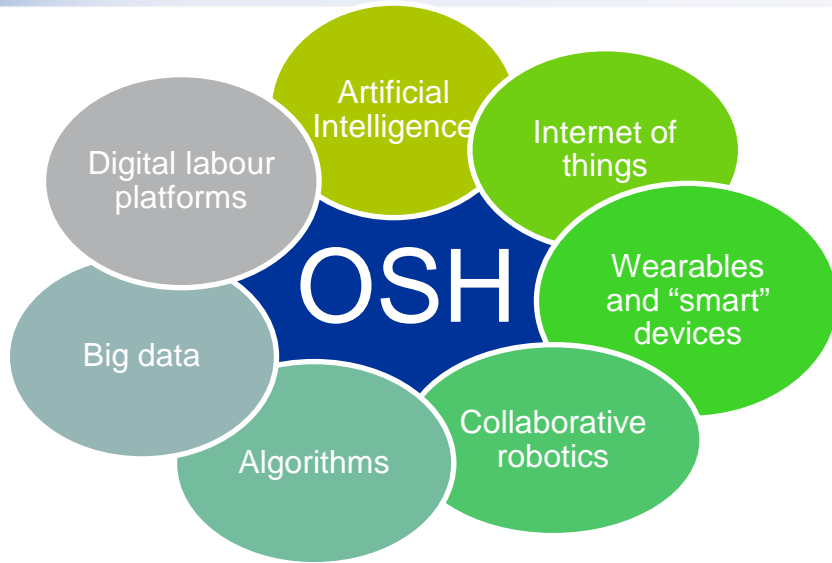# Safe and healthy work in the digital age: the Healthy Workplaces Campaign 2023-25

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Presentation at the SAF€RA Symposium 2025 – Rome, INAIL – 11-13 March 2025

What is it about?

OSH

- Artificial Intelligence
- Internet of things
- Wearables and "smart" devices
- Collaborative robotics
- Algorithms
- Big data
- Digital labour platforms

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- Digital technologies are rapidly changing how, where and when we work

- For workers and employers in all sectors, digital technology offers increased opportunities but also presents challenges and risks in terms of safety and health

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Psychosocial risks and digital technologies

Would you say that the use of digital technologies in your workplace… ? (EU27, % of workers)

Determines the speed or pace of your work	52%
Results in you working alone	44%
Increase surveillance of you at work	37%
Increase your workload	33%
Reduce your autonomy at work	19%

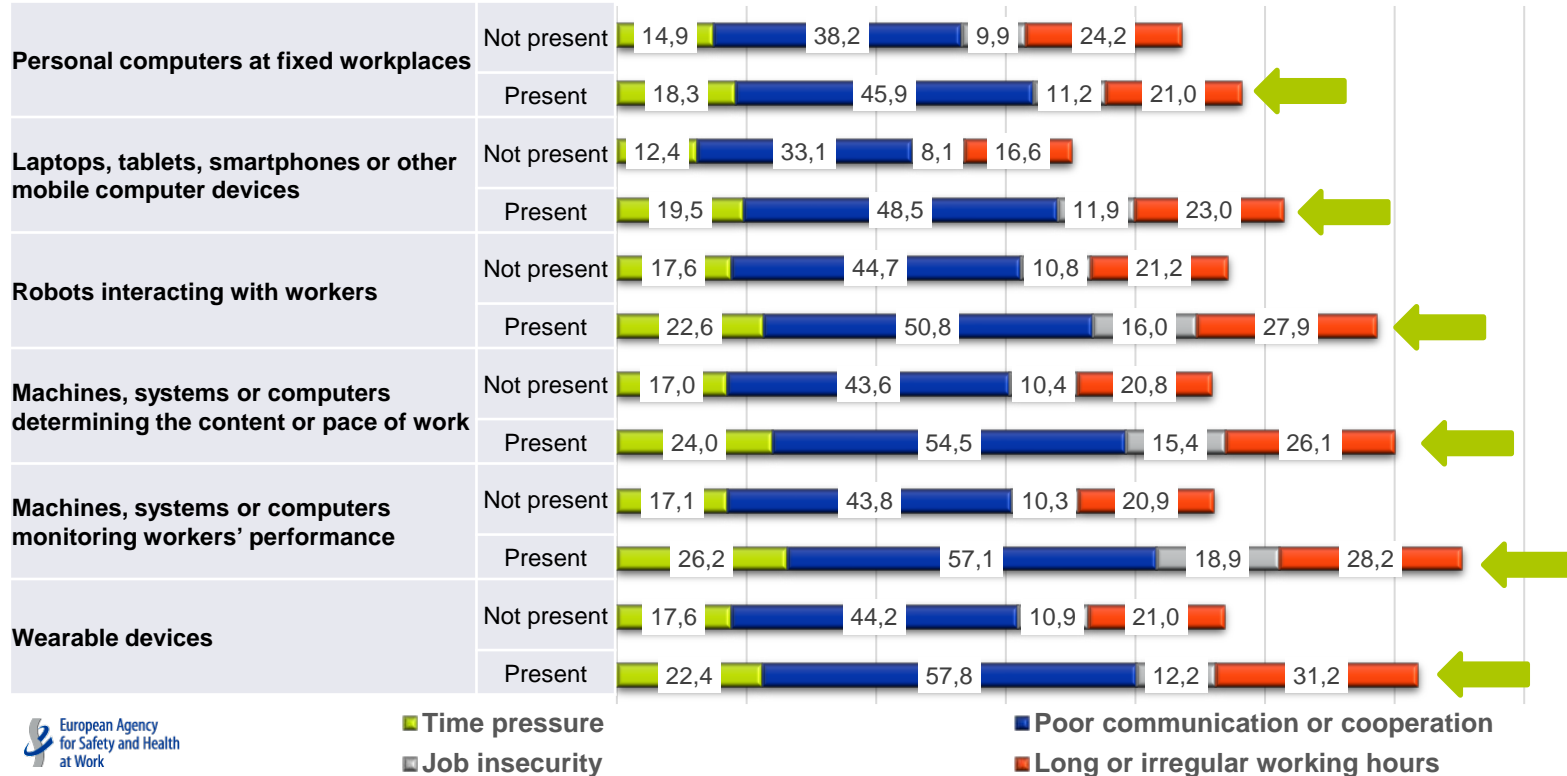❖**All psychosocial risk factors**
❖**All work organisational problems**

Base: all respondents, EU27 (n=25 683)

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Psychosocial risks and digital technologies (workplaces)

Where technology is present, it is more probable that psychosocial risks are mentioned

EU-OSHA, ESENER 2019

Workplaces reporting psychosocial risks by presence of digital technology, EU27

		Time pressure	Poor communication or cooperation	Job insecurity	Long or irregular working hours
Personal computers at fixed workplaces	Not present	14,9	38,2	9,9	24,2
	Present	18,3	45,9	11,2	21,0
Laptops, tablets, smartphones or other mobile computer devices	Not present	12,4	33,1	8,1	16,6
	Present	19,5	48,5	11,9	23,0
Robots interacting with workers	Not present	17,6	44,7	10,8	21,2
	Present	22,6	50,8	16,0	27,9
Machines, systems or computers determining the content or pace of work	Not present	17,0	43,6	10,4	20,8
	Present	24,0	54,5	15,4	26,1
Machines, systems or computers monitoring workers' performance	Not present	17,1	43,8	10,3	20,9
	Present	26,2	57,1	18,9	28,2
Wearable devices	Not present	17,6	44,2	10,9	21,0
	Present	22,4	57,8	12,2	31,2

■ Time pressure ■ Poor communication or cooperation
■ Job insecurity ■ Long or irregular working hours

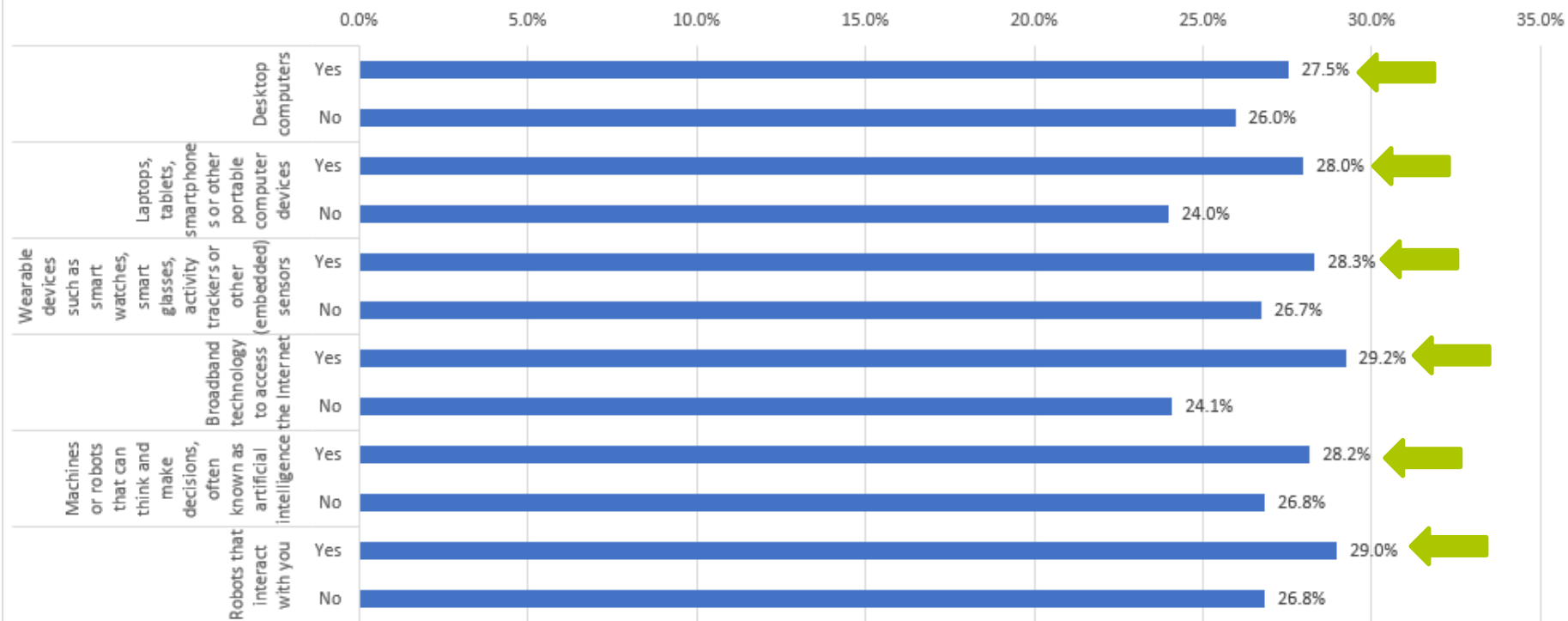European Agency for Safety and Health at Work

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Stress, depression and anxiety and use of digital technologies

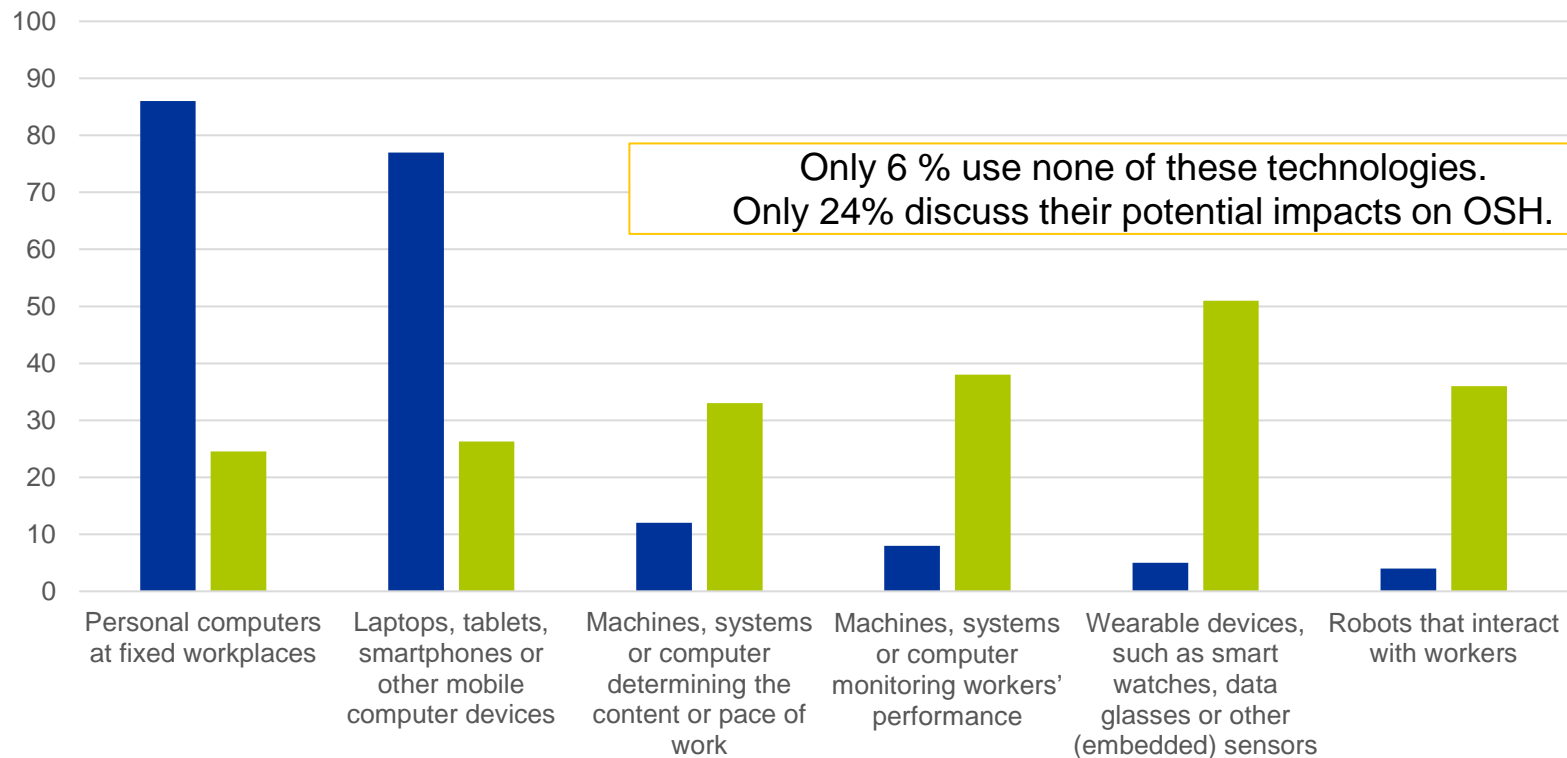When technology is used, it is more probable that stress etc. are mentioned

EU-OSHA, OSH-pulse 2022

Stress, depression or anxiety

Desktop computers	Yes	27.5%
	No	26.0%
Laptops, tablets, smartphones or other portable computer devices	Yes	28.0%
	No	24.0%
Wearable devices such as smart watches, smart glasses, activity trackers or other (embedded) sensors	Yes	28.3%
	No	26.7%
Broadband technology to access the Internet	Yes	29.2%
	No	24.1%
Machines or robots that can think and make decisions, often known as artificial intelligence	Yes	28.2%
	No	26.8%
Robots that interact with you	Yes	29.0%
	No	26.8%

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Base: all respondents, EU27 (n=25 683)   https://healthy-workplaces.eu

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Establishments (%): Using digital technologies
Discussing their impacts on OSH

Only 6 % use none of these technologies.
Only 24% discuss their potential impacts on OSH.

Base: all establishments in the EU27_2020.

■ Use   ■ Discussing potential impacts

Source: ESENER-2019

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Healthy Workplaces Campaign (HWC) 2023-25

Objectives

- ▪ The campaign aims to:
- • Increase knowledge about the safe and productive use of digital technologies across all sectors
- • Raise awareness of digitalisation and its OSH implications
- • Inform about emerging risks and opportunities
- • Promote risk assessment and the healthy and safe management of digital transformation of work
- • Facilitate the exchange of information and good practices

The campaign relies on research carried out by EU-OSHA and disseminates its findings

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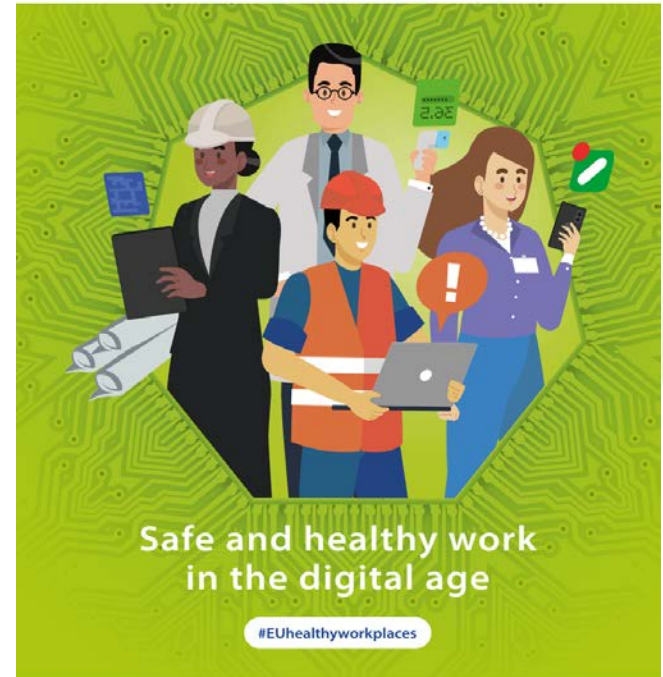
EU-OSHA and campaign partners

ENTERPRISE EUROPE NETWORK

EUROPEAN SOCIAL PARTNERS

EU AGENCIES

OSHVET PARTNERS

OFFICIAL CAMPAIGN PARTNERS

EU INSTITUTIONS

EU-OSHA NATIONAL FOCAL POINTS

MEDIA PARTNERS

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Healthy Workplaces Campaign (HWC) 2023-25

Digital platform work
(Feb. - May 2024)

Automation of tasks
(June - Sept. 2024)

Remote and hybrid work
(Oct. 2024 – Jan. 2025)

AI for worker management
(Feb. – May 2025)

Smart digital systems
(June – Oct. 2025)

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Priority areas – Digital platform work

An online facility or marketplace operating on digital technologies (including the use of mobile apps) that are owned and/or operated by an undertaking, facilitating the matching between the demand for and supply of labour provided by a platform worker.

The OSH risks that platform workers face in relation to the tasks they carry out are <u>similar outside </u>the platform economy.

HOWEVER:

- **Digital platform work frequently involves jobs typically in <u>occupations and sectors that are at high risk </u>and associated with poorer working conditions.**

- **AND some specific factors associated with the digitlal platform economy result in <u>additional OSH risks and complicate OSH prevention and management</u>**

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Priority areas – Digital platform work

RISKS AND CHALLENGES

- Employment status and limited application of OSH regulations
- Shifting of OSH responsibilities onto workers
- Use of algorithmic management and digital surveillance
- Professional isolation, lack of social support
- Long working hours and a poor work-life balance
- Job and income insecurity

OPPORTUNITIES

- Worker autonomy
- Flexible working hours allowing to better balance work and life
- Improved access to the labour market for disadvantaged workers

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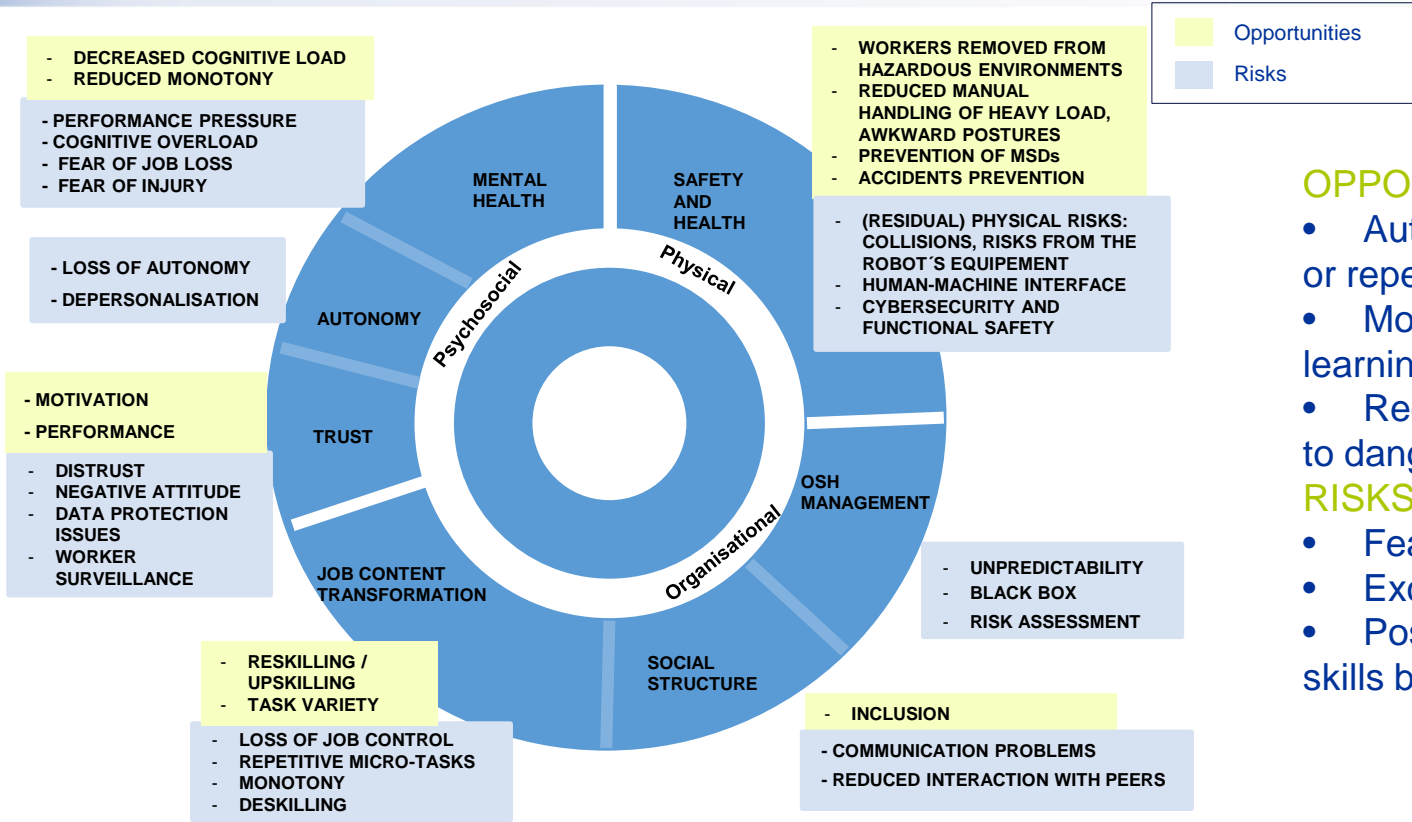# Priority areas – Automation of TASKS through AI & advanced robotics

Use of smart robots or systems to execute (partially or fully) a function that was previously, or conceivably could be, carried out (partially or fully) by a human.

- **Over 30% of jobs are likely to change as individual tasks are automated (OECD)**
- **Robots are becoming <u>mobile, intelligent and collaborative:</u> cobots**
- **Intelligent systems are also taking over a range of not just manual but also <u>cognitive tasks</u> previously done by humans**
- **In many <u>different sectors and settings</u>**

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OSH risks and opportunities of AI-based automation of tasks

EU-OSHA´s OiRA tool (Online Interactive Risk Assessment tool) **for Automation available**

Opportunities

Risks

- DECREASED COGNITIVE LOAD
- REDUCED MONOTONY

- PERFORMANCE PRESSURE
- COGNITIVE OVERLOAD
- FEAR OF JOB LOSS
- FEAR OF INJURY

- LOSS OF AUTONOMY
- DEPERSONALISATION

- MOTIVATION
- PERFORMANCE

- DISTRUST
- NEGATIVE ATTITUDE
- DATA PROTECTION ISSUES
- WORKER SURVEILLANCE

- RESKILLING / UPSKILLING
- TASK VARIETY

- LOSS OF JOB CONTROL
- REPETITIVE MICRO-TASKS
- MONOTONY
- DESKILLING

MENTAL HEALTH

SAFETY AND HEALTH

Physical

Psychosocial

AUTONOMY

TRUST

JOB CONTENT TRANSFORMATION

Organisational

SOCIAL STRUCTURE

OSH MANAGEMENT

- WORKERS REMOVED FROM HAZARDOUS ENVIRONMENTS
- REDUCED MANUAL HANDLING OF HEAVY LOAD, AWKWARD POSTURES
- PREVENTION OF MSDs
- ACCIDENTS PREVENTION

- (RESIDUAL) PHYSICAL RISKS: COLLISIONS, RISKS FROM THE ROBOT´S EQUIPEMENT
- HUMAN-MACHINE INTERFACE
- CYBERSECURITY AND FUNCTIONAL SAFETY

- UNPREDICTABILITY
- BLACK BOX
- RISK ASSESSMENT

- INCLUSION

- COMMUNICATION PROBLEMS
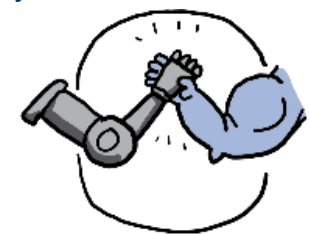- REDUCED INTERACTION WITH PEERS

OPPORTUNITIES
- Automation of high-risk or repetitive tasks
- More time for worker learning/creativity
- Reduction of exposure to dangerous environments

RISKS
- Fear of job loss
- Excessive dependence
- Possible loss of specific skills by workers

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Priority areas – Remote and hybrid work

Remote work is any type of work involving the use of digital technologies (e.g. personal computers, smartphones, laptops, tablets, etc.) to work away from the employer's premises.
Telework is a common way to define home-based remote work.
The combination of telework with work at the employer's premises is also referred to as *hybrid work*.

Remote work must be included in the employer's mandatory risk assessment.

75% of EU workplaces carry out risk assessment on regular basis but only 31% of those allowing telework cover also homes (ESENER-2019)

There are tools for the prevention of risks related to telework/hybrid work for workers and employers.

EU-OSHA´s OiRA tool (Online Interactive Risk Assessment tool) **for Telework available**

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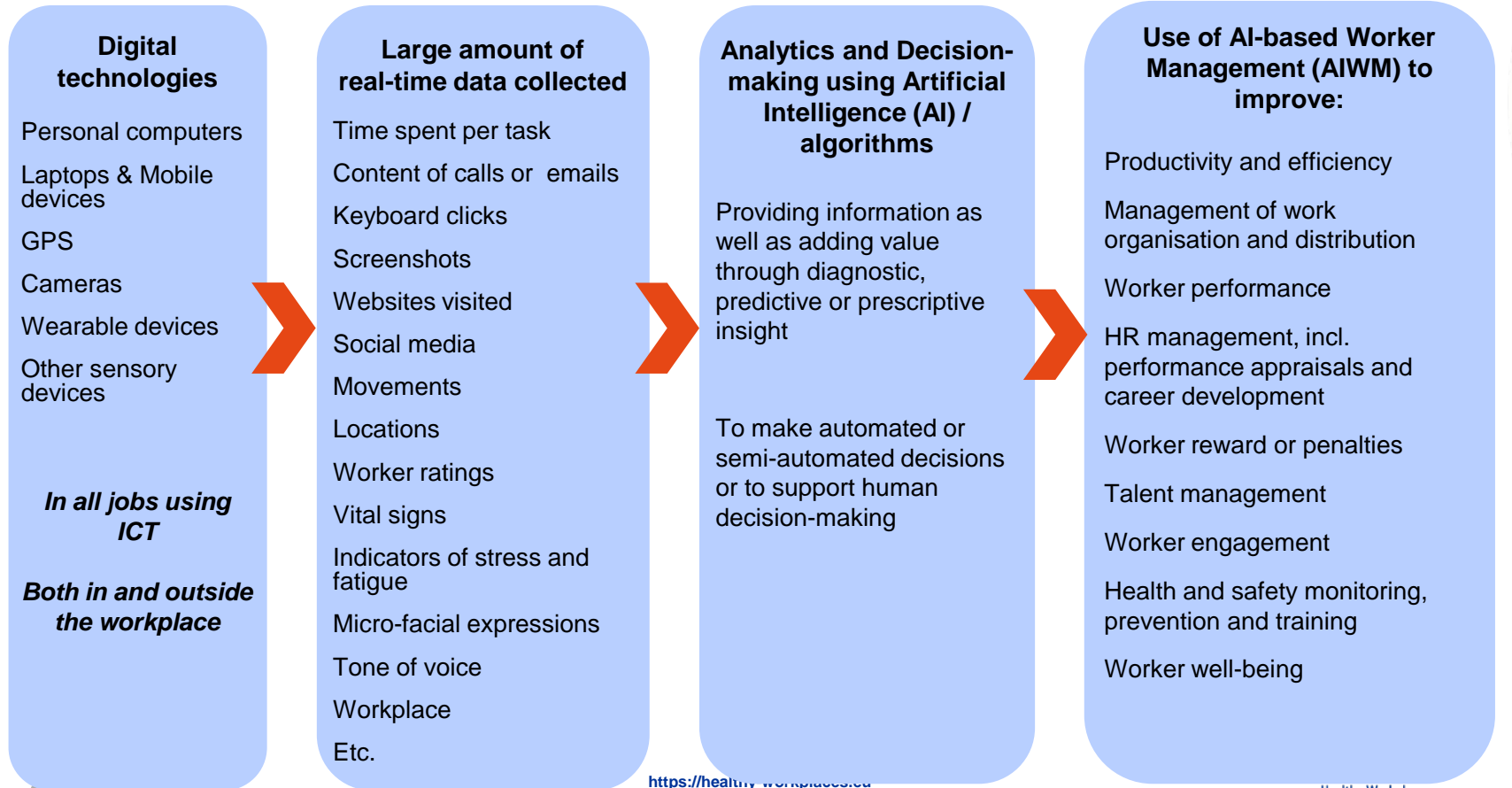# Priority areas – Remote and hybrid work

OPPORTUNITIES

- Increased autonomy and flexibility
- Better work-life balance
- Improved motivation and productivity
- Reduced commuting time
- Safety from high-risk environments

RISKS AND CHALLENGES

- Isolation and lone working
- Work intensification, information overload
- Long/irregular working hours, constant availability
- Working while feeling unwell
- Conflicts between private and working life
- Poor ergonomics of equipment and workstation
- Communication between hybrid team members and management, partly at the employer´s premises and partly remote, with frequent changes
- Transferring the risks of telework/virtual work into the employer´s premises

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Priority areas – Worker management through AI

Digital technologies

Personal computers

Laptops & Mobile devices

GPS

Cameras

Wearable devices

Other sensory devices

In all jobs using ICT

Both in and outside the workplace

Large amount of real-time data collected

Time spent per task

Content of calls or emails

Keyboard clicks

Screenshots

Websites visited

Social media

Movements

Locations

Worker ratings

Vital signs

Indicators of stress and fatigue

Micro-facial expressions

Tone of voice

Workplace

Etc.

Analytics and Decision-making using Artificial Intelligence (AI) / algorithms

Providing information as well as adding value through diagnostic, predictive or prescriptive insight

To make automated or semi-automated decisions or to support human decision-making

Use of AI-based Worker Management (AIWM) to improve:

Productivity and efficiency

Management of work organisation and distribution

Worker performance

HR management, incl. performance appraisals and career development

Worker reward or penalties

Talent management

Worker engagement

Health and safety monitoring, prevention and training

Worker well-being

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Priority areas – Worker management through AI

RISKS AND CHALLENGES

- Reduced worker autonomy and job control
- Increased performance pressure
- Increased work intensity
- Reduced relationships with peers/managers
- Lack of transparency
- Information imbalance
- Privacy issues

OPPORTUNITIES

- Improved scheduling and task allocation
- Optimised work organisation
- Information to identify OSH issues

"It is essential to build trust in these systems by informing, consulting and allowing workers to participate in their design and implementation."

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Priority areas – Smart digital systems

Digital systems for monitoring and improving worker safety and health.
Examples:

- *Smart personal protective equipment (PPE)* (detecting levels of gas, toxins, noise pollution, and high-risk temperatures).
- *Wearable devices* (able to interact with workers, with sensors that can be integrated into protective helmets or safety glasses).
- *Mobile or static systems using cameras and sensors* (e.g., drones that effectively reach and monitor hazardous areas of construction sites, preventing people from being put at risk in the mining and construction industries).

«These new systems utilize digital technologies to acquire and analyze data or signals in order to identify and assess occupational safety and health (OSH) risks, thus preventing and/or minimizing damage and promoting OSH».

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Priority areas – Smart digital systems

OPPORTUNITIES

- Monitor (real-time) risks, support risk assessment, help prevent and minimise harm to workers
- Digital counselling for workers
- Informed decision-making
- Input to design OSH trainings
- Support targeted OSH inspections

RISKS AND CHALLENGES

- Data inaccuracies or misinterpretation
- Overreliance on technology
- Risk of "delegating" the workplace risk assessment to technology
- Use of data for different purpose/surveillance
- Overwhelming (OSH) managers with data

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Key messages for risk prevention

- **Human-centred approach**
    - Workers and managers should remain in command
    - Technology and AI to support but not replace human control and decisions
    - Preserve workers´ job control and autonomy

- **Transparency about the way digital tools and digital processes operate**

- **Equal access to information of all stakeholders**

- **Worker consultation/participation in the development, implementation and use of digital technologies and systems**

- **Holistic approach to evaluating digital technologies and systems**
    - Raise OSH awareness of all actors: policy-makers, developers, workplace level
    - Specific attention to impacts on workers´ mental health
    - Prevention through design

- **Proper consideration of digital technologies in the workplace Risk Assessment**
    - The workplace Risk Assessment should not be "delegated" to technology

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Campaign resources

Publications

Campaign materials

Campaign toolkit

Social media kit

Napo films

OSHwiki

Case studies

Legislation and regulations

Infographics

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How to get involved

European Week

Campaign partnership

Good Practice Awards

Campaign toolkit

Campaign materials

Social media kit

Events

Certificate of participation

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Join us beyond the bits and bytes!

- All publications at: **https://osha.europa.eu/en/themes/digitalisation-work**

- Find out more on the campaign website:
  www.healthy-workplaces.eu

- Subscribe to our campaign newsletter:
  https://healthy-workplaces.osha.europa.eu/en/media-centre/newsletter

- Keep up to date with activities and events through social media:

  #EUhealthyworkplaces

- Find out about events in your country from your national focal point:
  https://healthy-workplaces.osha.europa.eu/en/campaign-partners/national-focal-points

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