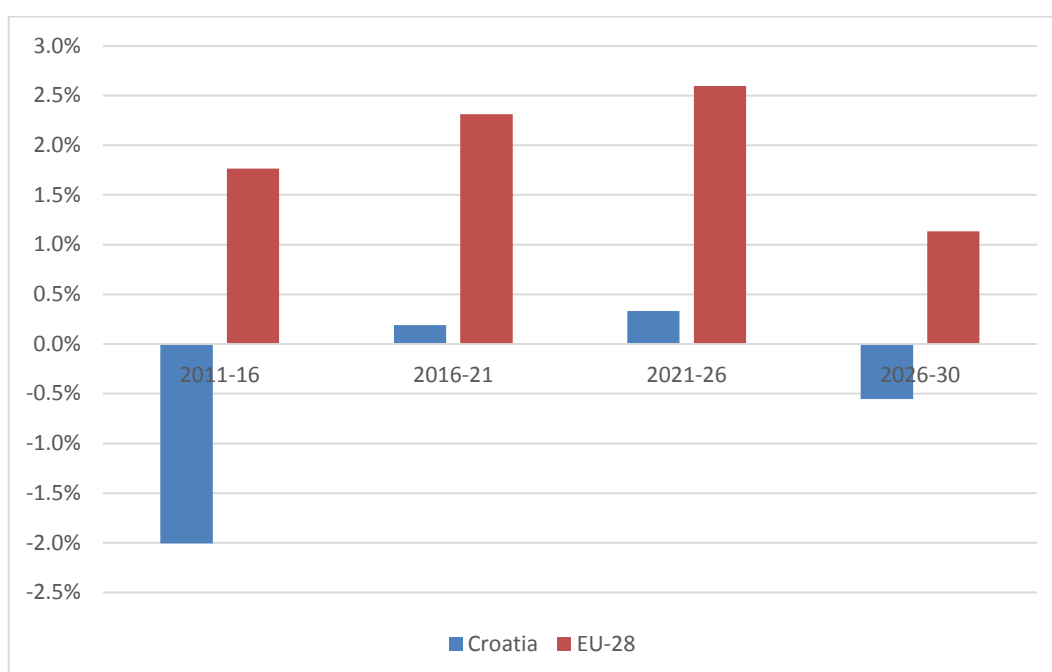


## 1. Employment outlook

Following the decline that continued over the period 2011-16, the employment levels in Croatia have started to increase slightly from 2016 onwards, as shown in Figure 1. This trend is projected to continue up to 2026. However, over the whole forecast period Croatia's employment growth is estimated to be significantly lower than the EU-28 average. The total employment will change only slightly in the period 2016-30 since the employment levels in 2030 are expected to be almost the same as those in 2016.

**Figure 1 Percentage employment growth in Croatia and the EU-28, 2011-30**



Source: Cedefop (2018 Skills Forecast)

## 2. Labour force overview

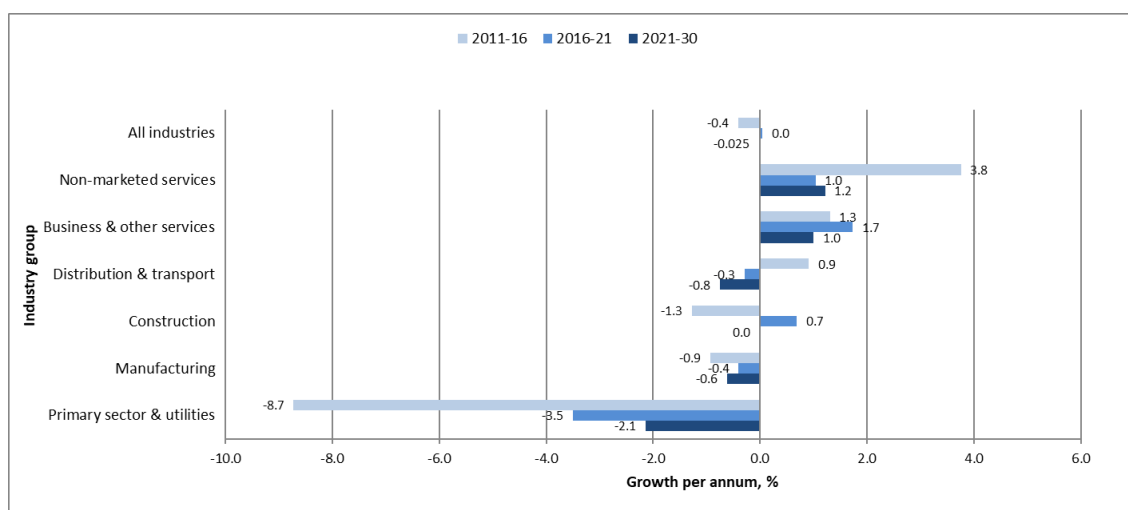
Croatia's overall labour supply is expected to experience a decline (-4.1%) over the period up to 2030. This is the result of a declining working age population (-3.1% over the same period), as young age cohorts (aged 25-39), who have a very high participation rates for both sexes (89% on average), are expected to decline (by -13.5% on average). On the other hand, the number of workers with traditionally low participation rates (e.g. 60+) is expected to increase (25%); this

increase is just sufficient to offset the overall decline in the participation rate of the labour force (-0.6pp).

### 3. Sectoral employment trends

*Construction*, one of the declining sectors over the period 2011-16, is expected to increase in the next decade, facing a mild slowdown again over 2026-30, as shown in Figure 2. In contrast, *primary sector and utilities* and *manufacturing* sectors will continue to shrink, with the sharpest decrease in *agriculture* sub-sector. The *distribution and transportation* sector for which an increasing trend was observed over the 2011-16 period, is expected to decrease from 2016 onward. The highest increase *per annum* in employment over the period 2016-21 is expected in *business and other services*, while over the period 2021-30 the highest growth is expected and in *non-marketed services* sector. In terms of sub-sectors, *health and social work*, *other business services (i.e. telecommunications, real estate activities, advertising and market research)* and *education* sector are those where the greatest increases are expected over the forecasting period.

**Figure 2 Employment growth by broad sector of economic activity, 2016-30**



Source: Cedefop (2018 Skills Forecast)

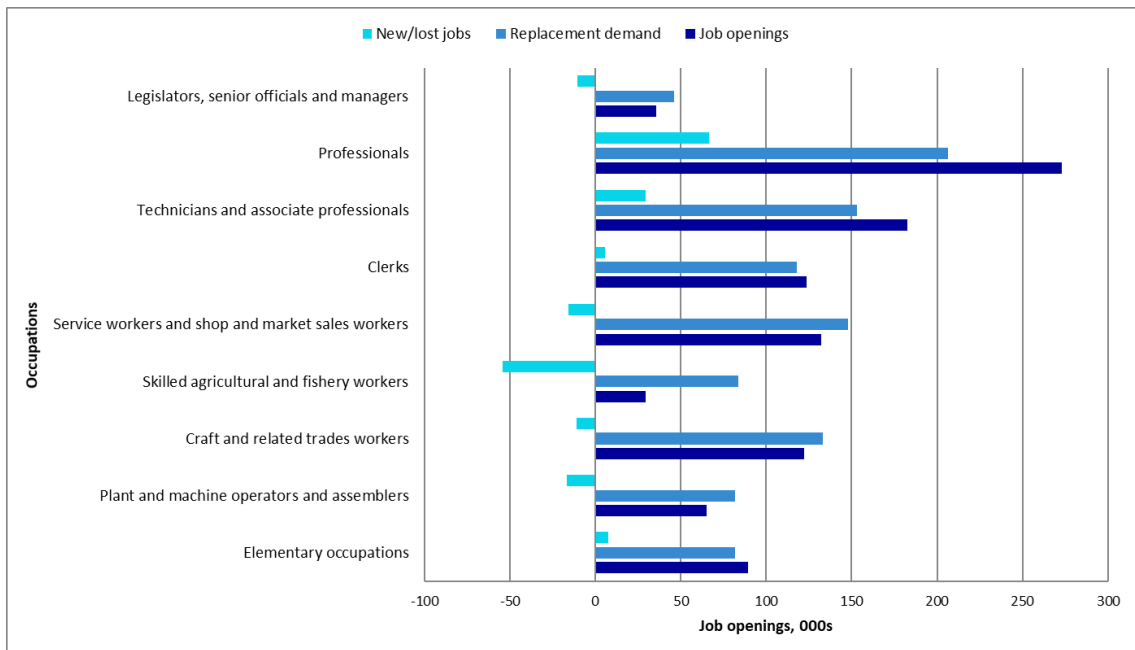
## 4. Job openings by occupational group

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 3 shows the **total job openings** by broad occupational groups over the forecasting period 2016-30. The number of job openings is determined by the amount of jobs lost/newly created and by the amount of jobs that are created following the retirement of old workers.

Figure 3 clearly demonstrates that most jobs creation in Croatia will be due to the need to replace workers leaving particular occupations. Therefore, numerous job opportunities will arise for *professionals*, representing close to 26% of Croatia's overall job openings (compared to 19% for the EU-28) with almost 273 000 job openings (76% of them are the result of replacement demand). *Skilled agricultural and fishery workers* will experience a substantial decline in employment size (i.e. as shown in Figure 3 by the amount of jobs lost) and only a small number of new jobs will be created due to the need to replace existing workers.

**Figure 3 Job openings by broad occupational group, 2016-30**



Source: Cedefop (2018 Skills Forecast)

When occupational groups are analysed in more detail, it is possible to observe that many **new jobs** will be created for *teaching professionals, legal and health associate professionals*. As shown in Figure 3, the majority of broad occupations will experience a decline in job openings, with small number of new jobs. Regarding **total job openings** (openings due to both new/lost jobs and replacement needs), the occupations that will contribute the highest numbers to the Croatian economy over the period up to 2030 are *teaching professionals and legal, social and cultural professionals*, occupations mostly requiring high-skilled workers. However, the occupation with the second highest total job openings is *personal service workers*, that are traditionally considered as medium-skilled.

## 5. Drivers of occupational change

Within the Cedefop skills forecasts, 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/ others).

The sectoral changes of the Croatian economy and the shift towards *business* and *non-marketed services* will create new demand for, some typically low- and medium-skilled occupations such as *other clerical support workers* and *personal care workers*. However, also some typically high-skilled occupations, such as *health, teaching, information and communications technology professionals* and *administrative and commercial managers* will benefit from these sectoral shifts.

Technological, communication and digitalisation changes are changing the skills profile of various occupations as well as their operating business models. These changes will have a negative impact on the structure of several occupational groups, including, *administrative and commercial managers, sales workers* (e.g. due to the flourish of online retail) and *other clerical workers*.

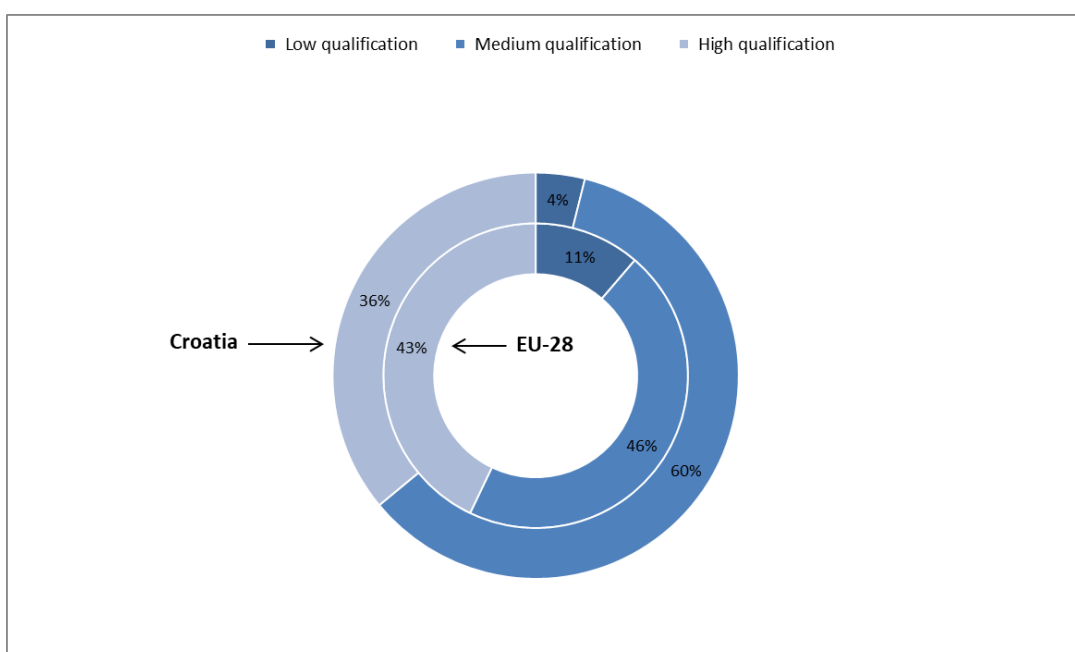
Considering all the effects, the occupations that are expected to increase the most are *legal, social, cultural and related associate professionals* and *teaching professionals*. On the other hand, occupations in declining industries like agriculture and manufacturing affected by automation are expected to decrease, like *market-oriented skilled agricultural workers* and *food processing, wood working, garment and other craft and related trades*.

## 6. Demand for and supply of skills

Within the Cedefop skills forecasts, skills are proxied by the highest level of qualification held by individuals in the labour force and 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 4 shows the shares of **total job openings** for qualifications needs. More than half of jobs (60%) are forecast to be created over the period up to 2030 will require medium level of qualification, while about 36% of jobs will require high level qualification. In contrast, only 4% of total job openings will require low level of qualifications, 7 percentage points below the EU-28 average.

**Figure 4 Share of total job openings by level of qualification, 2016-30**



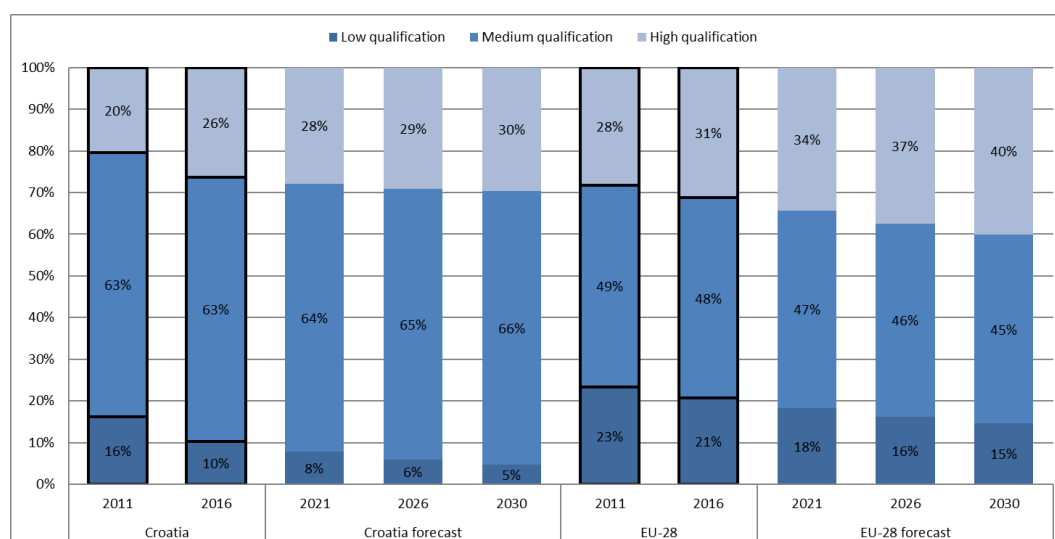
Source: Cedefop (2018 Skills Forecast)

The number of jobs openings requiring high-level qualification is expected to increase within occupations such as *teaching professionals, legal, social and cultural professionals, business and administration professionals, and health professionals*.

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.

As seen in Figure 5, the share of people with high- and medium-level qualifications are expected increase over the period up to 2030, while those for low levels of qualifications are expected to experience a significant decrease. The share of medium-qualified labour force will remain considerably higher (66% in 2030) than the EU-28 level (45% in 2030), while the share of low-qualified labour force is expected to be lower than the EU's one.

**Figure 5 Labour force share by level of qualification, 2011-30**



Source: Cedefop (2018 Skills Forecast)

The demand for highly-qualified workers is expected to exceed the supply over the forecast period, while there might be a surplus of medium-qualified workers, a situation which could give rise to skills mismatches. The demand for low-qualified workers is expected to broadly match the demand.

## Cedefop methodology and scenarios

Cedefop skills forecasts offer quantitative projections of future trends in employment by sector of economic activity and occupational group. Future trends on the level of education of the population and the labour force are also estimated. Cedefop's forecasts use harmonised international data and a common methodological approach allowing cross-country comparisons about employment trends in sectors, occupations and qualifications. The forecasts and methodologies applied are validated by a group of national experts. These forecasts do 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 forecasts covers the period up to 2030. The forecasts take account of global economic developments up to May 2017. Despite cross-country differences, the EU economy as a whole is expected to show modest growth, after a better-than-expected performance in 2017. Over 2018 and 2019, the EU economy as a whole is expected to grow, albeit at a slower pace compared to 2017, supported by increased household expenditure and falling unemployment, although wage growth remains muted. Investment is also expected to pick up given favourable financing conditions and an improved economic outlook. The key assumptions of the baseline scenario incorporate the Eurostat population forecast available in 2017 (Europop 2015) <sup>(1)</sup> and the short-term macroeconomic forecast produced by DG ECFIN in May 2017 <sup>(2)</sup>

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>



For more details, please contact Cedefop expert Ilias Livanos at: [ilias.LIVANOS@cedefop.europa.eu](mailto:ilias.LIVANOS@cedefop.europa.eu)

---

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

<sup>(2)</sup> [https://ec.europa.eu/info/business-economy-euro/economic-performance-and-forecasts/economic-forecasts/spring-2017-economic-forecast\\_it](https://ec.europa.eu/info/business-economy-euro/economic-performance-and-forecasts/economic-forecasts/spring-2017-economic-forecast_it)