



CEDEFOP

European Centre for the Development
of Vocational Training

EN



2020 skills forecast

Italy



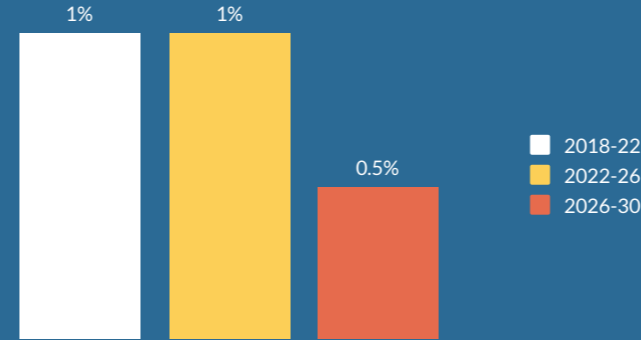


25 878 000

Employment in 2030

2.5%
Increase
2018-30

% Employment growth 2018-30



13 758 000

Total job openings, 2018-30



■ Replacement needs (100%)
■ New job openings (0%)

FASTEST-GROWING SECTORS

Growth per year 2018-30

Distribution & transport

0.7%



Business and other services

0.7%



HIGHEST-DEMAND OCCUPATIONS

Total job openings 2018-30

1 455 000

Business & administration
associate professionals

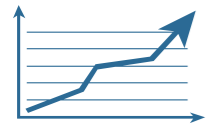
1 029 000

Teaching professionals

903 000

Building and related trade
workers, excluding
electricians

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

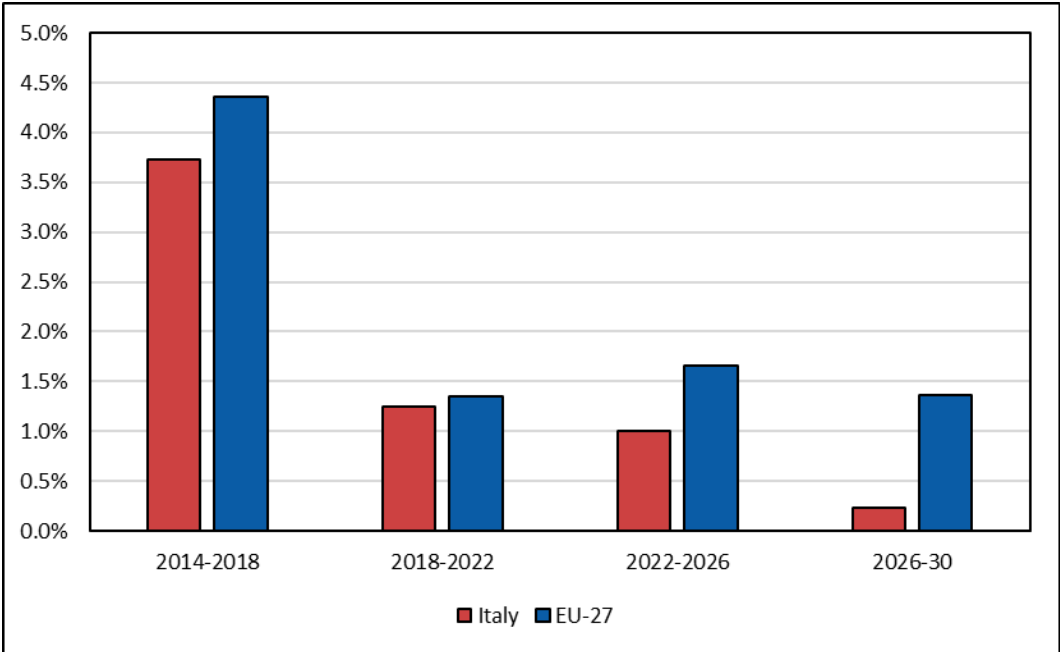
58%

 Increase in high-skilled
labour supply 2018-30

1. Employment outlook

Employment in Italy is forecast to increase over the period 2018-30, albeit at a slower pace than the growth rate seen in the period 2014-18. Employment growth in Italy is expected to slow through the forecast period, from around 1% in the short term (2018-22) and the medium term (2022-26), to almost zero in the long term (2026-30). The increase in all subperiods is expected to be lower than the EU-27 average.

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



Source: Cedefop (2020 Skills Forecast).

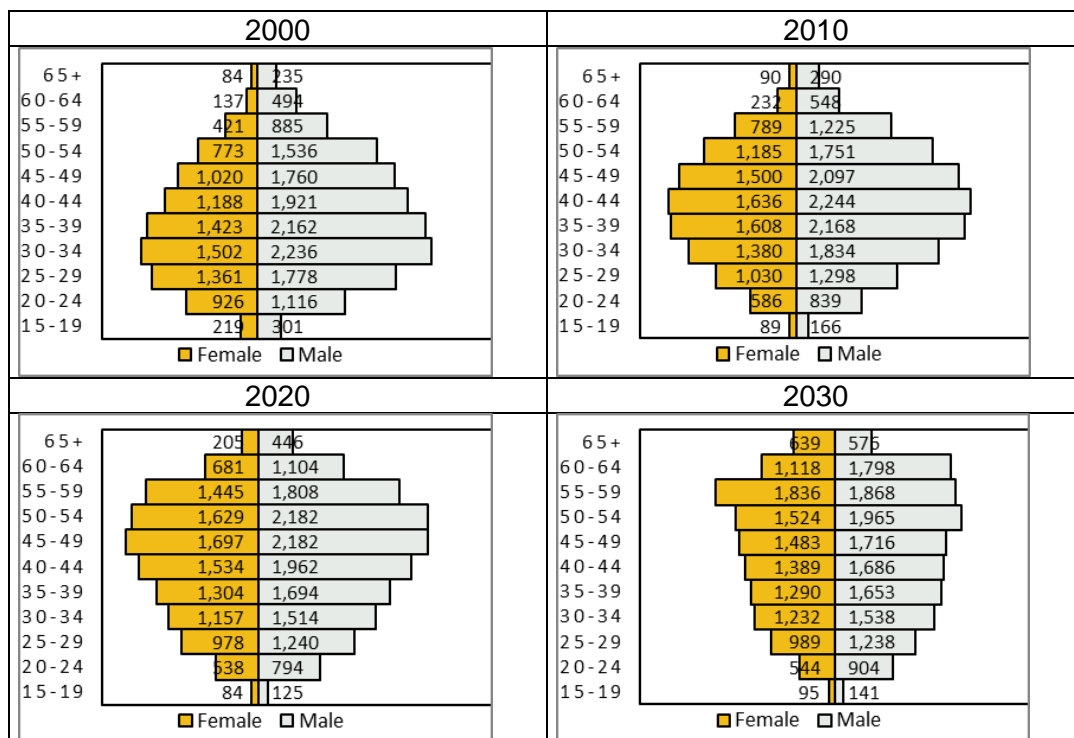
2. Labour force overview

In Italy, the labour force is expected to grow by 16% over the three decades from 2000 to 2030. The increase in the labour force is driven by a massive increase in the size of the labour force aged 55-64, due to pension reforms increasing retirement age and an ageing population, which more than outweighs the significant decrease in the size of the labour force aged 39 or less (see Figure 2). Most of the increase in the total labour force is driven by the increase in the female labour force participation, especially females aged 40 and above. By 2030, the age group 55-59 is expected to represent the highest share in the labour force, while in 2000 the most represented group was 30-34 year olds.

All age groups are expected to show higher participation rates, resulting in a 1 percentage point (pp) increase in the total participation rate over 2020-30. Those aged 60-64 are expected to show the highest increase in participation (15 pp) over the same period. Higher participation rates might be the result of different dynamics. For the groups aged between 35 and 54, both labour force and population are expected to decrease over 2020-30, but participation rates will rise because the labour force is expected to decrease at a slower pace than population. The opposite is true for groups aged 54 or more, for which both labour force and population are expected to increase, but labour force is expected to increase more than population. Participation rates are expected to increase more for females than males, except for the groups aged 24 or less and 60-64.

A pension reform enacted in early 2019 has allowed workers to retire earlier, potentially lowering participation rates of older workers. At the moment, these measures are meant to last only until 2021, so the effect should be temporary.

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

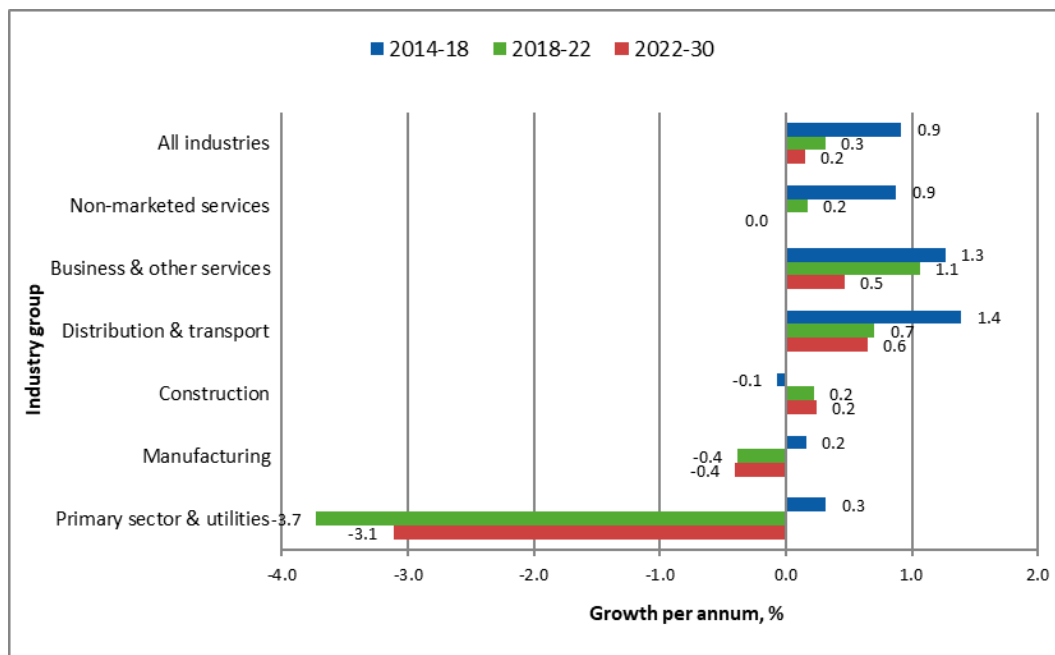


Source: Cedefop (2020 Skills Forecast).

3. Sectoral employment trends

As Figure 3 shows, most of the sectors are expected to show a modest increase during the forecast period, after a more robust growth in the period 2014-18. *Business & other services* is expected to maintain a relatively strong growth (1% pa) in the short term (2018-22) and to slow (0.5% pa) in the long term (2022-30), while *distribution & transport* is expected to grow at a rate of about 0.7% in the forecast period. *Construction* and *non-marketed services* are expected to remain broadly stable in employment over the forecast period. *Manufacturing* is expected to decline by 0.4% pa over the forecast period since the manufacturing sector relies a lot on foreign markets given the stagnation of internal demand, and Brexit could have a sizeable impact. *Primary sector & utilities* is expected to decrease at a rate of more than 3% pa over the forecast period.

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



Source: Cedefop (2020 Skills Forecast).

In terms of sub-sectors (i.e. below the level of the six broad sectors discussed above), advanced sectors such as *computer programming* and *research and development* are expected to be the fastest growing sectors, growing at 1.5% pa and 1.3% pa respectively over 2022-30, thus driving the increase in *business services* and probably digitalisation and robotisation of the economy; within *business services* the same forces (fintech) are responsible of the gradual shrinking of employment in banking and insurance expected to

decline at 0.7% pa over 2022-30. Services such as *accommodation and catering* and *wholesale and retail trade* are driving the increase in *distribution & transport*. On the other hand, most subsectors of *manufacturing* are expected to see a decline in employment, with only a few exceptions such as *motor vehicles* and *food, drink and tobacco* expected to increase marginally. Overall, the food production chain is one of the strongest and better integrated in Italy and drives employment in primary (agriculture), secondary (food and drink) and tertiary (accommodation) sectors. Sectors more likely to be affected by robotisation will be transport and logistics and manufacturing, albeit the car industry has already made most of the adjustment and the change observed will be driven more by organisational change (merger and acquisition between FCA and PSA) than by technological change. *Mining and quarrying* and *agriculture* are expected to decrease drastically, thus driving the shrinkage in *primary sector & utilities*.

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. Most occupations are expected to shrink or to stagnate during the forecast period, except for high skills occupations such as *legislators, senior officials and managers, professionals and technicians and associate professionals*, which are expected to show net job creation. Considering also replacement demand, *professionals and technicians and associate professionals* are expected to provide the highest number of job openings, accounting for 20% of total job openings each.

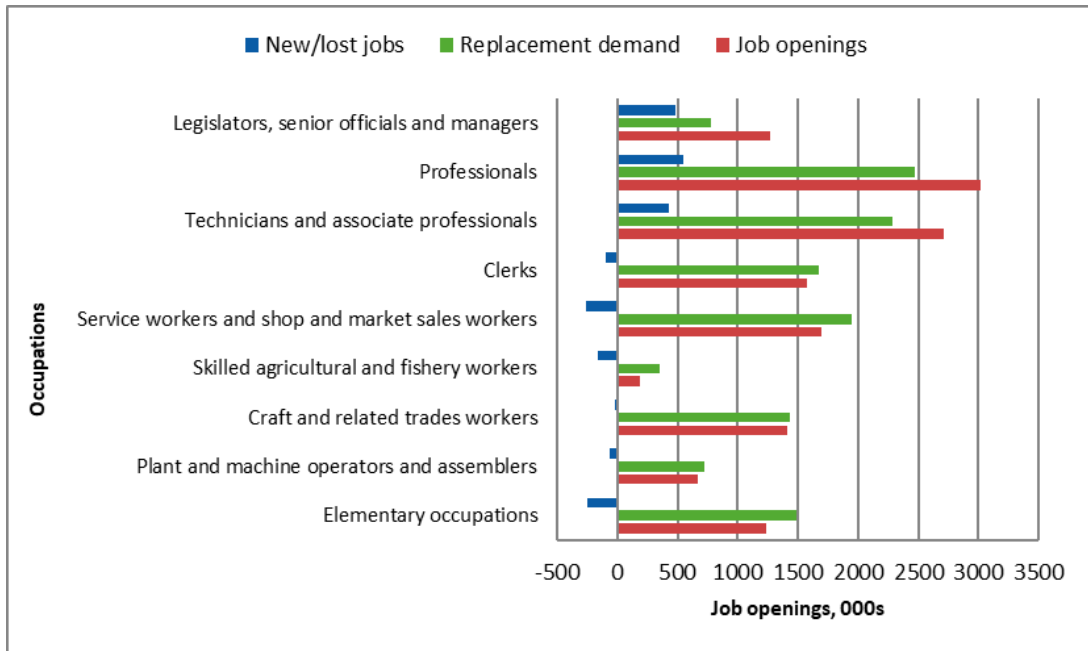
At the more detailed level, most job openings (taking both new/lost jobs and replacement needs together) are expected to be in *high skill* occupations found mostly in services such as *business and administration associate professionals* and *hospitality, retail and other service managers*, as well as *science and*

engineering associate professionals and *professionals*. Also some categories of *skilled manual* occupations such as *building and related trades workers* (required by the small expansion in *construction*) and *skilled non-manual* occupations related to customer services such as *sales workers* and *customer service clerks* are expected to provide a significant amount of job openings. On the other hand, *skilled manual*, *skilled non manual* and *elementary* occupations linked to manufacturing and agricultural activities such as *metal, machinery and related trade workers* and *agricultural, forestry and fishery labourers* are expected to provide fewer job openings or to decline driven by the decline in the sectors. In terms of qualifications, occupations requiring low qualifications are expected to shrink, while most of the increase will be focused among occupations requiring high levels of qualifications.

In recent years Italy has experienced an outflow of highly qualified workers towards other EU Member States, with workers looking for better employment and higher wages. Although the increase in employment is expected to be focused in occupations requiring high skilled workers, it won't be enough to accommodate the greater supply of high skilled workers within the labour force. Therefore, some highly qualified workers might fill positions requiring a medium level of education.

There are two factors that explain this phenomenon. The first, as stressed below, is that education choices are often misaligned with labour demand, with the result that some young adults are educated in fields (mainly humanities) where there is low demand and so they end up working in low skill jobs generating the phenomenon of overeducation. The second is that the wage premium to education is relatively low in Italy when compared to other European countries, especially for technical high skill education (STEM), with the result that the few graduates in these disciplines often apply for jobs abroad.

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 many sectors will influence the occupational composition of employment in Italy. This is reflected in stronger occupation-specific effects, leading, overall, to more an increase in the proportion of *chief executives, senior officials and legislators, managers, professionals and associate professionals*, but also in occupations which support the production process such as *building and related trade workers and assemblers*. These changes reflect changes in job organisation in many sectors, and in many cases an increasing specialisation. High-skilled occupations that can benefit from these trends are, for example, *hospitality, retail and other service managers*, as well as *personal care workers, science and engineering associate professionals and administrative and commercial managers*. *Hospitality, retail and other service*

managers as well as *building and related trade workers* both benefit from the increase in the underlying sectors.

The overall effect of occupational change therefore depends on several 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 and medium-level occupations. At the other end of the spectrum, among lower-level occupations only those supporting the service sector, in particular hospitality services, but also care services, due mostly to the high share of the elderly in Italian population, seem to be increasing.

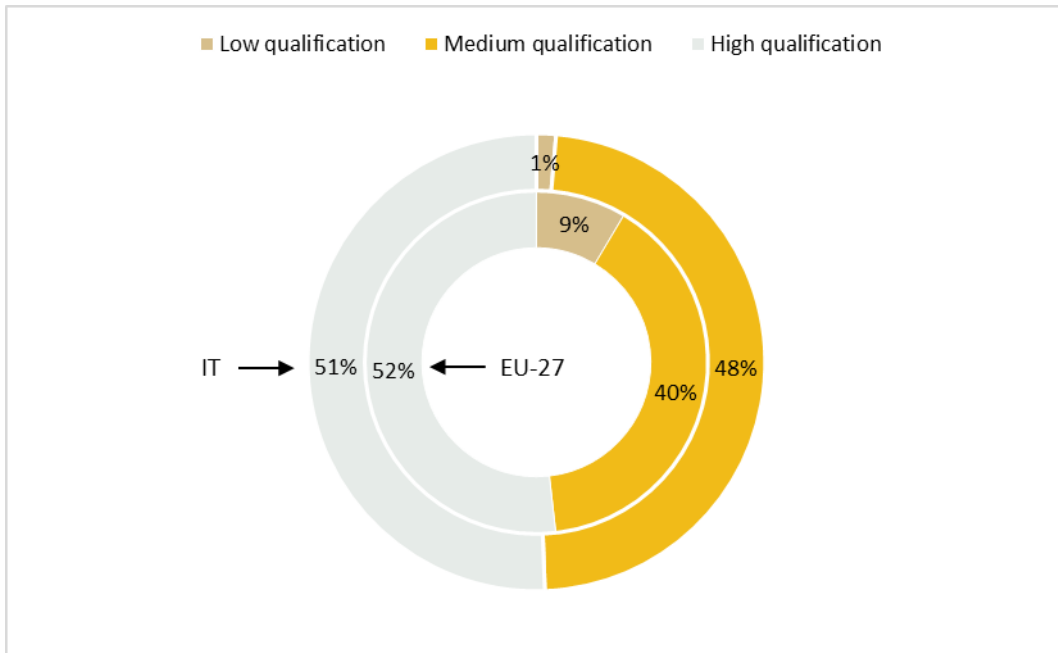
The increase in the occupations with an intermediate qualification level in Italy between 2018 and 2030 always refers to service sector occupations such as *business, administration, ICT professionals and hospitality, retail and other services managers*, to *elementary occupations* and to *plant and machine operators and assemblers*. Whereas the share of business and administration professionals is expected to decrease slightly, they will still represent the highest share of occupations with an intermediate qualification level, the health associate professionals are decreasing in number, most likely because of the lack of incentives to enter this occupation and not to migrate in other European countries. Clerical work is expected to see 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.

About half (48%) of the total job openings that are expected to be created in Italy over the period up to 2030 will require medium level qualifications, about 8 pp more than the EU-27 average. The other half of total job openings (51%) will require high level qualifications and only 1% will require a low level of qualifications.

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



Source: Cedefop (2020 Skills Forecast).

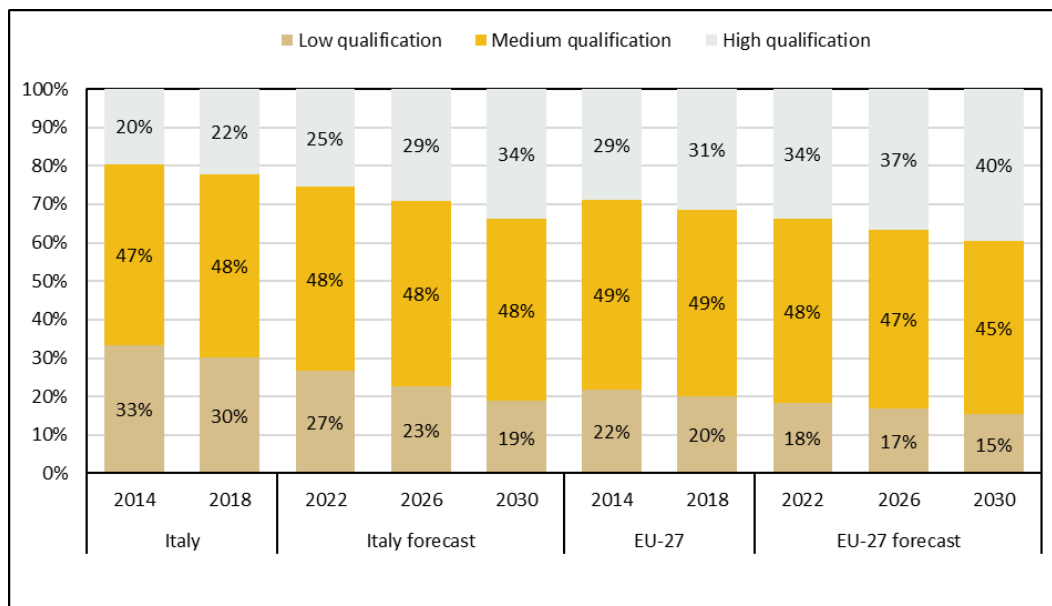
Total job openings are highest among *legislators, senior officials and managers*, followed by *professionals* and *technicians and associate professionals*. At a more detailed level, job openings are higher for *administrative and commercial managers, hospitality, retail and other services managers* and *business and administration professionals*. Among the higher qualified occupations, *building and related trade workers* along with *labourers in mining, construction, manufacturing and transport* and *hospitality, retail and other services managers* 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.

In general, Italy is expected to experience substantial changes over 2018-30 in shares of qualifications in the labour force, as can be seen from Figure 6. The share of people with high level qualifications in Italy is expected to increase over the period to 2030. The levels of medium qualified labour force will be stable over time (48%), while remaining the largest qualification group. The share of those with low levels of qualification are expected to decrease by 11 pp, to 19% in

2030. In Italy, the share of those with intermediate and low qualifications is expected to remain at a higher level than the EU-27 average, while the share of people with high qualifications will remain lower than the EU-27 average.

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



Source: Cedefop (2020 Skills Forecast).

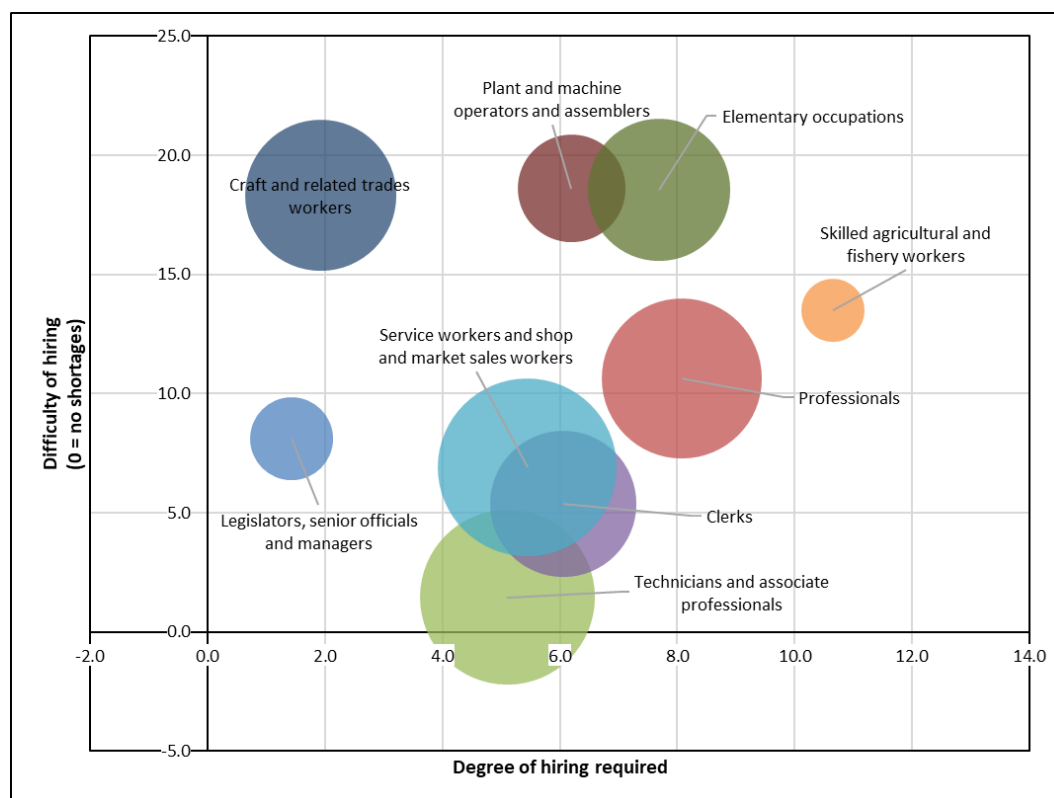
In Italy, the supply of workers with low qualifications is expected to be below the demand, while the supply of high qualifications is expected to be well above the demand, possibly creating a situation of skills mismatch. As stated above, the extent to which high qualifications will be oriented towards fields in high demand by the market will determine the relevance of skill mismatches.

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 shows, that occupations within *skilled and agricultural fishery workers* are forecast to experience relative high share of changes that will require the hiring of new workers, mainly highly qualified workers. It is expected that there will be medium hiring difficulties for this group. *Crafts and related trades workers* experience higher levels of hiring difficulties, mainly from lower and intermediate qualified personnel, but there will be only limited hiring. *Plant and machine operators and assemblers* are expected to be 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.

Figure 7. Indicators of future hiring difficulties (Italy), 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 overall imbalances in the Italian labour market rely on the supply from the labour force aligning with the requirements of the labour market. An increase in qualifications towards the higher qualified while keeping the medium qualified constant suggests a good basis for meeting the anticipated change in demand. There are, however, concerns about choices made by students within the broad education categories, as there is a large debate suggesting that labour market issues are not considered in the choice of degree studied, and particularly university degree, with the result that the highly educated can end up being overeducated and in the wrong field for the positions they obtain in employment.

Some markets tend to be very difficult to forecast both the demand and the supply side of the labour market in these sectors as they are not driven by the market.

For both the health and educational sector, most of the employment in Italy is public. This means that both demand and supply factors are affected by government policy. Employment in the public sector generally occurs in waves so there are some cohorts of people where there is a peak of employment in these sectors. In the case of health professionals for instance there is a large cohort of doctors that is due to retire in the coming years, implying large replacement demand. On the supply side, education policy limits the future supply. For example, the number of doctors is regulated by the fixed number of admissions to medical schools, which has been increased only marginally recently.

High skill workers that do their training in Italy are also prone to migrate in large numbers to other EU countries where they can find better jobs and mostly higher wages. These internal (within the EU-27) migration flows might change quickly and thus are difficult to include.

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) ⁽²⁾ and the short-term macroeconomic forecast produced by DG ECFIN in May 2019 ⁽³⁾.

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>



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

(3) 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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