European Centre for the Development
of Vocational Training

EN

2023 skills forecast
Spain

cedefop

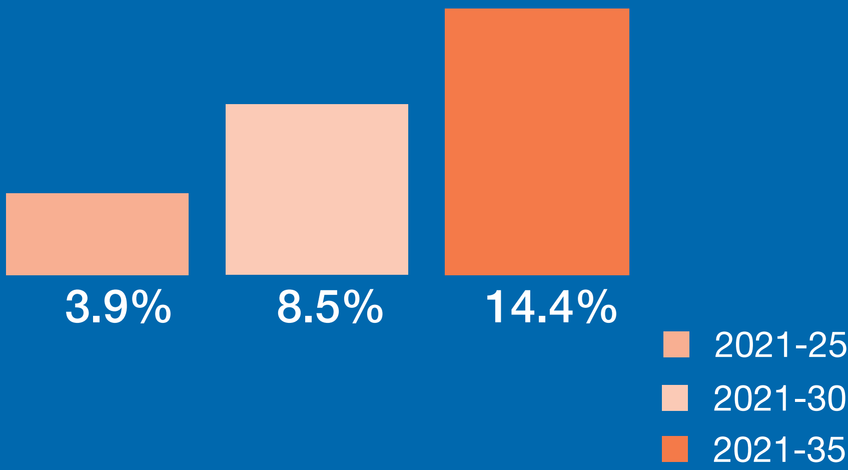
SKILLS FORECAST 2023 SPAIN

Employment in 2035

22 875 000

14.44% increase 2021-35

% Employment growth 2021-35



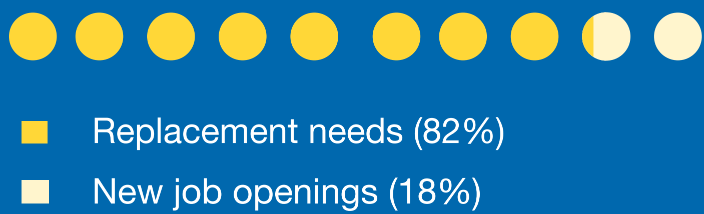
Fastest-growing sectors

2021-35% growth

- 41% — Water supply, sewerage, waste management & remediation activities
- 35% — Information & communication

Total job openings, 2021-35

16 163 000



Highest-demand occupations

Largest creation of new jobs, 2021-35

- 386 000 — Personal service workers
- 337 000 — Customer services clerks
- 249 000 — Labourers in mining, construction, manufacturing & transport

45% increase in high-skilled labour demand 2021-35

Total job openings by skill level 2021-35

EU overview 2035

3.4% employment increase in 2021-35

Fastest growing occupation
Legal, social and cultural professionals

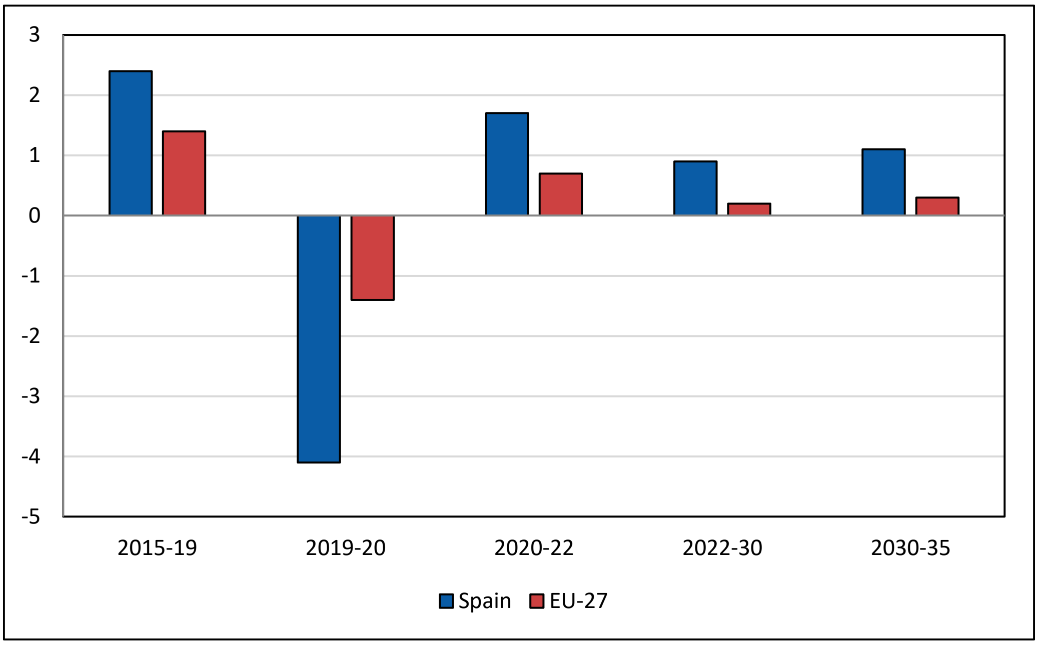
Fastest growing sector
Information and communication

Cedefop skills forecast: Spain

1. Employment outlook

Employment in Spain is forecast to grow slightly faster than the EU-27 average, albeit at somewhat slower rates than seen in 2015-19. Figure **1** shows that employment in Spain grew faster than the EU-27 average over 2015-19, but fell more sharply in 2020 as the Covid-19 pandemic hit. Employment in Spain is also estimated to have bounced back much more strongly than the EU-27 over 2020-22. Across the forecast period, employment in Spain is forecast to grow by around 1% pa compared with growth of 0.2-0.3% pa for the EU-27 as a whole.

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



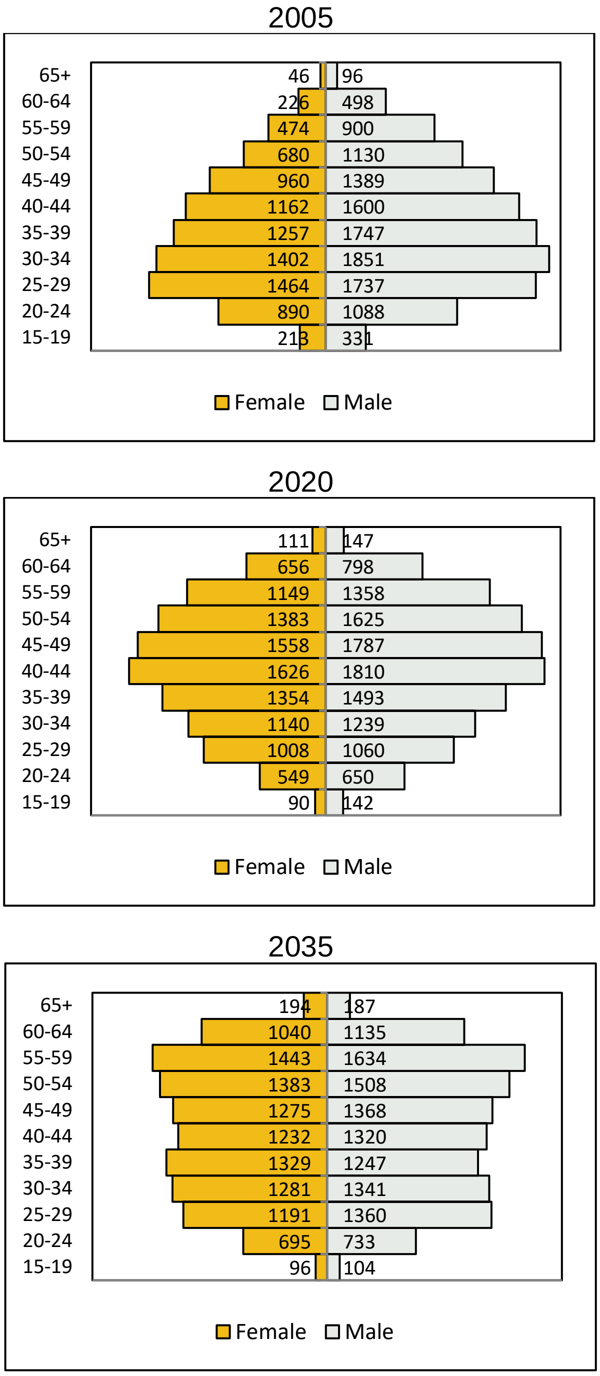
Source: Cedefop (2022 Skills Forecast).

2. Labour force overview

Figure 2 shows Spain's labour force by age group in 2005, 2020 and 2035. Changes in the labour force in Spain 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 Spain is projected to increase by around 1.5% over 2020-35, compared with growth of 7.5% 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 as a whole. The total participation rate in Spain is forecast to fall by 3 pp 2020-35, despite increasing rates in almost all age groups, and due to falling population in some key age groups, compared with an increase of 1 pp in the total rate for the EU-27. Total population is forecast to grow by 6.5% over 2020-35, compared with growth of just over 9% over 2005-20.

The population aged 15-19 and 35-54 in Spain is forecast to decline strongly over 2020-35, while the population in the remaining age groups is forecast to grow strongly, reflecting trends in the relevant younger cohorts in preceding periods. The participation rates of all age groups between 20 and 64 in Spain are forecast to increase over 2020-35 by 3-8 pp. Female participation rates in Spain are generally forecast to increase by more than male rates, apart from for 25-29 year olds where the reverse is projected. Overall, due to the combination of the changes in population by age group and the changes in participation rate by age group, the total participation rate for females is forecast to fall by 1 pp and that for males is forecast to fall by 4 pp over 2020-35.

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

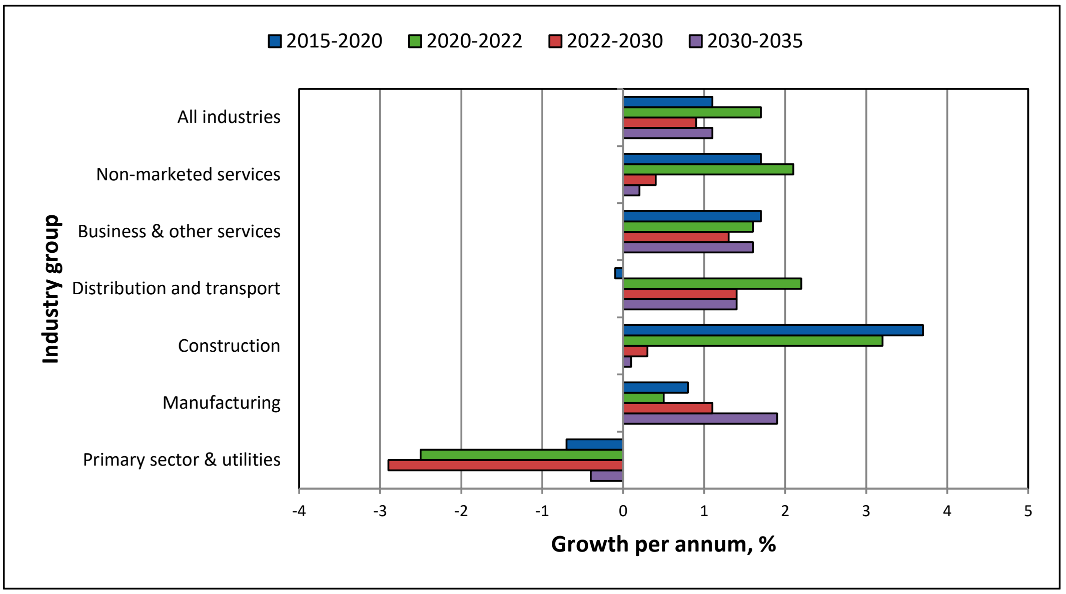


Source: Cedefop (2022 Skills Forecast).

3. Sectoral employment trends

Figure 3 shows annual average employment growth by broad sector in Spain between 2015 and 2035. Employment in Spain is expected to continue to grow over the forecast period in all broad sectors apart from Primary sector & utilities. The strongest growth over 2022-30 is forecast for *Distribution & transport* (1.4% pa), *Business & other services* (1.3% pa), and *Manufacturing* (1.1% pa).

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), growth in employment in *Distribution & transport* is forecast to be driven mainly by growth in *accommodation & catering services* and *wholesale & retail trade*. Growth in *Business & other services* is forecast to be driven by *arts & entertainment*, *media*, *architectural & engineering services*, *computer programming & information services*, *real estate activities*, *research & development*, *market research and other professional services* and *administrative & support services*. Within *Manufacturing*, growth is expected to be strongest in *optical & electronic equipment*, *motor vehicles*, *transport equipment, machinery & equipment* and *electrical equipment*. Despite the overall decline in employment forecast for the *Primary sector & utilities*, the sub-sectors of *water supply* and *electricity supply* are forecast to see relatively strong growth in employment over this 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 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).

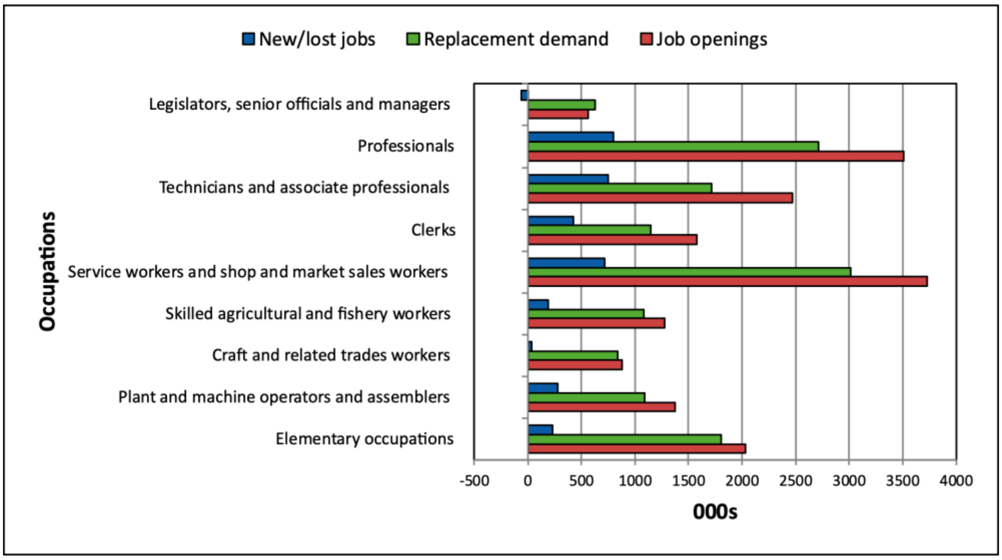
Figure 4 presents the total job openings by broad occupational group over 2020-35. The number of job openings is determined by the number of jobs lost/ newly created and by the number of jobs that need to be filled following the retirement of older workers or the movements of workers to other occupations.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

Among the broad occupations, only *Legislators, senior officials & managers* and *Craft & related trades workers* are forecast to see little or no expansion in jobs. All broad occupations are projected to see a fairly substantial replacement demand. *Professionals*, *Technicians & associate professionals* and *Service workers & shop & market sales workers* are expected to see the strongest growth in jobs, while *Service workers & shop & market sales workers*, *Elementary occupations* and *Professionals* are projected to see the greatest replacement demand. In total, the number of jobs is forecast to increase by 3.3 million, while replacement demand is projected to be 14 million. So the total number of job openings is forecast to be more than 17 million.

At a more detailed level, most job openings (taking both new/lost jobs and replacement needs together) are generally expected to be in skilled non-manual and high-skilled non-manual occupations. *Personal service workers, sales workers* and *customer services clerks* (skilled non-manual) are expected to see the greatest number of job openings, accounting for 9%, 8% and 6%, respectively of all job openings. This will be driven by relatively strong increases in the number of jobs and strong replacement demand. Among high-skilled non-manual occupations, teaching professionals and business & administration associate professionals are expected to see a large number of job openings (6% of total), also driven by strong expansion demand and greater replacement demand. Among skilled manual occupations, *building & related trades workers* and *drivers & mobile plant operators* are also forecast to see many job openings, accounting for 5% of total openings.

Among *elementary* occupations, job openings are projected to be relatively low, although *cleaners & helpers* and *labourers in mining, construction & transport* are expected to account for around 4% of total openings each, with the former due to very high replacement demand compensating for a strong fall in the total number of jobs.

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 Spain is mainly characterised by changes in the level of occupational specialisation and, in fewer cases, by changes in industry size. Stronger occupation-specific and industry effects will lead, overall, to an increasing share of some types of *managers*, *professionals*, *technicians and other associate professionals, customer and services clerks, assemblers, and labourers in mining, construction, and manufacturing and transport*. High-skilled occupations that can benefit from these trends are, for example, *professionals and associated professionals in science and engineering*, *administrative and commercial managers*, and, in particular, *legal, social, cultural and related associate professionals* and i*nformation and communications technicians*. Despite the expected positive change in the share of *health professionals* and especially for *health associate professionals*, the industry size effect is high and negative.

The overall effect of occupational change will therefore depend on a number of factors that need to be considered together. Increasing automation and digitisation, moves toward a service-oriented economy, including within manufacturing, will lead to greater use of higher-level occupations at the expense of some medium and low-level occupations. However, each of the three levels of occupations, high-medium- and low-skill, is expected to increase, especially among highly skilled occupations. Among lower-level occupations only *cleaners, refuse, street and related service occupations* is expected to decrease slightly.

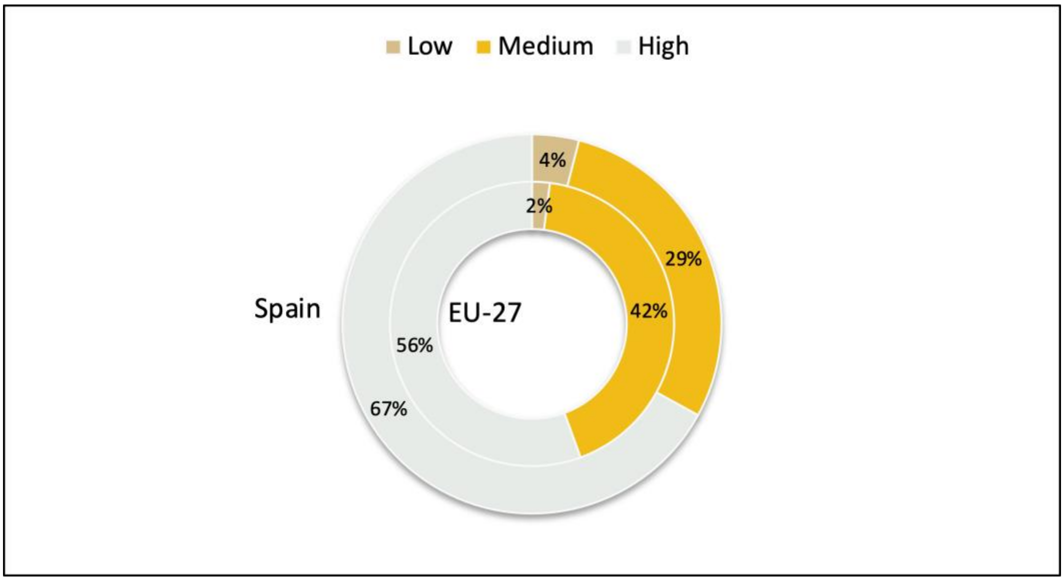
The only intermediate occupations projected to decrease are *handcraft and printing workers* and *food processing, wood working, garment and other craft and related trades*. Meanwhile, *assemblers* represent the strongest and most promising occupation.

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.

Figure 5 shows that two-thirds of total job openings (67%) that are expected to be created in Spain over the period up to 2035 will require high level qualifications, about 9 pp above the EU-27 average. 29% of total job openings will require medium level qualifications, while 4% is for low qualified.

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

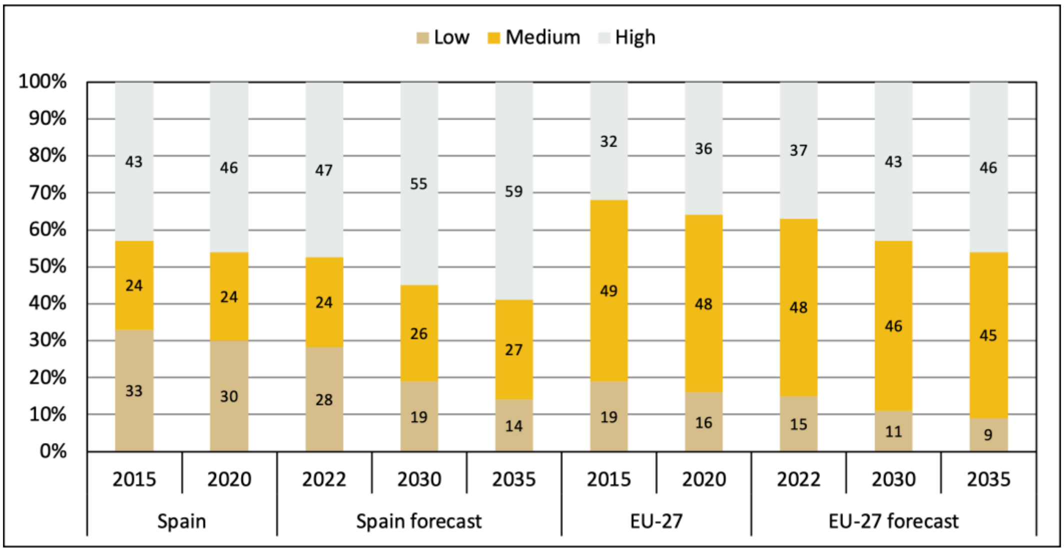


Source: Cedefop (2022 Skills Forecast).

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** shows the changes in shares of qualifications in the labour force in Spain and the EU-27 as a whole over 2022-35. The share of people with high level qualifications in Spain is high and expected to increase, reaching 59% in 2035 while remaining the largest qualification group. There has been a steady decline in the share of low educated, which is expected to continue. Whereas 28% of the labour force was low educated in 2022, their share is expected to drop to 14% by 2035. The share of medium qualified labour force will increase slightly, towards 27% in 2035. In Spain, the share of labour force with low qualifications remains higher than the EU-27 average.

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



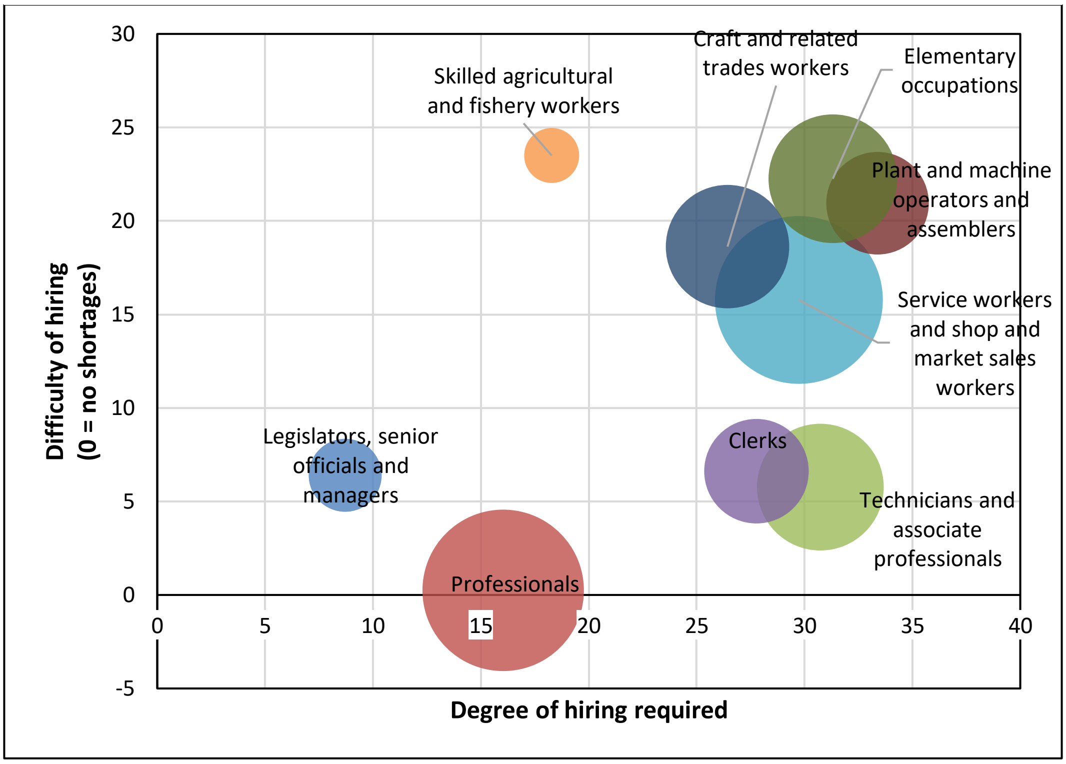
Source: Cedefop (2022 Skills Forecast).

Overall, in Spain, the supply of low skilled workers is not expected to be enough to meet the demand. Therefore, some positions requiring low skills might be filled by those with medium or even high qualifications.

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, 2022-35**



Source: Cedefop (2020 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 lower occupations experience the strongest changes that will require the hiring of new workers. It is also expected that there will be hiring difficulties for this group, as they require also low qualified job-seekers who are projected to be in shortage (almost all low to intermediate level occupations).

Skilled agricultural and fishery workers take on a middle position. While it has lower (yet still high) degree of hiring required, it remains among the group with the highest difficultiy of hiring, showing its strong reliance on low qualified personnel.

Hiring difficulties among *Professionals* and *Legislators and managers* are reasonably low and very similar across the underlying occupations. The degree of hiring required will differ somewhat and is driven by the underlying growth.

The imbalances in the Spanish labour market are expected to be at the lower end of the qualification scale. Within the higher qualified, the additional requirement of sufficient supply within each field of study adds to potential imbalances together with the danger of employment below the level of qualification.

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) ([1]), and the short-term macroeconomic forecast produced by DG ECFIN in May 2022 ([2]). 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.

([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

For the latest update and access to more detailed Cedefop skills forecast data visit our Skills forecast project page.

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