



CEDEFOP

European Centre for the Development
of Vocational Training

EN



2025 skills forecast

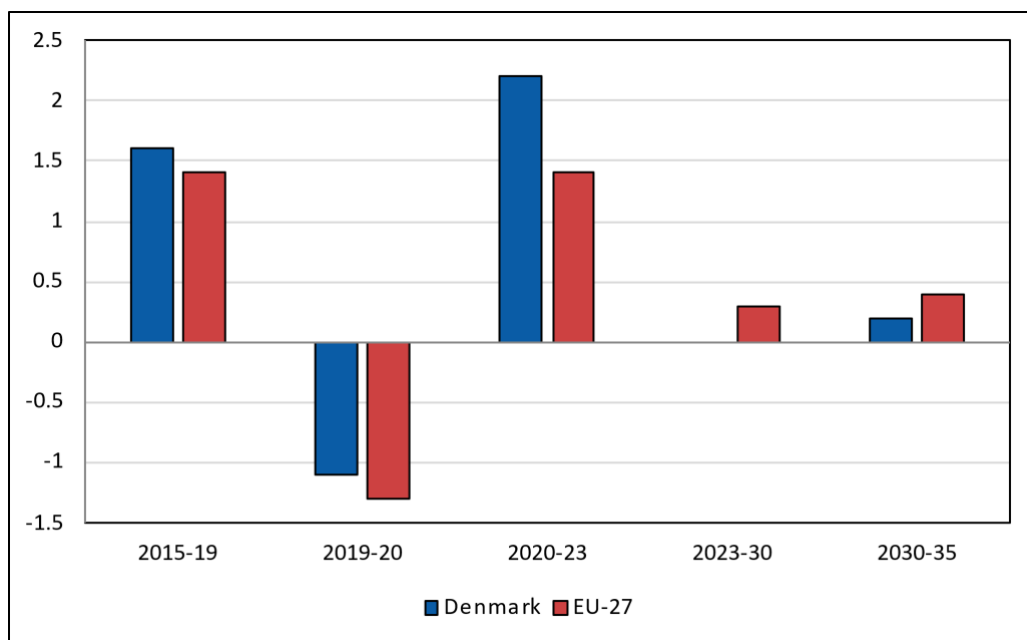
Denmark



1. Employment outlook

Employment in Denmark is forecast to remain broadly static over much of the forecast period. Figure 1 shows that employment in Denmark grew slightly faster than the EU-27 average over 2015-19 and fell slightly less sharply in 2020 as the Covid-19 pandemic hit. Employment in Denmark is also estimated to have bounced back far more strongly than the EU-27 over 2020-23. However, over 2023-30, total employment in Denmark is forecast to remain static, and although it is then expected to grow over 2030-35, this is only by 0.2% pa, quite a bit slower than the 0.4% pa increase forecast for the EU-27.

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



Source: Cedefop (2025 Skills Forecast).

2. Labour force overview

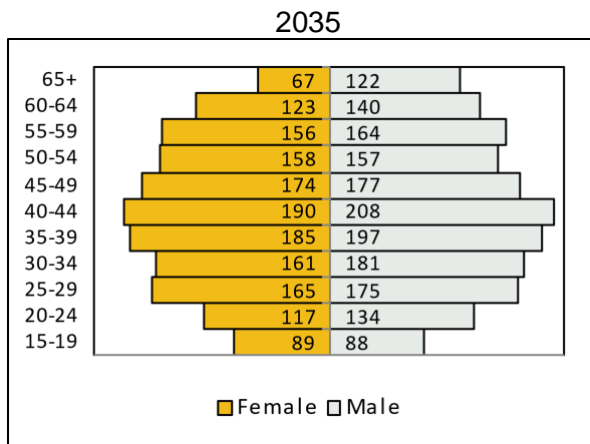
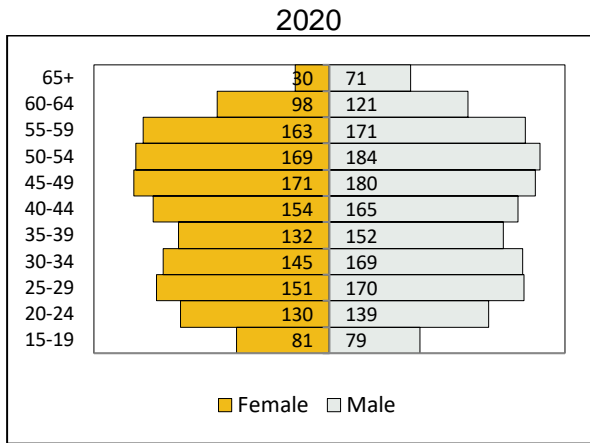
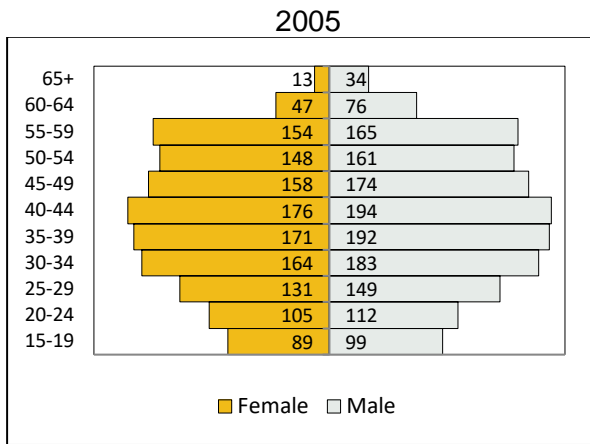
Figure 2 shows Denmark's labour force by age group in 2005, 2020 and 2035. Changes in the labour force in Denmark over the forecast period will continue to be driven by the ageing population, although perhaps less than in the EU as a whole, and increasing participation rates in most age groups. The total labour force in Denmark is projected to increase by just over 10% over 2020-35, which is faster than the growth of around 4.5% seen over the previous 15 years and similar to the increase forecast for the EU-27 as a whole. The total participation rate in Denmark is forecast to increase by 3 pp over 2020-35, just slower than the increase of 4 pp forecast for the total rate for the EU-27 as a whole. Total population is forecast to grow by 5.3% over 2020-35, compared with a growth of 11% over 2005-20.

Although the population aged 15-29 and 45-59 in Denmark is forecast to decline during 2020-35, the population aged 35-44 is forecast to grow quite strongly, as is that aged 60 and over, reflecting trends in the relevant younger cohorts in preceding periods.

The participation rates of all age groups in Denmark are forecast to grow quite strongly over 2020-35, with the strongest increase projected for the 25-29 age group (13 pp) and the increase for most age groups expected to be at least 4 pp.

The differences between male and female participation rates in Denmark are not generally as great as the EU-27 average, but female participation rates in Denmark are still generally forecast to increase more than male rates. Overall, the total participation rate for females is forecast to increase by 3 pp and for males to increase by 2 pp, over 2020-35.

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

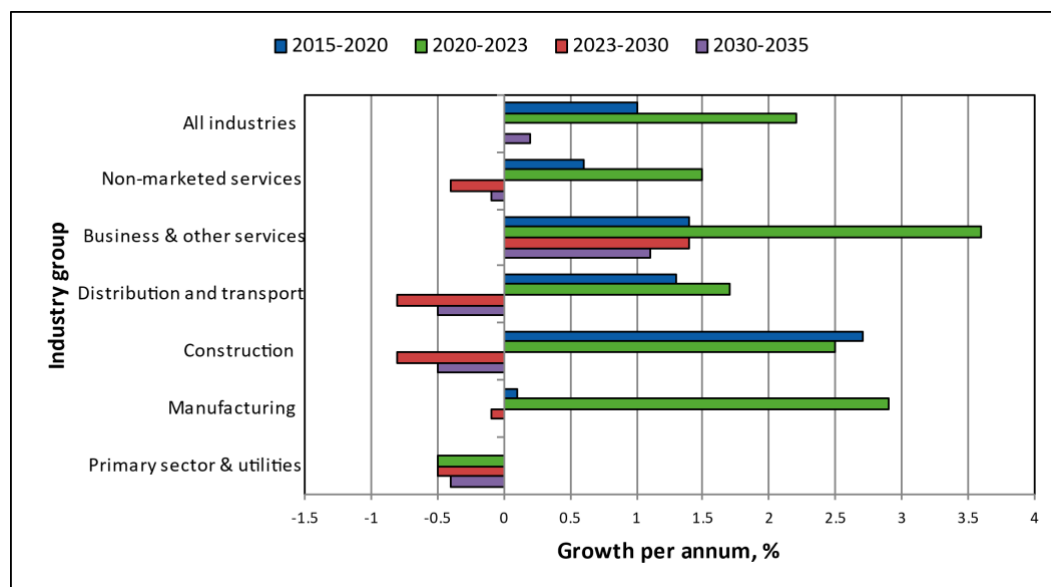


Source: Cedefop (2025 Skills Forecast).

2. Sectoral employment trends

Figure 3 shows annual average employment growth by broad sector in Denmark between 2015 and 2035. Although total employment in Denmark is expected to remain static over 2023-30 and then grow only weakly over 2030-35, the picture among the broad sectors is mixed. The only broad sector that is expected to see positive and relatively strong growth in employment over this period is *Business & other services*, which is forecast to grow by around 1.1-1.4% pa over 2023-35. Employment in *Manufacturing* is forecast to remain broadly static over the whole forecast period. Employment in *Non-marketed services* is expected to decline by 0.1-0.4% pa over this period, while the remaining three broad sectors are forecast to shrink by around 0.5% pa or more.

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*, *telecommunications*, *research and development*, *real estate activities* and *architectural & engineering services*, all with growth of more than 2% pa over 2023-30. Most sub-sectors in this broad sector are expected to see relatively strong growth. Within *Manufacturing*, where the sub-sectors tend to be smaller, accounting for a lower percentage of total employment, growth in employment is forecast to be driven by *electrical equipment*, *other*

transport equipment and *pharmaceuticals*. Within *Primary sector & utilities*, only *electricity* is forecast to see strong positive growth in employment over the whole of the forecast period.

3. Job openings by occupational group

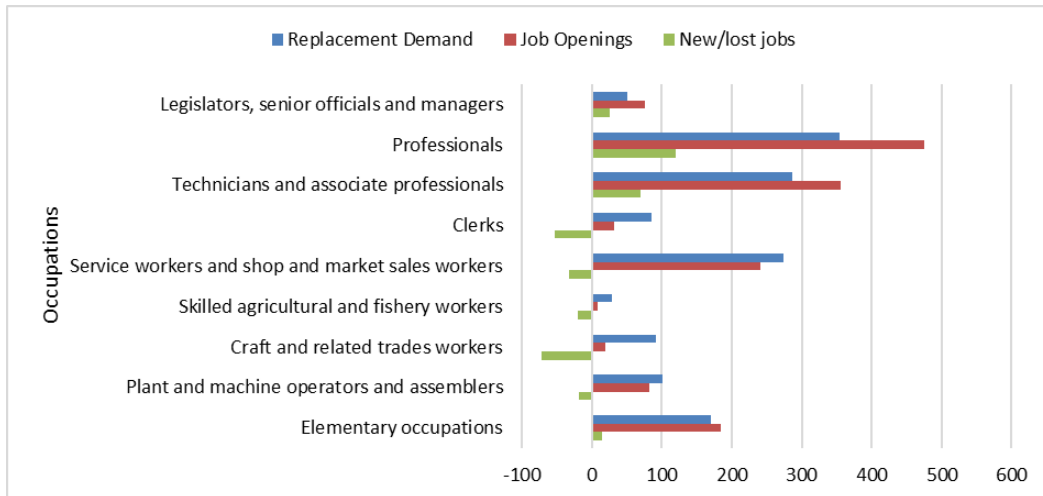
Cedefop skills forecasts estimate the total job openings by occupational group as the sum of net employment change and replacement needs. Net employment change refers to new jobs created or lost due to the expansion or contraction of employment in that sector or occupation. Replacement needs arise as 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 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. *legislators, senior officials and managers, professionals, technicians & associate professionals* and *clerks* are expected to experience an increase in the number of jobs over this period, reflecting the forecast by sector. The main driver of increased job openings across all occupations is replacement demand.

Professionals and *technicians & associate professionals* are the two broad occupations expected to generate the largest number of job openings over the forecast period, accounting for 32% and 24% of total job openings respectively. *Skilled agricultural and fishery workers, crafts and related trade workers* and *clerks* are forecast to generate the lowest number, accounting for only 4% of the total share together.

At the more detailed level, most job openings (taking both new/lost jobs and replacement needs together) as a share of all job openings are expected to be in *Business and administration associate professionals* (11%), *business and administration professionals* (7%), and *science and engineering associate professionals* (7%). Of the ISCO 2-digit occupations, only medium skilled manual and non-manual occupations are expected to see an overall decline in the number of jobs. Job openings in *high skilled occupations* is expected to account for 62% of total job openings in the economy. *Teaching professionals* are also expected to provide many job openings, driven entirely by replacement demand as the total number of jobs is expected to contract for these occupations. Similarly, *personal care workers* are expected to see substantial job openings, due entirely to replacement demand. Even among elementary occupations, *drivers and mobile plant operators* are projected to see a large number of job openings due to replacement demand.

Figure 4. Total job openings, 2015-35



Source: Cedefop (2025 Skills Forecast).

4. 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).

An increasing specialisation in many sectors influences the occupational composition of employment in Denmark. This is reflected in stronger occupation-specific effects, leading to increasing shares of *professionals* and *technicians and associate professionals* in the economy. These changes reflect changes in job organisation in many sectors and, in many cases, an increasing specialisation.

Along with these specialisations there is also a move towards managing these new work forms. High-skilled occupations that can benefit from this trend are, for example, *Information and communication technologies*. *Health professionals* as well as *Associate health professionals* are forecast to benefit from the increase in the underlying occupation, but not in the sector, translating into higher employment in these important health occupations.

Therefore, the overall effect of occupational change depends on several factors that need to be considered together. Increasing digitalisation and moving towards a more service-oriented economy, including within manufacturing, will lead to a greater use of higher-level occupations. At the other end of the spectrum, lower-level occupations supporting production and the service sector seem to be increasing at the cost of intermediate occupations.

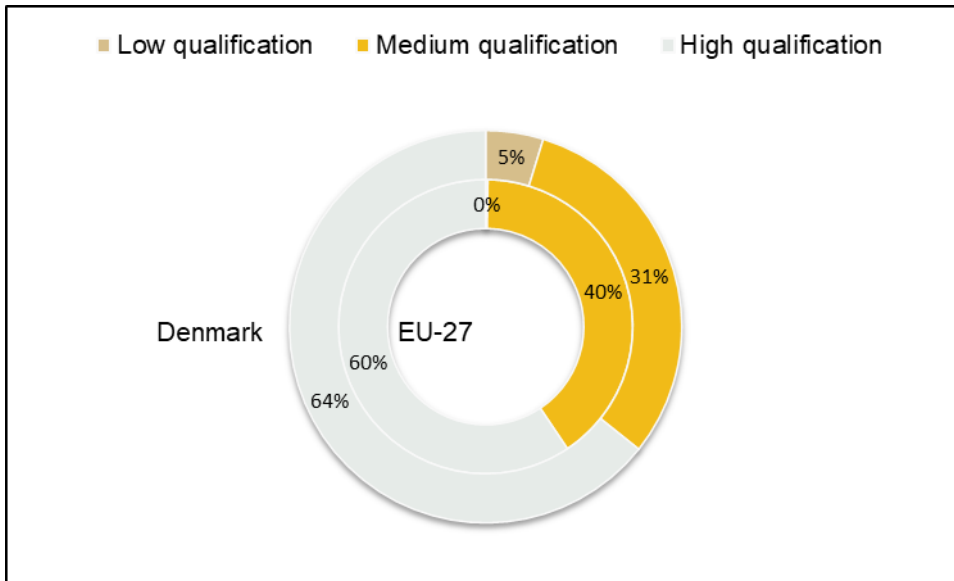
The strength of intermediate occupations, such as *Professionals*, with a strong intermediate qualification level in Denmark, limits the overall effect on these medium-qualified occupations. On the contrary, the other intermediate and low-qualification occupations, such as industry-based *metal, machinery, and related trade workers*, are decreasing, most likely due to increased automation within the sectors. *Market-oriented skilled forestry, fishery, and hunting workers* are the only low-skilled occupations expected to see an increase in their employment share between 2022 and 2035.

5. 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 share of qualifications required in the forecast job openings, relative to the EU average. Well over half (64%) of the total job openings expected to be created in Denmark up to 2035 will require high-level qualifications, about 4 pp more than the EU-27 average (see Figure 5). Slightly more than one-third (31%) of total job openings will require medium-level qualifications, and only 5% will require low-level qualifications.

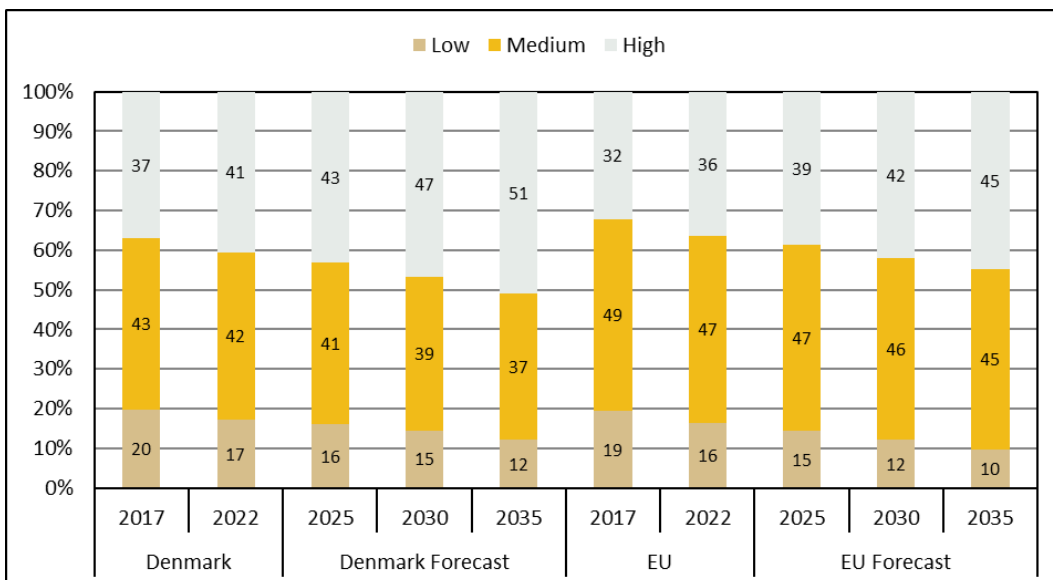
Figure 5. Shares of total job openings by level of qualification, 2022-35



Source: Cedefop (2025 Skills Forecast).

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).

Denmark is expected to experience some changes over 2022-35 in the shares of qualifications in the labour force, as seen in Figure 6. Denmark's share of people with high-level qualifications is expected to increase to 51% by 2035, becoming the largest qualification group. The share of medium qualified labour force is expected to decrease slightly (to 37% by 2035). Those with low levels of qualification are expected to decline as a share, to 12% by 2025. In Denmark, the proportion of the labour force with high-level qualifications is expected to remain significantly higher than the EU-27 average.

In Denmark, the supply of low- and medium-skill workers is expected to be below what is required by demand by 2035, while the supply of high-skill workers is expected to broadly meet more than half of the demand for those qualifications.

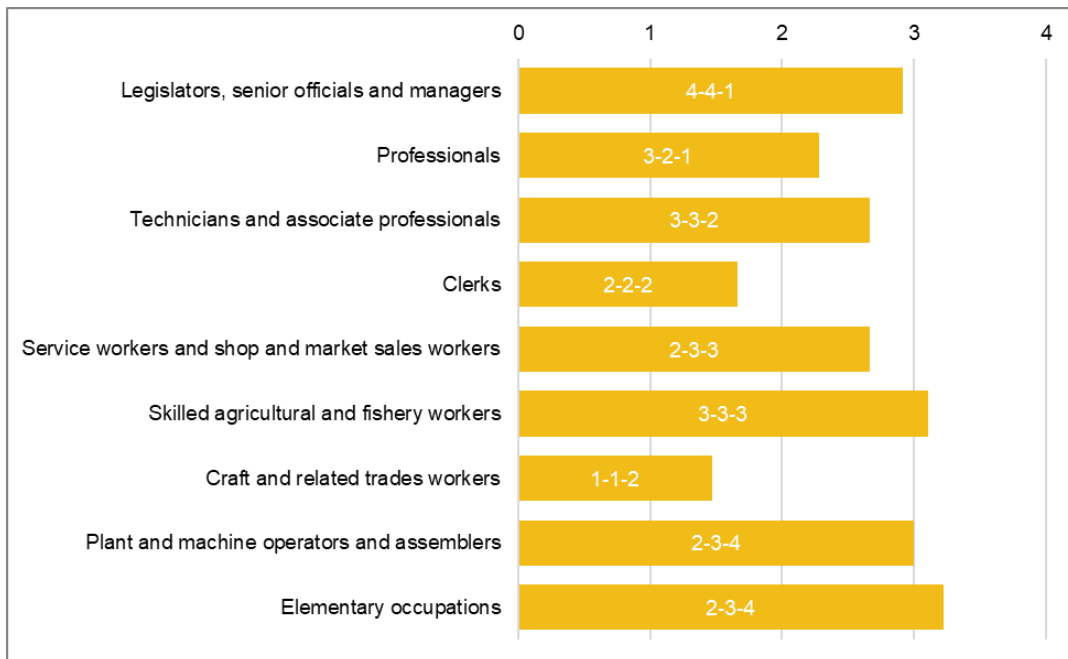
The **labour shortage index** is a method to summarise three elements of potential labour shortage: (1) employment growth, (2) replacement demand, and (3) Supply/Demand imbalance (FIOD). The outcomes at the occupation level are grouped into four quartiles: those with a low indication of shortage get 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.

Denmark faces labour market tightness, which is expected to remain throughout the forecast period. Hiring difficulties arise mainly among low- and medium-qualified candidates.

The labour shortage index is calculated at the ISCO 2-digit level and then aggregated to the ISCO 1-digit level.

Among the low-skilled occupations, the highest shortages are expected among *elementary occupations (2-3-4)*, with the highest replacement demand and imbalances. Among the skilled non-manual occupations, the highest shortage is expected among *Skilled agricultural and fishery workers (3-3-3)*. The second-highest employment growth, replacement demand and imbalances drive this. Among the high-skilled workers, the highest shortage is expected among *legislators, senior officials and managers (4-4-1)*. The shortage is driven by high employment growth and replacement demand, while employment imbalances are low.

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) ⁽¹⁾, and the short-term macroeconomic forecast produced by DG ECFIN in November 2023 ⁽²⁾. 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

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

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