



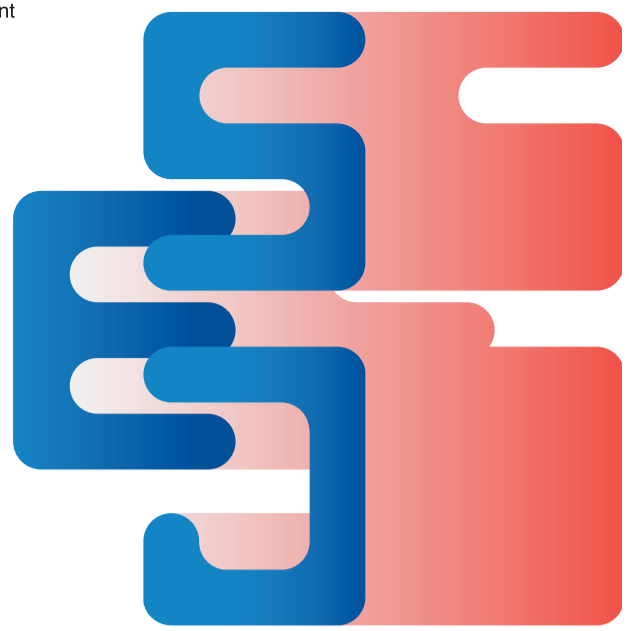
# Powering the European digital transition

What can we learn from Cedefop's 2nd European skills and jobs survey?

9 and 12-14 December 2022

Virtual event

#ESJS2



## Digitalisation: from megatrend to game changer

2023 will be the European Year of Skills. Understanding how technological change and [digitalisation](#), particularly new intelligent automation or industry 4.0 technologies (e.g. advanced robotics, artificial intelligence, 3D printing) are reshaping the worlds of work and learning is key for translating skills policy ambitions into achievements. [Cedefop's first \(2014\) European skills and jobs survey \(ESJS\)](#) already showed that 43% of EU adult employees experienced technological change at work, because new machines or ICT systems were introduced or upgraded. Survey analysis suggested that about [14% of EU jobs were likely to be fully automated](#), with such automation risks disproportionately affecting low-skilled people in routine jobs that offer little, if any, vocational training. [The COVID-19 pandemic, which accelerated the proliferation of digital working and learning](#), has accentuated these trends. The [second wave of the Cedefop ESJS \(ESJS2\)](#) shows that 4 in 10 European workers increased their use of digital technologies to perform their job tasks, compared to the pre-pandemic era.

With several studies painting a gloomy picture of massive job destruction, the debate regarding the [implications of digital innovation for the future of work](#) and skills intensified in the early years of the previous decade. Since then, a more balanced perspective has emerged, which associates digitalisation and job automation – spearheaded by the 4th industrial revolution – not only with job destruction and creation, but also with fundamental transformation in many jobs and occupations, and significant impacts on work organisation. While estimates of automation risk vary, most experts agree that digitalisation and technological advances are primarily [transforming labour markets by affecting the task structure and required skill sets](#) in many jobs.

Advances in digital technologies do not only change how goods and services are produced; they also help organisations and individuals achieve better skills matches, for example via big-data-powered skills needs anticipation or matching algorithms that connect jobseekers to vacancies. With AI applications progressing, employers are increasingly automating human resource management functions, such as recruitment, performance monitoring and appraisal and training and development. Digitalisation is blurring the boundaries between traditional and 'atypical' work, as is visible in the stark increase of remote work and the rise of [online 'platform' work](#). The digital transition is also becoming increasingly visible on the supply side of the labour market. The same technology that is radically transforming jobs is also increasingly being applied to shape new learning delivery forms (such as open education resources, MOOCs, virtual reality apps, gamification, etc.) and sector- or occupation-based training and learning tracks, often outside of the confines of 'formal' education systems.

Recent evidence suggests that advanced digital technology such as artificial intelligence, may to some extent explain the paradox of structural changes shifting economies towards [fewer routine jobs but more 'routinised' work, including in high-skill occupations](#). The old debate on whether technology drives deskilling, reinforced surveillance and employee control or instead contributes to upskilling, job enrichment via flexible specialisation, worker autonomy and employee involvement, remains highly relevant in today's digital world.

Digitalisation has become a game changer, and its role in shaping the future of work, skills and learning tops EU and national policy agendas. Policy-makers are concerned about the economic and social impacts of emerging skill gaps and skills obsolescence, and there is consensus that shaping the future of work requires a skills or lifelong learning revolution and targeted action to address '[digital divides](#)'.

## Cedefop's second European skills and jobs survey (ESJS2)

Scientifically sound data and analysis are crucial for evidence-based policy making to accompany and shape change brought about by digital technology, the challenges linked to the pandemic and the ongoing green transition. Fielded in summer 2021 in all EU-27 Member States and Norway/Iceland (EU+) <sup>(1)</sup>, Cedefop's [second European skills and jobs survey \(ESJS2\)](#) collected information from a representative sample of over 46 000 adult workers on how digitalisation affects them, their match with their jobs and their readiness to invest in continuous vocational training.

<sup>(1)</sup> In collaboration with the European Training Foundation (ETF), following implementation in the EU+, the ESJS2 will be fielded in six ETF partner countries (western Balkans and Israel) in 2022.



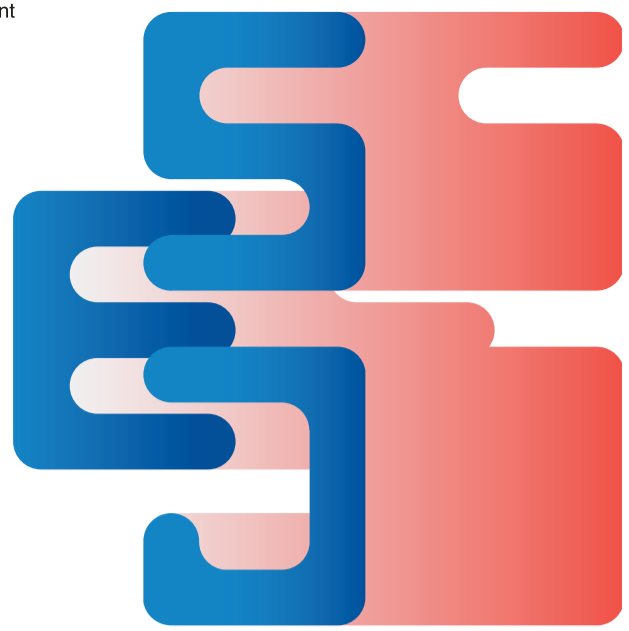
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The ESJS2 provides European policy-makers with timely information on:

- the extent to which EU+ workers had to learn new digital software or computerised machinery in their main job in the past year;
- the level of digital skill required in their job;
- the relationship between digitalisation and job-skill requirements and changing work organisation, such as routinisation or job complexity;
- the take-up of digital forms of working and learning;
- how digitalisation is linked to EU+ workers' qualification mismatches and skill gaps;
- the extent to which EU+ workers take part in continuous training and learning to accommodate new digital technologies;
- the impact of the COVID-19 pandemic on employment and workplaces.

## Link to EU policy context

Strongly linked to the growth, sustainability and resilience ambitions of the [European Skills Agenda](#) and [European Digital Strategy](#), Cedefop's second European skills and jobs survey (ESJS2) aspires to become a key tool for evidence-based policy-making. It provides essential information to support the aim of making 'Europe fit for the digital age' and to realise the ambitions of the [European Digital Education Action Plan](#), the [European Social Pillar Action Plan](#) and the [2030 Digital decade programme](#). It complements the [Digital Economy and Society Index \(DESI\)](#), the [European digital competence framework \(DigComp\)](#) and other EU data and information sources focusing on digitalisation and its impacts. ESJS2 data and analysis will also be central in Cedefop's ongoing and future work aimed at strengthening skills intelligence and supporting the twin transitions by offering expert analysis and insights – key European Skills Agenda ambitions. In a broader sense, the unique data collected in the ESJS2 can also support collective action and help shape skills ecosystem approaches to promote skills matching (e.g. in the context of the [Pact for Skills](#) and the [Blueprints for sectoral cooperation on skills](#)) and setting priorities in policies and reforms aimed at strengthening Europe's skills systems.

## Conference aims

The main aim of the conference is to discuss with the European policy and expert community, social partners and a wider group of stakeholders and participants the main findings of Cedefop's second ESJS2. With the European Year of Skills coming up and a focus on digitalisation, digital skills, skills use, skills formation and skill mismatches, Cedefop aims to stimulate evidence-informed debates on how to shape a human digital transition in Europe. As part of the conference, Cedefop will aim to involve expert and other participants in reflecting on the implications of the findings for up- and reskilling, vocational education and training (VET) and skills policies.

At the conference, Cedefop will:

- launch the new Cedefop ESJS2 indicator online web tool;
- collect feedback from participants on which ESJS2 findings they consider most relevant from a policy perspective;
- reflect, jointly with social partners and stakeholders, on the implications of digitalisation for changing skill needs and VET policies;
- present findings from research and analyses exploring the implications of digitalisation for skill mismatch;
- showcase good practices of VET and skills policies aimed at digital skills development and/or skills matching.

## Conference details

- Venue: virtual event on ZOOM platform
- Date/duration: 9 and 12-14 December 2022 (spread across four days to accommodate participants wishing to attend specific parts or sessions)
- Format: presentations, panel sessions and good policy practice examples
- Working language: English



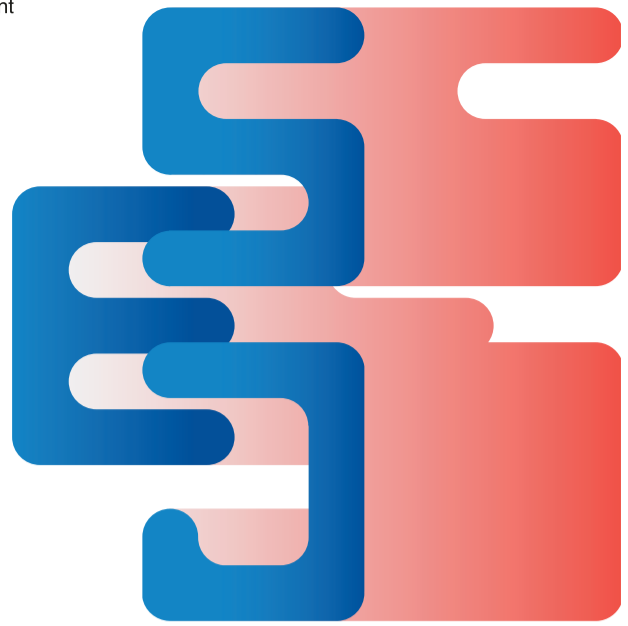
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## PROGRAMME

### DAY 1: FRIDAY 9 DECEMBER Re-imagining the future of work (all times CET)

**9.45-10.00** **Conference welcome**  
Jasper van Loo, *Coordinator, Cedefop*

#### Session 1 – Keynote presentation

*Moderator: Jasper van Loo (Cedefop)*

**10.00-10.30** **Worker transitions in the digital economy**  
Sir Christopher Pissarides, *Nobel Prize Laureate in Economics,  
Regius Professor of Economics, London School of Economics and  
University of Cyprus*

#### Session 2 – More evidence

*Moderator: Konstantinos Pouliakas (Cedefop)*

**10.30-11.00** **Digital transitions, job quality and skill mismatch: new  
ESJS2 evidence**  
Konstantinos Pouliakas, *Cedefop*

**11.00-11.10** **Q&A**

**11.10-11.30** **Coffee break**

**11.30-11.50** **Automation, digital skills and learning**  
Didier Fouarge, *University of Maastricht*

**11.50-12.10** **Digital disruption at work**  
Manuel Souto-Otero, *University of Cardiff*

**12.10-12.20** **Q&A**

**12.20-12.30** **Key takeaway points**  
Jasper van Loo, *Cedefop*

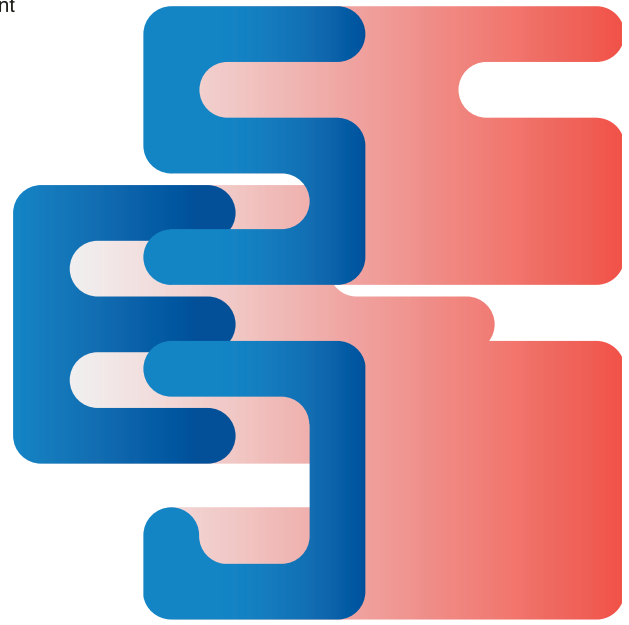


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### DAY 2: MONDAY 12 DECEMBER Digital skills for social inclusion (all times CET)

**13.50-14.00**    **Accessing the platform**

#### Session 1 – Keynote presentations

*Moderator: Ralph Hippe (Cedefop)*

**14.00-14.20**    **Priority groups for digital competence training and EU digital competence tools**

*Clara Centeno, JRC, European Commission*

**14.20-14.40**    **Artificial intelligence in education?**

*Wayne Holmes, University College London*

**14.40-14.50**    **Q&A**

#### Session 2 – Digital skills practices

*Moderator: Ralph Hippe (Cedefop)*

**14.50-15.50**    **Rethinking PES in a digital era**

*George Karachalios, Greek Public Employment Service (DYPA)*

#### **PIX programme, France**

*Marie Bancal, PIX*

#### **Project BLENDVET: Digital and pedagogical competence of teachers hand in hand**

*Darko Mali, Institute of the Republic of Slovenia for Vocational Education and Training (CPI)*

**15.50-16.00**    **Key takeaway points**

*Jasper van Loo, Cedefop*



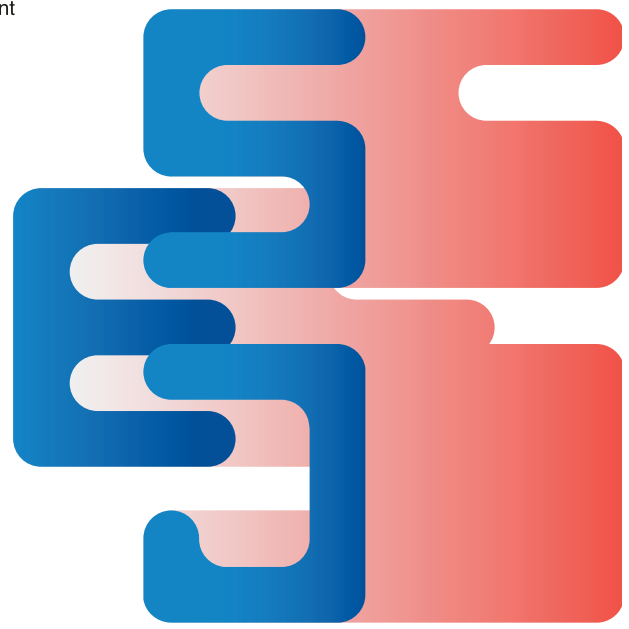
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### DAY 3: TUESDAY 13 DECEMBER European Year of Skills 2023 – kickstarting the digital skills revolution (High level policy event) (all times CET)

**9.45-10.00**      **Accessing the platform**

#### Session 1 – EU digital skills policy priorities

*Moderator: Antonio Ranieri (Head of Department, Cedefop)*

**10.00 -10.30**      **Digitalisation, skills, and VET: EU priorities for a just digital transition**

- Jürgen Siebel, *Executive Director, Cedefop*
- Nicolas Schmit, *Commissioner for Jobs and Social Rights, DG EMPL, European Commission*

#### Session 2 – Cedefop's ESJS2 evidence

*Moderator: Jasper van Loo (Cedefop)*

**10.30 -11.15**      **Setting Europe on course for a human digital transition**

- Konstantinos Pouliakas, *Cedefop*
- Presenting Cedefop's ESJS2 online tool
- Cedefop-ETF cooperation: expanding the ESJS2 frontier  
Dialogue with: **Manuela Prina**, *Head of Skills Identification and Development Unit, ETF*

#### Session 3 – Social partners' panel

*Moderator: Antonio Ranieri (Head of Department, Cedefop)*

**11.15 -12.00**      **Digitalisation and social dialogue – Reflection on Cedefop findings**

- Agnes Roman, *ETUC*
- Robert Plummer, *Business Europe*
- Valentina Guerra, *SME United*
- Stefan Enica, *SGL Europe*



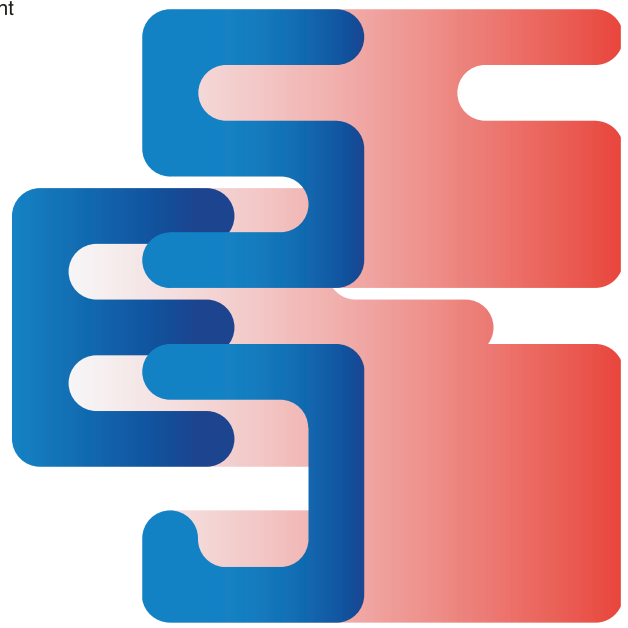
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### DAY 4: WEDNESDAY 14 DECEMBER

#### Matching people to jobs: a constant challenge (all times CET)

**9.50-10.00**      **Accessing the platform**

#### Session 1 – Keynote presentation

*Moderator: Giulia Santangelo (Cedefop)*

**10.00-10.30**      **Skill mismatch: concepts, measurement and policy approaches**

Seamus McGuinness, *ESRI*

#### Session 2 – More evidence

*Moderator: Giulia Santangelo (Cedefop)*

**10.30-10.50**      **Skill shortages and training investments in times of pandemic**

Patricia Wruuck, *EIB*

**10.50-11.00**      **Q&A**

**11.00-11.20**      **Coffee break**

**11.20-11.40**      **A skill match approach to lifelong learning**

Tomas Korpi, *Stockholm University*

**11.40-12.00**      **Educational requirements, mismatch and skills: ESJS2 evidence**

Giovanni Russo, *Cedefop*

**12.00-12.15**      **Q&A**

#### Session 3 – The way forward

*Moderators: Jasper van Loo & Giulia Santangelo (Cedefop)*

**12.15-12.45**      **Towards better skills matching: connecting the dots**

Reflecting on lessons learned to make a difference with skills matching policy

**12.45-13.00**      **Key takeaway points & conference conclusions**

Konstantinos Pouliakas, *Cedefop*