

DIGITALISATION AND DIGITAL TRANSITION

FIRST FINDINGS IN THE ETF PARTNER COUNTRIES

Mircea Badescu & Eva Jansova (ETF) May 2023





SUMMARY OF THE PRESENTATION

- The *ESJS in a nutshell*. What's in for the ETF partner countries?
- The post-pandemic remote work: *a new digital divide?*
- Technological changes and *digital upskilling* on the ETF/EU labour markets
- The *digital transition*: the main challenges in the EU/ETF partner countries
- Digitalisation, skills gaps and the learning potential: ESJS and the EU agenda







35 COUNTRIES SURVEYED BY 2023

About 50,000 employees surveyed (sample size 1000 - 3000/country)

Job-skill requirements (skills demand approach), skills mismatch (vertical, gaps, horizontal), digitalisation, workplace learning in one highly versatile statistical tool



relevant (EU Skills Agenda, EU Digital Strategy, European Education Area)

Conducted in two rounds (6 countries 2022/23 & 3 countries* 2024/25)

*Subject to discussion and confirmation of ETF's Single Programming Document (SPD)

WHAT DO WE WANT TO FIND OUT ? ETF PCs vs EU

Workers holding higher qualifications than needed

Jobs with low/high digital needs ...

... or workers writing code at workplace



Jobs requiring manual skills ...

... or computerized machines

The pandemic: its impact on workers ...

... and those working now remotely

IN A NUTSHELL



JOB-SKILLS REQUIREMENTS IN THE ESJS: THE META-SKILLS

Cognitive	Manual	Interpersonal	Digital
Reading Writing Maths Problem-solving Creativity	Lifting Dexterity Repetitiveness / standardisation Use of computerised machines	Counselling Selling Serving Presenting Teaching/training Persuading / negotiating Caring Team-working	Email / Internet / Social media Word processing Spreadsheets Data management Occupation-specific software Programming (AI)
Reading	In your main job, did you o	do any of the following during the	last month?
	read texts that are at lea	ast ><5 pages long?	
Manual	lift or carry heavy loads, without the help of machines?		
Digital	Did you use any computer month? send emails? write or edit text using a	r device to do the following activiti a word processor?	ies for your work in the last
Source: Cedefop (ESJS)	 write a program or code	e using a computer language	



DIGITALISATION AND DIGITAL TRANSITION

Post-pandemic remote work: a new digital divide? Digital upskilling: which are main changes at the workplace? Digitalisation in the EU/ETF labour markets The digital transition: what to expect? Going digital: fear, facts or fiction? The digital transition: what challenges for ETF?

The digital transition in 2022: a skills revolution?





Digitalisation

The post-pandemic digital transformation in the Western Balkans countries*

WB5: 62% (EU: 82%)

Use of Internet at workplace



Digital transition

Main findings and challenges in the Western Balkans countries*

WB5: 45% (EU: 63%) Need to develop their overall skills

WB5: 38% (EU: 52%) Need to develop their digital skills

WB5: 15% (EU: 35%) Digital upskilling (ie had to learn)

WB5: 35% (EU: 45%) Job insecurity-lack of digital skills



WB5: 27% (EU: 44%) New digital technologies introduced at workplace

WB5: 33% (EU: 42%) Training for digital skills

Remote work:

a new digital divide?

In the last year, did you do <u>any work</u> as part of your <u>main job</u> from a <u>location other than your employer's premises?</u>



28% of employees in WB5 countries* have worked away from their employer's premises in 2022 (EU: 39% in 2021)

WFH accentuated existing labour market inequalities



41% EDU-high 18% EDU-low

41% Managers 13% Elementary occupations 63% Programmers 54% Banking/Insurance 17% Health/Care 12% Hotel/Food

Source: Cedefop-ETF, European Skills and Jobs Survey (2021/2022)

Digital upskilling

changes at workplace

In the last year, did any of the following <u>changes</u> took place in <u>your workplace</u>?



15% of employees in WB countries* had to learn to use new digital technologies at work in 2022 <u>New digital technologies</u> (ex. new computer systems/devices or programmes, but <u>not minor updates</u>)

If digital upskilling had a <u>substantial change/tangible</u> <u>impact</u> on the jobs and likely <u>triggering up/re-skilling</u>



Source: Cedefop-ETF, European Skills and Jobs Survey (2021/2022)

(Low) digitalisation in the EU/ETF jobs?..



Source: Cedefop-ETF, European Skills and Jobs Survey (2021/2022)

..but not in all partner countries Four in five Israeli employees use

Did you use <u>computing devices</u> to do the following activities as part of your main job in the last month?



the Internet at work and ~one in twenty use robots or 3D printers

> **Use of computerised machineries** 13% **Monitors/Scanners** 6% **3D printers** 6% **Robots** 4%

CNC machines

Digitalisation drives skill gaps. 45% of WB5* adult

To what extent do you need to further develop your overall level of knowledge/skills to do your job better? 45% of WB5* adult employees have 'learning potential' while indicating *substantial* unmet learning needs



Source: Cedefop-ETF, European Skills and Jobs Survey (2021/2022)

Albania, Bosnia & Herzegovina, Kosovo, N. Macedonia, Serbia (2022, provisional data)

Note: Totals don't add up to 100 due to those with an unknown/unidentifiable status/no response



Source: Cedefop-ETF, European Skills and Jobs Survey (2021/2022)

Albania, Bosnia & Herzegovina, Kosovo, N. Macedonia, Serbia (2022, provisional data)

Note: Totals don't add up to 100 due to those with an unknown/unidentifiable status/no response

Digital transition

more job insecurity?

Do you think you may lose your current job because <u>*new*</u> <u>*digital/computer technologies will do your work?*</u>

28% of employees in WB5* show a high or moderate job insecurity linked to digital transition in 2022 (EU: 35% in 2021)

Most are <u>aware of work changes/fearing losing job</u> but job insecurity is <u>non-uniform</u> by type of digital technologies used; it's more pronounced for <u>those holding routine jobs</u> <u>while others (ex. programmers) feel less insecure</u>

DIGITAL TRANSITION: JOB INSECURITY



Going digital *fear, facts or fiction?*

Do you think you may lose your current job because <u>new digital/computer technologies</u> will also need <u>new</u> <u>skills/knowledge</u> which <u>you don't currently hold?</u>

For 1/3 of WB5* employees, insecurity is mainly linked to their lack of new skills linked to the digital transition (EU: 45%)

Those working in <u>manual/routine jobs</u>, not using digital technologies <u>lack awareness of new realities</u> in the world of work or are <u>oblivious to automation risks</u>. They are also <u>less inclined to invest in (up)reskilling</u> (more soon)

JOB INSECURITY: LACK OF NEW DIGITAL SKILLS









Increase of work routinisation/job insecurity

with some forms of digital technology

particularly in manual/routine occupations, less in non-routine/analytical jobs

Non-users of digital technologies are <u>oblivious</u> to automation risks</u> or lack awareness of new realities in the world of work

Seven in ten employees in WB5* believe that new digital technologies would result <u>only in small improvements</u> Only one in four EU employees is concerned that <u>technology can/will (partly) do their tasks</u>

Skill <u>underutilisation</u> is (usually) linked to <u>less digitalisation</u> at work

Adults non-exposed to digitalisation are less willing to adopt digital innovation and to invest in up/reskilling

Source: Cedefop-ETF, European Skills and Jobs Survey (2021/2022)



Measuring digitalisation



Incidence & complexity

In the last 12 months since you started your main job, did you have to learn to use any new [computer programs or software][computerised machinery] to do your main job?

By 'new' we mean those you started using for your main job. Please exclude minor or regular updates.

About how long did it take you to learn to use it well for your main job? By well we mean with no/few errors and at the expected speed.



Automation impact As a result of the [new computer programs or software] [or] [new computerised machinery] you learnt for your main job [in the last 12 months], did your main job tasks change in any of the following ways?

- No longer do some tasks I did before
- Do some new or different tasks
- Did my job tasks faster than before

Source: Cedefop (ESJS)

Investing in skills

it takes two to tango

In the last 12 months, have you <u>participated in any</u> <u>education/training</u> to learn <u>new job-related skills?</u>

ANY EDUCATION/TRAINING ACTIVITY

78%

One in two employees in WB5 countries* was trained to learn new job-related skills and one in three to develop digital skills

And was at least one of these trainings done to further develop your *computer/IT skills needed for your job?*







Source: Cedefop-ETF, European Skills and Jobs Survey (2021/2022)



ESJS in ETF Partner Countries Methodology

National representative survey of adults aged 25-64 in wage and salary employment (i.e. paid employees), who live in private households.

- Multistage cluster sample + CAPI (WB economies)
- Online panel + CAWI (Israel)

Sample of approx. 1000 respondents per country Main fieldwork – end November 2022 to January 2023

Based on CEDEFOP methodology applied in EU countries



ESJS allows to measure job-skill requirements



Or incidence of digitalisation and the impact of automation on job tasks

- In the last 12 months, did you learn to use any **new computerised machinery** to do your main job?
- In the last 12 months, did you learn to use any new computer programs or software to do your main job?
- As a result of the [above] you learnt for your main job, did your job tasks change in any of the following ways?

Task-based approach

Did you use any of the computing devices (...) to do the following activities as part of your main job in the last month?

- Use the internet for browsing, sending emails or using social media for your work
- Write or edit text, for instance using Word or similar software
- Use the more advanced functions of spreadsheets, for instance macros or complex formulas (...)

Source: Cedefop (ESJS)

ESJS allows to measure skill mismatch

Vertical mismatch

What is the level of education usually needed nowadays to do a job like your main job?

Horizontal mismatch

Considering your main subject or field of study at your highest level of education (business, engineering, health etc.), how relevant is it for doing your main job

Skills utilisation

To what extent can you use your current knowledge and skills in your main job?

Specific skill gap

Do you need to further develop any of the following skills to do your main job even better?

- technical/job-specific, computer/IT, social, numeracy skills



Thanks for joining today!