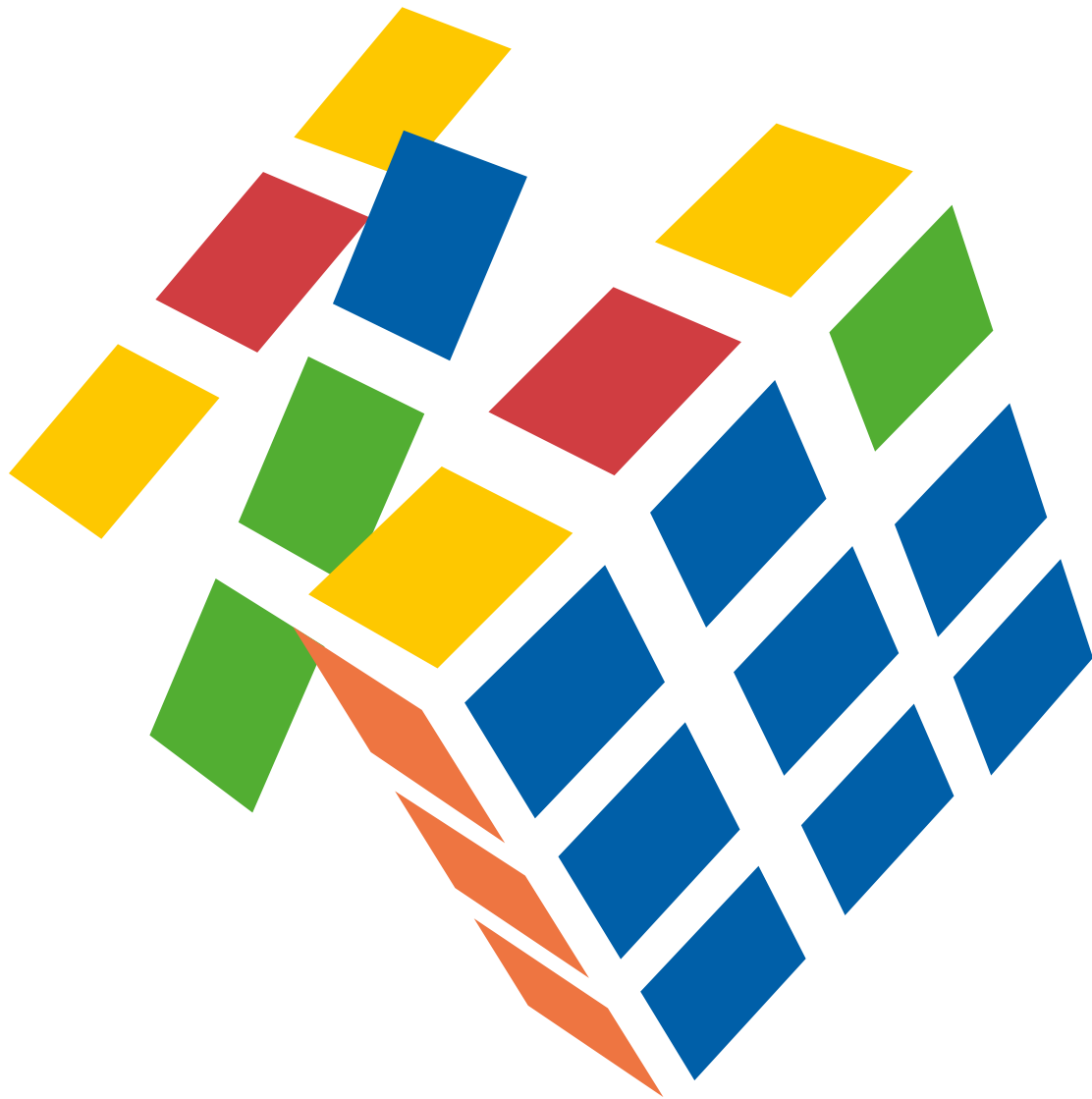




CEDEFOP

European Centre for the Development  
of Vocational Training

EN



# 2023 skills forecast Portugal





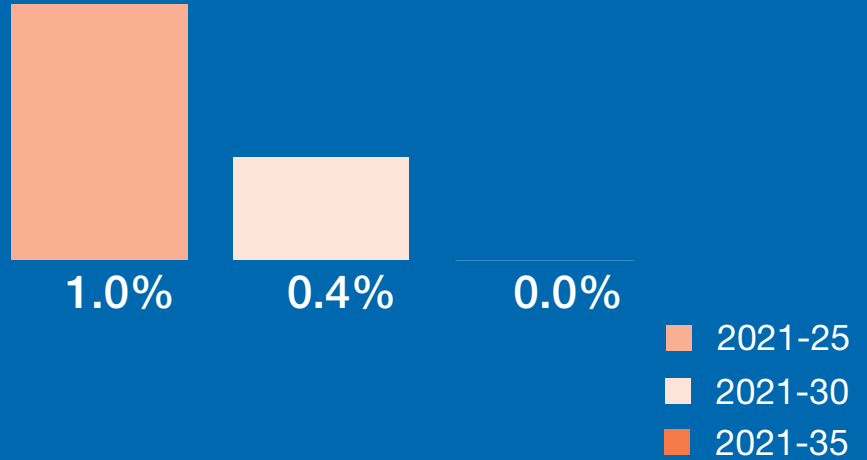
Employment in 2035

4 964 000

0.05%

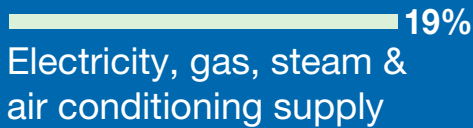
increase 2021-35

% Employment growth 2021-35



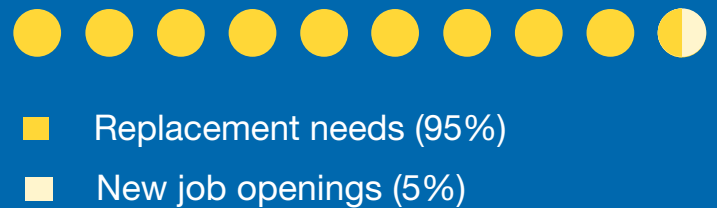
Fastest-growing sectors

2021-35% growth



Total job openings, 2021-35

2 953 000



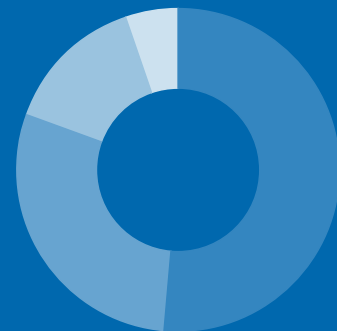
Highest-demand occupations

Largest creation of new jobs, 2021-35



Total job openings by skill level

2021-35



- High-skilled non-manual occupations (51%)
- Skilled non-manual occupations (29%)
- Skilled manual occupations (14%)
- Elementary occupations (5%)

increase in high-skilled labour demand 2021-35

44%



3.4% employment increase in 2021-35



Fastest growing occupation  
Legal, social and cultural professionals



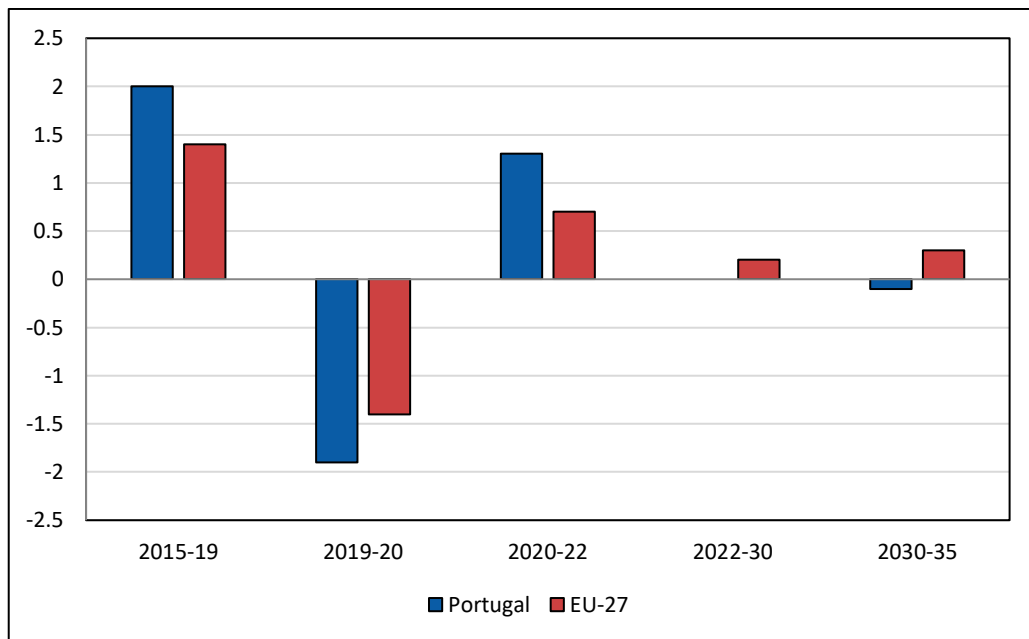
Fastest growing sector  
Information and communication

# Cedefop skills forecast: Portugal

## 1. Employment outlook

Employment in Portugal is forecast to remain broadly static, compared with weak growth for the EU-27. Figure 1 shows that employment in Portugal grew significantly faster than the EU-27 average over 2015-19 but fell slightly more sharply in 2020 as the Covid-19 pandemic hit. Employment in Portugal is also estimated to have bounced back more strongly than the EU-27 over 2020-22. Across the forecast period, employment in Portugal is forecast to remain broadly static, with a slight decline over 2030-35, compared with growth of around 0.2-0.3% pa for the EU-27 as a whole.

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



Source: Cedefop (2022 Skills Forecast).

## 2. Labour force overview

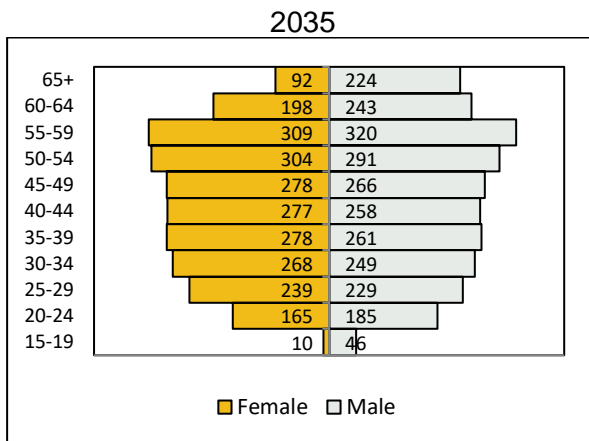
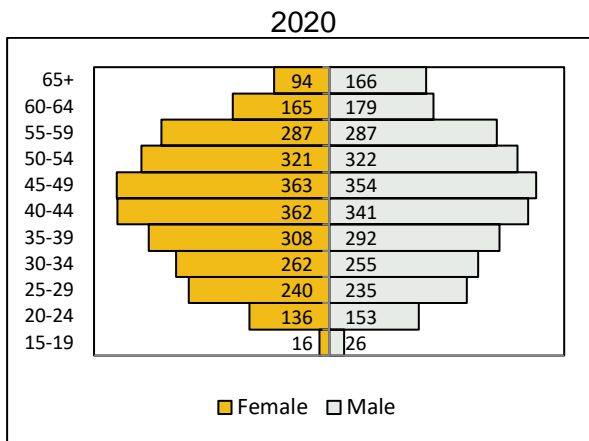
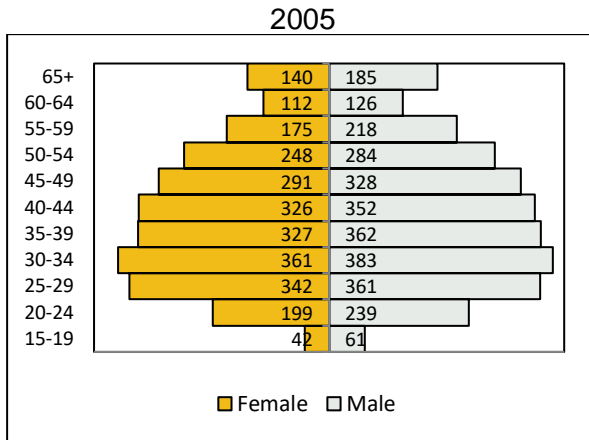
Figure 2 shows Portugal's labour force by age group in 2005, 2020 and 2035. Changes in the labour force in Portugal over the forecast period will be driven by the ageing and declining population and increasing participation rates in most age groups. The total labour force in Portugal is projected to fall by 3% over 2020-35, compared with a fall of around 5% over the previous 15 years. This compares with an expected increase in the labour force of just under 3% over 2020-35 for the EU-27. The total participation rate in Portugal is forecast to fall by 1 pp over 2020-35, despite increases in almost all age bands and due to falling population in key age groups, compared with an increase of 1 pp in the total rate for the EU-27. The total population is forecast to fall by 2.5% over 2020-35, compared with growth of 1% over 2005-20.

The population in all age bands between 15 and 54 is forecast to decline during 2020-35, while the population aged 55 and over is forecast to grow, with especially strong growth for those aged 65 and over, reflecting trends in the relevant younger cohorts in preceding periods.

The participation rates of all age groups in Portugal are forecast to grow strongly over 2020-35, with the strongest increase projected for the 20-24 age group (22 pp).

Unlike the trends for the EU-27 as a whole, female participation rates in Portugal are not generally forecast to increase more than male rates, and male rates for those aged 15-24 and 55 and above are projected to increase quite a bit more than female rates. Overall, the total participation rate for females is projected to fall by 2 pp and for males to increase by 2 pp over 2020-35.

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

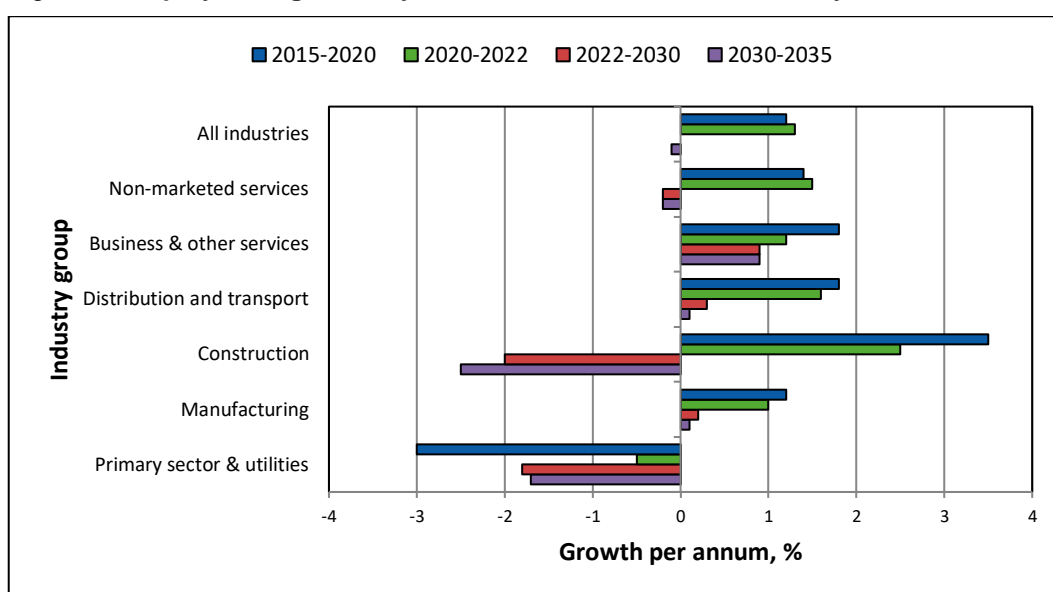


Source: Cedefop (2022 Skills Forecast).

### 3. Sectoral employment trends

Figure 3 shows the annual average employment growth by broad sector in Portugal between 2015 and 2035. Although total employment in Portugal is forecast to remain broadly static, the picture among the broad sectors is mixed. Employment growth is forecast to be fastest in *Business & other services*, at a. *Distribution & transport* and *Manufacturing* are forecast to see positive, albeit much weaker, growth of 0.2-0.3% pa over 2022-30. On the other hand, employment in *Construction* and *Primary sector & utilities* is forecast to fall quite strongly, by around 2% pa, over 2022-30.

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), employment growth in *Business & other services* is forecast to be driven by growth in *computer programming & information services*, *legal, accounting & consulting services*, *architectural & engineering services* and *arts & entertainment*, all with the growth of 1.5% pa or more over 2022-30. Within the larger sub-sectors of *Distribution & transport*, employment in *wholesale & retail trade* (accounting for 15% of employment in Portugal in 2020) and *accommodation & catering* (7% of employment) is forecast to grow by only 0.3% pa over 2022-30, while employment in *warehousing & postal services* (1% of employment) is forecast to shrink by 0.1% pa. Most sub-sectors within *Manufacturing*, which tend to be smaller than many of the other sub-sectors, are forecast to see positive growth in employment over

2022-30. The largest exception is textile & leathers (4% of employment), which is forecast to shrink by 1.5% pa. The fastest-growing larger sub-sectors are forecast to be motor vehicles (1% of employment) with employment growth of 1.6% pa and food, drink & tobacco (2% of employment), rubber & non-metallic mineral products (1.4% of employment), wood, paper, printing & publishing (1.2%) and other manufacturing (1.7%), all with employment growth of around 1% pa. Within Primary sector & utilities, employment in *agriculture*, which is by far the largest of these sub-sectors (8% of total employment in Portugal in 2020), is forecast to decline by around 2.5% pa 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).

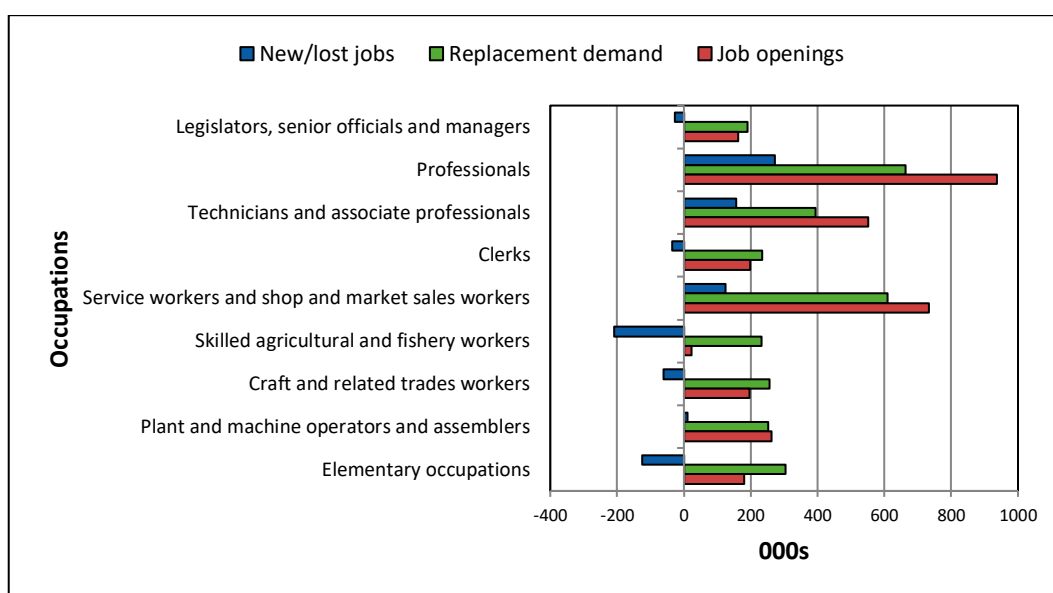
Figure 4 presents the total job openings by broad occupational group over 2020-35. The number of job openings is determined by the number of jobs lost/newly created and by the number of jobs created mainly following older workers' retirement. Most jobs will come from this need to replace workers retiring or changing occupations.

*Professionals* and *Technicians & associate professionals* are forecast to see the largest increases in employment over this period, while *Professionals* and *Service workers & shop & market sales workers* are projected to see the greatest replacement demand. These three broad sectors are forecast to see the greatest number of job openings over this period. Even broad sectors forecasting a decline in employment over this period are still forecast to see at least some job openings due to replacement demand. Overall, the number of jobs is forecast to increase by 103,000, and there is expected to be a replacement demand of more than 3.1 million jobs, so there are forecast to be more than 3.2 million 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 non-manual occupations such as *business & administration professionals and associate professionals*, *teaching professionals*, *health professionals*, and *legal, social &*

*cultural professionals*, as well as skilled non-manual workers such as *personal care workers*, *sales workers* and *personal service workers*. Even so, some skilled manual occupations such as *stationary plant & machine operators* and *metal, machinery & related trades workers* are expected to provide a large number of job openings, driven by new jobs as well as replacement demand. Although most elementary occupations are expected to provide at least some job openings, the number is expected to be much lower than in the more skilled occupations.

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 Portugal is mainly characterised by changes in the level of specialisation within occupations and, in fewer cases, by changes in industry size. Increasing specialisation in some sectors will



influence the occupational composition of employment in the country. Strong occupation-specific effects and less accentuated industry size effects lead to increasing shares of *professionals and legislators, officials and managers, technicians and other associates*. The occupations benefiting the most from these trends are high-skilled occupations, especially *legal, social, cultural and related associate professionals, health associate professionals, business and administration associate professionals, chief executives, senior officials and legislators*. The only non-high skilled occupations becoming stronger thanks to the positive occupation-specific and industry size effect are *assemblers and personal, care, protective service*. These changes reflect changes in job organisation in various sectors and, in many cases, an increasing specialisation. In contrast to highly skilled occupations, medium-and lower skilled occupations are subject to negative effects.

Therefore, the overall effect of occupational change depends on several factors that need to be considered together. Increasing automation and digitisation, moves towards a service-oriented economy, including within manufacturing, will lead to greater use of higher-level occupations. At the other end of the spectrum, all lower-level occupations seem to be decreasing with no exception. *Agricultural, forestry and fishery labourers* represent the weakest occupation among all occupations.

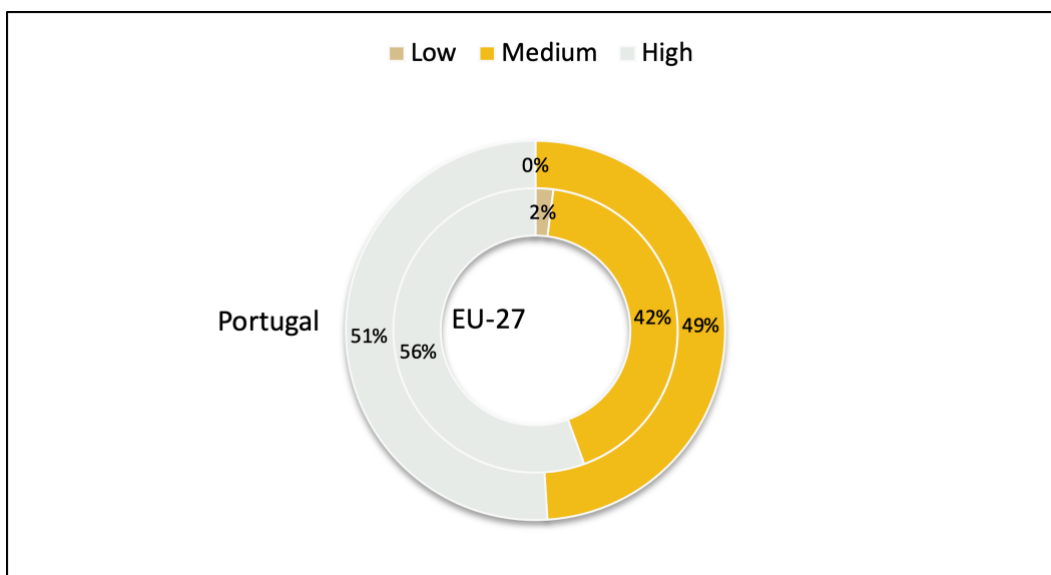
The employment growth of intermediate occupations in Portugal is forecast to decrease, especially for *agricultural workers and building and related trades workers*. However, some medium-qualified occupations are expected to increase, such as *assemblers, personal, care, protective service and stationary plant and machine operators*.

## 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.

Almost half (51%) of the total job openings that are expected to be created in Portugal over the period up to 2035 will require high level qualifications, about 5 pp less than the EU-27 average. The other half (49%) of total job openings will require medium level qualifications.

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

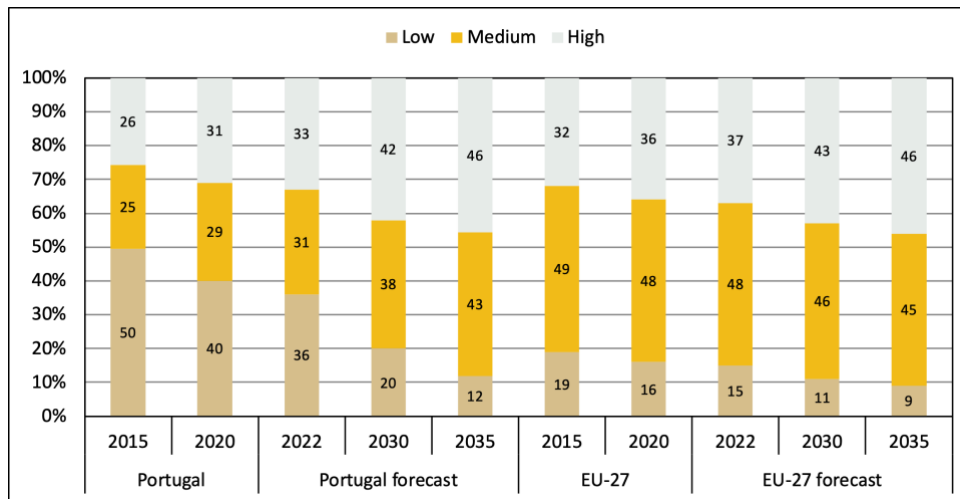


Source: Cedefop (2022 Skills Forecast).

Total job openings are highest among Business and administration associate professionals, Personal care workers, and Sales workers. Among the higher qualified occupations Teaching professionals, Business and administration professionals, Health professionals are expected to see the highest total job openings.

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

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



Source: Cedefop (2022 Skills Forecast).

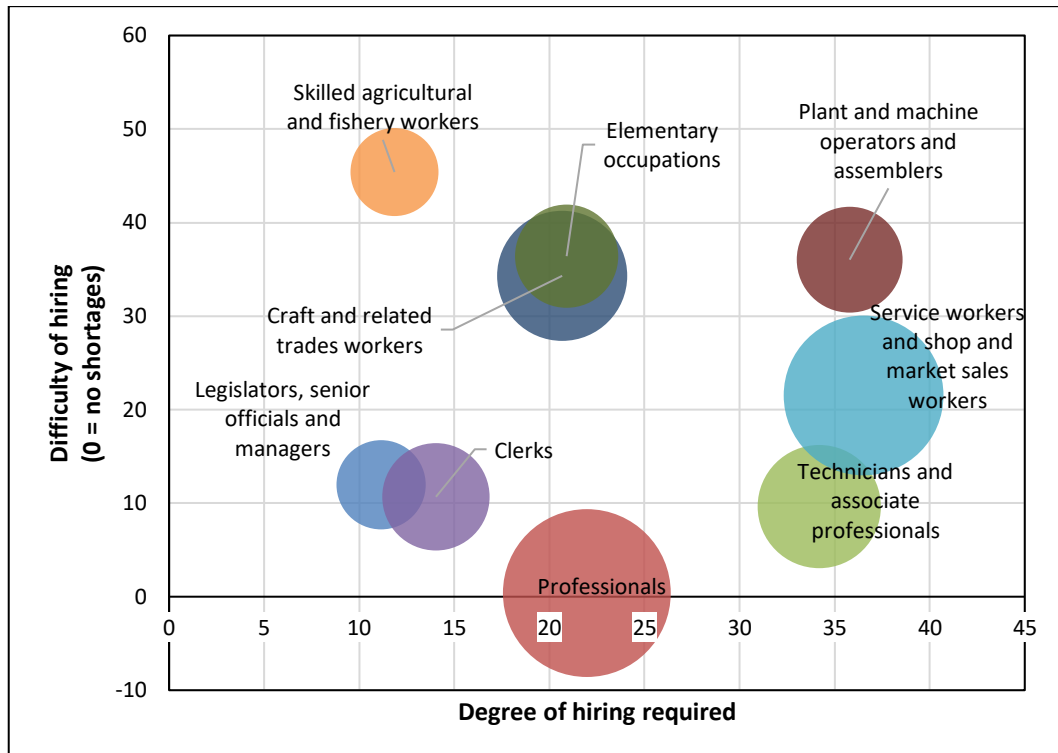
In general, Portugal is expected to experience substantial changes in shares of qualifications in the labour force over 2022-35, as seen in Figure 6. High qualified will increase their share from 33% in 2022 to 46% in 2035, while the medium qualified will reach 43% in 2035. The share of low qualified is expected to drop significantly, from 36% in 2022 to 12% in 2035. Despite this, the share of workers with low qualifications is expected to remain much higher than the EU-27 average. Policies addressing the problem of a high proportion of workers with low qualifications in Portugal, such as the Qualifica Program, could bring the share of low qualified workers even lower. High qualified, previously the smallest group is expected to rise to 31% by 2030.

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 indicate 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 (Portugal), 2022-35



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.

Figure 7 shows that occupations within *Technicians and associate professionals*, *Service workers and shop and market sales workers* and *professionals* are forecast to experience large changes (in terms of qualifications required) that will require hiring new workers, mainly highly qualified workers. It is expected that there will be only limited hiring difficulties for this group, as the highly qualified job-seekers are not projected to be in shortage. *Skilled agricultural and fishery workers* are expected to experience low hiring levels, mainly for lower and intermediate qualified personnel, and there are more hiring difficulties. Elementary occupations, just like Crafts, are hit by the shortage of low qualified workers. Whether this will result in the projected hiring difficulties will depend on the

willingness of higher qualified workers to be employed for the typical work conditions and salaries of these occupations.

Portugal's qualification structure of the labour supply is changing a lot. Previously the main labour supply was low qualified, while new graduates nowadays tend to be higher or intermediate qualified. The demand for these qualifications through higher level occupations exists. However, some high qualified might not find adequate employment at their level of qualification. There seem to be shortages of low qualified personnel replacing older workers at the lower end, but also for some growing sectors. It is expected that there will be shortages in these occupations leading to hiring difficulties.

## 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)