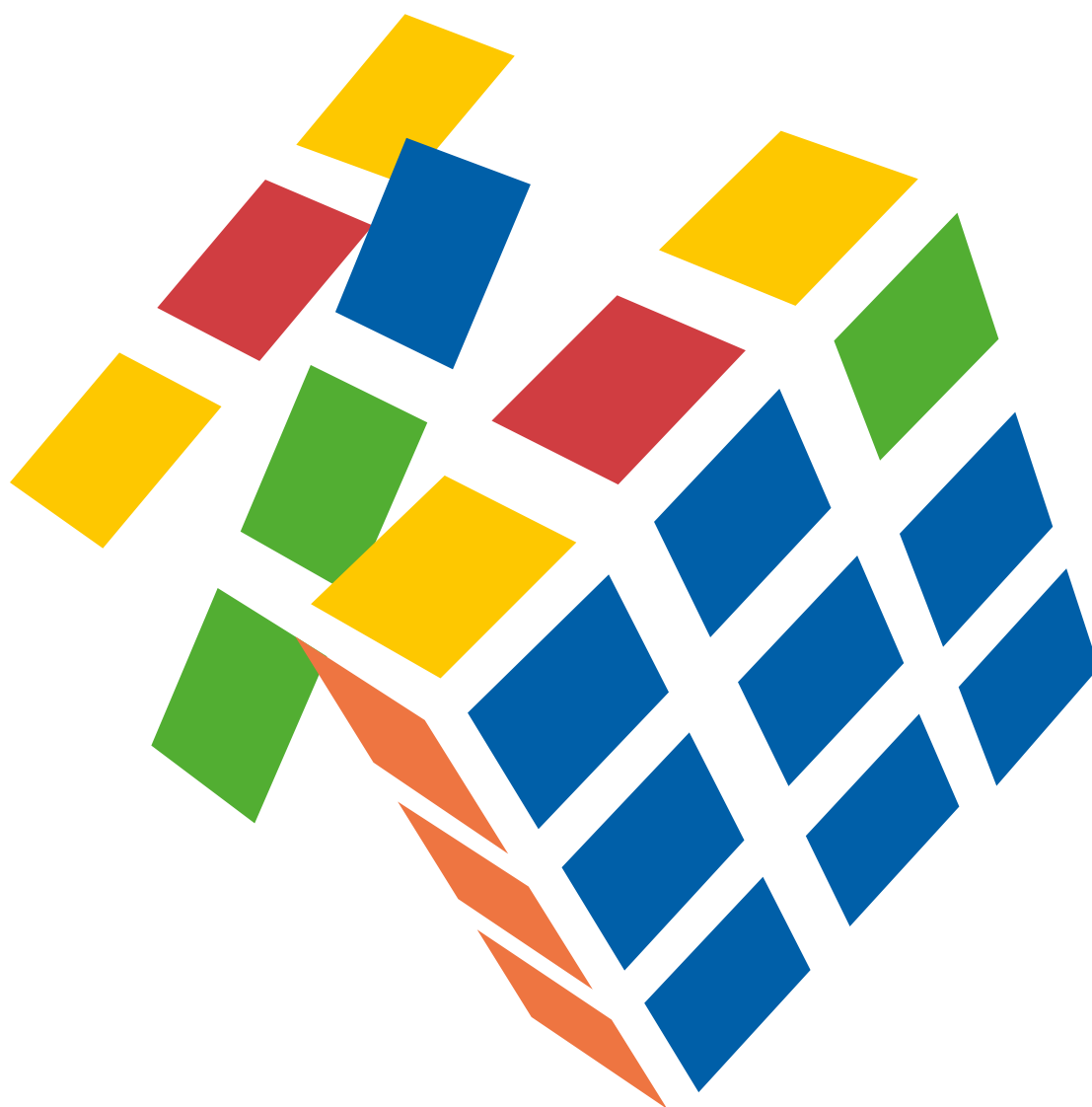




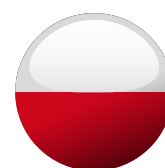
CEDEFOP

European Centre for the Development
of Vocational Training

EN



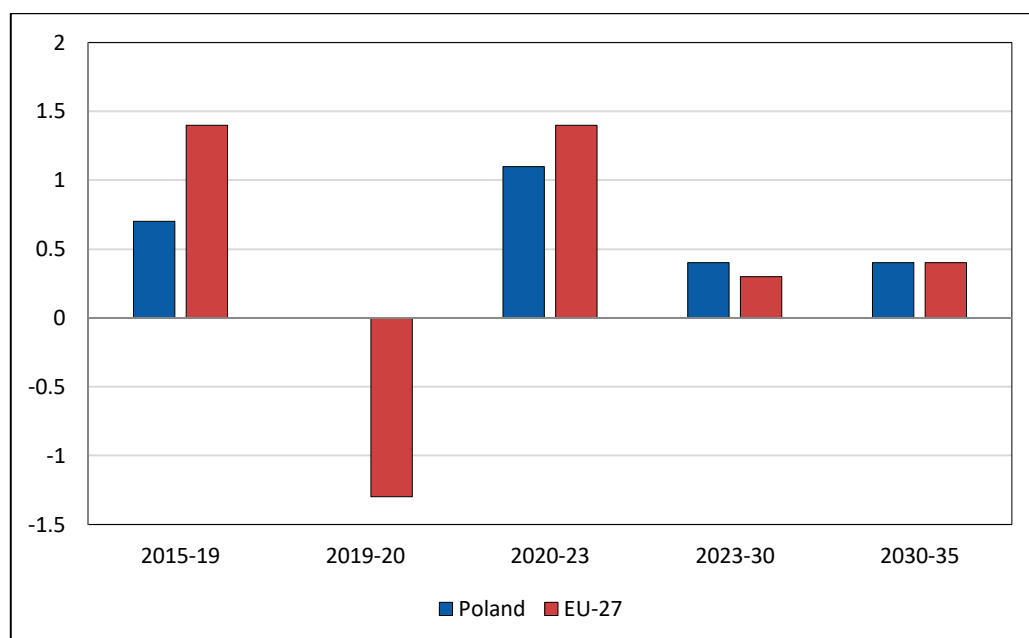
2025 skills forecast Poland



1. Employment outlook

Employment in Poland is forecast to grow at around the same rate as the EU-27 average. Figure 1 shows that Poland's employment grew slightly slower than the EU-27 average over 2015-19 and remained static in 2020 as the Covid-19 pandemic hit. Employment in Poland is estimated to have bounced back slightly more slowly than the EU-27 over 2020-23. Across the forecast period, employment in Poland is forecast to grow by around 0.4% pa, similar to the rate forecast for the EU-27 as a whole.

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



Source: Cedefop (2025 Skills Forecast).

2. Labour force overview

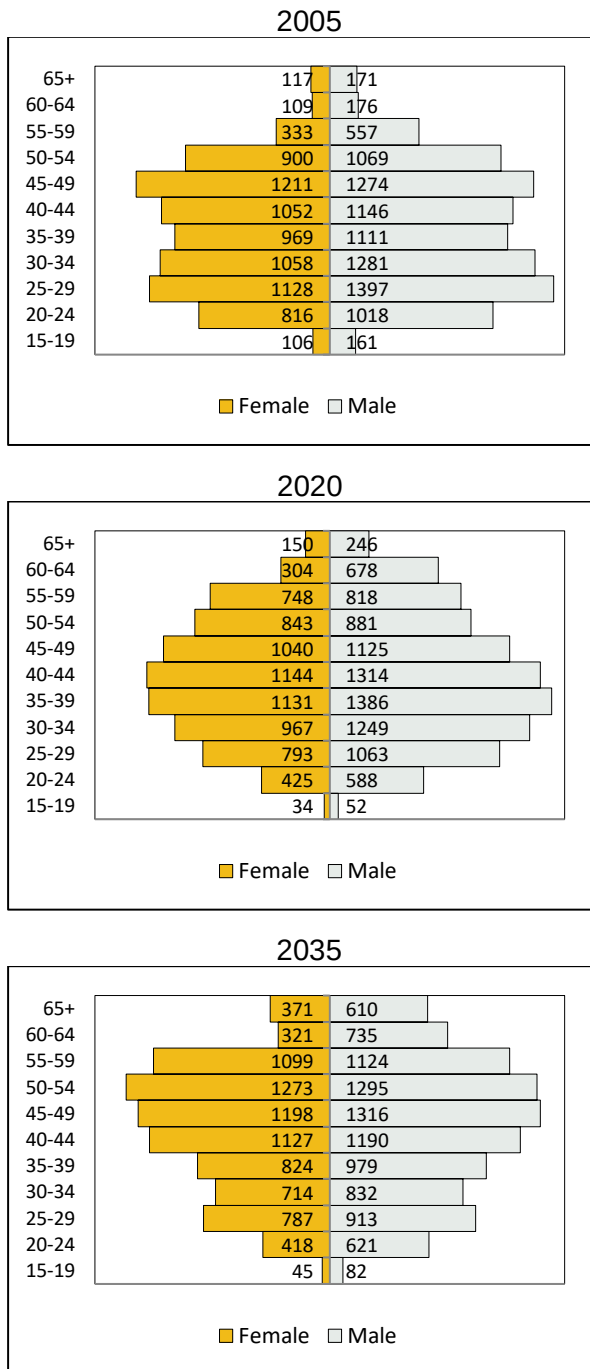
Figure 2 shows Poland's labour force by age group in 2005, 2020 and 2035. Changes in the labour force in Poland over the forecast period will continue to be driven by the ageing population and increasing participation rates in most age groups. The total labour force in Poland is projected to grow by around 5% over 2020-35, compared to a fall of around 1% 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. The total participation rate in Poland is forecast to increase by 3 pp over 2020-35, slightly slower than the increase of 4 pp forecast for the EU-27. The total population is forecast to decline by 1% over 2020-35, compared with growth of 1% over 2005-20.

The population aged 20-44 and 60-64 in Poland is forecast to decline quite strongly during 2020-35, while the population aged 45-59 and 65 and over is forecast to grow quite strongly, reflecting trends in the relevant younger cohorts in preceding periods.

The participation rates of all age groups in Poland are forecast to grow over 2020-35, with the strongest increases projected for the 55-59 age group (14 pp) and 25-29 age groups (10 pp).

The differences between male and female participation rates in Poland are generally greater than the EU-27 average, with the overall female rate in Poland (45%) being 5 pp lower than the EU-27 average female participation rate (50%) in 2020. The pattern of increases between males and females by age group is mixed, with females aged 25-59 generally forecast to see greater increases in participation rates, but males aged 20-24 and 60 and over forecast to see greater increases. Overall, the total participation rate for females is projected to increase by 4 pp, and for males to increase by 3 pp, over 2020-35.

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

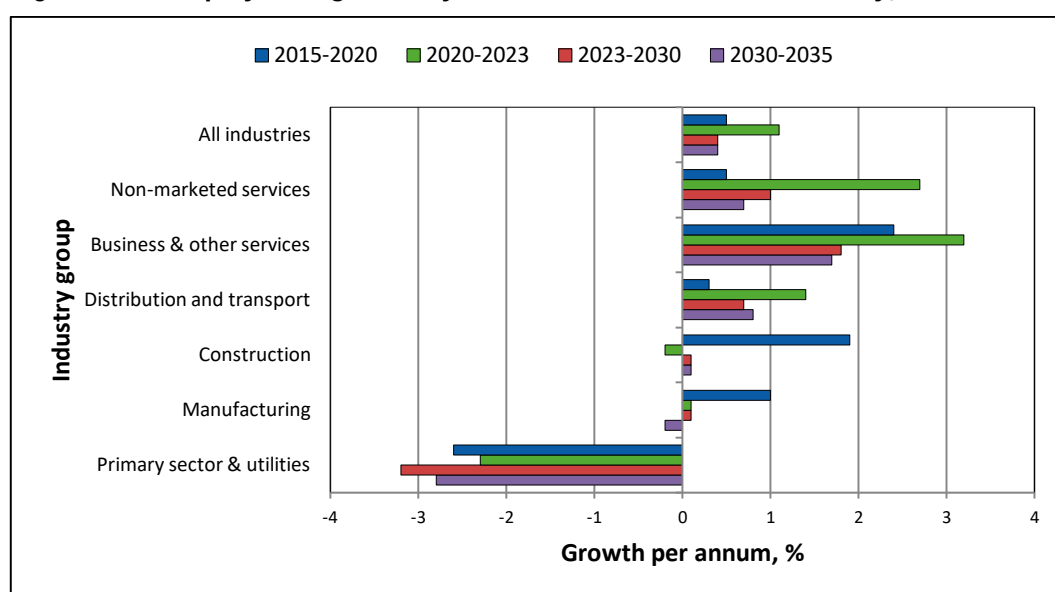


Source: Cedefop (2025 Skills Forecast).

3. Sectoral employment trends

Figure 3 shows Poland's annual average employment growth by broad sector between 2015 and 2035. The three broad services sectors are all forecast to see growth over the whole forecast period, with *Business & other services* forecast to see the strongest growth, of almost 2% pa. On the other hand, *Primary sector & utilities* is forecast to see a sharp decline in employment and both *Manufacturing* and *Construction* are forecast to see negligible growth or a very slight decline.

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 employment growth is slightly more mixed. Within *Business & other services*, growth is forecast to be strong across almost all sub-sectors, with only *other service activities* forecast to see very weak growth. Growth in employment in *architectural & engineering services*, *media*, *research & development*, *telecommunications*, *arts & entertainment*, *real estate activities* and *market research & other professional services* is forecast to be greater than 2% pa. Within *distribution & transport*, all sub-sectors are forecast to see positive growth in employment over 2023-30, although the very large sub-sector (14% of employment) of *wholesale & retail trade* is forecast to grow only slowly. In *non-marketed services*, employment in *education* (8% of employment) is forecast to decline slightly, while employment in *health* (6% of employment) and *public administration & defence* (6% of employment) is forecast to grow quite strongly,

with the growth in *health* reflecting increased demand due to the ageing population. The pattern of growth in *manufacturing* is more mixed, with, among the larger sub-sectors (those accounting for around 2% of employment or more), employment in *food, drink & tobacco* and *other manufacturing* forecast to decline over the whole forecast period, and employment in *basic metals & metal products* and *rubber & non-metallic mineral products* forecast to see relatively strong growth over the same period. Within *primary sector & utilities*, *electricity* is the only sub-sector forecast to see positive employment growth, while *agriculture* (9.5% of employment in 2020) is forecast to fall strongly 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).

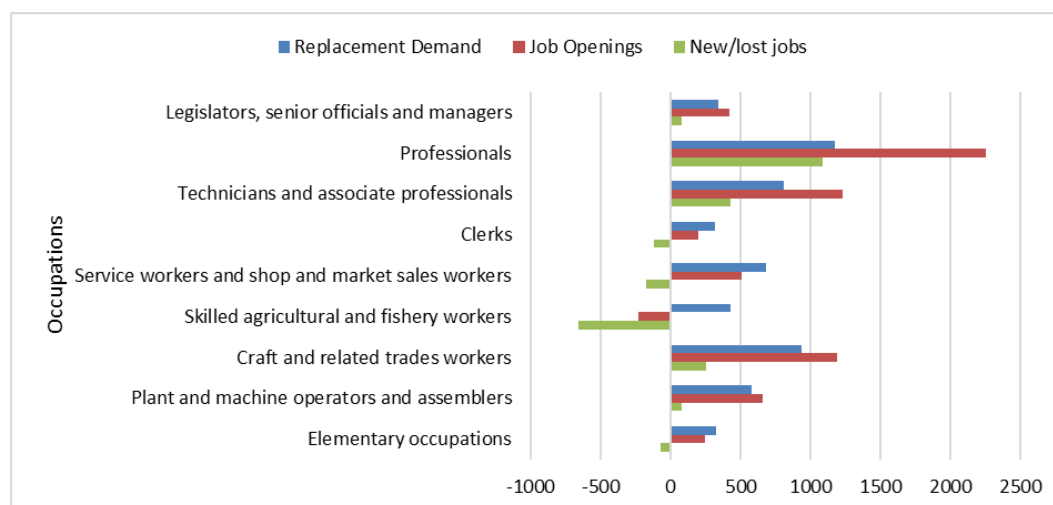
4. Job openings by occupational group

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

Employment is forecast to increase by around 900 000 from 2022 to 2035 (+5.4 %). *Professionals, technicians and associate professionals*, as well as *craft and related trade workers* are expected to experience the largest growth in both job openings and replacement demand in the period between 2015 to 2035. For *craft and related trade workers*, job openings are more strongly driven by replacement demand when compared to the other two occupational groups. These three broad occupations are expected to generate the largest number of job openings over the forecast period, accounting for 35%, 19% and 18% of total job openings, respectively. Over all occupations in total, there will be around 5.6 million job openings due to replacement demand. Despite positive replacement demand, jobs are forecast to be lost in the broad occupation of *skilled agricultural and fishery workers* and, to a much lesser degree, in the occupational groups of *service workers and shop and market sales workers, clerks*, and *elementary occupations*.

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 found among *health professionals* (12%), *building and related trades workers, excluding electricians* (11%), and *drivers and mobile plant operators* (8%). The decline in the number of jobs in the broad group of *skilled agricultural and fishery workers* is primarily driven by job losses in the occupation *market-oriented skilled agricultural workers*.

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).

An increasing specialisation in many sectors influences the occupational composition of employment in Poland. This is reflected in stronger occupation-specific effects, leading to increasing shares of *health professionals* or *Information*

and communications technology professionals, for example. 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, *legal, social, cultural and related associate professionals* or *chief executives, senior officials and legislators*.

The total number of medium-skilled workers is forecast to decrease slightly until 2035, as a general shift towards upskilling is forecast. Still, in 2035 the highest number of persons employed is expected to be among the medium-skilled. Among those medium-skilled workers, the number of *health professionals, information and communications technology professionals, building and related trades workers, excluding electricians*, and *food preparation assistants* is forecast to increase both due to occupational and sector growth effects. Despite positive sector effects, the number of medium-skilled *hospitality, retail and other services managers* is expected to decrease. This will, however, partly be compensated by an increase for higher skilled workers in this occupation.

Workers with intermediate and high education levels dominate the Polish labour market. Thus, dynamics at the lower-skilled level affect overall employment growth only to a limited degree. Among the low-skilled, the decrease in demand for *cleaners and helpers* is partially offset by strong sector growth.

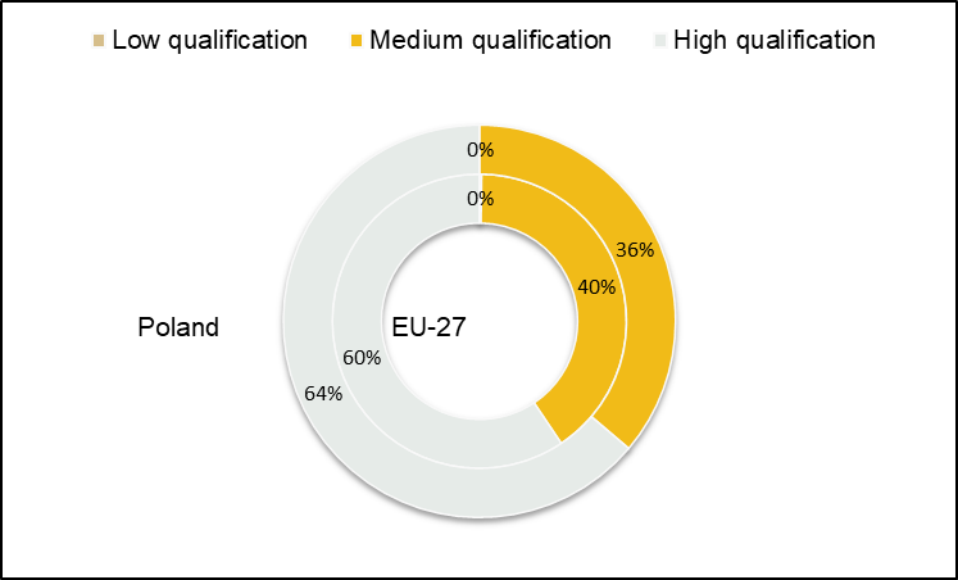
6. Demand for and supply of skills

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.

Around two-thirds (64%) of the total job openings expected to be created in Poland over the period 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 (36%) of total job openings will require high-level qualifications, while in terms of job openings, low-level qualifications are not forecast to play a role in Poland.

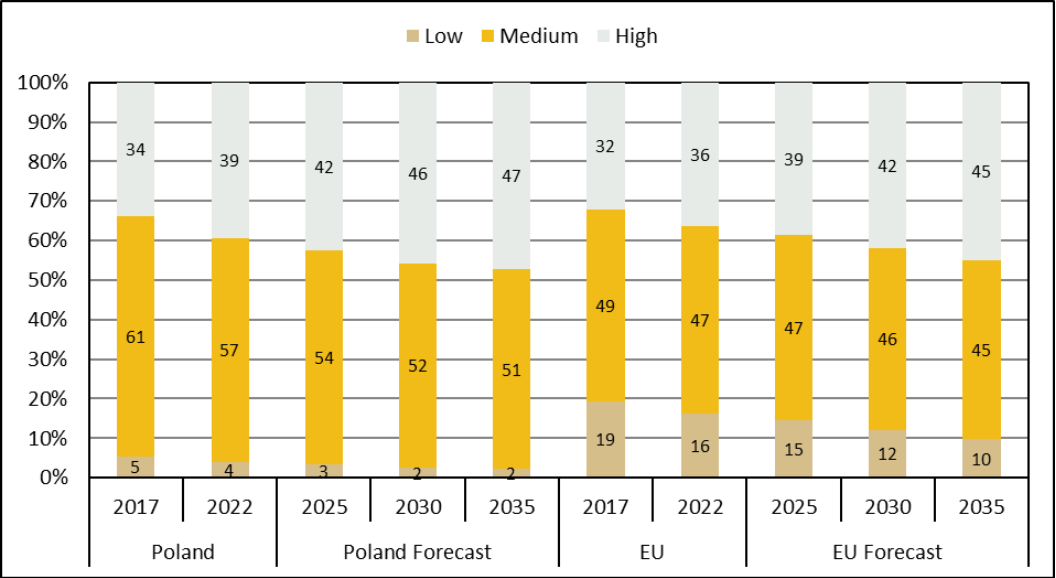
Figure 5. Shares of total job openings by level of qualification, 2022-35



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).

The trend towards higher skills will continue in Poland over 2022-35 (see Figure 6). The share of people with high-level qualifications is expected to increase to 47% by 2035. The share of medium qualified labour force is expected to remain the largest qualification group in Poland (51%, in 2035), although only by around four percentage points. The share of those with low levels of qualification is expected to decrease to 2%. In Poland, the proportion of the labour force with high-level qualifications and medium-level qualifications remains slightly higher than the EU-27 average, while the share of the labour force with low skills is expected to stay well below the EU-27 level.

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 (IFIOD). 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.

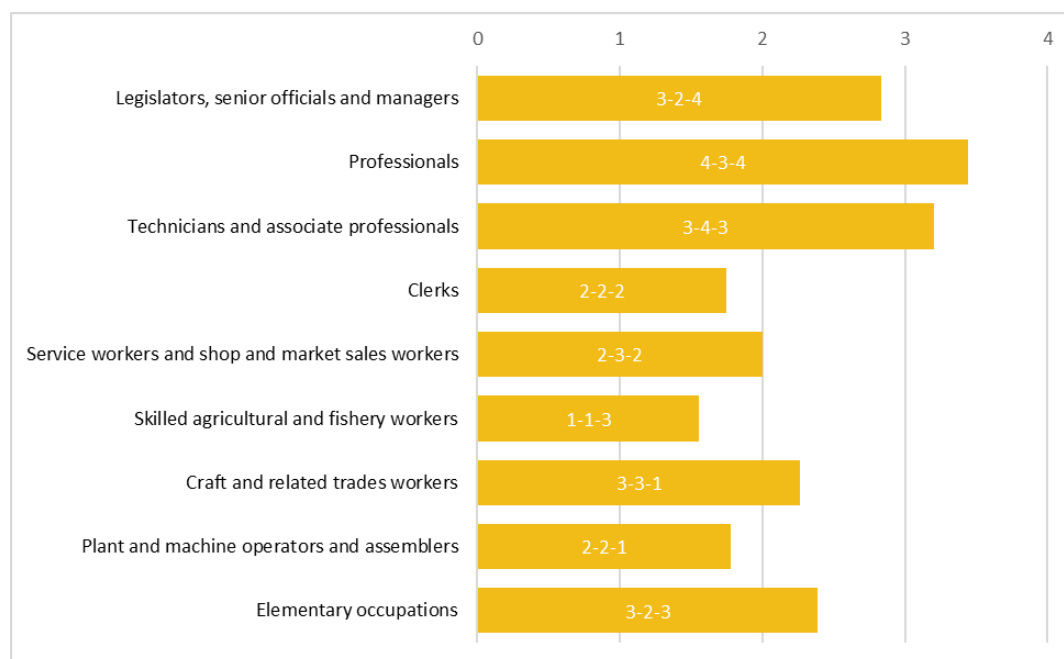
The labour shortage index is calculated at the ISCO 2-digit level and then aggregated to the ISCO 1-digit level (Figure 7). At the 1-digit level, the highest value of the labour shortage index can be found among *professionals* (4-3-4), primarily due to the growth of the underlying occupations and supply-demand imbalances. In contrast, the labour shortage among *technicians and associate professionals* (3-4-3) is more strongly driven by replacement demand.

In Poland, the highest level of labour shortage is expected among High-skilled non-manual occupations (3-3-3) and elementary occupations (3-2-3). In contrast, the shortage is much less pronounced in skilled non-manual occupations (2-2-2) and skilled manual occupations (2-2-1). Thus, hiring difficulties arise mainly among the high and low-skilled.

At a 2-digit level, the highest shortages are expected for *Health professionals* (4-4-4) and *chief executives, senior officials and legislators* (4-4-4), both sub-groups of the high-skilled non-manual occupations. Shortages in both occupations are driven by all three factors of the labour shortage index: employment growth, replacement demand, and supply-demand-imbalances. *Food preparation assistants* (4-3-3) is expected to face the highest level of shortage in the forecasting period within the main group of elementary occupations.

Among skilled non-manual workers, shortages are expected to be much less pronounced, as shown by the fact that no sub-group reaches a shortage index greater than 2.7. *Building and related trades workers, excluding electricians* (4-4-1), are a skilled manual occupation that experiences shortages due to high employment and replacement demand growth, while this occupation is not expected to experience supply-demand imbalances.

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:

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

