

# THE FUTURE OF WORK IS **LEARNING**

CEDEFOP IN 2022





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## A message from our Executive Director

**2022 was tough. The European Union (EU) was still recovering from the COVID-19 pandemic, when other crises surfaced: the war in Ukraine, high energy prices and an escalating climate emergency. Against this background, Cedefop continued to explore one of the most important issues of our time; how to raise the skills of an ageing population to ensure Europe's successful transition into an inclusive digital and green economy.**

This publication, which replaces its traditional annual report, presents Cedefop's main achievements in 2022. During the year we focused on 'ecosystems' by analysing not only skills and VET systems, but also the wider impact of the digital and green transitions on skills and employment.

The world of work is increasingly complex and dynamic. Our work shows that, in response, the trends in initial VET are to help young people manage broader societal and labour market challenges. It also shows the need for a more systematic approach to continuing VET and adult learning to provide adults with the up- and reskilling that a successful transition needs.

2022 marked the 20th anniversary of European policy cooperation on VET, known as the [Copenhagen Process](#). Cedefop has played a full part in strengthening European cooperation, supporting the EU, its Member States, social partners and the VET sector by providing information and insights that have helped shape VET and skills policies.

Over the past 20 years, change in VET has been incremental but clearly visible. In this latest phase, supported by European VET policy, Member States' national implementation plans set out how they are reforming their VET systems to support citizens and enterprises. The European Year of Skills, announced by European Commission President, Ursula von der Leyen in September 2022, will begin in 2023. It will emphasise the importance of EU and national VET policies and will add momentum to their implementation.

I encourage you to use, build on and share Cedefop's expertise, information and web tools and resources. And I pay tribute to our stakeholders, partners and our Executive and Management Boards, as well as to Cedefop management and staff for their contributions to our collective achievements in 2022.

Jürgen Siebel  
*Cedefop Executive Director*



## DEVELOPMENTS AND TRENDS IMPACTING VET, SKILLS AND QUALIFICATIONS

European VET policy set out in the [2020 Skills Agenda](#), the [Council Recommendation on VET](#) and the [Osnabrück Declaration](#), and related policy documents, stresses the importance of developing the skills needed to manage Europe's transition to an inclusive green and digital economy.

In 2022, the importance of including green skills in education and training policies and programmes was emphasised in the [Council Recommendation to stimulate learning for the green transition](#). In the area of digital skills, the EU agreed the [Digital Decade Policy Programme 2030](#), a comprehensive framework for action, which, building on the [Digital Education Action Plan](#) and the [digital skills and jobs coalition](#), sets digital skills targets for 2030. Guided by this policy framework, in 2022, Cedefop explored [how VET can develop in the future](#).

The green and digital transitions, with demography, are among the 'megatrends' affecting the labour market. [Rapidly changing skill needs, and emerging labour and skill shortages are fundamentally reshaping the world of work](#). In 2022, Cedefop worked to provide evidence-based conclusions to help decision-makers strengthen skills governance, and build more resilient and innovative VET and skills systems.



## DEVELOPMENTS & TRENDS

- Green Observatory
- 2nd European skills and jobs survey
- 2022 skills forecast
- Skills OVATE
- ReferNet network



**Some 54%**  
of online  
vacancies were  
for high-skilled  
jobs



In 2022, Cedefop's Green Observatory looked at the implications of the green transition for cities, the waste management and agri-food sectors and the circular economy. Its findings show that each sector will be transformed in different ways, but that, alongside experts with specific green technological expertise, others are needed to implement and manage the transition, bringing a green element, to differing degrees, to a range of occupations.

Cedefop's second European skills and jobs survey showed that the COVID-19 pandemic accelerated the digital transformation. It also highlighted the enormous potential for digital upskilling among working adults and the opportunities to improve job quality through digital upgrading. According to Cedefop's Skills OVATE – a real-time system that collects and analyses online job advertisements – vacancies online doubled in the first half of 2022 compared to the first half of 2019, before the pandemic. Some 54% of online vacancies were for high-skilled jobs, but there was also strong demand for medium- and low-skilled workers in manufacturing and construction. These data align with Cedefop's 2022 skills forecast, which predicts more high-skilled jobs than medium-skilled ones in the next decade. These developments emphasise VET's crucial role in equipping people for more demanding jobs, in which tasks change, and will support the 2023 European Year of Skills.

Information from Cedefop's ReferNet network provided insights into how, with the support of European VET and skills policy, Member States are modernising their VET systems. National implementation plans, analysed by Cedefop in 2022, show that Member States are working to make VET more agile, flexible and inclusive, encouraging digitalisation, establishing a new lifelong learning culture and expanding continuing VET (CVET). Member States are also greening VET and strengthening the European education and training area.



POLICY LEARNING activities

VET teachers and trainers

work on APPRENTICESHIPS

spotlight on  
MICROCREDENTIALS



Cedefop analyses show that Member States are placing greater emphasis in initial VET (IVET) on general subjects, transversal skills and competences. However, young people across the EU face major challenges in finding jobs matching their skills and aspirations. Young people are more digitally savvy, adapted to remote work and learning, and more skilled in advanced digital technology, but often find themselves in less secure and lower-quality jobs.

Cedefop's policy learning activities support Member States' moves to [more systematic approaches to CVET and adult learning](#). These are needed to accelerate the up- and reskilling adults need to have the skills, learning orientation and mindset required to make the green and digital transitions successful, and to enable them to shape their careers.

Modular training and learning programmes, using the learning outcomes approach, and hybrid programmes and pathways, alongside new assessment methods, show a clear shift [towards more individualised, learner-centred, locally adapted, and flexible VET](#). In this context, in 2022, Cedefop put the spotlight on microcredentials, outlining not only their flexibility, portability and transferability, but also the challenges to realising their potential to encourage up- and reskilling. These include how to make microcredentials visible and how to encourage employers and education institutions to trust and use them. In June 2022, the Council adopted recommendations on [microcredentials](#) and [individual learning accounts](#), which help learners build their skills portfolio.

IVET and CVET have become increasingly connected. This is, for example obvious from Cedefop's work on apprenticeships, which shows they are a good way for young learners and adults to acquire skills for the green transition. Apprenticeships [can be flexibly adapted to new skill needs, qualifications, training content](#), green technology and sustainability targets.

The success of VET reform depends heavily on VET teachers and trainers. In 2022, Cedefop conducted a feasibility study to survey IVET principals, teachers, learners and in-company trainers. It showed that while there are ample (mostly informal and non-formal) continuous professional development opportunities to upgrade digital skills, this is not the case for green transition skills.





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## WHAT OUR USERS SAY AND THE NUMBERS SHOW

In 2022, Cedefop increased stakeholder engagement and outreach through social media campaigns, audiovisual productions, webinars and conferences, e-publications, and its web portal's interactive tools and databases. Respondents to its user satisfaction survey ranked Cedefop as the number one organisation for work-relevant information.

Cedefop's policy impact is shown by extensive citations of its work, in the policy documents, papers and academic literature of EU institutions, social partners, researchers and international organisations such as the OECD, UNESCO, the ILO, the IMF and World Bank. Notably, in 2022, Cedefop was cited in the [Council Recommendation on pathways to school success](#), and Commission Communications *A new European innovation agenda, progress towards the European education area*, and *Attracting skills and talent to the EU*.

Cedefop's online tools and databases scored a 97% satisfaction rate. Web traffic, in 2022, doubled compared to the previous year, with [Cedefop's skills forecast](#), [European skills index](#) and [Key indicators on VET](#) being the most popular web tools. With 444 000 downloads, in 2022, Cedefop's publications continue to be widely read, notably its briefing notes, research, policy analysis and its new 'policy briefs'.

# Cedefop performance at a glance

## TAKE-UP OF CEDEFOP'S WORK



**124** EU POLICY DOCUMENTS  
**120** INTERNATIONAL ORGANISATION PAPERS  
**1 030** PAPERS IN ACADEMIC LITERATURE

## BUDGET



**100%** BUDGET IMPLEMENTATION RATE  
**98%** PAYMENT APPROPRIATIONS

## STAFF ENGAGEMENT



**65%** TOTAL FAVOURABLE  
**+5 p.p.** COMPARED TO IN 2019  
**+2 p.p.** HIGHER THAN EU INTER-AGENCY BENCHMARK

## ONLINE REACH



**+18%** PAGE VIEWS ON PORTAL  
**+12%** FOLLOWERS ON SOCIAL MEDIA

## QUALITY OF CEDEFOP EVENTS



**95%** SATISFACTION RATE

## 2022 USER SATISFACTION SURVEY



**97%** OF CEDEFOP USERS FIND ITS WORK AS POLICY-RELEVANT AND RELIABLE

**95%** SATISFIED WITH CEDEFOP'S WORK ON DIGITAL TRANSITION

**93%** SATISFIED WITH CEDEFOP'S WORK ON GREEN TRANSITION

**89%** SATISFIED WITH CEDEFOP'S PANDEMIC-RELATED ANALYSIS



## STRATEGIC AREA OF OPERATION 1 SHAPING VET & QUALIFICATIONS

The Council Recommendation on VET and the Osnabrück Declaration outline aims for VET, set targets for the coming period, and mandate Cedefop to monitor and analyse progress.

### National implementation plans: turning ambition into action

In 2002, Cedefop, the European Training Foundation (ETF) and the European Commission analysed Member States' national implementation plans (NIPs), which present ongoing and upcoming national VET reforms and initiatives. Most measures relate to making VET better, more resilient, inclusive and flexible; establishing a new lifelong learning culture; and making VET more responsive to labour market challenges. All plans build on national strategies for VET and related policy areas, such as skills, youth, research and development. They also build on national reform programmes for the European Semester and the Recovery and Resilience plans.

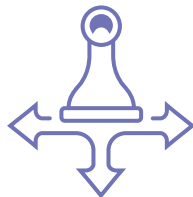
Cedefop's analysis showed the central role of EU funding in enacting change. For example, the Recovery and Resilience Facility supports increasing VET's labour market relevance and modernisation of VET infrastructure. The European Social Fund Plus supports up- and reskilling for adults, while Erasmus Plus promotes learner and staff mobility and the internationalisation of VET through European skills-related networks.

# EU priorities for VET in 2021-25

## Council Recommendation on VET



**Agile** in adapting to labour market challenges



**Flexibility** and progression



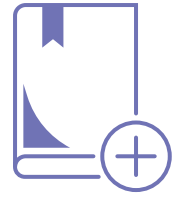
A driver for **innovation and growth**



An attractive choice based on **modern and digitalised provision**



Promoting **equality of opportunities**



Underpinned by a culture of **quality assurance**



## Osnabrück Declaration



**Resilient** and excellent



Establishing a new **lifelong learning culture**



**Sustainability** and a green link



**European education and training area** and international VET

## Partners in European VET for 20 years

ReferNet is Cedefop's network of institutions which provide expertise on national VET systems and policies in EU Member States, Iceland and Norway.

Each national partner is a key organisation involved in VET in its country.

Cedefop uses information from ReferNet partners to develop and/or keep up to date the following databases and publications:

- **VET in Europe database** on national VET systems;
- the **IVET mobility scoreboard** to monitor developments in policies, identify obstacles and suggest ways forward;
- **short descriptions** and **videos** on VET systems in countries holding the EU Council Presidency;
- **spotlights on VET** providing brief VET system overviews;
- **thematic perspectives** on policy-relevant issues;
- **national news** on VET, skills and labour markets.

ReferNet partners also contribute to:

- **Cedefop reviews of VET policy developments and reforms** in the context of priorities set at EU level;
- Cedefop surveys on policy-relevant issues;
- increasing Cedefop output visibility through maintaining a national ReferNet website and translating selected publications in their national languages.



### Cedefop and ReferNet: working together for European VET

In 2022, Cedefop, with its ReferNet network partners, prepared the ground for data collection and comparative analysis of trends, challenges and opportunities for European VET systems. ReferNet also continued to help Cedefop monitor implementation of NIPs. Cedefop updated its **VET in Europe database**, a unique source of comparative information about VET systems in Member States, Iceland and Norway. To support France and Czechia, the two countries holding the EU Presidency in 2022, Cedefop produced **short descriptions**, **spotlights** and **video animations** of their VET systems. ReferNet articles on how countries reacted to the Ukraine war and **partnership forum** discussions helped Cedefop identify **good practices in responding to the conflict**. At the **event to mark ReferNet's 20th anniversary** European Commission Vice-President Margaritis Schinas talked about the network's achievements and the crucial role of skills for competitiveness and social cohesion, while futurist Fabienne Goux-Baudiment presented a stimulating vision of the future of VET and education. ReferNet's knowledge and news on VET for policy learning reinforces its role in supporting European VET decision-makers and practitioners.



### Future of VET: looking back to see what is coming

In 2022, Cedefop completed its second *Future of VET* project. VET systems have evolved dynamically over decades, reflecting national developments, but current trends may not continue. Cedefop research shows that VET's response to challenges and changing priorities is far from linear. Anticipating VET's future depends on *understanding trends in VET's role, position and currency over time*.

European VET has and will continue to change fundamentally, while retaining national differences. IVET is challenged by declining youth cohorts and a growing preference for general education pathways. The proportion of general subject knowledge and transversal skills and competences in national VET curricula is increasing, but VET at upper secondary level retains its strong identity. Combining general and vocational education in hybrid schools and programmes is on the rise but remains exceptional. CVET provision has become more diverse and the links between IVET and CVET have been reinforced.



# In numbers

Cedefop's contribution to shaping VET and qualifications

73

## REFERENCES IN EU POLICY DOCUMENTS

**For example:**

- Commission working document accompanying its communication on the progress towards the European education area
- European Parliament study: *Stronger economy, social justice, jobs, education, culture, sport, digital transformation*
- Commission working document accompanying its proposal for a Council recommendation on building bridges for effective European higher education cooperation



45

## CONTRIBUTIONS TO MEETINGS THAT INFORM POLICIES AND THEIR IMPLEMENTATION

**For example:**

- Peer learning on international qualifications organised by the European qualifications framework (EQF) Advisory Group
- Inter-Agency Group on Technical and Vocational Education, and Training Working Group on the Future of VET
- Joint ACVT/DGVT webinar on Cedefop's study on microcredentials

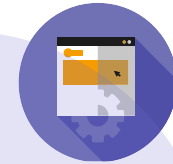


35

## WRITTEN CONTRIBUTIONS TO EU POLICY DOCUMENTS

**For example:**

- Joint documents with the Commission for the EQF advisory group, including notes on EQF evaluation, international qualifications and learning outcomes
- Note on the national IVET mobility schemes for the 52nd Standing Group on Indicators and Benchmarks meeting
- Discussion paper to the ACVT on implementing VET Recommendation and Osnabrück Declaration



72 000

## DOWNLOADS OF CEDEFOP PUBLICATIONS (published since 2017)

**Top 3**

- *Vocational education and training in Romania (7 670)*
- *Spotlight on VET: 2018 compilation (3 967)*
- *Vocational education and training in Germany (3 542)*





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## STRATEGIC AREA OF OPERATION 2 VALUING VET & SKILLS

The green and digital transitions have stimulated profound labour market change. They are a reason for the growing policy focus on up- and reskilling adults. Cedefop and the ETF's joint [2020 discussion paper](#), emphasised the need to shape and invest in strategic and systematic approaches to CVET and adult learning that integrate [learning and career support](#), such as guidance, skills validation, incentives (such as individual learning accounts) and social support.

### **Making training the new normal in micro small and medium-sized enterprises (MSMEs)**

Enterprises committed to being learning environments help mainstream CVET for adults. Narrowing the gap between employer-sponsored training provided by MSMEs compared to large enterprises – the 'MSME training gap' – is a key policy challenge. Cedefop's 2022 MSME work, using its [database on financing adult learning](#), shows the importance of interconnecting relevant policies and of creating incentives, including for collective bargaining on training at various levels. Partnerships and networks bringing together companies, training providers, R&D institutions and others are also essential.

National and sectoral CVET strategies targeting enterprises typically do not promote social inclusion. Employer-led, growth-oriented CVET fo-

## Cedefop goes green

### our journey to climate neutrality by 2030

Compared to 2019, Cedefop uses

Cedefop is committed to contributing to a more sustainable future, with new ways of working already yielding benefits.



In 2022, Cedefop pledged to become climate neutral by 2030.

**27%**  
less electricity



**43%**  
less heating oil



**73%**  
less paper



cuses on employees, and often, the higher-skilled ones. Institutions need to engage vulnerable groups, such as low-skilled workers, unemployed adults or platform workers, who find it difficult to access learning opportunities.

#### Forging links and connecting measures to support low-skilled adults

Cedefop's [thematic country review on upskilling pathways](#) showed that systems that support employees and systems that help unemployed adults, often do not connect and follow a different logic. This makes it difficult to help vulnerable people, whose economic status can change frequently, and whose situation can become precarious. Helping those furthest from training and employment requires major innovation in policy implementation. This starts with closer cooperation between institutional actors involved in social support, guidance, training and labour market integration, as outlined in the [Council Recommendation on upskilling pathways](#).



#### Policy learning fora (PLF) on upskilling pathways

are a series of events aimed at providing a platform for countries to come together to learn from one another and explore common challenges in upskilling adults.

In 2022, Cedefop and the European Economic and Social Committee (EESC) organised the fourth PLF on 'Upskilling pathways: a vision for the future'. It discussed lessons learned from the implementation of the Upskilling pathways Recommendation by exploring the preliminary findings from Cedefop's country reviews in France and Italy.

#### Green apprenticeship: equally relevant for adults and young people

Joint research with the [OECD](#) on apprenticeships and the green transition shows that for many enterprises short-term economic returns often take precedence over mainstreaming sustainability. As more enterprises become ecologically aware, opportunities for apprenticeship to contribute to the green transition will expand.



role of  
**VET TEACHERS  
AND TRAINERS**

**APPRENTICESHIPS**  
for the green transition

**GREEN SKILLS** intelligence

Apprenticeships are a good way for young learners and adults to acquire skills for the green transition. Apprenticeships [can be flexibly adapted to new skill needs, qualifications, training content](#), green technology and sustainability targets. Their links to the labour market and in-company training component expose learners to workplace change and innovative green technology. Cooperation between VET school teachers and in-company trainers enables exchanges of green innovation between schools and companies and vice versa. Adult green apprenticeships can also contribute to upskilling and other policy objectives. But for this to happen, [apprenticeship must become a real and realistic possibility for adults; more adults and companies must engage](#).

Promising programmes are emerging but mainstreaming and upscaling green apprenticeship is challenging. Most current data use occupational classifications that do not fully capture the extent of change. This makes it hard for training providers to assess and quantify changes in skill demand to adapt apprenticeships to the needs of learners affected by the green transition. Green skills intelligence can provide information to strengthen apprenticeship programmes and curricula and teacher and trainer professional development. Such intelligence can also reinforce the contribution of school-based VET programmes with a strong work-based learning component to the green transition.

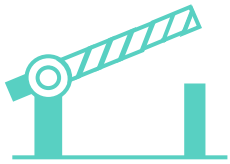
**Helping VET teachers and trainers become change agents**

The role of VET teachers and trainers [is becoming increasingly complex](#). They must master new technologies, promote excellence, understand changing labour market needs, empower and equip learners with skills for the future, and support social inclusion. In 2022, Cedefop used ReferNet's [thematic perspectives on VET teachers and trainers](#) to map the [state of play in their professional development](#); it also conducted a feasibility study to survey IVET principals, teachers, learners and in-company trainers. The study showed that while there are ample (mostly informal and non-formal) continuous professional development opportunities to upgrade digital skills, this is not the case for green transition skills.



# Making the most of adult apprenticeship

## Making apprenticeship a possibility for adults



**Removing barriers** to access to quality training provision



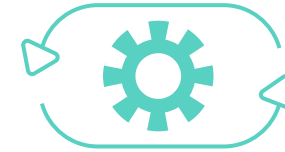
**Outreach and guidance** to help adults understand the benefits



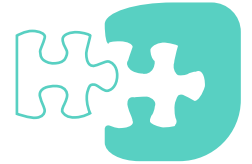
**Motivation** through non-financial incentives



**Financial incentives,** and targeted and individualised support to companies



**Flexibility** in the organisation and delivery of training



**Shaping apprenticeship** to the distinct characteristics of adults

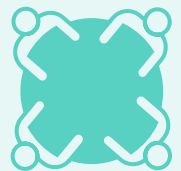
## Engaging more learners and companies



Understanding the **motivation of adults and companies** in using apprenticeship for up- and reskilling



Clearly **identifying** the real needs which apprenticeship may fill



Systematically **engaging trade unions and employers** alongside public authorities, and collaboration between public and private employment

# In numbers

Cedefop's contribution  
to valuing VET and skills

## 90

### REFERENCES IN EU POLICY DOCUMENTS

#### For example:

- European Parliament research service on the proposal to make 2023 European Year of Skills
- ETUC Position on equipping workers with necessary skills for the green transition
- Council Recommendation on pathways to school success
- Opinion of the European Economic and Social Committee on the proposed Council Recommendation on microcredentials for lifelong learning and employability



## 54

### CONTRIBUTIONS TO MEETINGS THAT INFORM POLICIES AND THEIR IMPLEMENTATION

#### For example:

- French ministerial conference: New Erasmus generation: developing mobility for apprentices
- Czech Presidency conference on the integration of persons with disabilities in the labour market
- Parliament Hearing (EMPL Committee) on the quality framework for traineeships



## 11

 (EU) and 

## 5

 (international organisations)

### WRITTEN CONTRIBUTIONS TO POLICY DOCUMENTS

#### For example:

- European Parliament's own-initiative report *Fostering and adapting vocational training as a tool for employees' success and a building block for the EU economy in the new industry 4.0*
- Upcoming Commission proposal for a Council Recommendation on improving the provision of digital skills in education and training



## 48 000

### DOWNLOADS OF CEDEFOP PUBLICATIONS (published since 2017)

#### Top 3

- *Empowering adults through upskilling and reskilling pathways* (4 187)
- *The next steps for apprenticeship* (3 010)
- *Briefing note: A fresh look at guidance practitioner professionalism* (2 362)





## STRATEGIC AREA OF OPERATION 3 INFORMING VET & SKILLS POLICIES

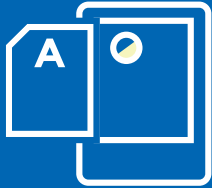
Cedefop skills intelligence focused on various transitions: at EU and national levels, in sectors and occupations, and changes affecting learners and workers. Cedefop surveys, analyses, and data and policy intelligence help explain the implications of the green and digital transitions, COVID-19, and other megatrends for VET and skills.

### **Cedefop's skills index: insight into where EU skills systems are heading**

Cedefop's [European skills index \(ESI\)](#) maps the performance of Europe's skills systems and tracked their development during the pandemic. [ESI approaches](#) combine skill development with skill activation (transitions from education to work) and skill matching. Compared to 2018, European skills systems appear to be converging in skill development, while skill matching has also improved. However, scores for skill activation dropped, reflecting the negative impact of the pandemic on the labour market, particularly for young people. The pandemic affected countries with weaker skills systems the most, while countries with economies with many jobs that could be done remotely, coped much better.

## Digital learning potential

% of European adult workers in 2021



### BASIC

**20%**

Web browsing, email, social media

**28%**

Write or edit text

**38%**

Use spreadsheets



### MEDIUM

**50%**

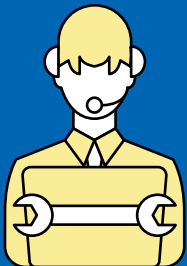
Use specialised software

**60%**

Prepare presentations

**74%**

Advanced spreadsheets



### HIGHER

**81%**

Manage or merge databases

**87%**

IT systems, hard/software

**92%**

Programme or code

Source: Cedefop.



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### From recovery to skills upgrading: labour markets in transition

European labour markets are more digitalised because of the pandemic. Cedefop's Skills OVATE showed that jobs advertised online in the first half of 2022 doubled compared to the same period in 2019, prior to the pandemic. Skill shortages and higher job turnover, as many employees looked for new jobs after the pandemic, prompted employers to expand online job advertising. Some 54% of job ads posted online between mid-2020 and mid-2022 were for **high-skilled science/engineering, business/administration, social/legal or ICT jobs**. However, the post-pandemic recovery was led by demand for manual, medium- and low-skilled workers in the manufacturing, construction, and maintenance sectors. In the longer term, jobs are becoming more skill intensive. According to Cedefop's latest skills forecast, numbers of high-skilled jobs will exceed earlier estimates, surpassing numbers of medium-skilled jobs in the next decade. Employment in elementary jobs should stabilise. This emphasises VET's crucial role in equipping people for more demanding jobs.

### VET (em)powering greener employment and skills ecosystems

In 2022, Cedefop launched its **Green Observatory** to examine what the European Green Deal means for cities and three key areas: **waste management, agri-food** and the circular economy. Cedefop's **skills foresight** uses the expertise of social partners and others to map greening trends and their implications for occupations, VET and skills up to 2030. Alongside those implementing green technology, such as solar panel installers, many other job profiles matter for the green transition, including scientists to develop green tech solutions, professionals to manage the transition, specialists to engage citizens, and trainers to help companies and workers think and act green.

Cedefop's green skills foresight shows that, as well as providing people with skills for the green transition, VET can also accelerate it. VET facilitates systems thinking and can empower its partners to transform employment and skill provision and bring citizens on board.



# VET as a green transition accelerator

*emerging green occupations*

## Frontline green jobs

Construction professional  
 Repair specialist  
 Energy professional  
 Material extraction/recycling/reuse expert  
 Material and process engineers  
 Circular product designers  
 Transport and mobility specialist  
 Environmental protection specialist

## Greentech specialists

Industrial problem analysts  
 Industrial symbiosis facilitators  
 Hydrogen specialists  
 Urban space specialist  
 Energy expert  
 Circular economy plant designer  
 Agronomists

## Green transition accelerators

'Marketing' green jobs/careers  
 Trusted skills intelligence  
 Strong feedback loops for agile VET  
 Networks  
 Green apprenticeship  
 Microcredentials  
 Systems thinking  
 Empowered local players

## Green management

Green/smart city manager  
 Logistics manager  
 (Strategic) waste manager  
 Waste valorisation professional  
 Renewable energy managers

## Digital specialists

ICT professional  
 Data scientists and data analysts  
 E-commerce specialists  
 GPS experts (precision agriculture)  
 Waste sorting optimisation professional

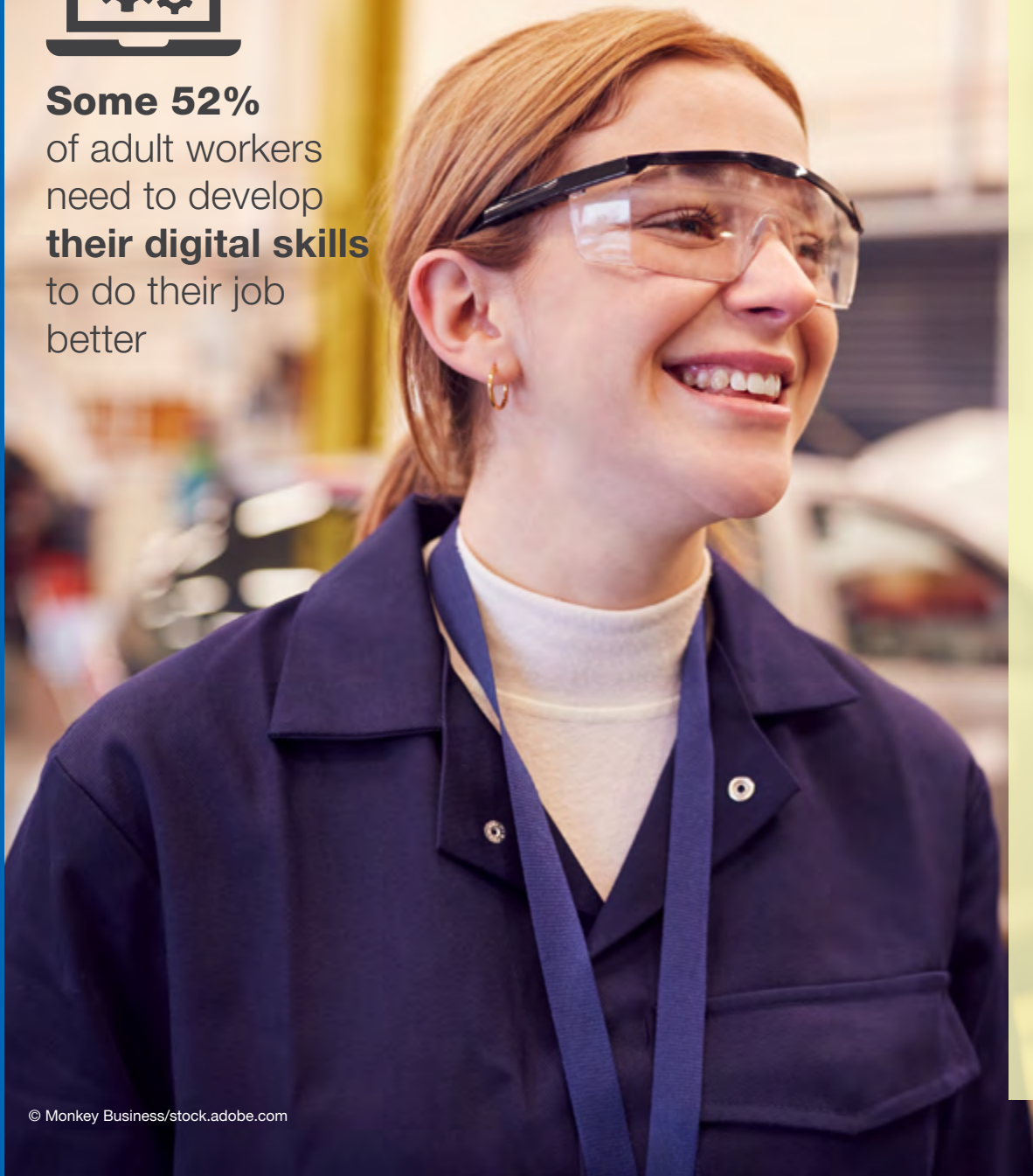
## Green hearts and minds

HR specialists  
 Consumer behaviour specialists  
 Sustainability trainers  
 Waste management trainer  
 Citizen engagement specialist





**Some 52%**  
of adult workers  
need to develop  
**their digital skills**  
to do their job  
better



### Digital transition must be human-centred, youth-enabling and inclusive

Cedefop's [second European skills and jobs survey](#) presented at the '[Powering the European digital transition](#)' conference shows why digital and STEM skills (science, technology, engineering and maths) are a VET and skills policy priority. Some 52% of adult workers in Europe need to develop their digital skills to do their job better, while 2 in 3 workers affected by technological change have a digital skills gap, which is not only in advanced digital skills, such as artificial intelligence. Many European adults would benefit from basic and mid-level digital skills upgrading.

Too many young Europeans are losing out in the digital transition. Some cannot find jobs, while others find jobs where the mismatch is not due to lack but to underuse of their skills and potential. Young people are more digitally savvy, more used to remote work and learning. Many have advanced digital skills. Young people often find themselves in less secure and lower-quality jobs, for which they are overqualified, have less job satisfaction and fewer training opportunities. This disadvantages them and has negative consequences for the economy and society.

At the same time, roughly only half of adult European workers cannot use their potential. The digital and green transitions are an opportunity to build and use skills better: through learning-conducive job design and wider access to technology. Opportunities abound for 'greening' and 'digitally upgrading' the world of work. For many workers, when given the means to up- or reskill, riding the waves of change can mean more interesting and fulfilling work, greater autonomy, better job quality and more learning opportunities.



**2 in 3 workers**  
affected by technological  
change **have a digital  
skills gap**

# In numbers

Cedefop's contribution  
to informing VET and skills policies

## 160

### REFERENCES IN EU POLICY DOCUMENTS

#### For example:

- EESC opinion: Decent work for young people and inclusion of NEETs through NRPs
- Business Europe position paper: *The EU skills and talent package*
- Commission SWD accompanying the Proposal for a Council Recommendation on learning for environmental sustainability



## 35

### CONTRIBUTIONS TO MEETINGS THAT INFORM POLICIES AND THEIR IMPLEMENTATION

#### For example:

- ETUC Education and Training Committee (22.9.2022)
- European Commission working group on VET and the green transition
- European Commission conference: Farmer's Got Talent! Vocational education and training for agriculture in transition



## 6

### WRITTEN CONTRIBUTIONS TO EU POLICY DOCUMENTS

#### For example:

- Eurostat working paper: *Competition in urban hiring markets – evidence from online job advertisements*
- Joint Research Centre (JRC) Science for policy report: *GreenComp: the European sustainability competence framework*
- EIB working paper: *Corporate training and skill gaps: Did COVID-19 stem EU convergence in training investments?*
- JRC Science for policy report: *Supporting policies addressing the digital skill gap: Identifying priority groups in the context of employment*



## 36 000

### DOWNLOADS OF CEDEFOP PUBLICATIONS (published since 2017)

#### Top 3

- *The green employment and skills transformation (3 938)*
- *Insights into skill shortages and skill mismatch (2 421)*
- Briefing note: *Trends, transitions and transformation (1 910)*







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## KEY COMMUNICATION STRATEGIC ACHIEVEMENTS

### Reaching users

Cedefop invested in innovative communication – **new corporate video productions, motion graphics, animations**, and the **Cedefop podcast series**. **Cedefop's web portal** was strengthened with new data visualisations and online databases and attracted more visitors in 2022.

### Engaging partners

Cooperation, partnership and strategic alignment with other European institutions and agencies contributed to success. In 2022, the European Year of Youth, Cedefop teamed up with four other agencies under the remit of the European Commission's Employment Directorate to make a strong case for expanding support for young people, by emphasising opening access to work experience and job opportunities in the green and digital economy.

With Eurofound, Cedefop continued working on the joint 2019 European company survey and organised the online knowledge-sharing seminar '**Skills and quality jobs as drivers of a just green transition**', with experts from the EU Agencies Network on Scientific Advice. Cedefop also supported the ETF in carrying out the second European skills and jobs survey in some ETF partner countries. Cedefop worked with the European Economic and Social Committee to **make a case for more coordinated and systemic approaches to up- and reskilling**. With the EU Presidency countries, Cedefop organised a seminar **on microcredentials** in France and one on **increasing training provision in micro enterprises and SMEs** in Czechia.



## Youth first!

### Employment, skills and social policies that work for young Europeans in times of uncertainty

**8 September 2022**

European Parliament

- Led by Cedefop and Eurofound, supported by the ETF, EU-OSHA and the ELA, held in the European Parliament to mark the European Year of Youth.
- The agencies shared their expertise on labour market, skills, and the quality of employment and working conditions for young Europeans, including the implications of COVID and the Ukraine crisis.
- A key theme was how EU agencies complement one another and create synergies through data collection, shared expertise, and research.

#### TRAFFIC TO WEB PORTAL

**521 418 (+9,7%)**  
Unique visitors

**1 915 379 (+17,7%)**  
Page views

**600 382 (+1.07%)**  
Document downloads  
(all documents)

#### SOCIAL MEDIA FOLLOWERS

**7 988 (+41%)**  
LinkedIn

**12 685 (+10%)**  
Twitter

**17 238 (+3%)**  
Facebook

# THE FUTURE OF WORK IS **LEARNING**



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