

*skill*set AND *MATCH*

CEDEFOP'S MAGAZINE
PROMOTING
LEARNING FOR WORK



 CEDEFOP

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INTERVIEW:
NICOLAS SCHMIT

MAIN STORY:
THE RISE OF ONLINE PLATFORM
WORK: HOW IT IMPACTS SKILLS

ARTICLE:
COMPARING VET QUALIFICATIONS

OCCUPATION IN FOCUS:
ACCOUNTING CLERKS

MEMBER STATES: SLOVAKIA


CEDEFOP

The **European Centre for the Development of Vocational Training** (Cedefop) is the European Union's reference centre for vocational education and training, skills and qualifications.

We provide information, research, analyses and evidence on vocational education and training, skills and qualifications for policy-making in the EU Member States.



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skillset AND MATCH

*CEDEFOP'S MAGAZINE
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INTERVIEW

WE NEED A RESKILLING REVOLUTION

Nicolas Schmit – European Commissioner for Jobs and Social Rights

4

INTERVIEW

CEDEFOP TOOLKIT HELPS TACKLE VET EARLY LEAVING

Irene Psifidou – Cedefop expert

6

ARTICLE

A GUIDE TO EUROPE'S VOCATIONAL EDUCATION AND TRAINING SYSTEMS

8

ARTICLE

COMPARING VOCATIONAL QUALIFICATIONS CONTENT ACROSS COUNTRIES

10

#CROWDLEARN

THE RISE OF ONLINE PLATFORM WORK: HOW IT IMPACTS SKILLS

12

OCCUPATION IN FOCUS

ACCOUNTING CLERKS

16

MEMBER STATES

GRADUATE-TRACKING INSTRUMENT LAUNCHED IN SLOVAKIA

17

ARTICLE

SKILLS ANTICIPATION IN ESTONIA: NOW AND FOR THE FUTURE

18

ARTICLE

GREEK-GERMAN COOPERATION IN EMERGENCY SERVICES TRAINING

20

NEW CEDEFOP PUBLICATIONS

22

COMING UP

23

Seize opportunities for everyone's benefit

JÜRGEN SIEBEL

CEDEFOP EXECUTIVE DIRECTOR



Europe should be ready to respond when we get on top of the current health crisis, so no-one suffers long-term effects



I admit it right away: I am one of those ‘glass half-full’ people, instead of half-empty. For some, major transitions like digital and green are challenges or even threats: I see opportunities. Why? Because they require skills which vocational education and training (VET) can provide, for all ages. If we get it right, there’s a triple benefit: to learners, employers and societies.

At the time of writing, one challenge is dominating: the coronavirus pandemic. Everywhere we see extreme measures in place; beating Covid-19 is number one priority. But while other challenges and priorities are overshadowed, they haven’t disappeared; in some instances they may become more acute.

Europe should be ready to respond when we get on top of the current health crisis, so no-one suffers long-term effects. Commissioner Schmit stresses (pp. 4-5) the need for an economy that works for people and VET’s crucial role in achieving the Union’s ambitious targets. Specialist medical and care skills are needed now but skills in general are an integral enabler in all big-ticket projects: the European green deal, a Europe fit for the digital age, a strong social Europe for just transitions, the updated skills agenda and the EU industrial strategy.

Early leaving from education and training means missing opportunities. If not contained and managed, it can lead to unrealised potential, for the individual and for the economy, with long-term social costs. See how Cedefop’s online toolkit has helped address this problem and what’s in store for the tool’s next iteration.

Platform work was already an example of labour-market disruption before the crisis: it generates opportunities (easy labour market access) and threats (risk of labour market segmentation), and disrupts classical models of training. Find out about Cedefop’s CrowdLearn project, taking stock of what the hot skills are, how they are acquired, and who assumes responsibility for necessary learning.

Taking advantage of opportunities means being aware of them. Read about how guidance based on labour-market and skills intelligence has been a game changer in Estonia.

I hope this issue will remind us of longer-term perspectives: 2020 has brought an unprecedented challenge for the modern world but recovery efforts – for businesses and for society as a whole – will offer many positive opportunities for the VET community. ■

We need a **reskilling** revolution



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NICOLAS SCHMIT

“ *With the social and economic effects of the Covid-19 pandemic, this has become an even stronger priority* ”

EUROPEAN COMMISSIONER FOR JOBS AND SOCIAL RIGHTS

Following a long and distinguished career in politics in his native Luxembourg, Nicolas Schmit has been entrusted with the Jobs and Social Rights portfolio in Ursula von der Leyen's European Commission. Cedefop is one of the EU agencies under Mr Schmit's umbrella. In an exclusive interview with *Skillset and match*, he outlined the Commission's priorities on skills and the role Cedefop can play, in particular given the coronavirus outbreak across Europe.

How do you see the relationship with Cedefop evolving during your mandate?

Policy-making must rely on solid facts and expertise. Without

Cedefop, there would not be such a wealth of data and depth of analysis on skills development in general, and vocational education and training in particular. Recently we were discussing with my team your latest publications, especially on upskilling and reskilling pathways for adults. I think they are spot on. Your work has always been relevant, but it has now become essential: we will not be able to overcome the current crisis, nor will we achieve the green transition and seize the opportunities of the digital age without appropriate insights into skills needs. This guides my support for the reflection process on Cedefop's post-2020 strategy and my desire for the relationship between Cedefop and the Commission to strengthen under my mandate.

The ongoing coronavirus crisis is already impacting the labour market and is bound to have longer-term repercussions for skills and jobs. Cedefop is working on updating its forecasts and analysis. How is the Commission dealing with the situation?

The crisis has indeed had a significant impact on the labour market. Forecasts vary, but they all predict a high peak in unemployment, strong recession and the bankruptcy of many companies. The Commission has already taken a number of important steps to cushion our economies and societies from these effects. It has rapidly made funds available for Member States to support financing of short-time work schemes that can help preserve jobs in an



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economic slowdown. Before the crisis hit, we were already working on a reinforced skills agenda. With the social and economic effects of the Covid-19 pandemic, this has become an even stronger priority. Cedefop's latest analysis is very important to guide our reflections on this. The challenge we face in the crisis is two-fold: workers have to be supported in acquiring the right skills to help them keep up with the changing economy while at the same time, workers who lost their jobs due to the crisis have to be reintegrated in the labour market. Training also plays a crucial role here. The key is that the European workforce must be adequately skilled to make the twin green and digital transitions a success and contribute to the European industrial strategy. These are the areas of the economy that will grow and create jobs.

What are your other priorities for skills and the labour market?

I'll mention just one: data. The volume of skills data being produced is growing rapidly, and data-driven innovation

can bring enormous benefits to the education and training system by supporting its responsiveness. Skills intelligence must be developed by pulling together labour market and skills information from different sources. Building further on Cedefop's big data analysis of job vacancies will give us better insight into evolving skills needs at regional and sectoral level. Analysis of skills supply and labour market outcomes of graduates will complement the information and help to identify skills gaps and trends. Making this information widely available will help individuals and companies, especially SMEs, to take more informed and strategic decisions on which skills to acquire, who to hire or what training to propose.

In an interview you gave us back in 2015, as Luxembourg's Labour Minister, you said that Europe was lagging behind the US in skills for the digital era, stressing that we had to invest in networks, the internal digital market and, above all, in upskilling people to reduce the gap. Five years on, what

has been achieved and what are your goals for the next five years?

Progress has been achieved: overall, basic digital knowledge has improved in EU countries. Yet, digital skills remain an issue and the massive rise in teleworking during the lockdown has only additionally underlined their importance. Digitalisation and artificial intelligence can also have a positive employment impact, but only if people have the required skills. Already before the crisis, over 90% of jobs required some level of digital skills. We are not yet up to the challenge. Over 40% of the EU population have an insufficient level of digital skills and 17% have none at all. This creates a divide: many people are excluded from the evolving labour market and society at large. It is an issue for social fairness and for Europe's competitiveness. This is why digital skills are central for our work in this area. To achieve this, we need to increase investments in people and their skills, using public and private money. We are also looking into other financing instruments. ■

Cedefop toolkit helps tackle VET early leaving



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IRENE PSIFIDOU

CEDEFOP EXPERT



Many people are finding the toolkit useful: in ministries, VET schools, companies, guidance centres, public employment services, social services and youth organisations

Early leaving from education and training is a pressing issue in Europe, with considerable costs for individuals and society. Early leavers are at greater risk of becoming NEETs (young people not in education, employment or training) and socially excluded. Despite successes in bringing down the numbers of people who exit with, at most, a lower secondary education, early leaving still affects one in 10 young adults in the EU; in some areas the figure is much higher. Cedefop expert Irene Psifidou talked to *Skillset and match* about the success of the online toolkit created by the agency to help tackle early leaving from vocational education and training (VET).

How did the toolkit come about?

We started systematic research work in 2013 with a view to providing policy-makers and learning providers with practical support; we launched the VET toolkit for tackling early leaving in May 2017. This was the first online toolkit of its kind developed by Cedefop. It is designed for young people at risk of

becoming early leavers, to help them remain in, and qualify from, upper secondary education. It also aims to help early leavers reintegrate into education or training. An updated edition was launched last year, with enriched resources to support policy design, implementation and evaluation in tackling early leaving. Many people are finding the toolkit useful: in ministries, VET schools, companies, guidance centres, public employment services, social services and youth organisations.

What is innovative about this online resource?

The toolkit has many innovative aspects. An important element is its evidence base: all its resources are based on comparative research and analytical work. This allowed us to build the most common profiles of learners at risk, enabling practitioners to detect early the signs of disengagement. Having a detailed picture of early leavers empowers policy-makers to monitor and better understand their conditions and needs, and to intervene successfully. Users can find tailored approaches to different profiles for prevention and timely intervention. The tool is highly interactive:



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users can upload good practices or methods; and they can fill in reflection tools and evaluation plans to get instant results on the strengths and weaknesses of their policies and practices. They can develop action plans for a comprehensive strategy to tackle early leaving; and they can search across 250+ resources (including relevant data, publications, Erasmus+ projects, quick wins, evidence-based good practices and tools used across Europe) using several search variables to get custom-made results.

How do the reflection tools for policy-makers and VET providers work?

They propose concrete steps to help users understand the current patterns of early leaving, identify strengths and weaknesses of their national, regional or institutional approach, and define actions to address them. Evaluation plans help users who are not experts in this area to choose the most relevant indicators, and design, step by step, the monitoring and evaluation of their policies and practices.

Three years on from its launch, how successful has the toolkit been?

There have already been thousands of toolkit users, and feedback on its usefulness has been very positive. In March 2020, the toolkit had over 53 600 users and had generated over 132 000 page views. We have organised more than 50 events across Europe to present its capabilities and have worked with national and regional stakeholders to use the toolkit to address early leaving from all types of VET. I think the main reason for its success is its high relevance and user-friendliness; this is a result of Cedefop's participatory

approach to its design and development, involving policy-makers and VET providers across Europe. This was also the aim in creating an online community of practice, the so-called ambassadors tackling early leaving from VET. Today, more than 60 ambassadors from 21 countries actively contribute to the toolkit's development and wide dissemination.

How do you reach out to people who may be interested in becoming ambassadors?

Ambassadors are policy-makers, VET providers, experts and other key stakeholders involved in tackling early leaving from VET nationally, regionally or locally in Europe. They get involved with Cedefop work through its publications, social media and events, especially workshops and policy learning forums. There is an open online application to become an ambassador.

How do you see the toolkit developing in the future?

We aim to enrich the toolkit with practical tools and expand its focus to other vulnerable groups. In 2021, we plan to expand it into a new online knowledge centre on VET for social inclusion and labour market integration, with resources for NEETs and low-skilled adults. Through such resources, we will offer countries additional support in tackling early leaving, raising youth employment and implementing upskilling pathways. ■

Check out the toolkit
and get involved





A guide to Europe's vocational

Cedefop has created an online database that helps vocational education and training (VET) stakeholders understand European VET in just a few clicks.

The VET in Europe database is designed for policy-makers, researchers, teachers, learners and employers who provide training, or those who are simply interested in how VET works in their countries and others.

In addition to easy-to-navigate and up-to-date overviews by theme, the database contains detailed information about each VET programme type, including qualification levels, share of work-based learning, providers and target groups. It even allows comparing VET systems or seeing how any one system has changed over time.

Some of Europe's VET stakeholders, who have already benefited from using this tool, told *Skillset and match* what they make of it.



Cedefop's VET in Europe database

A major strategic aim of the Human Resource Development Authority of Cyprus (HRDA) is the promotion of vocational training and lifelong learning of the people of Cyprus. The VET in Europe database proved very useful for searching and comparing good practices from other countries on incentives for learners and enterprises to boost their participation in VET. These good practices are helpful for developing our own policies and programmes.

George Panayides

Director General of Human Resource Development Authority of Cyprus

We are in charge of recognising foreign VET qualifications, so we use the VET in Europe database to understand the place of vocational training in the education system and learn about VET qualifications in other countries. We particularly appreciate data visualisation, data selection and comparison as it allows us quickly to identify reliable and comprehensive data. This contributes to the quality and timeliness of public administrative services we offer to our clients seeking recognition.

Zrinka Čale

Agency for VET and Adult Education, Croatia

“

The VET in Europe database is designed for policy-makers, researchers, teachers, learners and employers who provide training, or those who are simply interested in how VET works in their countries and others

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education and training systems

I used the database as background information before visiting the Estonian Ministry of Education and Research at the beginning of 2020. We have also disseminated information about the database in our newsletter to our members (VET providers) and recommended using it in connection with international visits.

Saku Lehtinen

Finnish Association for the Development of Vocational Education and Training AMKE

Our team closely follows the policy developments within the 2012 Berlin memorandum on cooperation in VET and the Baltic Alliance of Apprenticeships established in 2015. The VET in Europe database allows us better insight into the VET and apprenticeship/work-based learning systems of partner countries, and presents the joint policy developments in a coherent way.

Ilze Buligina

Ministry of Education and Science, Latvia

My job includes answering requests concerning trends in VET systems and policies in Europe. I use the database to compare developments in specific areas of VET in different European countries, for example VET governance or guidance and counselling. The VET in Europe database is very convenient and useful, because all information is displayed online in a very short time. If I need further information, I can download the corresponding country report immediately.

Martina Krause

Federal Institute for Vocational Education and Training (BIBB), Germany

The main topics that interest me are analysing and forecasting skills needs, the recognition of prior learning, and links between education and the labour market. The VET in Europe database offers the ability to compare how other countries have set up their systems and what measures are used to take account of labour market needs.

Külli Ail

Ministry of Education and Research, Estonia ■

Comparing vocational qualifications content across countries

“The purpose of this comparison is not to find a way of ranking countries: it is intended as a practical methodological toolbox”

Since its beginnings in 1975, Cedefop has had an active interest in the similarities and differences between European vocational education and training (VET) systems. Much attention has been paid to comparing key elements, including institutional structures, governance and financing models, and teaching and training methods.

The importance of these input factors is widely accepted but far less attention has been paid to examining the outcomes of VET programmes, both intended and actual. The *Comparing VET qualifications* project (2018–20) addresses this deficiency. It sets out to develop a robust and scalable methodology for more systematically mapping, analysing and comparing the expected outcomes of national VET qualifications.

PILOT STUDY

Between 2015 and 2017 Cedefop carried out a pilot study comparing 10 VET qualifications in as many European countries. We looked at qualifications across various sectors: bricklayer, healthcare assistant, hotel

assistant/receptionist, ICT service technician, plumber (cooling and heating), sales assistant, dental assistant, logistics technician, machine operator, and farm management.

The aim was to see how countries were alike and how they differed in setting out the content and profile of these qualifications. The methodology developed was tested with the help of the European Training Foundation and UNESCO: four of the 10 qualifications originally selected (bricklayer, healthcare assistant, hotel assistant/receptionist, and ICT service technician) were compared in 26 countries worldwide.

The studies showed that cross-border comparison of VET qualifications is possible. There were major differences in the way countries balanced occupational and transversal skills and competences: some gave priority to narrow occupational skills, others looked to broaden overall programme profiles. There was, though, an issue with methodology, which was considered too labour-intensive and difficult to repeat or scale up.

PRACTICAL TOOLBOX

The purpose of this comparison is not to find a way of ranking countries: it is intended as a practical methodological toolbox for countries to learn from each other and to show how national VET programmes and qualifications vary in profile and orientation. The pilot studies showed that this reflects how countries react and adapt to demographic, technological and labour market change.

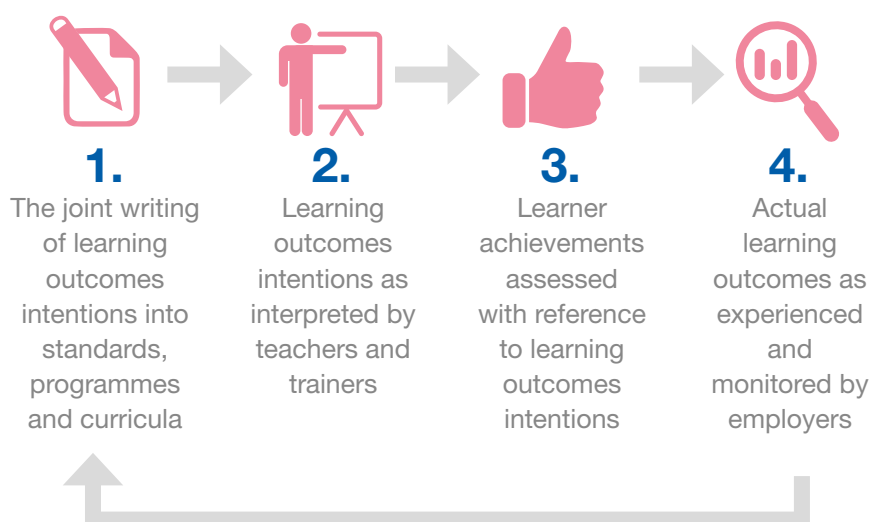
The project has four parts.

- The first part aims to establish a reference point for comparisons. Countries describe their qualifications in different ways, so a comparative methodology, a neutral terminological reference point, is critical. Comparing existing options shows that the European terminology of occupations, skills and qualifications (ESCO) is best suited, having been translated into over 20 languages. There are several areas, however, where ESCO needs to develop to fulfil this task.



- The second part has looked at improving the comparative methodology itself, using the opportunities provided by automated language processing and artificial intelligence. Interesting development paths have been identified and piloted but there are also problems in access to national data and lack of common technical formats. Identifying these sorts of obstacles is a good starting point for moving forward.
- The third part is looking for ways to gather and analyse data from employers and the labour market. It aims to address the link between the intended outcomes of the VET system, as compared in parts one and two of the project, and the actual outcomes experienced by employers and the labour market. Much research has been done on labour market needs but more is needed on the relevance of VET qualifications to these needs; is there a match for skill needs or is there a need to adjust and adapt?
- The final part is bringing together these different elements. A toolbox will be made available, supporting

From VET system intentions to outcomes experienced by employers



stakeholders in using comparative methodologies for policy learning and development.

RELATIONSHIP AND INTERACTION

The part of the project that focuses on the intended learning outcomes of VET systems is important, but the overall purpose is to understand better the relationship and interaction of VET system aims and the actual outcomes experienced by employers and labour market stakeholders.

The comparative methodology demonstrates the intentions

of the VET system and how it varies between countries and systems, but it also provides the basis for understanding how these intentions relate to the labour market and society. The methodology currently being developed by Cedefop will contribute to a better understanding of the link between demand for skills and their supply. ■

Cedefop's project on comparing VET qualifications



The rise of online platform work: how it impacts skills



Although crowdwork is still only a small part of the overall labour market, some commentators have suggested that it may even replace conventional full-time work by 2030

A growing number of people are earning some or all of their income from work mediated through digital platforms. Various referred to as ‘crowdwork’, ‘gig work’ or ‘online freelance work’, in a typical system the self-employed work remotely for clients that they find and connect to via online labour platforms. The work content can range from fairly low-skill repetitive data entry, tagging or transcription tasks to specialised software development and creative design work.

With research suggesting that such crowdwork is an increasingly important new non-standard form of employment around the world, including in Europe, there is value in looking at what the implications may be for skills and training. Cedefop’s CrowdLearn research project is the first in-depth study to examine explicitly how EU crowdworkers develop their skills,

and how online labour platforms match skills supply with demand.

Platform-mediated work is now **the main source of income for as many as 2% of adults in 14 EU Member States**. Some surveys suggest that up to **11% of European adults are earning part of their income through such platforms**. According to the **Online labour index**, the utilisation of platforms has grown rapidly over recent years, increasing by approximately 70% from mid-2016 to early 2019.

Although this is still only a small part of the overall labour market, some commentators have suggested that crowdwork **may even replace conventional full-time work by 2030**. As it develops further it may offer insights into some of the wider technology-related transformations in the labour market: the growth of self-employment and contingent work, substitution of customer feedback for line management,

virtual work, and algorithmic management by firms. These new realities of crowdwork have potentially broader implications for the European skills and education policy.

UNIQUE BLEND

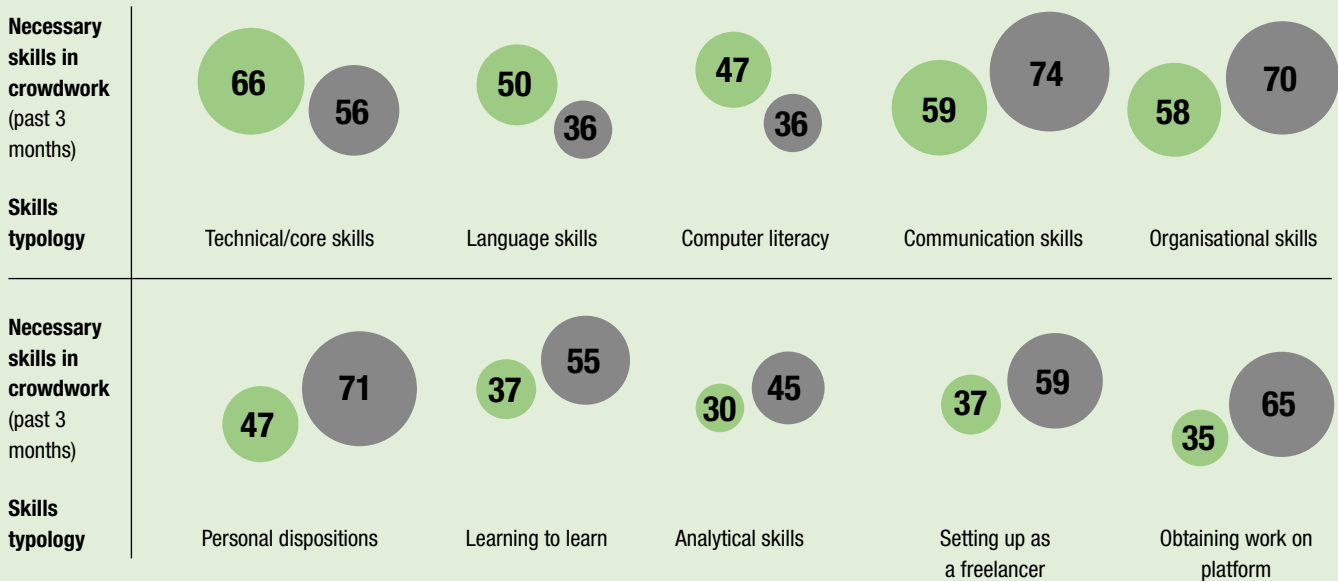
The Cedefop project has developed a novel, inductive skills typology which has found that crowdworkers most commonly develop technical/core skills, such as their digital skills, as part of their work done in online platforms. However, they also need other abilities to be successful in the online platform business and often demonstrate a unique blend of entrepreneurial, self-branding, communication and organisational skills, along with focused personal dispositions. Self-regulatory learning skills are also necessary. These include the ability to understand and identify changing skill requirements, being proactive

Figure 1: Skills crowdworkers develop through their online platform work

Share of respondents, in %

■ I developed these skills before joining the platform but found them useful during crowdwork in the past 3 months

■ I have developed these skill categories at least weekly through crowdwork in the past 3 months

Source: Cedefop's [CrowdLearn dataset](#).

in seeking feedback, and being self-reflective and capable of changing one's learning strategies when not working.

These demands, confirmed by [earlier research](#), show that crowdwork entails significant on-the-job skill development. Two thirds of those surveyed in the CrowdLearn project reported improving their professional and technical skills, especially organisation, communication and entrepreneurial aspects, every week as a minimum (Figure 1).

To develop these skills, the average crowdworker primarily undertakes informal rather than formal or social workplace learning activities. The view seems to be that training courses offered by conventional learning providers, or massive open online courses (MOOCs), tend to be too time-consuming and broad. The preferred learning method is just-in-time forms of skills and knowledge acquisition, such as bite-sized advanced courses or (free) online video

tutorials. Feedback on their output from clients and the skills requested in project descriptions are primary drivers of learning behaviour (Figure 2).

The platform companies coordinating the working relationship are also involved in activities that support their workers' skill development. The main mechanisms for this are indirect, not active training intervention, and include:

- publishing data on which skills are in demand;
- getting clients to give feedback to workers;
- referring workers to learning providers that offer relevant courses or resources;
- providing a context for workers to engage in peer-to-peer support and learning;
- providing a training marketplace, in which skilled freelancers offer training to other freelancers, blurring the distinction between a labour platform and a learning provider.

Despite these activities, the CrowdLearn study reveals that platform companies are generally wary of getting directly involved in skills development, as it could risk them being legally classified as employers. This is resulting in a gap in the training market and potential underinvestment in crowdworkers' skill formation.

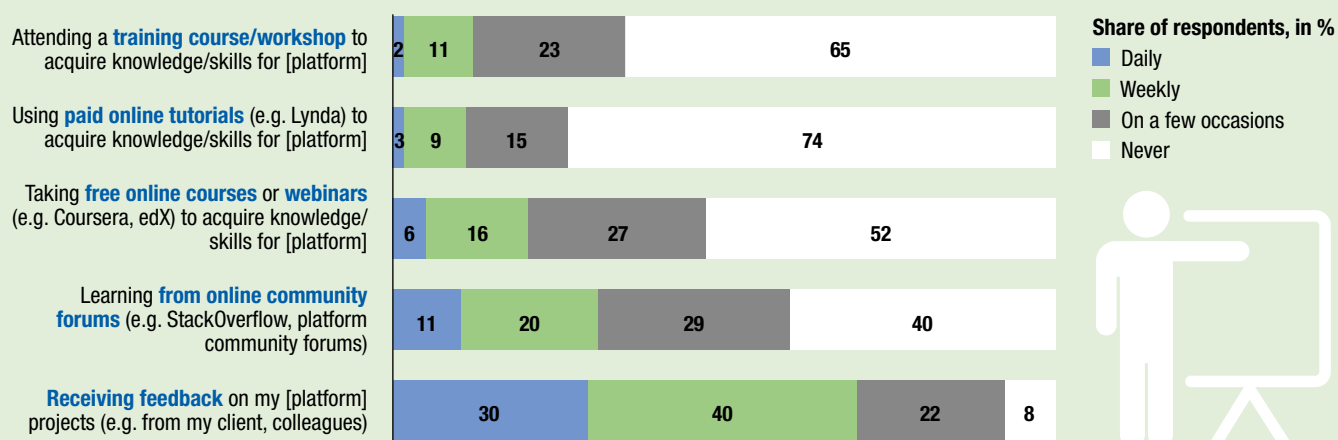
SKILLS MATCHING?

Where online labour platforms have a significant skills effect is facilitating better skills matching between workers and employers in a manner that is 'delocalised'. However, the possibility for cohesion in this is offset by the fact that different platforms vary in their methods of matching clients with freelance workers.

The basic element common to all platforms is a worker profile that is searchable by clients. The profile also displays feedback information from the individuals' previous interactions with clients. Some platforms also allow freelancers to upload

Figure 2: Crowdworkers' online platform learning activities

How frequently have you undertaken the following learning activities as part of your crowdwork on [platform] over the past 3 months?



Source: Cedefop's **CrowdLearn** dataset.

and display skills certificates in their profiles, advertising the worker's skills and competences to prospective clients. But the CrowdLearn project has shown that qualifications obtained through formal education and skills tests taken are generally less considered when assessing confidence in a crowdworker than client evaluation or rankings scores.

An additional issue is that the predominant crowdwork matching mechanism, reputation reflecting accumulated feedback from previous clients, is specific to each platform. More than half of the crowdworkers surveyed in the project feel they could not switch to another platform without negatively impacting their income. This limits worker mobility between platforms and potentially also from crowdwork to regular employment, possibly resulting in skills underutilisation.

This limited inter-platform portability of skills and client feedback could be addressed by a portable portfolio function to allow workers to display, advertise, and transfer all of their qualifications, skills,

and experiences across contexts. However, policy interventions aiming to support such measures are likely to encounter issues which render standardisation difficult, including platform-specificities and lack of interoperability in technical architectures, data protection constraints and non-commensurate skills taxonomies.

SEGMENTATION AND INTEGRATION

Some platforms also take steps to segment the market: they may place the biggest clients and the most skilled freelancers in separate 'enterprise' versions of their platform, while other clients and less select freelancers are hosted in the public 'marketplace'. Platforms may even try to control skill supply, for instance by vetting entry requirements for new freelancers, publishing own lists of most-in-demand skills, and deploying non-transparent algorithms for client/worker matching or for placement of workers in platform-specific automated rankings. Such actions can influence the perception of workers' value

and determine likelihood of entry and financial success in the online platform market.

At the same time, platform work is often quoted as a positive influence on labour market integration. Almost a third of the crowdworkers surveyed in six European countries reported immigrant background, and women reported developing their skills in crowdwork more frequently than men. However, newcomers to crowdwork reported difficulties in getting started, given they lack a record of feedback from previous clients that signals skills and trustworthiness in this area.

The CrowdLearn project proposes that this barrier could be addressed if policy-makers and platforms collaborate on an experimental system of subsidised micro-internships. Clients could be offered a subsidised rate for crowdworkers who lack previous platform work experience; in exchange they would provide private feedback to workers for skill development and public feedback to validate worker skills and trustworthiness. Platform work is sometimes also



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suggested as a possible way of addressing youth unemployment but successful crowdworkers are typically highly educated and had significant work experience in the regular labour market before moving into this area. Any crowdwork-based interventions into youth unemployment would need to invest significantly in improving young people's digital and core/technical skills. Young people should also be educated about the risks and opportunities that freelancing entails.

EDUCATION AND TRAINING

To meet crowdworkers' just-in-time learning needs, adult vocational learning providers would have to consider investing in the development of short and focused online courses, tutorials and workshops. But initial vocational and higher education providers should focus on developing peoples' digital and entrepreneurial skills. Despite the lower interest in formal qualifications and skill certificates, crowdworkers make significant use of skills developed prior to their entry

to the online platform market, digital literacy in particular. This highlights the critical importance of investment in high quality digital upskilling training.

A greater focus on developing self-regulatory learning skills and mindsets among students is also critical; this includes the ability

to be strategic and dynamic in identifying one's own learning goals, and being proactive in seeking feedback. This is a fundamental skillset to have in the 21st century, best developed before entering employment, whether it is online or offline. ■

THE CEDEFOP **CROWDLEARN** PROJECT

- The project is the **1st** in-depth study to examine explicitly how EU crowdworkers develop their skills, and how online labour platforms match skills supply with demand.
- It employed a dedicated qualitative data collection phase, in which **77** crowdworkers and **25** representatives of stakeholder organisations were interviewed in-depth about training and skill development practices in the platform economy.
- A key project contribution is the compilation of a novel dataset comprising **1 000** crowdworkers from **6** EU countries across **4** major online labour platforms.
- The study has developed the **1st** ever 'typology' of the skills required and developed in online platform work.
- CrowdLearn is a cornerstone of Cedefop's *Digitalisation, AI and future of work* thematic activity. Its final report is expected to be published in autumn 2020.



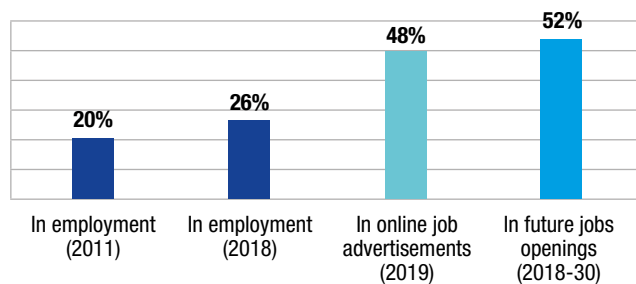
Accounting clerks

Accounting clerks are one of the largest occupation groups in the EU, with seven million people in 2018; this was 28% more than in 2011. Accounting clerks undertake tasks including accountancy and bookkeeping duties, staff payroll calculations, and support to other business commercial transactions and statutory financial aspects of activity.

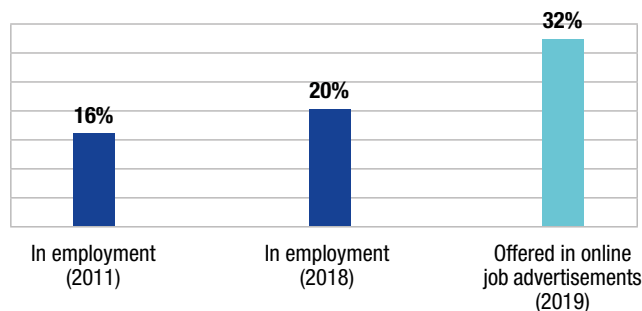
Looking to the future, two major trends will affect demand for accounting clerks: digital technologies and demographic developments. The spread of digital technologies in professional services and the finance sector may render some of the current positions obsolete. Cedefop's skills forecast estimates that overall employment may decrease by 10% by 2030.

However, as technology can increasingly automate numerical and bookkeeping tasks, it will give most accounting clerks an opportunity for skills upgrade and career progress. This trend is already visible in rising qualification needs. In 2011, only 20% of accounting clerks held a tertiary qualification; seven years later this share reached 26%. Nowadays, tertiary degrees account for around half of accounting clerk vacancies, as confirmed by

Tertiary-level qualifications of accounting clerks



Share of accounting clerks in part-time employment



■ Labour force survey ■ Cedefop skills OVATE
■ Cedefop skills forecast

ACCOUNTING CLERKS

- **7 million** employees in the EU (2018)
- **across all** economic sectors
- **rising qualification** requirements
- **mix of transversal and technical skills** needs

ESTIMATED DEMAND FOR ACCOUNTING CLERKS IN EU-27, 2018-30

- **Job losses: -666 700**
- **Replacement needs: 3 185 600**
- **Total job openings: 2 518 900**

Cedefop's analysis of online job advertisements and skills forecast analyses.

The second major trend is demography. Cedefop estimates that almost half of the accounting clerk workforce – 3.2 million people – will leave their jobs in the next decade, mostly due to retiring. Replacement demand is likely to be very high.

More flexible work arrangements in these jobs are also on the rise: one of every five accounting clerks already works part-time and this share will grow, Cedefop's analysis of online job advertisements indicates.

As an occupation that makes use of technological solutions and is strongly client-oriented, the Cedefop analysis shows that it demands both transversal skills (adaptability, teamwork, proactive attitude) and professional ones (office software, accounting, SAP R3). ■

Cedefop skills forecast



Cedefop's skills in online job vacancies analysis (skills OVATE)



Learn more about accounting clerks





Earlier this year, Slovakia's Ministry of Labour, Social Affairs and Family, along with various partners, launched a new website www.uplatnenie.sk, offering detailed data tracking of secondary and tertiary graduates.

Data have been interlinked from different administrative sources and information systems: education sector, employment services, social insurance agencies and labour cost systems. Incorporating data from the health insurance agencies is under preparation.

Graduate-tracking instrument launched in



The following indicators on graduate status are presented for each of 733 secondary schools and 366 fields of study, and for 33 tertiary schools and 1 415 fields of study:

- employment (optimal, alternative, or 'outside the field of study');
- short-term contract;
- self-employment;
- registered unemployment;
- continuing in secondary or tertiary studies;
- maternity or parental leave;
- others (working abroad, voluntary unemployment, etc.).

Geographic distribution of placement, top three jobs, top three economy sectors, average and median wages, registered unemployment rate and average number of days needed to find the first job are also presented.

For the first time, individual tracking is made possible through anonymised graduate trajectories. Precise descriptions related to the time employment begins (SK NACE Rev. 2, SK ISCO-08, identity and official location of the company, wage) and registered unemployment with active labour market policy tools applied are available for any individual graduate. These individual trajectories are not publicly available, but they offer a valuable source of data for specialists.

Indicators on individual schools and fields of study are publicly available. The website allows comparison between two schools and/or school/field of study and aggregated regional or national data. This can help learners make informed decisions on school choice.

Graduate tracking can also complement forecasts of labour market demand and substantially improve regulation of current graduate supply. ■



by REFERNET SLOVAKIA

Skills anticipation

in Estonia:

now and for the future



Apart from providing better and more detailed information, OSKA has also helped create a culture where stakeholders can provide input to, and shape discussions on, future labour market and skill needs

Digitalisation and its impact on employment and skill needs are particularly relevant for Estonia. Enthusiastically adopting digital technology in government and society, the country has been dubbed one of the digital frontrunners in Europe.

The resultant increasing employment in high-tech work is reshaping skills demand in the country and contributing to rapid skills obsolescence. Cedefop's 2014 *European skills and jobs survey* showed that seven in 10 Estonian employees thought that some of their skills would become outdated over the next five years: this was the highest percentage in the EU. Employers are now experiencing difficulties in recruiting for ICT positions as rising skills demand outstrips supply.

And yet, amid skills shortages, there are also skills surpluses: one in five higher-educated employed Estonians has a job that does not require that education level. Construction and manufacturing suffer both insufficient and outdated skills, made worse by workforce migration abroad. In some sectors shortages emerge because newly trained specialists do not take up jobs in the areas for which they were trained, due to low wages or unattractive working conditions. A decline in the number of people choosing programmes in manual trades, such as metalworking and woodworking, is another factor contributing to recruitment difficulties.

KEEPING THE SYSTEM ON TRACK

Addressing these and other imbalances requires national skills governance: a whole-of-government approach to skills development and matching. Relevant, reliable and regularly updated labour market and skill intelligence (LMSI) is crucial but not enough. Effective stakeholder cooperation, arrangements to strengthen links between education and training and labour market needs, and user-friendly dissemination targeting those facing decisions about skills investments – learners, employers, and providers – are essential elements as well.

In 2017, the Estonian government asked Cedefop to carry out a review of its skills governance system. A key review finding is that the national skills anticipation system, OSKA (*Oskuste arendamise koordinatsioonisüsteem*), and the information it delivers are highly valued; it is seen as a distinct improvement over what was previously available.

OSKA is managed by the Estonian Qualifications Authority (Kutsekoda) and was developed with European Social Fund support; it has helped strengthen skills governance. It takes a comprehensive approach to skills mapping, analysis and development. It combines labour market forecasts and other quantitative data with qualitative sectoral expertise.



OSKA plays a key role in matching labour supply to demand, not only quantitatively but also in aligning workforce skills to jobs. Recommendations for action or reform are provided along with LMSI wherever possible.

WIDELY USED

Although it has been operational only since 2015, OSKA has delivered valued and widely used LMSI. Its recommendations have paved the way for adjustments in formal education, and they inform sectoral development plans and strategies. Estonia's public employment service uses OSKA's recommendations to shape its labour market services and professional training; it links selected reskilling and upskilling measures directly to the skills intelligence the system provides. Its guidance counsellors use the LMSI to guide their clients.

Apart from providing better and more detailed information, OSKA has also helped create a culture where stakeholders can provide input to, and shape discussions on, future labour market and skill needs. Close links to employers and education and training providers, with work processes easing the integration of sectoral expertise, make it possible to develop recommendations backed by those who might be expected to act upon them.

WHAT NEXT FOR OSKA?

Expectations regarding OSKA's future development are high. Managing them while further developing

the system sustainably, building on its early successes, requires setting priorities. Cedefop's review, carried out in cooperation with the Ministry of Education and Research, has been instrumental in identifying these. The policy roadmap developed as part of the review focuses on expanding dissemination of findings to a wider audience and on improving the system methodology.

Steps towards implementation have already started. To ease education and career decisions, LMSI targeted to the needs of young people and their parents was launched via the Estonian education portal in mid-2019. Planned methodological developments focus on reflecting technological, demographic, migration and other trends better. A seminar on big data analysis and skills foresight, organised by Cedefop in November 2019, helped demonstrate their value in shedding light on the implications of technological change and other trends in skill needs.

The findings of the Cedefop review can support future work beyond the roadmap it helped devise during the review. Acting on the recommendations made will help reinforce OSKA's role as a compass supporting long-term national strategic aims across policy domains. This principle is also central to Estonia's 2021-35 education and research strategy. ■

Cedefop report:
Strengthening skills
anticipation and
matching in Estonia



Estonian
education portal



Greek-German cooperation in emergency services training

“The Johanniter Academy and the Thessaloniki EKAB training centre started cooperating in 2018 under an Erasmus+ mobility project”

A Greek-German group of preclinical emergency professionals and rescuers has visited Cedefop to learn more about European vocational education and training, particularly the European qualifications framework (EQF). The binational cooperation scheme allows for exchange of ideas and good practices but the ultimate aim is exchange of paramedical learners, trainers and workers through common curricula and the mutual recognition of the outcomes of training and working periods in the two countries.

The Johanniter Academy and the Thessaloniki EKAB training centre started cooperating in 2018 under an Erasmus+ mobility project. Since then, trainees of both institutions, together with their teachers and trainers, have visited their counterparts, taking part in practical classes at the partner institution and accompanying their local peers during their field work. They also organised joint exercise units in their respective schools and explored the preclinical emergency landscape of their partner's

THE ACTORS

The **Johanniter-Academy of Lower Saxony/ Bremen** based in Hanover is one of the major schools in Germany for rescue services and civil protection. Besides a three-year dual traineeship for paramedics, it offers basic training in emergency cardiovascular care and continuous training for emergency doctors. The academy comprises a state-recognised elderly-care school and offers training tailored to the specific needs of migrants and refugees.

The **Vocational Training Institute (IEK) of the National Centre for Emergency Care (EKAB)** in Thessaloniki trains rescuers and ambulance/pre-hospital care workers, awarding official paramedic qualifications. Twelve such emergency care centres exist across Greece, all operated by EKAB. The centres located in the two major cities of Athens and Thessaloniki have an IEK attached to them.



city. The teachers and trainers of the Johanniter Academy visited their EKAB counterparts and got acquainted with their activities through job-shadowing and extensive discussions.

Both partners are keen on developing this cooperation further. Their goal is to synchronise their training provisions in such a way that full professional mobility between Germany and Greece is possible, hence the recognition of the skills and knowledge trainees acquire with the partner organisation. Currently Johanniter and EKAB use the European credit transfer and accumulation system (ECTS) for this; the German paramedic training leads to a EQF level 4 qualification while the EKAB's rescuer training leads to a level 3.

The project is ambitious and obstacles need to be addressed. For example, on the Greek side there is already a third partner interested in joining the cooperation, a private home care provider, but EKAB has so far been unable to obtain either a ministerial decision or funding.

Nonetheless, Johanniter and EKAB are continuing to map out their further course of action. They are planning a training of trainers programme to enable trainers from both countries to take the state exam in the other country or to receive professional recognition through an adapted test at EQF level 5. Synchronising curricula would be a second step. The Johanniter model of dual training, which is more extensive and action-oriented than EKAB's, would form the basis.

Konstantinos Lazaridis, specialist teacher for emergency services at the Johanniter Academy, is optimistic. He said: 'Thanks to Cedefop and its key role in the design of the EQF, our group has a much clearer idea of how to tap the potential of this tool'. ■

WHAT IS THE EUROPEAN QUALIFICATIONS FRAMEWORK (EQF)?



The EQF is a tool that helps policy-makers, employers, jobseekers and learners across the EU and beyond to understand and compare qualifications awarded in different countries and systems. Many countries have mapped their qualifications to the EQF. This allows people to 'take their qualifications with them' when going abroad to look for a job or to continue their education or training. The EQF classifies qualifications according to eight levels, reflecting their content in terms of learning outcomes: what the holder of a certificate or diploma is expected to know, understand, and be able to do.



WHAT IS THE EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)?



This system was designed to make it easier for students to move between countries and to have their qualifications or study periods abroad recognised. ECTS credits are broken down in modules or units, which allow for the recognition of partial qualifications; for example, learners who go abroad on an Erasmus+ programme can get recognition of what they have learned there when returning to their home institution.



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IN FOCUS

EMPOWERING ADULTS THROUGH UPSKILLING AND RESKILLING PATHWAYS

The first volume of this study is on the adult population with potential for upskilling and reskilling. It estimates the magnitude of the low-skilled adult population, going beyond educational attainment levels, and considers digital skills, literacy and numeracy, as well as skill loss and skill obsolescence. The study also identifies different subgroups of adults most at risk of being low-skilled, by skill dimension. Understanding better the magnitude of the low-skilled adult population, and recognising different and specific target groups within the heterogeneous group of adults with potential for upskilling and reskilling, is crucial for better design and implementation of effective upskilling pathways for those most in need.

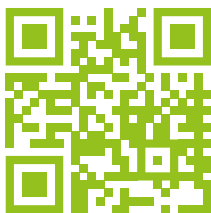


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coming up



For the latest information on what's coming up, following the coronavirus developments, go to www.cedefop.europa.eu/events or scan this QR code

All event dates are subject to change due to the coronavirus pandemic situation

IN FOCUS

ENHANCING EUROPEAN COOPERATION IN VET: LOOKING BACK, PLANNING AHEAD



4-5 JUNE

THESSALONIKI, GREECE

Hosted under the current Croatian EU Presidency in cooperation with the German Presidency, which will follow in the second half of 2020, and the European Commission, this joint Cedefop-ETF conference will review achievements on the priorities in European cooperation in vocational education and training (VET) during 2015-20. It will also debate Cedefop's and ETF's overall evidence, data and intelligence on the key challenges for VET moving forward. Organised on the eve of setting new priorities for VET, the event will bring together high-level representatives of the European Commission, the Croatian and German Presidencies, policy-makers, social partners and experts from all participating countries and international organisations.

OTHER EVENTS			
SEPTEMBER	17-18	THESSALONIKI, GREECE	Cedefop's fourth policy learning forum on apprenticeships
OCTOBER	13	BRUSSELS, BELGIUM	Launch of the European Company Survey 2019 overview report: a joint Cedefop-Eurofound event. The fourth iteration of the survey was carried out jointly by Eurofound and Cedefop, strengthening the aspects related to skills strategies, utilisation and learning.
NOVEMBER	5-6	BRUSSELS, BELGIUM	Cedefop third policy learning forum on flexible pathways for low-skilled adults


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