

# 2023 skills forecast Lithuania

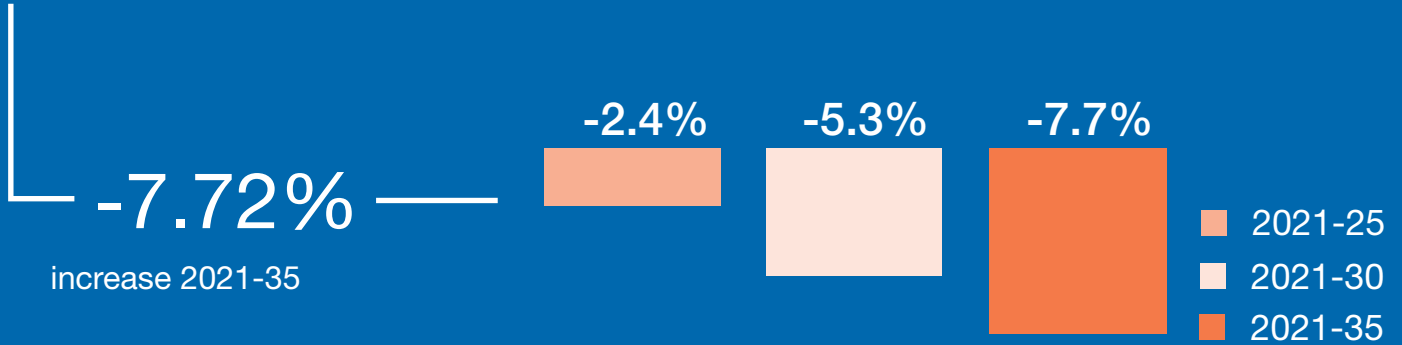




Employment in 2035

% Employment growth 2021-35

1276 000



**Fastest-growing sectors**  
2021-35% growth



**Total job openings, 2021-35**

726 000



**Highest-demand occupations**  
Largest creation of new jobs, 2021-35



**Total job openings by skill level 2021-35**



increase in high-skilled labour demand 2021-35

7%



**3.4%**  
employment increase in 2021-35



**Fastest growing occupation**  
Legal, social and cultural professionals



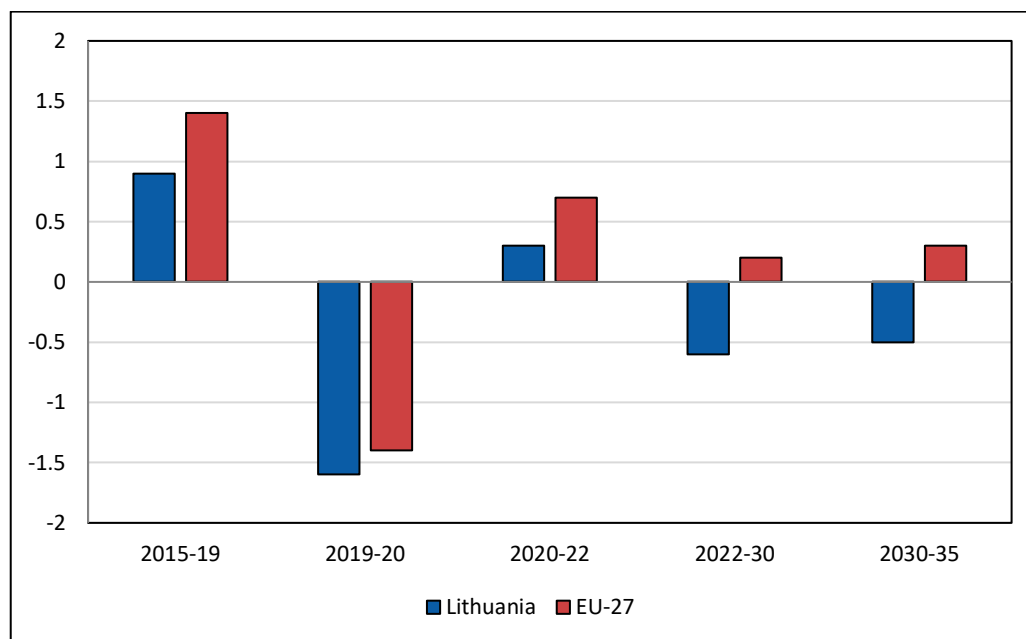
**Fastest growing sector**  
Information and communication

# Cedefop skills forecast: Lithuania

## 1. Employment outlook

Employment in Lithuania is forecast to shrink over the forecast period. Figure 1 shows that employment in Lithuania grew more slowly than the EU-27 average over 2015-19 and fell slightly more sharply in 2020 as the Covid-19 pandemic hit. Employment in Lithuania is also estimated to have grown only slightly over 2020-22, while it generally bounced back quite strongly in the EU-27 as a whole. Across the forecast period, employment in Lithuania is forecast to shrink by 0.5-0.6% pa compared with growth of around 0.2-0.3% pa for the EU-27 as a whole.

Figure 1. Annual percentage employment growth in Lithuania and the EU-27, 2015-35



Source: Cedefop (2022 Skills Forecast).

## 2. Labour force overview

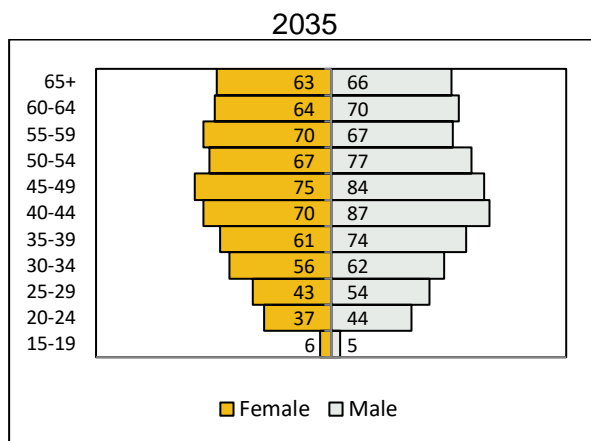
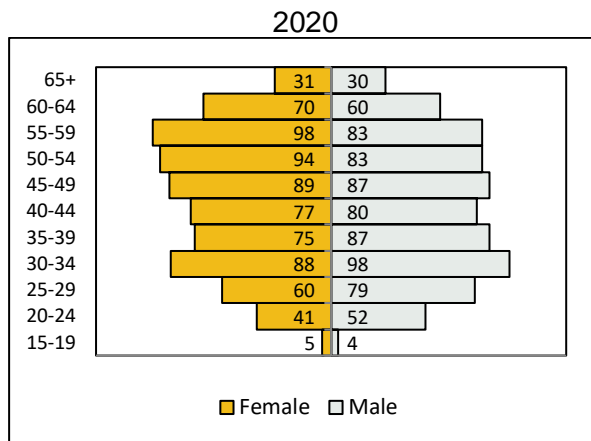
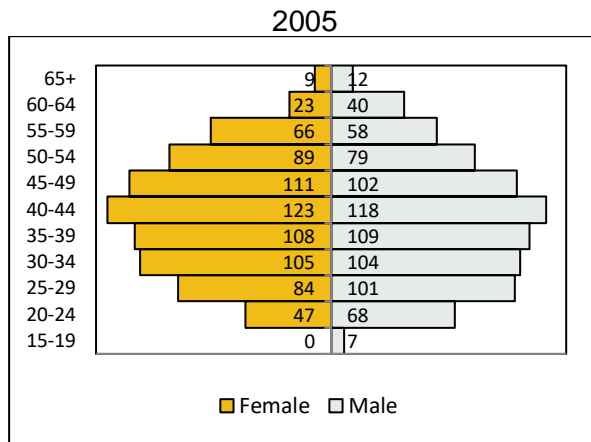
Figure 2 shows Lithuania's labour force by age group in 2005, 2020 and 2035. Changes in the labour force in Lithuania over the forecast period will continue to be driven by the ageing population and increasing participation rates in most age groups. The total labour force in Lithuania is projected to fall by 11% over 2020-35, compared with a fall of 6% over the previous 15 years. It compares with an expected increase in the labour force of around 3% over 2020-35 for the EU-27. The total participation rate in Lithuania is forecast to fall by 1 pp over 2020-35, compared with an increase of 1 pp in the total rate for the EU-27. The total population is forecast to fall by 10% over 2020-35, compared with a fall of 15% over 2005-20.

The population in Lithuania in all age groups between 20 and 64 is projected to decline quite strongly during 2020-35, while the population aged 65 and over is forecast to grow quite strongly (20%), reflecting trends in the relevant younger cohorts in preceding periods. The population aged 25-34 is projected to fall strongly over this period, by around 36%.

The participation rates of all age groups in Lithuania except those aged 30-34 are forecast to increase over 2020-35, with the strongest increases projected for those aged 60 and over (8-11 pp) and 25-29 (7 pp).

The pattern of increases in female participation rates by age group in Lithuania compared to males is mixed, with increased participation rates being greater for females for some age groups and vice versa for other age groups. However, the declining population in key labour force age groups means that, overall, the total female participation rate is projected to fall by 2 pp and the male rate to remain stable, over 2020-35.

Figure 2. Distribution of the labour force (thousands), 2005-35

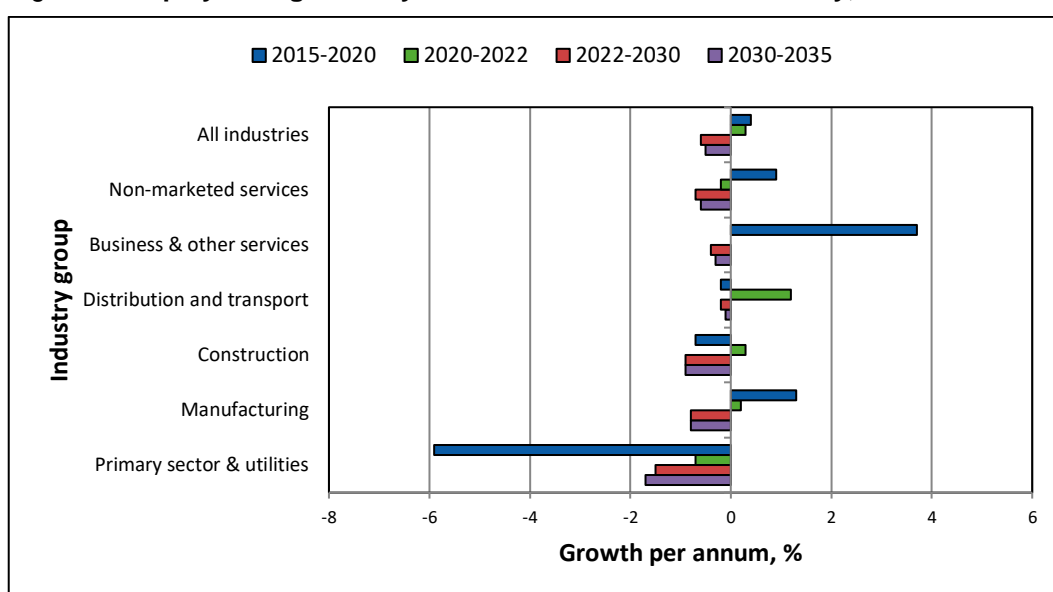


Source: Cedefop (2022 Skills Forecast).

### 3. Sectoral employment trends

Figure 3 shows the annual average employment growth by broad sector in Lithuania between 2015 and 2035. Employment in Lithuania is forecast to decline in all broad sectors over 2022-35, with *Primary sector & utilities* expected to see the strongest falls, followed by *Manufacturing* and *Construction*. Even *Business & other services*, which is forecast to see strong growth across most of the EU-27, is forecast to see a decline (-0.4% pa) in employment over this period.

Figure 3. **Employment growth by broad sector of economic activity, 2015-35**



Source: Cedefop (2022 Skills Forecast).

In terms of sub-sectors (i.e. below the level of the six broad sectors discussed above), the pattern of employment growth is more mixed. Within *Business & other services*, the sub-sectors of *real estate activities*, *research & development*, *telecommunications*, and *financial & insurance activities* are forecast to see positive employment growth over 2022-30. However, the remaining sub-sectors in this broad sector are expected to see declining employment. Within *Distribution & transport*, employment in the relatively large (accounting for 2.4% of employment in Lithuania in 2020) sub-sector of *accommodation & catering* is forecast to grow by around 1% pa over 2022-30, and in *wholesale & retail trade* (16% of employment) is forecast to grow by 0.4% pa. Within *Manufacturing*, sub-sectors such as *pharmaceuticals*, *electrical equipment*, *other machinery & equipment*, *motor vehicles*, *other transport equipment*, *other chemicals* and *optical & electronic equipment* are forecast to see positive growth in employment over 2022-30. Within

*Primary sector & utilities*, employment in *electricity* is forecast to grow over 2022-30, but *agriculture* (5.7% of employment) is forecast to continue to decline strongly over the same period. Within Non-marketed services, employment in all three sub-sectors, education (9.8% of employment), health (7.1% of employment) and public administration & defence (6.5% of employment), is forecast to decline over 2022-30.

## 4. Job openings by occupational group

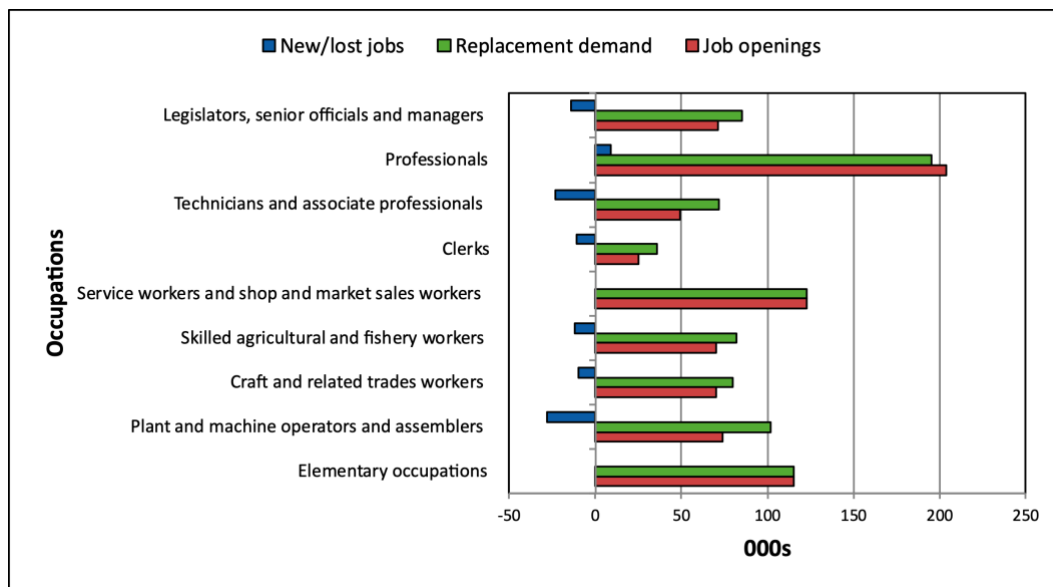
Cedefop skills forecasts estimate the total job openings by occupational group as the sum of net employment change and replacement needs. Net employment change refers to new jobs created or jobs lost due to the expansion or contraction of employment in that sector or occupation. Replacement needs arise 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 4 shows the total job openings by broad occupational group over 2020-30. The number of job openings indicates the number of jobs that are required to be filled due to lost/newly created jobs and those that are in need of replacement workers. Only *Professionals* is forecast to see an increase in jobs, and, combined with replacement demand, this broad occupation is expected to create the highest number of job openings, accounting for 25% of total job openings. Despite the overall decline in jobs in most broad sectors, replacement demand means there will still be job openings in all broad sectors. Overall, the number of jobs is forecast to decline by 91,000 but replacement demand is projected to be 890,000, so there will be around 800,000 job openings.

At the more detailed level, most job openings (taking both new/lost jobs and replacement needs together) are expected to be in high skilled occupations such as *business & administration professionals*, administrative & commercial managers and health professionals, which are among the few examples of occupations expected to provide new jobs, together with a few other high skilled occupations such as *information & communications technology professionals*. The elementary occupation *cleaners & helpers* is expected to be the occupation that will see the greatest number of job openings, while the skilled manual occupation of *building & related trades workers* is expected to provide the third-greatest number of job openings. Drivers & mobile plant operators (skilled manual) is also

expected to see a relatively large number of job openings, despite a large decline in the number of jobs.

Figure 4. Job openings by broad occupational group, 2020-35



Source: Cedefop (2022 Skills Forecast).

## 5. Drivers of occupational change

Within the Cedefop skills forecast, 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 than others).

The occupational composition of employment in Lithuania is mainly characterised by changes in the level of specialisation within occupations, and, in fewer cases, by changes in industry size. Stronger occupation-specific and industry effects will lead to an increasing share of managers, professionals and associate professionals, but also in occupations which support the production process such as assemblers and services such as personal, care, and *protective service*. High-skilled occupations that can benefit the most from these trends are, for example, *administrative and commercial managers*, and, in particular, *legal, social, cultural and related associate professionals*. The opposite situation characterises other categories of managers, such as *managers in services*, and associate



professionals, such as *health associate professionals, business and administration associate professionals*. High-skilled occupations are expected to decrease.

The overall effect of occupational change depends on several factors that must be considered together. Increasing automation and digitisation, moving toward a service-oriented economy, including within manufacturing, are some factors impacting the various occupational changes.

Intermediate occupations are also expected to decrease overall, especially for *agricultural workers, drivers and mobile plant operators*. *Assemblers* are among the medium-qualified occupations becoming stronger. All relevant lower-level occupations will experience a decrease, except for labourers in mining, construction, manufacturing and transport.

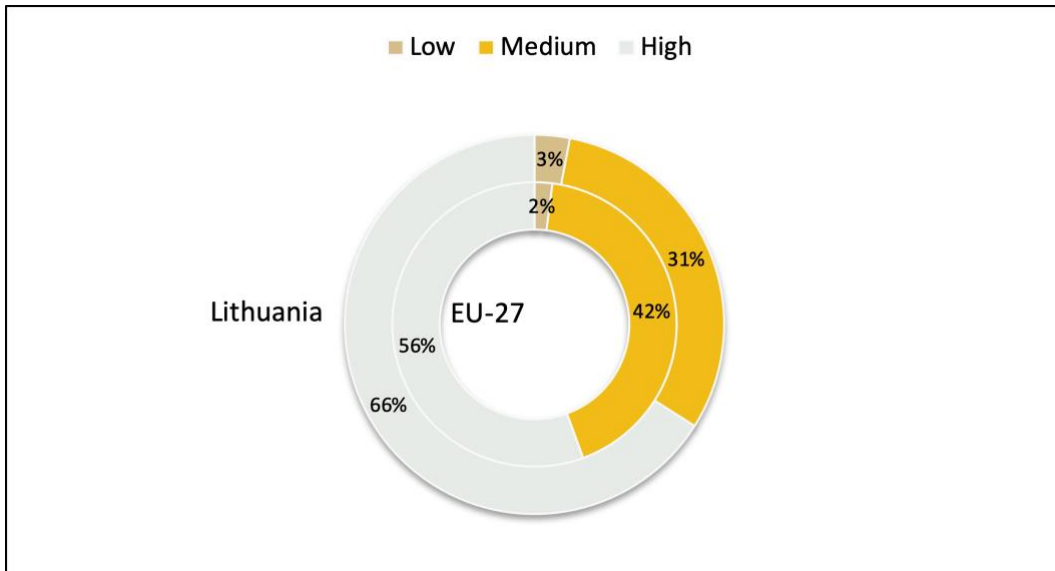
## 6. Demand for and supply of skills

Within the Cedefop skills forecast, skills are proxied by the highest level of qualification held by individuals in the labour force and in 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 5 shows the shares of total job openings by qualification level for Lithuania and the EU-27 over 2022-35. In Lithuania, a very high share (66%) of job openings are expected to require a high qualification. Compared to the EU-27, a much higher

share of job openings are expected to require high qualification, while a lower share are expected to require both low and medium qualifications.

Figure 5. Shares of total job openings by level of qualification, 2020-35

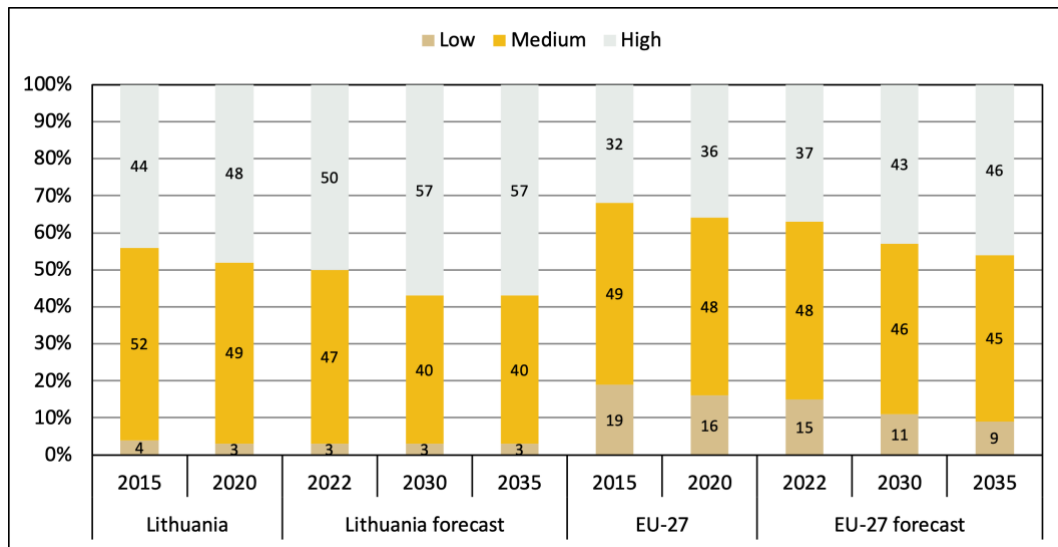


Source: Cedefop (2022 Skills Forecast).

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.

Figure 6 shows the development of qualification shares of the labour force in Lithuania and the EU-27. Lithuania is rapidly increasing its share of higher qualified in the labour market. While the share was at 50% in 2022, it is expected to increase to 57% by 2030.

Figure 6. Labour force share by level of qualification, 2015-35



Source: Cedefop (2022 Skills Forecast).

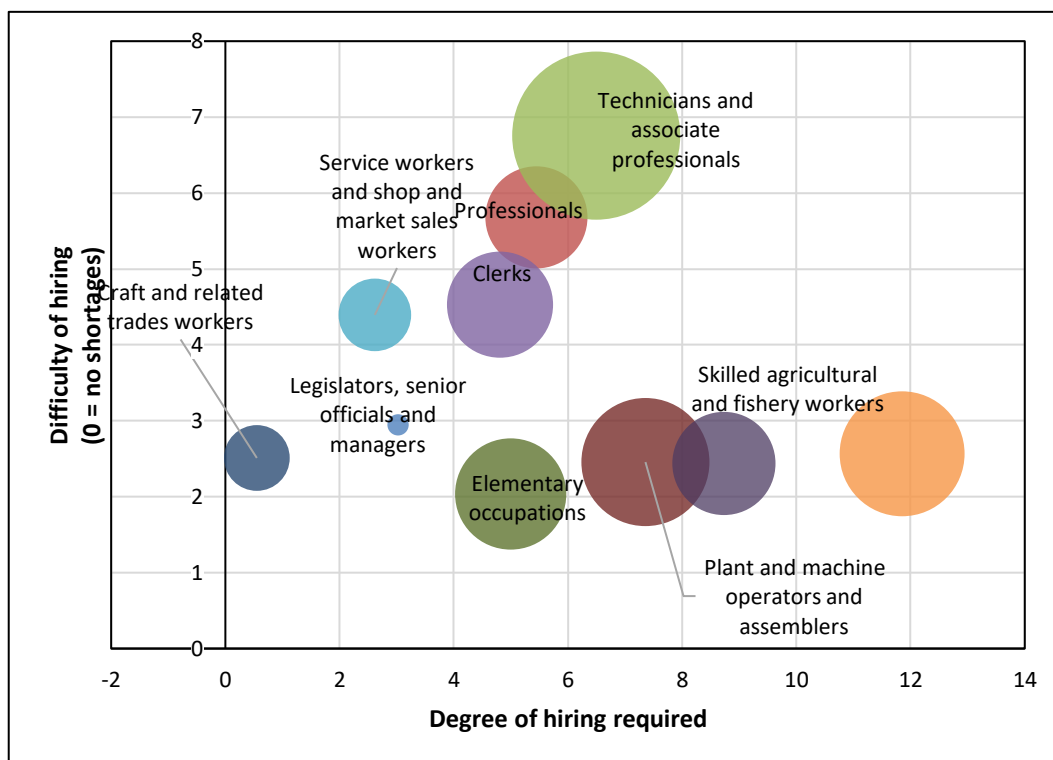
The increase in the share of the higher qualified has been predominantly at the cost of older medium qualified workers. The share of medium qualified workers is expected to decline from 47% in 2022 to 40% in 2035. The share of low qualified workers is expected to remain broadly stable, albeit relatively low. Relative to the EU-27 average qualification mix, Lithuania is expected to continue to have a higher share of higher qualified, but the share of medium qualified is expected to fall below the EU-27 average during the forecast period.

The forecast implies only a minor shortage among both high and medium qualified.

Figure 7 shows an indicator, *difficulty of hiring*, whose aim is to approximate shortages of supply by qualifications and its impact on occupations. This measure, shown along the vertical axis, indicates increasing difficulties to fulfil demand given the available supply of qualifications used in the occupation. Along the horizontal axis, the *degree of hiring required* in the occupation is depicted. Higher values indicate that to reach the forecast result that occupation will need to adjust more (in terms of workers with particular qualifications) relative to the base year (2018) levels. These changes (degree of hiring required) can be due to a change in the qualifications required or increases in

the number employed. The size of the bubble indicates the *overall employment level*, bigger bubbles indicate more employment while smaller bubbles less employment. Occupations with both a high *degree of hiring required* and a high *difficulty of hiring* (i.e. towards the top right of the figure) are likely to have the most difficulties in achieving a suitable workforce.

Figure 7. Indicators of future hiring difficulties, 2022-2035



Source: Cedefop (2022 Skills Forecast).

Note: Indicators were calculated at the level of the underlying 2-digit occupation groups. Aggregation was based on the employment weights within each 1-digit occupation group.

While reasonably matched to the increasing demand, the increasing supply of higher educated seems to imply some limited shortages. Higher level occupations such as *Technicians and associate professionals* and *Professionals* show the highest difficulty of hiring.

Medium level occupations such as *service workers and shop and market sales workers*, are expected to show higher hiring difficulties in the forecast (Figure 6). However, these occupations are expected to see only low levels of change by qualification over this period, so a low to medium degree of hiring is required. *Professionals* and *legislators, senior officials and managers* are expected to have much lower hiring difficulties, and they also show a relatively low degree of hiring required in the forecasting period.

Hiring difficulties among *professionals*, the largest broad occupational group, are higher across the underlying occupations, with *health professionals* being somewhat higher than the remaining occupations. The degree hiring required, however, is expected to differ.

## Cedefop methodology

The Cedefop Skills Forecast offers quantitative projections of future trends in employment, by sector of economic activity and occupational group. Future trends in the level of education of the population and the labour force are also estimated. Cedefop's forecast uses harmonised international data and a common methodological approach allowing cross-country comparisons between employment trends in sectors, occupations and qualifications. The forecast and methodology is validated by a group of national experts. The forecast does 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 the forecast covers the period up to 2035. The forecast takes account of global economic developments up to May 2022. The European Economy experienced a sharp downturn in 2020 due to the global pandemic, and partially bounced back in 2021. However, the strength of the recovery in the short term is threatened by global factors such as supply chain disruptions, the consequences of the war in Ukraine and high inflation.

The key assumptions of the baseline scenario incorporate the Eurostat population forecast available in May 2022 (Europop 2019) <sup>(1)</sup>, and the short-term macroeconomic forecast produced by DG ECFIN in May 2022 <sup>(2)</sup>. Several revisions to the data affect the Cedefop Skills forecast 2022, when compared to the 2019 update. For example, the population projections used in the 2022 update are generally more pessimistic than those used in the 2019 update (i.e. Europop 2015), with a corresponding impact on labour force figures. The source of historical labour force data is the European Labour Force Survey, which in 2021 underwent important methodological changes causing a break in the time series for several variables, including labour force. As a consequence, in many Member States the participation rates in 2021 are noticeably above/below historical trends, which causes the Cedefop Skills forecast 2022 to be revised in the same direction, compared to the 2019 update. Moreover, some Member States experienced significant revisions in the historical data series for sectoral employment from the National Accounts.

The Cedefop Skills forecast 2022 is made consistent with the objectives set by the European Green Deal by incorporating suitable assumptions in terms of additional investment, power sector technologies, energy balances and carbon pricing.

Energy and commodity price forecasts from the World Bank and the IEA are used as inputs to the Cedefop Skills forecast, which therefore incorporate the recent surge in prices.

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(1) <https://ec.europa.eu/eurostat/web/population-demography/population-projections/database>

(2) [https://ec.europa.eu/info/business-economy-euro/economic-performance-and-forecasts/economic-forecasts/spring-2022-economic-forecast\\_en](https://ec.europa.eu/info/business-economy-euro/economic-performance-and-forecasts/economic-forecasts/spring-2022-economic-forecast_en)

For the latest update and access to more detailed Cedefop skills forecast data visit our [Skills forecast project page](#).



For more details, please contact Cedefop's Skills Forecast team at: [Skills-Forecast@cedefop.europa.eu](mailto:Skills-Forecast@cedefop.europa.eu)