



# TRENDS, TRANSITIONS AND TRANSFORMATION

## The Covid-19 pandemic is changing skill needs and reshaping jobs, while challenging our understanding and analysis of them

Pandemic-induced social distancing measures and large-scale lockdowns have caused an economic downturn that is more severe than the recession following the 2008 global financial crisis (¹). In a little more than a year, the ubiquitous health threat has unsettled almost all areas of society and economy, learning and working being no exception.

In the previous crisis, many governments reacted by imposing severe austerity measures; policy responses to the current health crisis have been more accommodating and, in many respects, bolder. Law-makers in most EU Member States have taken action to alleviate its immediate effects and protect jobs, businesses, and livelihoods.

### NEVER WASTE A GOOD CRISIS

This time, many decision-makers have remained confident in the economic fundamentals, viewing the pandemic as a severe albeit temporary disruption. Many see the structural changes in learning and working, brought about by the crisis, as innovation opportunities, drivers of future job creation and enablers of the digital and green transitions. Emboldened by the already visible benefits of the economic changes and the funds made available through the **EU Recovery package**, policy-makers across Europe are resolved to push ahead with the green and digital transformation, adopting holistic transformational strategies.

In making and shaping change and transitions, reliable, customised, and well-communicated skills intelligence is more important than ever. Cedefop has provided skills intelligence to the EU for over a decade and coined the term long before its full potential was widely acknowledged. In a context of rapid labour market change, it should not come as a surprise that skills intelligence is at the heart of the **2020 European skills agenda** and the post-2020 EU policy framework for VET (²).

### Covid-19 challenges skills intelligence

In 2020, labour market research into the impact of the pandemic focused on the vulnerability of jobs and limitations imposed by social distancing (³). Such analyses have been using available surveys and occupational classification frameworks to map occupations or sectors in terms of their resilience in the wake of the pandemic and to shed light on groups of workers most affected by it. However, this approach does not reveal how the pandemic has been reshaping skill

TABLE 1. WHAT IS SKILLS INTELLIGENCE?

<b>Skills intelligence</b>	Outcome of a knowledge-driven process of collecting, selecting, combining and presenting evidence to map and anticipate labour market and skills trends.
<b>Main conventional skills intelligence methods</b>	Skills forecasts capture long-term trends at an aggregate level; skills surveys depict skills development, utilisation and matching at workplaces at a given time. Typically, there is a calendar for generating skills intelligence (e.g. biennially) and there is a significant time lag between collection of data and release of analysis results.
<b>Online job advertisement analysis</b> (Cedefop Skills OVATE)	Analysis of online job advertisements allows for generating fast and detailed information on labour market and skills trends as they unfold.

(¹) In 2020, according to **first Eurostat estimates**, real EU GDP declined by 6.4%. In 2009 it was -4.3%.

(²) Framed by the **2020 Council recommendation on vocational education and training for sustainable competitiveness, social fairness and resilience** and the **Osnabrück declaration**.

(³) See for example Cedefop (2020). **EU jobs at highest risk of Covid-19 social distancing - Is the pandemic exacerbating the labour market divide?**

needs. Other conventional skills anticipation methods (see Table 1) do not offer near-term solutions for capturing major labour market changes as they happen. To provide insight into when and how far the pandemic affected hiring practices, Cedefop turned to its **Skills online vacancy analysis tool for Europe** to track 2020 labour market developments.

**BOX 1. CEDEFOP RESEARCH ON ONLINE JOB ADVERTISEMENTS**

Cedefop uses online job advertisements (OJAs) to produce skills intelligence based on big data and artificial intelligence methods. A data production system collects OJAs in all EU Member States and processes them in the original language. Results are made available via **Skills OVATE on Cedefop's web portal**. As of 2021, Cedefop and Eurostat are jointly responsible for the system and the data is part of **Eurostat's Web intelligence hub**.

## DEEP DIP, STEADY RECOVERY

In April 2020, the number of OJAs posted by employers in the EU was nearly 60% lower than in April 2019 (Figure 1). In some countries the drop was over 70%. The job market showed first signs of recovery in May; in the months after the summer, the number of job ads posted online was slightly higher than in the same period in 2019. The autumn lockdowns appear to have had little impact on the job market. Comparing the whole of 2020 to 2019, the decline in OJAs amounts to 10%.

Trends in the second half of the year are consistent with the relaxation of social distancing measures started in summer. Some employers may have expected potential candidates to be ready to change jobs; others may have been encouraged by the prospect of the announced vaccine rollout in 2021 to plan for the future, develop new products and services, and hire new staff.

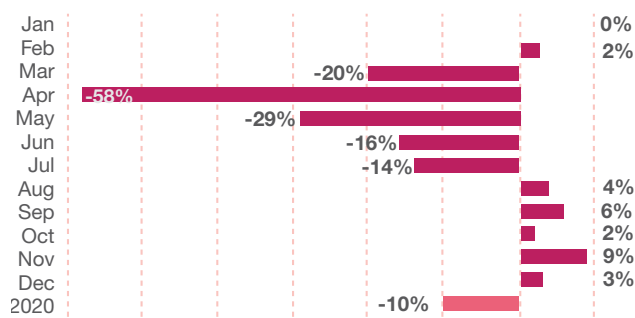
## ONE PANDEMIC, MANY TRENDS

Differences in economic structure, the course of the pandemic and policy responses have led to diverging labour market trends in EU countries. In 2020, seven saw their online job market expand, mostly thanks to an improved situation in the second semester, while six others saw theirs shrink by at least 20% compared to 2019 (Figure 2).

As the number of online job ads correlates, at least partly, with other factors, countries that are similar in many respects may experience different trends. In some countries, notably in central and eastern Europe, the online job market itself has been growing **because employers increasingly prefer online recruit-**

**ment channels to traditional ones.**

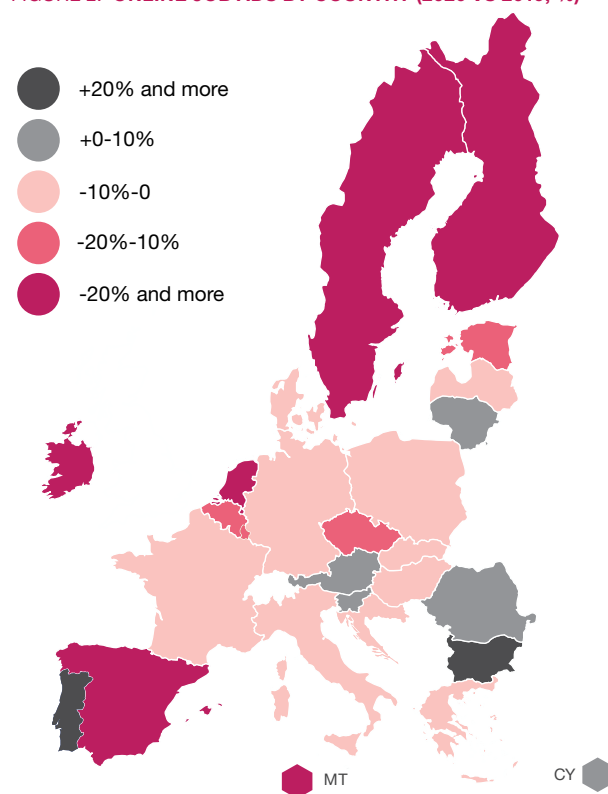
**FIGURE 1. ONLINE JOB ADS, IN MONTHS (2020 VS 2019, %)**



Source: Cedefop skills OVATE. Own calculations.

Economic recovery in the EU in the second half-year was mainly driven by manufacturing in Czechia, Germany, Slovakia, Austria and Portugal.

**FIGURE 2. ONLINE JOB ADS BY COUNTRY (2020 VS 2019, %)**



Source: Cedefop skills OVATE. Own calculations.

If lockdown restrictions remain in place for long, while support measures are rationalised or phased out, business shutdowns and job losses may reverse the positive trends of the second half of 2020. In such a scenario, business services will be more affected than manufacturing and public services. Hospitality, retail, arts, recreation and transport are likely to face the most difficulties as **these sectors have the highest share of jobs directly affected by social distancing.**

## ONLINE JOB ADS IN 2020: MAIN TRENDS

With **recovery in manufacturing**, most online job ads in 2020 concerned production and construction jobs (Figure 3). A majority reflected job opportunities in low- to medium-skilled occupations, such as manufacturing and construction labourers, metal workers and plant and machine operators.

At the same time, more than one in five online job ads still reflected science and technology skills, mainly for ICT specialists, engineers and researchers. However, in 2020 their share was 10% lower than a year earlier: increased digitalisation, perhaps surprisingly, did not translate into more online job vacancies for ICT professionals. Such jobs being suited to being carried out remotely, and the uncertainty created by the pandemic, led to lower staff turnover and job mobility. In the last quarter of 2020, however, online job ads in science and technology resumed their year-on-year increase.

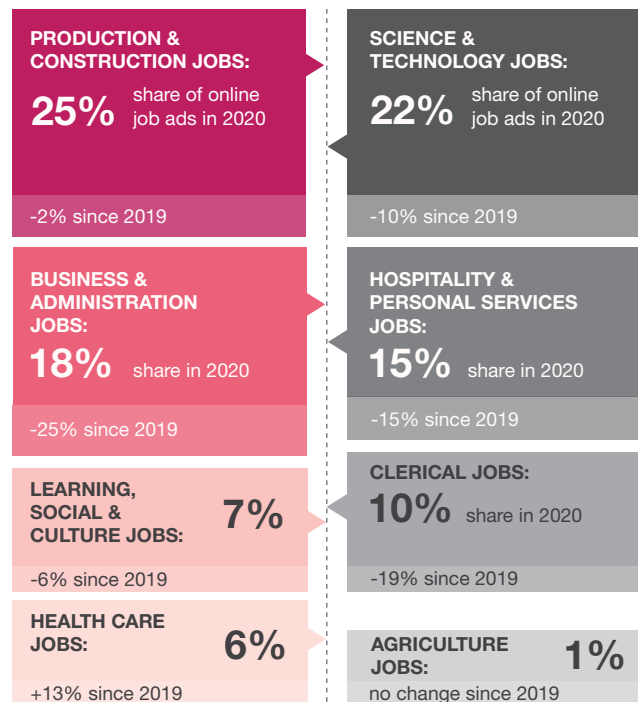
The same applies to business and administration occupations, such as sales, marketing and finance specialists, which registered the largest year-on-year decline in the number of online job ads. Many business and administration occupations can be carried out remotely. Further analysis is needed to see whether, and how, increasing insecurity and home-office arrangements led professionals to stay in their job, negatively affecting employment turnover. The business services sector, traditionally more important than manufacturing concerning online job ads, has not yet shown signs of recovery.

Hospitality and personal services were heavily affected in 2020. The weak summer holiday period and new lockdowns in autumn following the initial shock, meant that many restaurants, hotels and other hospitality businesses could not reopen and resume activities. Those that managed to cope with challenges and embrace new opportunities, increased their recourse to digital technologies to support their business operations. This has spurred digitalisation in a **sector which, in the past, had not been especially dependent on it**.

Clerical jobs such as receptionist, secretary and office clerk, were heavily impacted by the pandemic; the number of job ads recruiting such profiles dropped by 19%. Some of the sectors relying on these workers, such as business services, retail and transport, experienced a challenging year and the trends set in motion are likely to transform them further, in terms of technology, business models and customer interaction. Therefore, the long-term outlook for customer service clerks – an occupation Cedefop, in 2019, had **forecast to grow significantly in terms of employment**

until 2030 – may now be gloomier.

FIGURE 3. OJAs IN 2020 BY TYPE (% SHARE AND % CHANGE IN SHARE SINCE 2019)



Source: Cedefop skills OVATE. Own calculations.

The number of job ads for staff in learning, social activities and culture remained largely stable throughout 2020 and grew slightly during the last months of the year. Forced to adapt quickly to the new normal, education and training have been quite resilient in the wake of the pandemic. **Innovation (e.g. the shift to online learning) and a focus on managing digital gaps** between learners from different socioeconomic backgrounds, have acted as drivers of change.

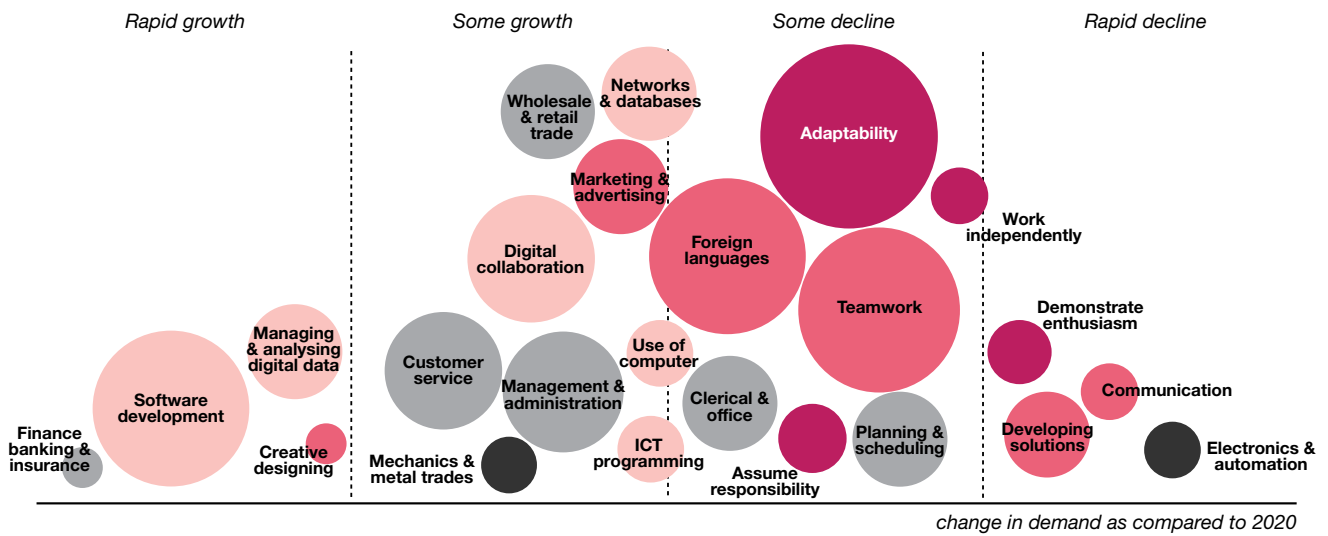
Unsurprisingly, demand for healthcare workers soared in 2020 and recruitment patterns changed considerably. Before the pandemic, such job opportunities were primarily advertised on dedicated websites or spread via personal channels. In the past year, shortages of medical staff have prompted healthcare providers to use every possible advertisement channel possible.

The pandemic has revealed the considerable vulnerability of many countries' healthcare systems and **exacerbated skills shortages**. Demand for healthcare staff will continue to grow in the future.

## THE DIGITAL SKILLS GAP EXPOSED

Social distancing forced millions to work, learn, communicate and shop online. With four out of 10 Europeans **lacking basic digital skills**, Covid-19 has

FIGURE 4. SKILLS IN ONLINE JOB ADS (2020 AND % CHANGE SINCE 2019)



Source: Cedefop skills OVATE. Own calculations. Bubble size reflects skill demand. Skills representing <1% not shown.

revealed the magnitude of the digital gap. Online labour market trends and new ways of organising work, education and training suggest that digital learning and working is set to become even more important in the future. Both advanced and basic digital skills (see Figure 4, in light pink) dominated skills demand in OJAs in 2020. Some will increase further as remote working and collaboration transform millions of workplaces, making digital skills ever more important in management, finance, business, sales, administration and retail.

Along the way to a post-Covid world, technology and new business models will change the face of industries and economies, reshaping jobs and skill needs and transforming forever the way we work and learn.

The pandemic has boosted demand for digital skills at all levels: they are quickly becoming a transversal requirement in virtually all occupations and sectors, helping workers and businesses cope with ongoing change. Health restrictions have shown that digital skills help companies adapt and modernise their business models. During the lockdown periods, they have enabled business continuity in many sectors; this includes public services, as in the rapid shift to online teaching in schools and remote provision of public services.

But digital skills go far beyond this: they equip people both with technical and transversal competences, enabling them to find and keep jobs and to participate actively in society, while driving the transition to a greener and digital economy.

Hence, strengthening digital skills is a high priority across the EU. While they are included in almost all qualification types in initial VET now, much work re-

mains to be done in continuing VET, especially since the lack of digital skills is particularly dramatic among adults. To help close the gap, the European Commission helps Member States to step up digital education and training with its Digital education action plan 2021-27, which aims to make education and training systems fit for the digital age.

Skills intelligence needs to follow suit. The future requirement is to make it actionable, so that it becomes more than a compass for VET and skills policy-makers. Smart and people-centred skills intelligence helps citizens select the up- or reskilling tracks that work for them, to address digital and other skill needs, shaping their careers in the process. Real-time labour market information gives us a glimpse into what next generation skills intelligence is all about. In the coming years, Cedefop will be to the fore in further shaping it and promoting its potential.



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