# Safe and healthy work in the digital age

#EUhealthyworkplaces

Healthy Workplaces Campaign 2023—2025

HSA
An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

European Agency for Safety and Health at Work

Healthy Workplaces

European Agency for Safety and Health at Work

Healthy Workplaces

HSA

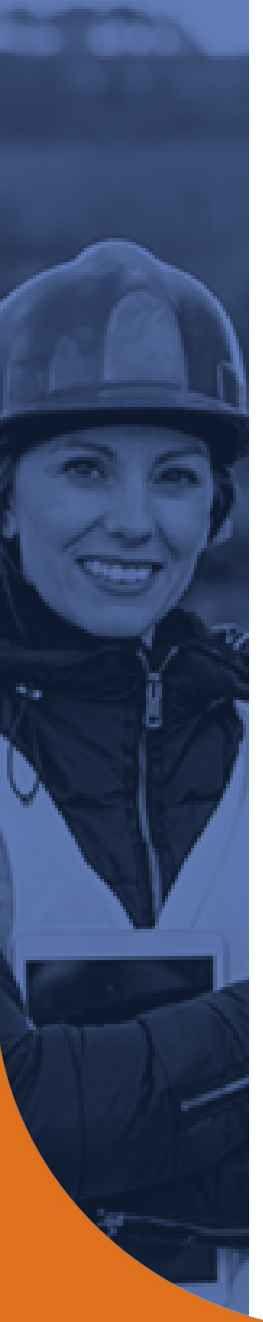
An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

# Digitalisation: Managing Psychosocial Risks


Patricia Murray

Senior Work/Org Psychologist & Inspector


**#EUhealthyworkplaces**



# Digitalisation

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- All paid work provided *through*, *on* or *mediated by* an online platform, (EU – OSHA 2023)
- Increase in such work globally since 2015-> due to certain specifics in Irish corporate system, increase in Ireland
- Benefits and drawbacks – only OSH element is pertinent to H S A
- Within OSH – psychosocial is my theme today

# How digitalisation works

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- On-site
- Off-site
- Simple
- Complex
- Cognitive
- Manual
- Team
- Lone

- Hybrids of all of the above: varied and ad hoc -> difficulty classifying the worker in usual way

# Psychosocial

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

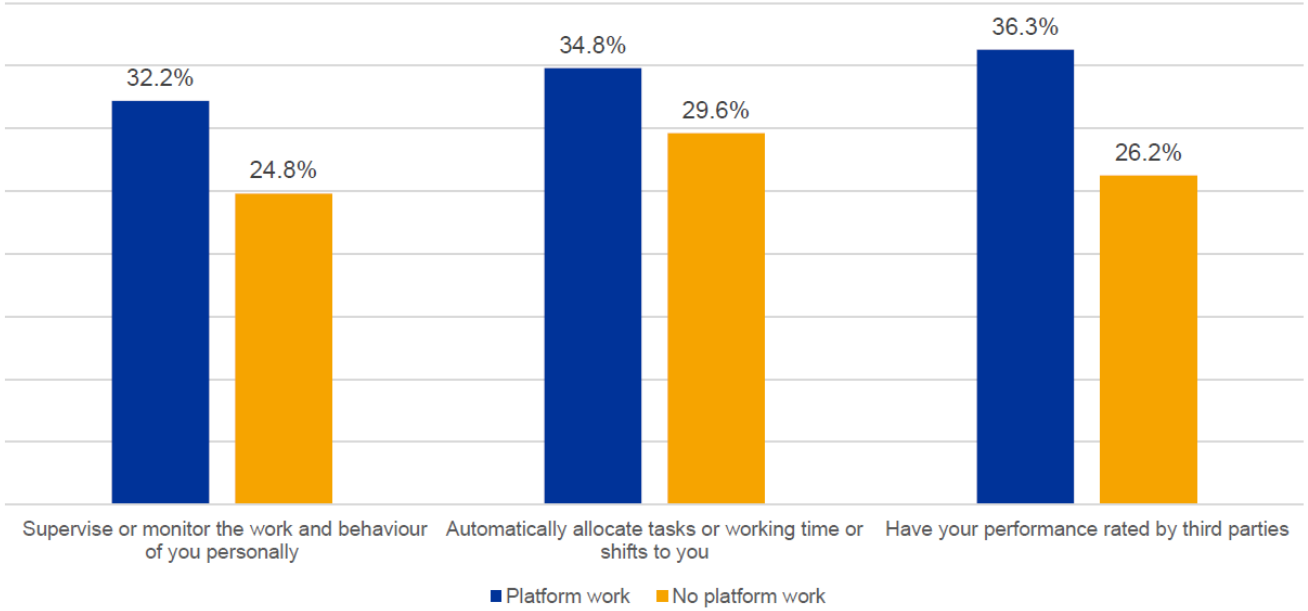
- PS Hazards - aspects of the work environment which impact the mental wellbeing (social cognitive psychological) of the individual
  - **Demands**
  - **Control**
  - **Support**
  - Relationships
  - Role
  - Change
- On-line assessment of perceptions by worker groups, of the environment regarding these items' management -WorkPositiveCI

# Research and psychosocial (EU-OSHA 2022)

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

## Workers by type of work (platform/not platform) and use of digital technology (%, EU-27)

Does the organisation where you work use digital devices such as a tablet, smartphone, computer, laptop, app or sensor to…?




Source: OSH Pulse 2022 - EU-OSHA

European Agency for Safety and Health at Work

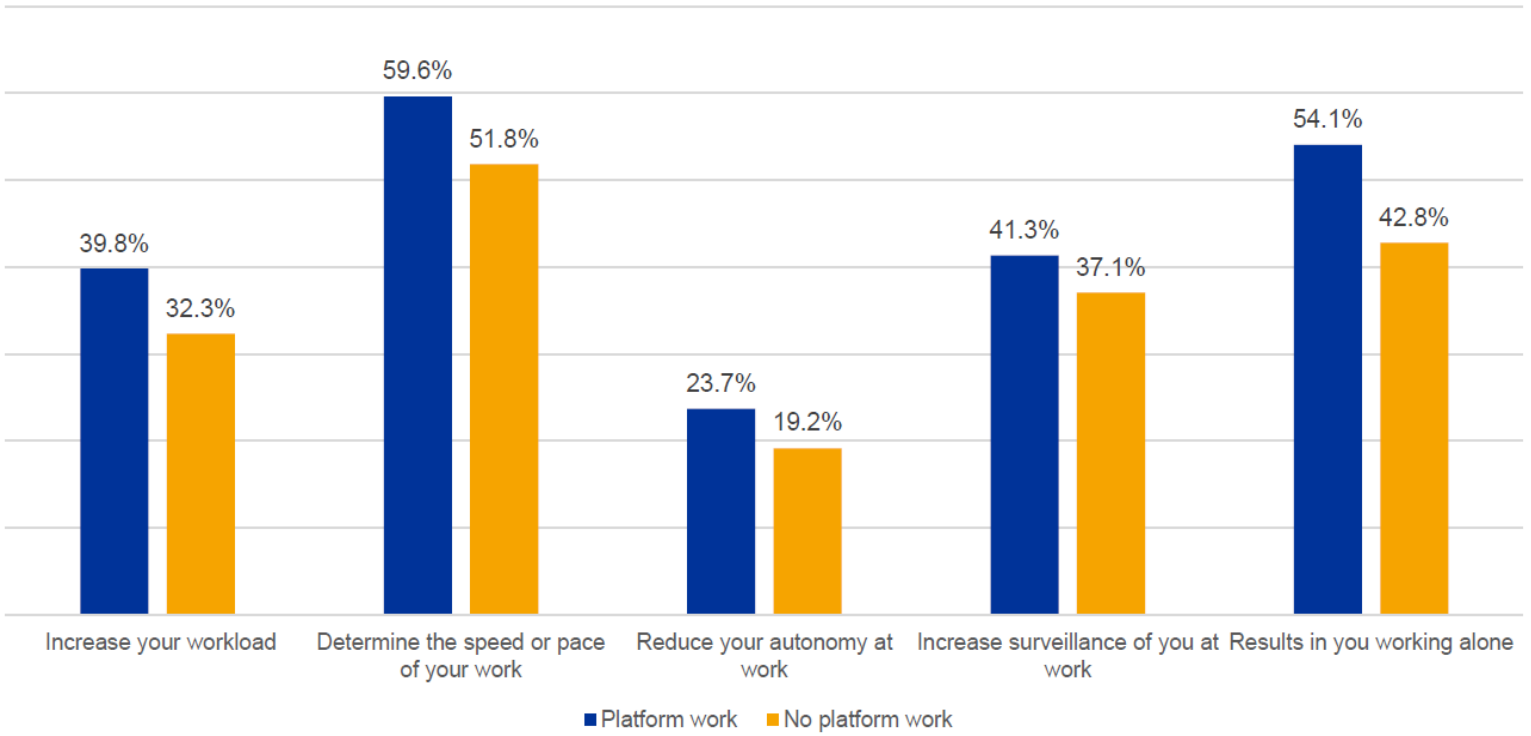
https://osha.europa.eu

HSA

tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

# Workers by type of work (platform/not platform) and type of risks (%, EU-27)

Would you say that the use of digital technologies in your workplace…?




Source: OSH Pulse 2022 - EU-OSHA

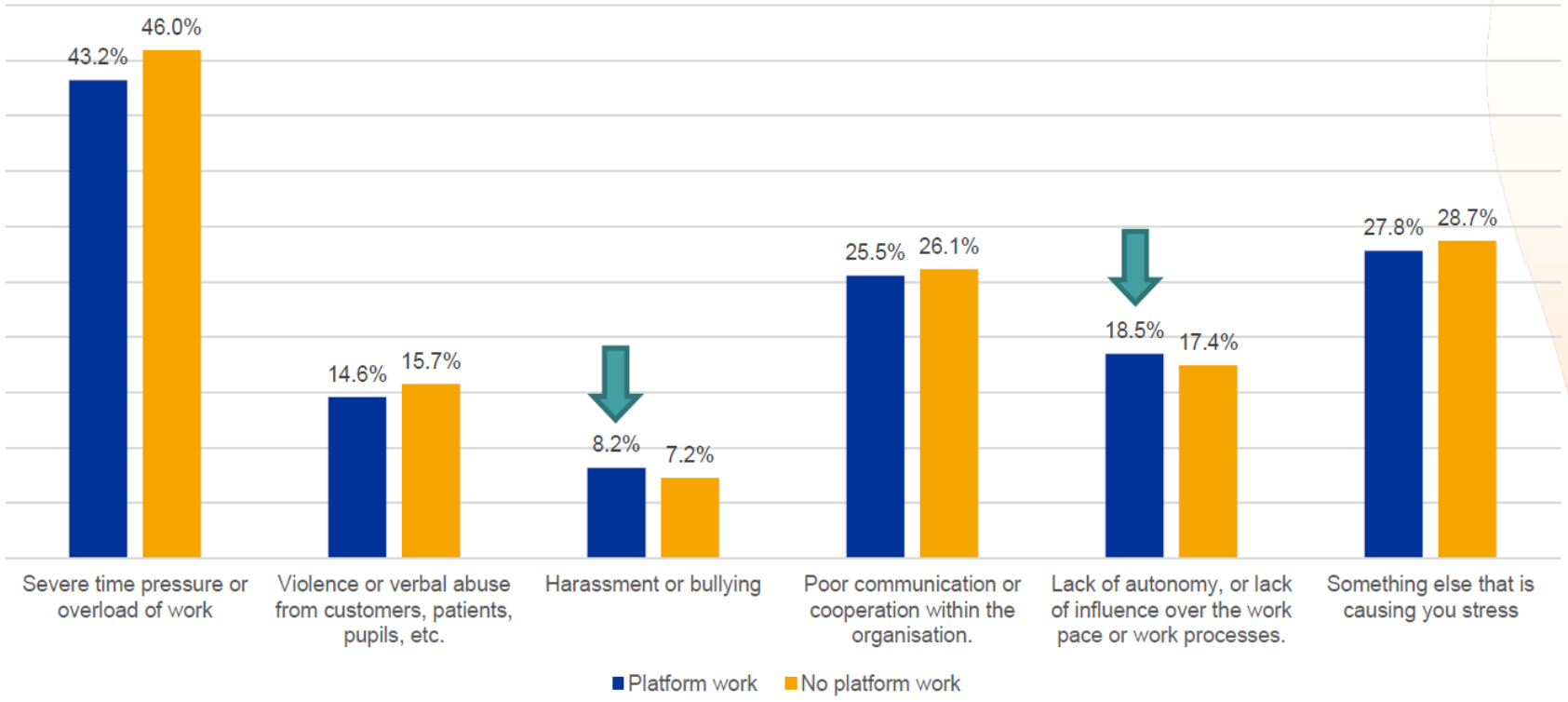
European Agency for Safety and Health at Work

https://osha.europa.eu

HSA
tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

# Workers by type of work (platform/not platform) and type of risks (%, EU-27)

Would you say that at work you are exposed to the following factors?




Source: OSH Pulse 2022 - EU-OSHA

European Agency for Safety and Health at Work

https://osha.europa.eu

# Focus on Psychosocial findings

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- **Supervision/behavior management** – demands, control, support, relationships and role (highly relational, perceptual, fluctuating, invisible,…> risky

- **Allocation of time/tasks/shifts** – Highly associated with stress: rushing, juggling, concentration, deadlines, effort-reward balance, fairness, ESRI results (2015)

- **Performance ratings** – stressor across al work types but mediated by relationship, which is mediated by the above. Highly psychosocially risky.

- All 3 above are 5 – 10 pc more problematic in digital work.
- *All are also problematic as a potential for work-related stress **across all work**
- 50/60 pc of **all respondents** cite workload, autonomy, surveillance and lone working as stressors – all known psychosocial hazards.

# OSH risks and challenges of four types of digital platform work

*To what extent do the factors that aggravate the OSH risks come into play for each of the types?*

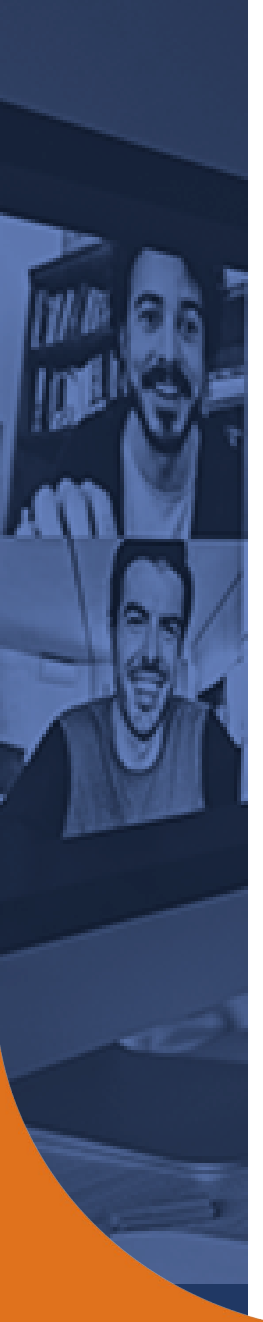
Red = high / large impact of this factor, Orange = medium impact , Green = limited or no impact

| Factors aggravating OSH risks | Selected types of platform work | | | |
|---|---|---|---|---|
| | Parcel delivery | Handiwork | Online content review | Remote programming |
| Employment status | High | Low | High | Low |
| Algorithmic management | High | Medium | High | Medium |
| Professional isolation/social support | Medium | Medium | High | High |
| Work-life balance | Medium | Low | High | High |
| Job / income insecurity | High | Low | High | Low |

# Solutions?

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- OSH Management Systems for non-platform work (2005 Act):
  - Risk assessment
  - Control measures
  - Consultation
  - Training
  - Management and supervision
  - Systems of work
  - Conduct and behaviour
  - Expertise + Organisational responsibility/ leadership



# In the Digital working world….

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

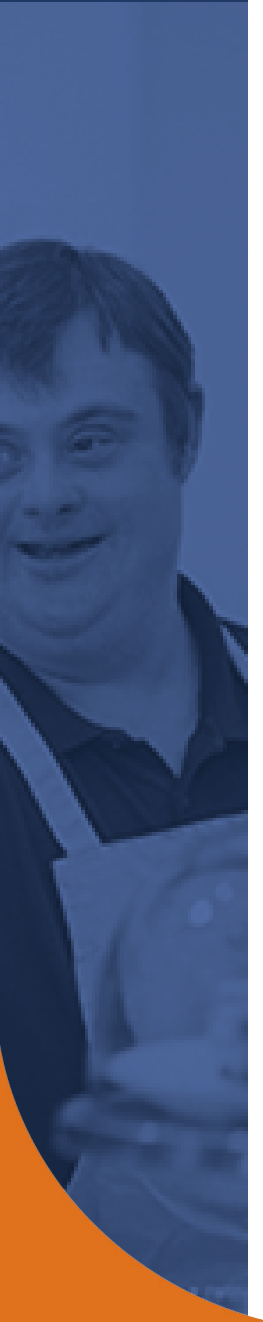
- Problems of governance – self employed or employees?
- Problems of ownership – legal entity with OSH responsibility
- Defer responsibility for RA and Controls to individuals, not collective
- What ‘organisational culture’ and even location/ central meeting/forum
- What training or development actions/ engagement
- Lack of knowledge and communications of specific task risks
- Lack of new framework for the work area – one size doesn’t fit all

# Role of Authorities


An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- Employment status and rights/Industrial Relations mechanisms and systems aside….
- OSH – regulations and pathways to and use of enforcement
- Psychosocial solutions require each employer to have organisational ownership and systems of work within its responsibility

- Risk assessment and controls
- Training and upskilling
- Management competency and behaviours



# Sensitive Content Guide

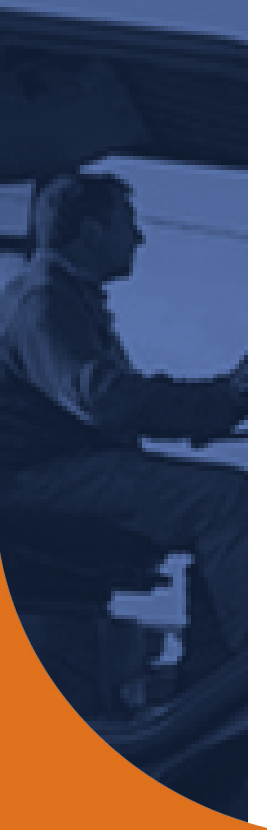
An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- What are the risks?
- How can they be minimized?
- How that they thereafter be made less toxic

- Consultation - various expert bodies and research/existing operations
  - Recruitment
  - Training
  - Engineering and system-led controls
  - Mandatory supports
  - Voluntary supports
  - Review

-

# Psychosocial in digital & non digital work



- Demands – clear, fair understood, comms
- Control – equipment, training, teams, standard protocols
- Support – team, supervisor, manager, senior leadership – other?
- Relationships – meetings, consultation, in-person and on-line
- Role – clarity, boundaries, written limits, customer-controls
- Change – communication and records

- A system of work ***works*** if it doesn't harm a person, regardless of their age, gender, nationalities etc, while they get their job done.

European Agency for Safety and Health at Work

Healthy Workplaces

HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

# Go raibh maith agaibh

# Thank you

T: 0818 289 389

E: contactus@hsa.ie

W: www.hsa.ie

European Agency for Safety and Health at Work

Healthy Workplaces

HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

# Automation: A Human Factors Perspective

Colleen Butler, PhD., C.ErgHF MCIEHF

#EUhealthyworkplaces

# Introduction

- Psychology and Human Factors Research
- 15 years at Science Division, Health and Safety Executive UK
- Chartered Human Factors Specialist
- Joined Health and Safety Authority in January 2023

HSA
An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

HSE

Chartered Institute of Ergonomics & Human Factors

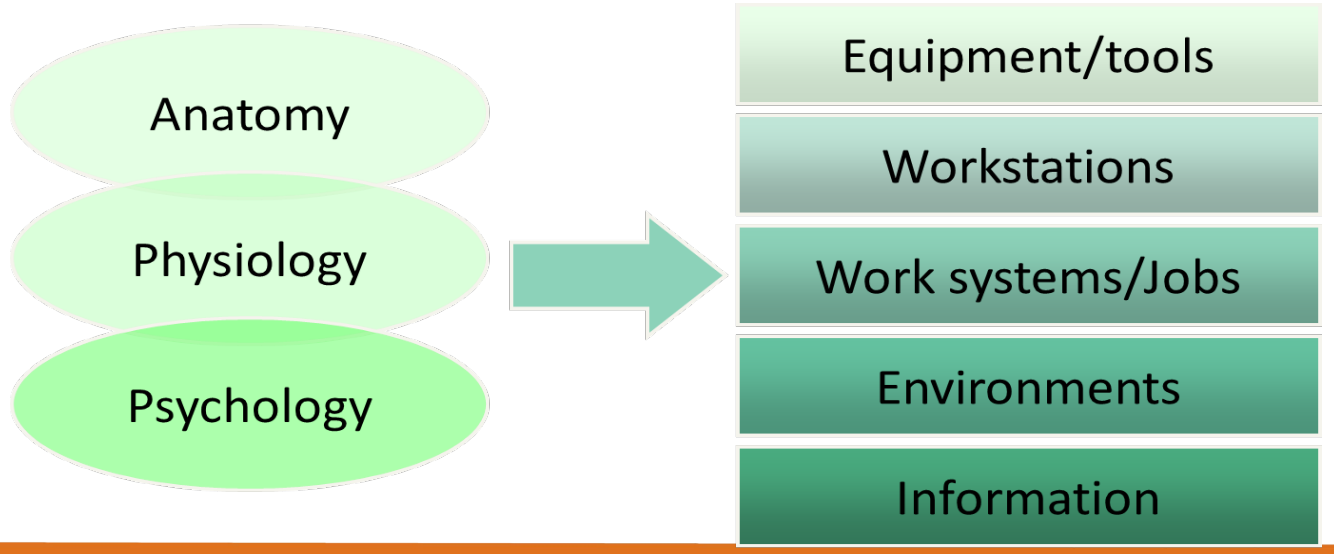
Irish Human Factors & Ergonomics Society

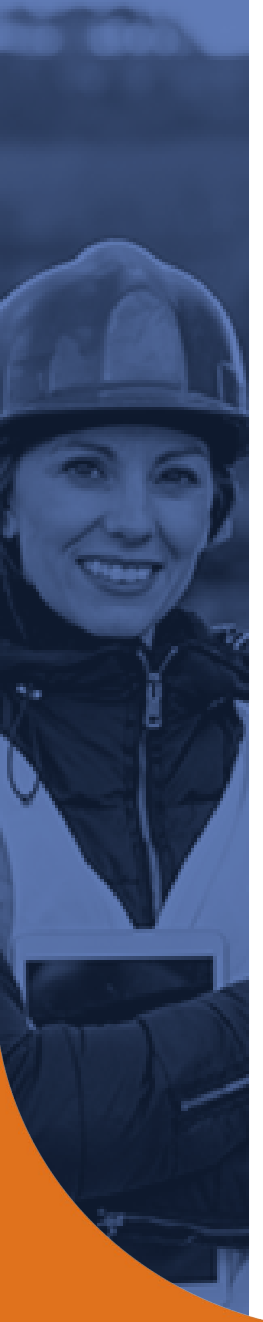
# Human Factors

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

*"the **scientific discipline** concerned with the understanding of interactions among humans and other elements of a system, and the profession that applies theory, principles, data and methods to design in order to **optimize human well-being and overall system performance**"* [SOURCE: ISO 26800:2011]

Using science in the design / evaluation of:





HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

# Aim

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

Raise awareness:

- Recognise that automation nearly always changes, rather than removes, the role of people in a system. The role of people can become more difficult > implications for health and safety.
- At some level, people are going to have to monitor, supervise and hold responsibility for the performance of the automation. Design, introduce and support the automation such that those people can maintain awareness of the system.

(Chartered Institute of Ergonomics and Human Factors, 2022:
White Paper: Human Factors in Highly Automated Systems)

# Benefits of automation

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- Improvements in safety and efficiency
- Reduced operating costs and de-manning
- More consistent performance
- Increased capacity

BUT

*Ironies of automation*…..(Bainbridge, 1983)

# Automation and Human Factors Challenges

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

1. Keep the human in the loop and situationally aware.

2. Avoiding people developing an uncritical sense of trust in the system, leading to complacency.

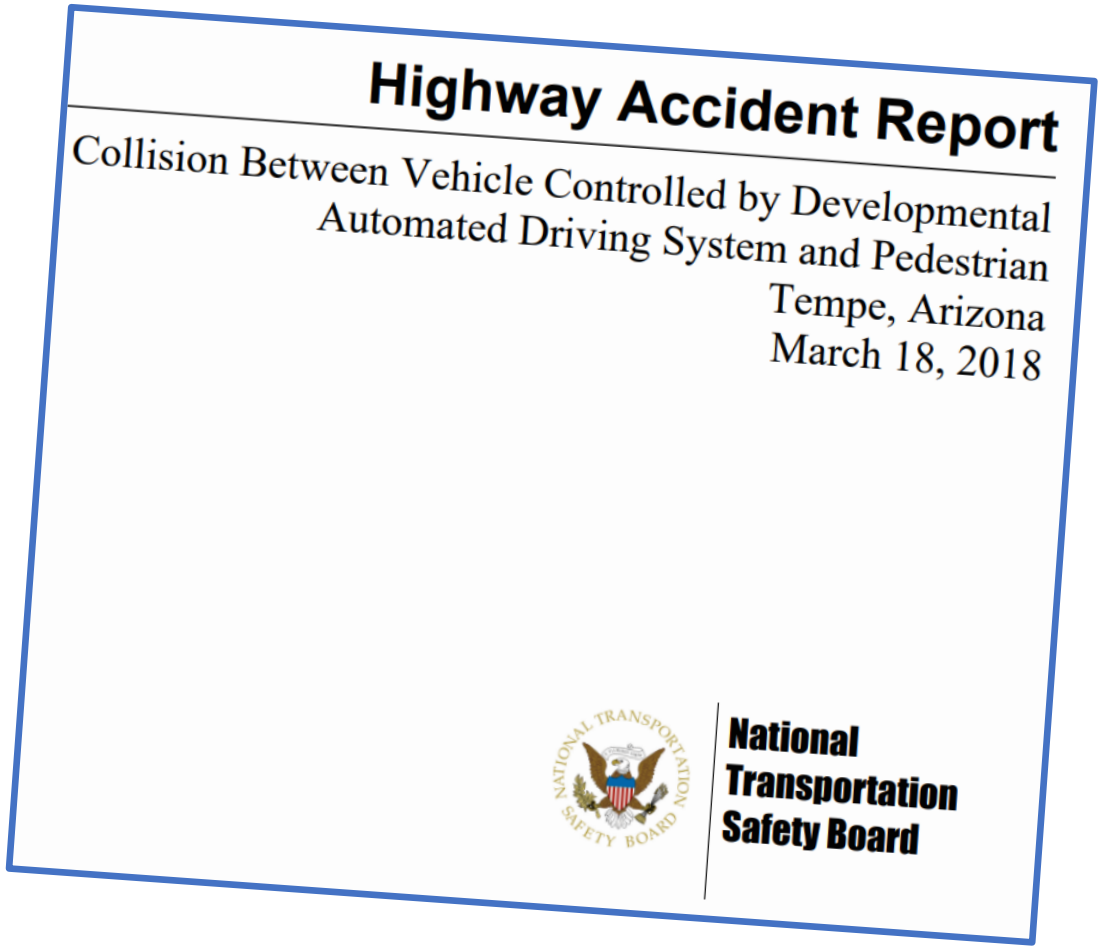
3. Inadvertently increasing the difficulty and/or mental workload.

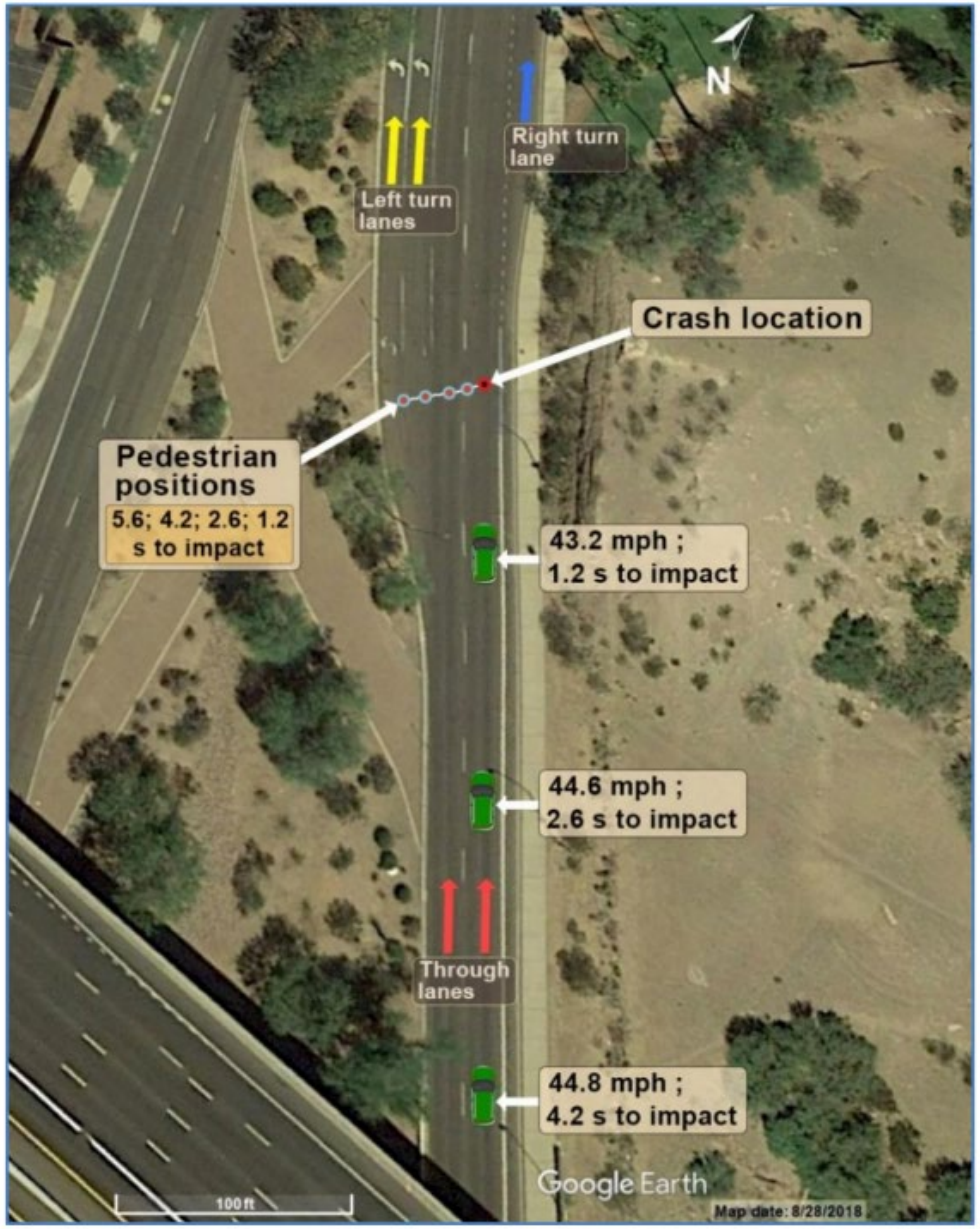
(Chartered Institute of Ergonomics and Human Factors, 2022: White Paper: Human Factors in Highly Automated Systems)

# Keeping the human in the loop and situationally aware

HSA
An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- March 2018 – pedestrian killed by self-driving test vehicle
- Pedestrian not classified as collision risk
- Design assumed ‘safety driver’ would be able to take control
- ‘Safety driver’ using mobile phone to watch TV






HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

*"If you build vehicles where drivers are rarely required to respond, then they will rarely respond when required"*

Peter Hancock, NTSB (2018)

Aerial view of crash location of self-driving vehicle (National Transportation Safety Board, 2018)

# NTSB report conclusions

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- *"…The vehicle operator's prolonged visual distraction, a typical effect of automation complacency, led to her failure to detect the pedestrian in time.."*

- *"…The Uber Advanced Technologies Group's* ***inadequate safety culture*** *created conditions— including inadequate oversight of vehicle operators—that contributed to the circumstances of the crash….*

# Automation and Human Factors Challenges

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

1. Keep the human in the loop and situationally aware.

2. Avoiding people developing an uncritical sense of trust in the system, leading to complacency.

3. <u>Inadvertently increasing the difficulty and/or mental workload.</u>

(Chartered Institute of Ergonomics and Human Factors, 2022: White Paper: Human Factors in Highly Automated Systems)

# Explosion and fire at Buncefield oil storage depot, 2005

HSA
An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

# Increasing difficulty for operators Buncefield, 2005

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- Supervisors relied heavily on Automatic Tank Gauging system
- One screen to display data of several storage tanks
- Tank 912 not visible to operators
- Supervisors developed their own systems to overcome deficiencies in control room information

# Increasing difficulty for operators - Work as imagined vs. work as done

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

| ‘Work as imagined’ | vs. | ‘Work as done’ |
|---|---|---|
| • Supervisors monitor the filling and emptying of tanks | | • Supervisors had other duties as well |
| • Supervisors were ‘blocked’ to work five shifts in a row | | • Overtime working sometimes led to 84 hours |
| • Supervisors take breaks | | • No fixed breaks were scheduled |
| • Normal to work overtime | | • An additional supervisor would result in a loss of income. |

# So…..

HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

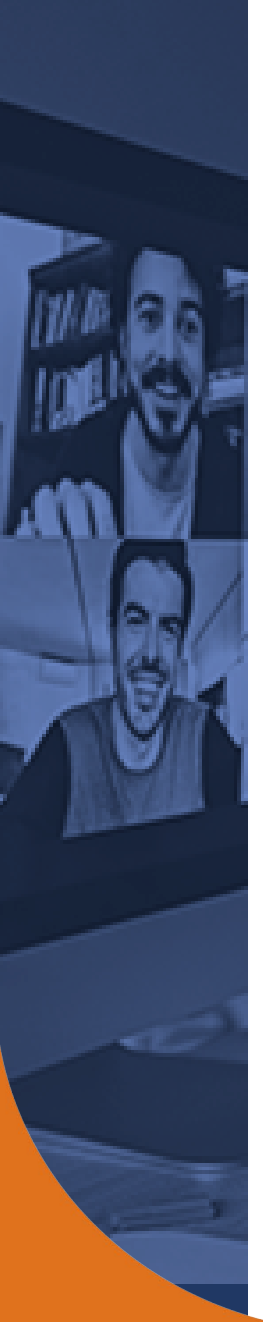
- Think of automation as a team member
- Design systems that support operator control
- Early consideration of role of operator/s – what role and responsibility do you want the operator/s to have?

# Human Factors Integration Plan ….User-centred approach

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

1. Specify context of use  - who are the users of the new system and what will they be doing?
2. User requirements - With knowledge of hazardous scenarios and tasks, what are the user requirements?
3. Produce design solutions – how should any new equipment be designed?
4. Evaluation of designs – Human Reliability Assessment

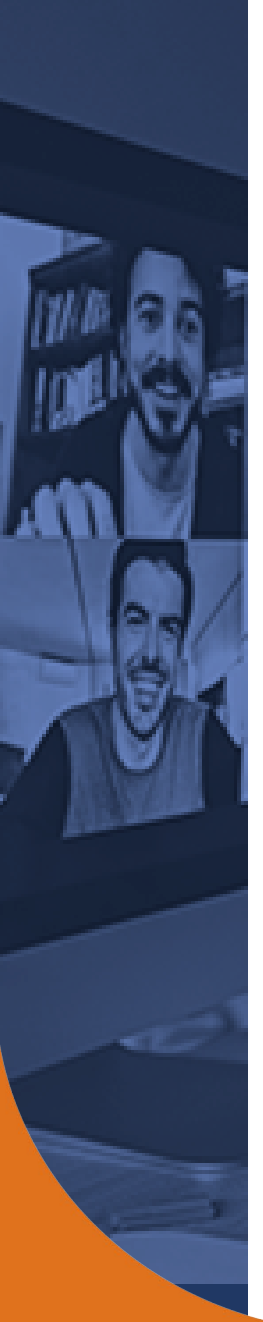
Human Factors Integration: Implementation in the onshore and offshore industries (HSE, 2002)



# Summary

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- Automation can bring significant improvements in safety, efficiency, capacity.
- Recognise that automation nearly always changes, rather than removes the role of people. It can make their tasks more difficult > health and safety impacts.
- Design, introduce and support automation such that people are supported.
- Think user-centred approach to safety management – Human Factors Integration.



HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

**“You cannot change the human condition, but you can change the conditions under which people work.”**

Professor of Psychology, James Reason, 2000

# References/further information:

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority


Bainbridge L. (1983) Ironies of Automation. Automatica 19 (6) 775-779.

Nora Balfe , John R. Wilson , Sarah Sharples & Theresa Clarke (2012) Development of design principles for automated systems in transport control, Ergonomics, 55:1, 37-54.

Chartered Institute of Ergonomics and Human Factors (2022) Human Factors in Highly Automated Systems https://ergonomics.org.uk/resource/human-factors-in-highly-automated-systems-white-paper.html

European Union Agency for Railways (2023) HOF in Automation: Automation Myth Busting Series. HOF in Automation | European Union Agency for Railways (europa.eu)

Health and Safety Executive (2002) Human Factors Integration: Implementation in the onshore and offshore industries, BAE Systems Defence Consultancy, Research Report 001.

Health and Safety Executive (2016) COMAH Competent Authority: Inspecting Human Factors at COMAH Establishments (Operational Delivery Guide). www.hse.gov.uk/comah/guidance/hf-delivery-guide.pdf

National Transportation Safety Board (2019) National Transportation Safety Board. 2019. Collision Between Vehicle Controlled by Developmental Automated Driving System and Pedestrian, Tempe, Arizona, March 18, 2018. Highway Accident Report NTSB/HAR-19/03. Washington, DC.

Reason, James (2000) Human Error: Models and Management, British Medical Journal, 2000 Mar 18; 320(7237): 768–770.

European Agency for Safety and Health at Work

Healthy Workplaces

HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

# Go raibh maith agaibh

# Thank you

T: 0818 289 389

E: contactus@hsa.ie

W: www.hsa.ie

# Comfort Break

## 15 mins

European Agency for Safety and Health at Work

Healthy Workplaces

European Agency for Safety and Health at Work

Healthy Workplaces

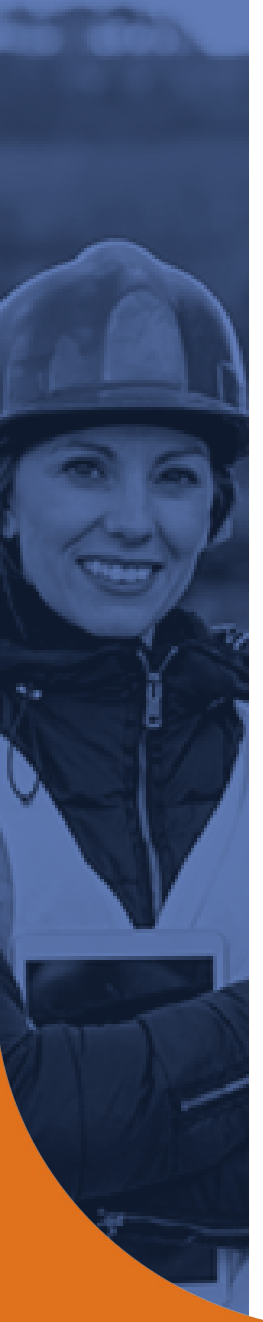
HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

# Robotics & Digitalisation

Padraig Delaney, Inspector (Policy & Technical)

**#EUhealthyworkplaces**



# Elon Musk

HSA
An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

*“The scariest problem" is artificial intelligence — an invention that could pose an unappreciated "fundamental existential risk for human civilisation”.*

HSA

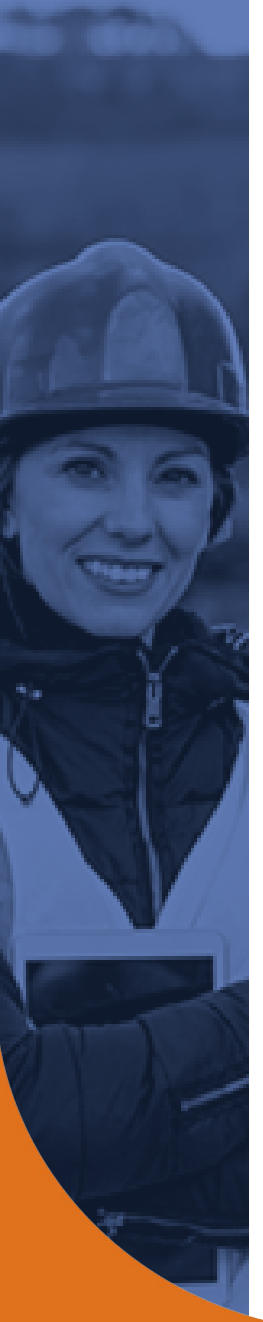
An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- Requested by the Senior Labour Inspectors Committee (SLIC) committee to chair a group of inspectors from across Europe to come up with a paper:

***"Digitalisation and the use of machinery and robotics using artificial intelligence"***


HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority



# Areas Considered

HSA
An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- Robots, Cobots, Mobots
- Platform Workers
- AI for Recruitment and Management.
- Remote Control of Equipment.
- Wearable and implanted devices

HSA
An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

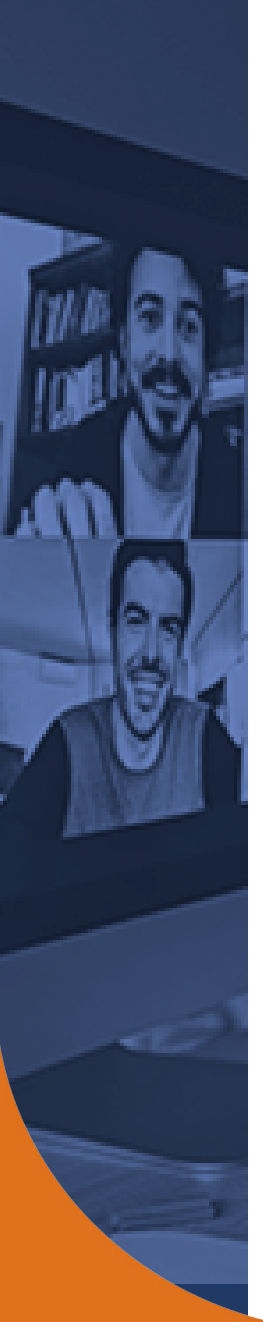
- Artificial intelligence (AI) refers to systems that display intelligent behaviour by analysing their environment and taking actions – with some degree of autonomy – to achieve specific goals. AI-based systems can be purely software-based, acting in the virtual world (e. g. voice assistants, image analysis software, search engines, speech and face recognition systems) or AI can be embedded in hardware devices (e. g. advanced robots, autonomous cars, drones or Internet of Things applications).”

# Case Study-Wearable Devices

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

# Case Study -Data Processing in Healthcare

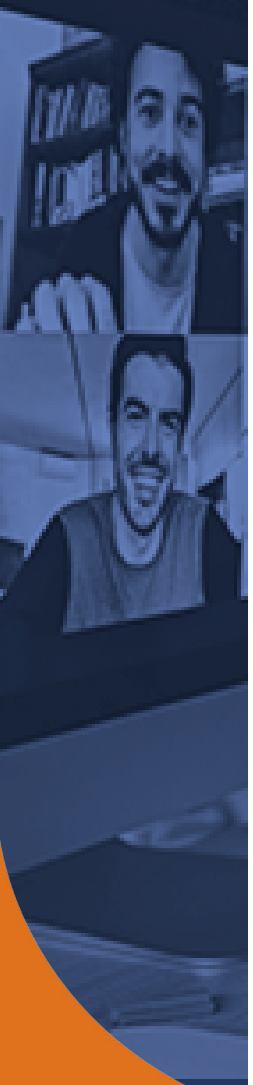
HSA
An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority



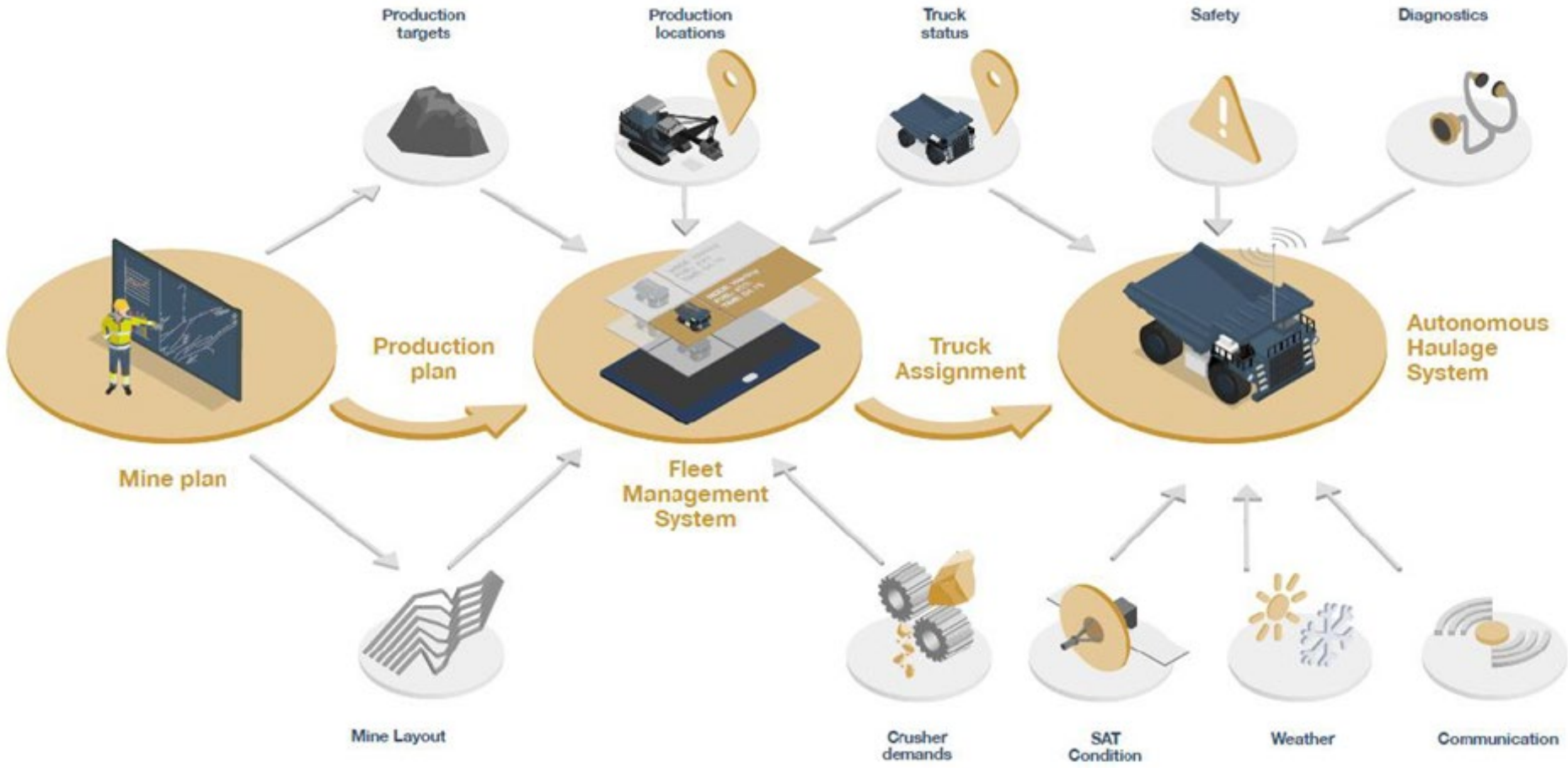
# Case Study - Remote Control (Internet of Things)

HSA
An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

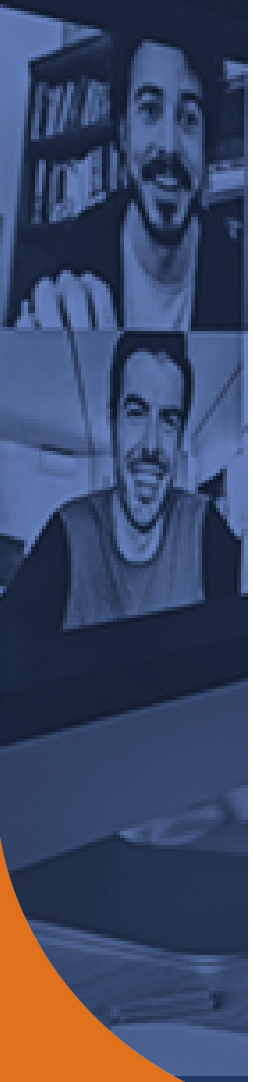
# AI in traditional Mining and Quarrying



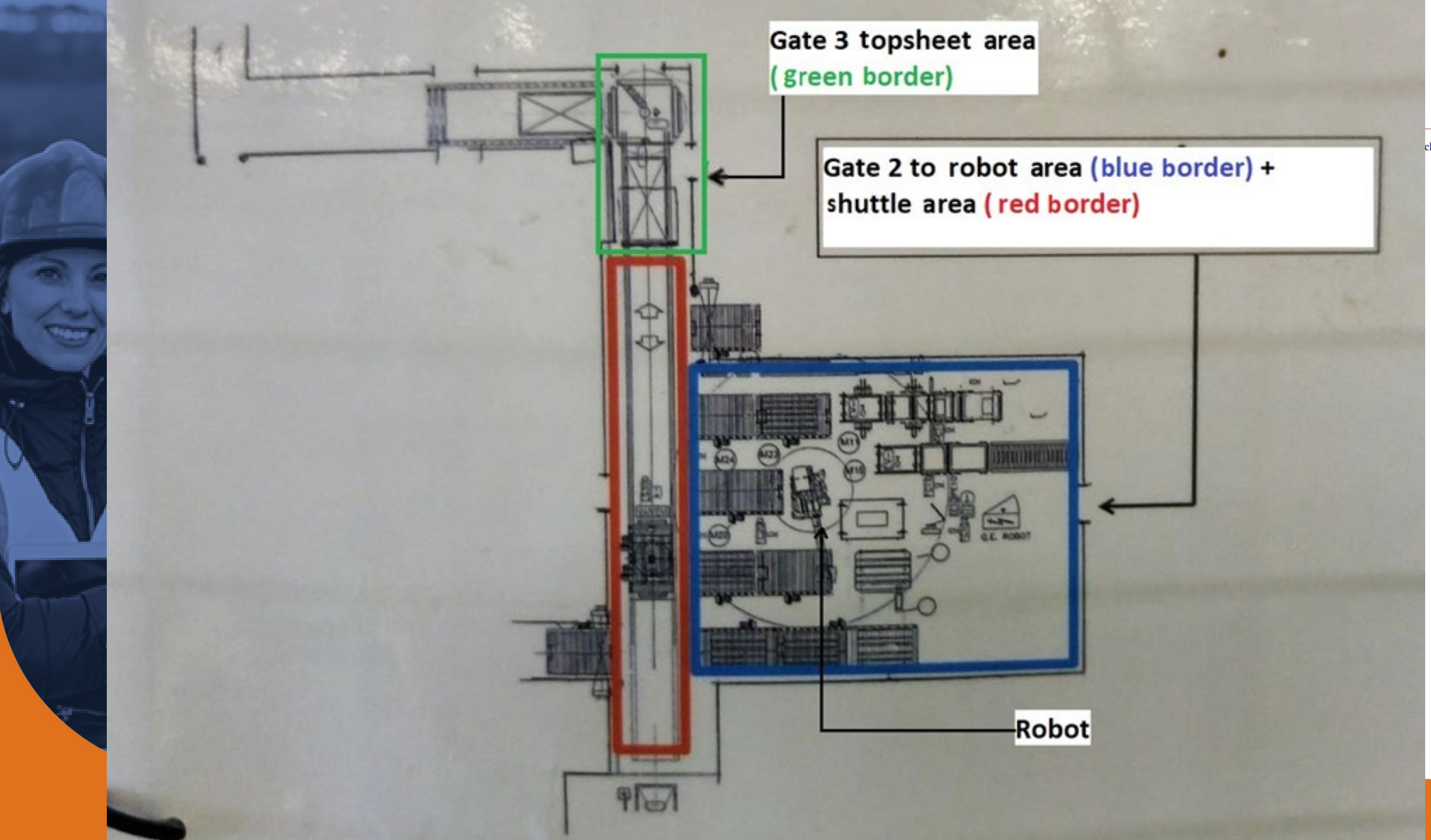
An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

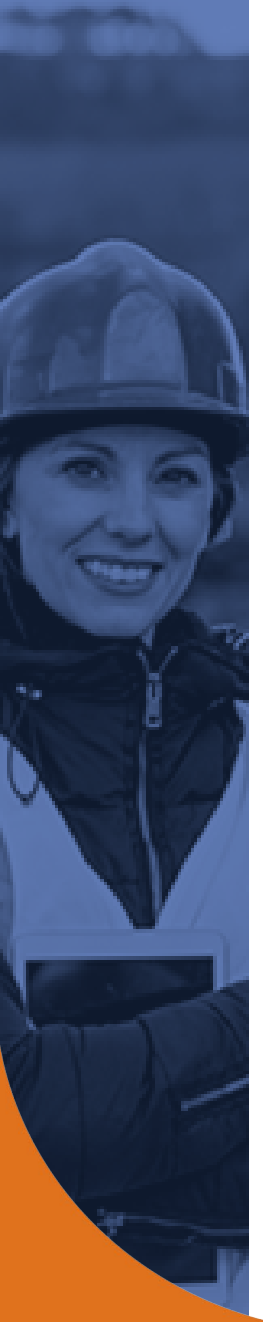


# Case Study – Traditional Robot Risk



An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority


Gate 3 topsheet area
( green border)
Gate 2 to robot area (blue border) +
shuttle area ( red border)
Robot



# Platform Workers

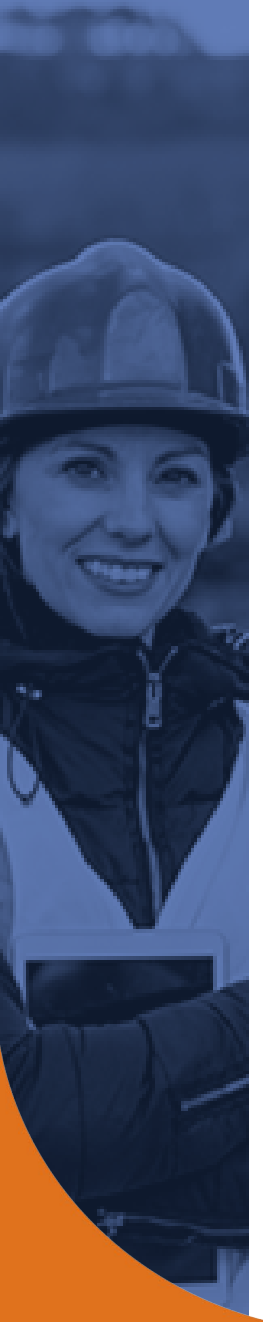
An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- Give the definition in the 89 Framework Directive (89/391/EEC) of:

  **a worker** as “any person employed by an employer, including trainees and apprentices ….”; and

  **an employer** as “any natural or legal person who has an employment relationship with the worker and has responsibility for the undertaking and/ or establishment”;

- Does the Platform Company have an employee-worker relationship with a person (Mr. A) whose name is on the account with the Platform Company?
- Does the Platform Company have an employee-worker relationship with a person (Mr. B) who actually carries the work at the direction of the Platform Company but is not the person named on the account.
- If the answer to either of the above question is “yes”, then can either Mr. A or Mr. B be truly considered to be “self-employed”?



# Our Own 2005 Act

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

## “employer”,

- (a) means the person with whom the employee has entered into or for whom the employee works under a contract of employment,
- (b) includes a person under whose control and direction an employee works,

## “employee”

- means a person who has entered into or works under a contract of employment and includes a fixed-term employee and a temporary employee and references, in relation to an employer, to an employee shall be construed as references to an employee employed by that employee

HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- Draft new Machinery Directive
- Draft Regulation of Artificial Intelligence (Artificial Intelligence Act)
- Draft Directive on improving working conditions in platform work
- Cybersecurity Regulation

# Draft New Machinery Regulation

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- Special requirements now apply to machineries/machinery parts that "*have embedded systems with fully or partially self-evolving behaviour using machine learning approaches*",

- Manufacturers must take appropriate measures (now explicitly required by law) to ensure the security of their machinery against potential cyber threats and protection against interference

# Draft New AI Legislation

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- On 14 June 2023, MEPs adopted Parliaments negotiating position on the AI Act. The talks will now begin with EU countries in the Council on the final form of the law.

- The aim is to reach an agreement by the end of this year.

# Unacceptable risk

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- Unacceptable risk AI systems are systems considered a threat to people and will be banned. They include:
  - Cognitive behavioural manipulation of people or specific vulnerable groups: for example voice-activated toys that encourage dangerous behaviour in children
  - Social scoring: Classifying people based on behaviour, socio-economic status or personal characteristics
  - Real-time and remote biometric identification systems, such as facial recognition

# High Risk
## Negatively affect safety or fundamental rights

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- 1) AI systems that are used in products falling under the EU's product safety legislation. This includes toys, aviation, cars, medical devices and lifts.
- 2) AI systems falling into eight specific areas that will have to be registered in an EU database:
    1. Biometric identification and categorisation persons
    2. Management and operation of critical infrastructure
    3. Education and vocational training
    4. Employment, worker management and access to self-employment
    5. Access to and enjoyment of essential private services and public services and benefits
    6. Law enforcement
    7. Migration, asylum and border control management
    8. Assistance in legal interpretation and application of the law
- All high-risk AI systems will be assessed before being put on the market and also throughout their lifecycle.

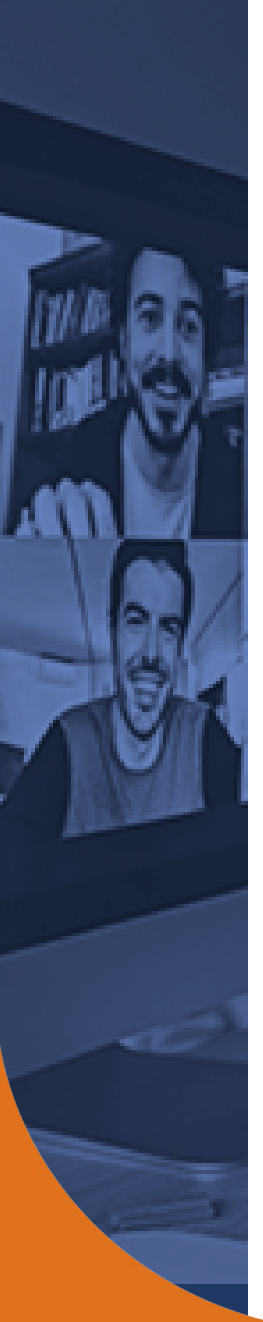
HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- Generative AI

- Generative AI, like ChatGPT, would have to comply with transparency requirements:

- Disclosing that the content was generated by AI
- Designing the model to prevent it from generating illegal content
- Publishing summaries of copyrighted data used for training



# Draft New Directive Platform Work

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- On 9 December 2021, the Commission submitted a proposal for a Directive on improving the working conditions in platform work. The proposal seeks to:
  1. Improve the working conditions of platform workers by facilitating the correct determination of their employment status
  2. Improve the protection of the personal data of persons performing platform work by improving transparency, fairness and accountability in the use of automated monitoring or decision-making systems
  3. Improve the transparency of platform work and put certain remedies and enforcement measures in place

# EU Cybersecurity Act

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- What is the EU Cybersecurity Act?
- Regulation (EU) 2019/881 on ENISA and on information and communications technology cybersecurity certification and repealing Regulation (EU) No 526/2013 (the EU Cybersecurity Act) has two functions:

1. Granting a permanent mandate to ENISA (the European Union Agency for Network and Information Security); and
2. Setting out a European cyber security certification framework for ICT (information and communications technology) products, services and processes.

HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Regulation (EU) 2019/881 as regards managed security services

- Some Member States have already begun adopting certification schemes for managed security services. There is therefore a growing risk of fragmentation of the internal market for managed security services owing to inconsistencies in cybersecurity certification schemes across the Union. This proposal enables the creation of European cybersecurity certification schemes for those services to prevent such fragmentation.

# Positives

HSA
An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

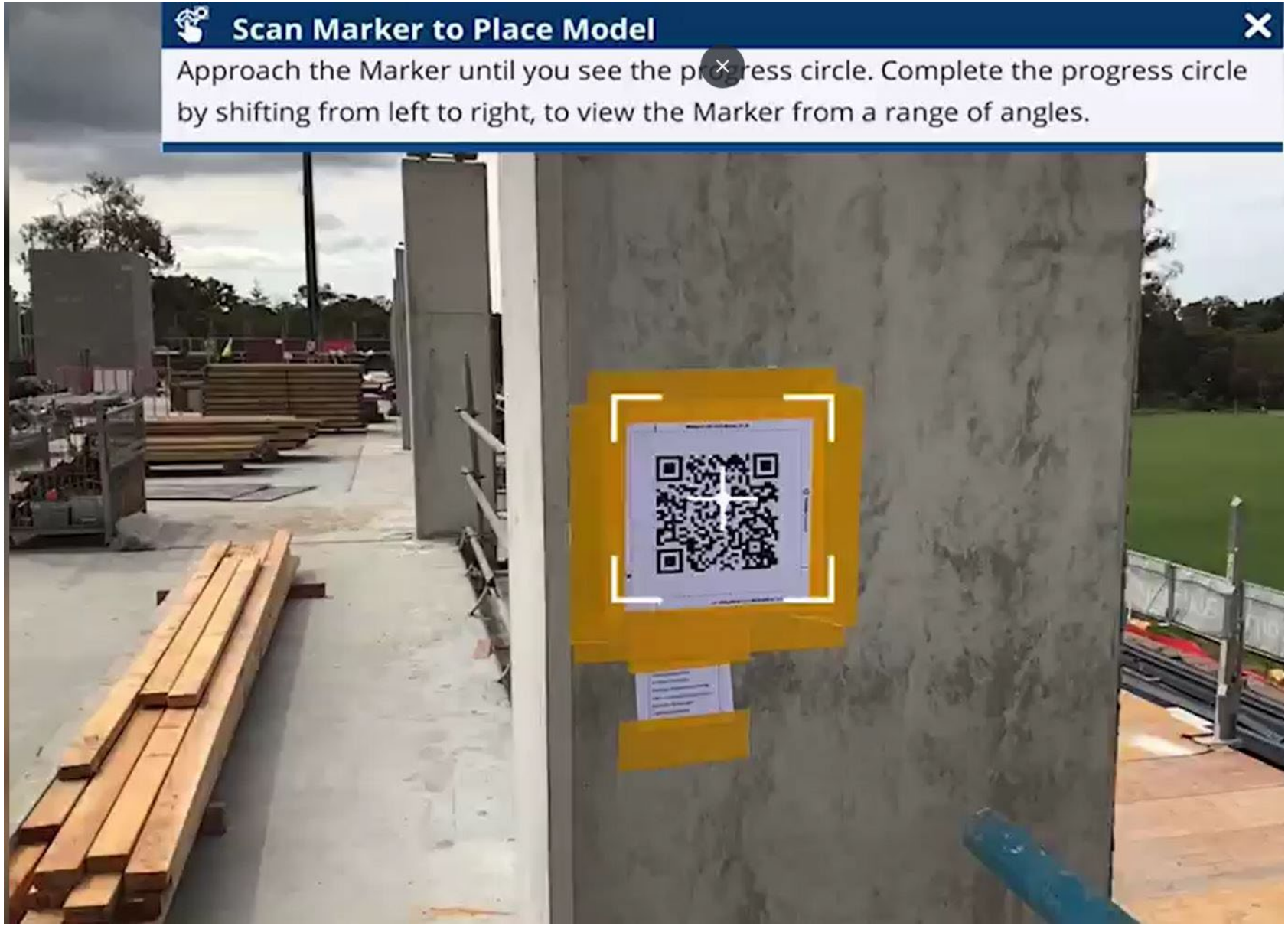
- Technology used to increase safety
- Reduction in certain types of strenuous work
- Reduction in in repetitive work
- Platform work can offer more flexibility, employment opportunities and additional income to people who might find it difficult to enter the traditional labour market

HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority




HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority


HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

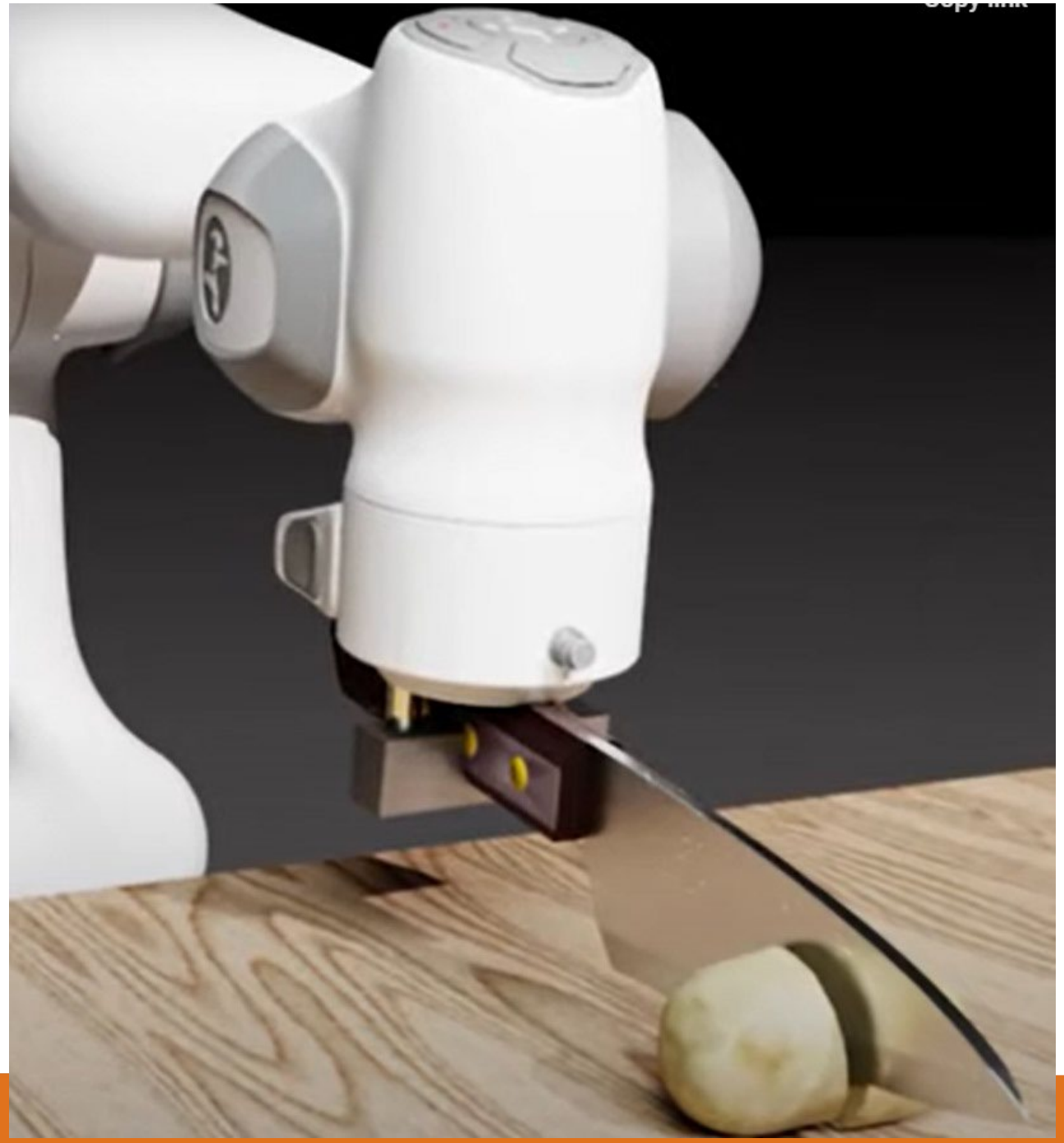
# Negative Effects

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- For Platform Workers, lack of infrastructure concerning the presence of facilities for the bike couriers, e.g. toilets, washing facilities, showers and possibilities to change clothes is problematic
- Psychological impacts like anxiety, anger or depression which has a potential to cause workers to absent themselves from work
- “Black Box” where it’s impossible to analyse the steps being taken by AI


HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority



HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority


WELL WHAT I THINK YOU SHOU
Play (k)

HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- Future Move towards analysis of “White Collar” workers
- Monitoring of time in front of screen
- Keystrokes
- Keyboard activity

# Summary

HSA
An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- Potential for change is limitless
- All change associated with technology is not necessarily positive
- In many respects, true artificial thinking intelligence appears to be a distance into the future

European Agency for Safety and Health at Work

Healthy Workplaces

HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

# Thank you
# Padraig_Delaney@hsa.ie
# wcu@hsa.ie

T: 0818 289 389

E: contactus@hsa.ie

W: www.hsa.ie

# Safe and healthy work in the digital age – an employer's perspective

Dr. Michael Gillen

October 2023

Ibec

# Short poll

HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

# 1989 – fall of the Berlin Wall

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

**Ireland**

- Safety Health & Welfare at Work Act 1989

**Europe**

- European Framework Directive on Safety and Health at Work (Directive 89/391 EEC)
  - ‘Risk assessment’

**Global**

- March 12 – Tim Berners-Lee produced the proposal document that would become the blueprint for the World Wide Web

# International Labour Organization 2019

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

## ‘Safety and health at the heart of the future of work’

- Challenges and opportunities
  - Technology
  - Demographics
  - Sustainable development and OSH
  - Changes in work organisation
- Responding to these challenges
  - Anticipation of new OSH risks
  - Multidisciplinarity in managing OSH
  - Building competence on OSH
  - Widening the horizon: The link to public health

# Safe and healthy work in the digital age

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

**5 priority areas give structure to the campaign**

1. Digital platform work
2. Advanced robotics and artificial intelligence
3. Remote work
4. Smart digital systems
5. Worker management through artificial intelligence

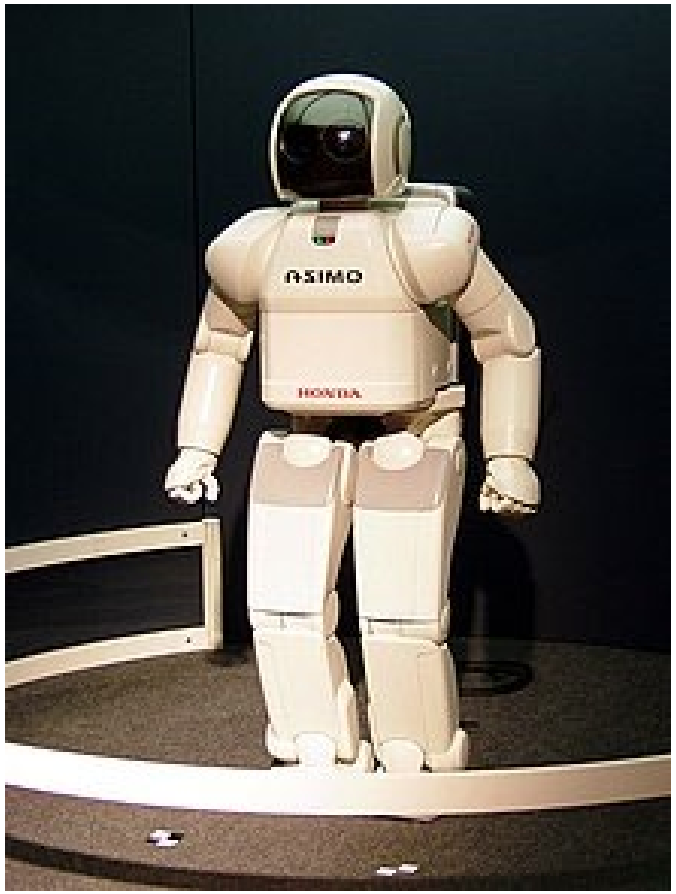
# Digital platform work

1. 39% Taxi driver
2. 24% Food delivery
3. 19% Home services
4. 7% Professional services
5. 6% Freelancers
6. 3% Domestic work
7. 2% Micro tasking

HSA
An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

# Advanced robotics & artificial intelligence

HSA
An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority




# Remote work

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

Occupational Safety and Health Guidance on Remote Working (HSA)

- 3 steps
    1. Work activity
    2. Identification of hazards and assessment of risk
    3. Monitor, review and communicate with employees regularly

# Smart digital systems – EU-OSHA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

Smart digital systems – 3 new policy briefs

1. Types, roles and objectives
   - https://habitushealth.net/
   - https://www.fyld.ai/
   - https://safe365global.com/
2. Optimising the uptake
3. Opportunities & challenges

# Worker management through artificial intelligence

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- Definitions
  - *'**worker management** refers to a process of overseeing and governing employees to better achieve organisational goals, such as increasing productivity and efficiency, decreasing employee turnover, and ensuring workers' health and safety'.*
  - *'…**artificial intelligence** system" (AI system) means software that is developed with one or more of the techniques and approaches and can, for a given set of **human-defined objectives**, generate outputs such as content, predictions, recommendations, or decisions influencing the environments they interact with'.*

# Mary Ward & technology

HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

# Go raibh maith agaibh

# Thank you

T: 0818 289 389

E: contactus@hsa.ie

W: www.hsa.ie

European Agency for Safety and Health at Work

Healthy Workplaces

HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

# Managing Remote Working and a Distributed Workforce

Brian Molloy, Inspector
Enterprise and Employee Support Unit

**#EUhealthyworkplaces**

# Introduction

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- Background / Defining Remote Work
- CSO Statistics
- Background to the Guidance and Checklist
- Roles and Responsibilities
- Remote Working Assessment
- Resources for Employers and Employees

# Background to Guidance

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority


Health and Safety and Welfare at Work Act (2005)

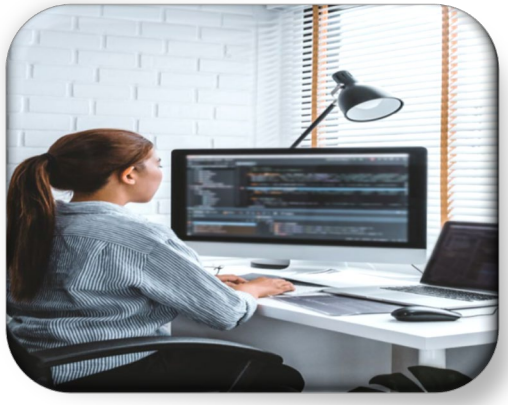
**'Making Remote Work' is Ireland's National Remote Work Strategy. The Strategy's objective is to ensure that remote working is a permanent feature in the Irish workplace in a way that maximises economic, social and environmental benefits.**

legislation – guidance developed to assist with this

# Defining Remote work

HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority



**Remote working refers to work activities undertaken away from the employer's normal work premises including in a domestic setting or a remote working hub.**

# Future Jobs Ireland focuses on five pillars, namely:

HSA
An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

- Embracing Innovation and Technological Change
- Improving SME Productivity
- Enhancing Skills and Developing and Attracting Talent
- Increasing Participation in the Labour Force
- Transitioning to a Low-Carbon Economy


# CSO Pulse Survey / Principles

HSA
An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

**CSO PULSE SURVEYS**

Our Lives Online: Remote Work
**NOVEMBER 2021**

Of those in **employment...**

**80%** have worked remotely **at some point** since the start of the pandemic and

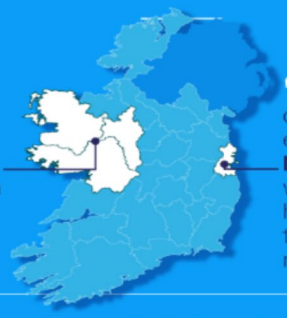
**65%** are **currently** working remotely **(Nov '21)**

Of **respondents...**

**75%** who were **engaged on home duties** would consider employment if they could work remotely

**69%** who were **unable to work due to longstanding health problems** would consider employment if they could work remotely

**27%** of those in employment in the **West Region** would consider a house move if they could work remotely



**46%** of those in employment in the **Dublin Region** would consider a house move if they could work remotely

Compared to days they are in their workplace, when those **aged 45-54 years work remotely...**

**73%** take **less car trips**

**50%** take **more trips on foot**

**34%** take **more bicycle trips**

Of those who **remote work...**

**81%** aged **18 to 34 years** feel they have more time on their hands due to remote work

**94%** whose commute time before the pandemic was over **1½ hrs** feel they have more time on their hands due to remote work

# Roles and Responsibilities

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

**The responsibility for safety and health at work rests with the employer regardless of whether an employee works remotely or at the employer's premises.**

**Employers** must provide a safe work environment and, in doing so, assess the risks and ensure appropriate controls are place to safeguard employees at work.

**Employees** working remotely have a responsibility to take reasonable care while at work, and must:

- Co-operate with their employer and follow agreed safety procedures,
- Protect themselves from harm during their work; for example, use any equipment provided correctly and report any defects immediately to the employer, and
- Report any injury arising from the work activity to their employer immediately.

# Remote Working Assessment

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

A Remote Work Assessment refers to the assessment carried out by a **competent and trained assessor** of the employee's identified workplace.

A competent person is someone with sufficient training, experience and knowledge who can carry out the assessment.

# Checklist – 3 Steps

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

**Step 1**

## Work activity

**Section 1**
Employee information

**Section 2**
Workplace equipment

**Step 2**

## Assessment of hazards

**Section 3**
Work environment

**Section 4**
Workstation

**Section 5**
Communication, consultation and accident reporting

**Step 3**

## Monitor, review and communicate with employees regularly

**Section 6**
Records management

**Section 7**
Additional information or notes

# Step 1: Work Activity

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

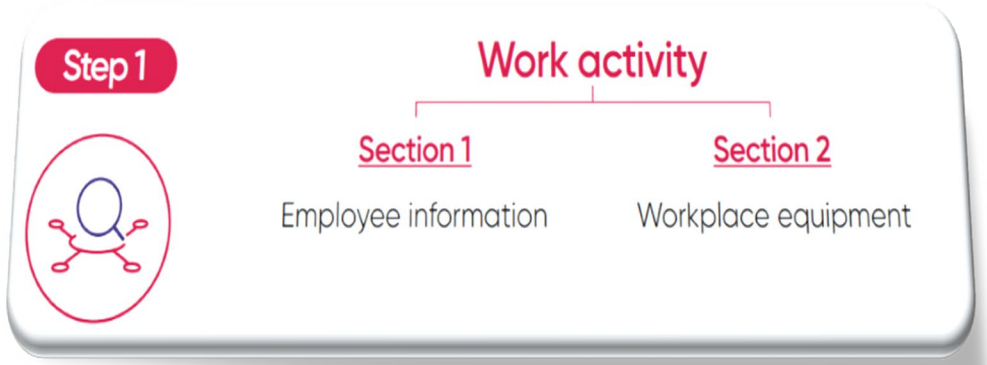
Step 1 – Looks at the work activity.

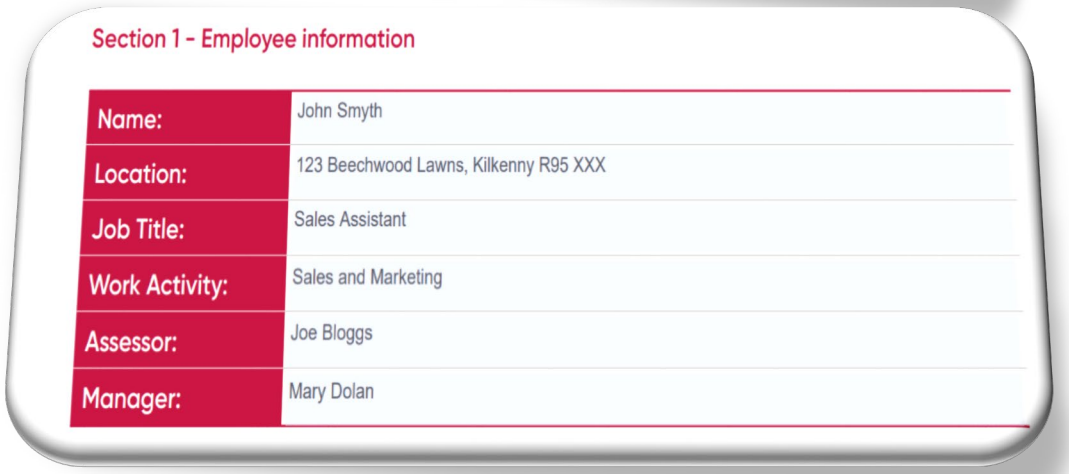
This includes two sections:

- Section 1: Employee Information
- Section 2: Workplace Equipment

Identify primary remote work location

Identify the type of work to be undertaken remotely and what equipment and resources are required.



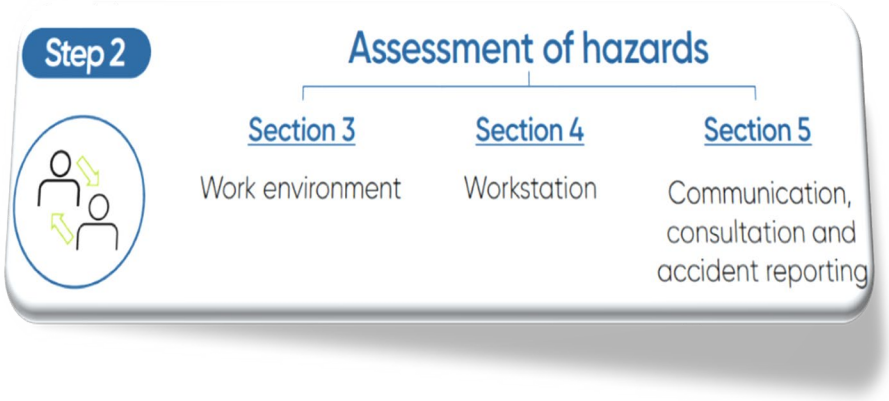
# Step 2: Assessment of Hazards

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

**Step 2 - Addresses the assessment of hazards.**

This includes three sections:

- Section 3: Work Environment
- Section 4: Workstation including Display Screen Equipment (DSE) and work equipment
- Section 5: Communication, consultation and accident reporting



# Step 2: Assessment of Hazards

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

## Section 3 - Work environment

Work environment means the place where work is carried out (for example, in a domestic setting, remote working hub or other location) and environmental conditions associated with the place of work. Certain hazards may be relevant depending on the place of work or work activity. For more information visit **www.hsa.ie.**

| Controls | Yes | No | N/A | Notes |
|---|---|---|---|---|
| **Place of work** | | | | |
| Is the place of work suitable for the work to be undertaken? | ○ | ○ | ○ | |
| **Lighting** | | | | |
| Is suitable lighting (for example natural, task lighting) available for the type of work being carried out and the employees' vision? | ○ | ○ | ○ | |
| Is additional task lighting required? | ○ | ○ | ○ | |
| **Heating and Ventilation** | | | | |
| Can temperatures be regulated? (For most people an acceptable temperature for office work lies within the range of 18°C to 23°C). | ○ | ○ | ○ | |
| Is there adequate ventilation in the workplace? Ventilation can be regulated naturally (window or door) or mechanically. | ○ | ○ | ○ | |
| **Electricity** | | | | |
| Is the employee aware that they should check and advise their employer of any defects? | ○ | ○ | ○ | |
| Is electrical equipment provided to employees used correctly, checked for frayed wires, signs of burns or melting, and is unsafe equipment taken out of use? | ○ | ○ | ○ | |
| Is there an adequate number of sockets available? | ○ | ○ | ○ | |

## Section 4 - Workstation including Display Screen Equipment (DSE) and work equipment

Workstation - means an assembly comprising of display screen equipment, which may be provided with a keyboard or input device, software or a combination of the following:

- Work chair, work desk or work surface; and
- Other work equipment or peripherals. For example, footrest, document holder, docking stati

The employer is responsible for providing and maintaining work equipment identified for th work such as computers, monitors, keyboards, chairs, desks etc., or equipment identified following a risk assessment.

**NOTE: Employees can use their own equipment if deemed suitable.**

| Controls | Yes | No | N/A | Notes |
|---|---|---|---|---|
| **Desk and Workstation** | | | | |
| Is there enough knee clearance underneath the workstation? | ○ | ○ | ○ | |
| Is there enough space to allow the employee to change position and vary movements? | ○ | ○ | ○ | |
| Is the area clutter free so that the employee can focus easily on the task? | ○ | ○ | ○ | |
| Is a document holder required to read documents? | ○ | ○ | ○ | |
| **Chair** | | | | |
| Is the chair provided stable, adjustable in height, allows freedom of movement, and provides lower back support? | ○ | ○ | ○ | |
| Is the chair set up so that the forearms are level with the desk? | ○ | ○ | ○ | |
| Does the chair have a back rest which is adjustable in height and has the employee been advised to sit back in their seat in order to get good lumbar support? | ○ | ○ | ○ | |

## Section 5 - Consultation, communication and incident reporting

Maintaining good consultation and communication with remote workers helps determine whether the safety and health arrangements are working.

Keeping good records, reviewing and following up on corrective actions ensures a safe remote work environment.

| Controls | Yes | No | N/A | Notes |
|---|---|---|---|---|
| **Consultation and Communication** | | | | |
| Are arrangements in place to consult with employees? | ○ | ○ | ○ | |
| Are there arrangements in place for keeping in contact, and is the employee informed of these? | ○ | ○ | ○ | |
| Is there an established means of contact for communicating and providing updates (for example, via phone, web or email as required)? | ○ | ○ | ○ | |
| Can employees report safety and health issues (for example, health related issues, workload, faulty equipment etc.)? | ○ | ○ | ○ | |
| Are arrangements in place to report psychosocial issues (for example, work related stress, difficulties maintaining boundaries between home and work, social isolation, managing change in work, bullying etc.)? | ○ | ○ | ○ | |
| **Incident Reporting** | | | | |
| Has the employee been advised of the procedures for reporting any work-related incidents, (for example, musculoskeletal discomfort)? | ○ | ○ | ○ | |
| **Additional Identified Controls** | | | | |
| | ○ | ○ | ○ | |
| | ○ | ○ | ○ | |

# Step 3: Monitor, review and communicate with employees regularly

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

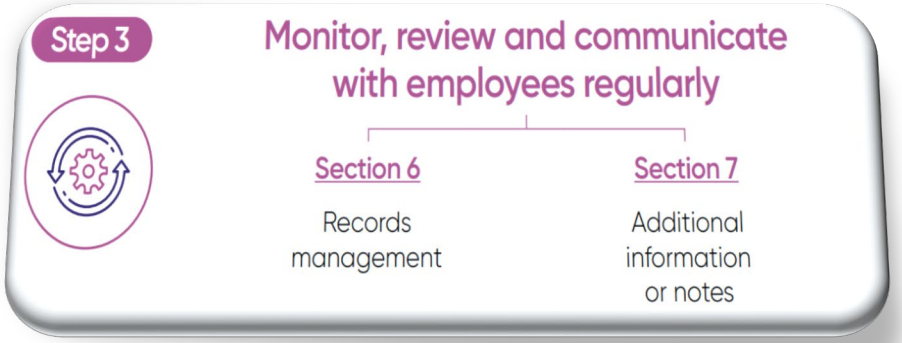
**Step 3 -Addresses reporting requirements.**

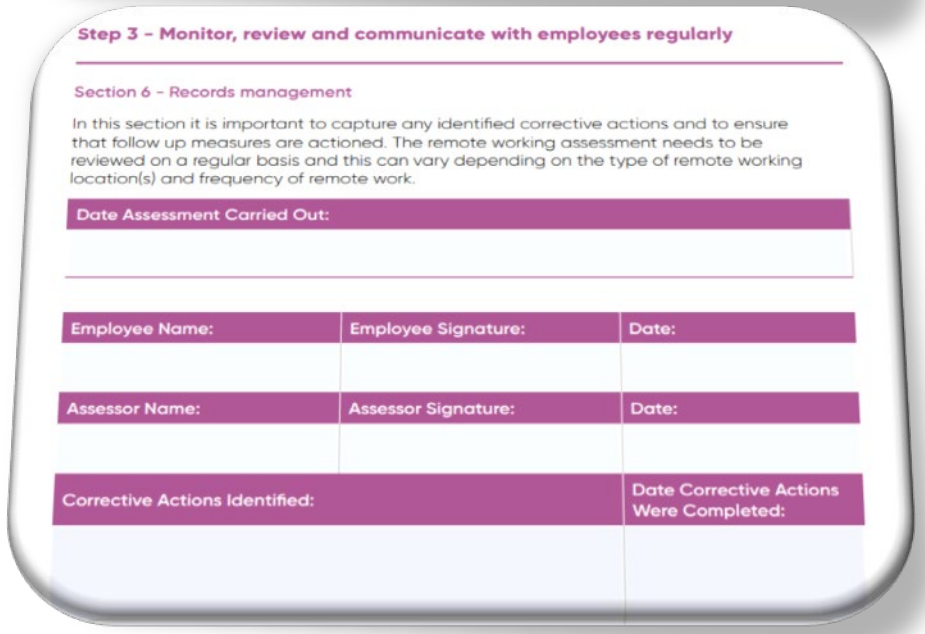
This includes two sections:

- Section 6: Records Management
- Section 7: Additional Information or Notes

It is important to capture any identified corrective actions and to ensure that follow up measures are actioned

The remote working assessment needs to be reviewed on a regular basis and this can vary depending on the type of remote working location(s) and frequency of remote work.



# Further Assessment

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

Further assessment is required in certain situations. This includes when:

- The nature of the work changes.
- There are changes in the location of the employee's place of work.
- The duration of remote work changes.
- There are changes in the location of the workstation.

# Psychosocial

Ma
- [illegible]
- [illegible]

Ps

So
- [illegible]
- [illegible]
- [illegible]

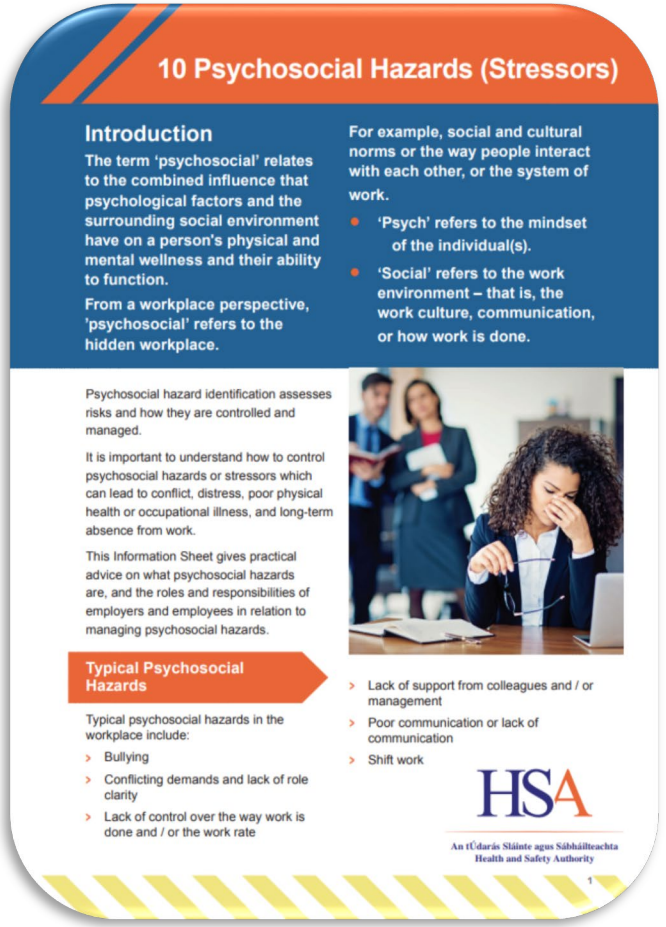
## What are the main stressors assessed in a psychosocial risk assessment?

The main categories to consider are:

- Demands
- Controls
- Supports
- Relationships
- Roles
- Change

HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority



10 Psychosocial Hazards (Stressors)

**Introduction**

The term 'psychosocial' relates to the combined influence that psychological factors and the surrounding social environment have on a person's physical and mental wellness and their ability to function.

From a workplace perspective, 'psychosocial' refers to the hidden workplace.

For example, social and cultural norms or the way people interact with each other, or the system of work.

- 'Psych' refers to the mindset of the individual(s).
- 'Social' refers to the work environment – that is, the work culture, communication, or how work is done.

Psychosocial hazard identification assesses risks and how they are controlled and managed.

It is important to understand how to control psychosocial hazards or stressors which can lead to conflict, distress, poor physical health or occupational illness, and long-term absence from work.

This Information Sheet gives practical advice on what psychosocial hazards are, and the roles and responsibilities of employers and employees in relation to managing psychosocial hazards.

**Typical Psychosocial Hazards**

Typical psychosocial hazards in the workplace include:

- Bullying
- Conflicting demands and lack of role clarity
- Lack of control over the way work is done and / or the work rate
- Lack of support from colleagues and / or management
- Poor communication or lack of communication
- Shift work

HSA

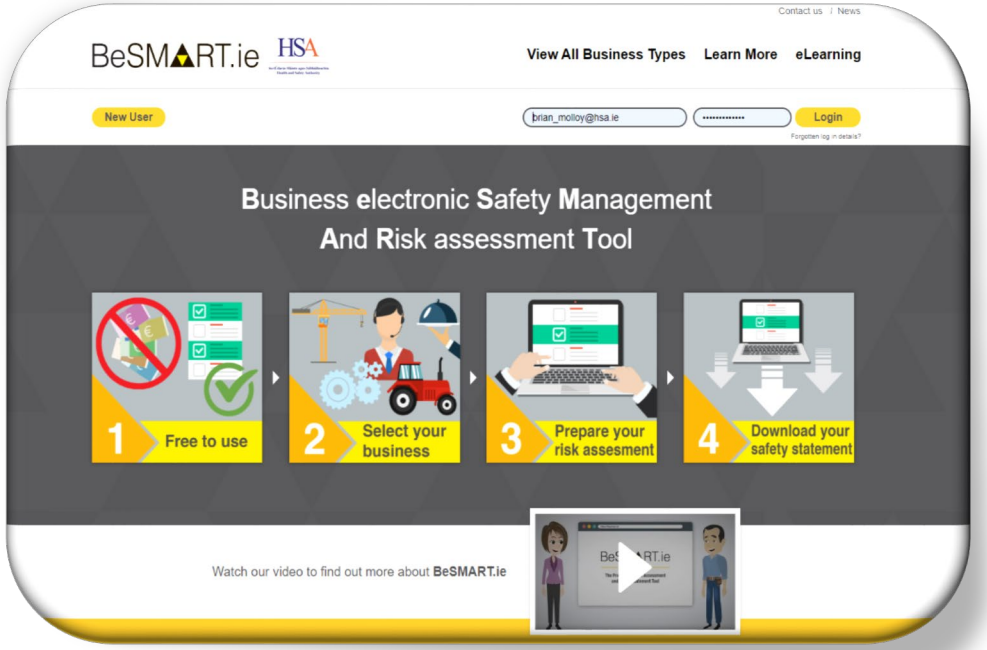
An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

1

# Remote Working Resources

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

# BeSMART.ie - Overview



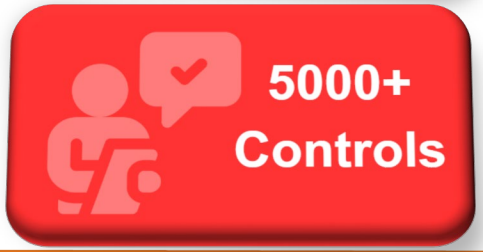


HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority



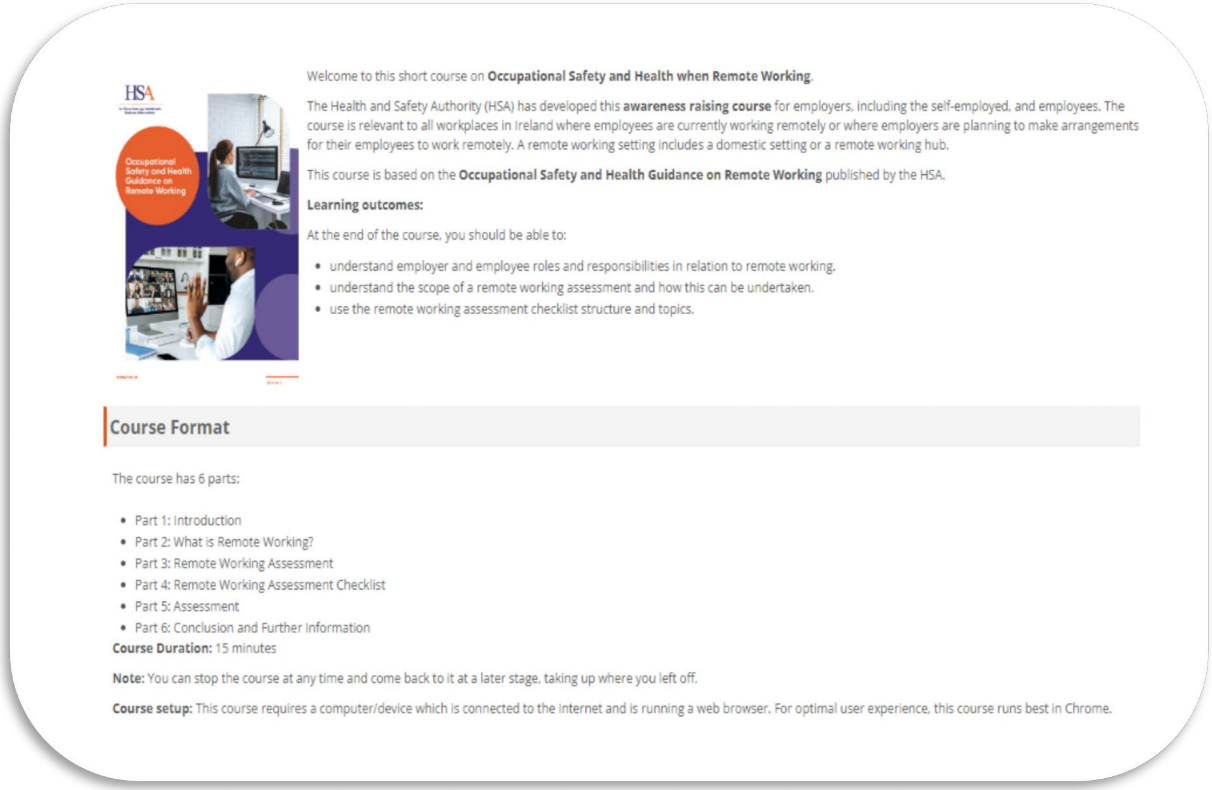





# Remote Working Resources

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority


HSA.ie




hsalearning.ie

European Agency for Safety and Health at Work

Healthy Workplaces

HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

# Go raibh maith agaibh

# Thank you

T: 0818 289 389

E: contactus@hsa.ie

W: www.hsa.ie

# Q & A

European Agency for Safety and Health at Work

Healthy Workplaces