CEDEFOP

European Centre for the Development
of Vocational Training
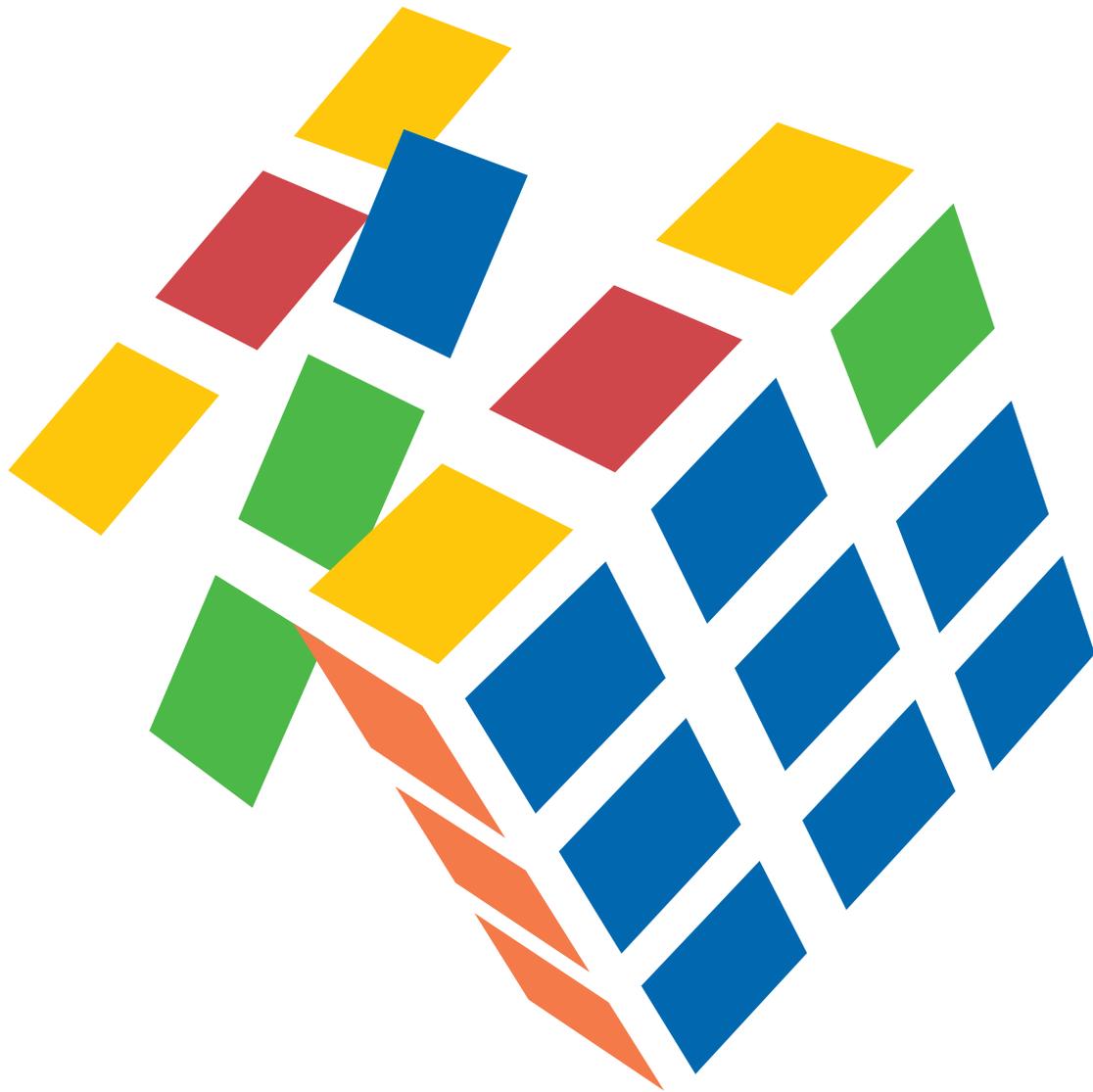
2020 skills forecast

Spain
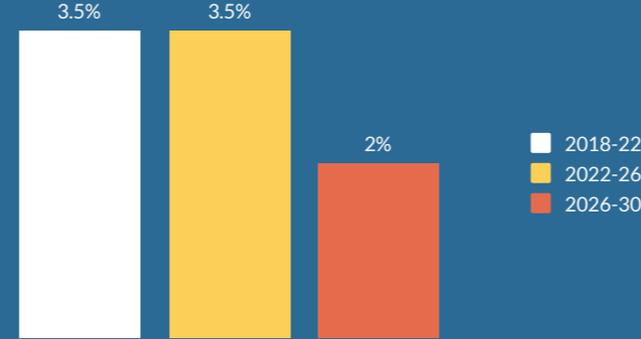
% Employment growth 2018-30

3.5%
3.5%
2%

□ 2018-22
■ 2022-26
■ 2026-30

21 526 000

Employment in 2030

9%
Increase
2018-30

12 073 000

Total job openings, 2018-30

■ Replacement needs (90%)
■ New job openings (10%)
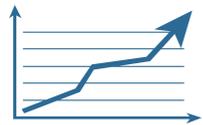
FASTEST-GROWING SECTORS
Growth per year 2018-30

Construction — 1.7%

Distribution & transport — 1.2%

HIGHEST-DEMAND OCCUPATIONS
Total job openings 2018-30

1 161 000 — Sales workers

1 029 000 — Personal service workers

871 000 — Customer service clerks

Total job openings by qualification level 2030:

12% Low

34% Medium

54% High

4.4%
Increase
in employment
in 2018-30

EU
overview
2030

Fastest-growing sector
Non-marketed services

Highest-demand occupation
Business & administration associate professionals

10% Increase in high-skilled labour supply 2018-30

1. Employment outlook

Employment growth in Spain is forecast to continue, although at a slower rate than the rapid expansion observed over 2014-18. Employment is forecast to grow by 3.5% over 2018-22, 3.6% over 2022-26 and 1.8% over 2026-30.

These growth rates are much higher compared to the EU-27 average, although they are expected to decline and converge to the EU-27 average rate towards the end of the forecast period. This signifies a recovery of the Spanish labour market from the long-standing high levels of unemployment during the financial crisis.

Figure 1.   Percentage employment growth in Spain and the EU-27, 2014-30
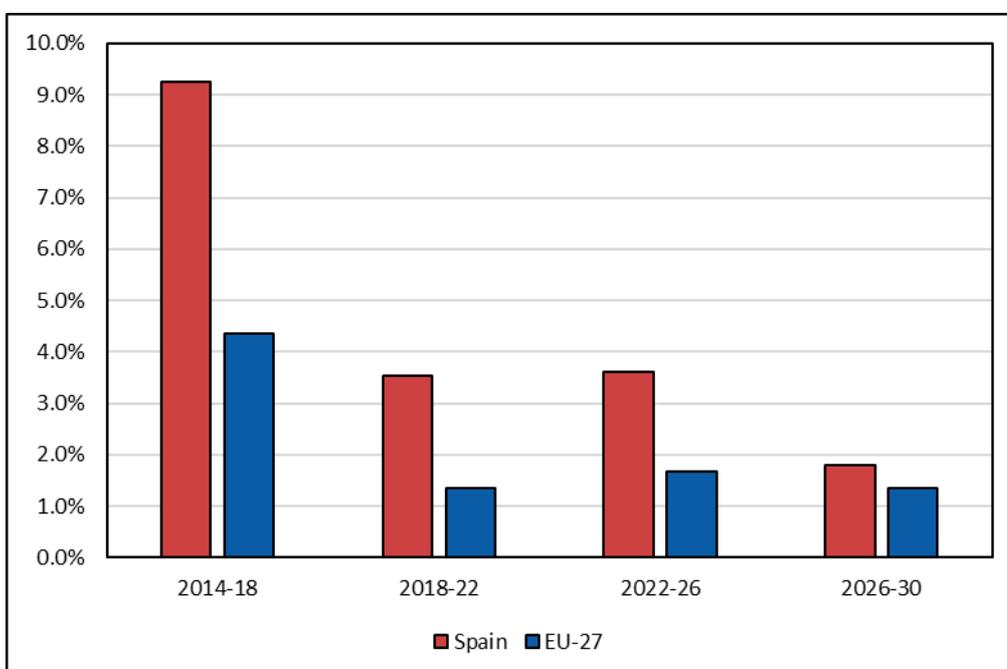
Source: Cedefop (2020 Skills Forecast).

2. Labour force overview

Figure 2 presents the evolution of the distribution of labour force in Spain by age group and sex between 2000 and 2030. Changes in the distribution of the labour force in Spain over that period are driven by ageing of the general population, a common trend observed across EU-27 countries. Spain is also expected to experience high levels of immigration in the next ten years, leading to an increase in the labour force. In addition, projections for the 2020-30 period

suggest that labour force participation rates will increase significantly for the 65+ year-old group: from 4% in 2020 to 14% in 2030 for males, and; from 2% in 2020 to 9% in 2030 for females. Such large increases can be linked to the gradual increases in the retirement age from 65 to 67 over that period and the ageing demographic structure of the population – by 2030, over 65 year-olds are expected to account for 16% of the working-age population, up from 11% in 2000.

At the same time, the demographic change can be observed across younger groups. While in 2020 the most populous labour force groups included those aged between 35 and 49, by 2030 the most populous groups are expected to consist of those aged between 45 and 59.

Labour force participation rates for men aged between 25 and 59 are projected to remain relatively unchanged between 2020 and 2030. However, for females, labour force participation is expected to increase significantly, from 84% in 2020 to 93% in 2030 for females aged 30-34, from 86% in 2020 to 96% in 2030 for females aged 35-39 and similarly for females aged between 40 and 59. By 2030 female labour participation rates in most age groups are expected to be relatively close to male counterpart age groups.

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

	2000		2010

2000

Age	Female	Male
65+	38	71
60-64	162	393
55-59	300	772
50-54	487	1,045
45-49	673	1,168
40-44	898	1,358
35-39	1,027	1,513
30-34	1,128	1,593
25-29	1,267	1,514
20-24	893	1,050
15-19	236	321

2010

Age	Female	Male
65+	93	144
60-64	592	758
55-59	1,099	1,368
50-54	1,372	1,635
45-49	1,507	1,777
40-44	1,635	1,834
35-39	1,355	1,469
30-34	1,080	1,172
25-29	981	1,043
20-24	607	658
15-19	113	155

2020

Age	Female	Male
65+	65	89
60-64	344	547
55-59	646	1,016
50-54	1,035	1,354
45-49	1,306	1,614
40-44	1,438	1,811
35-39	1,588	1,956
30-34	1,653	1,965
25-29	1,378	1,492
20-24	791	886
15-19	162	230

2030

Age	Female	Male
65+	578	730
60-64	748	1,131
55-59	1,430	1,569
50-54	1,599	1,707
45-49	1,380	1,406
40-44	1,143	1,151
35-39	1,096	1,093
30-34	1,087	1,135
25-29	1,073	1,195
20-24	732	809
15-19	113	145

Source: Cedefop (2020 Skills Forecast).

3. Sectoral employment trends

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

Above average growth in employment is expected in the *distribution and transport* and *construction* sectors. The *construction* sector is expected to see its employment growth of 1.3% pa over 2018-22 and 1.9% pa over 2022-30. Employment in the *construction* sector is generally highly cyclical and follows economic expansions and contractions.

Employment growth in *distribution and transport* is forecast to be 1.9% pa over 2018-22 and 0.8% pa over 2022-30. The sub-sector driving this growth is *wholesale and retail trade*.

Employment in *business & other services* is projected to grow by 0.7% pa over 2018-22, and by 1.0 over 2022-30. Among the sub-sectors driving the increases in this sector are: *financial & insurance activities; admin and support services*; and *accommodation & catering*.

Employment in *non-marketed services* is expected to be driven by growth in *education* and *public administration & defence*.

Despite strong growth over 2014-18, employment in the *manufacturing* and *primary & utilities* sectors is forecast to decline over 2018-30. The decline in *manufacturing* is expected to be driven by declines in *basic metals & metal products*; *textiles, clothing & leather*; and *other machinery & equipment*. However, some *manufacturing* sectors are projected to see an increase in employment, as in the case of *electrical equipment* and *motor vehicles*.

Declines in employment in the *primary* ([2]) *& utilities* sector are expected to be driven by *agriculture*. Nevertheless, some sub-sectors, such as *electricity, gas, steam & air conditioning* and *water supply* are forecast to see increases in employment over the same period, although at relatively moderate rates.

Figure 3.   Employment growth by broad sector of economic activity, 2014-30
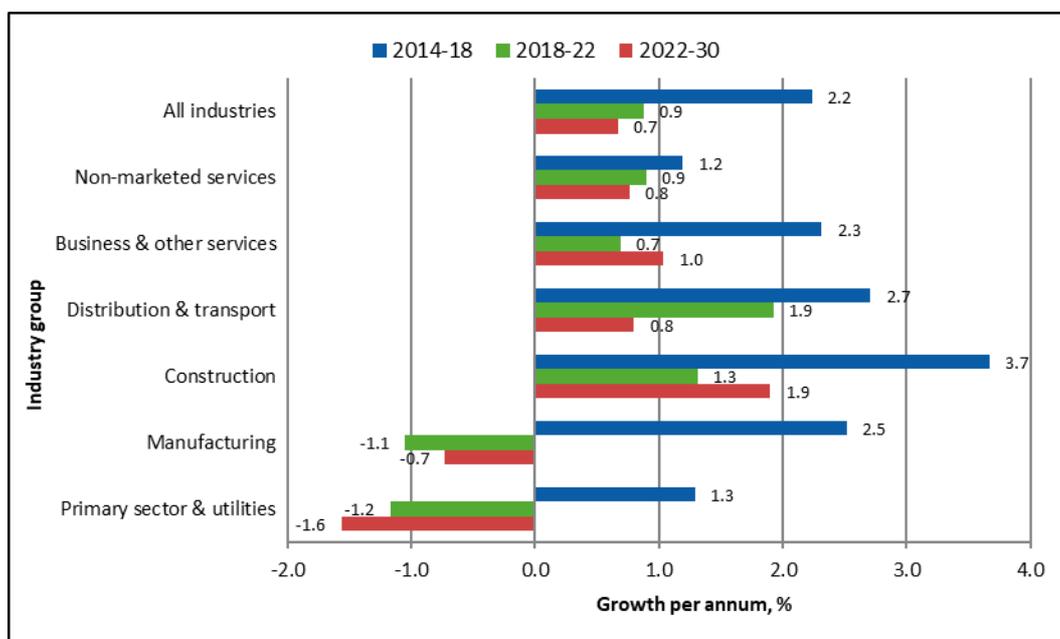
Source: Cedefop (2020 Skills Forecast).

([2])   Primary sector includes activities such as agriculture, fishing, forestry and mining and quarrying.

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 need to be filled following the retirement of older workers or movements of workers to other occupations. Most jobs will come from this need to replace workers retiring or changing occupations.
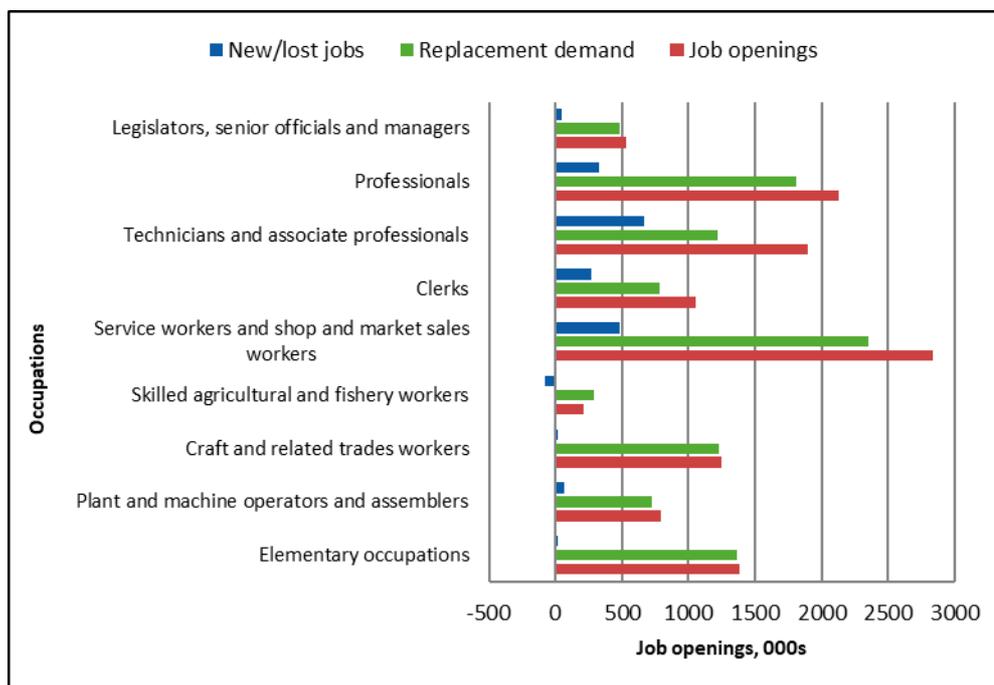
In total, 1.8 million jobs are expected to be created, with new jobs primarily created among high-skilled occupational groups, such as *professionals*, *technicians and associate professionals*, as well as in certain medium and low-skilled occupations, such as *clerks* and *service, shop and market sales workers*.

Among the high-skilled groups, the highest number of new jobs are expected to be created for *legal, social, cultural and related associate professionals* (225 000 new jobs over 2018-30), *business and administration associate professionals* (221 000) and *science and engineering professionals* (147 000). An additional 77 000 jobs are expected to be created for *professionals* in *science and engineering.* This signifies an evolution towards a more knowledge-based economy, with an increasing number of jobs requiring specialised skills.

New jobs among medium-skilled clerks will only be added for *customer services clerks* (352 000), while other clerical groups, including numerical and material recording clerks and other clerical support workers, will shrink between 2018 and 2030.

Job openings in *elementary occupations* and for *plant and machinery operators and assemblers* are expected to be nearly entirely limited to job openings due to replacement demand, as no new jobs will be created in these occupations.

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

Legend: ■ New/lost jobs ■ Replacement demand ■ Job openings

X-axis: Job openings, 000s (-500, 0, 500, 1000, 1500, 2000, 2500, 3000)
Y-axis (Occupations): Legislators, senior officials and managers; Professionals; Technicians and associate professionals; Clerks; Service workers and shop and market sales workers; Skilled agricultural and fishery workers; Craft and related trades workers; Plant and machine operators and assemblers; Elementary occupations

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).

The occupational composition of employment in Spain is mainly characterised both by changes in the level of specialisation within occupations and, in fewer cases, by changes in industry size. Stronger occupation-specific and industry effects will lead, overall, to an increasing share of p*rofessionals* and *legislators, senior officials and managers, technicians and other associate professionals* as well as c*ustomer and services clerks*. The only noticeable change in industry size is the one underlying the increase in *teaching professionals* and s*ales workers*. High-skilled occupations that can benefit from these trends are, for example, *professionals*, *administrative and commercial managers*, t*echnicians and associate professionals,* and, in particular, *legal, social, cultural and related*

associate professionals and i*nformation and communications technicians*. The share of highly qualified workers in *personal service workers, sales workers,* and *plant machine operators and assemblers* is also expected to increase.

The overall effect of occupational change will therefore depend on a number of factors that need to be considered together. Increasing digitisation and moves toward a service-oriented economy, including within manufacturing, will lead to a greater use of higher-level occupations at the expense of some medium and low-level occupations. Among lower-level occupations only some among *customer services clerks* and *elementary occupations* are forecast to increase, while all the others are forecast to decrease.

Intermediate occupations are forecast overall to decrease slightly. Among the medium-qualified occupations becoming stronger there are those supporting production such as *building and related trade and metal machinery workers*, *skilled agricultural and fishery 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 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.

Error! Reference source not found. shows that almost half of total job openings (46%) that are expected to be created in Spain over the period up to 2030 will require high level qualifications, about 6 pp lower than the EU-27 average. Just over one third of total job openings will require low medium level qualifications, also slightly (4 pp) lower than the EU-27 average. This means that around one fifth of the job openings will be for workers with low level qualifications, double the share for the EU-27 as a whole.

Figure 5.   **Shares of total job openings by level of qualifications, 2018-30**
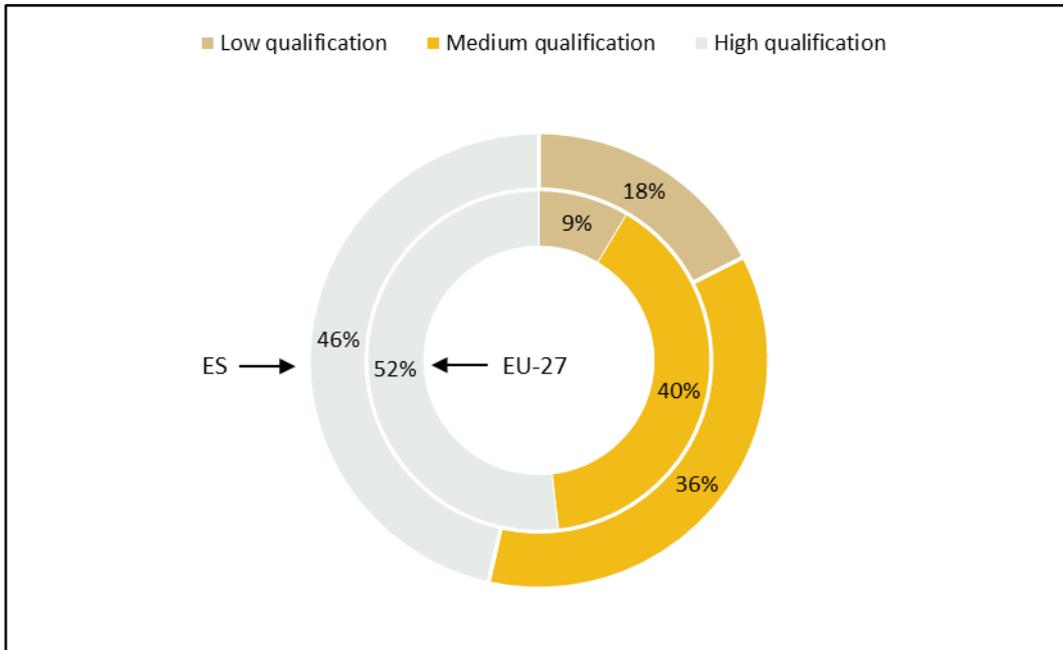
Source: Cedefop (2020 Skills Forecast).

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 2018-30. The share of people with high level qualifications in Spain is expected to increase slightly, reaching 38% in 2030 while remaining the largest qualification group. There has been a steady decline in the share of low educated which is expected to continue. Whereas 37% of the labour force was low educated in 2018, their share is expected to drop to 30% by 2030. The share of medium qualified labour force will increase, towards 32% in 2030. In Spain, the share of labour force with low qualification remains substantially higher than the EU-27 average.

**Figure 6.   Labour force share by level of qualification, 2014-30**

Legend: ■ Low qualification ■ Medium qualification ■ High qualification

Spain: 2014, 2018
Spain forecast: 2022, 2026, 2030
EU-27: 2014, 2018
EU-27 forecast: 2022, 2026, 2030

	2014	2018	2022	2026	2030	2014	2018	2022	2026	2030
	Spain		Spain forecast			EU-27		EU-27 forecast		
High qualification	35%	36%	37%	37%	38%	29%	31%	34%	37%	40%
Medium qualification	26%	27%	28%	30%	32%	49%	49%	48%	47%	45%
Low qualification	40%	37%	35%	32%	30%	22%	20%	18%	17%	15%

Source: Cedefop (2020 Skills Forecast).

Overall in Spain, the supply of high skill workers is not expected to be enough to meet the demand for high qualifications. Therefore, some positions requiring high skills might be filled by those with medium level 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, 2018-30
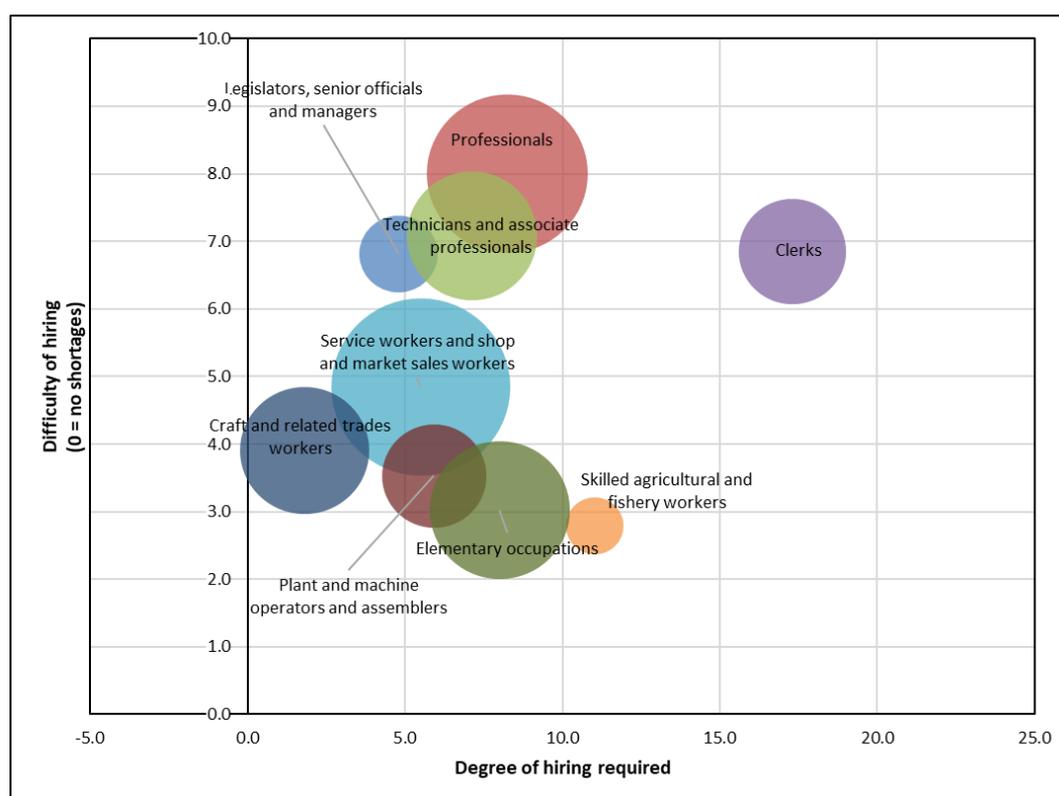
N.B: Indicators were calculated at the level of the underlying two 2-digit occupation groups. Aggregation was based on the employment weights within each one-digit occupation group.
Source: Cedefop (2020 Skills Forecast).

Figure 7 shows that occupations within *clerks* are forecast to 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 high qualified job-seekers who are projected to be in shortage. *Skilled agricultural and fishery workers* as well as *plant and machine operators and assemblers* are expected to experience a modest degree of hiring difficulties and are subject to a medium degree of hiring required. Both occupation groups are not strongly hit by the shortage of qualified workers, while *professionals*, *technicians and associate professionals* have the same degree of hiring required, but face difficulties in hiring as they rely more on higher qualified personnel.

Hiring difficulties among *professionals* are reasonably low and very similar across the underlying occupations. The degree of hiring required will differ, though, with the degree of hiring required for *science and engineering professionals* (26) being more than twice as high as the average of *professionals* (11), while it is also expected to be quite high for *business and administration professionals* (18). On the other hand, the degree of hiring required among *health professionals* (<1) and *teaching professionals* (5) is expected to be well below the average.

The imbalances in the Spanish labour market are expected to be at the higher end of the qualification scale. Here, the additional requirement of sufficient supply within each field of study is adding to potential imbalances. There are, however, occupations which have tended to use higher qualified while the occupation level implies only intermediate skill levels, such as *clerks*. How far the Spanish labour market will adjust to use intermediate qualified more strongly in such occupations will depend on the flexibility of the labour market to adjust further. It is, however, also likely that the increasing shortage of higher qualified workers will result in less demand from intermediate or lower occupations, reversing the trend of overqualification that has been established in the decades of relative abundance of Spanish university graduates.

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

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[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

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