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AI, Algorithmic Management and Collective Bargaining in European services: Fast track or slow lane?

Study launch, 12 October 2026

Why paying attention to AI/AM in the context of work

Rapid expansion of AI and Algorithmic Management (AM), transforming European workplaces

► Dimensions of AI/AM impact



European Commission (2025)

► Regulatory relevance

EU AI Act, data protection of workers. Considered insufficient by some authors/actors (Domínguez de Olazábal, 2025; Yusifli, 2025; ETUC, 2025)

OECD study by Milanez et al. (2025)

79%

of European mid-level managers use AM tools

67%

of employers now use monitoring tools

Collective bargaining in the age of algorithmic management

01

Regulatory context

- GDPR provides basic safeguards, but weak enforcement and gaps remain
- EU AI Act introduces obligations for high-risk AI, but limited worker contestation rights
- Platform Work Directive – weak accountability

02

Key challenge

- Technological change outpaces regulation
- **Collective bargaining to close regulatory gaps?**

03

Role of collective bargaining

- Negotiating rules on data protection, transparency, surveillance and automation

Understanding Artificial Intelligence and Algorithmic Management

Artificial Intelligence (AI)

A machine-based system capable of generating predictions, recommendations or decisions with limited human input or oversight.

Algorithmic Management (AM)

Rule-based or data-driven management techniques that automate or semi-automate aspects of supervision and decision-making.

► Reality

- AI is often used interchangeably with AM
- **AM** = the more accurate term in the context of workers' protection and data rights

Collective bargaining in the age of algorithmic management

RG

Research gap: While scholarly and policy debates have highlighted risks of intensification of work, erosion of worker autonomy and the lack of transparency in the employment relation, little knowledge exists on whether and how existing bargaining institutions address the challenges of algorithmic control.

RP

Research puzzle: Without comprehensive legal regulation, AI and algorithmic management are widely seen as creating power imbalances between workers and employers, potentially weakening collective bargaining institutions.

A more nuanced dynamic: collective bargaining may channel novel regulatory clauses addressing AI-related challenges.

RQ

Research question: How are collective bargaining processes and outcomes across Europe adapting to the rise of algorithmic management, and what kind of cross-national and cross-sectoral variation emerge?

Why countries differ: IR regimes perspective

Table 5

	North	Centre-west	South	West	Centre-east
Production regime	Coordinated market economy		Statist market economy	Liberal market economy	Statist or liberal?
Welfare regime	Universalistic	Segmented (status-oriented, corporatist)		Residual	Segmented or residual?
Employment regime	Inclusive	Dualistic		Liberal	
Industrial relations regime	Organised corporatism	Social partnership	Polarised/state-centred	Liberal pluralism	Fragmented/state-centred
Power balance	Labour-oriented	Balanced	Alternating	Employer-oriented	
Principal level of bargaining	Sector		Variable/unstable	Company	
Bargaining style	Integrating		Conflict-oriented		Acquiescent
Role of social partners in public policy	Institutionalised		Irregular/politicised	Rare/event-driven	Irregular/politicised
Role of the state in IR	Limited (mediator)	"Shadow of hierarchy"	Frequent intervention	Non-intervention	Organiser of transition
Employee representation	Union based/high coverage	Dual system/high coverage	Variable (*)	Union based/small coverage	
Countries	Denmark, Finland, Norway, Sweden	Belgium, Germany, (Ireland), Luxembourg, Netherlands, Austria, Slovenia, (Finland)	Greece, Spain, France, Italy, (Hungary), Portugal	Ireland, Malta, Cyprus, UK	Bulgaria, Czech Republic, Estonia, Latvia, Lithuania, Hungary, Poland, Romania, Slovakia

IR regimes by Visser (2009) classify countries based on different frameworks that define the role of social partners.

► Hypothesis

Institutional strength shapes how collective bargaining responds to algorithmic management.

Source: Visser (2009), extended on the basis of Ebbinghaus & Visser (1997), Crouch (1993, 1996), Esping-Andersen (1990), Schmidt (2002, 2006), and Platzer & Kohl (2007).

Why sectors differ: sectoral IR characteristics

Table

Industrial relations indicators	UD	UF	ED	EF	CBC	CENT	INV
<i>Characteristics of national types</i>							
Organized corporatism	74.7	1.4	58.0	0.6	86.8	2.5	2.0
Social partnership	35.4	1.0	72.7	0.4	82.8	2.5	2.5
State-centred	20.2	1.2	65.8	1.2	75.4	2.0	1.0
Liberal	33.9	0.5	47.5	0.5	35.3	0.0	0
Mixed	22.8	0.9	28.4	0.7	34.5	0	1.0
<i>Characteristics of sectors (medians)</i>							
Steel	59.0	1.1	80.4	0.0	99.5	2.0	2.0
Sugar	55.0	0.7	100.0	0.0	100.0	2.0	1.0
Tanning	24.0	0.7	46.8	0.7	95.0	3.0	1.0
Air	61.2	1.8	63.6	1.1	95.0	1.0	1.0
Rail	72.0	1.1	94.0	0.7	100.0	3.0	1.0
Sea	80.0	1.1	88.0	0.0	75.0	3.0	2.0
Hospitality	59.5	1.6	81.8	1.1	95.0	3.0	2.0
Hairdressing	3.0	1.1	32.0	0.9	24.0	2.0	0
Telecom	47.9	1.1	52.0	0.7	82.5	2.0	1.0

UD = union density (%), UF = union fragmentation, ED = employers' association density (%), EF = fragmentation of employers' associations, CBC = collective bargaining coverage (%), CENT = centralisation of collective bargaining, INV = involvement of social partners in socio-economic policy-making. Source: Bechter et al. (2012), based on European Commission (2009).

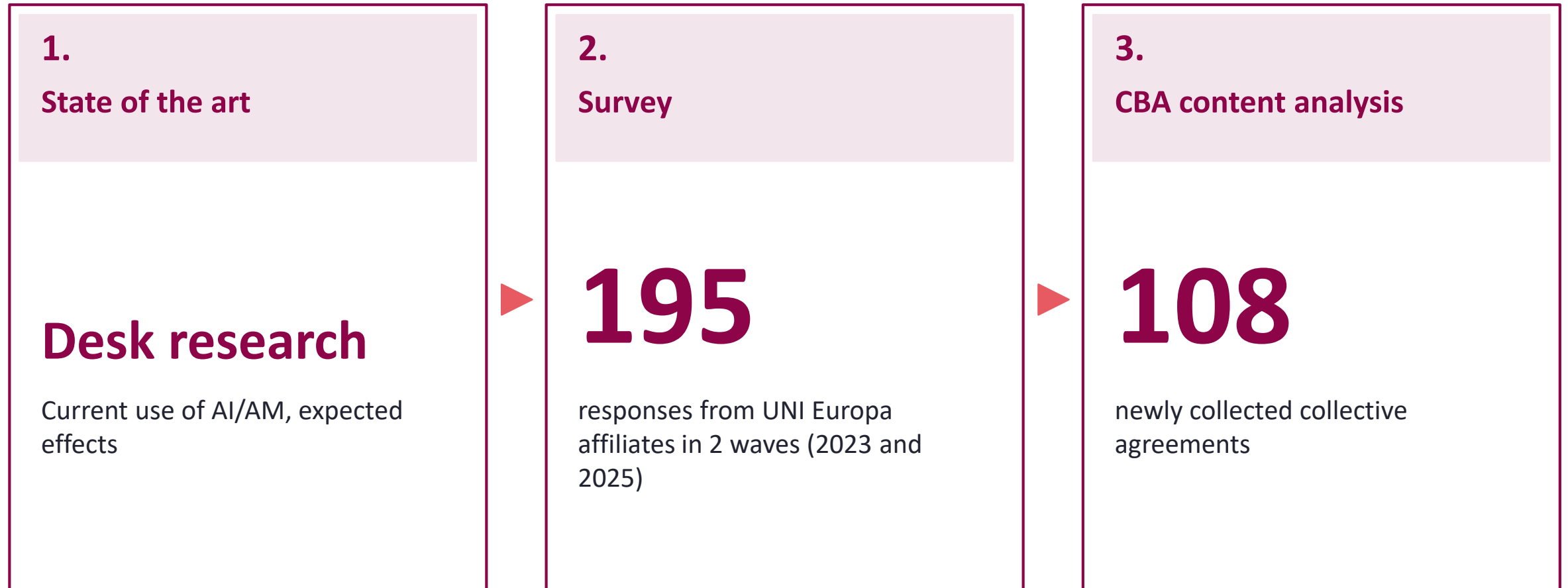
- **Bechter et al. (2012):** sectoral variation in IR arrangements
- Sectoral differentiation does not replace national variation, but interacts with it

► Implication

Collective bargaining responses to AI/AM may diverge not only across countries but also across sectors, potentially depending on sectoral specialisation.

However: sectors with higher use of AI/AM technologies are likely to show stronger bargaining activity.

Paper structure



Survey: structure

Algorithmic management tools are used in three main areas:

01

Hiring

02

Performance management

03

Everyday working decision-making

Source: UNI Professionals & Managers (2020)

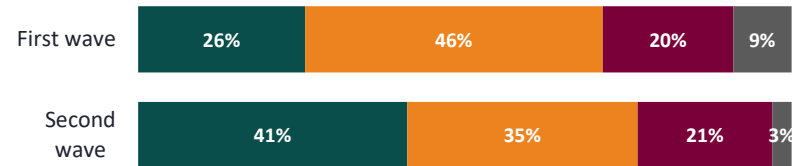
Note: The second wave (2025) had fewer survey respondents, but included more qualitative comments, showing higher union interest and activity.

Perceived bargaining practice and bargaining needs on specific AI/AM tools

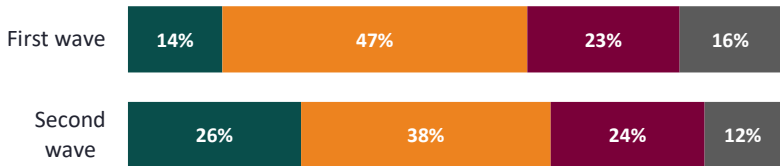
Fig. 5

Q11. Please share your opinion on AI tools used for worker surveillance and in other cases in your collective bargaining.

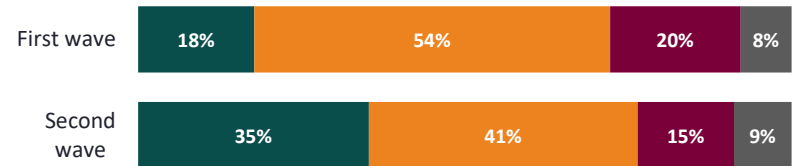
Software to track physical or digital worker activity



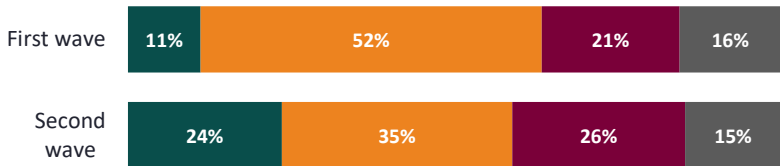
Voice analytics (e.g. in contact centres)



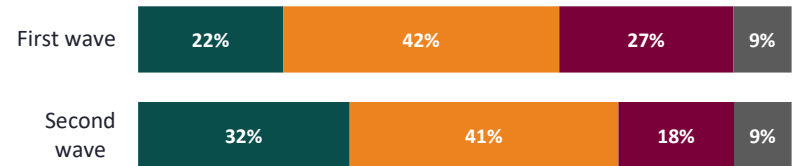
Wearables/devices using sensors to collect information



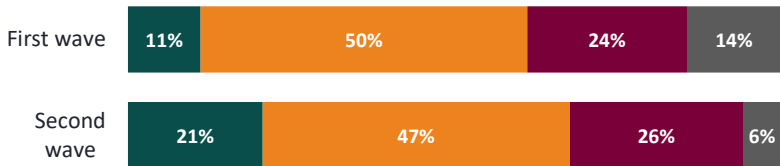
AI systems for language or visual recognition & processing



Access to employee emails and messages



Systems to generate automatic responses (e.g. chatbots)



■ We bargain on this topic
■ We do not bargain and do not wish to

■ We do not bargain but wish to do so
■ Don't know

▶ **Key finding**

Between 2023 and 2025 the dark-green ('we bargain') and orange ('we wish to bargain') bars grow

→ **increased bargaining activity and preference to bargain**

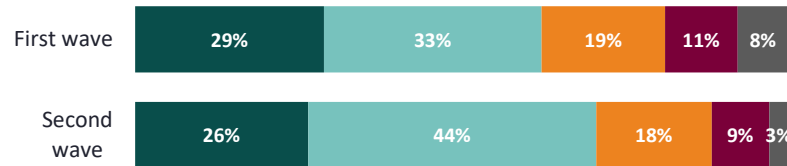
Source: UNI Europa/CELSI online survey, 2025 N=34; 2023 N=90

Relevance and initiation of bargaining topics

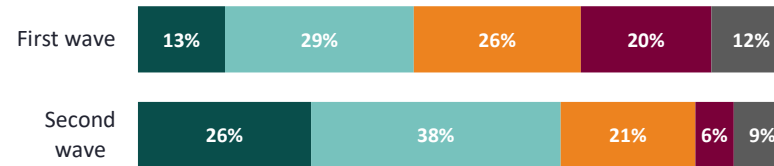
Fig. 1

Q7. Please express your opinion on the following statements.

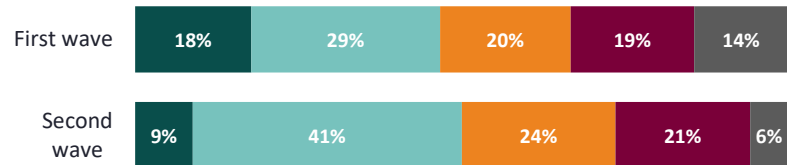
For our union, the use of AI systems is a relevant topic in CB



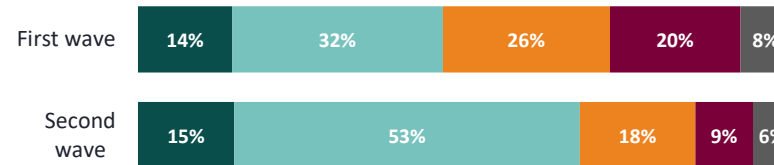
Our trade union conducts bargaining on themes related to AI



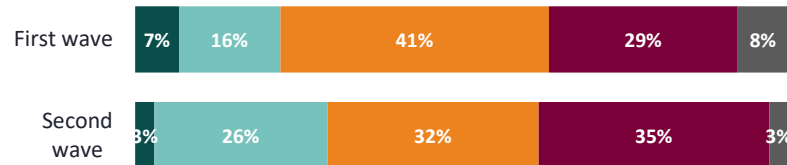
For the employer(s) with whom we bargain, AI is a relevant topic in CB



Our trade union initiated AI-related topics in CB



The employer(s) who is/are our bargaining partner(s) initiated AI-related topics in CB



Strongly agree
 Agree
 Disagree
 Strongly disagree
 Don't know

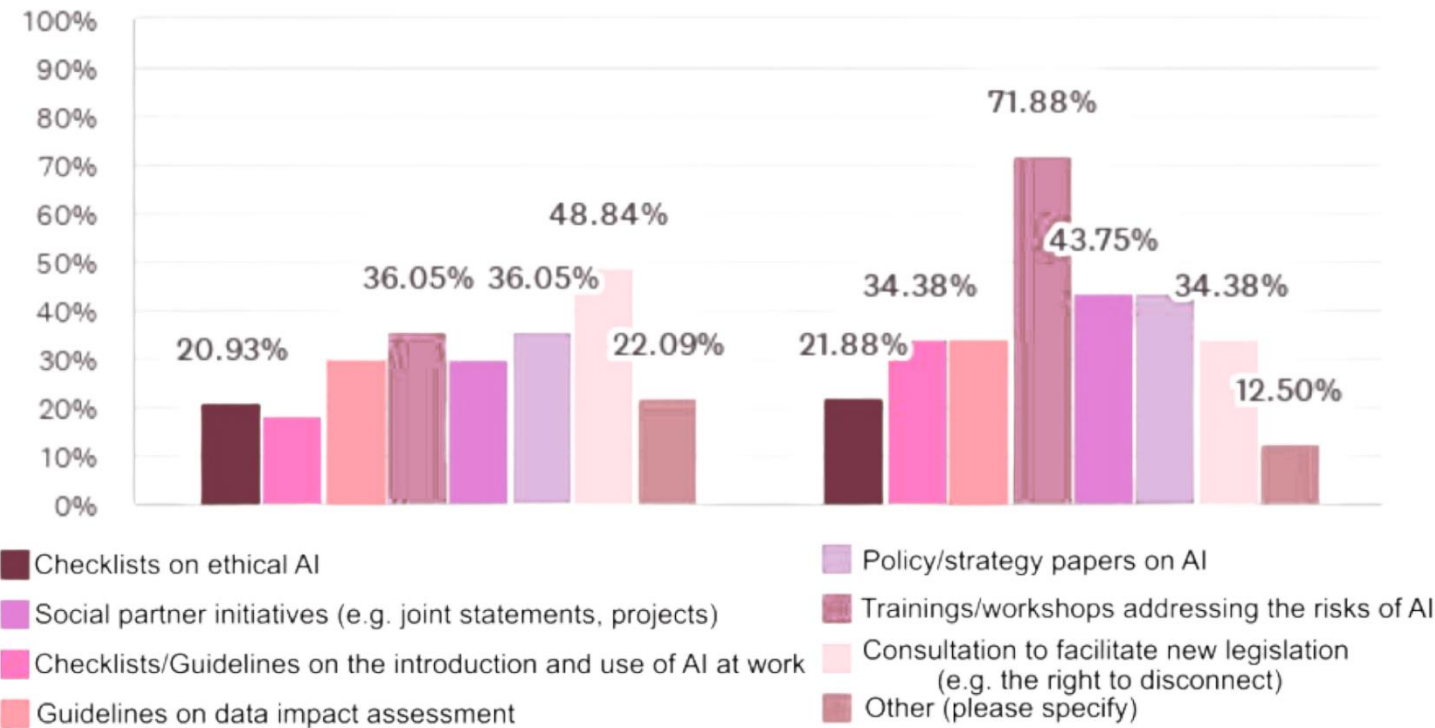
- Unions perceive that negotiating about the use of AI is also relevant for employers (slight increase)
- **Significant rise** in the share of unions that already bargain on AI-related topics
- Unions initiate AI-related bargaining topics more often than two years ago
- Initiatives by employers on AI-related bargaining: slight increase, but much lower scope than union initiatives (bottom chart)

Figure 1: Perceived relevance of AI systems. Source: UNI Europa/CELSI online survey, 2025 N=34; 2023 N=90

Beyond collective bargaining

Fig. 11

Q25. Except collective bargaining, what tools and measures does your trade union use to raise awareness and train members about AI, and to minimise the risks related to AI usage? Select all that apply.



► **Increase**

in training measures, social dialogue discussions, and checklists/guidelines on the use of AI at work

► **Decrease**

in consultations related to legislation (right to disconnect)

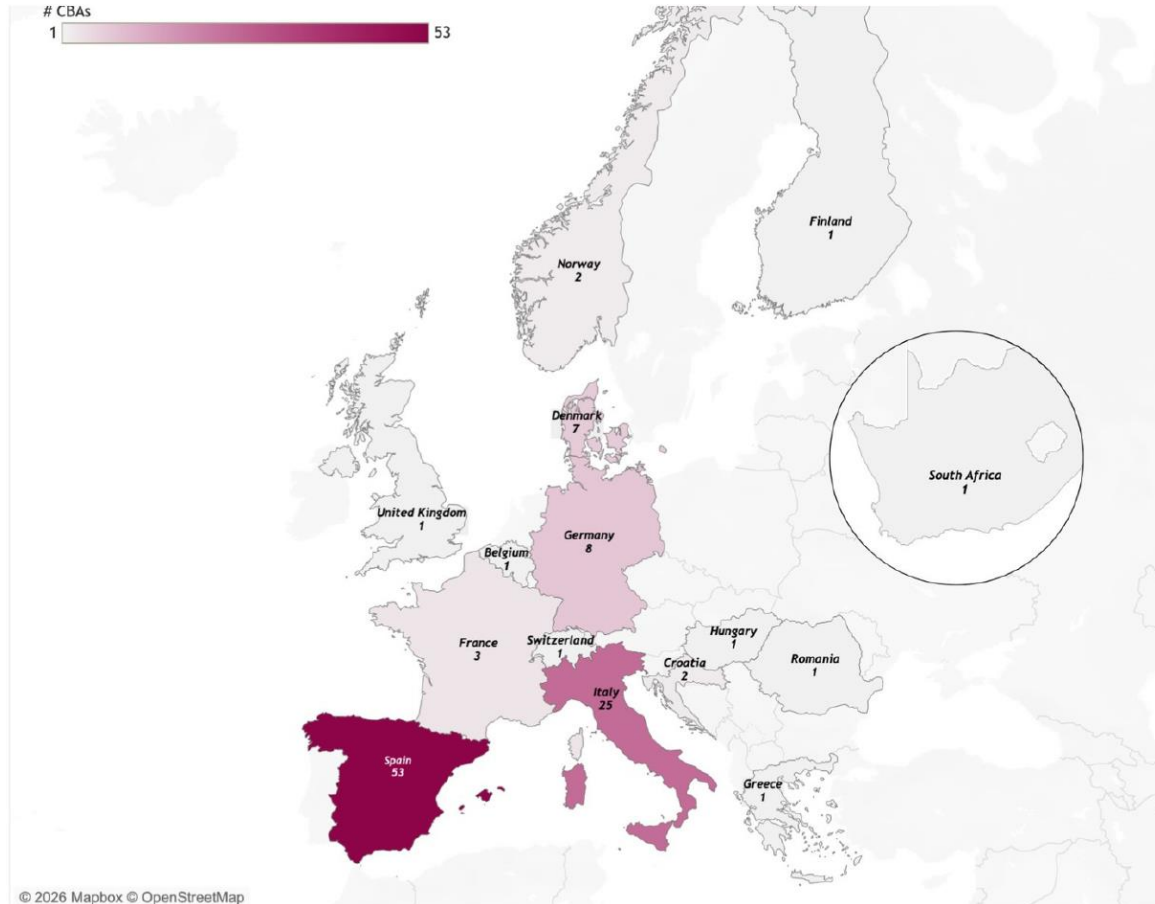
► **Shift**

of action to bipartite negotiations and bargaining, away from legislation

Left group: first wave (2023); right group: second wave (2025). Source: UNI Europa/CELSI online survey.

Analysis of collective agreements – country scope

Fig. 12



Number of CBAs referring to the introduction of AI and/or AM at work. Source: WageIndicator Collective Agreements Database, January 2026. N=108.

53 of 108 CBAs come from Spain

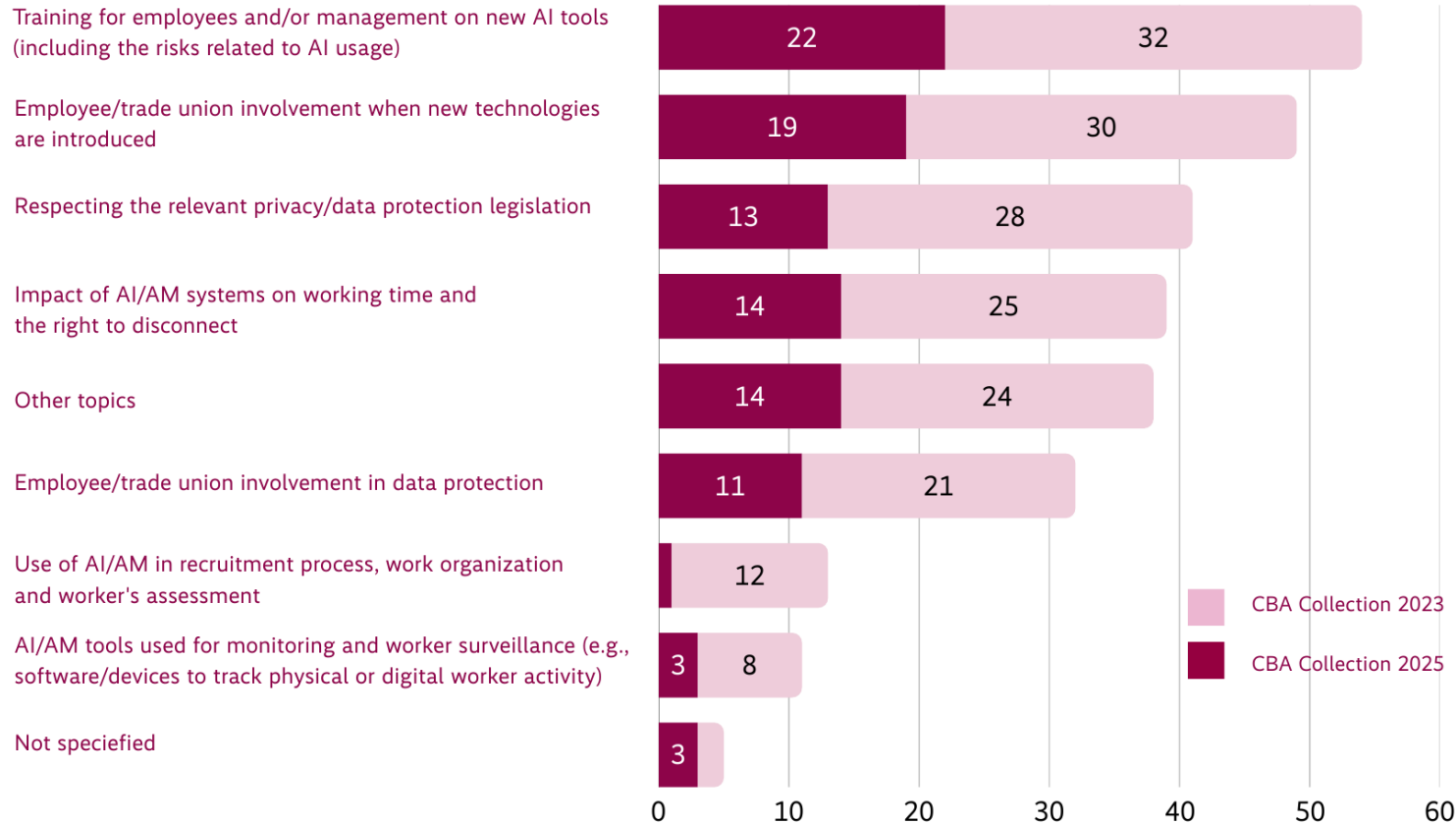
The high prevalence of Spanish collective agreements: the major trade unions UGT and CCOO signed an agreement in 2023 in which they commit to have AI-related clauses in all their CBAs.

► Best practice

To be followed in other countries in the framework of the development and regulation of AI/AM in collective agreements.

Topics covered in CBAs – change since 2023

Fig. 19



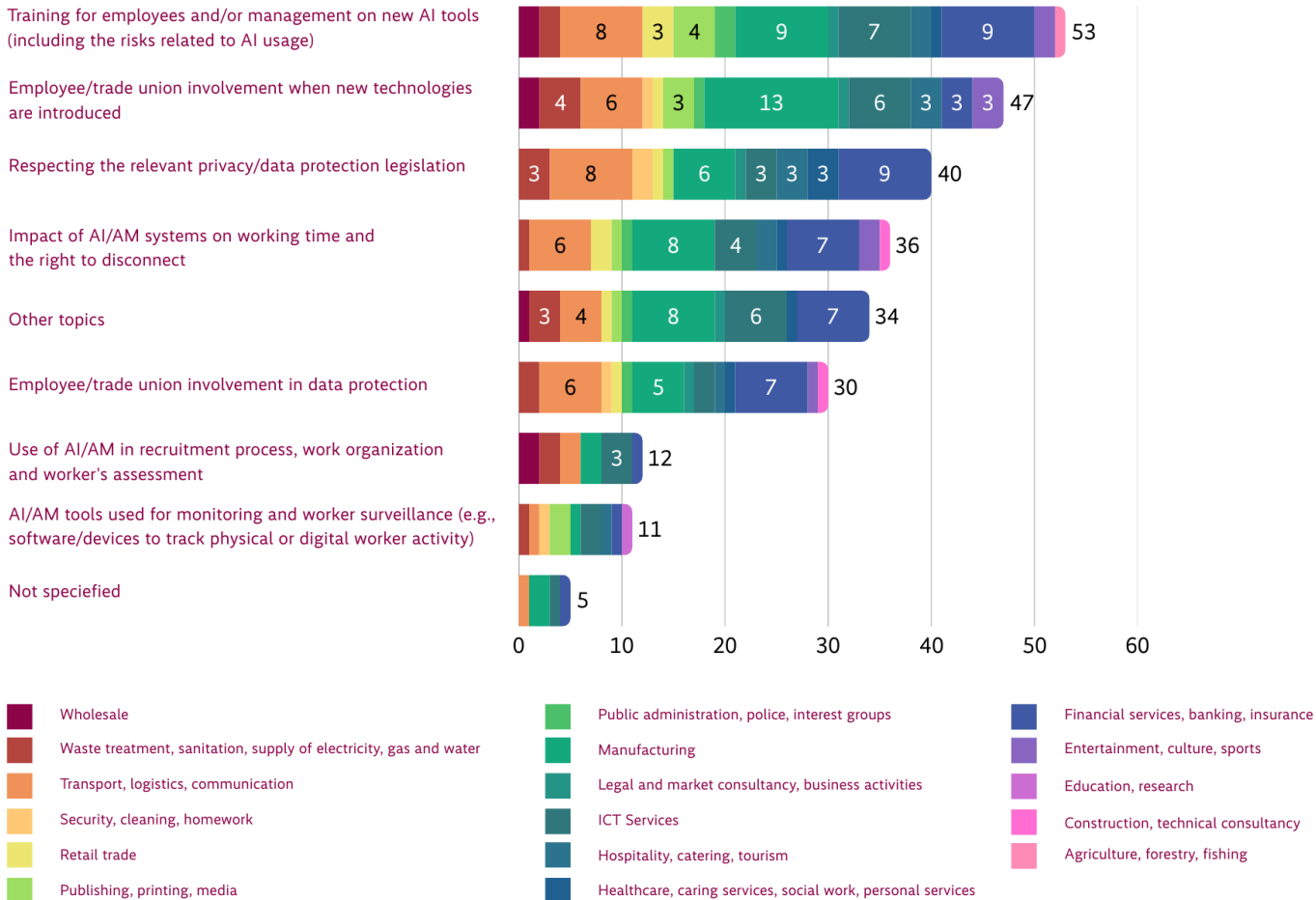
- **Training on AI tools, worker involvement, privacy protection and working-time impacts** remain the most common topics across both collections
- Differences between the two bars mainly reflect which CBAs were captured in each collection cycle, rather than shifts in actual bargaining priorities

More CBAs deal with the impact of AI on working time and data protection

Topics appearing in CBAs, two waves of data collection, 2023 and 2025. Source: WageIndicator Collective Agreements Database, January 2026. N=108.

Sectoral insight into topics covered in CBAs

Fig. 15



Sectors

Most CBAs with AI/AM regulation are in manufacturing, transport and financial services

Most regulated topics

Training on new AI tools; employee/union involvement when new technologies are introduced; respecting the relevant privacy/data protection legislation

In line with the survey findings

Source: WageIndicator Collective Agreements Database, January 2026. N=108.

Topics covered in CBAs by year of commencement

Table 4

	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Training for employees and/or management on new AI tools (incl. risks of AI usage)	1	1	1	2	6	5	10	14	6	8	
Employee/trade union involvement when new technologies are introduced		1	3	4	4	2	11	10	4	9	
Respecting the relevant privacy/data protection legislation			3	4	5	2	9	6	3	6	1
Impact of AI/AM systems on working time and the right to disconnect				3	3	4	4	9	8	6	1
Other topics			3	2	3	2	7	7	7	6	
Employee/trade union involvement in data protection			3	2	4	1	9	5	5	2	
Use of AI/AM in recruitment, work organisation and worker's assessment		1				1	2	3		5	
AI/AM tools used for monitoring and worker surveillance				1	2	2		5		1	
Not specified			1				1	2	1		

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CBAs commencing in 2023 include AI training clauses – the highest count in the table

► Pattern

- References rare before 2020, rising steadily from 2020
- 2022–2023: peak** for training, worker involvement and data protection

Years reflect when the CBAs in the sample commenced, not when bargaining on AI began

Number of agreements that include clauses on the relevant topics, by year the agreement commenced. Source: WageIndicator Collective Agreements Database, January 2026. N=108.

Conclusions

Collective bargaining is emerging as an essential regulatory tool on technological innovations

► Content of CBAs

CBAs increasingly address AI training, worker involvement, privacy and data protection, and working-time impacts

► Sectoral variation

Stronger bargaining activity in **manufacturing, ICT, finance, logistics**

► National variation by IR regime

Southern Statist (e.g. Spain, Italy) – widest and most sustained engagement

Western Social Partnership – structured but more selective engagement

Nordic – early attention to core themes; selective in 2025 (only Denmark)

Eastern Europe – targeted engagement, fewer topics

Anglo-Saxon / liberal (United Kingdom) – selective, decentralised approaches



Thank you for your attention!

Stay tuned....the full study to be published soon!

AI, Algorithmic Management and Collective Bargaining in European services: Fast track or slow lane? (Friedrich Ebert Stiftung, 2026)

<https://futureofwork.fes.de/collective-bargaining-on-ai.html>

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