



CEDEFOP

European Centre for the Development
of Vocational Training

EN



2020 skills forecast Austria





CEDEFOP SKILLS FORECAST 2020

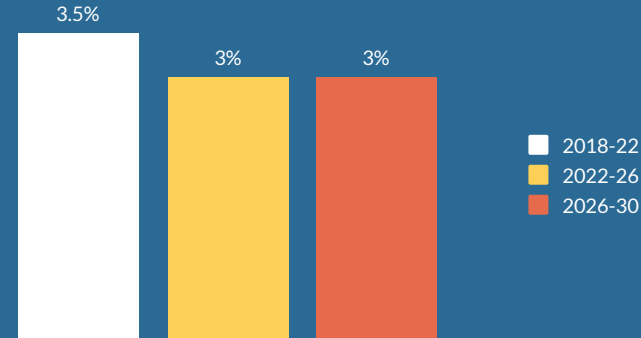
Key facts: Austria

4 869 000

Employment in 2030

10.5%
Increase
2018-30

% Employment growth 2018-30



2 483 000

Total job openings, 2018-30



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

FASTEST-GROWING SECTORS

Growth per year 2018-30

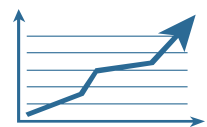


HIGHEST-DEMAND OCCUPATIONS

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

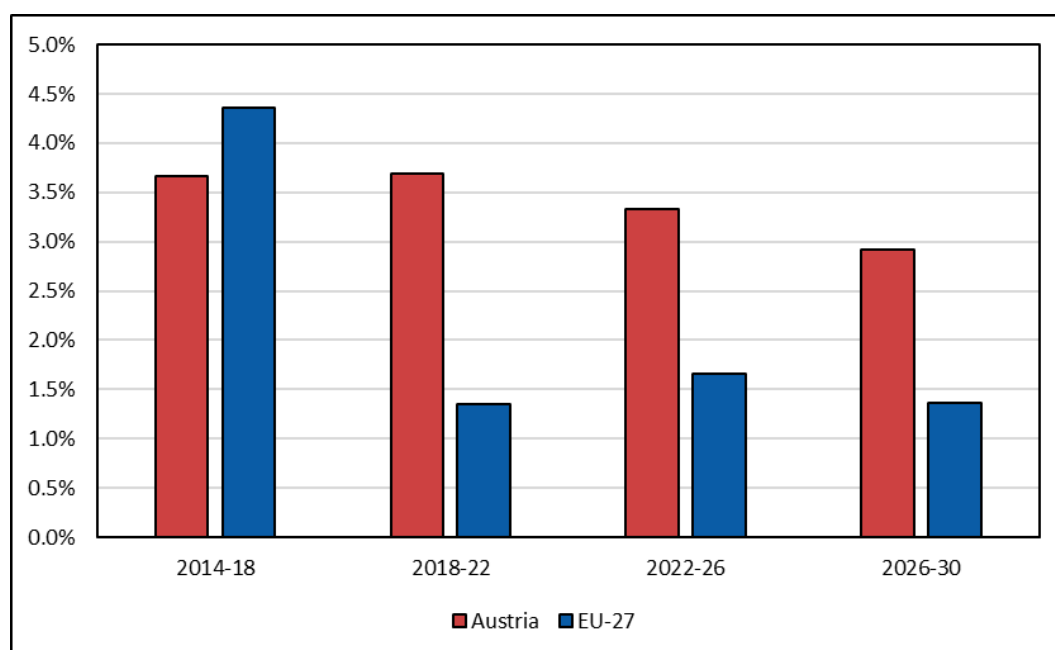
27% Increase in high-skilled labour supply, 2018-30



1. Employment outlook

Employment in Austria is forecast to grow significantly over the forecast period (2018-30). Employment in Austria is expected to grow by around 3.5% in the short term (2018-22) and medium term (2022-26) and by 3% in the long term (2026-30). Employment growth in Austria is expected to be more than double the EU-27 average employment growth across all periods.

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



Source: Cedefop (2020 Skills Forecast).

2. Labour force overview

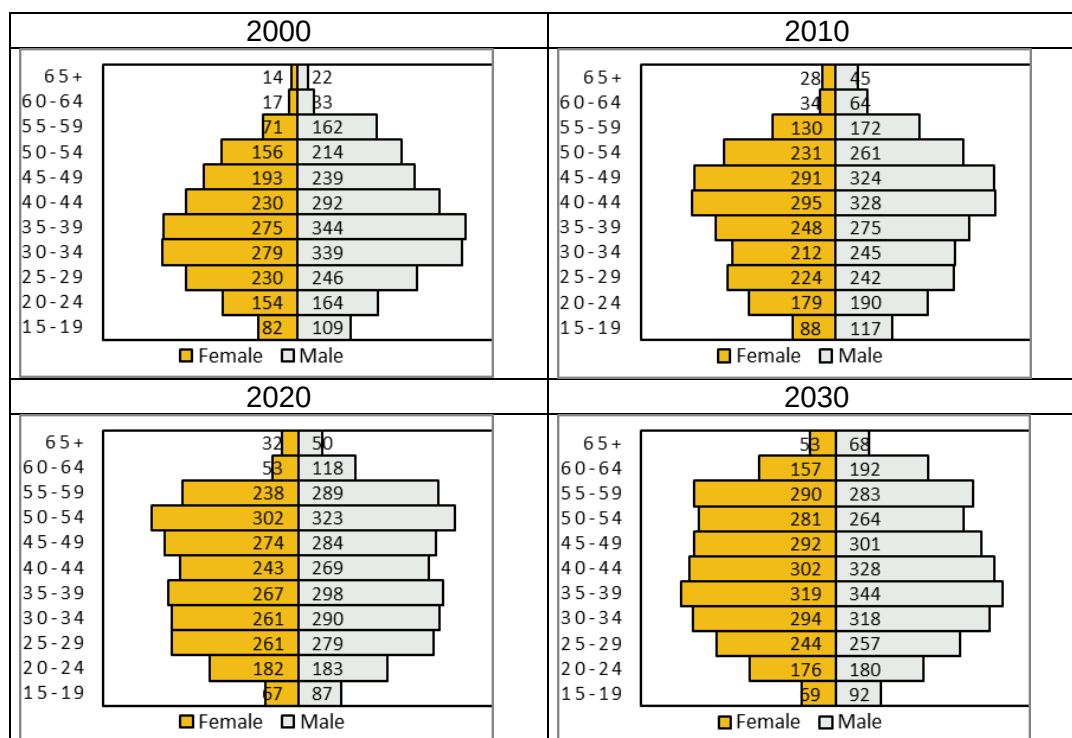
In Austria, the labour force is expected to increase by 32% over the three decades from 2000 to 2030. The increase in the labour force is driven by favourable demographic developments (including international migration) and by a widespread increase in participation (with increases for older age groups driven by pension reforms). Indeed, population and labour force are expected to increase for all age groups above 34 years of age between 2000 and 2030. The increase in the labour force is expected to be particularly pronounced among those aged 55 or more, resulting in an increase in the age structure of the overall labour force. The combined share of the groups aged 55 or more is expected to

increase from 8% in 2000 to 20% in 2030, at the expense of those aged 44 or less.

Labour force participation rates are expected to increase for all age groups, with the exception of those aged 15-19 (because of a lower use of part-time school schemes such as apprenticeships and a higher use of full-time schooling). The rate of growth of the labour force is expected to be higher than the rate of growth of the population, reflecting the increasing participation rates. The increase in participation rate is highest for the 55-59 age group, which is expected to show an increase of 46 percentage points (pp) between 2000 and 2030 (of which 15 pp is expected to be over 2020-30), followed by the 60-64 age group with an increase of 38 pp and 50-54 with an increase of 16 pp. The groups aged 20 to 49 are expected to show an increase in participation rates of around 6 pp (to take place mostly over 2020-30). The female labour force is expected to account for more than 60% of the total increase in the labour force between 2000 and 2030, with participation rates increasing for all female age groups except those aged 15-19. Taken together, these developments are expected to increase the overall participation rate by 4 pp over 2000-30.

These developments are consistent with the tightening of access to early retirement pensions being implemented in Austria, and the increasing retirement age, especially for females.

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

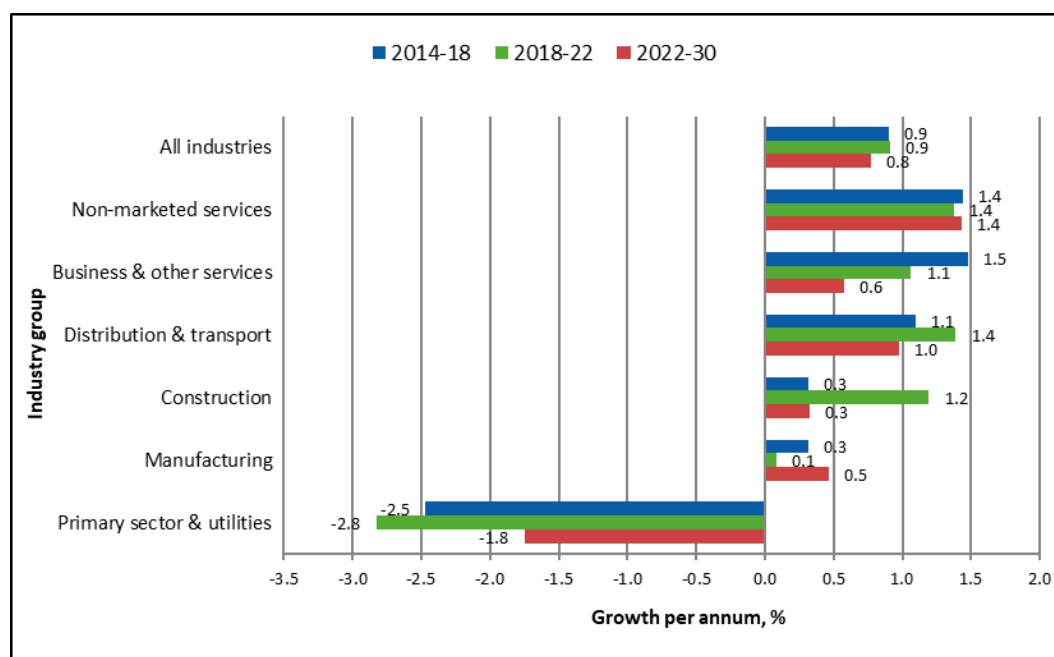


Source: Cedefop (2020 Skills Forecast).

3. Sectoral employment trends

As Figure 3 shows, employment is expected to increase in most broad sectors. *Non-marketed services* is the sector expected to see the strongest employment growth, at 1.4% pa over the whole forecast period, followed by *distribution & transport* which is expected to grow by 1.4% pa in the short term (2018-22) and 1% pa in the long term (2022-30). *Business & other services* is expected to increase by 1% pa in the short term and by 0.6% pa in the long term. Similarly, *construction* is expected to increase by 1.2% pa in the short term and by 0.3% in the long term. *Manufacturing* is expected to increase marginally, stagnating in the short term and increasing by 0.5% pa in the long term. *Primary sector & utilities* is expected to decline massively during 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), *health*, *education* and *public administration & defence* are all expected to grow by more than 1% pa during the forecast period, thus driving the increase in *non-marketed services*. *Accommodation and catering*, and *wholesale and retail trade* are expected to grow by more than 1% pa during the forecast period, thus driving the increase in *distribution and transport*. Large sectors such as *administration and support services*, *computer and information services* and *legal, accounting and consulting* are expected to grow sizeably, especially in the

short term, and drive the increase in *business & services*. However, smaller sectors such as *research and development* are also expected to grow significantly. Among *manufacturing* sub-sectors, *rubber and non-metallic mineral products*, *other machinery and equipment*, *optical & electronic equipment* and *basic metals & metal products* are expected to drive the increase in the broad sector in the long term, while in the short term, declines in *wood, paper, print, publishing, other manufacturing* and *electrical equipment* are expected to keep growth in *manufacturing* employment at low levels. Large declines in *agriculture* are expected to drive the decrease in *primary sector* and utilities, despite some increases in *electricity* and *gas, steam & air conditioning*.

4. Job openings by occupational group

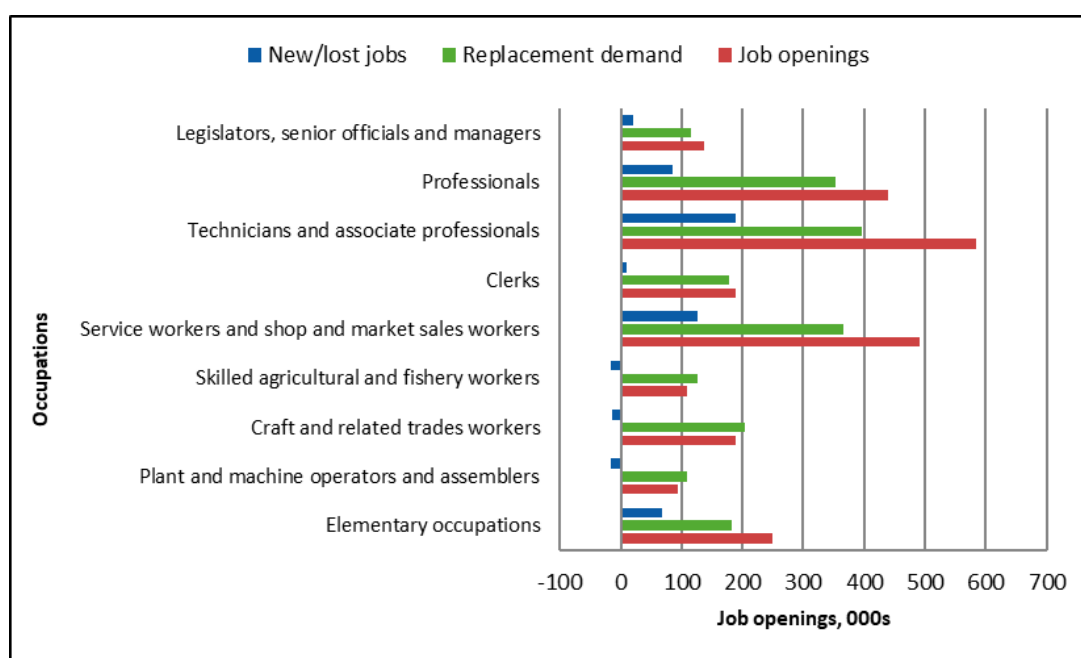
Cedefop skills forecasts estimate the total job openings by occupational group as the sum of net employment change and replacement needs. Net employment change refers to new jobs created due to the expansion of the employment in that sector or occupation. Replacement needs arise as the workforce leaves 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. *Technicians and associate professionals* is expected to be the occupation creating the highest amount of job openings, accounting for 23% of total job openings and providing 188 000 new jobs, followed by *service workers and shop and market sales workers* which is expected to account for 20% of total job openings and to provide 127 000 new jobs. *Professionals* and *elementary occupations* are expected to provide 85 000 and 67 000 new jobs respectively, while the remaining occupations are expected to stagnate or to decline slightly, although they will still provide some job openings because of replacement needs. In total, there will be 454 000 new jobs in the economy in 2030 compared to 2018, within a total of 2.5 million job openings.

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 (for a total of 1 million job openings) such as *business and administration associate professionals*, *teaching professionals*, *science and engineering associate*

professionals and *legal, social, cultural and related associate professionals*. *Skilled non-manual* occupations are expected to provide 681 000 job openings, with occupations such as *sales workers*, *personals service workers* and *personal care workers* providing some of the highest number of job openings among all occupations. Within *skilled non-manual* occupations, clerical roles are expected to slightly decrease or stagnate, with the exception of *customer service clerks* (expected to provide 15 000 new jobs). *Skilled manual* occupations are expected to provide 410 000 job openings. Among those, *market-oriented skilled agricultural workers* are expected to provide 107 000 job openings because of replacement needs while at the same time shrinking by 15 000 jobs, consistent with a decline in the *agriculture sector*, while *building and related trades workers, excluding electricians* are expected to provide 71 000 job openings and to expand by around 4 000 new jobs. *Elementary occupations* are expected to provide 233 000 job openings, of which 132 000 are accounted for by *labourers in mining, construction, manufacturing and transport* (almost equally divided between replacement needs and new jobs).

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).

The occupational composition of employment in Austria 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 *professionals and legislators, senior officials and managers, technicians and other associate, customer services clerks*. The increase in industry size has a positive impact, alongside a positive but modest occupation effect, only on *teaching professionals*. High-skilled occupations that can benefit from these trends are, for example, *chief executives, senior officials and legislators*, and, in particular, *legal, social, cultural and related associate professionals and science and engineering associate professionals*.

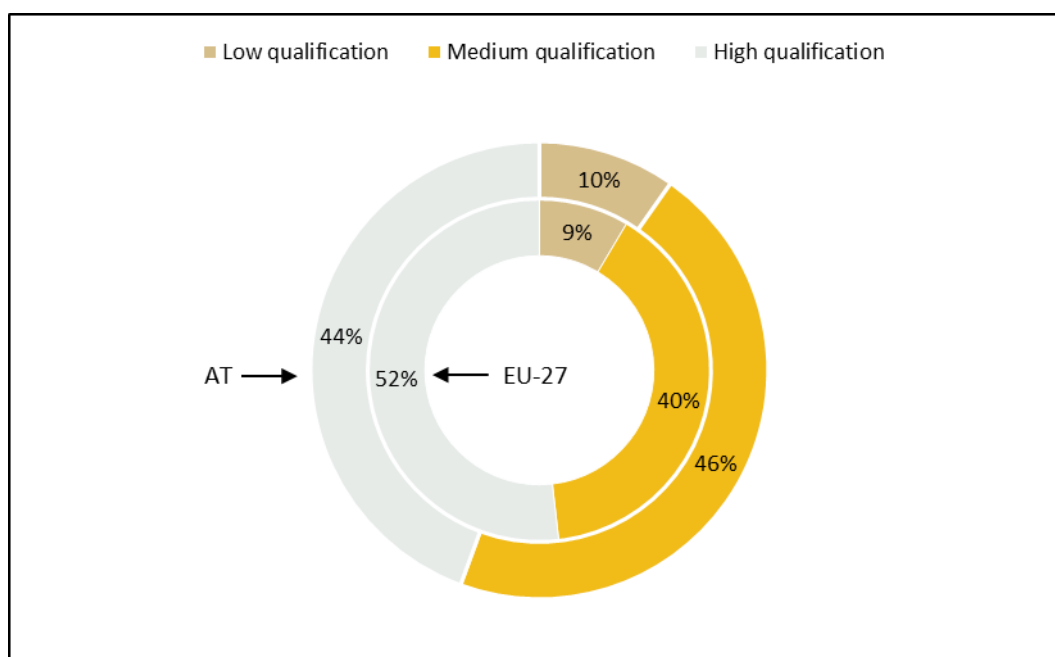
The overall effect of occupational change therefore depends on a number of factors that need to be considered together. Increasing digitisation and moves towards a service-oriented economy, including within manufacturing, will lead to a greater use of higher-level occupations at the expense of some medium and low-level occupations. Lower level occupations are expected to decline, while intermediate occupations are expected to increase slightly overall. Among the medium-qualified occupations becoming stronger are *assemblers, labourers in mining, construction, manufacturing and transport*. Among the high-level occupations, increases are expected within *teaching professionals and science and engineering professionals*.

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 Austria and the EU-27 over 2018-30. In Austria, both high and medium qualifications are expected to be required by around 45% of job openings, while low qualifications are expected to be needed by 10% of job openings. Compared to the EU-27, a lower share of job openings in Austria are expected to require high qualifications, while a higher share is expected to require medium qualifications and a similar share is expected to require low qualifications.

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



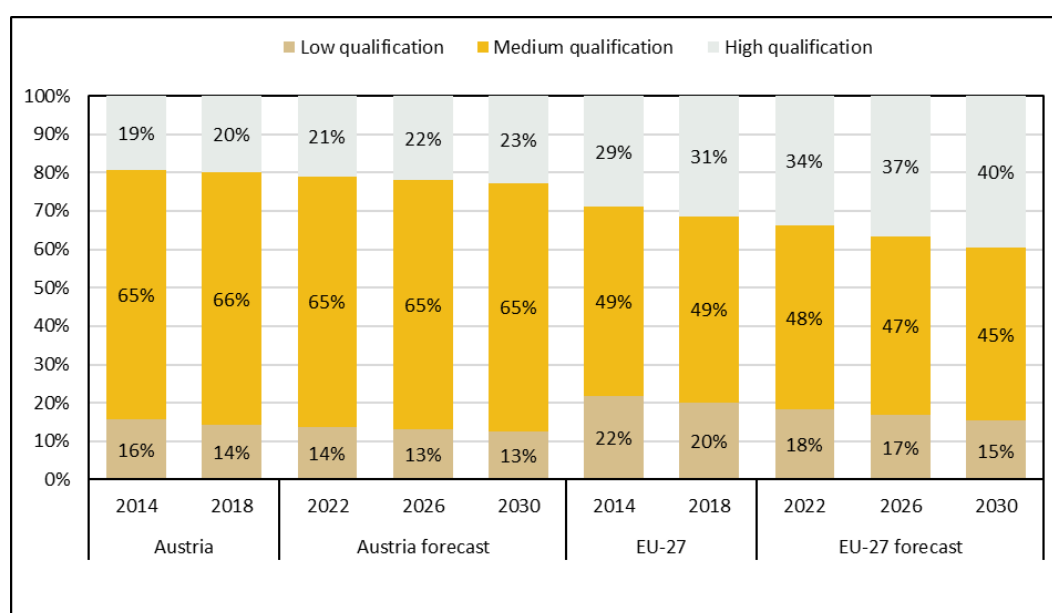
Source: Cedefop (2020 Skills Forecast).

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 shows the development of qualification shares in the labour force in Austria and the EU-27. Austria is slowly increasing its share of higher qualified in the labour market. While the share was at 20% in 2018, it is expected to increase to 23% by 2030.

The share of medium qualified workers is expected to remain broadly constant over 2018-30, while the share of low qualified workers is expected to decrease only slightly. Relative to the EU-27 averages, Austria is expected to continue to have a lower share of high and low qualified labour, with a much greater share of medium qualified.

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



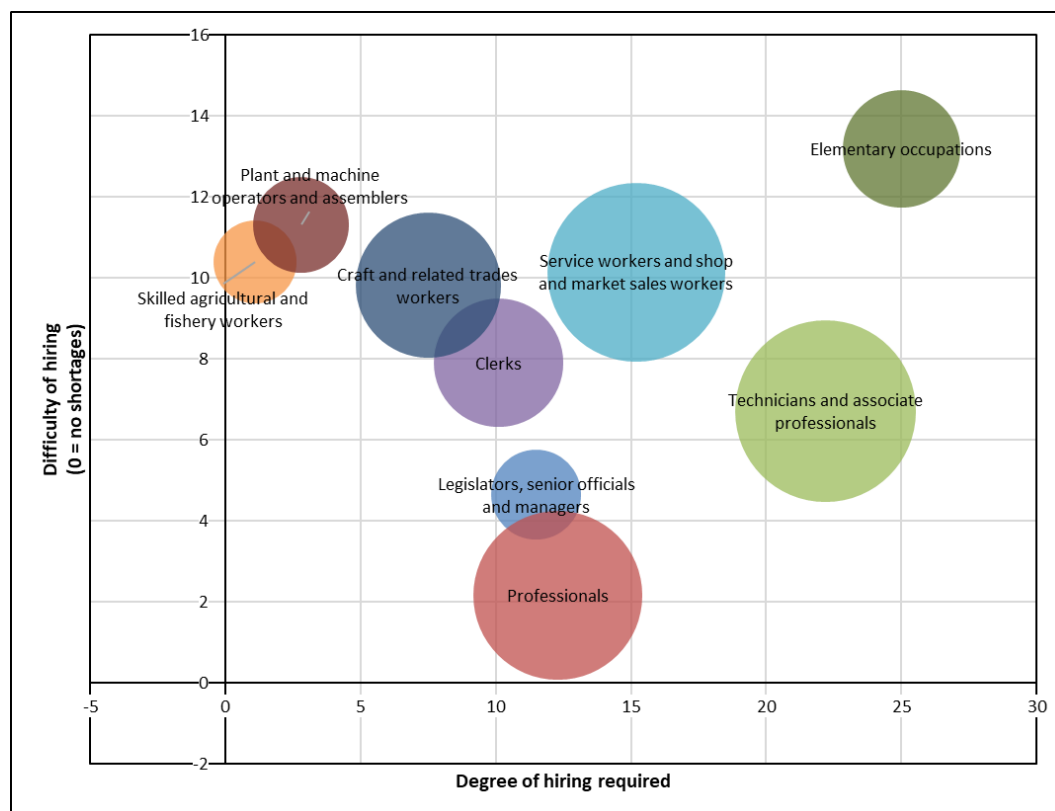
Source: Cedefop (2020 Skills Forecast).

Overall, the forecast implies an increasing shortage, especially among the lower and high and low qualified, while the supply of medium educated labour is forecast to sufficiently fill the demand within medium 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



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

Source: Cedefop (2020 Skills Forecast).

Figure 7 indicates that there is expected to be a high difficulty of hiring *elementary occupations*, alongside a high degree of hiring required, which suggests that if these jobs are to be filled there could be significant mismatches. Other occupations which are expected to have a relatively high difficulty of hiring include *craft and related trades workers*, *clerks*, *service workers and shop and market sales workers* and *technicians and associate professionals*, all with medium to high degrees of hiring required.

Hiring difficulties among *professionals* and *legislators, senior officials and managers* are expected to be relatively low, alongside a moderate degree of hiring required.

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) ⁽¹⁾ and the short-term macroeconomic forecast produced by DG ECFIN in May 2019 ⁽²⁾.

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>



⁽¹⁾ <https://ec.europa.eu/eurostat/web/population-demography-migration-projections/population-projections-data>

⁽²⁾ 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

Please cite this publication as:

Cedefop (2020). *Skills forecast 2020: Austria*. Cedefop skills forecast.

<https://www.cedefop.europa.eu/en/publications-and-resources/country-reports/austria-2020-skills-forecast>

© European Centre for the Development of Vocational Training (Cedefop), 2020.
Creative Commons Attribution 4.0 International.