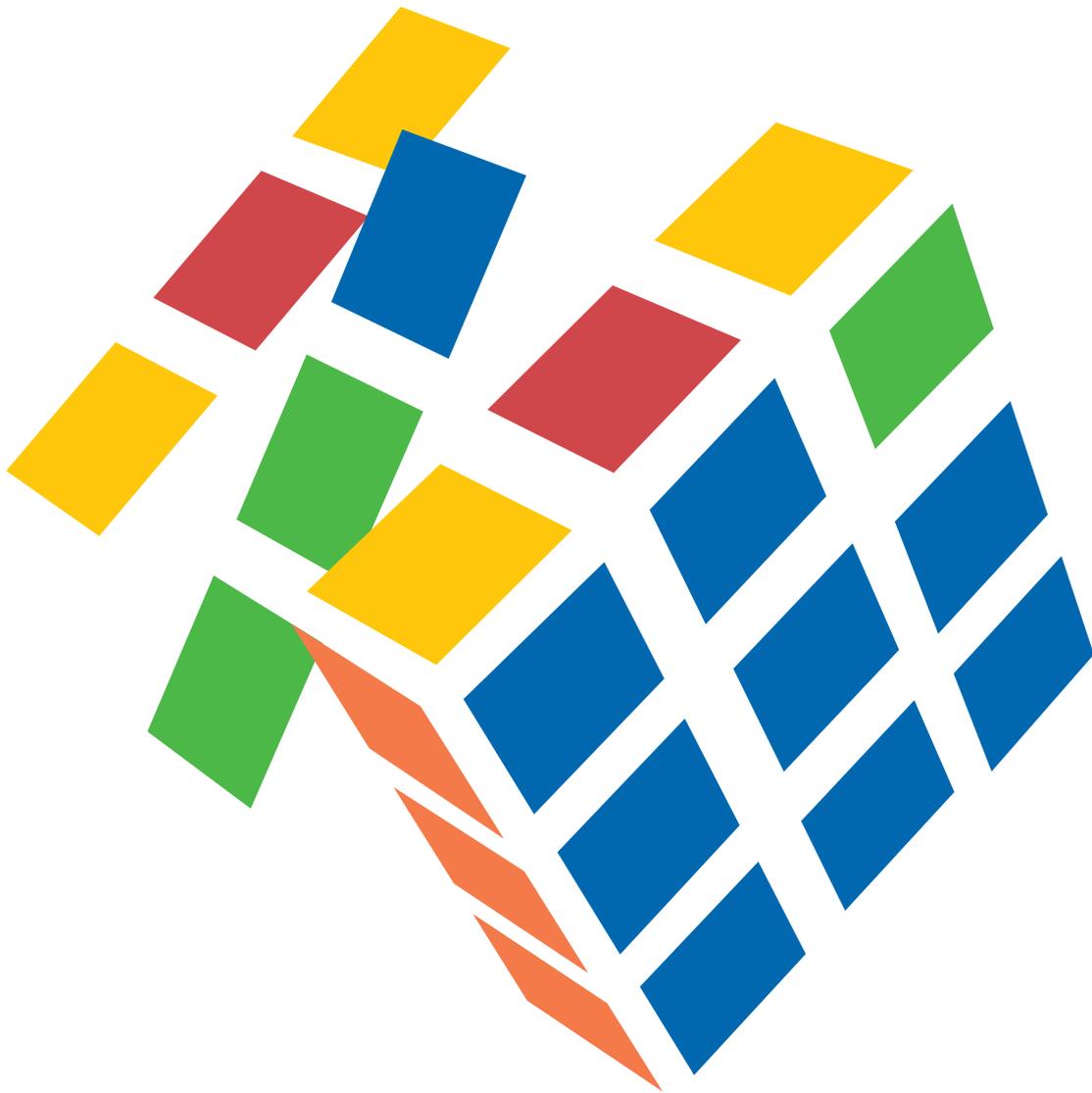




CEDEFOP

European Centre for the Development
of Vocational Training

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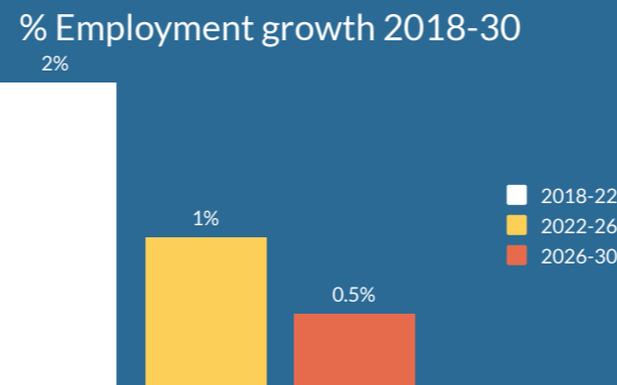
2020 skills forecast Netherlands



9 417 000

Employment in 2030

3%
 Increase
 2018-30



4 706 000

Total job openings, 2018-30



■ Replacement needs (90%)
 ■ New job openings (10%)

FASTEST-GROWING SECTORS

Growth per year 2018-30

Non-marketed services

0.8%



Construction

0.6%



HIGHEST-DEMAND OCCUPATIONS

Total job openings 2018-30

469 000

Business & administration professionals

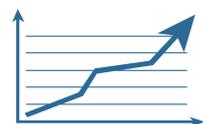
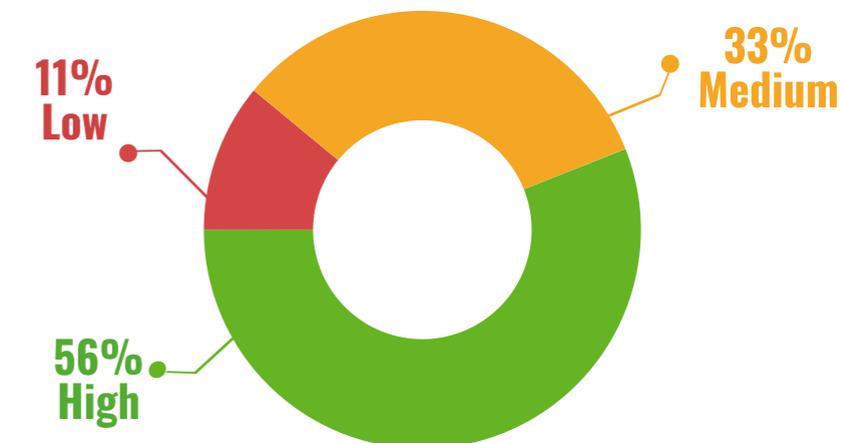
388 000

Business & administration associate professionals

318 000

Sales workers

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

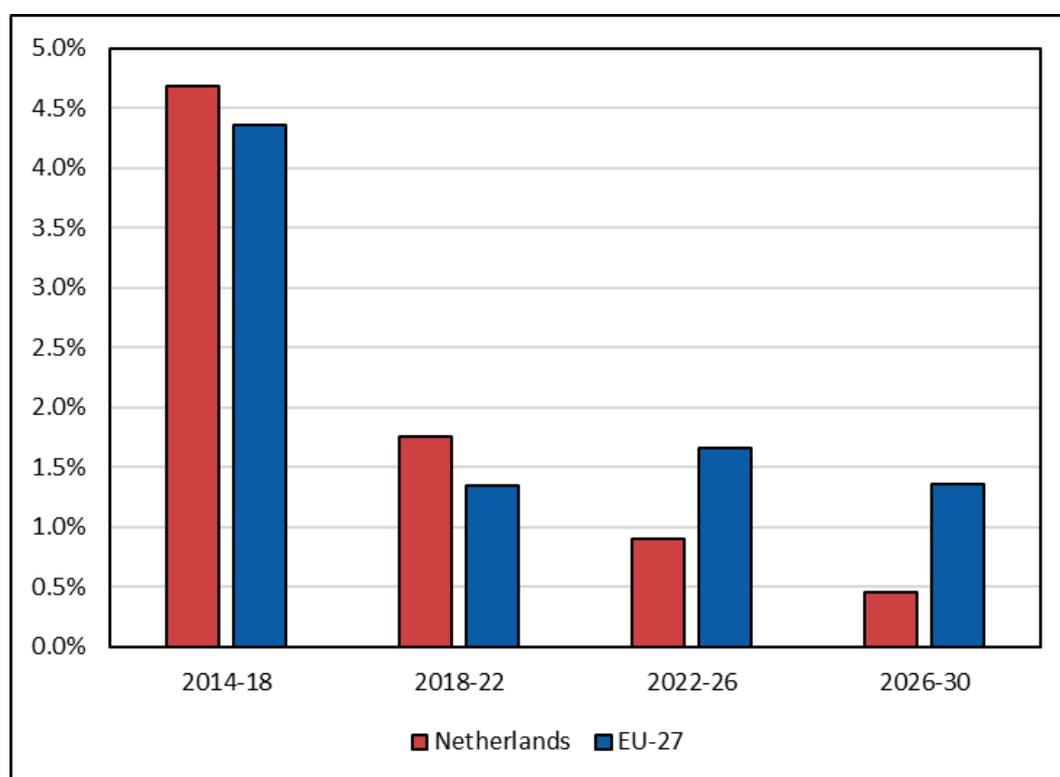
39% Increase in high-skilled labour supply 2018-30



1. Employment outlook

Employment in the Netherlands is forecast to increase over the period 2018-30, yet the rate of growth is declining, as shown in Figure 1. Over the short term (2018-22), following the strong growth observed over the period 2014-18, employment is forecast to grow by 1.8%, which is faster than the EU-27 average. In the following two periods, employment is expected to increase by 0.9% over 2022-26, followed by 0.5% over 2026-30. This is considerably less than the EU-27 average.

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



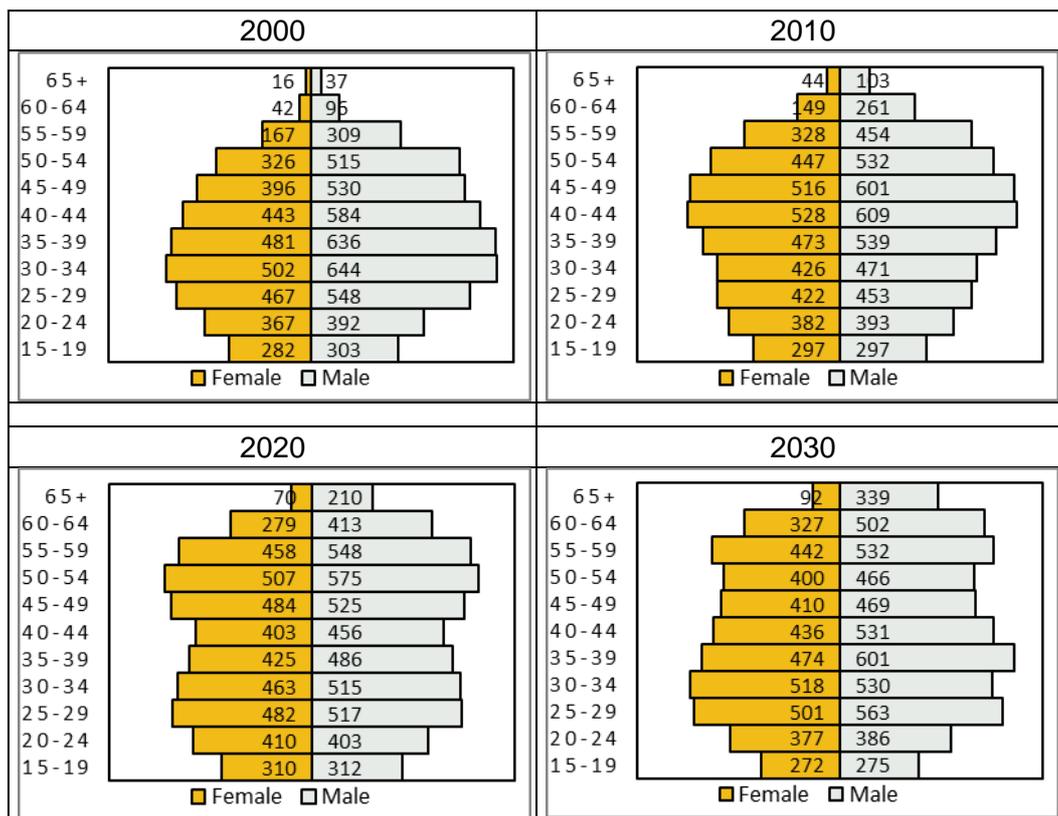
Source: Cedefop (2020 Skills Forecast).

2. Labour force overview

In the Netherlands, the labour force is expected to increase by 17% over the three decades from 2000 to 2030. As shown in Figure 2, the increase in the labour force is expected to be largest among 60-64 and 65+ years old, where the combined labour force is expected to be more than six times higher than it was in 2000. The share of the labour force among these age groups was only 2% in 2000, while in

2030 it is expected to be 13%. This considerable increase is driven by a rise in the population of older people along with an increasing participation rate for these age groups. The population of aged 65+ years old is expected to double from 2000 to 2030, while their participation rate is expected to increase from 2.5% to 10% over the same period. This increase in participation is likely to be a result of pension reforms, which are consistently increasing the pension age in the Netherlands. Over the forecast period (2020-30) it is expected that the labour force will decline among the young (i.e. those aged 15-19 and 20-24 years), mostly driven by a declining participation rate due to higher educational attainment. In other age groups, the changes in the labour force are mainly driven by the change in population. Apart from an increase in the participation rate for 55-59 year-olds of 4 pp and 5.8 pp for 65+, the other age groups are expected to see only small changes in participation rates.

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

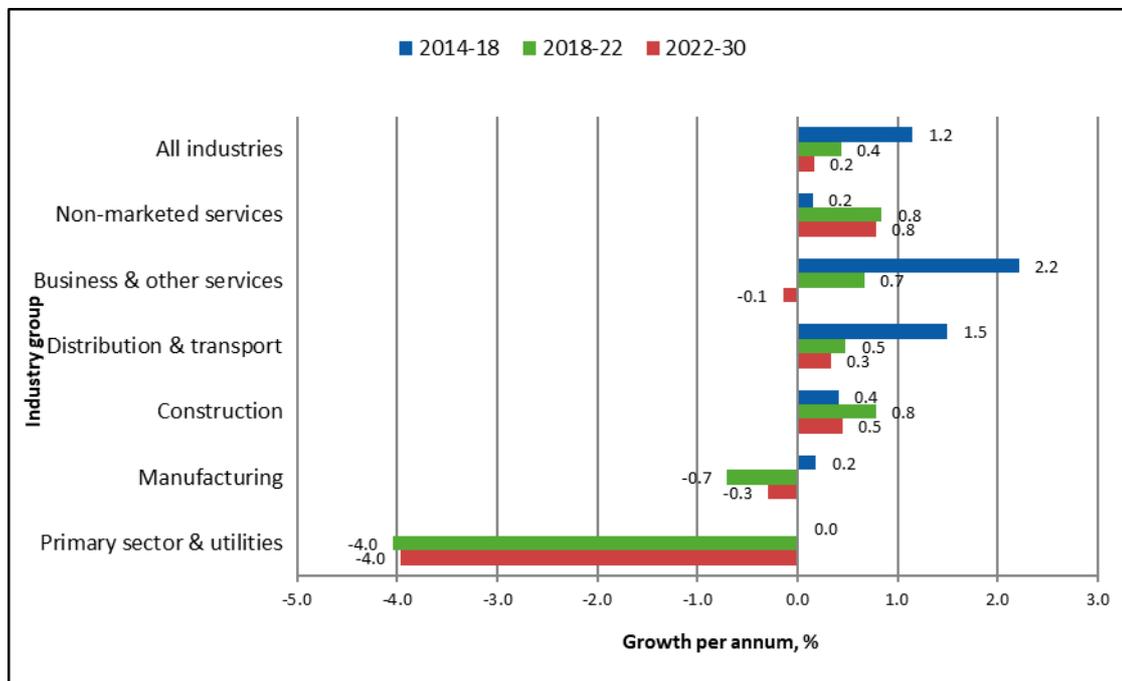


Source: Cedefop (2020 Skills Forecast).

3. Sectoral employment trends

As Figure 3 shows, most sectors are expected to see a slowdown in growth in the short term (2018-22) and in the longer term (over 2022-30), yet remaining well below of the historically favourable rates that were seen over 2014-18. *Non-marketed services, construction and distribution and transport* are expected to see employment growth throughout the forecast period, with *non-marketed services* recording the strongest growth of 0.8% pa over the short term (2018-22) and long term (2022-30). Meanwhile, despite seeing the highest employment growth over the period 2014-18, *business and other services* is expected to initially experience moderate growth of 0.7% pa, before seeing employment fall by 0.1% pa in the longer term. This might reflect the fact that the Netherlands is already heavily service orientated, and so does not have as much capacity to grow in this sector compared to other countries. Elsewhere, *primary sector and utilities* is expected to experience a significant fall in employment, of 4% pa cross the forecast period, while *manufacturing* is expected to experience a less severe decline of 0.7% pa in the short term and 0.3% pa in the long term. Both broad sectors are expected to be impacted by digitalisation and robotisation.

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), the sharp decline seen in *primary sector and utilities* is driven by significant decreases in employment in *agriculture* and *other chemicals*, which both initially fall by over 5% pa in the short term and continue to decline in the longer term. Among *non-marketed services*, the increase in employment growth over the forecast period is driven by expanding *health* and *education* industries, which reflect the expansion in educational attainment and rapidly ageing population expected over the forecast period.

4. Job openings by occupational group

Cedefop skills forecasts estimate the total job openings by occupational group as the sum of net employment change and replacement needs. Net employment change refers to new jobs created 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).

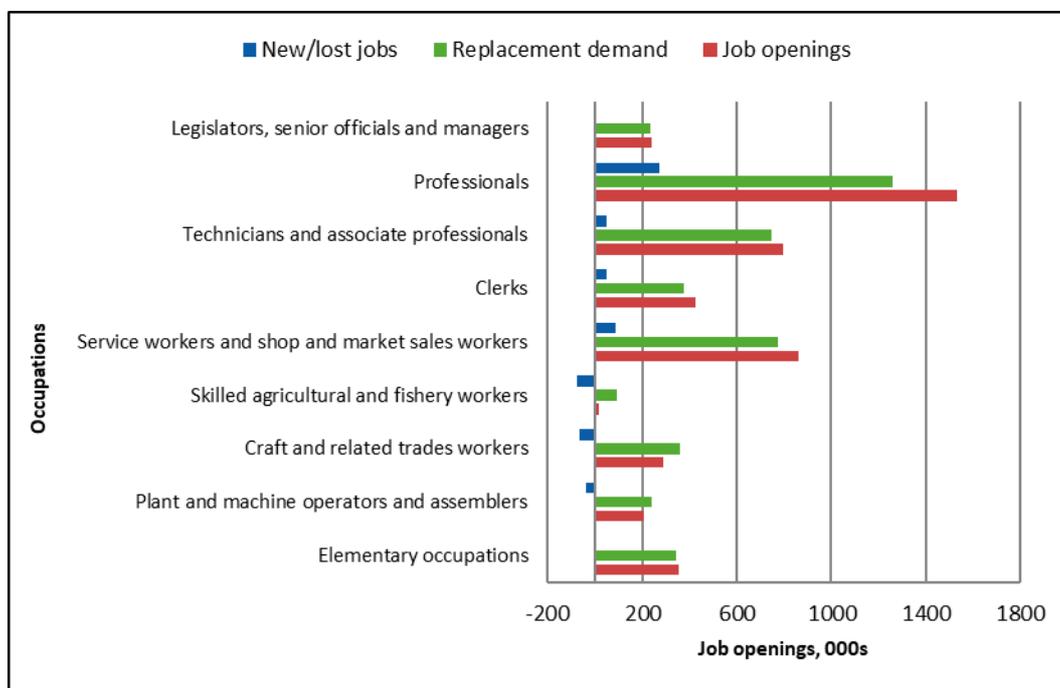
Figure 4 shows the total job openings by broad occupational group over 2018-30. The number of job openings indicates the number of jobs that are required to be filled due to lost/newly created jobs and those that are in need of replacement workers. Most occupations will have job openings mainly driven by replacement needs. Occupations such as *managers* and *elementary occupations* will experience very limited job creation - i.e. less than 2% of job openings.

The most job openings are forecast to be among the relatively high skilled occupation of *professionals*, who are expected to have 1.5 million job openings, consisting of 272 000 newly created jobs. Most of the job expansion is expected to be in *business and administration professionals* and *legal, social and cultural professionals and related associate professionals*, with almost 180 000 new jobs between them.

Among medium skilled occupations such as *craft and related trades workers* and *skilled agricultural and fishery workers*, it is expected that almost 150 000 jobs will be lost, with most occurring in *food processing, wood working, garment and other craft* and *market-oriented skilled agricultural workers*. These changes mirror the declines in employment seen in *primary sector and utilities* and manufacturing shown in Figure 3. Overall, there is a pattern of job creation among higher skilled occupations and job losses in lower skilled occupations, which reflect the upskilling

of the workforce in the Netherlands and the increase in the share of high skilled workers.

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 the Netherlands 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 sector 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*, in general, *professionals, 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 will lead to a greater use of higher-level occupations at the expense of some medium and low-level occupations. All relevant lower-level occupations are expected to decrease, with no exceptions.

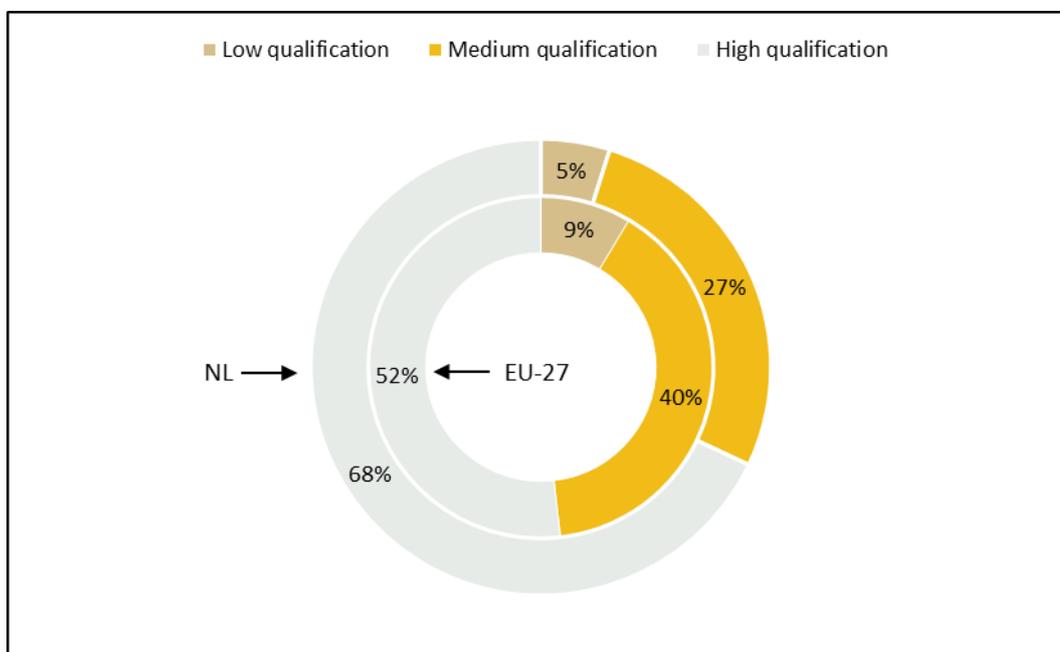
Intermediate occupations are also expected to decrease slightly overall. Among the medium-qualified occupations which are expected to see an increase in employment are *elementary occupations* and *labourers in mining, construction, manufacturing and transport*.

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 the Netherlands and the EU-27 over 2018-30. In the Netherlands, more than two thirds of job openings are expected to require a high qualification. Compared to the EU-27, a much higher share of job openings is expected to require a high level of qualifications, while a lower share is expected to require low and medium 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 the Netherlands and the EU-27. The Netherlands is rapidly increasing its share of higher qualified in the labour market. While the share was at 37% in 2018, it is expected to increase to 50% of the labour force by 2030.

The increase in the share of the high qualified has been predominantly driven by the outflow of older workers, both low and medium qualified, and to a lesser degree to qualification upgrading. The share of medium qualified workers in the labour force is expected to decrease from 41% in 2018 to 35% in 2030, while the share of low qualified workers is expected to decrease from 22% to 15%. Relative to the EU-27 averages, the Netherlands is expected to continue to have a higher share of the high qualified and a lower share of the medium qualified, with a similar share of low qualified labour.

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



Source: Cedefop (2020 Skills Forecast).

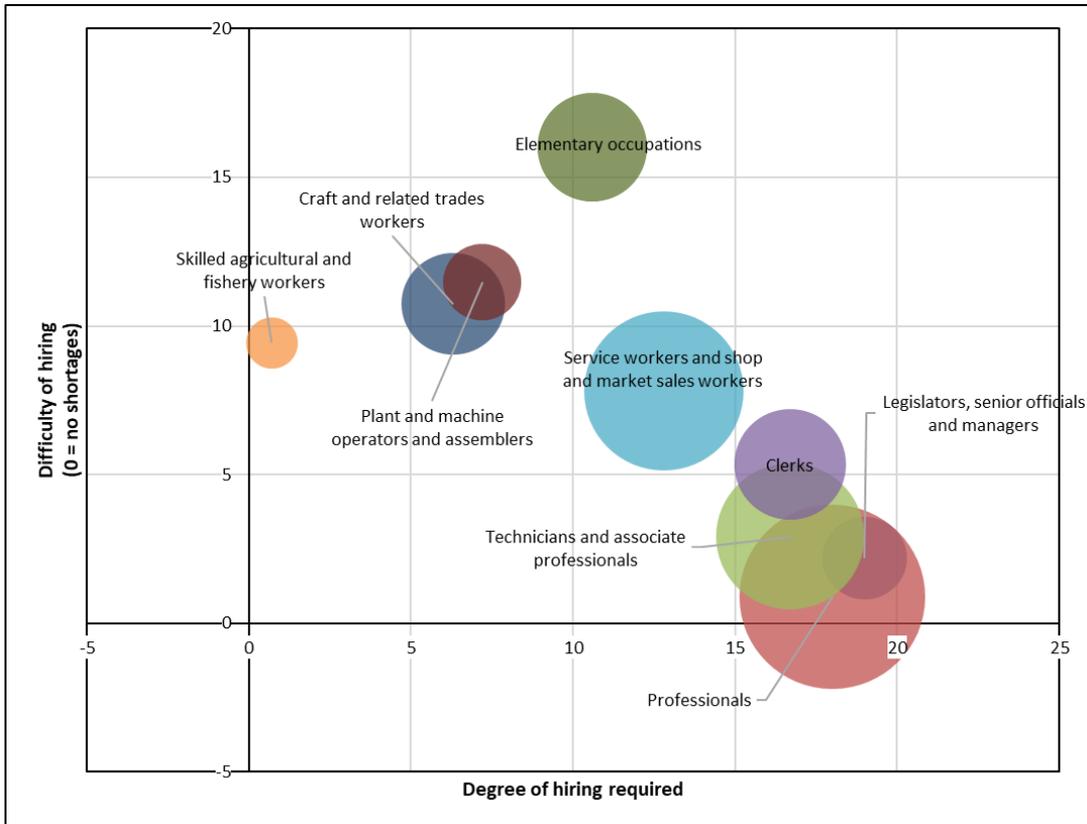
Overall, the forecast implies an increasing shortage, especially among the lower and medium qualified, while the supply of higher educated is forecast to sufficiently fill the demand within higher level occupations.

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.

The increasing supply of higher educated workers suggests there could be shortages, especially among the medium but also of the lower qualified. These shortages could therefore mean that some higher educated workers will have to be employed within occupations at a lower level than they qualify for, or there will be hiring difficulties. Medium level occupations in the *elementary occupations*, as well as *plant and machine operators and assemblers* and *craft and related trades workers* are expected to see higher levels of hiring difficulties in the forecast (Figure 7). These are expected to be seen alongside low to medium levels of change by qualification, and so low to medium levels of hiring difficulties are expected within these occupations. While *professionals, legislators, senior officials and managers, technicians and associate professionals* are expected to have less hiring difficulties, as they usually hire from the supply of higher qualified, they also show a fairly high level of hiring required in the forecast period. A high degree of hiring required along with moderate hiring difficulties can be found among *service workers and shop and market sales workers*.

Hiring difficulties among *professionals* are very low across the underlying occupations. The degree of hiring required is expected to differ, though, with *business and administration professionals* (25), *information and communications technology professionals* (24) as well as *legal, social and cultural professionals* (23) being above the average for *professionals* as a whole (18), while the degree of hiring required among *health professionals* (8) and *teaching professionals* (10) is expected to be well below the average.

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).

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



For more details, please contact Cedefop's Skills Forecast team at: Skills-Forecast@cedefop.europa.eu

The country fiche for the Netherlands has been developed in collaboration with Jessie Bakens, Research leader at the Research Centre for Education and the Labour Market, Maastricht University School of Business and Economics, Netherlands.

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