in 2030 will go partially unmet, possibly creating skills mismatch if it were to be filled by low qualified workers.

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