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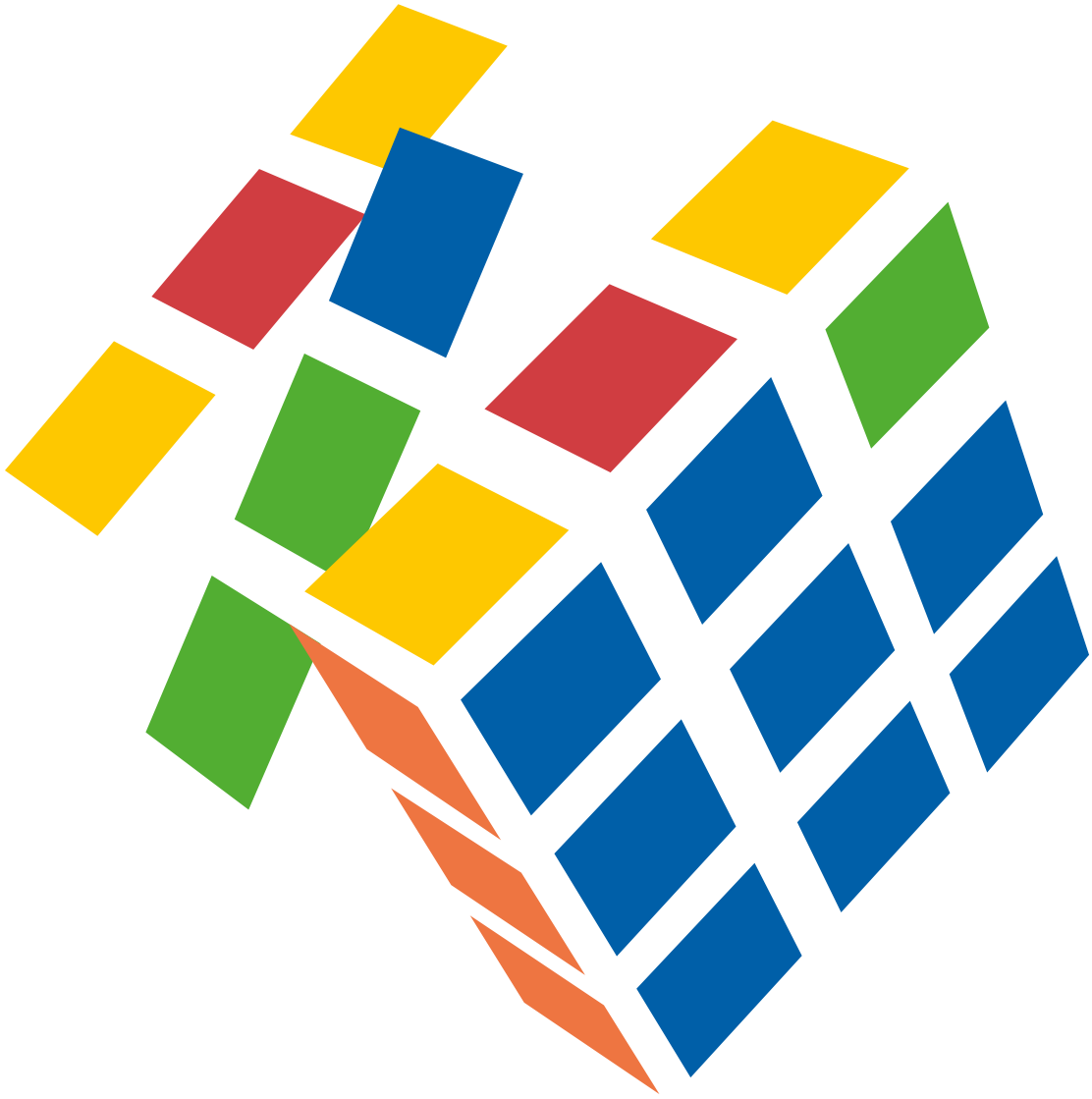


2023 skills forecast

Slovenia

cedefop

SKILLS FORECAST 2023 SLOVENIA

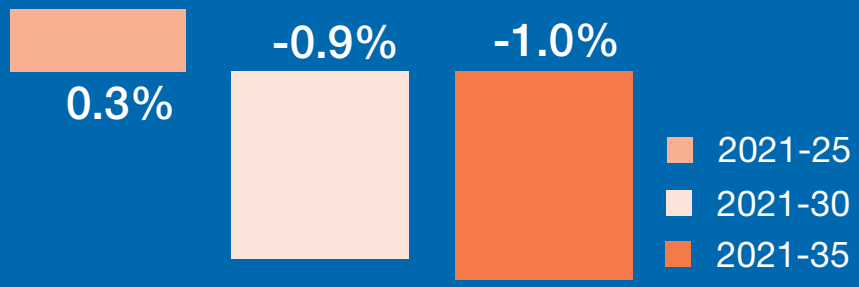
Employment in 2035

1 043 000

-1.04%

increase 2021-35

% Employment growth 2021-35



Fastest-growing sectors

2021-35% growth

51%
Information & communication

35%
Electricity, gas, steam & air conditioning supply

Total job openings, 2021-35

496 000

Replacement needs (100%)

New job openings (0%)

Highest-demand occupations

Largest creation of new jobs, 2021-35

22 000
Science & engineering professionals

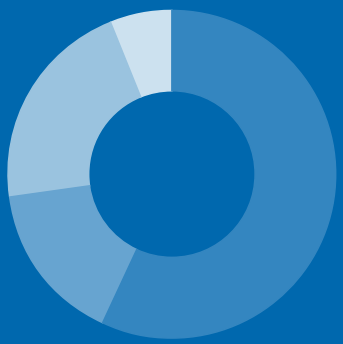
12 000
Business & administration professionals

8 000
Information & communications technology professionals

increase in high-skilled labour demand 2021-35

29%

Total job openings by skill level 2021-35



High-skilled non-manual occupations (57%)

Skilled non-manual occupations (16%)

Skilled manual occupations (21%)

Elementary occupations (6%)

EU overview 2035

3.4%
employment increase in 2021-35

Fastest growing occupation
Legal, social and cultural professionals

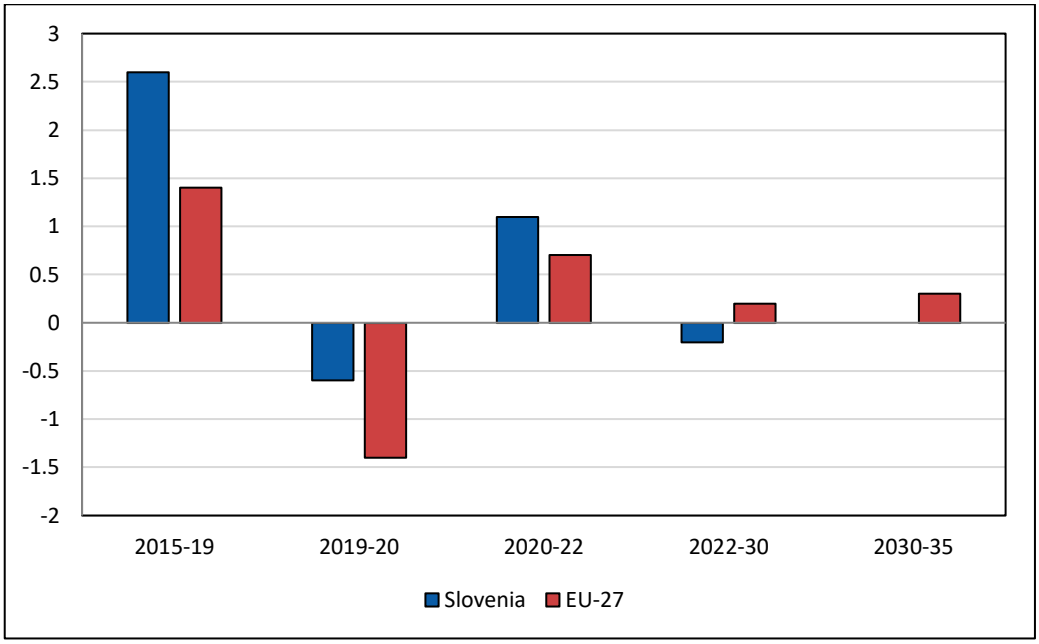
Fastest growing sector
Information and communication

Cedefop skills forecast: Slovenia

1. Employment outlook

Employment in Slovenia is forecast to shrink over the forecast period. Figure **1** shows that employment in Slovenia grew faster than the EU-27 average over 2015-19 and fell slightly less sharply than the EU-27 in 2020 as the Covid-19 pandemic hit. Employment in Slovenia is estimated to have bounced back slightly more than the EU-27 over 2020-22. However, employment in Slovenia is forecast to shrink by 0.2% pa over 2022-30 and then to remain static over 2030-35, compared with growth of around 0.2-0.3% pa for the EU-27 over the whole forecast period.

Figure 1**. Annual percentage employment growth in Slovenia and the EU-27, 2015-35**



Source: Cedefop (2022 Skills Forecast).

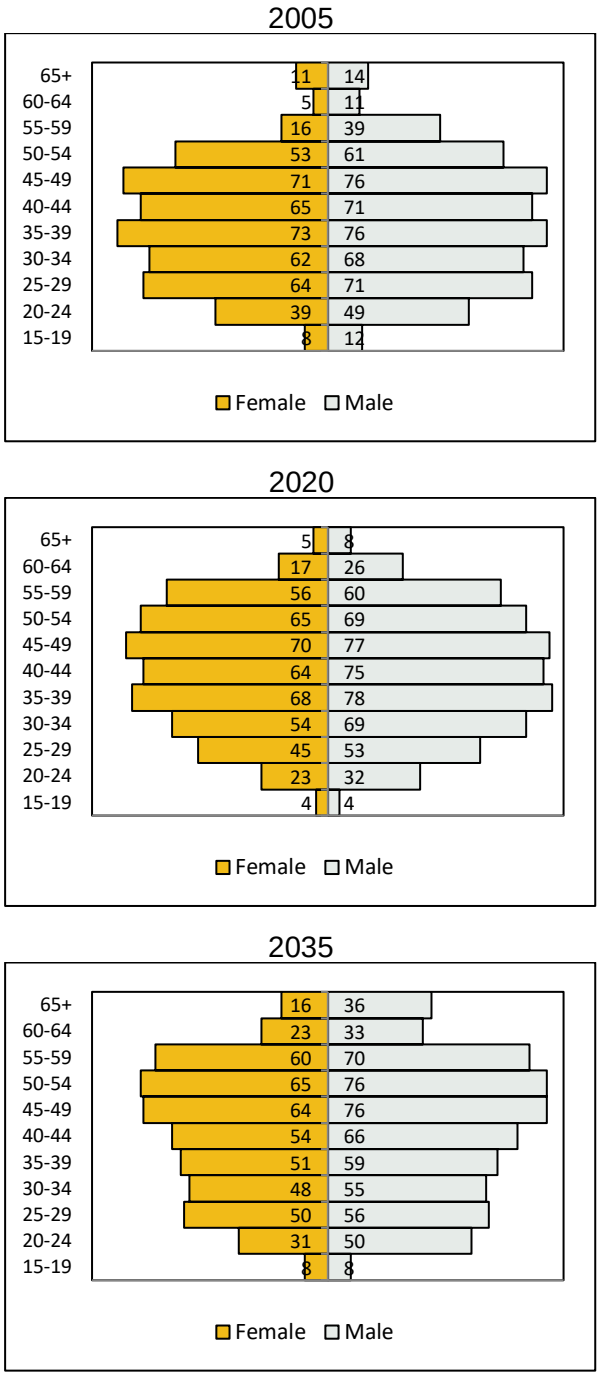
2. Labour force overview

Figure **2** shows Slovenia's labour force by age group in 2005, 2020 and 2035. Changes in the labour force in Slovenia over the forecast period will continue to be driven by the ageing population and increasing participation rates in most age groups. The total labour force in Slovenia is projected to increase by 3% over 2020-35, compared to growth of 1% over the previous 15 years. This compares with an expected increase in the labour force of just under 3% over 2020-35 for the EU-27. Despite increases in participation rates for individual age groups, changes in population by age mean that the total participation rate in Slovenia is forecast to remain static over 2020-35, compared with an increase of 1 pp for the EU-27. The total population is forecast to grow by 3% over 2020-35, compared with a growth of 4% over 2005-20.

The population aged 30-44 in Slovenia is forecast to decline sharply during 2020-35, while the population aged 65 and over is forecast to grow quite strongly, reflecting trends in the relevant younger cohorts in preceding periods. The population aged 15-24 is also projected to grow quite strongly, so Slovenia's population is not expected to age quite as strongly as elsewhere in the EU-27.

The participation rates of most age groups in Slovenia are forecast to grow strongly over 2020-35, with the strongest increases projected for the 20-24 (14 pp) and 40-44 (10 pp) age groups. The pattern of increases in participation rates by age group and gender is mixed, with female rates projected to increase more than male rates in some cases and vice versa. Overall, the total participation rate for females is projected to fall by 1 pp and for males to remain static over 2020-35. However, future policy changes to increase participation might not yet be fully reflected in these predictions. For example, by the end of 2024, a new pension reform shall be implemented, which could rise the pension age up to the age of 67 and thus increase participation among older workers.

Figure 2**. Distribution of the labour force (thousands), 2005-35**

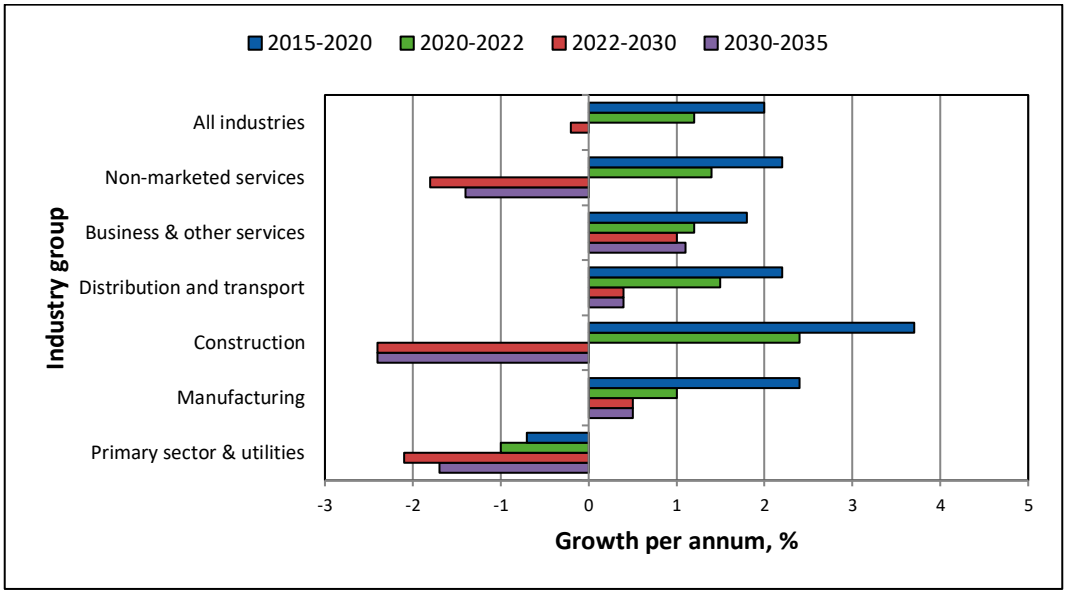


Source: Cedefop (2022 Skills Forecast).

3. Sectoral employment trends

Figure **3** shows the annual average employment growth by broad sector in Slovenia between 2015 and 2035. Although total employment in Slovenia is forecast to shrink slightly over 2022-30 and remain static over 2030-35, the picture among the broad sectors is mixed. *Business & other services* are forecast to see the fastest employment growth, at 1% pa over 2022-30, and *Distribution & transport* are also forecast to see some employment growth, at 0.4% pa over the same period. *Manufacturing* is the only other broad sector forecast to see positive employment growth, at 0.5% pa. *Construction* is forecast to see a strong decline in employment of 2.4% pa, while employment in *Primary sector & utilities* is forecast to fall by 2% pa over 2022-30. The forecasting model does not take into account the strong political and financial support in increasing residential construction by 2030, which could boost employment in the *Construction* sector somewhat.

Figure 3**. Employment growth by broad sector of economic activity, 2015-35**



Source: Cedefop (2022 Skills Forecast).

In terms of sub-sectors (i.e. below the level of the six broad sectors discussed above), the pattern of growth is more mixed. Among the larger (accounting for 2% or more of employment in Slovenia in 2020) sub-sectors in *Business & other services,* employment in *computer programming & information services*, *financial & insurance activities*, *market research & other professional services* and *legal, accounting & consulting services* are forecast to grow quite strongly over 2022-30,

by 1% pa or more. On the other hand, employment in *administration & support services*, *arts & entertainment* and *other service activities* is forecast to decline over this period. Within *Distribution & transport*, employment in *land transport* (4% of employment in Slovenia) is forecast to grow by 1% pa over 2022-30, but in *accommodation & catering* (4% of employment) and *wholesale & retail trade* (12% of employment) is forecast to grow only weakly. Among *Non-marketed services*, only employment in *health* (7% of employment) is forecast to grow over the forecast period, while employment in *public administration & defence* (5% of employment) and *education* (8% of employment) is forecast to fall quite strongly. The sub-sectors in *Manufacturing* tend to be smaller, but among the larger ones (2% of employment or more), employment in *electrical equipment* is forecast to grow quite strongly. In *Primary sector & utilities*, employment in the *agriculture* subsector (7% of employment) is forecast to fall strongly over 2022-30.

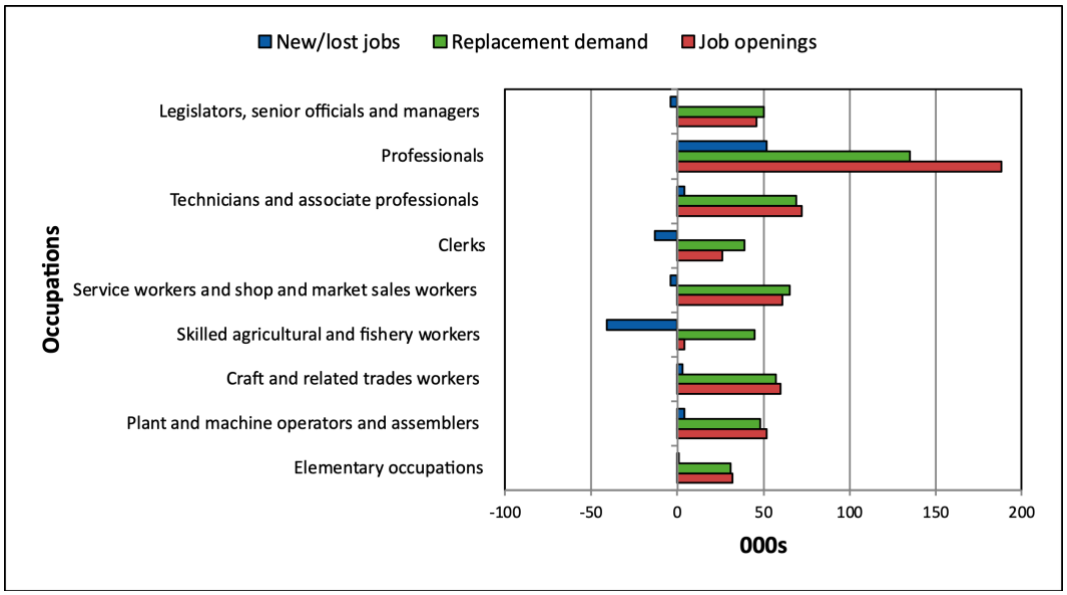
4. Job openings by occupational group

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 or jobs lost due to the expansion or contraction 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 shows total job openings by broad occupational group over 2020-35. The number of job openings indicates the number of jobs required to be filled due to lost/newly created jobs and those requiring replacement workers. It should be noted that the exact timing of job opening, especially in the context of replacement demand and changing pension age might not be easy. Increasing the retirement age might delay some forecasted job openings into the future. Only *Professionals* are forecast to see a relatively strong increase in the number of jobs, combined with a large replacement demand. This broad occupation is forecast to see the greatest number of job openings. Despite weak growth or declining numbers of jobs in the other broad sectors, all are expected to have a positive number of job openings due to replacement demand. Overall, the number of jobs is forecast to increase by only 4,000 over 2020-35, but replacement demand means there are expected to be more than 540,000 job openings over the same period.

At the more detailed level, most job openings (taking both new/lost jobs and replacement needs together) are expected to be in high skilled non-manual occupations such as *science & engineering professionals*, *business & administration professionals and associate professionals* and *legal, social & cultural professionals*, with the first two due to a large increase in jobs as well as replacement demand. Among the skilled non-manual occupations, *personal service workers* and *sales workers* are also expected to provide a relatively large number of job openings due to replacement demand, which is expected to compensate for a declining total number of jobs in both occupations. Some skilled manual occupations such as *metal, machinery & related trades workers* and *drivers & mobile plant operators* are also expected to provide many job openings, again due mainly to replacement demand. Although most elementary occupations are expected to provide at least some job openings, the number is expected to be much lower than in the more skilled occupations, except for *cleaners & helpers*.

Figure 4**. Job openings by broad occupational group, 2020-35**



Source: Cedefop (2022 Skills Forecast).

5. Drivers of occupational change

The occupational composition of employment in Slovenia is mainly characterised by changes in the level of specialisation within occupations and by changes in industry size. Stronger occupation-specific and industry effects will lead to an increase in shares of *professionals* and *managers,* some categories of *technicians and other associates,* but also in occupations which support services and production processes, such as *assemblers, drivers and mobile plant operators* and elementary occupations such as *cleaners, refuse, street & related service occupations* and *labourers in mining, construction, manufacturing & transport.* High-skilled occupations that can benefit the most from these trends are, for example, *health professionals, business & other professionals*, and, in particular, *science & engineering professionals*.

Furthermore, the overall effect of occupation-specific and industry size favours the highly-skilled occupations. Meanwhile, low-skilled and especially medium qualified occupations are negatively affected. Therefore, the effect of occupational change depends on several factors that need to be considered together. Increasing automation and digitisation, together with moves toward a service-oriented economy, including within *manufacturing*, will lead to greater use

of higher-level occupations at the expense of some medium and low-level occupations.

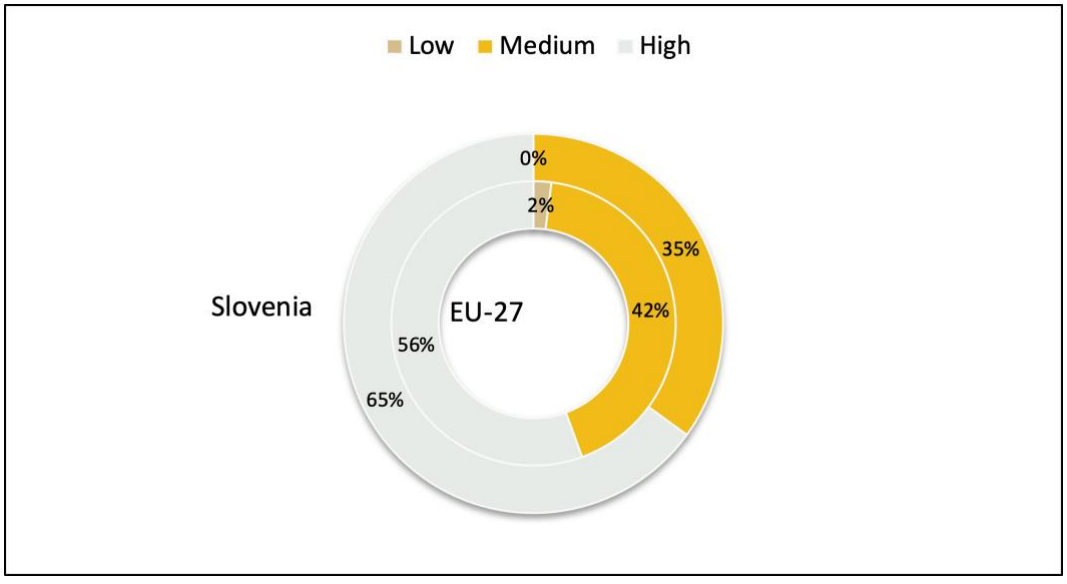
Lower-level occupations are forecast to decrease overall, mainly due to the negative employment change among *agricultural, forestry & fishery labourers*. All intermediate occupations are expected to decrease except for *assemblers, drivers, mobile plant operators*, and *metal, machinery & electrical trades*. While overall high-skilled occupations are expected to increase, more is needed to ensure employment growth for all occupations combined.

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 Slovenia and the EU-27 over 2022-35. In Slovenia, as for the EU-27 as a whole, almost two-thirds of all job openings are expected to require high qualifications. A share of 35% of the job openings is expected to require medium qualifications and none a low qualifications. However, it remains to be seen if Slovenia can develop an industrial policy towards a high value-added economy at the forecasted speed. External factors might lead to a slowdown of the forecasted transition.

Figure 5. **Shares of total job openings by level of qualification, 2022-35**

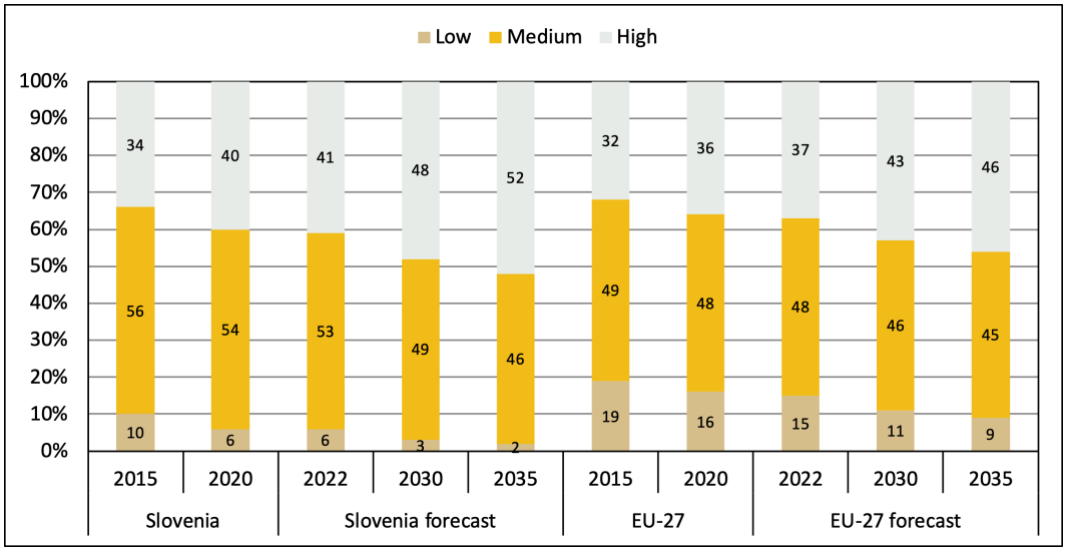


Source: Cedefop (2022 Skills Forecast).

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 expected development of qualification shares of the labour force in Slovenia and the EU-27. The share of high-level qualifications in the labour force in Slovenia is expected to continue to increase, from 41% in 2022 to 52% in 2035.

Figure 6. **Labour force share by level of qualification, 2015-35**



Source: Cedefop (2022 Skills Forecast).

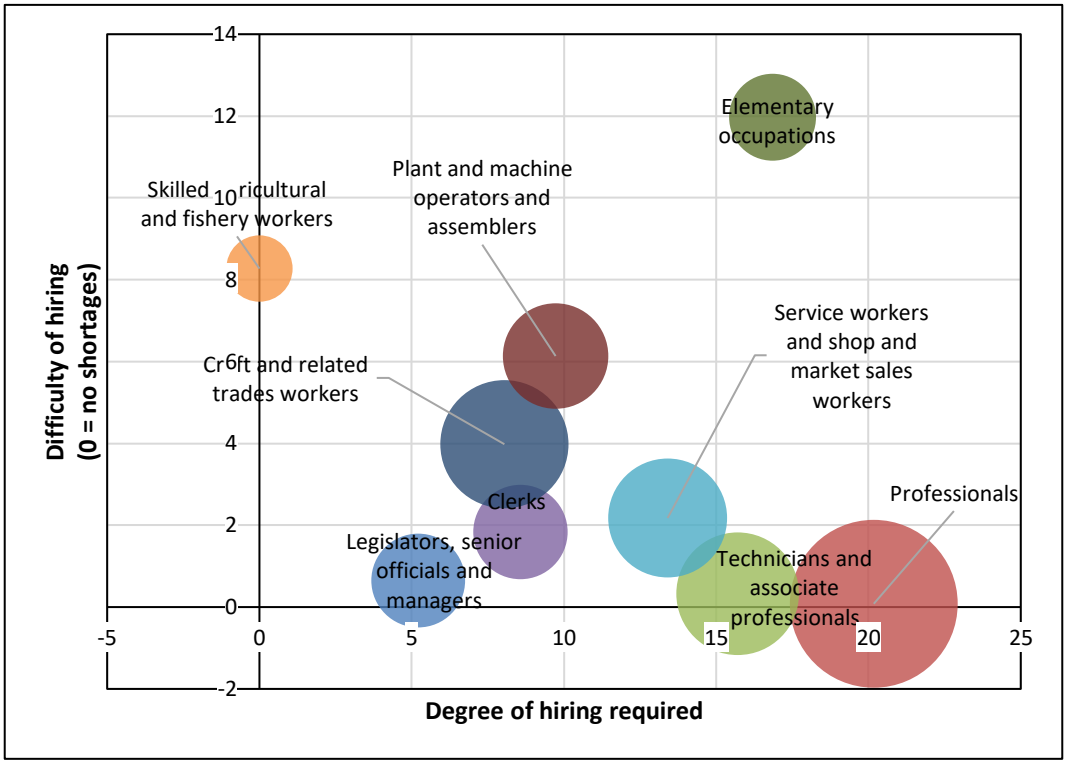
The increase in the share of high qualified workers in the past was predominantly through an outflow of older, low qualified workers. The share of low qualified workers is expected to more than halve from 2022 to 2035, while the share of medium qualified workers is expected to decrease by 7 pp. The trend is similar to that of the EU-27, albeit that Slovenia has had lower levels of lower qualified and higher levels of high qualified.

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 (2022) 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, 2022-35**



Source: Cedefop (2022 Skills Forecast).

Note: Indicators were calculated at the level of the underlying 2-digit occupation groups. Aggregation was based on the employment weights within each 1-digit occupation group.

The increasing supply of higher educated workers suggests there could be shortages among the lower qualified. These shortages could therefore imply that some of the higher educated will have to be employed within occupations at a lower level than that which they qualify for, or it will result in hiring difficulties. *Elementary occupations* and *Skilled agricultural & fishery workers* are expected to experience higher hiring difficulties in the forecast (Figure **7**). These go alongside high (*Elementary occupations*) and low (*Skilled agricultural & fishery workers*) levels of change by qualification, so high and low levels of hiring are required within these

particular occupations, respectively. While *Professionals, Legislators, senior officials & managers* and *Technicians & associate professionals* are implied to have little hiring difficulties, as they usually hire from the supply of higher qualified, they also show a high degree of hiring required in the forecast period.

Hiring difficulties among *Professionals* are very low across the underlying occupations. The degree of hiring required is expected to differ, though, with *science & engineering professionals* (42) being higher. In contrast, *teaching professionals* is expected to be below the average. However, a high average age of teaching staff might lead to an increased demand for specific qualifications. Another sector in increasing demand is the health sector which is both demand driven (ageing population) along with supply elements (low pay and high work pressure leading to increased turnover). Both examples require specific, mostly high qualified personnel, which is not reflected in the forecasting method in such a way.

Cedefop methodology

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 2035. The forecast takes account of global economic developments up to May 2022. The European Economy experienced a sharp downturn in 2020 due to the global pandemic, and partially bounced back in 2021. However, the strength of the recovery in the short term is threatened by global factors such as supply chain disruptions, the consequences of the war in Ukraine and high inflation.

The key assumptions of the baseline scenario incorporate the Eurostat population forecast available in May 2022 (Europop 2019) ([1]), and the short-term macroeconomic forecast produced by DG ECFIN in May 2022 ([2]). Several revisions to the data affect the Cedefop Skills forecast 2022, when compared to the 2019 update. For example, the population projections used in the 2022 update are generally more pessimistic than those used in the 2019 update (i.e. Europop 2015), with a corresponding impact on labour force figures. The source of historical labour force data is the European Labour Force Survey, which in 2021 underwent important methodological changes causing a break in the time series for several variables, including labour force. As a consequence, in many Member States the participation rates in 2021 are noticeably above/below historical trends, which causes the Cedefop Skills forecast 2022 to be revised in the same direction, compared to the 2019 update. Moreover, some Member States experienced significant revisions in the historical data series for sectoral employment from the National Accounts.

The Cedefop Skills forecast 2022 is made consistent with the objectives set by the European Green Deal by incorporating suitable assumptions in terms of additional investment, power sector technologies, energy balances and carbon pricing.

Energy and commodity price forecasts from the World Bank and the IEA are used as inputs to the Cedefop Skills forecast, which therefore incorporate the recent surge in prices.

([1]) https://ec.europa.eu/eurostat/web/population-demography/population-projections/database

([2]) https://ec.europa.eu/info/business-economy-euro/economic-performance-and-forecasts/economic-forecasts/spring-2022-economic-forecast_en

For the latest update and access to more detailed Cedefop skills forecast data visit our Skills forecast project page.

The country fiche for Slovenia has been developed in collaboration with Magda Zupančič, expert at the Ministry of Labour, Family and Social Affairs, Slovenia.

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