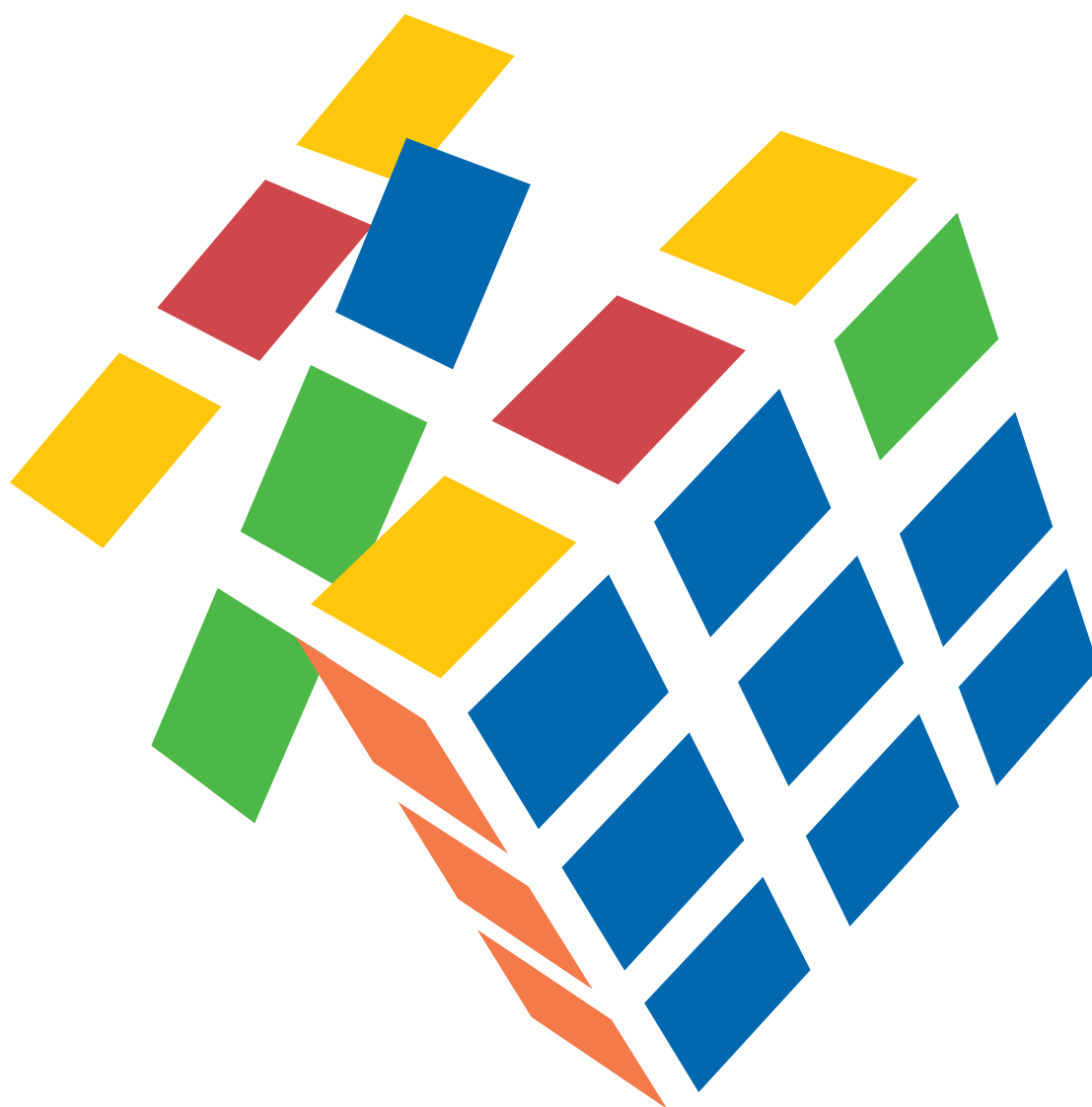




CEDEFOP

European Centre for the Development
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EN



2020 skills forecast Portugal



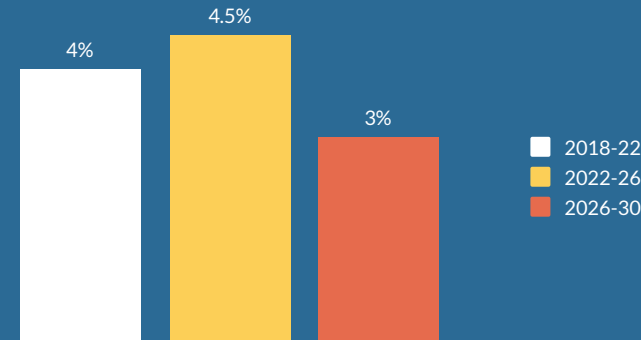


5 392 000

Employment in 2030

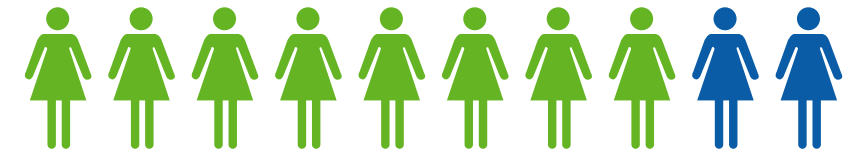
11.5%
Increase
2018-30

% Employment growth 2018-30



3 073 000

Total job openings, 2018-30



Replacement needs (80%)
 New job openings (20%)

FASTEST-GROWING SECTORS

Growth per year 2018-30

Business and other services 1.8%



Construction 1.6%



HIGHEST-DEMAND OCCUPATIONS

Total job openings 2018-30

255 000

Business & administration
associate professionals

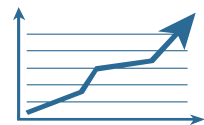
214 000

Cleaners and helpers

183 000

Personal service workers

Total job openings by qualification level 2030:



4.4%

Increase
in employment
in 2018-30



Fastest-growing sector
Non-marketed services



Highest-demand occupation
Business & administration associate
professionals

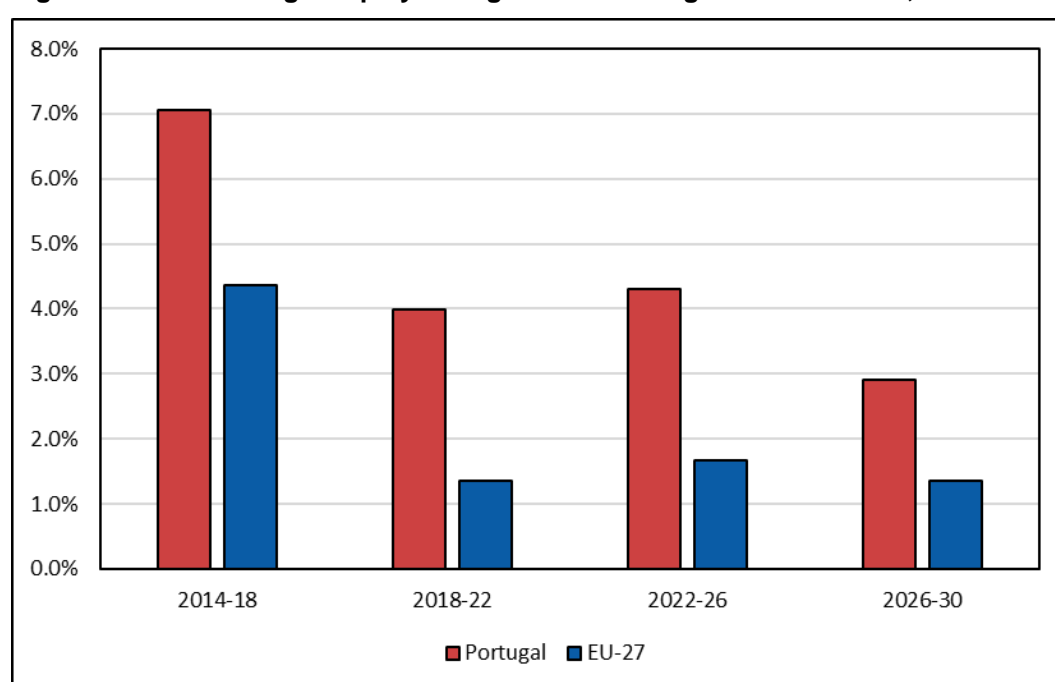
41% Increase in high-skilled
labour supply 2018-30



1. Employment outlook

As shown in Figure 1, employment growth in Portugal over 2018-30 is forecast to slow from the high rates of increase seen over 2014-18 – a trend that is common across EU-27. However, the employment outlook remains positive, with growth estimated to reach 4% over 2018-22, 4.3% over 2022-26 and 2.9% over 2026-30. Therefore, employment growth in Portugal is expected to be more than twice as fast as the EU-27 average over the whole of the forecast period.

Figure 1. Percentage employment growth in Portugal and the EU-27, 2014-30



Source: Cedefop (2020 Skills Forecast).

2. Labour force overview

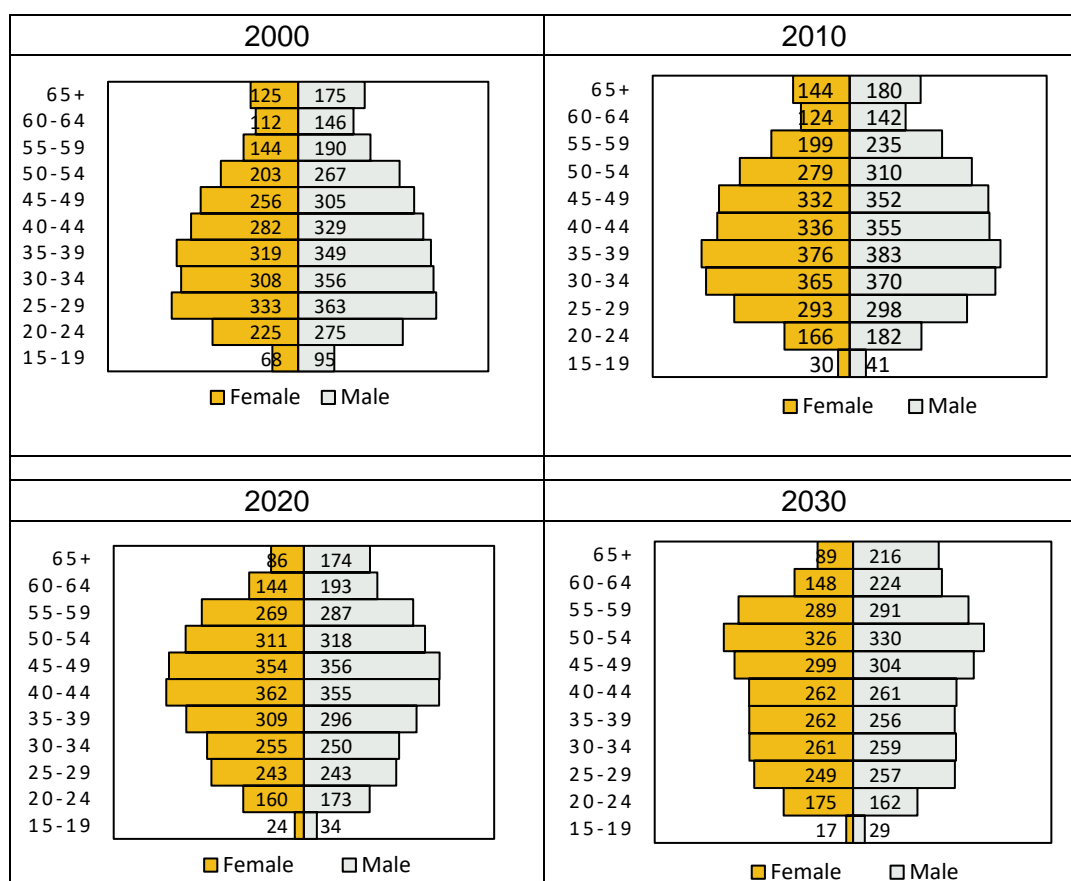
Figure 2 presents the evolution of the distribution of labour force in Portugal by age and gender between 2000 and 2030. The changes in the distribution of the labour force over the period are driven by the ageing of the population and a decline in labour force participation rates in the youngest and oldest age groups for both sexes. Ageing of the Portuguese labour force can clearly be observed. While in 2000, 25-39 year-olds were the largest age groups within the labour force, by 2030 the largest labour force groups will consist of those aged 45-59.

Over 2020-30, while the population is expected to continue to age, some of the negative trends in participation rates are expected to unwind. The population of those aged over 65 in Portugal is forecast to increase by nearly 17% between 2010 and 2030 and the number of over-65 year-olds in the labour force is expected to grow at a similar rate over the same period, as little change is projected in the labour force participation rate within that age group in the next 10 years. This is a turnaround from the fall in participation rates for this age group seen over the past 10 years or so.

The decline in the participation rate of those aged 15-19 seen over the last 20 years for both genders is also expected to come to an end, with only a slight fall over 2020-30 for females and a slight increase for males over the same period.

Overall, though, the labour force in Portugal is expected to fall by 4% over 2020-30, due to a slight fall in population and a fall in the overall participation rate due to the ageing of the population.

Figure 2. Distribution of the labour force (thousands), 2000-30



Source: Cedefop (2020 Skills Forecast).

3. Sectoral employment trends

Figure 3 presents average annual growth in employment across broad economic sectors in three sub-periods between 2014 and 2030.

Growth in employment is not expected to be distributed evenly across all economic activities. The strongest growth is forecast for the *business and other services* sector, with average growth of 1.8% pa over 2018-22, and 1.9% pa over 2022-30. The sub-sectors contributing to such rapid growth include *computer programming & information*, *architectural and engineering services*, where the average growth rate over the forecast period is expected to remain above 2% pa. The increase in the latter sub-sector is in line with the increase in the *construction* sector.

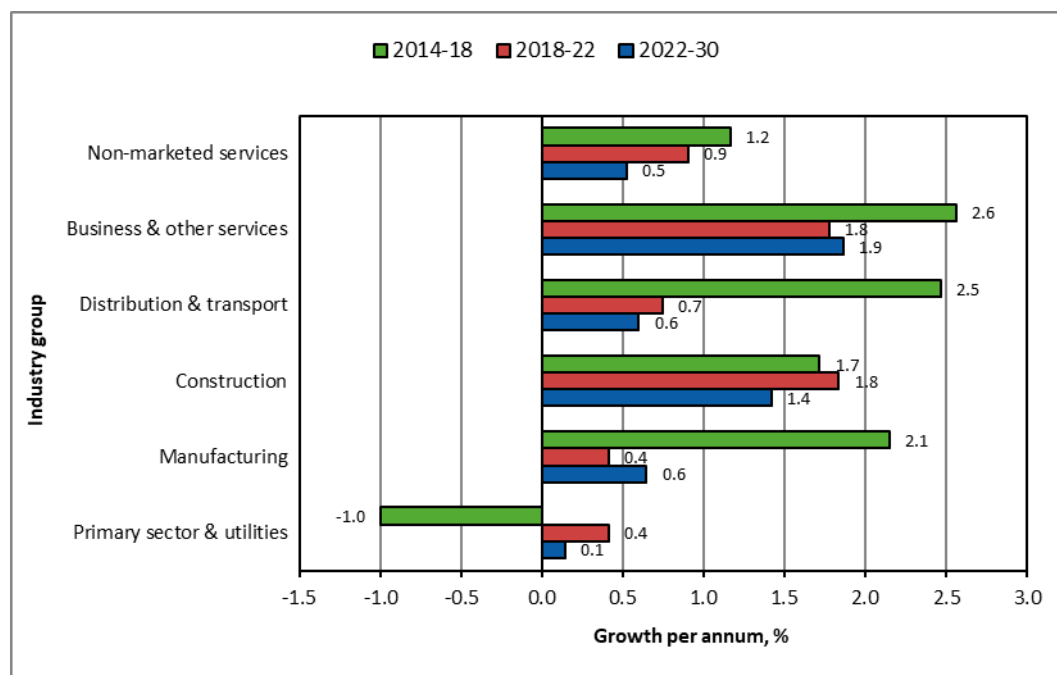
The *construction* sector is the only other broad sector with above-average employment growth, predicted to reach 1.8% pa over 2018-22 and 1.4% pa over 2022-30. Recent strong growth in this sector has been associated with strong growth in the tourism sector in the country, particularly in Lisbon and Porto. Growth in the *non-marketed services* sector (which includes activities such as *education*, *healthcare* and *public admin*) is expected to slow from its 2014-18 rate to 0.9% pa over 2018-22 and to 0.5% pa over 2022-30. This broad sector is limited in growth by budgetary constraints.

Employment in the *manufacturing* sector is also expected to increase slowly over the forecast period, in contrast with the trend of rapid growth observed over 2014-18.

Primary sector² & utilities is the only broad sector which registered a decline in employment over 2014-18. While employment in the sector is forecast to remain relatively stable over the forecast period, its growth rate is the lowest among all broad sectors, at 0.4% pa over 2018-22 and 0.1% pa over 2022-30.

(²) Primary sector includes activities such as agriculture, forestry and mining.

Figure 3. Employment growth by broad sector of economic activity, 2014-30



Source: Cedefop (2020 Skills Forecast).

4. Job openings by occupational group

The Cedefop skills forecast estimates 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 due to the expansion 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 2018-30. The number of job openings is determined by the amount of jobs lost/newly created and by the amount of jobs that are created mainly following the retirement of older workers. Most jobs will come from this need to replace workers retiring or changing occupations.

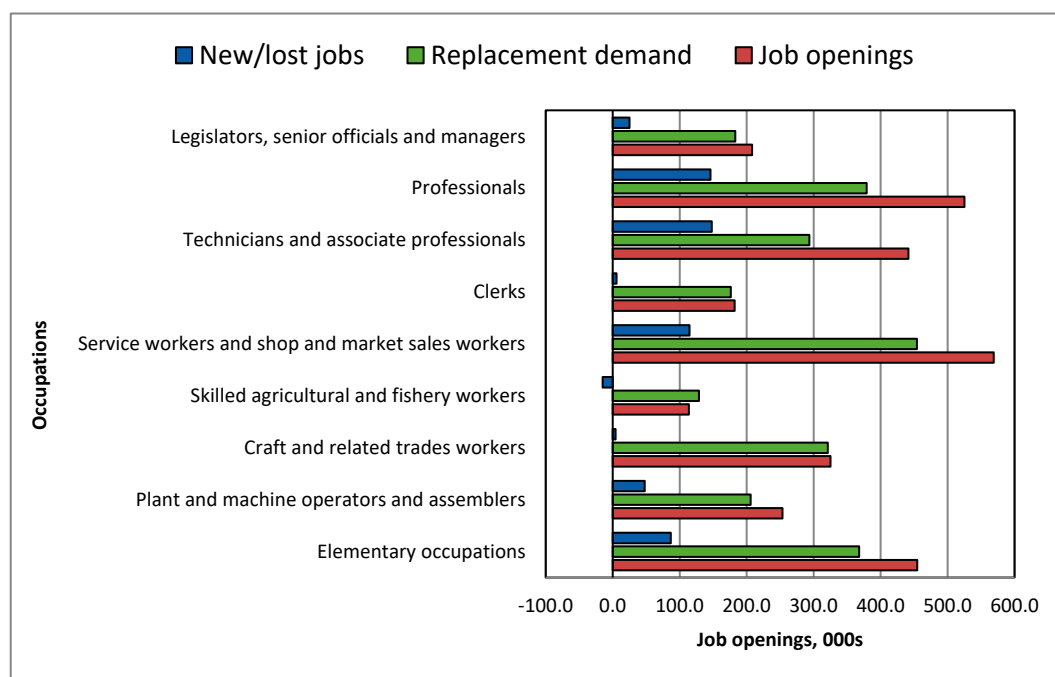
In total, 561,000 new jobs are expected to be created across all occupations, accounting for 18% of all job openings (3.1m) in the period 2018-30, with the remaining 2.5m job openings coming from replacement demand. The share of

new jobs in Portugal in all job openings is therefore projected to be higher than in most other EU-27 countries, contributing to an expected decline in unemployment in Portugal.

The Portuguese economy is forecast to create new jobs across nearly all occupational groups. However, the greatest numbers of new jobs will be created in *professional, associate professional and technician* occupational groups. Among these occupations, additional jobs will be created for *business and administration professionals and associate professionals* (129 000), *science and engineering professionals* (48 000) and *health professionals and associate professionals* (43 000).

On the other hand, very few new jobs will be created in medium-skilled positions, such as *clerks* and *craft and related trade workers*. Job openings in these occupations will come from replacement needs. At the same time, negative net job creation is expected in the *skilled agricultural and fishery* occupational group, due to a decline in jobs in *subsistence agriculture*.

Figure 4. Job openings by broad occupational group, 2018-30



Source: Cedefop (2020 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).

An increasing specialisation in some sectors will influence the occupational composition of employment in Portugal. This is reflected in stronger occupation-specific effects, leading, overall, to increasing shares of *managers* and *professionals*, especially for *health associate professionals*. These changes reflect changes in job organisation in many sectors, in many cases an increasing specialisation. Also, the share of *service workers* is forecast to increase as well as the share of *plant and machine operators and assemblers* and workers in *elementary occupations*. 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 and business professionals*, *managers*, as well as *business and other associate professionals* and *health associate professionals*.

The overall effect of occupational change therefore depends on a number of factors that need to be considered together. Increasing digitisation and moves towards a service-oriented economy, including within manufacturing, will lead to a greater use of higher-level occupations. At the other end of the spectrum, all lower-level occupations seem to be decreasing with the exception of *assemblers*.

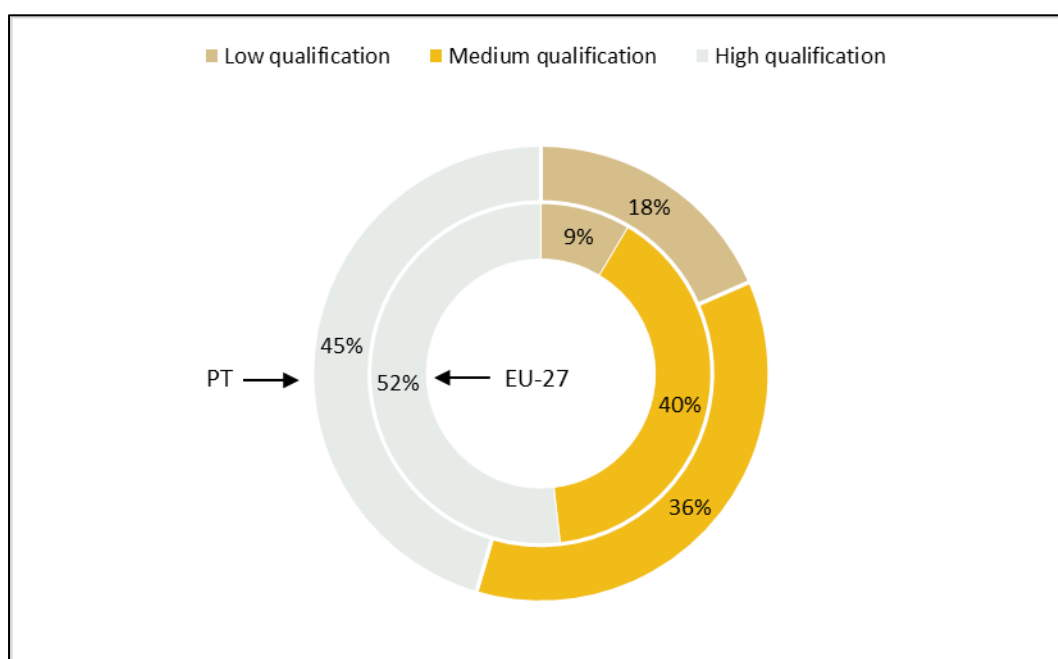
The share of workers in intermediate occupations, in Portugal, overall, is forecast to increase, especially market-oriented skilled agricultural, forestry, fishing and hunting workers in elementary occupations, and in building and metal machinery and related trades. In Portugal, automation within the sectors does not seem to affect industry-based workers with medium qualifications. Clerical work sees a decrease in its employment share in all but customer service clerks.

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 (45%) of the total job openings that are expected to be created in Portugal over the period up to 2030 will require high level qualifications, about 7 pp less than the EU-27 average. More than one third of total job openings will require medium level qualifications and 18% will require low level of qualifications

Figure 5. Shares of total job openings by level of qualification, 2018-30

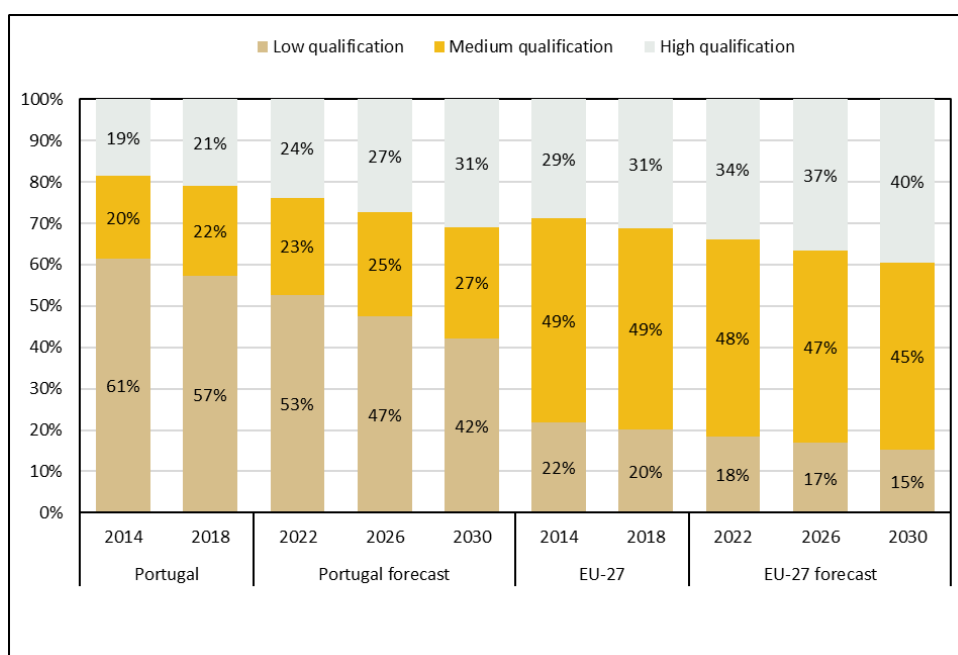


Source: Cedefop (2020 Skills Forecast).

Total job openings are highest among *elementary occupations*, followed by *technicians and associate professionals*, and *legislators, senior officials and managers*. Among the higher qualified occupations, *science and engineering (associate) professionals* along with *business and administration 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, 2014-30



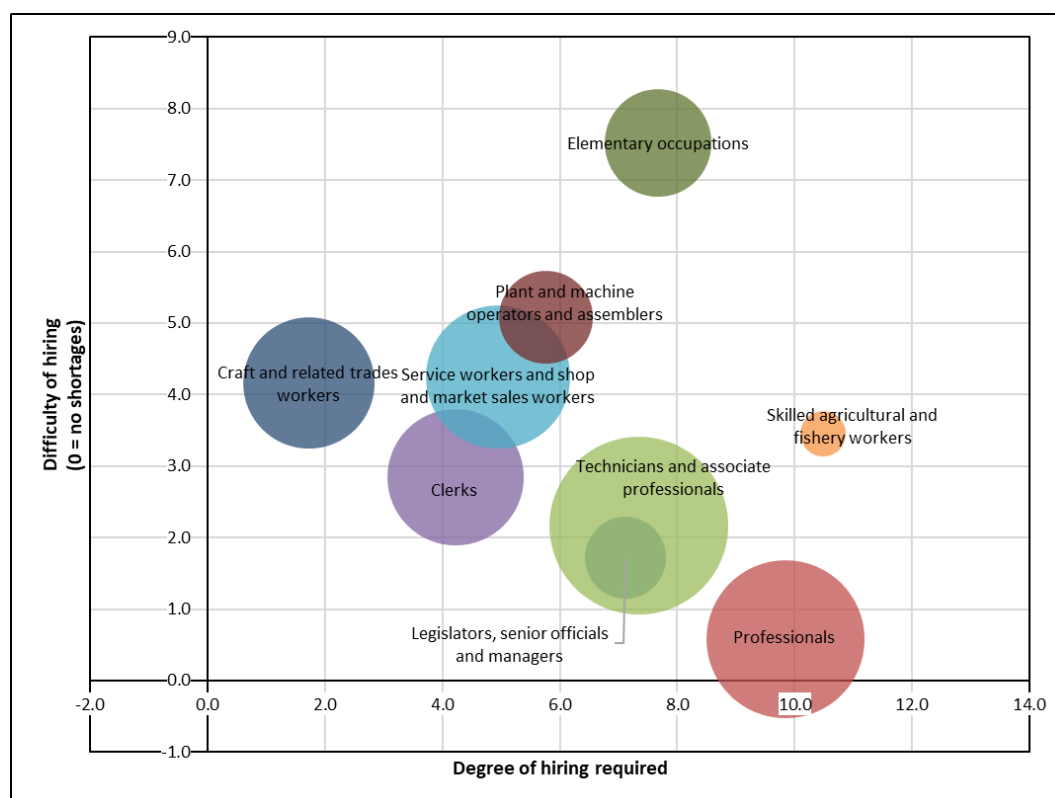
Source: Cedefop (2020 Skills Forecast).

In general, Portugal is expected to experience substantial changes in shares of qualifications in the labour force over 2018-30, as can be seen from Figure 6. The share of low qualified is expected to drop significantly, from 57% in 2018 to 42% in 2030. Despite this, the share of workers with low qualifications is expected to remain at a much higher level than the EU-27 average. Policies aimed at addressing the problem of a high proportion of workers with low qualifications in Portugal, such as the Qualifica Program, could, however, 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 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), 2018-30



N.B: Indicators were calculated at the level of the underlying two-digit occupation groups. Aggregation was based on the employment weights within each one-digit occupation group.

Source: Cedefop (2020 Skills Forecast).

Figure 7 shows that occupations within *professionals* are forecast to experience large changes (in terms of qualifications required) that will require the hiring of new workers, mainly highly qualified workers. It is not expected that there will be many hiring difficulties for this group, however, as the required high qualified job-seekers are not projected to be in shortage. *Skilled agricultural and fishery workers* are expected to experience higher levels of hiring, mainly for lower and intermediate qualified personnel, and there are some hiring difficulties. Elementary occupations 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.

Hiring difficulties among professionals are very low across the underlying occupations. The degree of hiring required differs, though, especially for information and communications technology professionals (48), but also among business and administration professionals (29) and science and engineering professionals (28) being well above the average of professionals (19), while the degree of hiring required among health professionals (9) and especially teaching professionals (1) is well below the average.

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. At the lower end there seem to be shortages of low qualified personnel replacing older workers, but also for some growing sectors. It is expected that there will be shortages in these occupations leading to hiring difficulties.

Cedefop methodology and scenarios

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 2030. The forecast takes account of global economic developments up to May 2019. The European economy is continued to expand for the seventh year in a row in 2019, with real GDP growing in all EU Member States. As global uncertainties continue to weigh, domestic dynamics are set to support the European economy. The key assumptions of the baseline scenario incorporate the Eurostat population forecast available in May 2019 (Europop 2015) ⁽³⁾ and the short-term macroeconomic forecast produced by DG ECFIN in May 2019 ⁽⁴⁾.

The Cedefop Skills forecast was developed before the global Covid-19 pandemic had begun. The short-term economic impacts of the pandemic and subsequent lockdowns in many countries are very uncertain, and therefore the current short-term forecast is likely to be over-optimistic. However, the key long-term factors (such as the ageing population, increasing use of automation/artificial intelligence, globalisation, resource scarcity and moves towards a carbon neutral economy) will still hold as the EU Member States put plans in place to deal with the virus and their economies move forwards. The trends in the longer-term forecast are therefore still likely to hold.

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

<http://www.cedefop.europa.eu/el/events-and-projects/projects/forecasting-skill-demand-and-supply>



⁽³⁾ <https://ec.europa.eu/eurostat/web/population-demography-migration-projections/population-projections-data>

⁽⁴⁾ https://ec.europa.eu/info/business-economy-euro/economic-performance-and-forecasts/economic-forecasts/spring-2019-economic-forecast-growth-continues-more-moderate-pace_en



For more details, please contact Cedefop's Skills Forecast team at: Skills-Forecast@cedefop.europa.eu

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