HEALTHY WORKPLACES SUMMIT 2025

Safe and healthy work in the digital age

Europe's digital workforce: profiles and working conditions from EWCS

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European Agency for Safety and Health at Work

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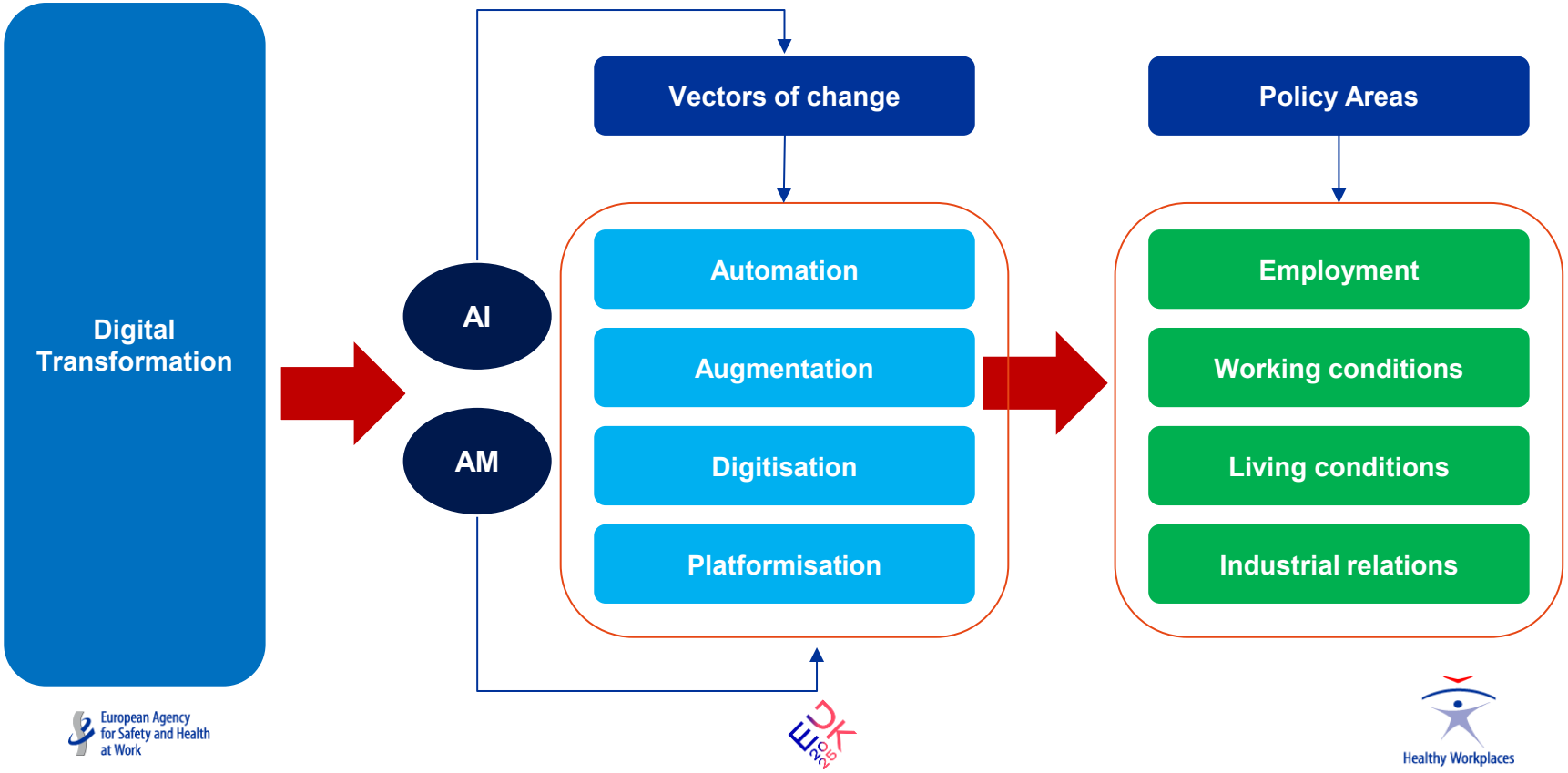
A framework to study the digital revolution



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From Concepts to empirical analysis: the EWCS 2024

Editions
1991, 1995, 2000, 2005, 2010, 2015, 2024

32 languages - 49 lang. versions

36,644 face to face interviews (CAPI) at worker's homes

35 countries

120 + questions

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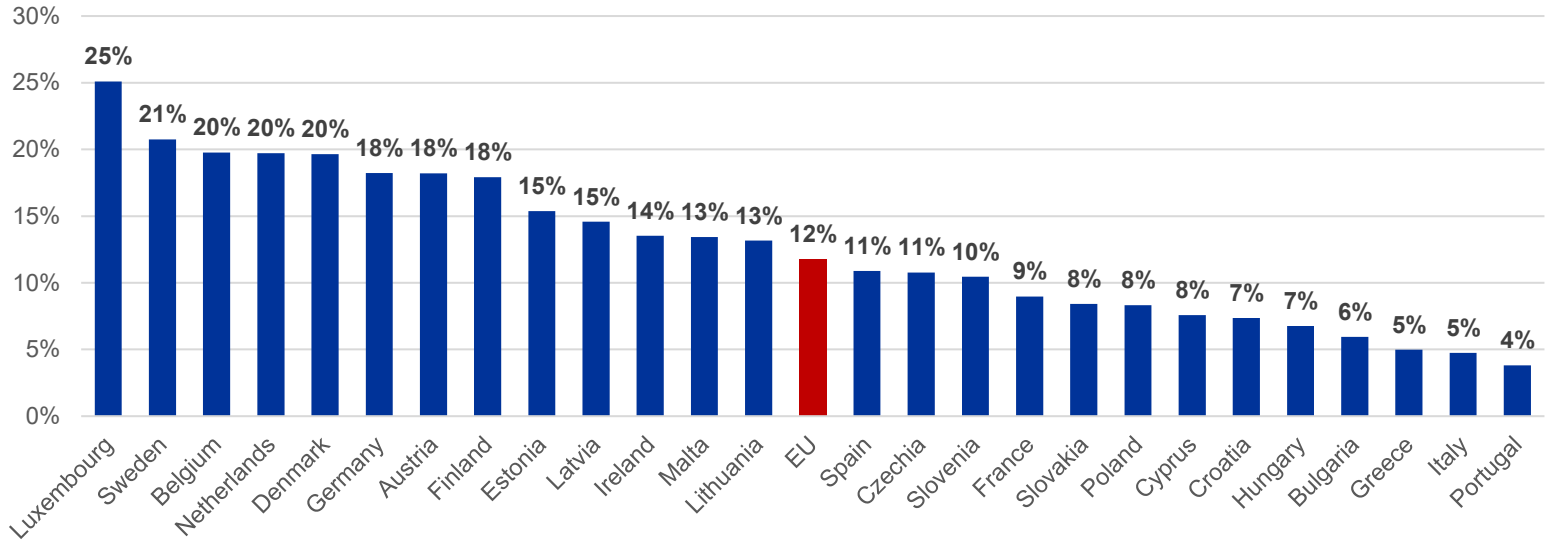
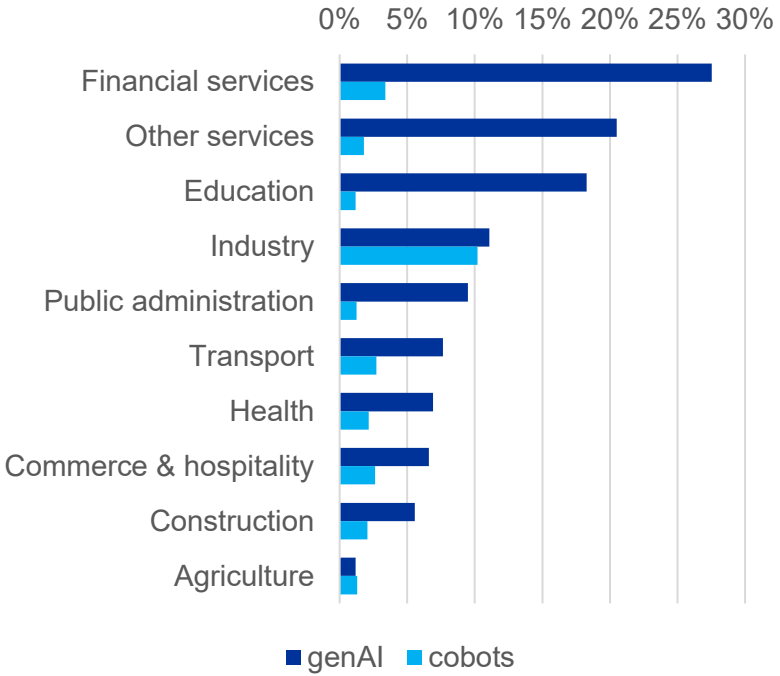
Insights from the EWCS

Use of Generative AI at work

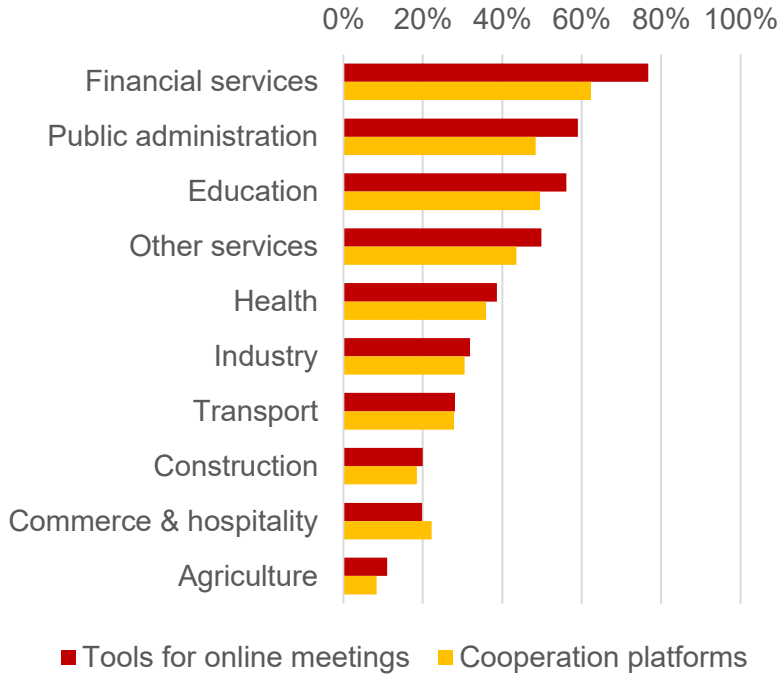


Use of advanced digital technology, by economic sector

Generative AI and Cobots (% yes)



Tools for online meetings and cooperation platforms (% yes)



Source: Own calculations, EWCS 2024

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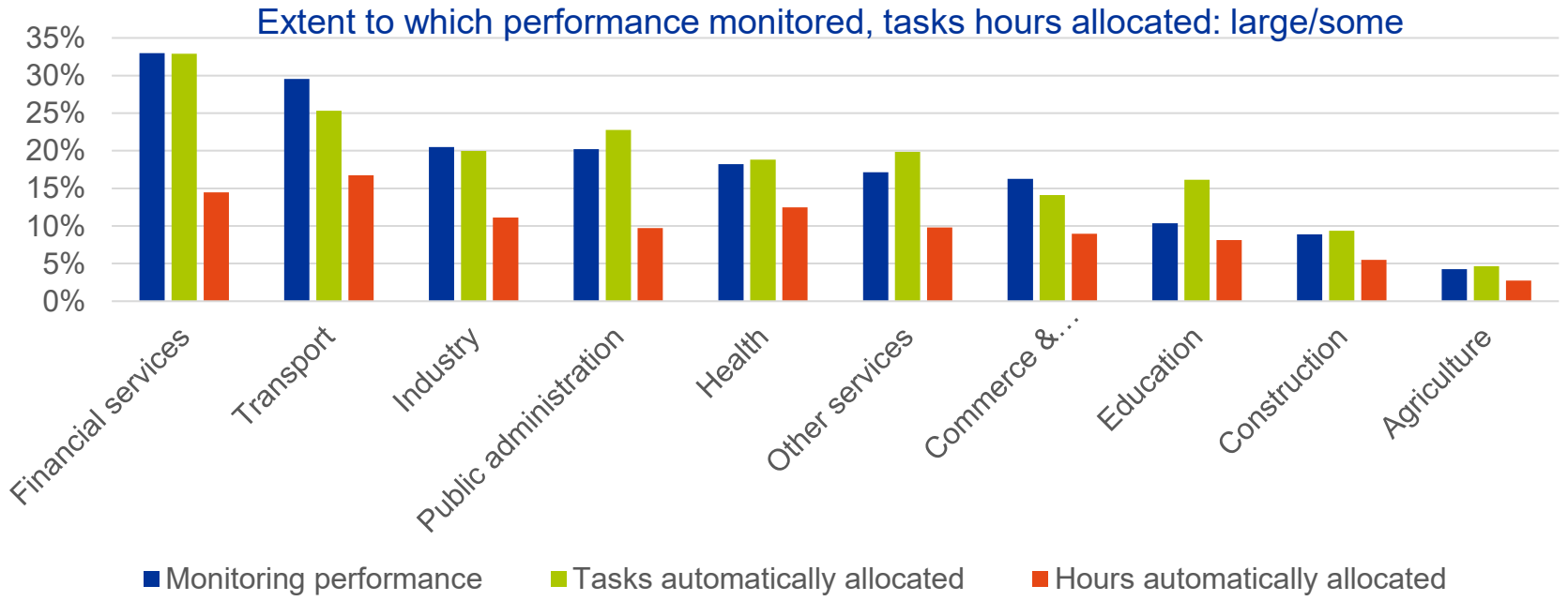
Workers subject to monitoring and algorithmic management

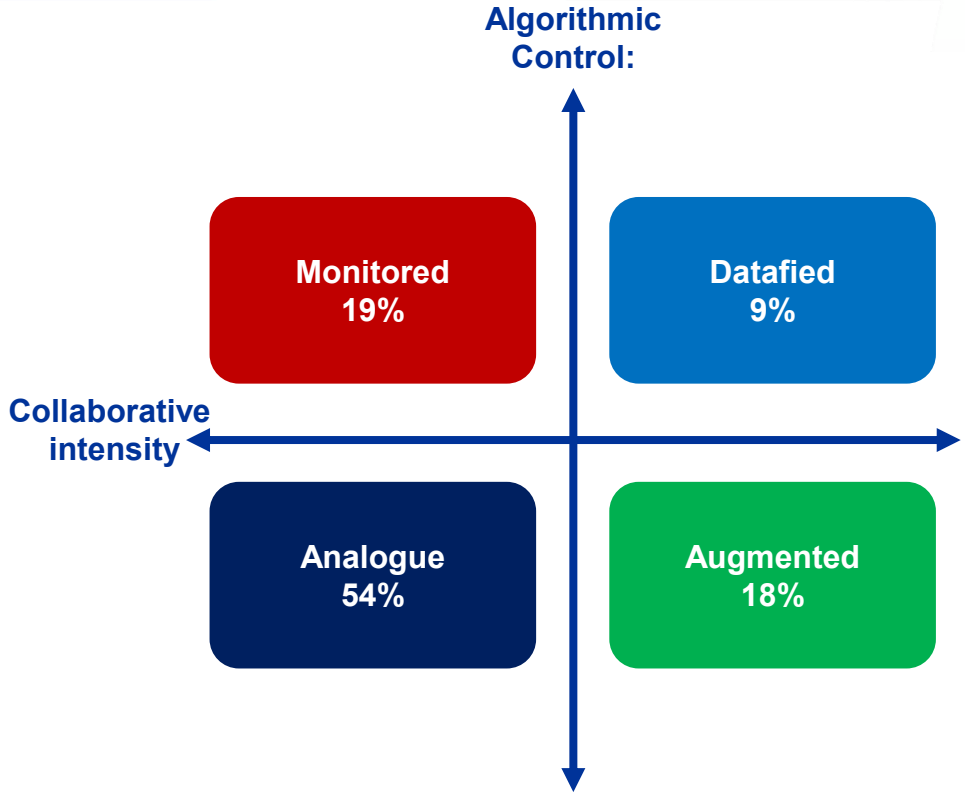


Source: Own calculations, EWCS 2024

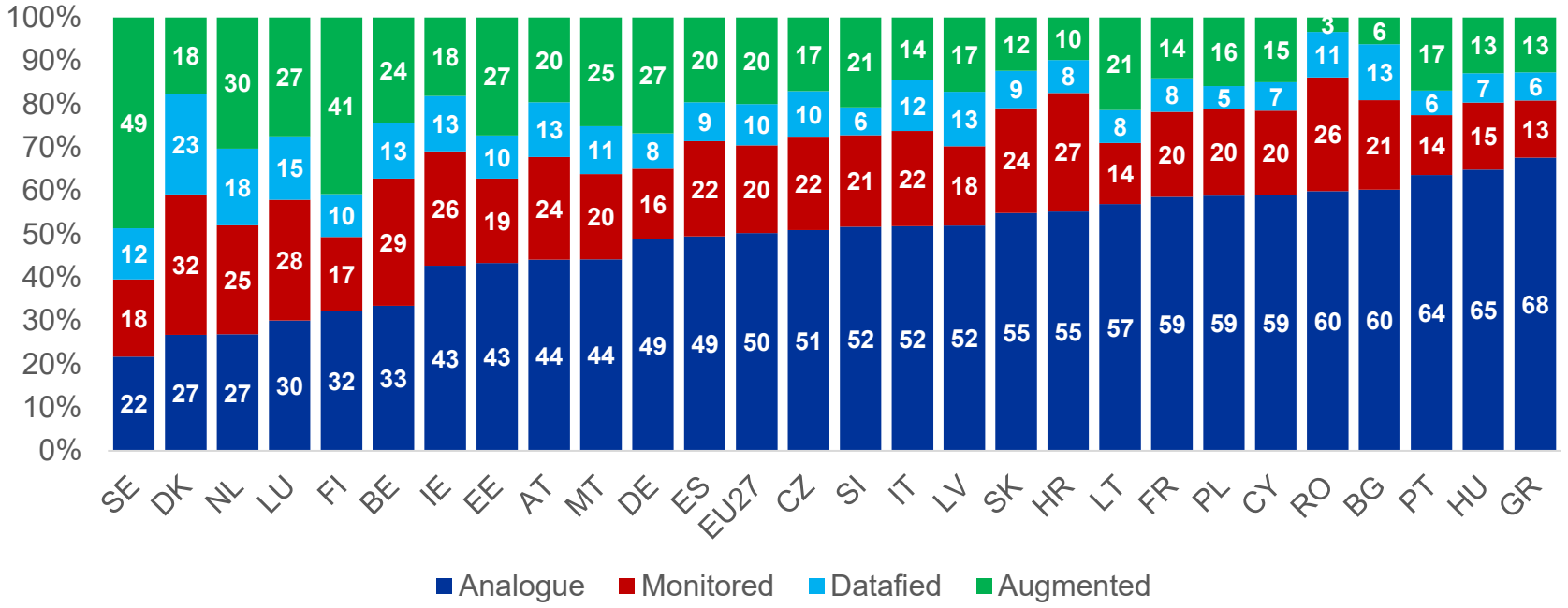
Combining technology indicators to create worker profiles

- We applied factor analysis (six digital indicators) to identify the underlying structure of technology use
- The analysis extracted two independent factors:
  - **Algorithmic Control**: Automated task allocation, machine-determined working hours, and performance monitoring.
  - **Collaborative Intensity**: Use of Generative AI, remote meeting tools, and cooperation platforms.

- Due to the right-skewed data distribution, we defined "High" exposure as scoring in the top 25% (75th percentile) for each dimension
- Workers were then classified into a 2x2 matrix:
  - Analogue (Low/Low)
  - Augmented (Low Control/High Collaboration)
  - Monitored (High Control/Low Collaboration)
  - Datafied (High/High).



Digital worker profiles across the EU



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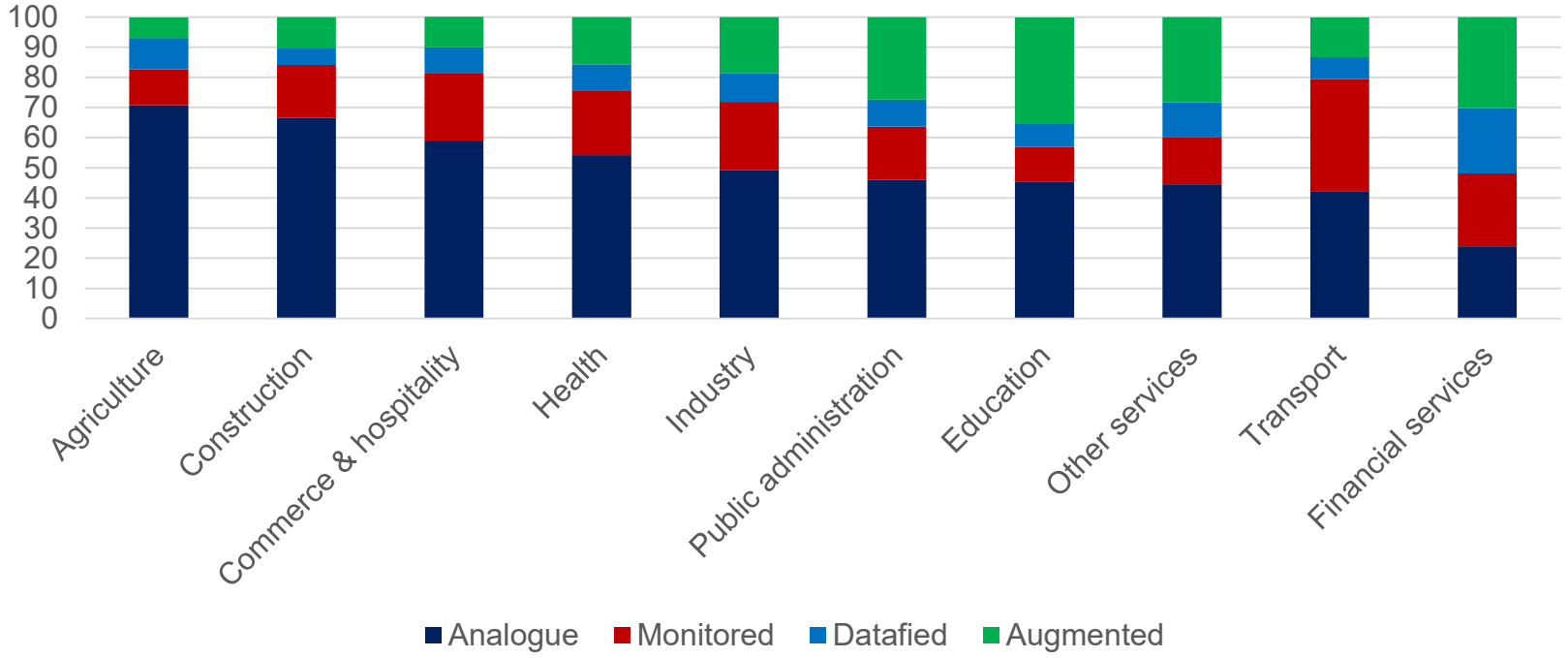
Worker profiles by economic sector

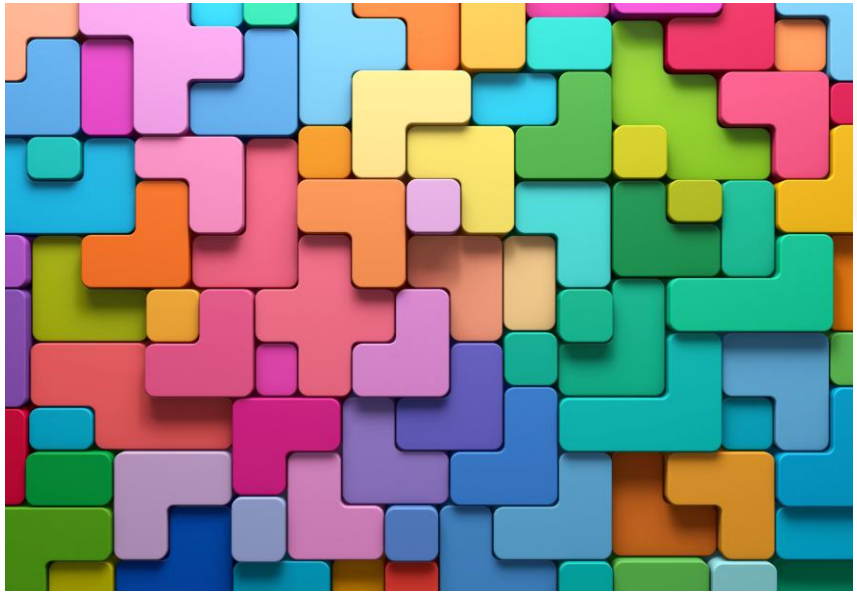


Job quality in EWCS

Analysis of 2024 data through Eurofound's job quality framework, including:

- **Ensuring fair pay**
- **Working time quality**
- **Prospects**
- **Skills and discretion**
- **Work intensity**
- **Social environment**
- **Physical environment**

- **Assessing how previous worker profiles fare in terms of job quality**



Quantifying working conditions: job quality indicators

Physical environment
- Physical risks
- Physical demands

Work intensity
- Pace determinants and interdependency

Working time quality
- Atypical working time
- Flexibility
- Working time arrangements
- Predictability

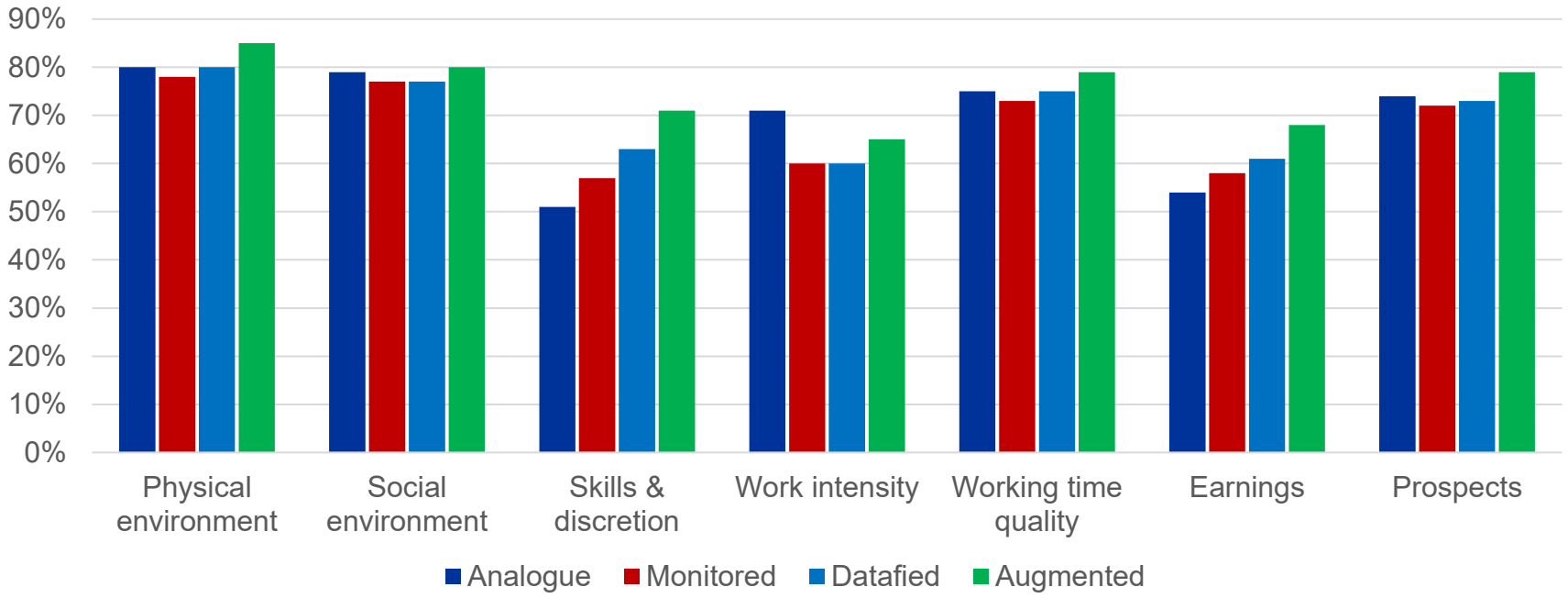
Earnings

Social environment
- Adverse social behaviour
- discrimination
- Social support
- Management quality

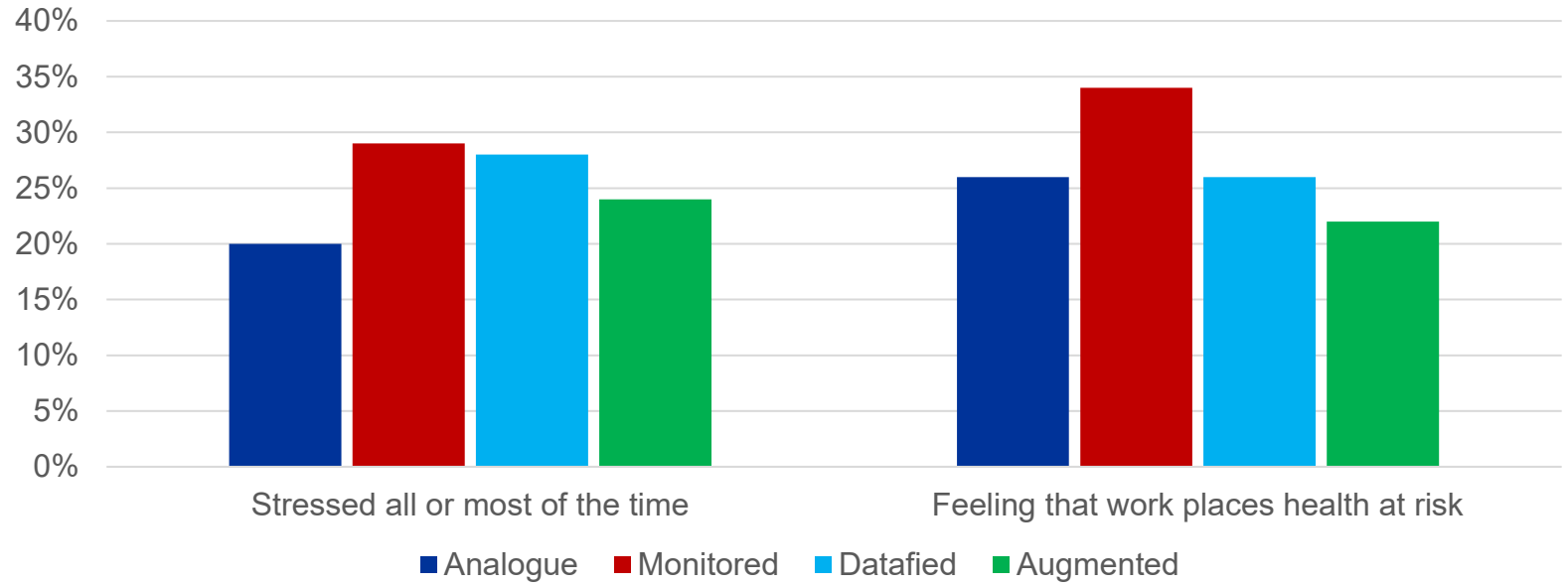
Skills and discretion
- Cognitive dimensions
- Decision latitude
- Organisational participation
- Training

Prospects
- Employment status
- Career prospects
- Job security
- Working conditions prospects

How the digital transformation shapes job quality



Digital worker profiles also have different (perceived) OSH risks



Conclusions

- Eurofound's updated framework and EWCS data are used to examine the effects of the digital transition.
- The use of advanced digital technologies is not yet widespread and generally confined to specific sectors
  - While 12% of EU workers report using gen AI at work, more than half are still in the 'analogue' category (no digital tools)
- The use of augmenting and collaborative technologies is associated with higher job quality indices, whereas the opposite is true for monitoring and automatic technologies
- Workers less exposed to digital technology generally report lower stress levels and perceived OSH risks, however the same is also true for those who use mainly collaborative technologies and are less subject to algorithmic control
- These findings suggest that the impact of digitalisation on workers' wellbeing depends less on the tools themselves, and more on the degree of control exerted over the worker

Thank you!

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