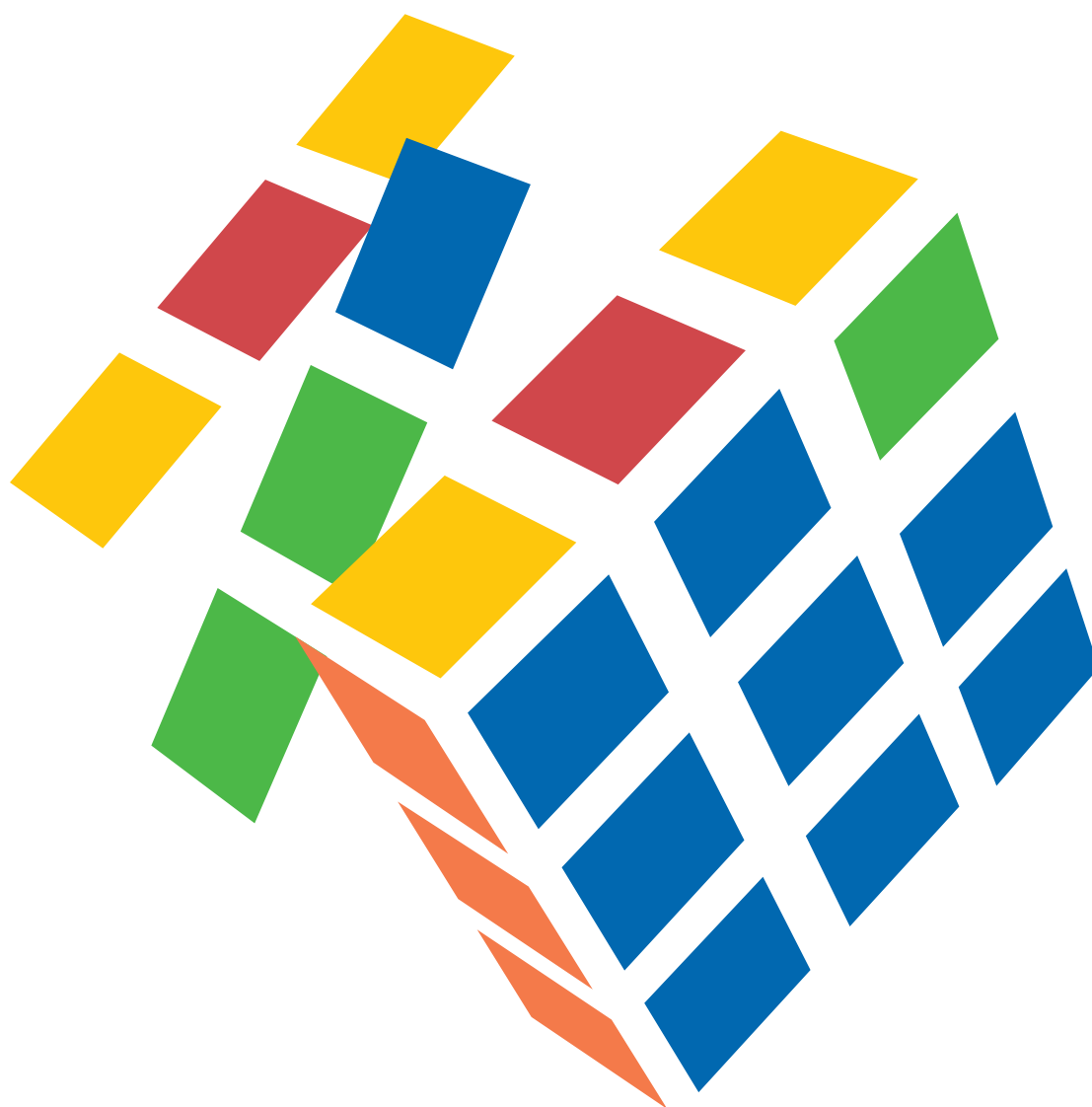




CEDEFOP

European Centre for the Development  
of Vocational Training

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# 2020 skills forecast Ireland





# CEDEFOP SKILLS FORECAST 2020

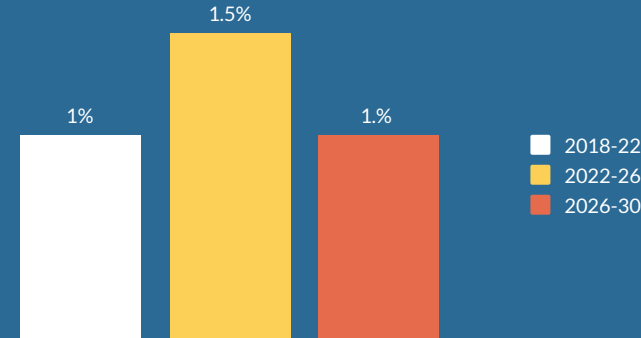
## Key facts: Ireland

**2 652 000**

Employment in 2030

**22%**  
Increase  
2018-30

% Employment growth 2018-30



**1 540 000**

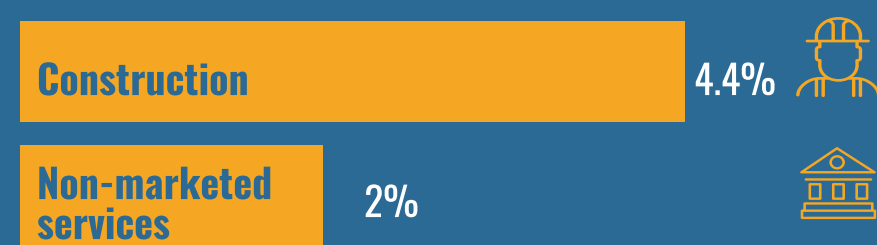
Total job openings, 2018-30



■ Replacement needs (70%)  
■ New job openings (30%)

### FASTEST-GROWING SECTORS

Growth per year 2018-30

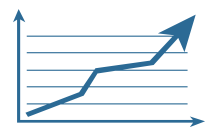
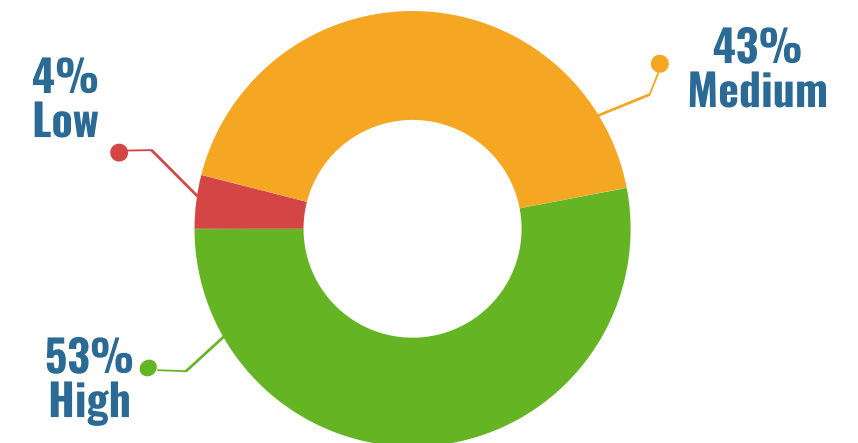


### HIGHEST-DEMAND OCCUPATIONS

Total job openings 2018-30



### 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

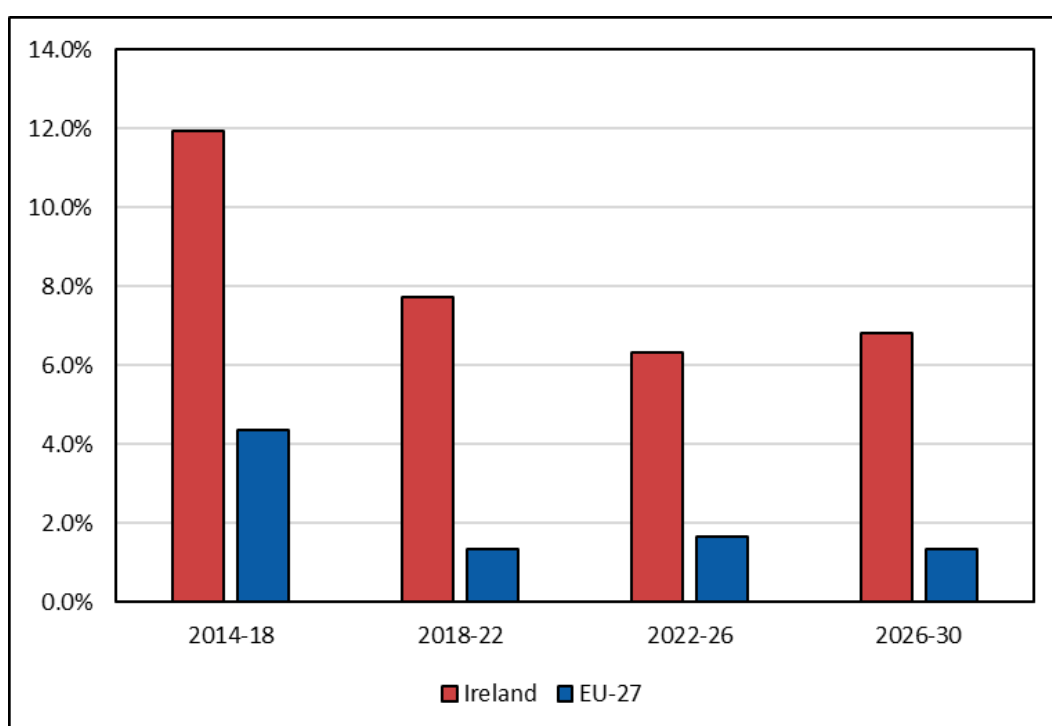
**36%** Increase in high-skilled labour supply 2018-30



## 1. Employment outlook

Employment in Ireland is forecast to grow strongly and to consistently outperform the EU-27 average (see Figure 1), albeit at a lower rate than seen over 2014-18. The general slowdown of growth is in line with the development of the EU-27 average, although less pronounced. In Ireland, employment is expected to grow slightly faster in the short term (2018-22) compared to the medium (2022-26) and longer term (2026-30).

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



Source: Cedefop (2020 Skills Forecast).

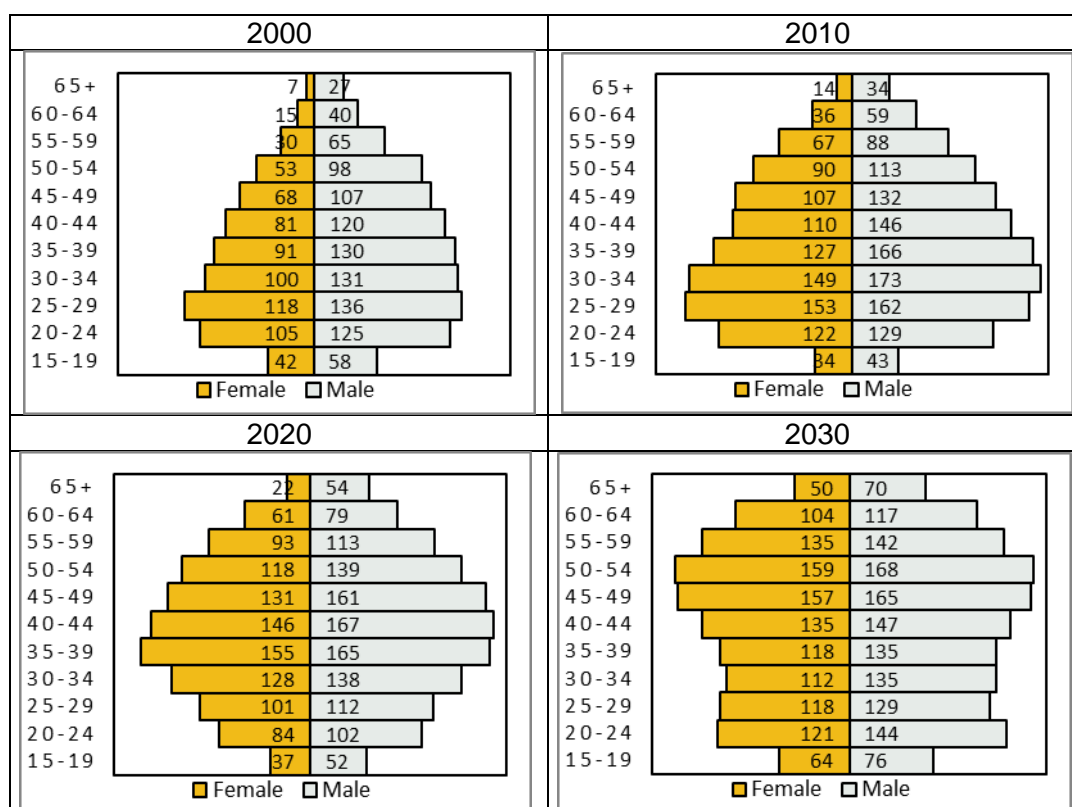
## 2. Labour force overview

In Ireland, the labour force is expected to grow by 55% over the three decades from 2000 to 2030, with growth of 15% projected over the period 2020-30. This increase in the labour force is expected to be driven by increases in labour force participation rates across all age bands, together with fairly rapid population growth across most age groups. The only age groups projected to see a decline in labour force over 2020-30 are those aged 30-44, which is due to a projected decline in population for those age groups. Taken together, this means that the

share of those aged 45 or over in the labour force is projected to increase by 6 percentage points (pp) over this period, from 41% in 2020 to 47% in 2030.

The increase in participation for all workers, but particularly older workers, and the overall high expected labour force growth reflect Ireland's commitment to reduce the gender gap, to keep older workers in work, and to raise labour force participation for those with disabilities as part of Ireland's Future Jobs Strategy.

**Figure 2. Distribution of the labour force, 2000-30**



Source: Cedefop (2020 Skills Forecast).

Participation rates among older age groups, particularly among females, are expected to see fairly rapid increases over 2020-30. Rates for females aged 50 and above are projected to increase by 10 pp or more over this period. Participation rates for males aged 60-64 are also expected to increase by more than 10 pp over the same period. These changes among older people reflect Ireland's commitment to re-training and supporting older workers, most likely affected by robotisation and digitalisation. Additional explanatory factors are an increase in the entitlement age for state pensions as well as an increase in the mandatory retirement age for civil servants.

Overall, future labour force growth in Ireland looks bright. Ireland is less adversely affected by the ageing of the population than other comparable EU-27 countries, as the population and labour force participation of young people are still expected to rise.

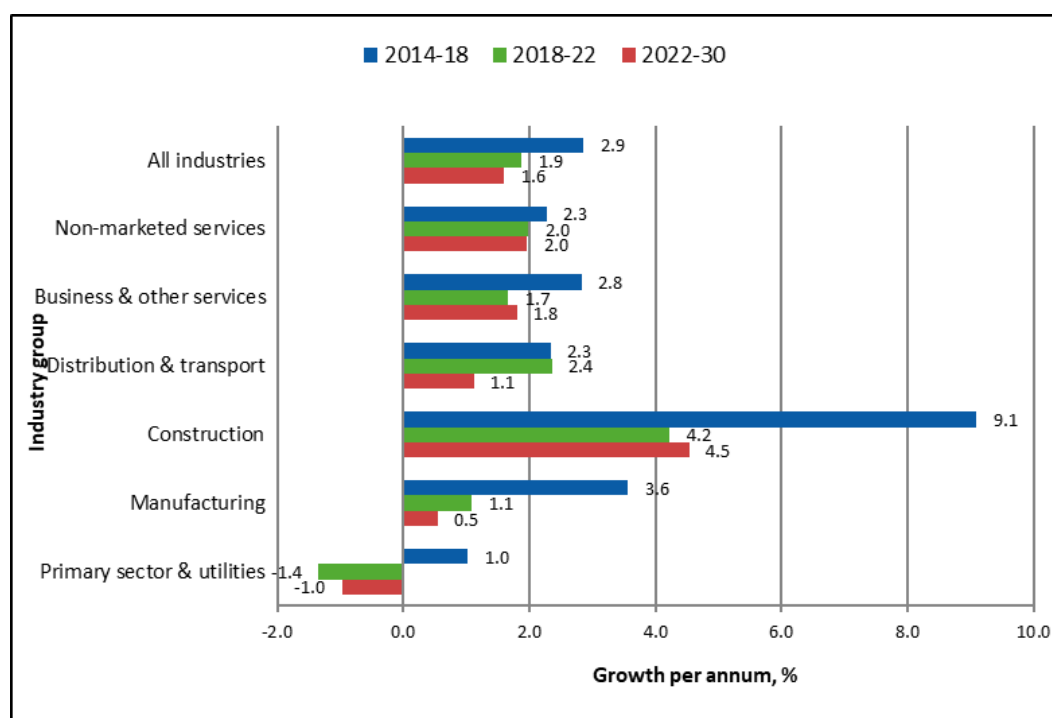
### 3. Sectoral employment trends

As Figure 3 shows, most sectors are expected to see a slowdown in growth in the short (2018-22) and long term (2022-30), in line with the general employment growth trends in Figure 1. With an average employment growth rate of 1.9% pa and 1.6% pa across all industries in the short and long term respectively, it is only the *primary sector & utilities* (which accounts for only 5% of employment in Ireland) that is expected to contract, with a decline in the growth rate, from 1% pa over 2014-18, to -1.0% pa over 2022-30. *Distribution and transport* is expected to increase in the short term (2018-22), with an annual growth rate of 2.4% pa. Over 2022-30, two out of the six broad sectors are expected to perform better than over 2018-22, with *construction* and *business and other services* experiencing the largest percentage point (pp) gains. *Construction*, which saw the greatest employment growth of all broad sectors over 2014-18, is expected to remain the sector experiencing the highest growth rates in the short (2018-22) and long term (2022-30). However, new technology innovations have reduced the labour-intensive activities in this sector, hence employment in *construction* is expected to have a lower annual growth rate in the short (2018-22) and long-term (2022-30) relative to 2014-18.

In terms of sub-sectors (i.e. below the level of the six broad sectors discussed above), *electrical equipment* (-5.1% pa over 2022-30), *other machinery & equipment* (-3.8% pa), and *other chemicals* (-3.3% pa) are the sectors that are expected to experience the most rapid decline in employment. The sub-sector *research & development* is expected to improve from being the worst performer over 2014-18 (-4.5% pa) to seeing a significant increase in the short term (3.8% pa over 2018-22) and the being the top performer over 2022-30 with growth of 6.9% pa. Growth in *optical and electronic equipment* and *computer programming, info services* are supporting the research and development sector in the development of new technologies.

In terms of numbers of jobs, though, over 2018-30 the greatest number of jobs are expected to be created in health (99 000), construction (97 000), wholesale and retail trade (74 000) and accommodation and catering (38,000).

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



Source: Cedefop (2020 Skills Forecast).

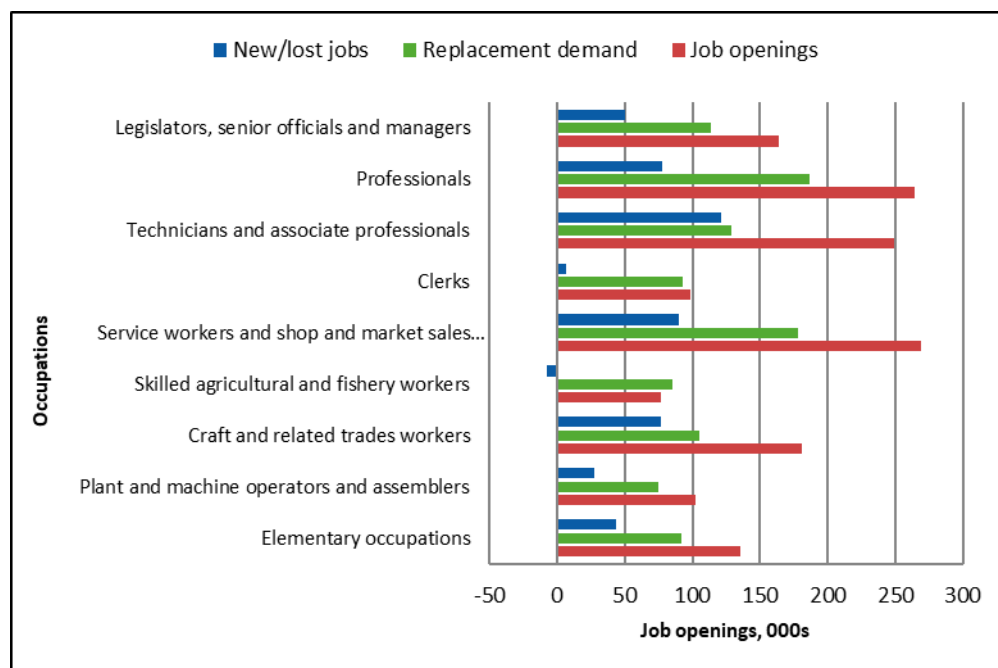
## 4. Job openings by occupational group

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 due to the expansion of the 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 2018-30. 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 are in need of replacement workers. All occupations, except for *skilled agricultural and fishery workers*, are forecast to experience a rising number of new jobs. In addition, each occupation is expected to have positive job openings. For most occupational groups this is driven by replacement demand. The share of replacement demand and new jobs in total job openings is very similar for *technicians and associate professionals*,

unlike for the other occupational groups. The relatively high skilled occupations of *professionals* and *technicians and associate professionals* are expected to see the highest number of job openings over the forecast period 2018-30, with over 514 000 job openings between them, thereby accounting for one third of job openings across all occupations.

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



Source: Cedefop (2020 Skills Forecast).

At a more detailed level, the most job openings (taking both new/lost jobs and replacement needs together) are expected to be in *highly skilled non-manual occupations* for all qualification levels (approximately 677 000). Over 116 000 of these job openings are expected to be newly created jobs, primarily driven by *business and administration professionals/associates* and *administrative and commercial managers* on the one hand. *Personal care workers* are expected to record the largest rise in total number of job openings for a single occupation, totalling 119 000 jobs more jobs in 2030 than in 2018. This is likely to reflect an increasing average age in the Irish population.

Ireland has one of the highest shares of young people with third level qualifications in the EU. At present, 48% of those in employment possess a high qualification and this share is expected to continue growing. Coupled with an ageing workforce that is retiring and stimulates replacement demand, as older workers are replaced by those with higher qualifications, this explains the downward trend expected in job openings across low qualification levels. There is

a significant downward trend in job openings across low qualification levels, with 98 000 jobs lost between 2018 and 2030.

Replacement demand as a percentage of total openings is highest in elementary skill occupations, such as *drivers and mobile plant operators, cleaners and helpers* as well as *refuse workers and other elementary workers*. However, in levels this broad occupation group shows the lowest replacement demand figures. High replacement demand in levels and in share of total openings is expected for *highly skilled non-manual occupations* that contain managerial skills, such as *chief executives, senior officials and legislators* as well as *administrative and commercial managers*.

The Irish economy will require a high number of highly skilled individuals in the *ICT* and *finance* sectors to avoid shortages. Similar figures are expected for healthcare professionals in terms of new jobs and total openings.

## 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 Ireland 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 increases in the share of *professionals and legislators, senior officials and managers, technicians and other associate, customer services clerks* and *health professionals*. The increase in industry size has a positive impact, alongside a more positive but modest occupation effect, only for *building and related trade workers, excluding electricians*. High-skilled occupations that can benefit from these trends are, for example, among managers, especially *administrative and commercial managers*, and, in particular, *legal, social, cultural and related associate professionals and clerks*.

The overall effect of occupational change therefore depends 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. Agricultural occupations requiring low levels of qualification, are expected to decrease: *market-oriented skilled agricultural workers* are expected to decrease predominantly through the sector effect, while another occupation with a large share of workers with low qualifications, *drivers and mobile plant operators*, is forecast to increase employment through occupation-specific effects. *Professional care workers* are expected to increase strongly, which is to be expected from the demographic change in the coming years and the increasing share of older people in the population.

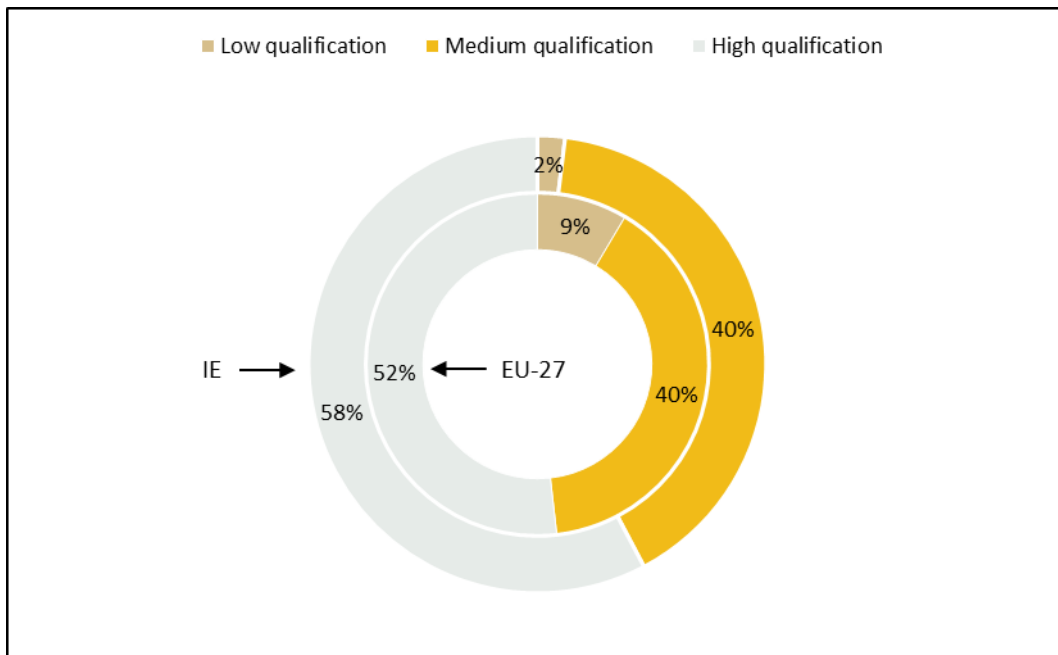
Intermediate occupations are expected to increase overall. Among the medium-qualified occupations seeing growth are expected to be *building and metal workers*, *business and administration* and *legal, social, cultural and related associate professionals*, *agricultural workers* and *customer service 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.

Figure 5 shows the shares of total job openings by qualification level for Ireland and the EU-27 over 2018-30. The forecast suggests that in Ireland, most (58%) job openings are expected to be filled by high qualified workers. This is due to a high qualification mix in many occupations reflecting their high share in the workforce. Compared to the EU-27, a higher share of job openings is expected to involve high qualifications, the same share is expected to require medium qualifications, and a lower share is expected to require low qualifications, reflecting the availability within the labour force. The high share of high-level graduates in Ireland means that some graduates are employed in jobs that are below their skill levels, which is projected to continue into the next decade.

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

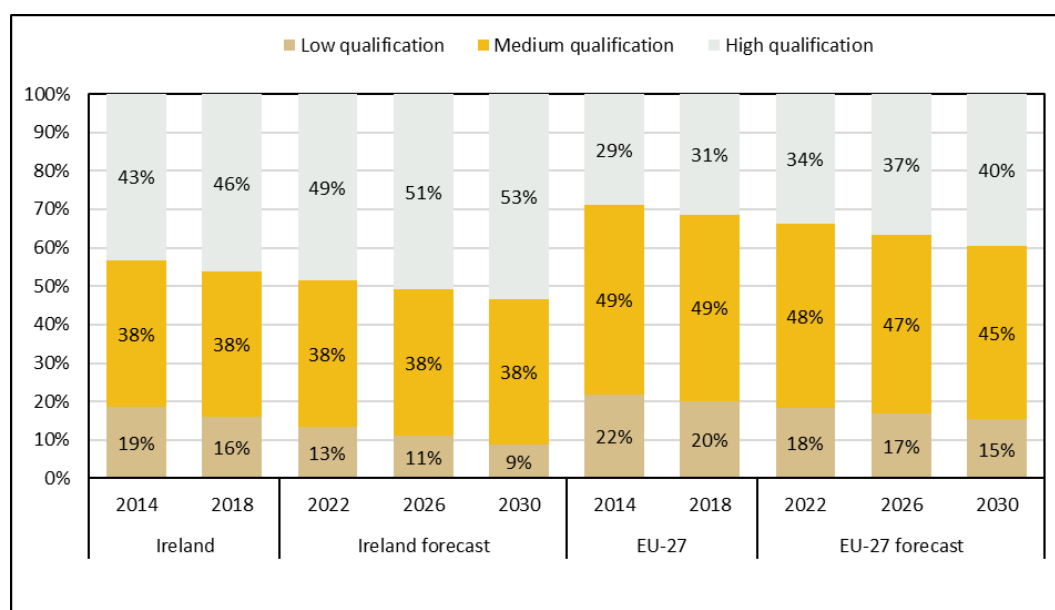


Source: Cedefop (2020 Skills Forecast).

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

Figure 6 depicts the development of the qualification share of the labour force in Ireland and the EU-27 over time. Ireland is expected to see a continued increase in the share of the higher qualified in the labour market. While the share was 46% in 2018, it is expected to increase to more than half of the labour force (53%) by 2030, well above the EU-27 average.

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



Source: Cedefop (2020 Skills Forecast).

The share of people in employment with low levels of qualifications is expected to continue its decline as many are older workers who are retiring and being replaced by those with higher levels of qualifications. The share of medium qualified workers is expected to be stable (at 38%) until 2030, while the share of low qualified workers is expected to fall to 9% by 2030. The trend is similar to that of the EU-27, albeit that Ireland has had a more stable share of the medium qualified but at a lower level than the EU-27. Relative to the EU-27 averages, Ireland is expected to have a higher share of high qualified workers and a lower share of low qualified workers.

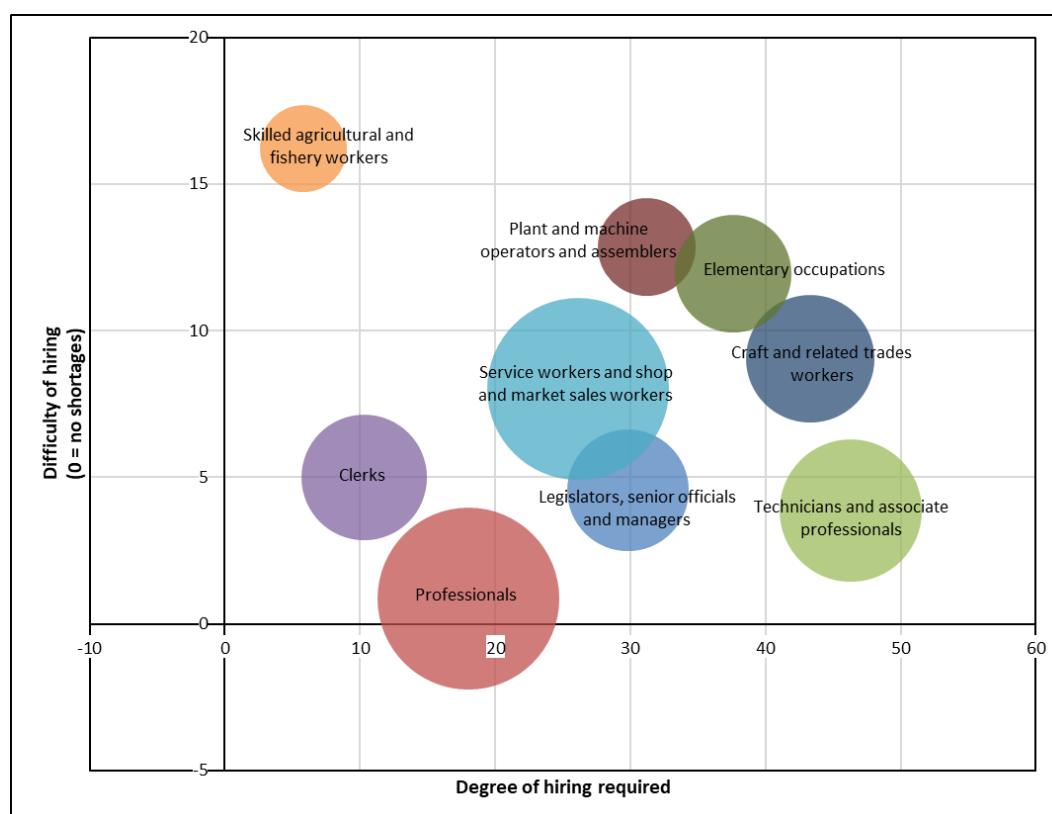
Overall, the forecast implies an increasing shortage, especially among the lower and medium qualified. While the supply of higher educated is forecast to sufficiently fill the demand within higher level occupations.

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, 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).

The increasing supply of higher educated workers suggests that there may be shortages among the medium, in particular, but also of the lower qualified. These shortages thus imply that the higher educated may have to be employed within occupations at a lower level than that which they qualify for, or it will result in hiring difficulties. It is thus of no surprise that medium-low level occupations of *skilled agricultural and fishery workers*, as well as *plant and machine operators and assemblers*, *elementary occupations* and *craft and related trades workers* show higher levels of hiring difficulties in the forecast (Figure 7). These go along, respectively, with low and medium levels of change, thus low and medium levels of hiring required, within these occupations. While *professionals*, *legislators*,

*senior officials and managers, technicians and associate professionals* are implied to have less hiring difficulties, as they usually hire from the supply of higher qualified, the latter in particular also shows a high degree of hiring required in the forecast period. A high degree of hiring required along with modest hiring difficulties can also be found among *legislators, senior officials and managers*.

Hiring difficulties among *professionals* are projected to be very low across the underlying occupations. The degree of hiring required differs, though, with *business and administration professionals* (32) and *legal, social and cultural professionals*(28) being well above the average of *professionals* as a whole (18), while the degree of hiring required among *science and engineering professionals* (10) and *health professionals* (7) is well below the average. Among the high-qualified, specific shortages can nevertheless be expected among specific skills – which could not be included in the forecast. An example would be a likely difficulty in hiring IT-professionals despite a high-share of a high educated workforce, not all of which are, however, specialised in the necessary fields.

The analysis with regard to qualifications should be interpreted with caution. The occupation proxy for skills is, for Ireland, a good representation of the required skills in the economy. The labour market in Ireland allows for greater latitude in many jobs, and people can move into areas for which they may not necessarily hold academic or formal qualifications while at the same time a high supply of higher educated graduates is available in the labour market.

## 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) <sup>(2)</sup> and the short-term macroeconomic forecast produced by DG ECFIN in May 2019 <sup>(3)</sup>.

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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<sup>(2)</sup> <https://ec.europa.eu/eurostat/web/population-demography-migration-projections/population-projections-data>

<sup>(3)</sup> [https://ec.europa.eu/info/business-economy-euro/economic-performance-and-forecasts/economic-forecasts/spring-2019-economic-forecast-growth-continues-more-moderate-pace\\_en](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](mailto:Skills-Forecast@cedefop.europa.eu)

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