

DIGITALISATION AND DIGITAL TRANSITION

*FIRST FINDINGS IN THE
ETF PARTNER COUNTRIES*



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European
skills & jobs
survey

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*

... in numbers

1

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

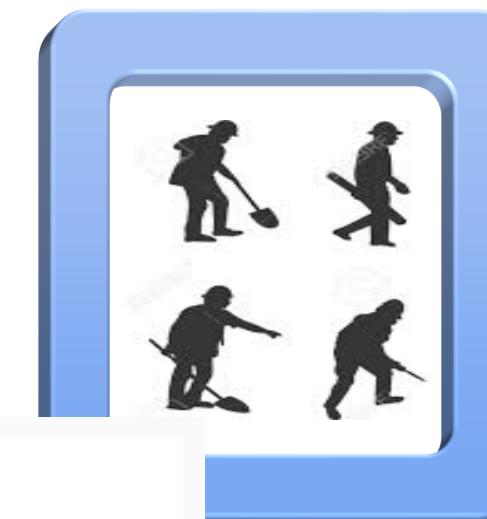
Workers holding
higher
qualifications than
needed



Jobs with low/high
digital needs ...



... or workers writing
code at workplace



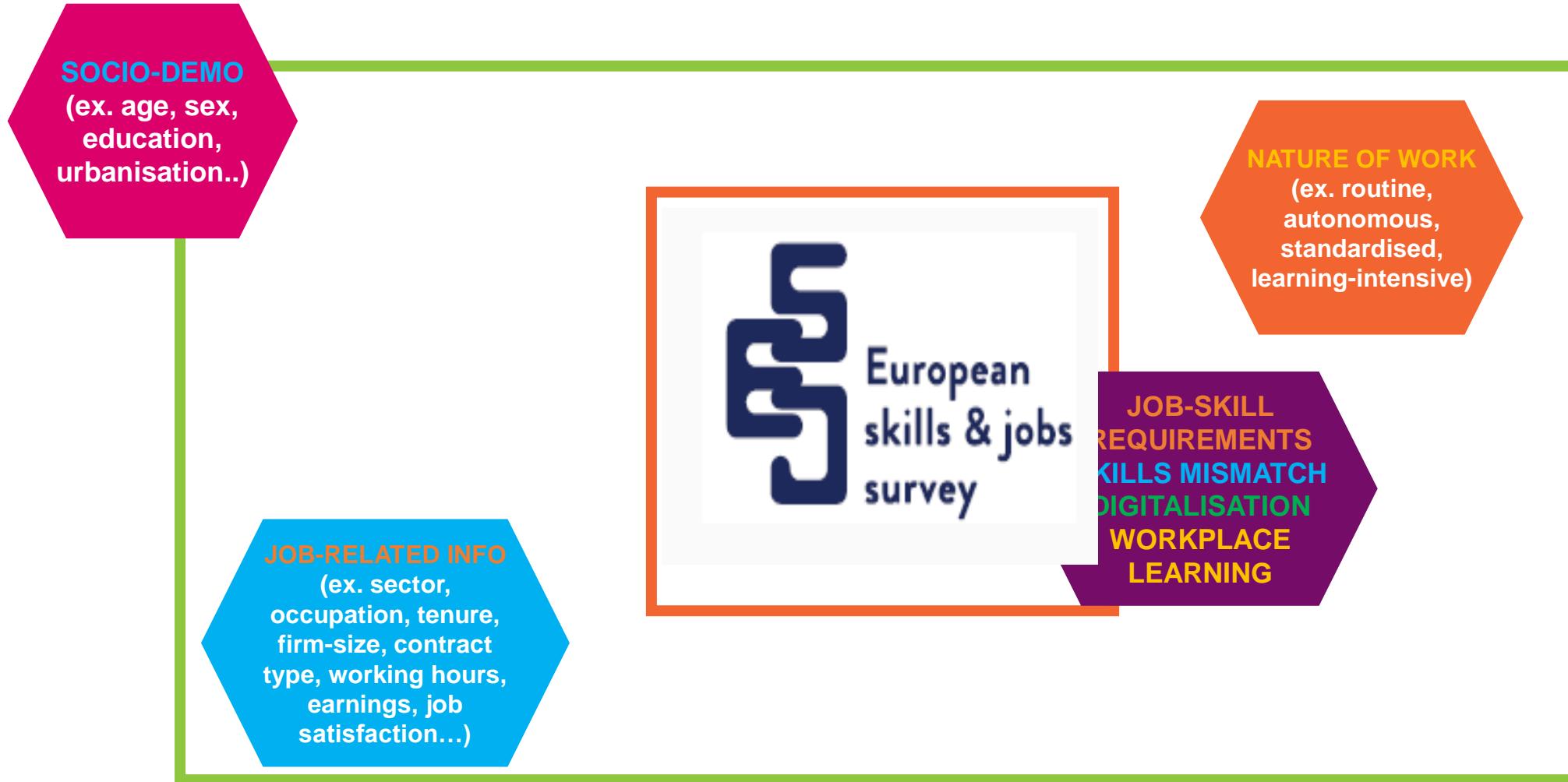
Jobs requiring manual
skills ...

... or computerized
machines

The pandemic: its
impact on workers ...

... and those working
now remotely

IN A NUTSHELL





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

WB5: 27% (EU: 44%)

New digital technologies introduced at workplace

WB5: 33% (EU: 42%)

Training for digital skills



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%)

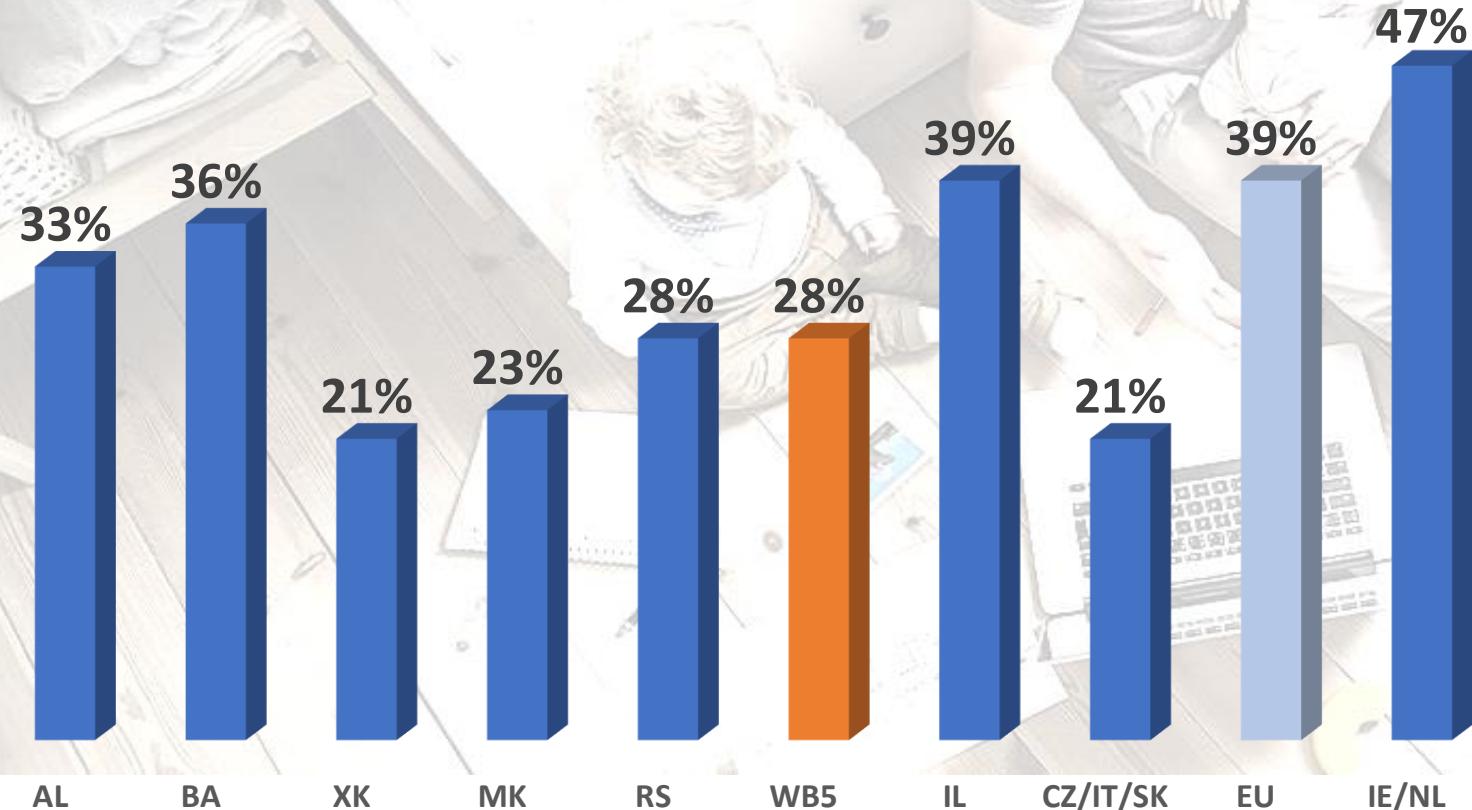
Digital upskilling (ie had to learn)

WB5: 35% (EU: 45%)

Job insecurity-lack of digital skills

Remote work: a new digital divide?

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



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

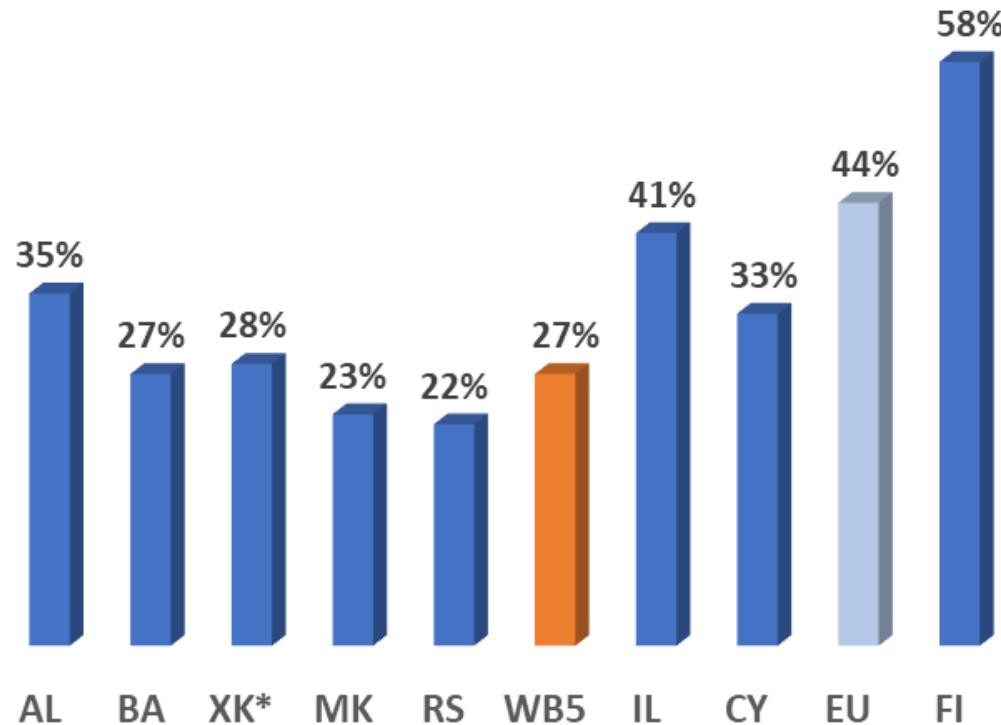
31% EDU-high
24% EDU-low

32% Skilled occupations
21% Elementary occupations
54% Computer programmers
32% Financial/Insurance
19% Health/Care
17% Education
9% Accommodation/Food

Digital upskilling changes at workplace

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

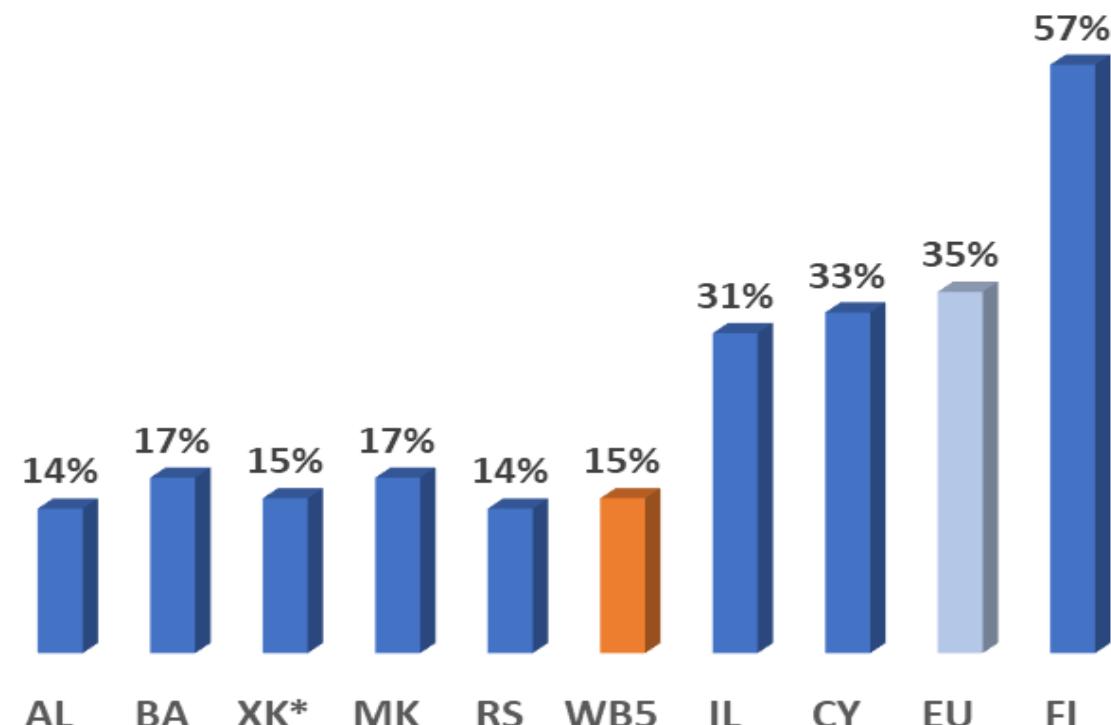
NEW DIGITAL TECHNOLOGIES INTRODUCED AT WORKPLACE



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

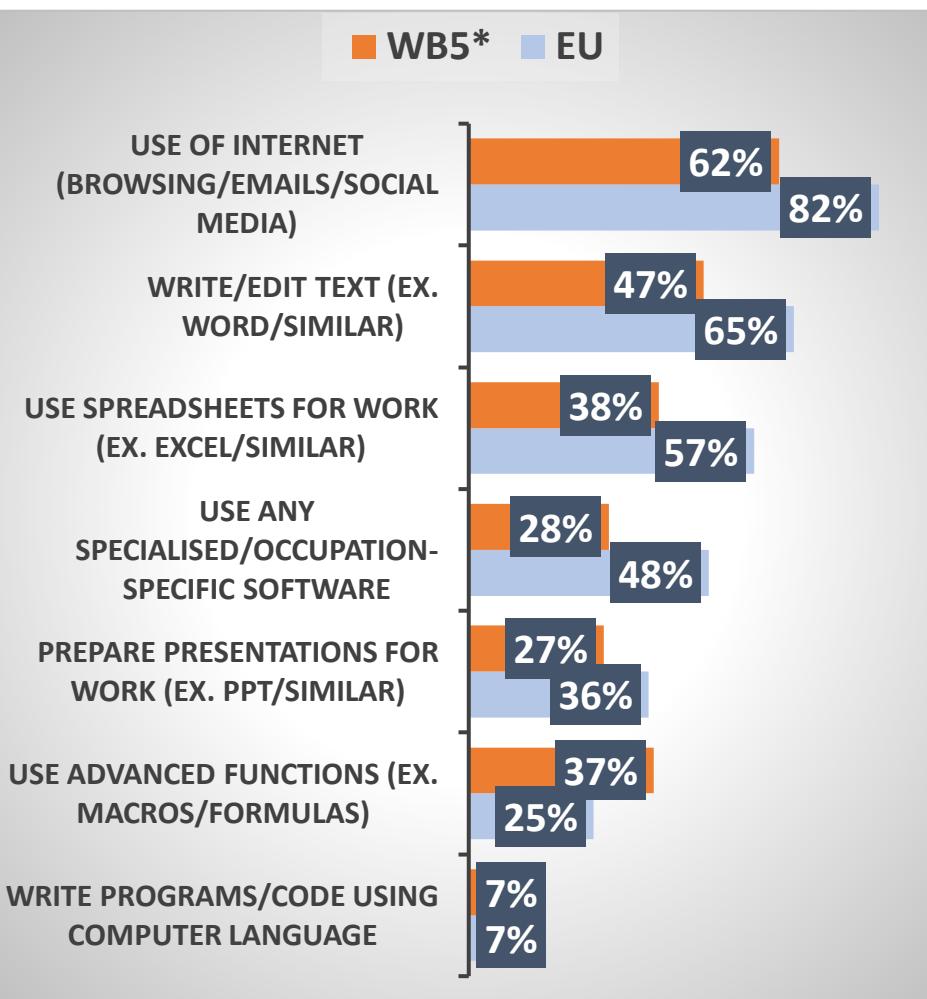
If digital upskilling had a substantial change/tangible impact on the jobs and likely triggering up/re-skilling

HAD TO LEARN USING THEM (DIGITAL UPSKILLING)

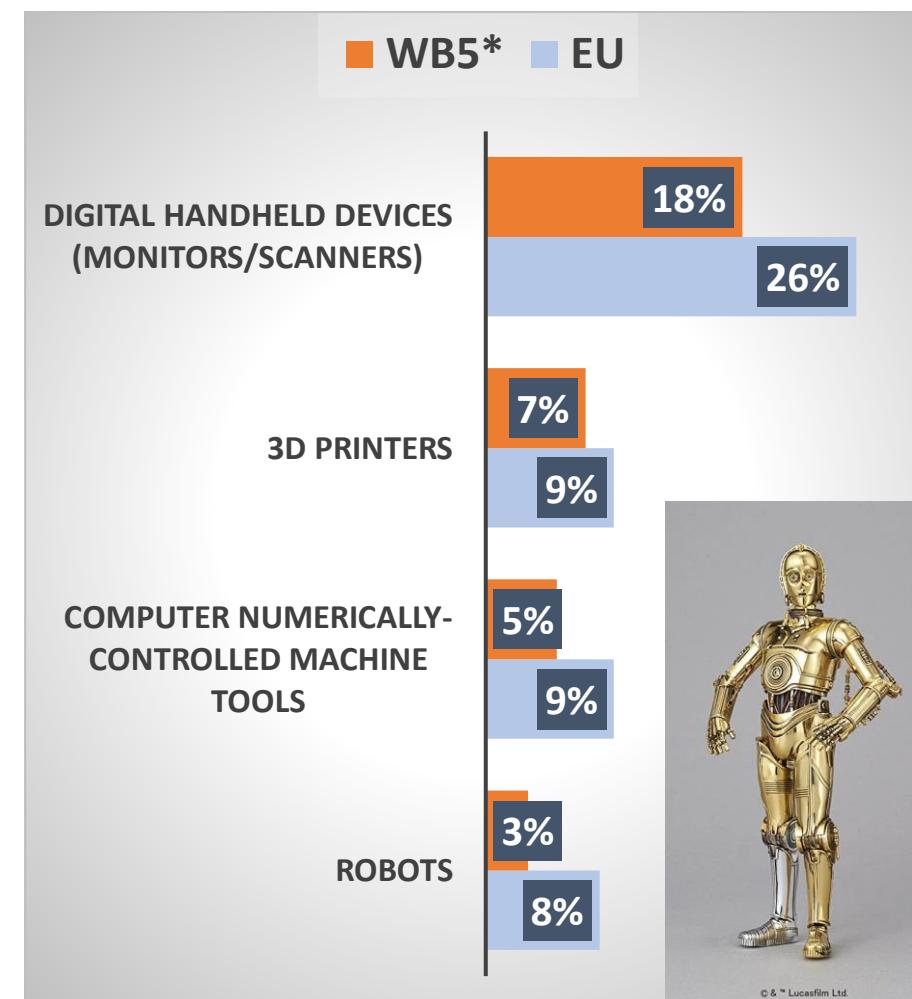


(Low) digitalisation in the EU/ETF jobs?..

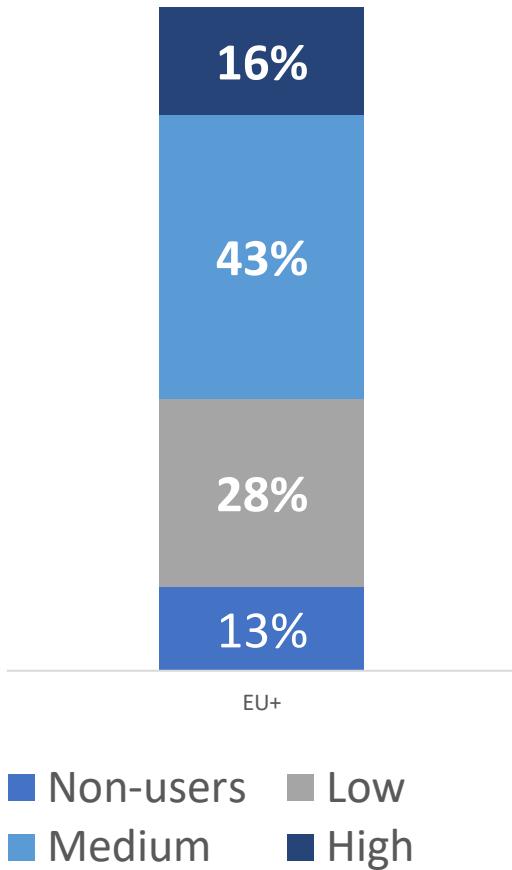
Did you use computing devices to do the following activities as part of your main job in the last month?



As part of your main job, did you work with or operate any of the computerised machinery below in the last month?

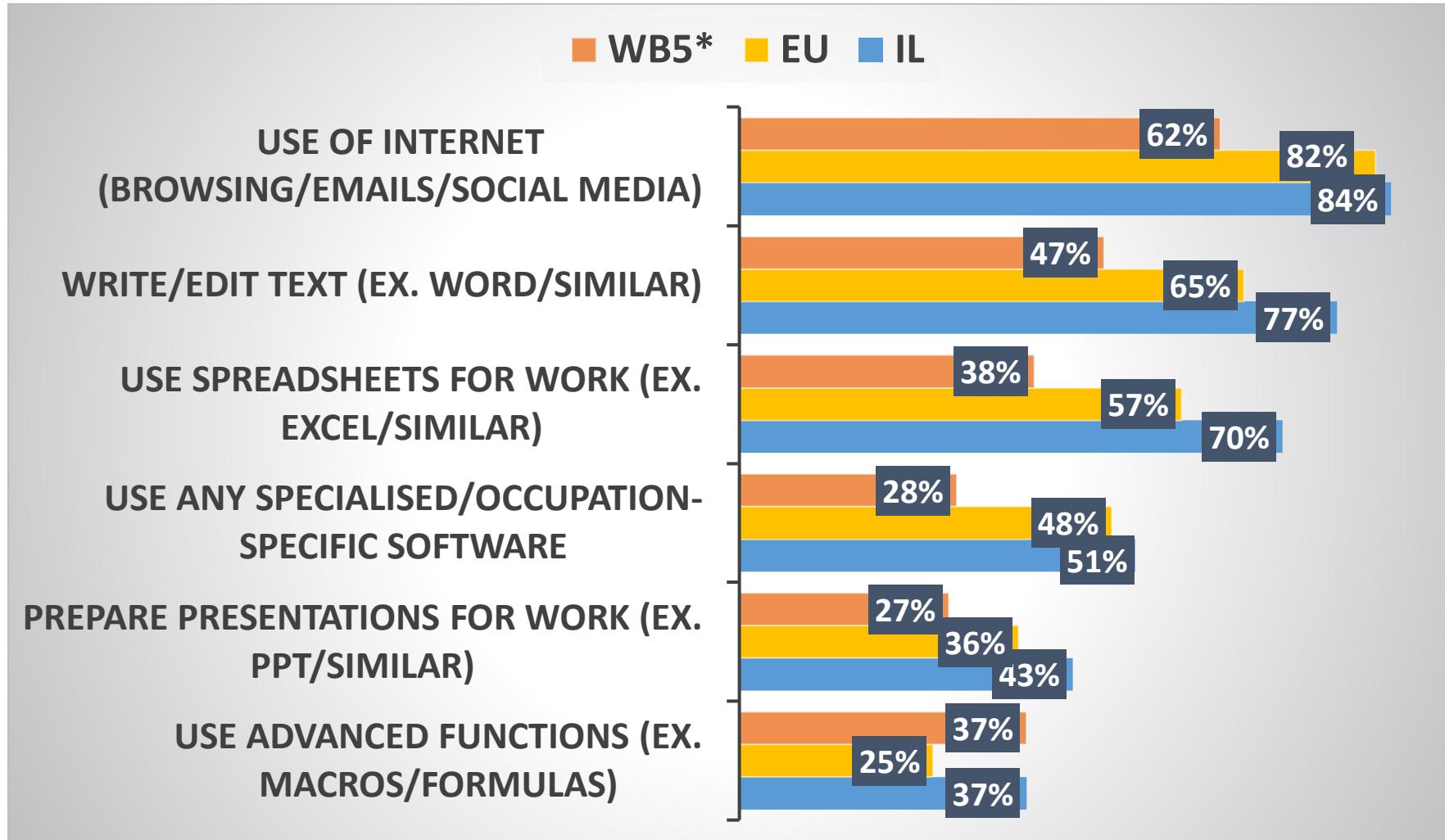


Digital Skills Intensity index, EU+ countries
Source: Cedefop



..but not in all partner countries

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



Four in five Israeli employees use 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%

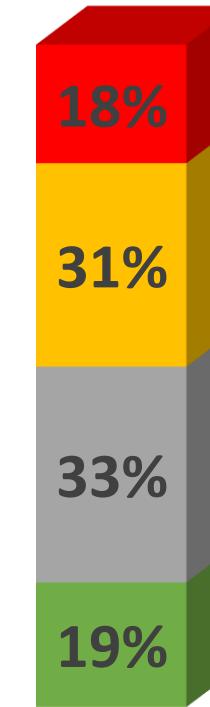
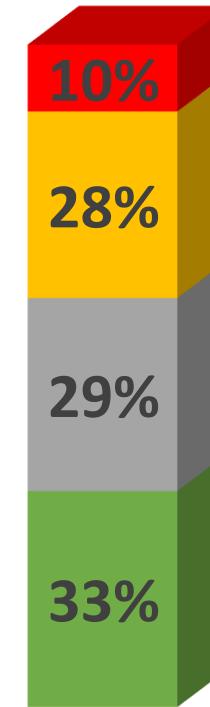
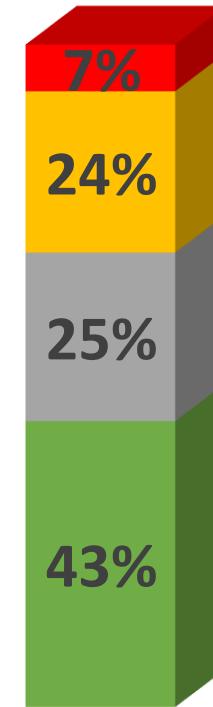
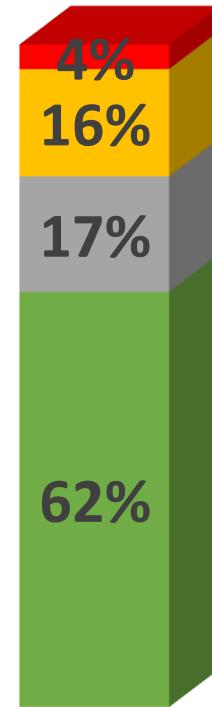
CNC machines

Digitalisation drives skill gaps..

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

■ Greatly ■ Moderately ■ Slightly ■ Not at all



Skilled

Semi-skilled

Manual

Elementary

38%
Computer/ICT skills

35%
Social skills

23%
Job-specific skills

23%
Numeracy skills

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

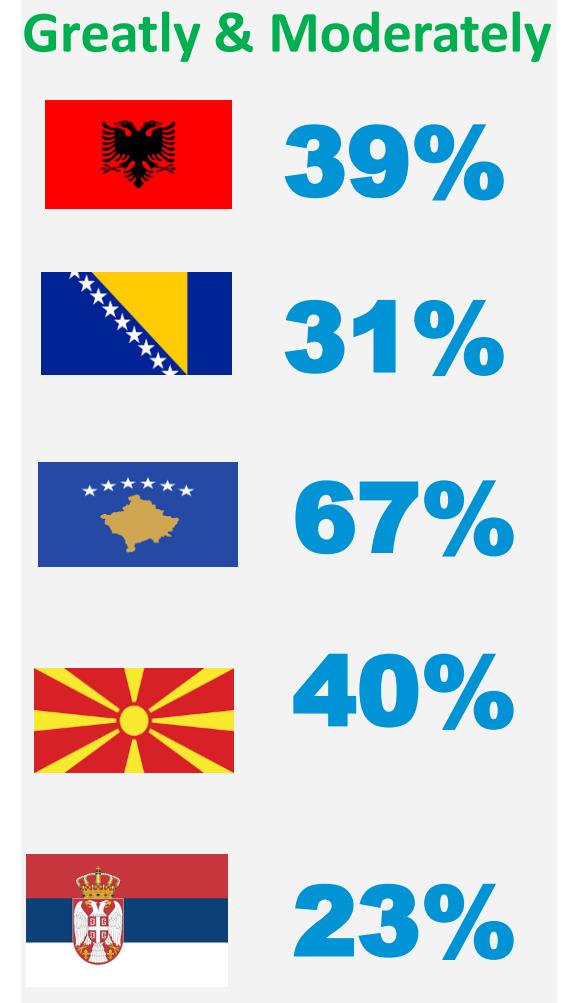
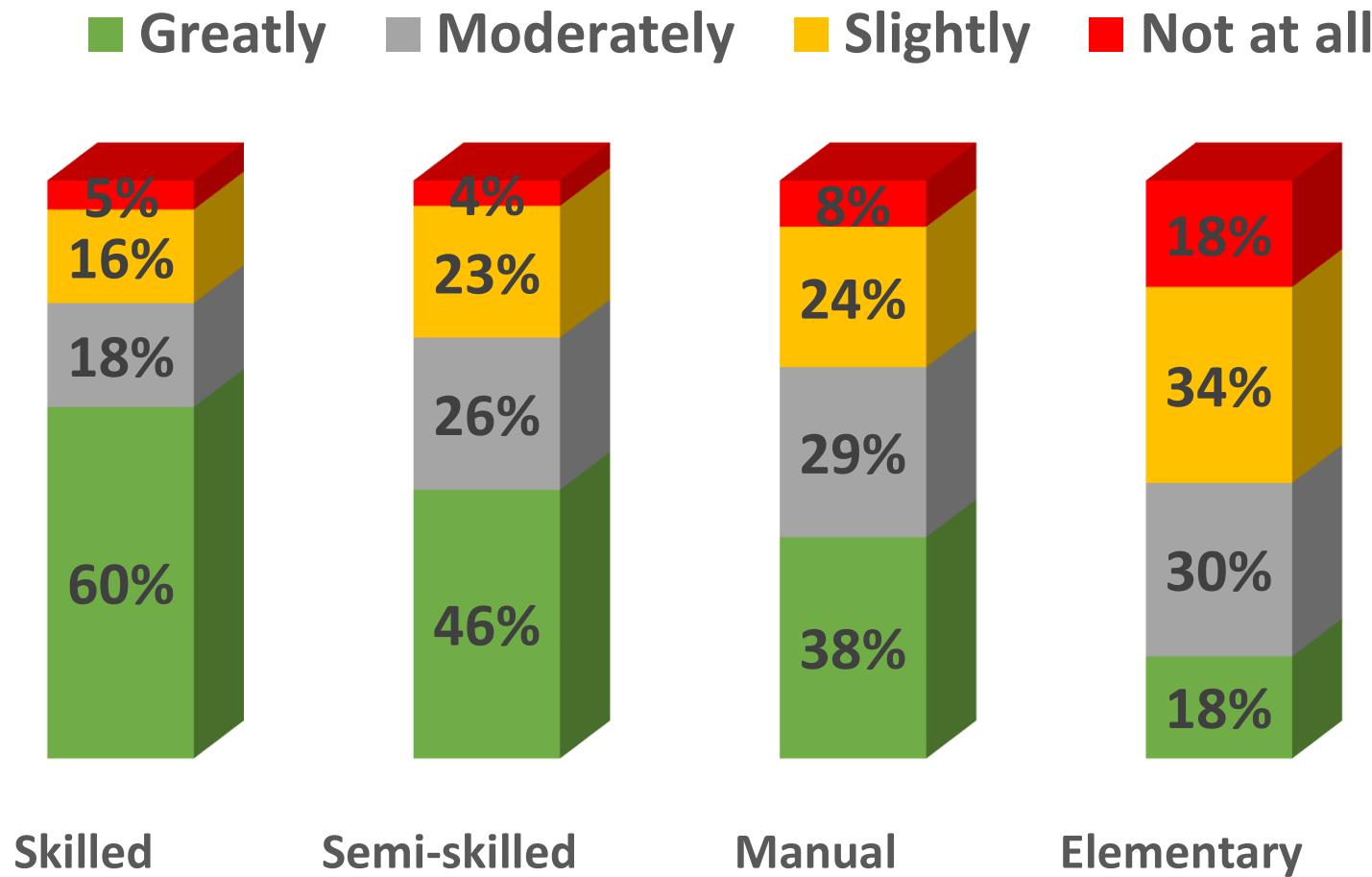
..sizeable & (often) dynamic

(Despite) low/modest digital demands

To what extent do you need to further develop your computer/IT skills to do your job better?



learning potential esp. for high-skilled*



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

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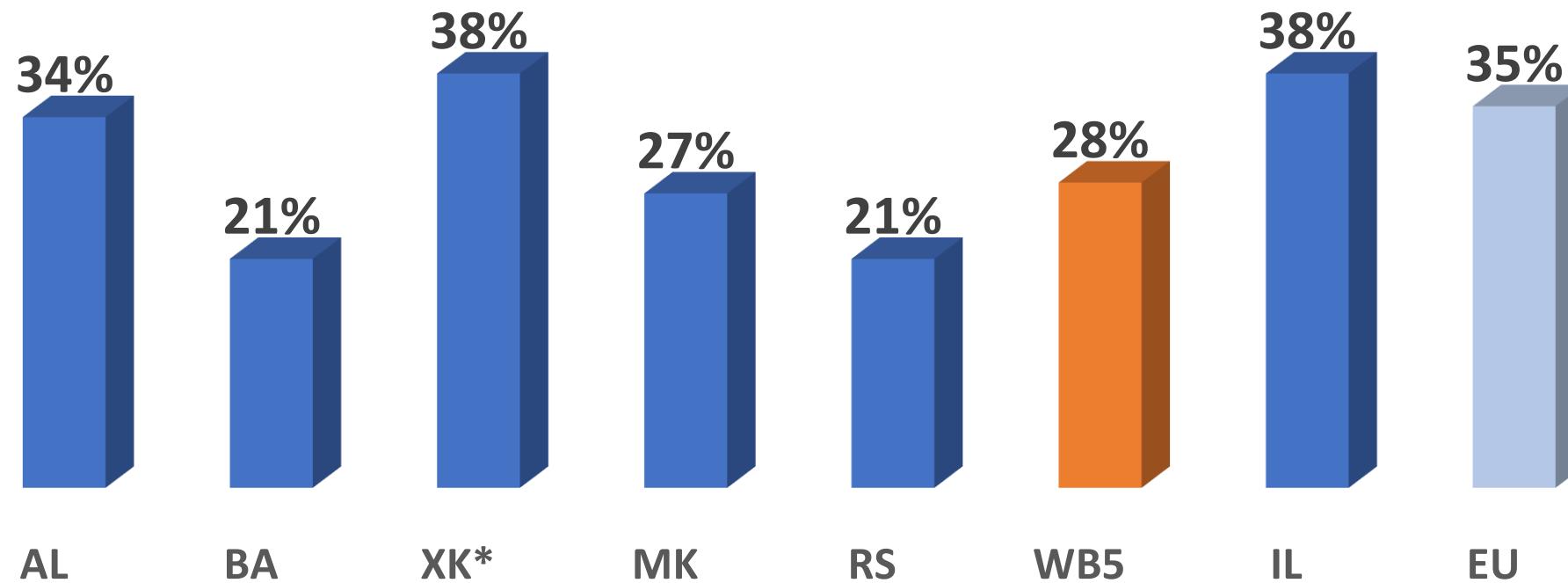
Digital transition more job insecurity?

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

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

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

DIGITAL TRANSITION: JOB INSECURITY



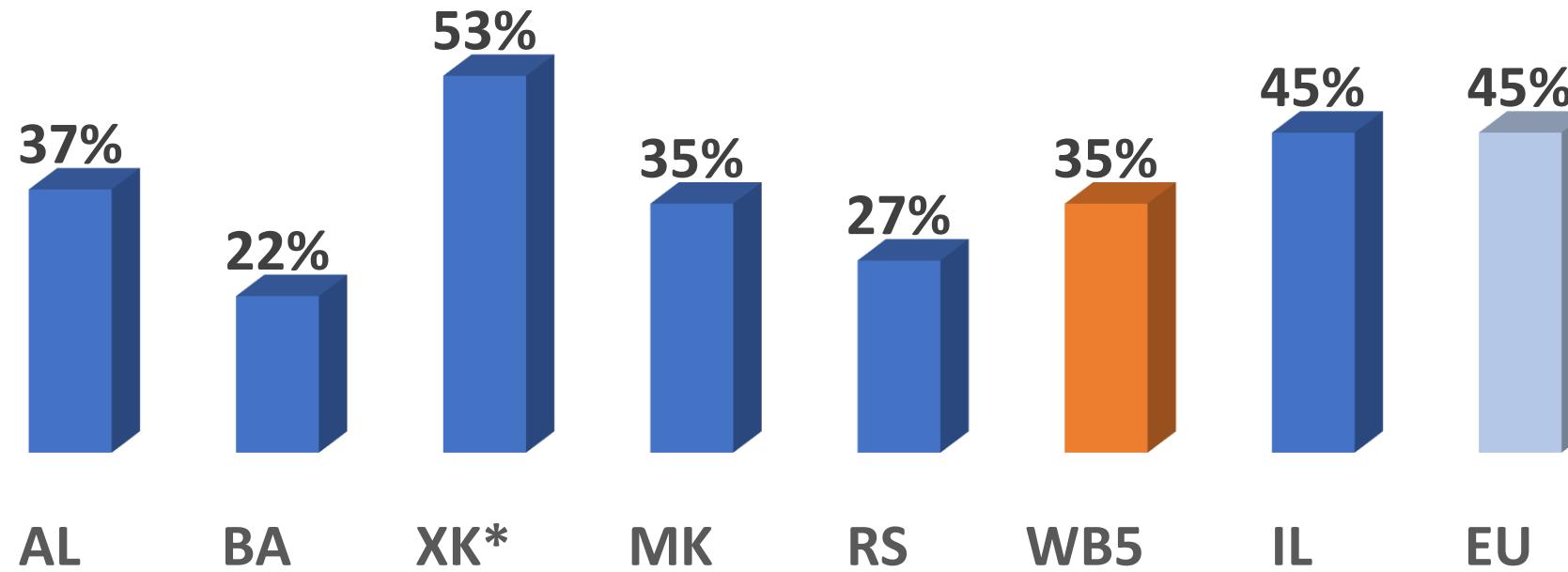
Going digital *fear, facts or fiction?*

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

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

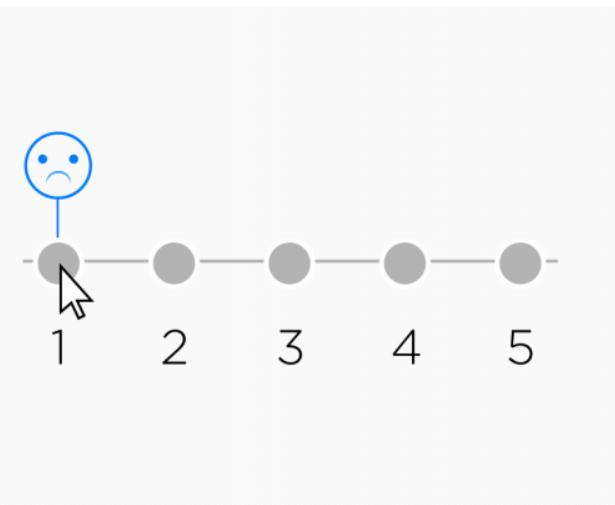
Those working in manual/routine jobs, not using digital technologies lack awareness of new realities in the world of work or are oblivious to automation risks. They are also less inclined to invest in (up)reskilling (more soon)

JOB INSECURITY: LACK OF NEW DIGITAL SKILLS



Digital transition

What challenges?



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 oblivious to automation risks
or lack awareness of new realities in the world of work

Seven in ten employees in WB5 believe that new digital technologies would result only in small improvements*

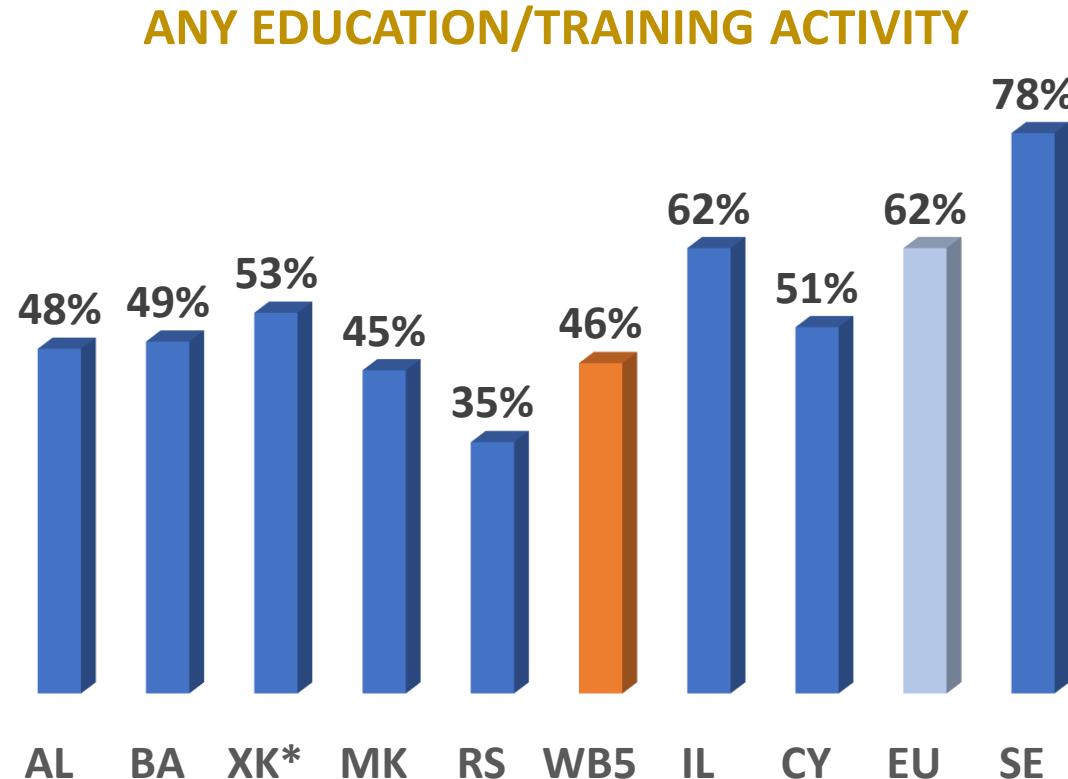
Only one in four EU employees is concerned that technology can/will (partly) do their tasks

Skill underutilisation is (usually) linked to less digitalisation at work

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

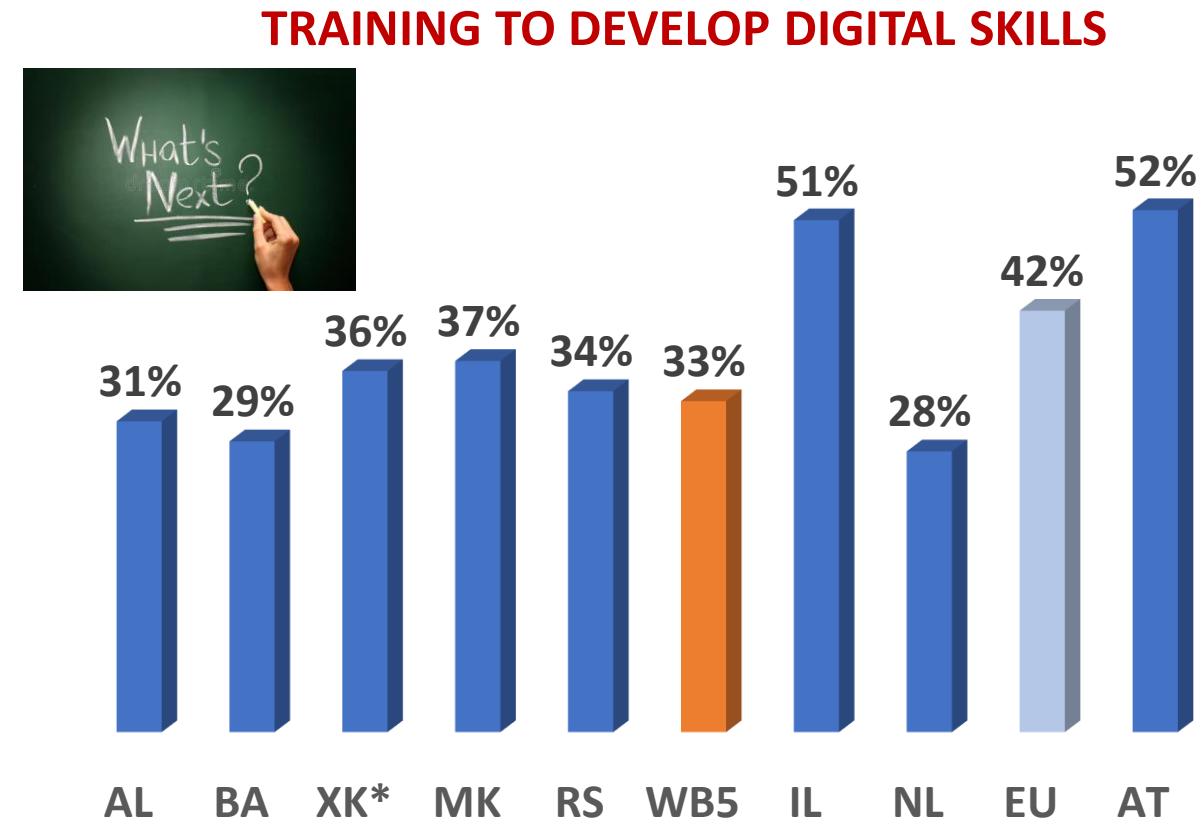
Investing in skills *it takes two to tango*

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



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?



The digital transition

What policy pointers?



DURING



**IT HAS ENABLED A SORT
OF RESILIENCE OF THE
LABOUR MARKETS**

Sizeable skills gaps

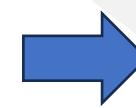


*modest digital training
esp. for the low-skilled*



*Requiring a skills
revolution?*

**LOWER SKILL DEMAND &
LIMITED JOB COMPLEXITY**

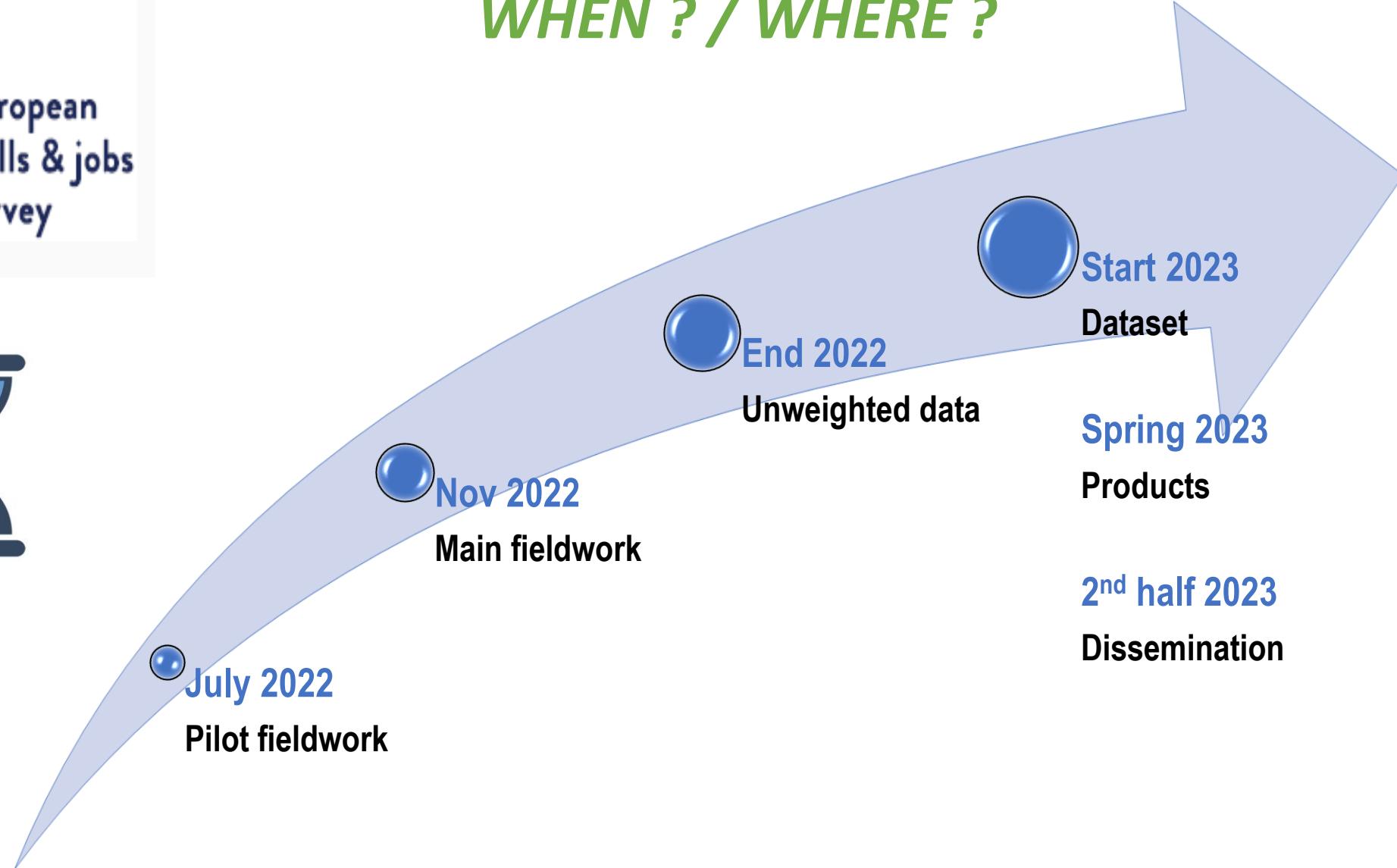


**SKILLS UNDERUTILISATION &
HINDER DIGITAL TRANSITION**

CHOOSE



WHEN ? / WHERE ?



ALBANIA



BOSNIA AND
HERZEGOVINA



ISRAEL



KOSOVO*



NORTH
MACEDONIA



SERBIA



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

COGNITIVE

DIGITAL

MANUAL

INTERPERSONAL

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 (...)

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?*

Source: Cedefop (ESJS)

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

Cognitive

Reading
Writing
Maths
Problem-solving
Creativity

Manual

Lifting
Dexterity
Repetitiveness / standardisation
Use of computerised machines

Interpersonal

Counselling
Selling
Serving
Presenting
Teaching/training
Persuading / negotiating
Caring
Team-working

Digital

Email / Internet / Social media
Word processing
Spreadsheets
Data management
Occupation-specific software
Programming (AI)

Reading

In your main job, did you do any of the following during the last month?

...read texts that are at least >5 pages long?

Manual

...lift or carry heavy loads, without the help of machines?

Digital

Did you use any computer device to do the following activities for your work in the last month?

...send emails?...

...write or edit text using a word processor?

...

...write a program or code using a computer language

Source: Cedefop (ESJS)



Incidence & complexity

Measuring digitalisation

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

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

Source: Cedefop (ESJS)



Thanks for joining today !

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