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European Centre for the Development  
of Vocational Training

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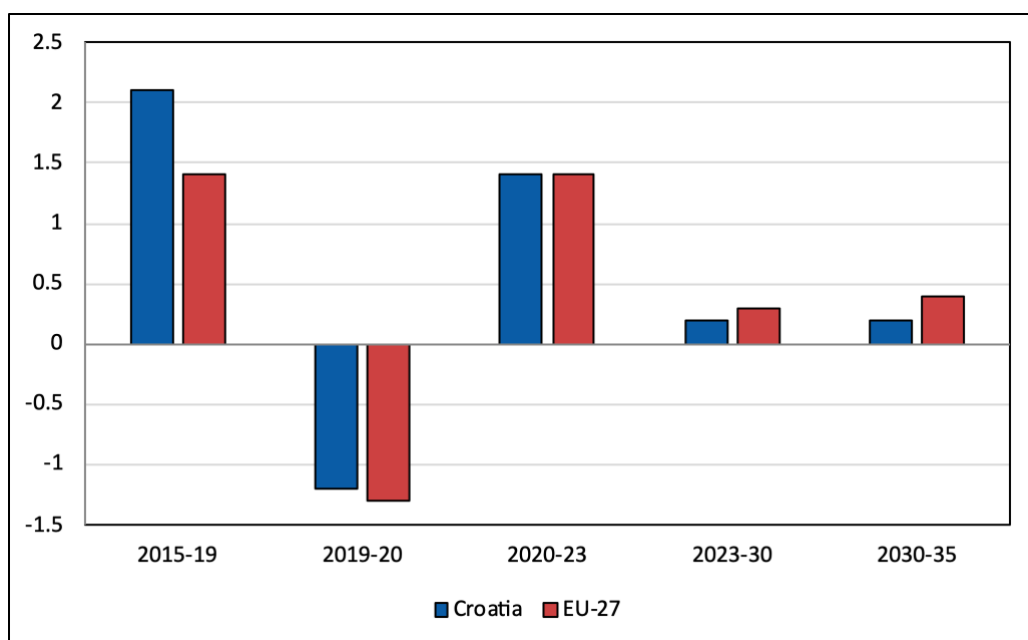
# 2025 skills forecast Croatia



# 1. Employment outlook

Employment in Croatia is forecast to grow slowly over the forecast period. Figure 1 shows that employment in Croatia grew faster than the EU-27 average over 2015-19 and fell slightly less sharply in 2020 as the Covid-19 pandemic hit. Employment in Croatia is also estimated to have bounced back at the same rate as the EU-27 over 2020-23. However, total employment in Croatia is forecast to grow fairly slowly (0.2% pa) over 2022-35, and slower than the EU-27 average of 0.3-0.4% pa.

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



Source: Cedefop (2025 Skills Forecast).

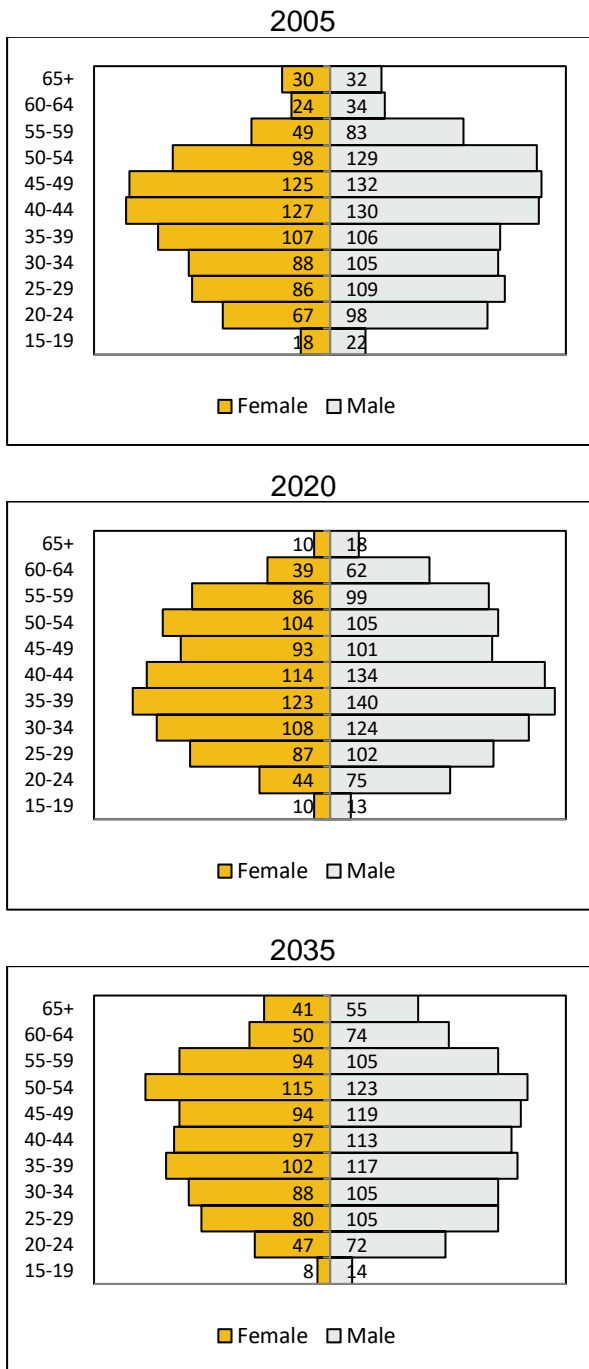
## 2. Labour force overview

Figure 2 shows the labour force by age group in Croatia in 2005, 2020 and 2035. Changes in the labour force in Croatia 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 Croatia is projected to grow by just over 1% over 2020-35, compared to a decline of around 0.5% 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 Croatia is forecast to increase by 6 pp over 2020-35 compared with an increase of 4 pp in the total rate for the EU-27. The population aged 15+ is forecast to fall by around 10% over 2020-35, compared with a fall of 4% over 2005-20.

Population in all age groups in Croatia, except those aged 65 and above, is forecast to decline during 2020-35, reflecting trends in the relevant younger cohorts in preceding periods. The participation rates of all age groups in Croatia are forecast to grow over 2020-35, with particularly strong (14 pp or more) increases projected for those aged 45-64.

The pattern of changes in population and participation rates by age group for males and females is such that the male overall participation rate is forecast to increase by 7 pp over 2020-35, while the female participation rate is projected to increase by 5 pp over the same period.

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

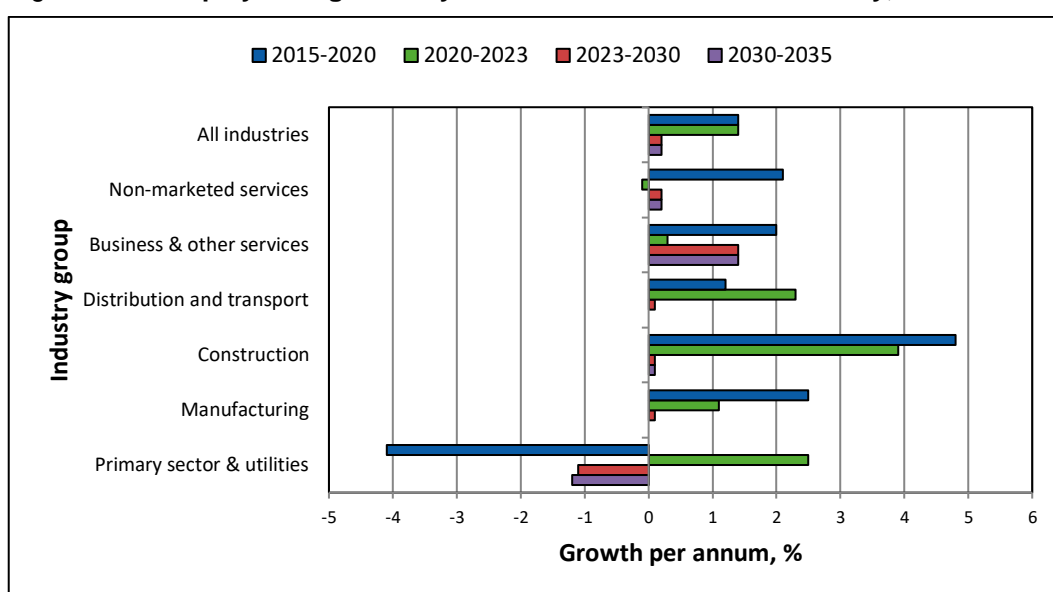


Source: Cedefop (2025 Skills Forecast).

### 3. Sectoral employment trends

Figure 3 shows annual average employment growth by broad sector in Croatia between 2015 and 2035. Although total employment in Croatia is expected to grow only slowly over the forecast period, employment in *business & other services* is forecast to grow relatively strongly, by almost 1.5% pa over 2023-35. All other broad sectors are forecast to see very slow growth, apart from *primary sector & utilities*, which is forecast to see a decline of around 1.1% pa over the same period.

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), growth in *business & other services* is forecast to be driven by growth in *telecommunications, architectural & engineering services, other service activities, and computer programming & information services*, all with growth of 1% pa or more over the whole forecast period. Within *manufacturing*, growth in employment is forecast to be driven by *electrical equipment and other transport equipment*, with growth of 1% pa or above, although other, larger, sub-sectors, such as *food, drink & tobacco*, will also support employment growth, albeit at slower rates. Within *Primary sector & utilities*, only *electricity* is forecast to see positive growth in employment, while employment in *agriculture*, which accounted for over 6% of total employment in Croatia in 2020, is forecast to see a fall of 1.7-2.2% pa over the whole of the forecast period.

## 4. Job openings by occupational group

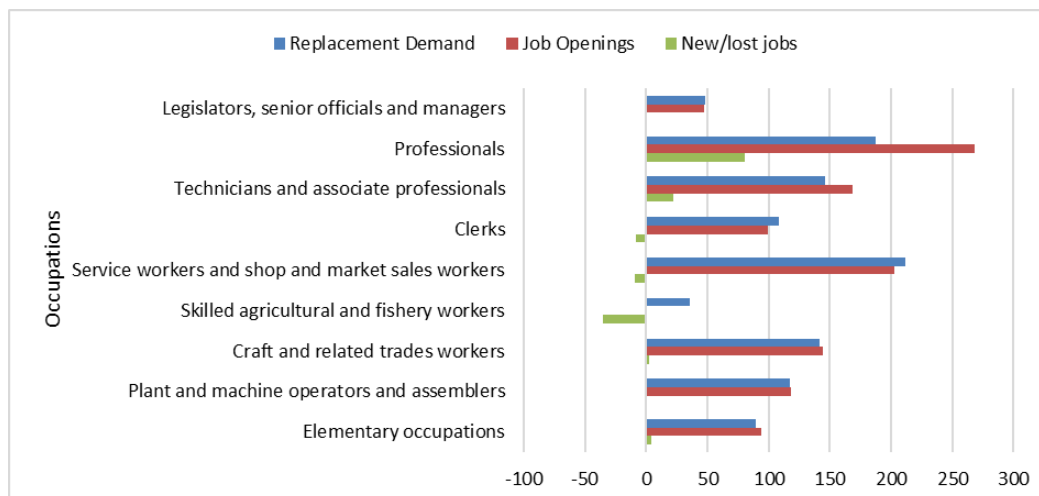
Cedefop skills forecasts estimate the total job openings by occupational group as the sum of net employment change and replacement needs. Net employment change refers to new jobs created or lost due to the expansion or contraction of employment in that sector or occupation. Replacement needs arise as 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.

All broad occupations except for *clerks, service workers and shop and market sales workers* and *skilled agricultural and fishery workers* are expected to experience an increase in the number of jobs over this period, reflecting the forecast by sector. There will still be many job openings due to replacement demand across all occupations. *Professionals* and *service workers and shop and market sales workers* are the two broad occupations expected to generate the largest number of job openings over the forecast period, accounting for 23% and 18% of total job openings, respectively.

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 *personal service workers* (7%), *drivers and mobile plant operators* (6%), and *teaching professionals* (6%). Of these, only *personal service workers* are expected to see a decline in the number of jobs. *Sales workers* 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, *science and engineering associates* are expected to see substantial job openings, due entirely to replacement demand. Even among elementary occupations, *metal machinery and related trades workers* are projected to see many job openings, due to replacement demand.

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 Croatia. 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, *legal, social cultural and associate professionals* and *information and communication technicians*. *Science and engineering professionals*, as well as *Information and communication technicians*, both benefit from the increase in the underlying sector translating into higher employment in these occupations.

The overall effect of occupational change, therefore, 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, some lower-level occupations supporting production and the service sector seem to be increasing at the cost of some intermediate occupations.

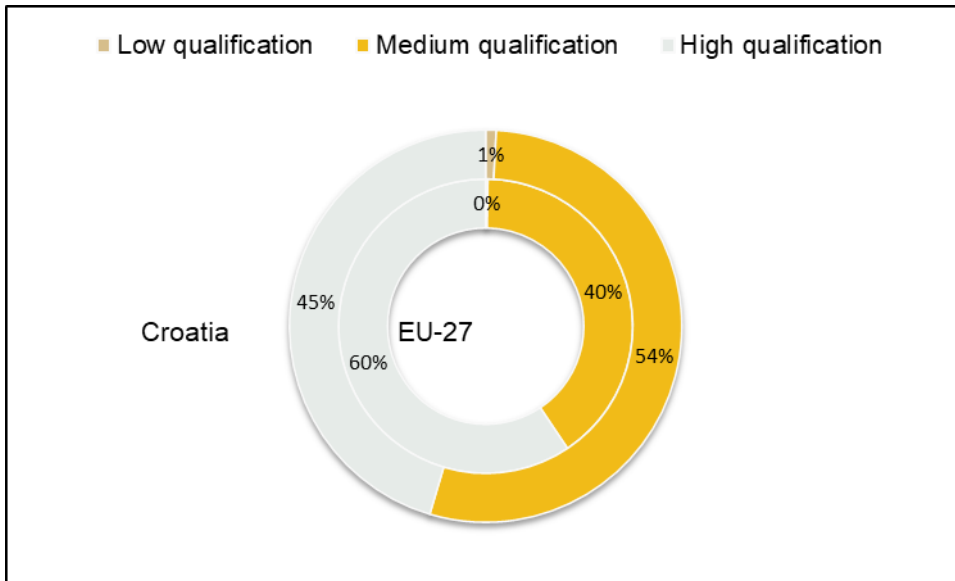
The strength of intermediate occupations, with a strong intermediate qualification level in Croatia, limits the overall effect on medium-qualified occupations. Whereas *building and related trade workers* remain somewhat stronger, the industry-based *metal, machinery, and related trade workers* are decreasing in number, most likely due to increases in automation within the sectors. Clerical work is expected to see a decrease in its employment share in all but *general and keyboard clerks* and *clerical support workers*.

## 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 describes the share of qualifications relative to the EU average in total job openings, thus only the demand for new jobs (newly created, and replacement needs if they surpass any possible decline). Well over half (54%) of the total job openings that are expected to be created in Croatia over the period up to 2035 will require medium level qualifications, about 14 pp more than the EU-27 average (see Figure 5). Slightly less than half (45%) of total job openings will require high level qualifications and only 1% will require low level qualifications according to the forecasting model.

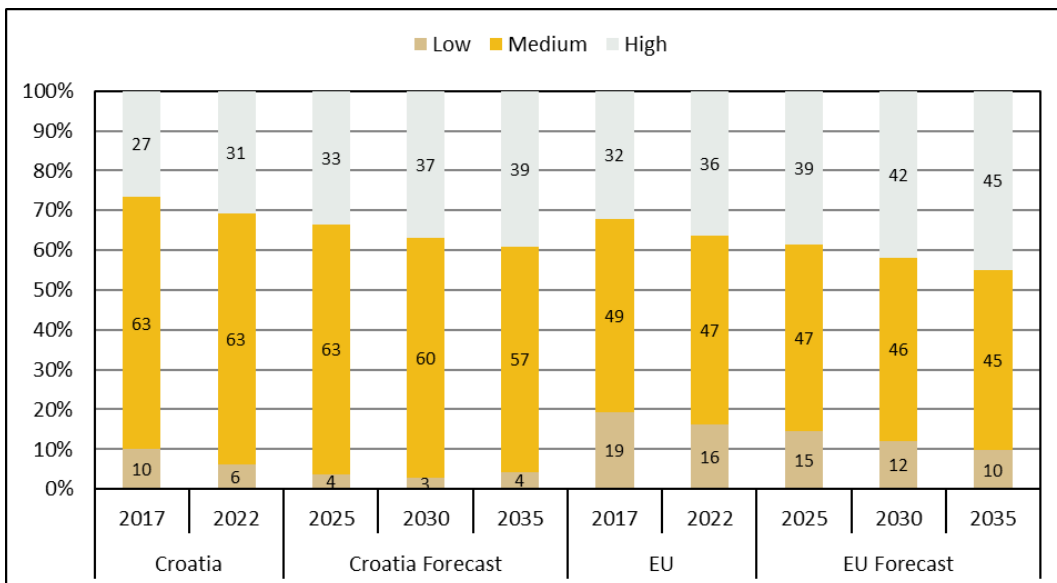
Figure 5. Shares of total job openings by level of qualification, 2022-35



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).

Croatia is expected to experience some change in the shares of qualifications in the labour force over 2022-35, as seen in Figure 6. The share of people with high-level qualifications in Croatia is expected to increase to 39% by 2035. The share of medium qualified labour force, the largest qualification group in Croatia, is expected to slightly decrease (57%, in 2035). Those with low levels of qualification are expected to decline to 4%. In Croatia, the proportion of the labour force with medium level qualifications remains significantly higher than the EU-27 average.

Overall, in Croatia, the supply of low, high and medium-skill workers at the aggregate level is expected to meet demand by 2035.

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.

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

The labour shortage index is calculated at the ISCO 2-digit level and then aggregated to the ISCO 1-digit level. The first number in the figure gives the quantile of employment growth, 4 being the highest quantile and 1 the lowest. The second number is for replacement demand, the third is the imbalance (usually dominated by low / intermediate qualified in our forecast).

The highest value of the labour shortage index can be found among *pant and machine operators and assemblers*, and is driven by the growth of the underlying occupations along with their high replacement needs. Among the skilled manual occupations, the highest shortages at the more detailed (two-digit) occupations are expected among *assemblers (4-2-4)*, who have among the highest employment growth and imbalances. Among the skilled non-manual occupations, the highest shortage is expected among *personal service workers (3-4-3)*. This is driven by being among the highest group for replacement demand, and second highest in employment growth and imbalances. Among the high-skilled workers, the highest

shortage is among *professionals* (4-3-1). While the shortage among *professionals* is driven by high employment growth along with high replacement demand, employment growth is slightly lower among *associate professionals*. Among *associate professionals*, imbalances are higher given their employment of workers with intermediate qualification levels.

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.

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(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)

