



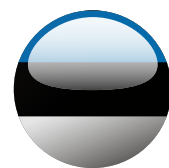
CEDEFOP

European Centre for the Development  
of Vocational Training

EN



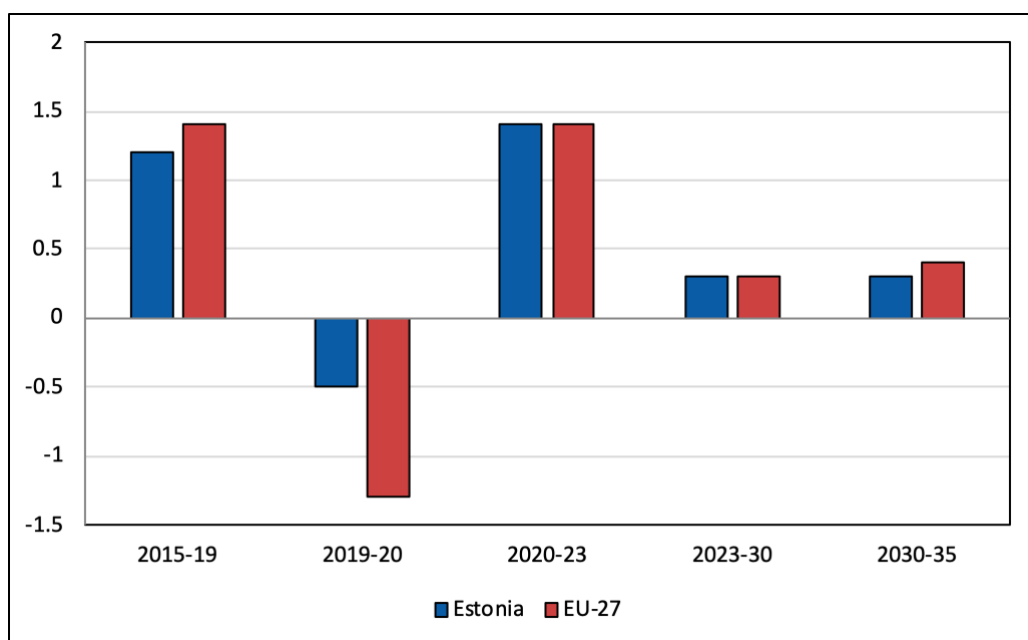
# 2025 skills forecast Estonia



# 1. Employment outlook

Employment in Estonia is forecast, on average, to grow at around the same rate as the EU-27. Figure 1 shows that employment in Estonia grew slightly slower than the EU-27 average over 2015-19 but fell less sharply in 2020 as the Covid-19 pandemic hit. Employment in Estonia is then estimated to have bounced back by around the same rate as the EU-27 over 2020-23, and, across the forecast period, employment in Estonia is forecast to grow by around 0.3% pa compared with growth of around 0.3-0.4% pa for the EU-27 as a whole.

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



Source: Cedefop (2025 Skills Forecast).

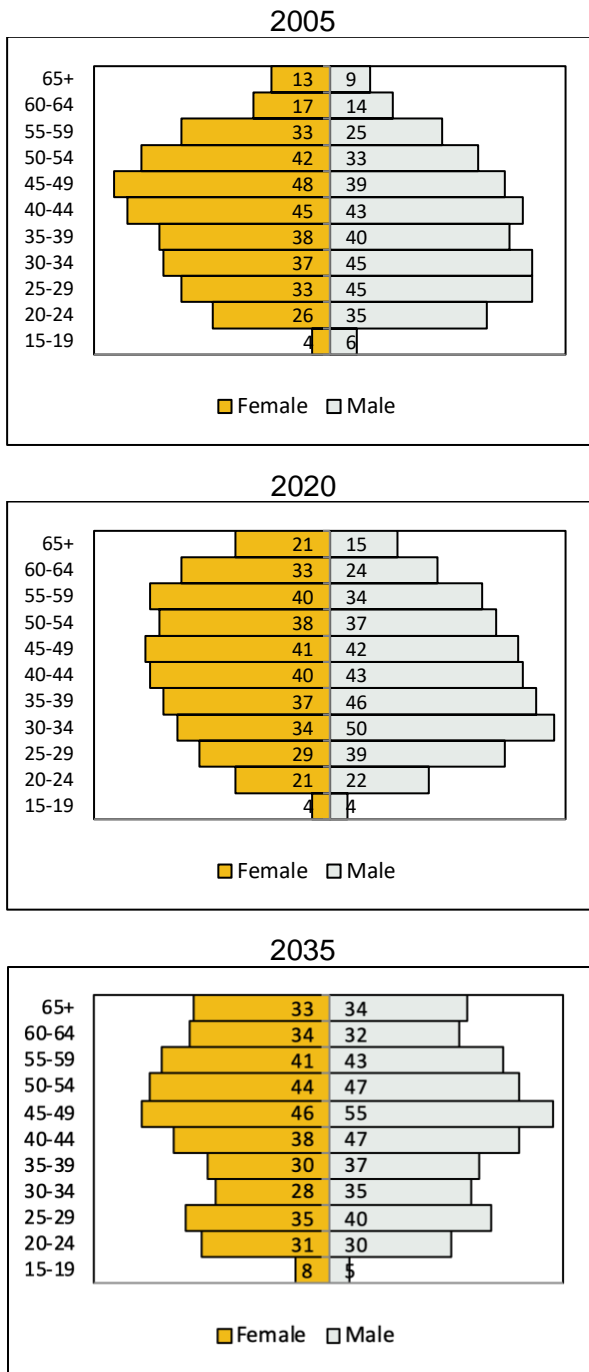
## 2. Labour force overview

Figure 2 shows Estonia's labour force by age group in 2005, 2020 and 2035. Changes in the labour force in Estonia over the forecast period will continue to be driven generally by the ageing population, immigration (including war refugees) and increasing participation rates in most age groups. The total labour force in Estonia is projected to increase by around 11% over 2020-35, compared to growth of around 4% over the previous 15 years. This compares with an expected increase in the labour force of just under 10% over 2020-35 for the EU-27 as a whole. The total participation rate in Estonia is forecast to increase by 4 pp over 2020-35, similar to the increase forecast for the EU-27 as a whole. Total population is forecast to grow by just over 4% over 2020-35, compared with a fall of around 3.5% seen over 2005-20.

The population in Estonia aged between 25 and 44 is forecast to decline quite strongly during 2020-35, while the population aged 45-54 and 65 and over is forecast to grow strongly, reflecting trends in the relevant younger cohorts in preceding periods.

The participation rates of all age groups in Estonia are forecast to grow over 2020-35, with the strongest increases projected for the 20-29 (11 pp) and 55+ (8-9 pp) age groups. The amount of growth could be exaggerated somewhat due to a break in the LFS series in 2021. The increases in participation rates for females aged 15-39 are forecast to be much stronger than for males, while the reverse is true for age groups above 40, apart from 50-54 year olds. Overall, female and male participation rates are forecast to increase by 4 pp over 2020-35.

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

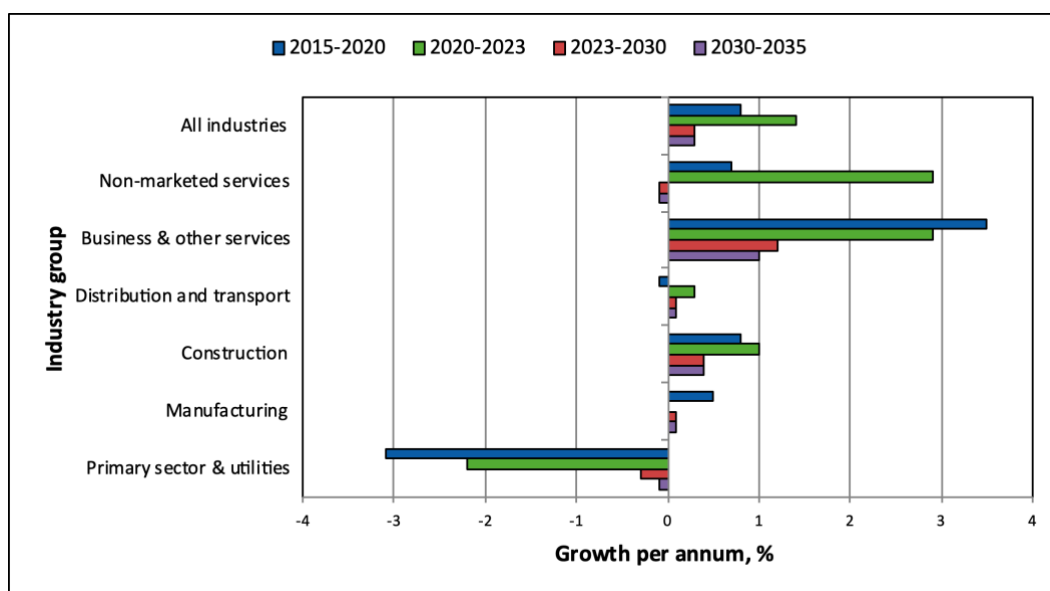


Source: Cedefop (2025 Skills Forecast).

### 3. Sectoral employment trends

Figure 3 shows annual average employment growth by broad sector in Estonia between 2015 and 2035. While total employment in Estonia is expected to continue to grow over the forecast period, the picture of growth among the broad sectors is mixed. Only *business & other services* is forecast to see strong positive growth over the forecast period, at around 1.2% pa. *Construction* is the only other broad sector forecast to see relatively strong (0.4% pa) growth in employment over the whole period. Employment in manufacturing and *distribution & transport* is forecast to grow only slightly, while employment in *primary sector & utilities* and *non-marketed services* is forecast to decline slightly.

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



Source: Cedefop (2025 Skills Forecast).

In terms of sub-sectors (i.e. below the level of the six broad sectors discussed above), the pattern of growth is much more mixed. The growth in *business & other services* is forecast to be driven by growth in the sub-sectors of *computer programming & information services*, *legal, accounting & consulting services*, *research & development*, *architectural & engineering services*, *media*, and *telecommunications*. Within *manufacturing*, relatively strong growth in employment is forecast for *other machinery & equipment*, *electrical equipment* and *other chemicals*. Within *primary sector & utilities*, the *mining & quarrying* and *electricity* sub-sectors are forecast by the model to see positive employment growth. Still,

agriculture, which accounts for around 3% of total employment in Estonia (in 2020) is forecast to see a continued decline in employment over the same period.

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 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).

## 4. Job openings by occupational group

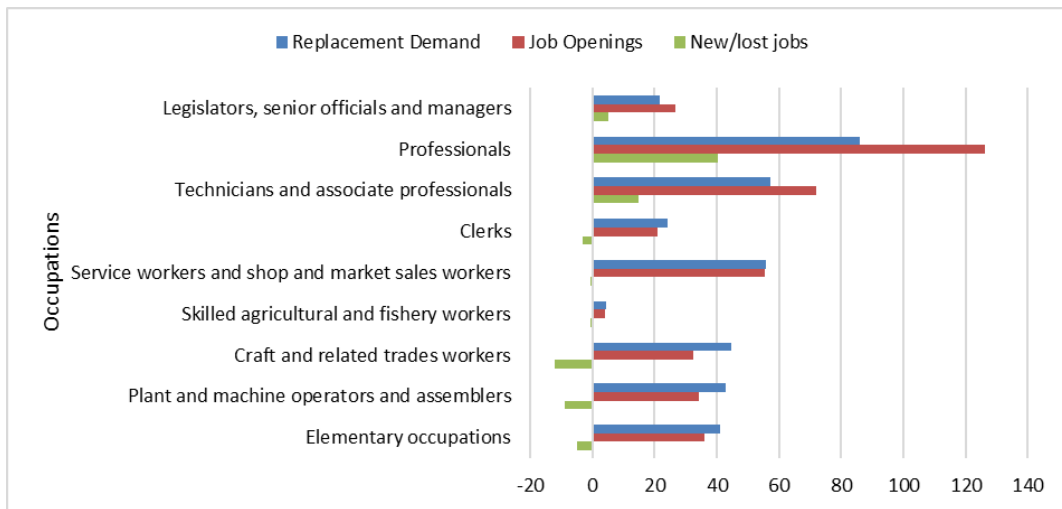
Figure 4 shows the total job openings by broad occupational group over 2022-35. The number of job openings indicates the number of jobs that are required to be filled due to lost/newly created jobs and those that need replacement workers.

Over the forecast period, the data suggests that all broad occupational groups, apart from *skilled agricultural and fishery workers*, will require a fairly large number of additional workers, through total job openings, despite declining employment in several sectors, due to replacement demand. Replacement demand refers to the need to fill positions left vacant by departing workers, which continues to be a significant factor across various occupational categories.

Examining the detailed trends, *professionals* as well as *technicians and associate professionals* are projected to generate the largest number of job openings. Specifically, *professionals* are expected to account for 31% of total job openings, while *technicians and associate professionals* will contribute 18%. These two broad categories are anticipated to experience notable growth in job openings, largely driven by both new job creation and replacement demand.

At a more granular level, the occupations projected to have the highest share of job openings include *business and administration associate professionals*, *health professionals*, and *personal care workers*. *Business and administration associate professionals* and *health professionals* are both expected to account for 8% of all job openings, and *personal care workers* are projected to represent 7% of the total.

Figure 4. Total job openings, 2022-35



Source: Cedefop (2025 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 economic trends (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).

Estonia's economic sector growth has notably influenced the composition of its workforce, leading to an increased demand for certain high-skilled occupations. As various sectors expand, there is a discernible shift towards professions that support and drive these developments. For instance, the number of *science and engineering professionals* is projected to increase by 10 000, rising from 22 000 in 2022 to 33 000 in 2035. This significant growth reflects a strong sectoral expansion, particularly in technology and innovation-driven industries. Similarly, *Business and other professionals* are expected to see an increase of 19 000, from 83 000 to 102 000. This surge indicates the growing complexity and specialisation within various sectors that demand enhanced business and managerial expertise.

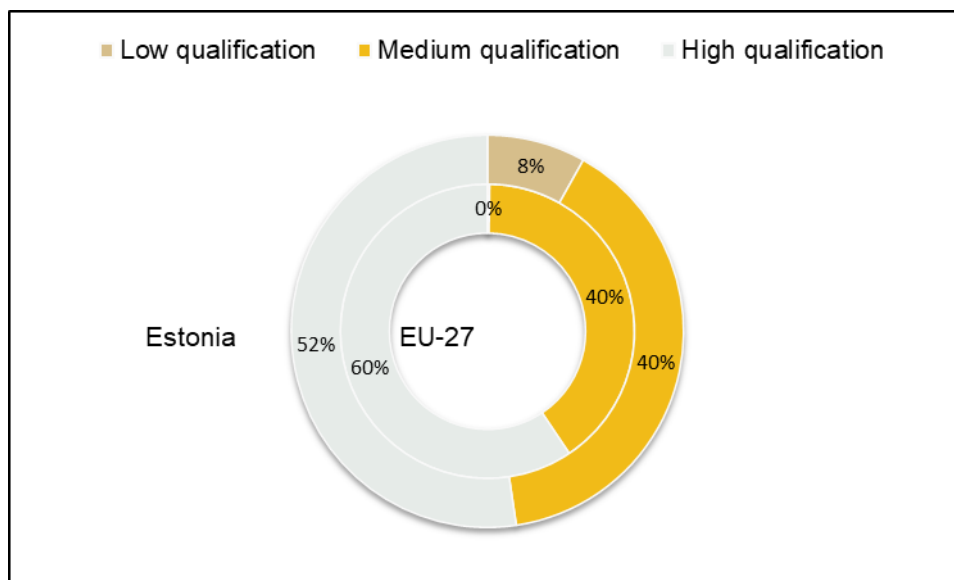
In the health sector, *health professionals* are anticipated to grow by 6 000, from 17 000 to 23 000, which highlights the sector's expansion and the increasing need for healthcare services. However, the distribution of this growth is uneven, with the rate of increase in *health associate professionals* outpacing that of *health professionals*, suggesting a shift in job roles and responsibilities within the health sector.

## 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 employment. Three levels are distinguished: high, medium, and low, corresponding to the official ISCED classification. The occupational group also indicates the skill level required, as some occupations (e.g. professionals) typically require high-level skills, while others (e.g. elementary) typically require only basic ones. Therefore, occupational groups are also linked to a skill level.

Figure 5 shows the demand for different qualification levels in Estonia compared with the EU average, reflecting new job openings due to both newly created positions and replacement needs. Two-fifths (40%) of the total job openings expected to be created in Estonia up to 2035 will require medium-level qualifications, aligning with the EU-27 average (40%). Slightly more than half (52%) of total job openings will require high-level qualifications, which is 7 percentage points below the EU-27 average of 59%. About 8% of total job openings will require low-level qualifications, which is substantially higher than the EU-27 average.

Figure 5. **Shares of total job openings by level of qualification, 2022-35**

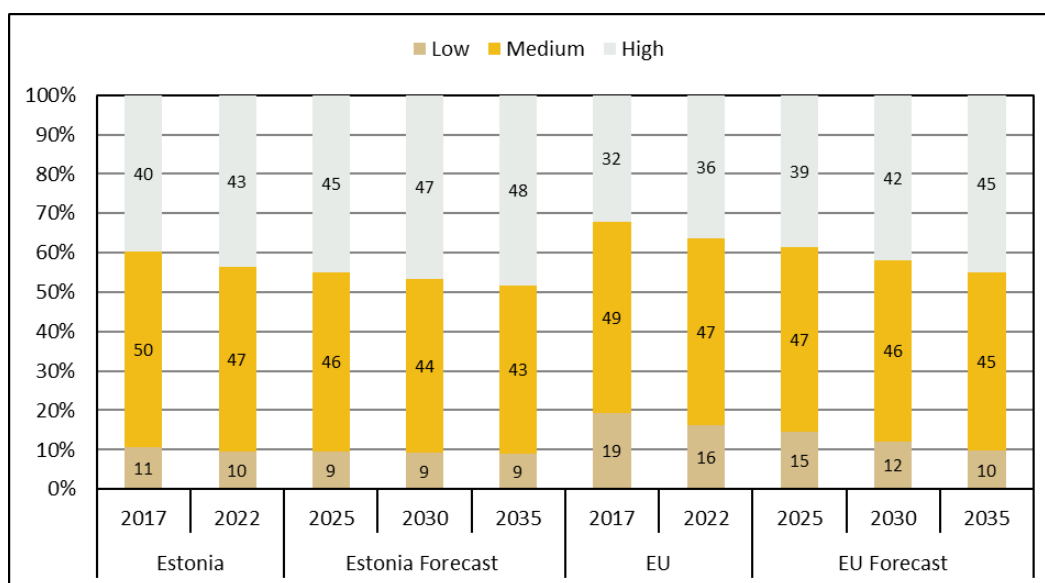


Source: Cedefop (2025 Skills Forecast).

Total job openings are highest among *teaching professionals, drivers and mobile plant operators, and business and administration-associated professionals*, all among the higher-level occupations.

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

Figure 6. **Labour force by qualification level**



Source: Cedefop (2025 Skills Forecast).

Figure 6 shows the expected changes in the shares of qualification in the workforce in Estonia and the EU-27 up to 2035. The share of people with high-level qualifications in Estonia is expected to increase to 48% by 2035, becoming the highest qualification group in Estonia. The share of the medium-qualified labour force is expected to reduce in Estonia, comprising 43% in 2035 (down from 46% in 2025). Those with low levels of qualification are expected to remain stable at 9%. In Estonia, the proportion of the labour force with high-level qualifications is expected to remain just higher than the EU-27 average.

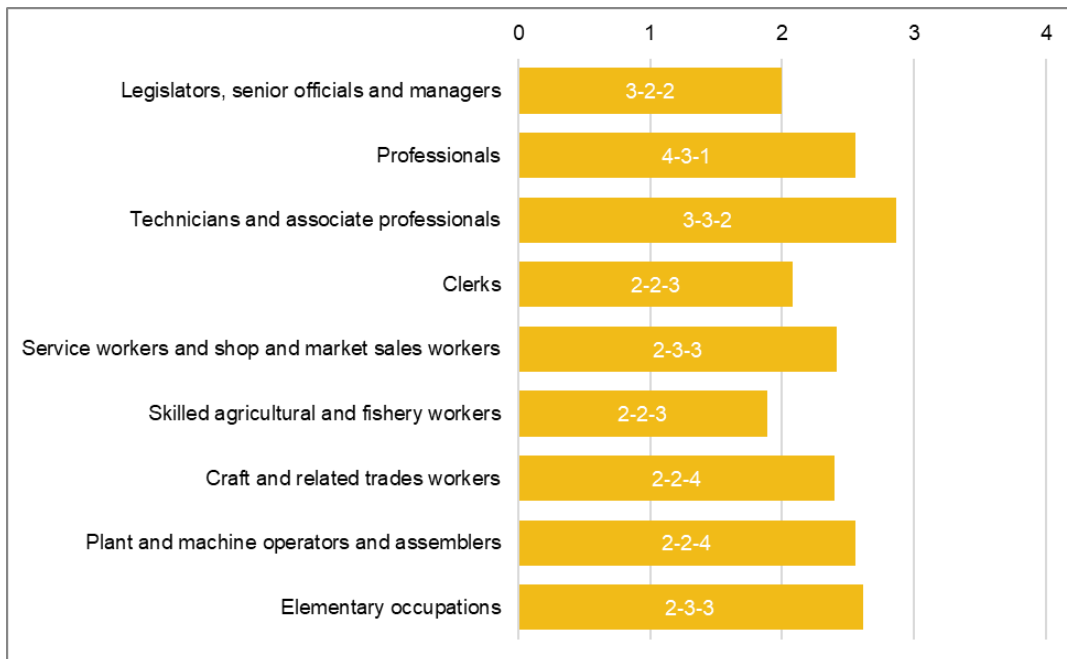
The **labour shortage index** is a method to summarise three elements of potential labour shortage: (1) employment growth, (2) replacement demand, and (3) Supply/Demand imbalance (FIOD). The outcomes at the occupation level are grouped into four quartiles: those with a low indication of shortage get the value 1, and those with the highest indication of shortage will get the value 4. The total outcome of the individual elements is a simple average of the elements. In Figure 6, the length of the bar gives the overall outcome, where higher levels indicate more shortage. The outcomes of the three elements are also given to quickly evaluate the influence of employment growth - replacement demand, and - supply-demand imbalances.

The labour shortage index is calculated at the ISCO 2-digit level and then aggregated to the ISCO 1-digit level. The highest values of the labour shortage index in Estonia can be found among technicians and associate professionals (3-3-2), *professionals (4-3-1)*, among *plant and machine operators and assemblers* as well as among *elementary occupations*. The largest driver of labour shortages among *professionals (4-3-1)* is growth in employment and replacement demand, whereas the labour shortages in *plant and machine operators and assemblers*, and *elementary occupations* can be assigned to supply/demand side imbalances and, to a lesser degree, replacement demand.

*Plant and machine operators and assemblers*, with a labour shortage index of 3 (2-2-4), are forecast to see a decrease in employment from 72 000 in 2023 to 63,000 in 2035 but still have a net replacement demand of 33 000. At the two-digit level, *drivers and mobile plant operators* are expected to face the highest labour shortages among the skilled manual labour occupations. This is driven both by replacement demand and imbalances in supply and demand.

With an index of 3 (2-3-3), *elementary occupations* will decrease employment from 54 000 in 2023 to 49 000 in 2035 but will have a net replacement demand of 34 000 and an annual rate of -0.8%. Similarly, *personal care workers* have the highest labour shortages among skilled manual occupations, with the same drivers as the skilled manual labour occupations. Among the high-skilled workers *Information and communications technicians* face shortages on account of employment growth and replacement demand.

Figure 7. Labour Shortage Index, 2022-35



Source: Cedefop (2025 Skills Forecast).

## 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 November 2023. The European Economy is expected to grow despite monetary tightening on phasing out of fiscal support.

The key assumptions of the baseline scenario incorporate the Eurostat population forecast available in June 2023 (Europop 2023) <sup>(1)</sup>, and the short-term macroeconomic forecast produced by DG ECFIN in November 2023 <sup>(2)</sup>. The source of historical labour force data is the European Labour Force Survey, which in 2022 underwent important methodological changes, causing a break in the time series for several variables, including the labour force. Consequently, in many Member States, the participation rates in 2021 are noticeably above/below historical trends. Moreover, some Member States experienced significant revisions in the historical data series for sectoral employment from the National Accounts.

The Cedefop Skills forecast 2025 is consistent with the objectives set by the European Green Deal by incorporating suitable assumptions about 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.

---

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

(2) [https://economy-finance.ec.europa.eu/economic-forecast-and-surveys/economic-forecasts/autumn-2023-economic-forecast-modest-recovery-ahead-after-challenging-year\\_en](https://economy-finance.ec.europa.eu/economic-forecast-and-surveys/economic-forecasts/autumn-2023-economic-forecast-modest-recovery-ahead-after-challenging-year_en)

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

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

For more details, please contact Cedefop's Skills Forecast team at:

[Skills-Forecast@cedefop.europa.eu](mailto:Skills-Forecast@cedefop.europa.eu)

