STUDY



Marta Kahancová, Daryn Zholdasbay, Intan Citra Phonskaningtyas, Gabriele Medas, Tomáš Šarközi and Fiona Dragstra

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Artificial Intelligence, Algorithmic Management and Collective Bargaining in European Services

Fast track or slow lane?

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Issuing Department
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For more information about the Competence Centre on the Future of Work, please consult:
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Responsibility for Content and Editing
Oliver Philipp, Friedrich-Ebert-Stiftung
oliver.philipp@fes.de

Design/Layout
Fitria Purnamawati, WageIndicator Foundation
fitriapurnamawati@wageindicator.org

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LIST OF ABBREVIATIONS

AI	Artificial intelligence
AM	Algorithmic management
CB	Collective bargaining
CBA	Collective bargaining agreement
CV	Curriculum vitae
ETUC	European Trade Union Confederation
EU	European Union
GDPR	General Dara Protection Regulation
ICT	Information and communication technology
ICTS	Information and communication technology services
OECD	Organisation for Economic Co-operation and Development
PP	Percentage points
SD	Social Dialogue

Executive Summary

Artificial intelligence (AI) and algorithmic management (AM) tools are becoming increasingly visible in workplaces. Recent estimates suggest that around 80% of managers in Europe use AM tools in their firms. AI is commonly defined as a machine-based system capable of generating predictions, recommendations, or decisions with limited human input or oversight. Algorithmic management, in turn, refers to the use of algorithms to manage employees, often incorporating AI technologies to enable automated or semi-automated decision-making processes. While these technologies offer potential benefits for managers, helping them manage the workforce more effectively and increase productivity, they also pose some risks, such as increased stress resulting from constant monitoring as well as reduced worker autonomy.

Some of these risks are partially addressed by the AI Act; however, several authors and actors consider the existing regulatory framework insufficient. In this report, we argue that collective bargaining represents one potential tool with which to lay down rules to govern the use of these technologies in the workplace. The report draws on an original survey of 195 trade union representatives affiliated with UNI Europa across 43 countries in two waves (2023, 2025), as well as an analysis of 108 collective agreements that already contain provisions related to the use of AI. In addition, desk research was conducted to assess the current regulatory and industrial relations landscape.

The main findings are as follows:

- Desk research indicates that AI and AM are spreading faster than regulatory frameworks, creating a governance gap. These technologies offer both advantages and disadvantages across four key dimensions: working conditions, data protection and privacy, fairness and discrimination, and workers' collective rights. Experimental evidence suggests that consultations among workers, managers, and works councils during the design of these tools can improve job quality while maintaining productivity.
- Survey results show increasing engagement in AI/AM-related negotiations: 65% of respondents in 2025 confirmed this, up from 42% in 2023. The share of collective agreements with AI/AM provisions rose from 20% to 38%. Beyond formal bargaining, unions are increasingly relying on initiatives such as training and workshops (72% in 2025, up from 36% in 2023), as well as policy strategy papers and joint social partner initiatives (44%) centred on AI/AM.
- Respondents also identified potential obstacles to engagement, including employer resistance, low perceived urgency, limited knowledge, and reliance on existing legislation. Many employers consider current labour and data protection laws sufficient or believe AI is evolving too rapidly to regulate. Knowledge gaps, legal uncertainty, and concerns about misuse further constrain unions' bargaining capacity.
- Analysis of collective agreements shows that Spain, Italy, Germany, and Denmark display the broadest thematic and sectoral coverage, particularly in manufacturing, ICT, finance, consultancy, and logistics. Core topics include AI training, worker involvement, privacy protection, and working-time impacts, while AI-based recruitment and monitoring remain less frequently regulated. These findings align closely with survey results, where privacy, data protection, and restrictions on data sharing remain the most common bargaining areas, while recruitment topics have received less attention so far.

Introduction

The use of artificial intelligence and algorithmic management systems in the workplace has expanded rapidly over the past two years. Algorithmic management (AM) refers to a **range of technological tools used to manage the workforce through data collection and worker monitoring.** These tools enable automated or semi-automated decision-making processes. In many cases, AM involves the use of artificial intelligence (AI), i.e. machine-based systems that make predictions, recommendations, or decisions with limited human input or oversight..

Organisations across sectors, especially in services, are increasingly adopting digital tools for monitoring, evaluating, scheduling, and coordinating work. These developments have accelerated debates on worker rights, data protection, transparency, and the evolving role of collective bargaining in establishing rules and guidelines for technologically mediated work relations.

Definitions of AI and AM vary significantly. A widely used operational definition describes AI as **any machine-based system capable of generating predictions, recommendations, or decisions with limited human input or oversight.** The High-Level Expert Group on Artificial Intelligence offers a more elaborate conceptualisation, framing AI systems as software or hardware that perceive their environment, interpret and process structured or unstructured data, reason on this basis, and autonomously determine actions to achieve a given goal. In practice, however, many workplace systems labelled as "AI" are more accurately characterised as algorithmic management: rule-based or data-driven management techniques that automate or semi-automate aspects of supervision and decision-making.

Regardless of terminology, AI and AM raise significant concerns for workers, trade unions, and stakeholders interested in laying down rules and guidelines for this field. These technologies may enable intrusive surveillance of personal data, exacerbate information asymmetries, intensify workloads, and influence operational decisions, such as performance management, remuneration, task allocation, and even hiring and dismissal, often through opaque, non-explainable "black box" models. Recent policy developments, including the adoption of the EU AI Act and strengthened data-protection enforcement, have intensified the need to understand how social partners can respond to these challenges.

This report is part of an effort by the Friedrich Ebert Stiftung (FES) Competence Centre on the Future of Work and UNI Europa to explore the growing significance of AI and AM for European workers. It updates the **first report** in this ongoing study by Brunnerová et al. (2024) and constitutes the second wave of the same research project. As the survey questions remained unchanged and additional collective agreements containing AI and AM-related provisions were included, the findings can be directly compared with the 2024 results and help trace how unions' approaches to AI and AM-related issues are evolving. Building on prior findings, the study makes a twofold contribution:

- **It describes the current situation and emerging trends in collective bargaining relating to the use of AI and AM**, based on survey data from UNI Europa affiliates. The findings document current experience with AI/AM systems in the workplace, perceptions of associated risks and opportunities, and expectations regarding future bargaining strategies.
- **It analyses a set of 108 collective agreements containing AI/AM-related provisions**, identifying innovative clauses and good practices that can support unions across Europe in developing their own bargaining positions. These agreements include stipulations on data protection, digital surveillance, algorithmic decision-making, automated scheduling, and the introduction of new technologies.

The study draws on three methodological components: updated desk research, a survey conducted among UNI Europa affiliates, and detailed content analysis of collective agreements with AI/AM-relevant clauses. Together, these elements contribute to an expanding database of global collective agreements and provide unions with accessible examples of bargaining approaches in different service sectors.

The report is structured as follows. Chapter 1 reviews the recent literature on how collective bargaining processes are onboarding regulations related to the use of AI and AM. Chapter 2 presents the survey findings on the actual bargaining practices on AI and AM-related issues, and the relevance of AI for bargaining agendas. Chapter 3 analyses the content of existing collective agreements containing AI-related stipulations. Chapter 4 concludes by summarising key trends, emerging good practices, and lessons for future bargaining strategies in a rapidly evolving technological and regulatory environment.

1.
Current knowledge on AI and AM in collective bargaining

The nature of work in Europe is changing rapidly as AI and AM systems become increasingly embedded in organisational processes. These technologies are attracting growing public, academic, and policy attention, as their deployment has direct implications for workers, enterprises, and social dialogue. From the perspective of the European Trade Union Confederation (ETUC), the impacts of AI and AM are neither inherently positive nor negative; instead, they depend entirely on how these systems are designed, governed, and implemented (ETUC, 2025). While AI can improve productivity, decision-making, and efficiency, it can also undermine job quality and workers' well-being if applied without adequate safeguards (Milanez et al., 2025; European Commission, 2025).

To better understand the scale of this transformation, it is useful to look at recent data. According to the 2025 OECD report, 79% of European mid-level managers have adopted algorithmic management tools (Milanez et al., 2025). If we compare this with the 2020 Eurofound data, it is estimated that 51% of employers used data analytics and only 27% used it for monitoring employee performance (Riso, 2020). However, 67% of employers now report using at least one form of a monitoring tool (Milanez et al., 2025).

The growing adoption of AI and AM tools is largely driven by the value they offer for enterprises, particularly in terms of efficiency, decision-making, and productivity. At the same time, their use raises important questions about job quality, privacy, fairness, and collective rights.

1.1 Effects of AI across four dimensions of the European Commission

Following the framework proposed in a 2025 European Commission study, this section examines these effects across four dimensions: working conditions, data protection and privacy, fairness and discrimination, and workers' collective rights (European Commission, 2025).

▶ Working conditions

AM tools can heighten efficiency, improve task allocation, and support managerial decision-making. The 2025 OECD survey found that 60% of mid-level managers experienced improvements due to greater information availability, faster decision-making, and reduced administrative burdens. Many also reported greater job satisfaction, attributing this to reduced repetitive work (Milanez et al., 2025). The European Commission (2025) report highlights further potential benefits, including enhanced safety through hazard detection and ergonomic risk identification.

However, these advantages are accompanied by significant risks. Studies by Cox & Oosterwijk (2024) and Jensen et al. (2024) document negative outcomes such as:

- reduced autonomy and intensified workloads,
- deskilling and job displacement,
- decreased social interaction,
- lower motivation and job satisfaction,
- increased stress and insecurity.

Moreover, constant surveillance, boundary-crossing data collection, and opaque decision-making can amplify both psychological strain and workplace inequalities (ibid.).

▶ Data protection and privacy

AI and AM systems rely heavily on data, which creates acute privacy risks. When implemented without transparency or adequate safeguards, AM tools may violate workers' privacy, blur the boundary between working time and private life, and/or erode trust (European Commission, 2025; De Stefano & Taes, 2023). Evidence from Sweden and Finland indicates problematic data-handling practices (Cox & Oosterwijk, 2024). These concerns persist because many AI-driven tools function as "black boxes", making it difficult for workers, or even employers, to understand or challenge the logic of decisions (ibid.).

Fairness and discrimination

AM can help reduce some forms of managerial bias, improve transparency, and support equitable access to career development (European Commission, 2025). Nonetheless, automated systems may reproduce or exacerbate discrimination based on gender, age, ethnicity, or socioeconomic background (ibid.). Even among managers who reported benefits from AM, nearly two-thirds expressed reservations about the trustworthiness of the tools they use (Milanez et al., 2025). This reflects a careful approach vis-à-vis algorithmic models, and the difficulty workers may face in contesting automated decisions.

Workers' collective rights

Algorithmic systems can also support workers' rights, e.g., by enabling wage transparency and improving communication channels (European Commission, 2025). Yet they also risk undermining collective freedoms if used to monitor union activities, analyse organising patterns, or influence bargaining strategies through sophisticated data analytics (ibid.). Research from Norway shows that the complexity of these technologies often limits union representatives' influence over their design and use, thereby weakening worker participation (Kuldova and Rudningen, 2024).

1.2 Regulatory landscape: strengths and remaining gaps

The European Commission's 2025 review stresses that while existing EU legislation, especially the GDPR, provides important safeguards, significant gaps remain. The general data protection framework applies to many AM functions, but does not explicitly regulate algorithmic management. Enforcement is inconsistent, particularly concerning GDPR Articles 13, 14, and 22, which govern transparency and automated decision-making (Cox and Oosterwijk, 2024). These authors also call for complementary legislation to cover collective data rights, which remain largely unprotected.

The EU AI Act introduces new obligations for high-risk AI applications, including those used in employment. Although this represents progress, scholars such as Domínguez de Olazábal (2025) and Yusifli (2025) note that the Act does not fully address structural power imbalances, nor does it provide workers with strong rights to contest algorithmic decisions.

Potential loopholes may arise from ambiguous definitions or the difficulty of assessing complex technical systems (Yusifli, 2025). In this context, the Platform Work Directive is often seen as providing stronger protections for workers, although its provisions apply only to platform workers (ETUC, 2025; Minotakis, 2025). By contrast, the Digital Omnibus has been received negatively by trade unions, who believe it can potentially weaken existing digital and labour protections (ETUC, 2026).

The ETUC has criticised the European Commission's 2025 decision to withdraw the AI Liability Directive, which would have strengthened employer accountability for AI-related harm (ETUC, 2025). The ETUC also identifies other regulatory priorities, including global digital value chains, environmental impacts, monopolistic AI markets, copyright considerations, and European technological sovereignty (ibid.).

To sum up, existing research shows that AI and AM systems are transforming European workplaces faster than the regulatory system can adequately respond. While these technologies may improve efficiency and support workplace decision-making, they could also create risks for working conditions, privacy, fairness, and collective rights. As the regulatory environment for AI and AM continues to evolve but remains incomplete, stronger governance is needed, leaving space for other mechanisms to complement legal regulation.

In this context, collective bargaining can help shape workplace rules on the use of AI and AM. Evidence suggests that consultations involving workers, managers, and works councils can preserve productivity while improving job quality (Milanez, 2025). Through negotiated clauses on data protection, transparency, surveillance limits, automated decision-making, and the introduction of new technologies, collective agreements can complement legislation and help address regulatory gaps at the workplace level.

Building on this background, the study examines two waves of a cross-country survey of UNI Europa affiliates (first wave 2023, second wave 2025) and analyses existing collective agreements that contain AI/AM-related provisions (a total of 108 agreements collected in 2025).

2.
Collective bargaining on AI-related topics: survey findings

The second wave of the online Survey on collective bargaining relating to AI/AM was designed to mirror the first survey after a period of two years. All questions and answer options remained unchanged, as the primary objective was to capture changes in these topics over the two-year period. The survey targeted trade union officials and delegates who are directly involved in collective bargaining or possess substantial knowledge of collective agreements within UNI Europa affiliates. Its purpose was to examine the perceived importance of AI in bargaining processes, determine whether existing CBAs include AI-related clauses, and, wherever applicable, understand the reasons for their absence. In addition, the survey aimed to map other tools and practices addressing AI above and beyond collective agreements. The survey was not anonymised, allowing the authors to attribute responses to specific unions and better understand their perspectives and experiences with AI-related bargaining.

To maximise data collection, the survey was provided in six languages: English, Romanian, Italian, German, Spanish, and French. UNI Europa representatives distributed the survey link to affiliates in 43 countries across the EU and neighbouring regions, supported by repeated reminders encouraging participation. The survey primarily focused on the service sector, particularly agency work, care, cleaning and security, commerce, finance, ICT services, media and entertainment and gaming, post and logistics, and tourism.

The first wave of data was collected between May 2023 and September 2023, while the second wave covered the period from 5 September 2025 – 3 November 2025. The first wave resulted in 148 responses from trade unionists across 32 countries. The countries with the greatest representation in the sample were France (14%), Belgium (13%), Denmark (6%), Italy (6%), and Norway (6%). Responses from other countries each accounted for less than 6%.

The second wave was implemented between September 2025 and November 2025, generating 47 responses from 20 countries. The countries with the greatest representation were France (11%), Spain (11%), and Norway (11%). Finland, Italy, and Slovakia each accounted for 9% of the sample. Responses from other countries each accounted for less than 6%.

As for the positions of the trade unionists participating in the survey in two waves, some shifts in respondents' positions could be observed. The smallest change was an increase in the share of national trade union officers, rising by 4pp from 49% to 53%. The representation of sectoral officers increased more noticeably, by 6pp from 28% to 34%. The most substantial shift occurred among local or regional officers, whose share decreased from 13% by 11pp, dropping to just 2%. Company shop stewards or delegates remained the least represented group, maintaining the same share as the first wave at 11%.

Regarding respondents' involvement in collective bargaining, the second wave shows a shift in this distribution. The share of respondents directly negotiating collective agreements decreased by 14pp from 71% to 57%. Conversely, the proportion of those informed (22% first wave) but not directly involved increased by 10pp to 32%. Respondents with no involvement in bargaining remained roughly the same (around 2%). The remaining respondents who selected the option "Other" were members of broader bargaining teams or advisors.

The change in sectoral representation between the waves was not substantial. After re-categorising the open questions, the sectors with the greatest representation in the second wave remained largely the same as in the first wave: the ICTS sector, finance, post and logistics, commerce, and media. Only the ICTS sector saw a substantial increase of 10pp, while representation of other sectors decreased slightly to roughly the representation level of the first wave. In the first wave, the "Other" category included sectors not typically covered by UNI Europa, such as metallurgy and the public sector. In the second wave, this category mainly comprised private sector or broader multi-sector representation.

2.1 Perceived relevance of AI-related themes in collective bargaining

The survey opened with a question regarding the perceived relevance of AI systems for collective bargaining. In the first wave, 62% of respondents indicated that AI systems were relevant in their collective agreements; this rose by 9 pp to 71% in the second wave. However, the largest increases occurred in the share of respondents actively conducting bargaining on AI-related issues, which grew from 42% to 65% (+23 pp), followed by trade unions addressing AI topics themselves, rising from 47% to 68% (+21 pp).

Cases where employers took the initiative increased from 22% to 29% (+7 pp), while AI relevance for employers grew slightly from 47% to 50% (+3 pp) (see Figure 1). This evidence shows that the relevance of AI topics in collective bargaining grew over the two-year period, particularly for trade unions and, to a lesser extent, for employers.

Fig. 1

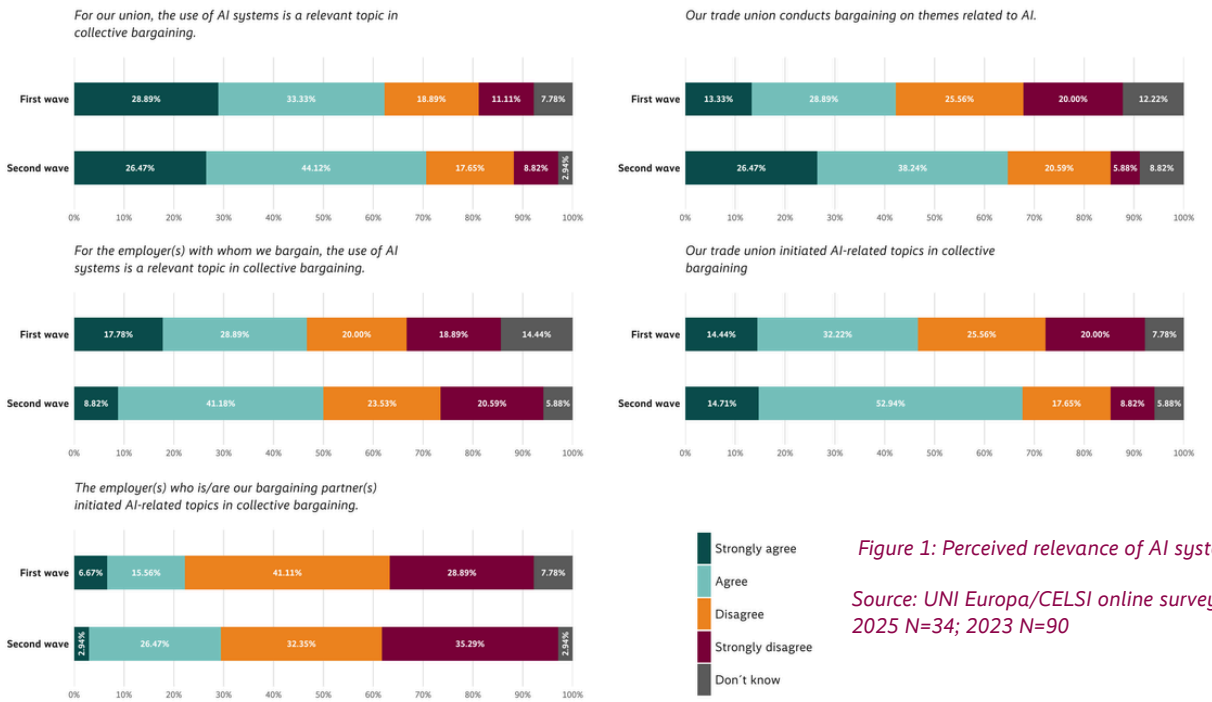


Figure 1: Perceived relevance of AI systems

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

2.2 Topics covered in AI-related collective bargaining

The survey's goal was to capture the most relevant themes in AI-related collective bargaining. These themes were divided into specific categories, including topics related to the number and quality of jobs and training needs, TU rights concerning AI tools, the recruitment process, worker surveillance, and data protection. For each topic, respondents were asked to indicate the extent to which it was part of their bargaining agenda by choosing whether they are bargaining on the issue at present, are not bargaining on it but would like to do so, or are neither bargaining on it nor wish to include it in future negotiations.

Among respondents w**ho are already bargaining on AI-related issues** (see Figure 2), all categories showed some increase in perceived impact. Notable rises include working time (the right to disconnect), which grew from 27% to 41% (+14pp), and staff training on new AI tools, which increased from 22% to 44% (+22pp). Other categories saw smaller growth, generally under 10pp.

For respondents who are not bargaining at present but wish to do so, decreases can be observed, reflecting a shift of some unions toward active bargaining. Perceived impact on staff training in new AI tools dropped from 60% to 41% (−19pp), and training for management fell from 59% to 41% (−18pp). Other categories remained approximately the same.

Trade unions that **are not bargaining on AI and do not wish to** display a different pattern. All categories decreased in the second wave, indicating that unions started to perceive them as more relevant. One exception is training for management, which rose from 14% to 18% (+4pp) (see Figure 2).

Fig. 2

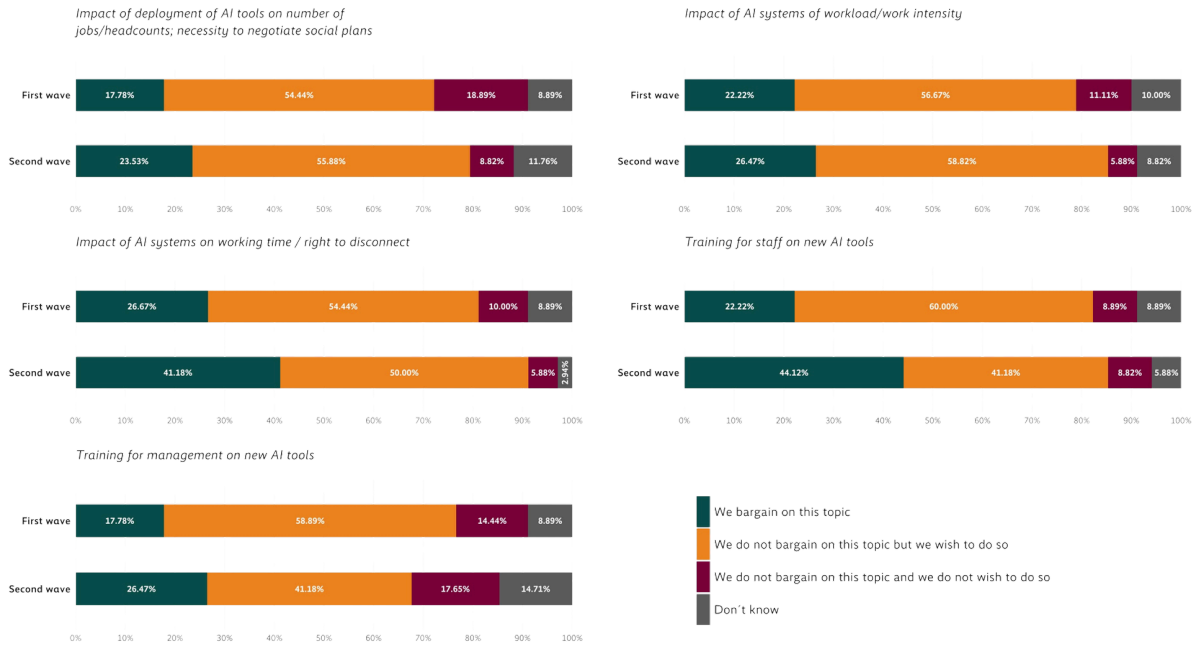


Figure 2: Relevant themes in collective bargaining in AI/AM related topics

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

When we consider topics related to the **impact of AI on union rights**, we can observe a clear increase in bargaining activity in the second wave compared to the first. Among respondents **who are already bargaining on these topics,** the most notable increases are the right to information before implementation, which rose from 23% to 38% (+15pp), and the right to repeal a decision based on automated decision-making, increasing from 13% to 26% (+13pp). The only exception is trade union involvement in data protection and impact assessments, which decreased slightly from 33% to 29% (–4pp).

Among respondents who are not bargaining and do not wish to, a general decline can be observed across almost all categories, indicating that trade unions are increasingly engaging with these topics. The most notable decrease is in involvement in data protection and impact assessment, which fell from 11% to 3% (–8pp) (see Figure 3).

For respondents **who wish to bargain on AI-related topics,** trends are more mixed. The decrease in bargaining on trade union involvement in data protection and impact assessments can be explained by the corresponding rise in the desire to bargain (+11pp, from 48% to 59%). Similarly, a substantial decrease in the desire to bargain can be observed on the right to repeal a decision based on automated decision-making, dropping from 68% to 50% (–18pp), reflecting the earlier point that many unions have already started actively bargaining on this issue.

Fig. 3

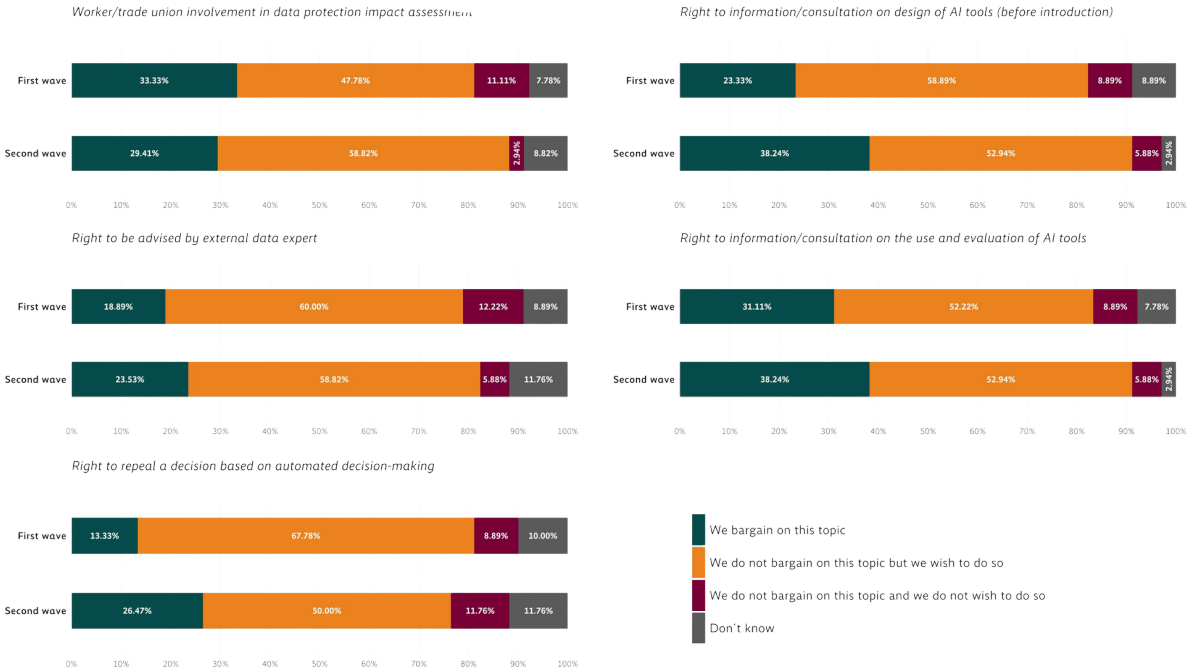


Figure 3: Opinions on trade union rights related to AI in collective bargaining
Source: UNI Europa/CELSI online survey, 2025 N=34; 2023 N=90.

The next set of topics concerns the use of AI in recruitment, work organisation, and worker assessment within collective bargaining processes. Among respondents who are already bargaining on these issues, the second wave shows mixed trends. Several areas experienced increases: scheduling work shifts rose from 23% to 29% (+6pp), team task allocation increased from 14% to 21% (+7pp), and automated CV screening or job interviews grew from 8% to 15% (+7pp). However, other categories declined—some quite significantly. Automated worker assessments based on performance targets dropped from 22% to 12% (−10pp), and assessments based on customer ratings fell from 16% to 6% (−10pp).

Among respondents who do not currently bargain but wish to do so, all topics show decreases in the second wave, some of them substantial. For instance, automated background checks declined from 59% to 41% (−18pp), and scheduling work shifts fell from 49% to 35% (−14pp). Other categories show decreases in the range of approximately 4–10pp.

These downward trends may be partly explained by a significant rise in the share of respondents selecting "I don't know" in the second wave. This response option tallied about 18–24% across categories, compared with only 9–14% in the first wave. This suggests greater uncertainty or limited awareness of second wave respondents in these specific areas (see Figure 4).

Fig. 4

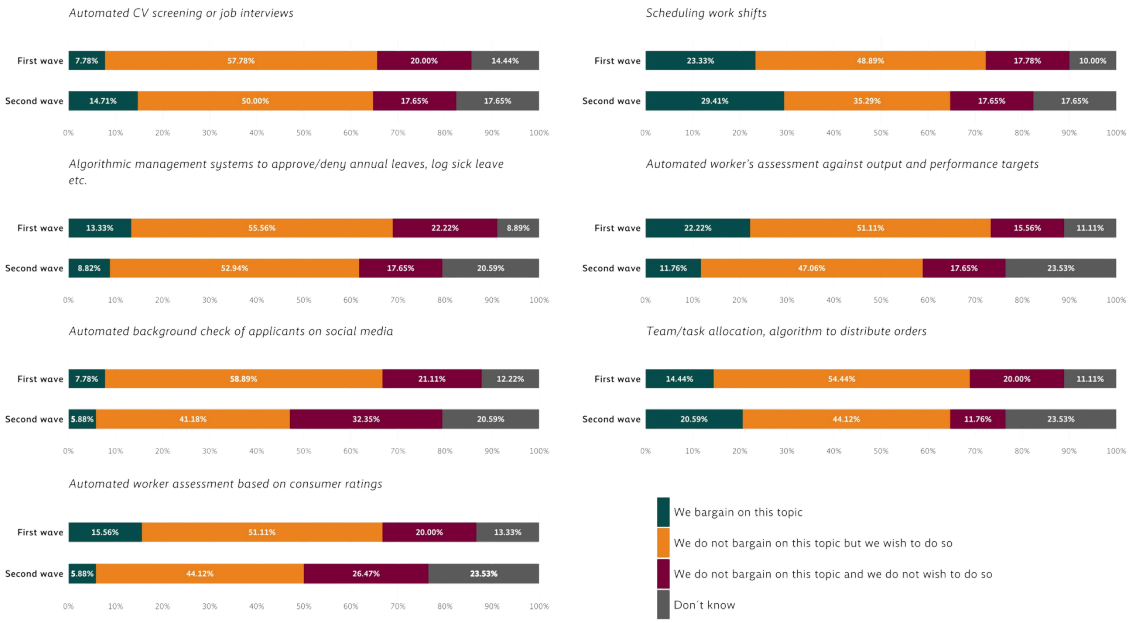


Figure 4: Perceptions on collective bargaining regarding the use of AI in the recruitment process, work organisation and workers' assessment

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

Scrutinising the perceived bargaining practice regarding the use of AI tools for workers' surveillance within collective bargaining, the responses collected in the second wave show an upward trend among respondents who already bargain on these topics. All categories are subject to bargaining more often than in the first wave.

The most significant increases were recorded for wearables or sensor-based devices, which rose from 18% to 35% (+17pp), and software used to track physical or digital worker activity, which increased from 26% to 41% (+15pp). Other categories also experienced notable growth, generally ranging between +10pp and +13pp.

For respondents who wish to bargain on these topics, the trend is moving in the opposite direction: all categories decreased in the second wave, which is consistent with the overall rise in active bargaining. Among respondents who do not bargain and do not wish to bargain, the results remain relatively stable across both waves (see Figure 5).

Fig. 5

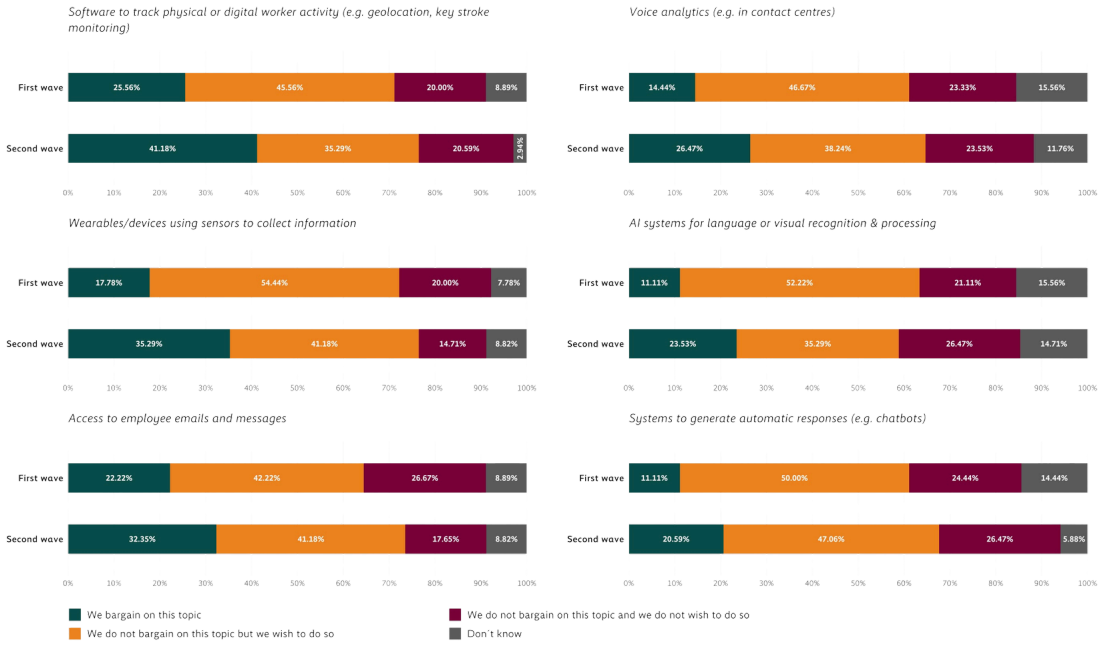


Figure 5: Perceived bargaining practice and bargaining needs on specific AI tools

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

The final set of survey questions examined respondents' perceptions regarding topics related to data protection in collective bargaining. The results show a mixed pattern between the two survey waves. Among respondents who already bargain on these issues, the most notable increases were observed in respecting relevant privacy and data-protection legislation, which rose from 43% to 59% (+16pp), and in restrictions on sharing workers' personal data, which increased from 39% to 53% (+14pp). The remaining categories experienced only minor decreases.

The analysis of answers by respondents **who indicated their wish to bargain on these topics** reveals a trend closely aligned with the dynamics of actual bargaining: as active bargaining increases, the desire to bargain tends to decrease, and vice versa. For example, the topic *collecting, processing, storing, and using workers' personal data* decreased by 6pp in the already-bargaining group (from 41% to 35%), but increased by 9pp in the wish-to-bargain group (from 38% to 47%).

Finally, perceptions of respondents **who are not bargaining and do not wish to bargain** show a consistent trend: the average share decreased substantially, from around 14% in the first wave to approximately 6% in the second wave. This decline indicates a growing interest among trade unions in addressing data protection issues (see Figure 6).

Fig. 6



Figure 6: Perceptions on themes related to data protection as subject to collective bargaining

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

To conclude, across all categories of AI tools, we can observe an overall increase in bargaining in the second wave, apart from topics related to recruitment. In this area, most respondents selected "I don't know," suggesting they may not have been fully aware of these issues.

2.3 Relevance of particular AI-related topics in collective bargaining

Combining all topics covered in Q8–Q12 and comparing the categories “we bargain,” “we wish to bargain,” and “we do not wish to bargain,” we can identify clear dynamics in how relevant different AI-related topics are for respondents. Although the 2025 survey included almost three times fewer respondents than the first wave (34 compared with 90), the number of selected categories under “we are bargaining on this topic” was only about two times lower (258 compared with 519). Since respondents could select multiple categories, this suggests that second-wave respondents reported bargaining on a wider range of topics on average.

Across both data collection waves, the most frequently bargained topics include respecting relevant privacy and data-protection legislation and restrictions on sharing workers’ personal data, confirming that privacy-related issues are the most established area of negotiation. By contrast, the least bargained topic continues to be automated background checks of applicants’ social media (see Figure 7).

Fig. 7

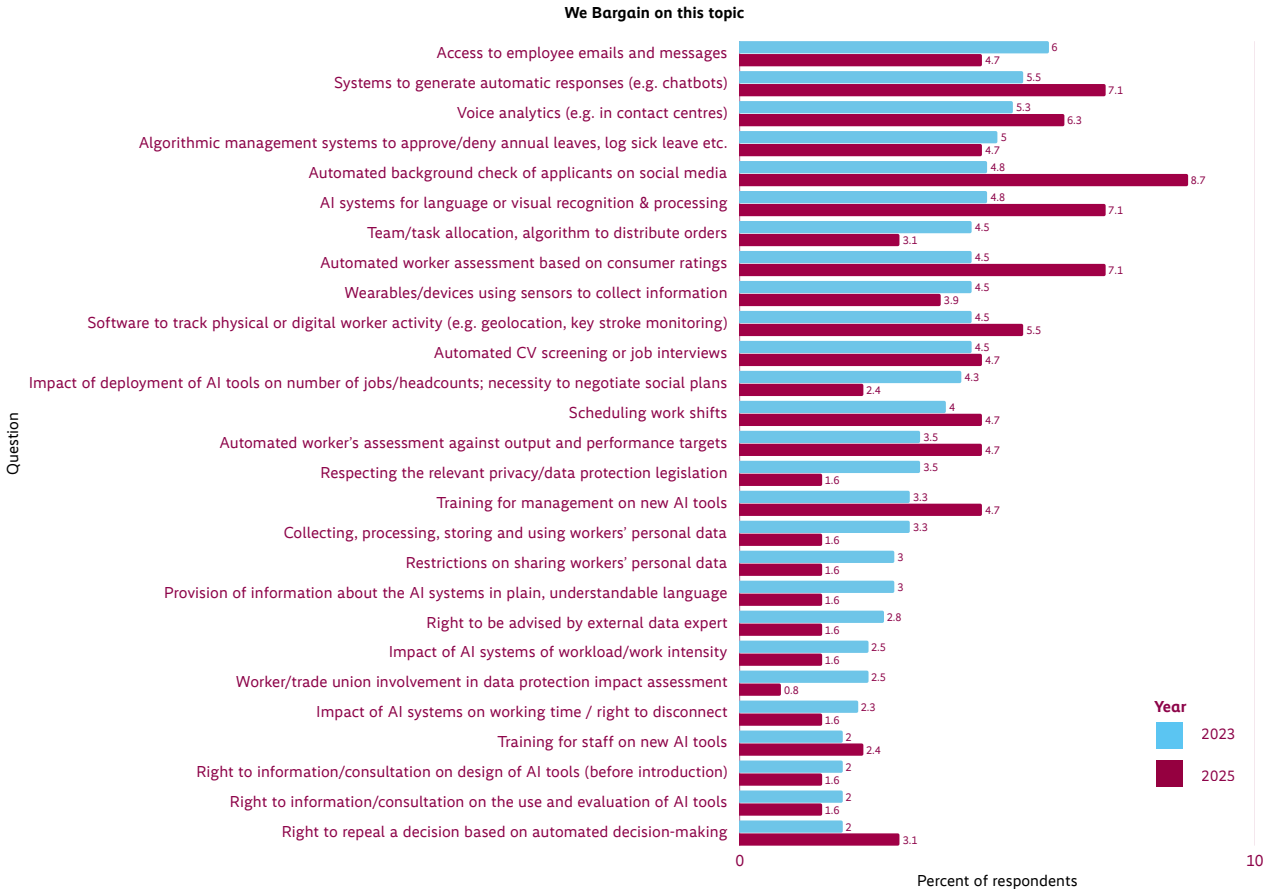


Figure 7: AI/AM related topics subject to collective bargaining

Source: UNI Europa/CELSI online survey, 2025 N=519; 2023 N=258. N refers to the number of responses, not the number of respondents. Multiple responses were enabled in both waves.

The second category, which focuses on topics respondents wish to bargain, remains largely unchanged across both waves, with no major differences overall. The most notable shift is the rise of worker/trade union involvement in data protection impact assessments, which has become one of the most frequently preferred bargaining topics compared to the first wave. Other topics that gained attraction and are now among the most commonly selected in the second wave include the provision of information about AI systems in plain and understandable language, the right to be advised by an external data expert, and the impact of AI on workload intensity (see Figure 8).

Fig. 8

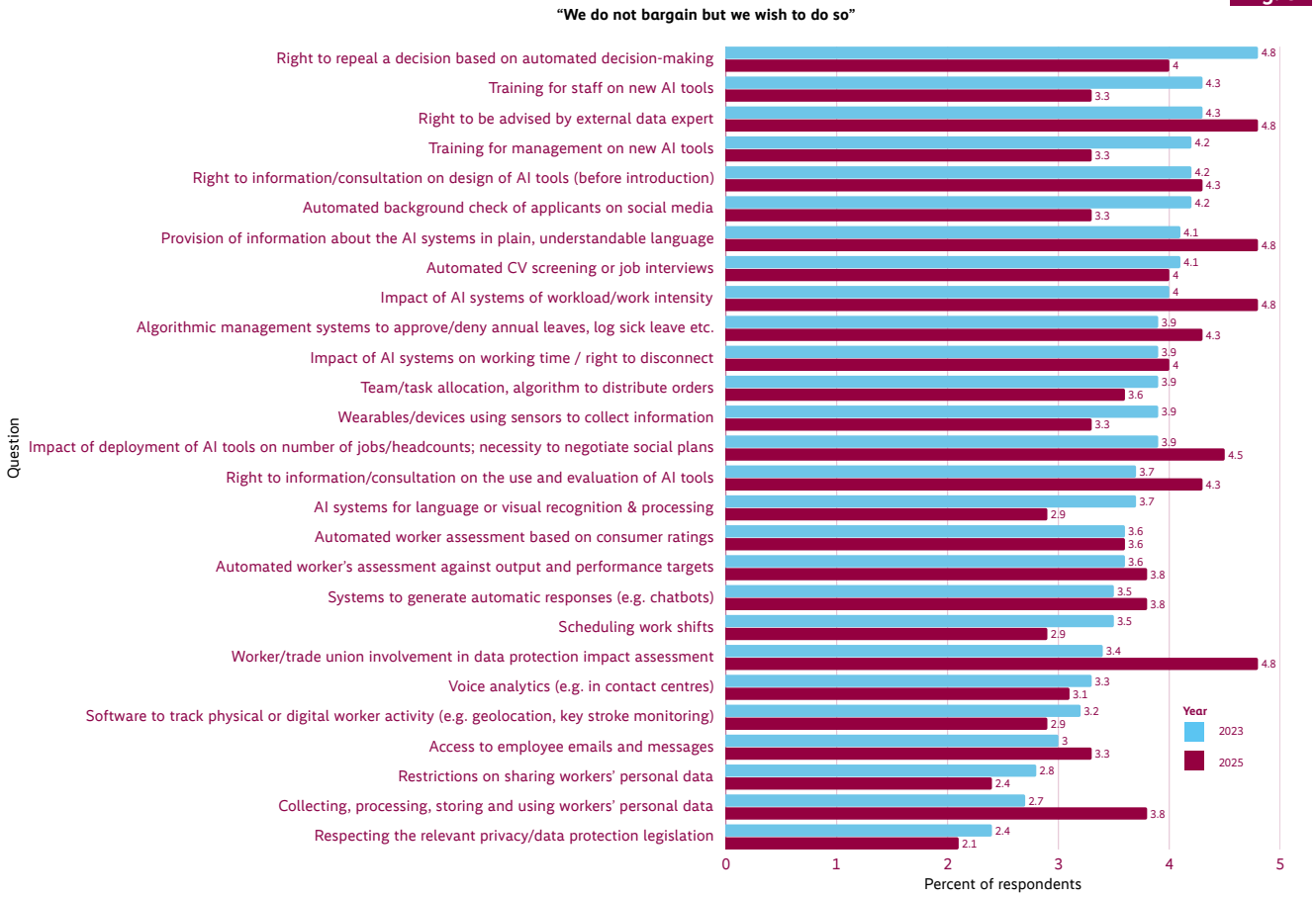


Figure 8: AI/AM related topics currently not subject to collective bargaining but with indicated bargaining preference

Source: UNI Europa/CELSI online survey, 2025 N=420; 2023 N=1269. N refers to the number of responses, not the number of respondents. Multiple responses were enabled in both waves.

Fig. 9

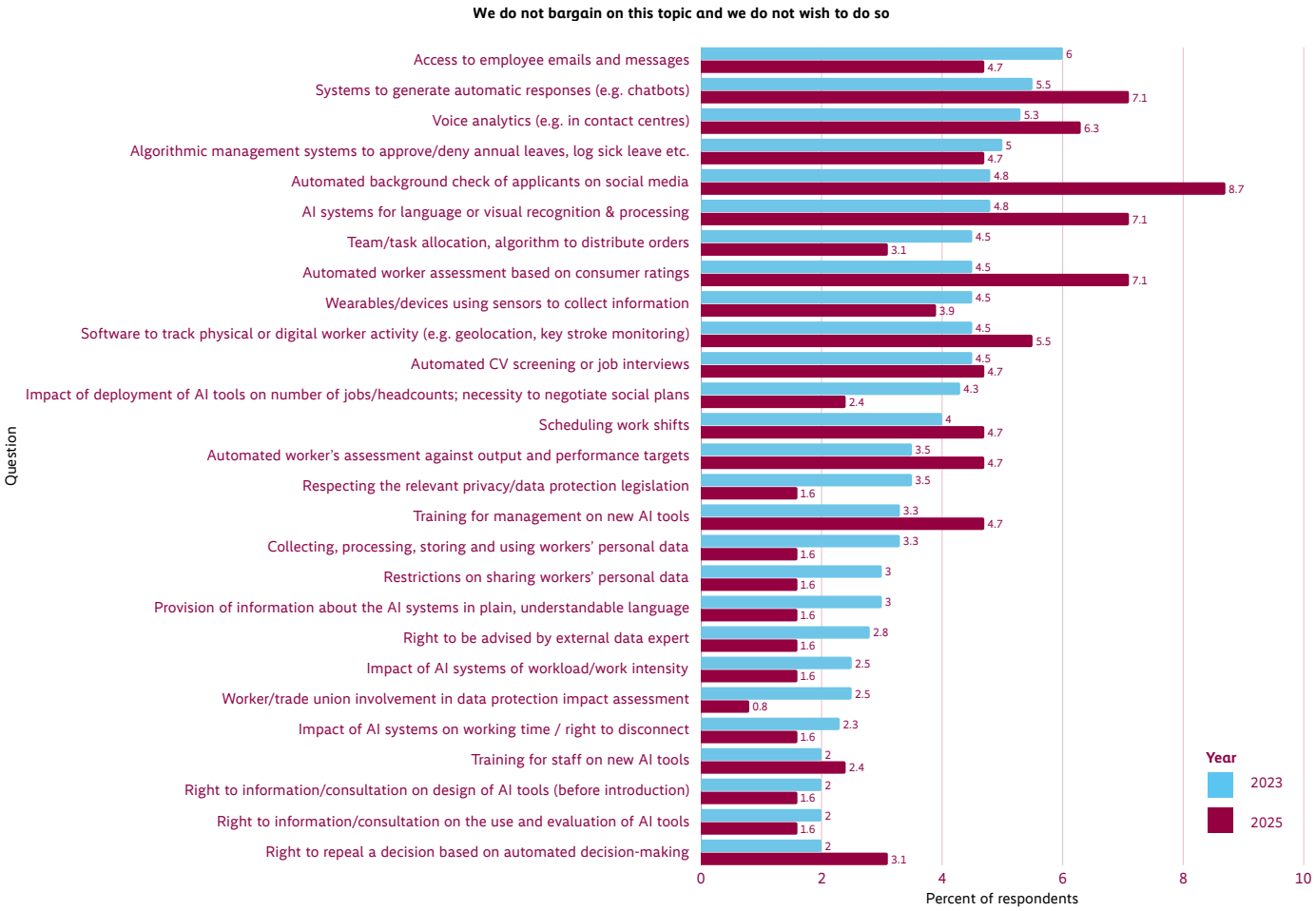


Figure 9: AI/AM related topics currently not subject to collective bargaining and without an indicated bargaining need

Source: UNI Europa/CELSI online survey, 2025 N=127; 2023 N=398. N refers to the number of responses, not the number of respondents. Multiple responses were enabled in both waves.

The final category concerns topics regarding which respondents are not bargaining and do not wish to bargain. Compared with the first wave, substantial shifts in almost all categories can be observed in the second wave. Automated background checks of applicants on social media have become the least desirable topic for bargaining for the second wave.

This is followed by other issues that respondents prefer not to negotiate, such as language and voice-recognition systems, automated response systems, and worker assessment based on consumer ratings (Figure 9). Since the sectoral composition of respondents remained mostly similar across the two waves, these differences do not appear to be driven by changes in the sectoral profile of the sample.

Instead, they may reflect changing perceptions of which issues are considered relevant or negotiable by unions. At the same time, the smaller number of respondents in the second wave means that these differences should be interpreted cautiously.

2.4 Survey insights into existing collective bargaining agreements with AI-related content

Fig. 10

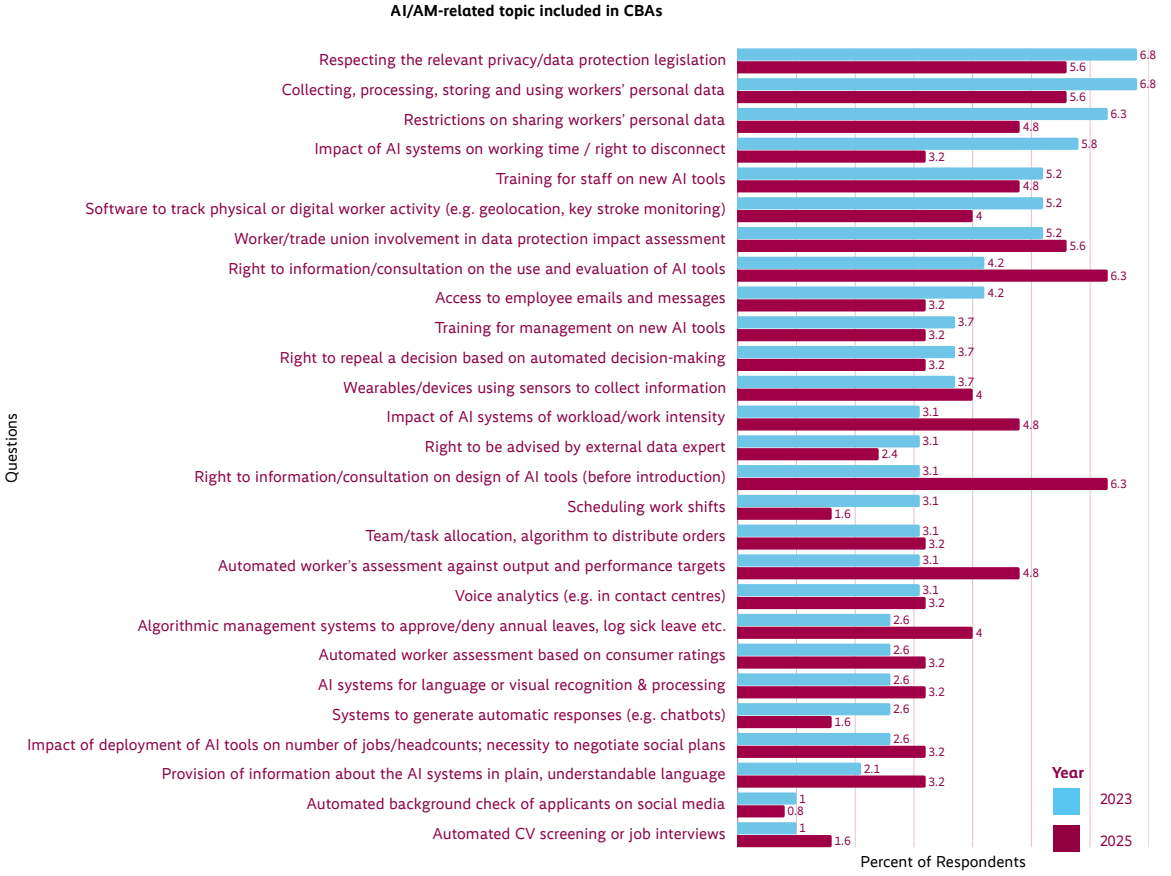


Figure 10: AI/AM related topics included in collective bargaining agreements

Source: UNI Europa/CELSI online survey, 2025 N=126; 2023 N=191. N refers to the number of responses, not the number of respondents. Multiple responses were enabled in both waves.

Comparing the two survey waves, we can observe a clear increase in the presence of AI-related collective agreements. In the first wave, based on 90 responses, only 20% (i.e. 18 responses) by trade unions reported having a collective agreement related to AI at the organisational or sectoral level, while 69% stated they had no such agreement and 11% did not know. In the second wave, although the sample was smaller (34 responses), the share of unions reporting an AI-related CBA nearly doubled, rising to 38% (13 responses). At the same time, the proportion of respondents without such agreements decreased to 59%, and uncertainty dropped sharply to 3%, indicating that far fewer respondents lacked information about their bargaining framework.

Regarding the level at which these agreements were concluded, the first wave showed an even distribution across sectoral, multi-employer, and organisational levels (each with 25%), while only 6% reported a workplace-level agreement. In the second wave, the pattern shifted: 45% of AI-related CBAs were located at the sectoral level, while the company/organisation level accounted for 27%, and the remaining 27% fell into the "other" category, which according to all respondents who selected it refers to agreements covering multiple levels. Notably, no workplace-level agreements were reported in the second wave, unlike in the first.

If we examine survey responses regarding the topics addressed in collective agreements and comparing changes over the past two years, we can observe that issues related to the protection of workers' personal data and privacy continue to be highly relevant. These include the collection, processing, storage, and use of employees' personal data, as well as compliance with applicable privacy and data-protection legislation. At the same time, the second wave highlights newly emerging priorities, with the most negotiated topics now focusing on the right to information and consultation regarding usage of AI tools. This encompasses both the right to be informed and consulted about the use and evaluation of AI tools and the right to participate in discussions regarding the design of such systems prior to their implementation. On the other hand, the least frequently negotiated topics in both waves continue to relate to certain aspects of recruitment, specifically automated background checks of applicants on social media,

[1] *This section covers respondents' perceptions of topics. The actual analysis of the contents of collective agreements is presented in Section 3 of this report.*

as well as automated CV screening and job interviews (Figure 10).

When we examine the filtered comments left by respondents, we see that the number of comments increased in the second wave, with 22 comments from 34 respondents, compared to 18 comments from 90 respondents in the first wave. Despite the lower number of respondents in the second wave, these comments provide a new qualitative lens for analysis.

The first criterion we used to evaluate comments was the presence of additional topics mentioned by respondents. Interestingly, compared to the first wave, a greater number and more diverse topics emerged in the second wave, suggesting a deeper understanding of this topic and their use by firms. Some examples include performance monitoring prohibitions, the prohibition of using data or biometrics for training, responsibility and liability for AI outcomes, the right to take legal action, and turnover prediction.

The second criterion was topic relevance. For first-wave respondents, the topic was relatively new, as the technology had not yet been widely implemented. In contrast, second-wave respondents reported that AI technologies were beginning to appear, making the topic increasingly relevant and prompting trade unions to start considering these issues.

The third criterion focused on regulation, examining how trade unions deal with AI technologies. In the first wave, some respondents indicated that certain companies or sectors did not regulate AI because there was no perceived need, while others had only begun general discussions or relied on national law. By the second wave, regulation had clearly increased, with respondents citing specific measures such as AI frameworks, AI chapters in company policies, and expert groups on AI. Some responses noted that works councils were actively involved in addressing these issues, while others still relied on national regulations.

The fourth criterion considered difficulties or challenges reported by respondents. In the first wave, one comment highlighted AI tools being used solely for profit without considering employees' health, while another one mentioned the difficulties in blocking AI implementation. In the second wave, one respondent reported challenges in regulating these technologies due to the absence of a collective agreement over the past ten years, while another noted that employees received monitoring devices without sufficient training or support (see Table 1).

It is important to remember that these are only the comments respondents chose to provide. Therefore, they are best interpreted in combination with comparative statistical analysis. When both qualitative and quantitative data are considered, it is clear that the relevance of AI-related topics is increasing, and this trend is likely to continue as these technologies evolve.

Table 1

Criterion	First Wave	Second Wave
Additional topics mentioned by respondents	Transparency and data ethics; employees' health (mental and physical)	Performance monitoring prohibition; prohibition of using data/biometrics for training; works council rights (information, conflict-resolution, labelling); responsibility/liability for AI outcomes; right to take legal action; competence development; external expertise; access/ information rights; sales/field service, performance reviews, turnover prediction, transcription tools, voice-bots, e-coaching, cybersecurity.
Topic relevance	AI tools are not considered an issue in some companies/sectors; relevance increasing in others. Largely irrelevant for companies not yet implementing AI. Some respondents believe that AI cannot replace human workers in their sector. Some respondents noted that the topic is mainly handled through works councils; others saw no relevance for CB.	Considered important in some companies and expected to gain further relevance. AI tools emerging in specific areas and appearing in company-level agreements. Some companies already negotiate certain points; others do not yet do so but expect relevance to grow.
Regulations	• Not regulated in some companies/sectors as there is no need. • Other respondents mentioned that discussions are taking place on AI implementation, ethics, and the use of AI in the workplace. • Some rely on company-level agreements or national privacy laws (e.g., GDPR). In some companies, works councils address these topics.	• Company-level agreements were the most frequently mentioned by respondents. • AI frameworks agreed at national/sectoral level in some countries. • National/local negotiations or agreements apply in some cases. • One respondent reported that their company had established a framework for works councils on data ethics. • One respondent mentioned that their company implemented AI without consultation, so they are preparing rules and arrangements. • One respondent reported that their company had drafted AI-related provisions on workers' rights in anticipation of the possible introduction of AI. • For some integrity topics covered at company level but often rely on national regulations. • One respondent reported the use of regular evaluations and expert groups on AI within their company. • Works councils in one company are preparing in advance, aiming to be involved in discussions before implementation.
Difficulties / Challenges	• One respondent mentioned that their employer uses AI tools solely for profit, without considering employees' health. • One respondent reported that it is difficult to block AI tools, so they negotiate how they are used (mode of use).	• One respondent reported facing difficulties regulating these issues due to the absence of a collective agreement over the past ten years. • One respondent reported that employees receive monitoring devices without sufficient training or support.

Table 1: Topics covered in AI-related collective agreements, comparison of filtered comments across two survey waves

Source: Authors' own elaboration based on survey responses.

2.5 Reasons of not covering AI-related topics in collective agreements

The survey also examined more closely the reasons, as reported by respondents, for the absence of provisions related to AI/AM in collective agreements (Table 2). The number of respondents who provided insights into why AI/AM is not covered in collective bargaining ranged from 53 in the first wave to 14 in the second wave. This is partly due to the smaller overall number of respondents in the second wave, but it also reflects the fact that AI-related topics are being negotiated more frequently, as discussed above.

Table 2

The reasons	Number of related responses (wave 1) N=53	Number of related responses (wave 2), N=14
AI has only just begun to be discussed or bargained, and to compile a CBA	17 (32%)	3 (21%)
Not necessary yet, there are other priorities	12 (23%)	2 (14%)
Employer refused to discuss AI	7 (13%)	5 (36%)
Lack of information on AI so far	5 (9%)	3 (21%)
Lack of power and resources or respective legislation	5 (9%)	0
Using broader regulation to mitigate the threat of AI	4 (8%)	1 (7%)
Lack of transparency of AI usage in the company	3 (6%)	0

Table 2: Reasons for the absence of AI-related provisions in CBAs, two survey waves compared

Source: Authors' own elaboration based on survey responses.

A closer look at the reasons collected in the second survey wave reveals some insights, which can be summarised in a few key points. Across respondents, there is broad consensus that AI has not yet been systematically embedded in collective bargaining, despite growing awareness of its relevance.

The dominant explanation is employer resistance, combined with low perceived urgency, lack of knowledge, and reliance on existing legislation, which is either considered sufficient to address AI/AM-related themes or does not provide sufficient opportunities to onboard these topics into collective agreements.

Respondents note that, even as AI increasingly enters workplaces, it remains poorly addressed through initiatives within the social dialogue. Some of these reasons are elaborated below.

Employer reluctance as the primary barrier

The most frequently cited reason for the absence of AI-related clauses in collective agreements is the explicit refusal of employers to negotiate on AI/AM-related topics. Several respondents report that employers consider existing data protection and labour legislation sufficient and see no need for additional collective regulation. In some cases, management has directly refused to sign any AI-related agreement, arguing that AI is evolving too quickly and its labour market impacts are too uncertain to address meaningfully at this stage. In the financial and ICT sectors, resistance is particularly strong according to the survey respondents. Employer organisations refuse negotiations at the sectoral level, while individual companies prefer not to involve trade unions in their AI-related decisions. One respondent describes a structural power imbalance, where a multinational group actively prevents any collective agreement from being concluded, allowing the company to introduce and test AI tools without consultations with worker representatives. Even where older collective agreements require consultation on new technologies, employers interpret these as sufficient, and limit their obligations to information and consultation only, rejecting any move toward binding algorithmic management rules.

"Not necessary yet": low urgency and competing priorities

A second common theme is the respondents' perception that AI is not yet sufficiently impactful to justify bargaining needs. Several respondents state that AI currently has no tangible effect on employees or employment, or that no substantial AI implementation is taking place in companies. Consequently, other issues receive more priority at the bargaining table.

Some employers therefore dismiss AI as a future issue, preferring to act only once clearer impacts emerge. This reinforces postponement and delays the development of bargaining on AI/AM-related topics.

Lack of information, knowledge gaps and fear

Many responses highlight a significant lack of knowledge about AI among both unions and employers. AI is described as "completely new territory," surrounded by legal, technical, and ethical uncertainty. Some respondents explicitly mention a great lack of understanding and fear of improper use of AI. This knowledge gap weakens unions' bargaining position and contributes to employers' ability to delay or block negotiations. The rapid evolution of AI further complicates efforts to define stable regulatory frameworks within CBAs.

Gradual and future-oriented engagement

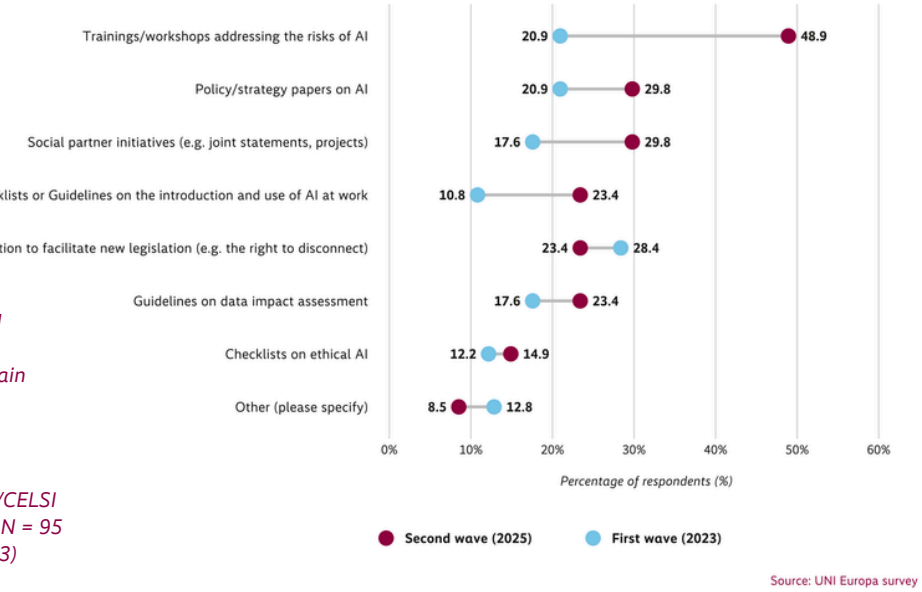
In several cases, respondents indicate that bargaining on AI/AM-related topics is only just emerging, e.g., within the introduction of new software systems. This early, fragmented phase of implementation is related to why bargaining remains underdeveloped and reactive rather than anticipatory. In some cases, respondents indicated that they plan to place AI on the formal bargaining agenda in their upcoming negotiation rounds (e.g., in 2026). Elsewhere, the topic has been postponed due to parallel European-level discussions, with national actors waiting for clearer guidance from the EU-level. At the same time, some union respondents report renewed efforts to include AI in sectoral demands and to push the issue onto the agenda of company-level negotiations.

Use of other technology-neutral regulations

One respondent outlines a contrasting approach based on labour relations hostile to technological advancement, where occupational safety, employment protection, skills development, and organisational change rules are considered applicable to AI without the need for specific AI agreements. However, even in this case, there is recognition that substantial capacity-building is required among local worker representatives to address AI-related risks in practice effectively.

Fig. 11

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



Source: UNI Europa survey

Figure 11: Tools and measures to raise awareness of and train members on AI/AM (excluding collective bargaining)

Source: UNI Europa/CELSI online survey, 2025 N = 95 (2025) N =209 (2023)

2.6 Other initiatives and measures related to AI in collective bargaining

Comparing the two waves, we observe a shift in the initiatives and approaches reported beyond collective bargaining for addressing AI/AM-related topics. In the first wave, 49% of respondents reporting such initiatives indicated that they engage in consultations to support the development of new legislation. 36% reported the existence of policy strategy papers on AI and training or workshops addressing AI-related risks. Checklists or guidelines for launching and using AI at work were the least frequently used measure, reported by only 19% of respondents.

In the second wave of data collection, the scope of initiatives outside collective bargaining changed notably. Training and workshops on AI-related risks became the dominant initiative, rising sharply to 72% (+36pp) among respondents who reported initiatives beyond collective bargaining. Policy strategy papers on AI are now being used by 44%(+8pp) of respondents, similar to social partner initiatives such as joint statements or projects 44% (+14pp) (see Figure 9).

2.7 Key takeaways from the survey analysis

The primary goal of this study was to examine how perceptions of AI-related topics in human resources have changed among UNI Europa affiliates over the past two years and to identify notable findings. One way to examine changes in the perception of AI-related topics in human resources was through survey analysis. A total of 195 responses were collected, including 148 from the first survey conducted in 2023 and 47 from the second survey conducted in 2025. The main methods employed were descriptive statistical comparisons across the two waves and qualitative analysis of respondents' comments. Both quantitative and qualitative analyses indicate that the relevance of AI-related topics is clearly increasing, and this trend is likely to continue given the rapidly evolving nature of these technologies.

The survey shows that 65% of UNI Europa affiliates (+23 pp compared to the previous wave) are engaged in negotiations on various AI-related topics. Across both waves, the most frequently bargained topics remain those concerning compliance with relevant privacy and data-protection legislation and restrictions on the sharing of workers' personal data, confirming that privacy-related issues are the most established area of negotiation. By contrast, the least frequently negotiated topics continue to be automated background checks of applicants' social media profiles.

The topics that are not currently slated for bargaining, but which trade unions would like to address, have remained largely unchanged across both waves, with some minor differences overall. These include an increase in the involvement of workers and trade unions in data protection impact assessments, which has become one of the most frequently preferred bargaining topics compared to the first wave. Other topics that gained prominence and are now among the most commonly cited in the second wave include the provision of

information about AI systems in plain and understandable language, the right to be advised by an external data expert, and the impact of AI on workload intensity.

The third category of topics, which are neither being bargained at present nor desired by trade unions to be bargained, shows notable changes between the two waves. Compared with the first wave, significant changes can be observed across almost all topics in the second wave. Automated background checks of applicants' social media have become the least desirable topic for bargaining. This is followed by other issues that respondents prefer not to negotiate, including language and voice-recognition systems, automated response systems, and worker assessments based on consumer ratings.

Looking at collective bargaining on AI-related issues, considerable changes are evident between the two survey waves. While AI-related collective agreements were relatively rare in the first wave (20%), their prevalence nearly doubled in the second wave (38%, +18pp), and uncertainty about their existence decreased significantly (from 11% to 3%, 8pp). This indicates that AI topics are becoming increasingly integrated into trade union bargaining agendas.

Among those reporting AI-related stipulations in CBAs, the most prominent topic is the right to information and consultation regarding the use of AI tools, including participation in design prior to implementation, involvement during evaluation, and ongoing use. Issues relating to the protection of workers' personal data and privacy also remain highly relevant across both waves, covering the collection, processing, storage, and use of employees' personal data, as well as compliance with applicable privacy and data-protection legislation. By contrast, the least frequently bargained topics relate to certain aspects of recruitment, specifically automated background checks of applicants on social media, automated CV screening, and job interviews.

Although one sees a clear visible update of AI-related topics in the interests of trade unions, their bargaining preferences and perceived bargaining practices, there is, however, broad agreement that AI has not yet been systematically embedded into collective bargaining. Reasons stated in the survey for this slow uptake include employer resistance, low perceived urgency, limited knowledge, and reliance on existing legislation. Some respondents also view AI as "not necessary yet" for bargaining because its current impact on jobs is seen as limited and other issues are taking priority in their strategies and actions. In addition, significant knowledge gaps, legal and ethical uncertainty, and fear of misuse weaken unions' bargaining position and further delay negotiations. While in some cases AI/AM-related bargaining is beginning to emerge (i.e., often linked to new software launches or future negotiation rounds), engagement remains largely reactive and fragmented. Some respondents rely on technology-neutral labour regulation instead of AI/AM-specific regulation, although they acknowledge the need for substantial capacity-building among worker representatives to effectively address AI-related risks.

Beyond collective bargaining, trade unions participating in the survey have also sought to address AI/AM-related issues through other instruments, and some marked changes are apparent between the two waves. In the second wave, training and workshops on AI/AM risks became the dominant tool, increasing sharply from 36% to 72% (+36pp). Policy strategy papers on AI/AM are now being used by 44% of respondents (+8pp), while social partner initiatives, such as joint statements or projects, are similarly being employed by 44% (+14pp) of respondents.

A qualitative comparative analysis of comments on topics covered in AI-related CBAs, with roughly equal numbers across the two waves, indicates that more comments and a greater diversity of topics emerged in the second wave. Respondents reported that AI technologies were becoming more prominent and that regulation had clearly increased, with several specific measures being cited (e.g., an AI framework at the company level).

The main limitations of the survey are the smaller number of respondents in the second wave (34 vs. 90) and a slightly different country composition. Still, the survey serves exploratory purposes and allows an analysis of insights onto an important emerging topic across the services sector. Also, the qualitative analysis confirmed the findings produced by the quantitative analysis: despite the smaller number of respondents in the second wave, the number of relevant comments was almost equal across both survey waves, suggesting increased interest in AI-related topics during the second wave.

3.
Analysis of CBA content

In addition to the survey analysis, in the project follow-up the authors collected a total of 108 CBAs that contain AI/AM-related provisions. These CBAs were included in the already existing global WageIndicator CBA database.[2] A dedicated system of codes was developed and used for the analysis (see Table 3); and these codes were applied to the analysis of the 108 CBAs that were studied.

Analysis of the collective agreements was refined through a series of data visualisations, tables and related textual analysis to offer deeper insight from the findings and to explore trends relating to the implementation of AI/AM in collective agreements. Some country, industry, regions and specific CBAs' clauses relating to the introduction of AI/AM have been highlighted in order to illustrate some of the best practices found in the study.

It is important to point out that our analysis is based on a limited sample of CBAs, based on their availability (from official public registers and/or from the social partners willing to share their agreements) and it does not necessarily show the full potential of collective bargaining to include clauses relating to AI/AM.

The following maps and graphs take into account agreements that specifically refer to the introduction of AI/AM at work (newtech_aiam = 1).

Table 3

Question ID	Question Label	Answers (code and label)
newtech_trigger	Does the agreement make any reference to the introduction of advanced technologies (including Artificial Intelligence and Algorithmic Management) at work? * By AI (Artificial Intelligence) we mean broadly speaking any machine-based system that can make predictions, recommendations, or decisions with only limited human input/ oversight. By AM (Algorithmic Management) we mean the delegation of managerial functions to algorithmic and automated systems.	0 = No 1 = Yes
newtech_aiam	Does the agreement specifically refer to the introduction of Artificial Intelligence (AI) and/or Algorithmic Management (AM) at work?	0 = No 1 = Yes
newtech_topics	In which of the following topics is AI /AM mentioned? You can select more than one option. Please be as accurate as you can.	11 = Impact of AI/AM systems on working time and the right to disconnect 22 = Training for employees and/or management with new AI tools (including risks related to AI usage) 33 = Use of AI/AM in the recruitment process, work organisation and worker´s assessment 44 = Employee/trade union involvement in data protection 66 = Employee/trade union involvement when new technologies are introduced 77 = Respecting the relevant privacy/data protection legislation 88 = AI/AM tools used for monitoring and worker surveillance (e.g., software/devices to track physical or digital worker activity) 55 = Other topics -9 = Not specified

Table 3: Relevant variables included in the WageIndicator Collective Agreements Database annotation system

Source: UNI Europa/CELSI online survey, 2025 N = 95 (2025) N =209 (2023)

[2] *The full text agreement is publicly available at the official website: Agencia Estatal Boletín Oficial del Estado: https://www.boe.es/diario_boe/txt.php?id=BOE-A-2023-12870*

Fig. 12

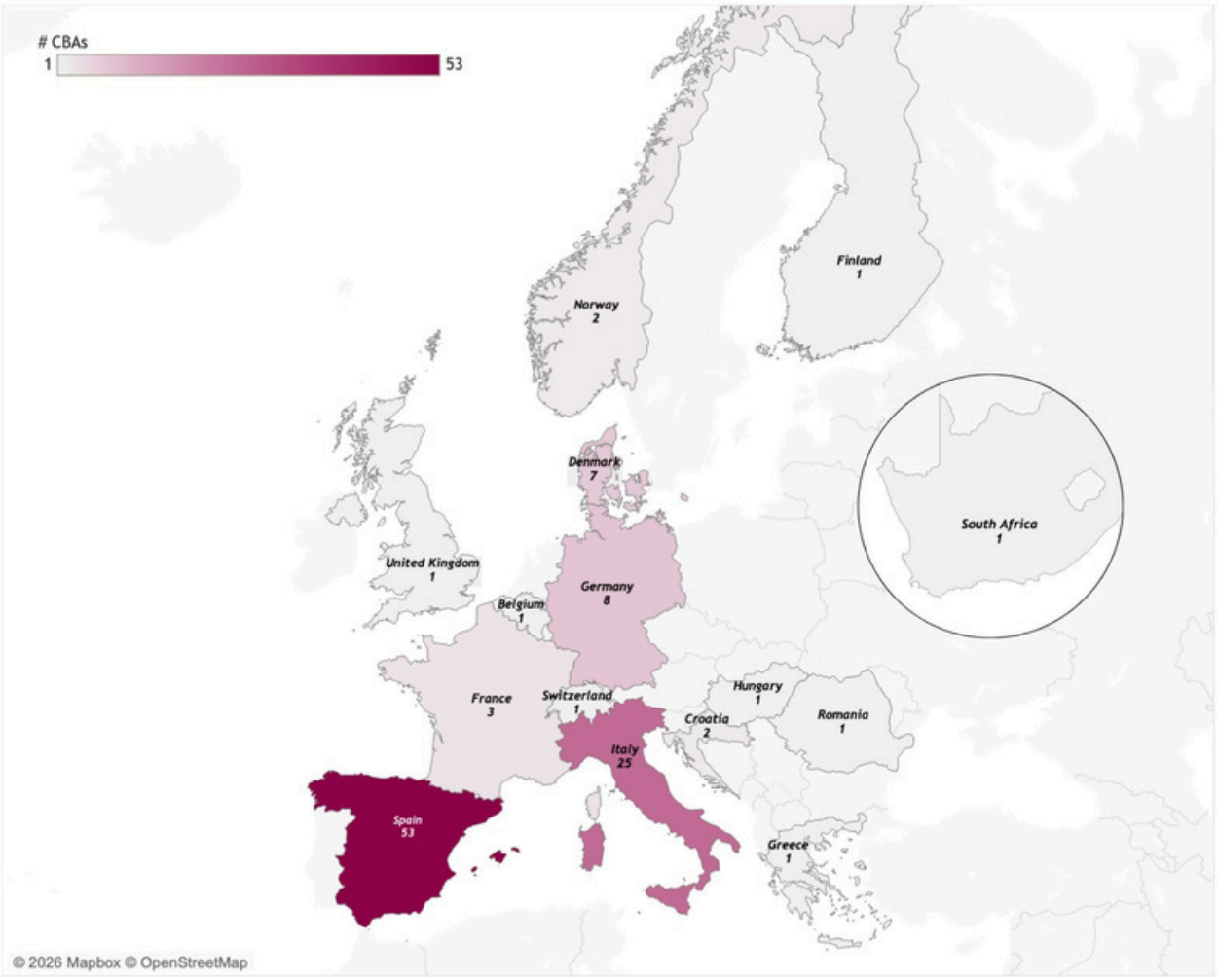


Figure 12: Number and structure of CBAs referring to the introduction of AI and/or AM at work

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

3.1 A comparative analysis of the content of collective agreements

The map in Figure 12 shows the geographic distribution of the CBAs considered for the analysis among the different countries. The country with the most CBAs in the sample is Spain (53 CBAs in the sample were collected there), followed by 25 CBAs from Italy, 8 CBAs from Germany, and 7 from Denmark. This is followed by all the other countries, with just a few CBAs. Considering the sectoral distribution of CBAs in our sample, manufacturing (21 CBAs) and transport, logistics, communication (17 CBAs) are the sectors with the most CBAs, followed by financial services, banking and insurance (16 CBAs) and ICT services (10 CBAs).

Figure 12 shows the number of collective bargaining agreements in Europe that address the introduction of AI or Algorithmic Management in the workplace. As previously mentioned, Spain stands out with 53 agreements, followed by Italy with 25 agreements, both showing a much stronger focus on AI-related rules than the other countries. Indeed, all the other countries in our sample lag considerably further behind, with only a few agreements each.

This uneven pattern suggests that while some countries are moving quickly to address technological changes through collective bargaining, many have only just begun to incorporate these issues into their labour frameworks. At the same time, the analysis is based on a limited sample of CBAs, based on their availability (from official public registers and/or from social partners willing to share their agreements) and it does not exhibit a representative coverage of European CBAs containing clauses related to AI/AM.

Fig. 13

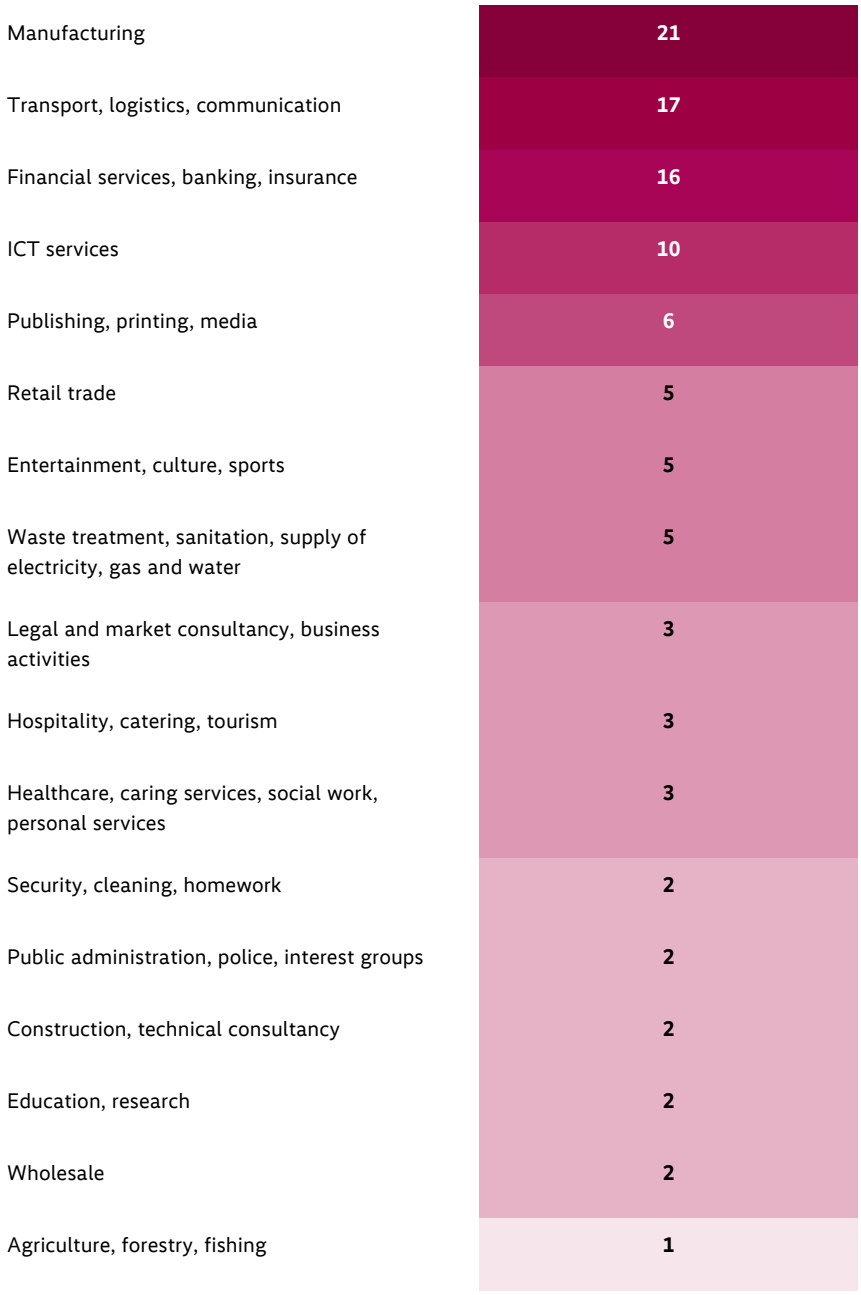


Figure 13: Sectoral distribution of the collective agreements referring to the introduction of AI and/or AM at work

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

The high prevalence of Spanish collective agreements is partially due to the fact that the major trade unions in the country, namely UGT and CCOO, signed an agreement in which they commit to having AI/AM-related clauses in all their signed agreements CBAs in 2023. This can surely be considered a good example to serve as a model internationally in the framework of the bargaining, development and inclusion of AI/AM in collective agreements.[3]

Taking a sectoral perspective, Figure 12 shows how references to AI and algorithmic management are distributed across different sectors. Manufacturing accounts for the highest number of agreements (21), followed closely by the transport, logistics, and communication sector (17) and financial services (16). ICT services also feature prominently in 10 agreements, while sectors such as media, retail trade, and entertainment show moderate engagement. In contrast, areas like agriculture, wholesale, education, construction, public administration, and security register only one or two agreements each, suggesting that the integration of AI-related clauses is still limited in many important service sectors.

[3] *The full text agreement is publicly available at the official website: Agencia Estatal Boletín Oficial del Estado: https://www.boe.es/diario_boe/txt.php?id=BOE-A-2023-12870*

Fig. 14

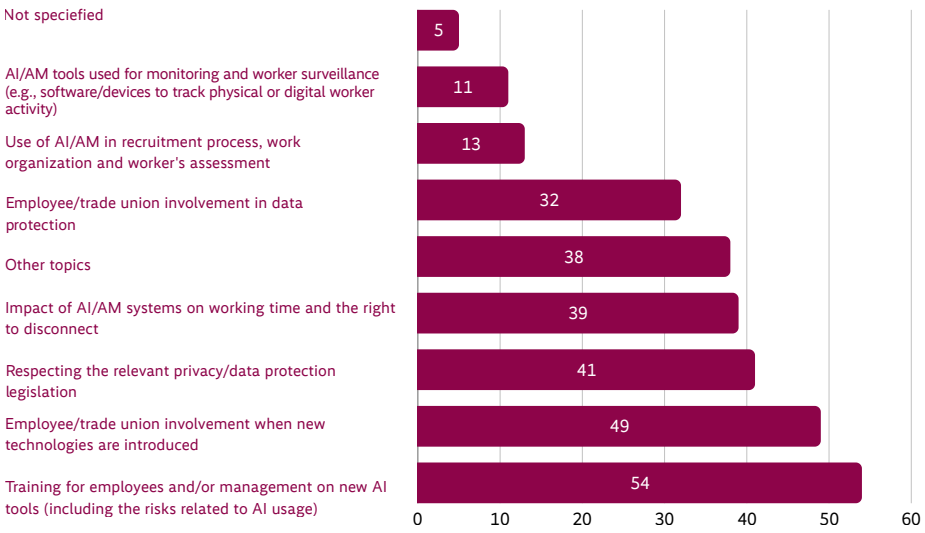


Figure 14: Percentage of agreements covering particular AI-related topics – overall picture

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

Figure 14 shows that CBAs addressing AI or algorithmic management predominantly focus on governance, safeguards, and worker involvement rather than on specific AI applications. The most frequently addressed topic is training for employees and/or management on new AI tools, including related risks, which is to be found in 50% of agreements. This is followed by employee or trade union involvement when new technologies are introduced (45.4%). A substantial share of CBAs also address compliance with privacy and data-protection legislation (38%) and the impact of AI/AM systems on working time and the right to disconnect (36.1%). “Other topics” are mentioned in 35.2% of agreements, while employee or trade union involvement in data protection comes up in 29.6%.

By contrast, more concrete and operational uses of AI are less commonly regulated. Only 12% of CBAs address the use of AI/AM in recruitment, work organisation, or worker assessment, and merely 10.2% mention AI-based monitoring or surveillance of workers. A small share of agreements (4.6%) make reference to AI/AM without specifying the topic. Overall, the distribution indicates that CBAs tend to prioritise training, participation, and general safeguards in connection with introduction of AI, while more specific applications remain comparatively rare in collective arrangements.

Fig. 15

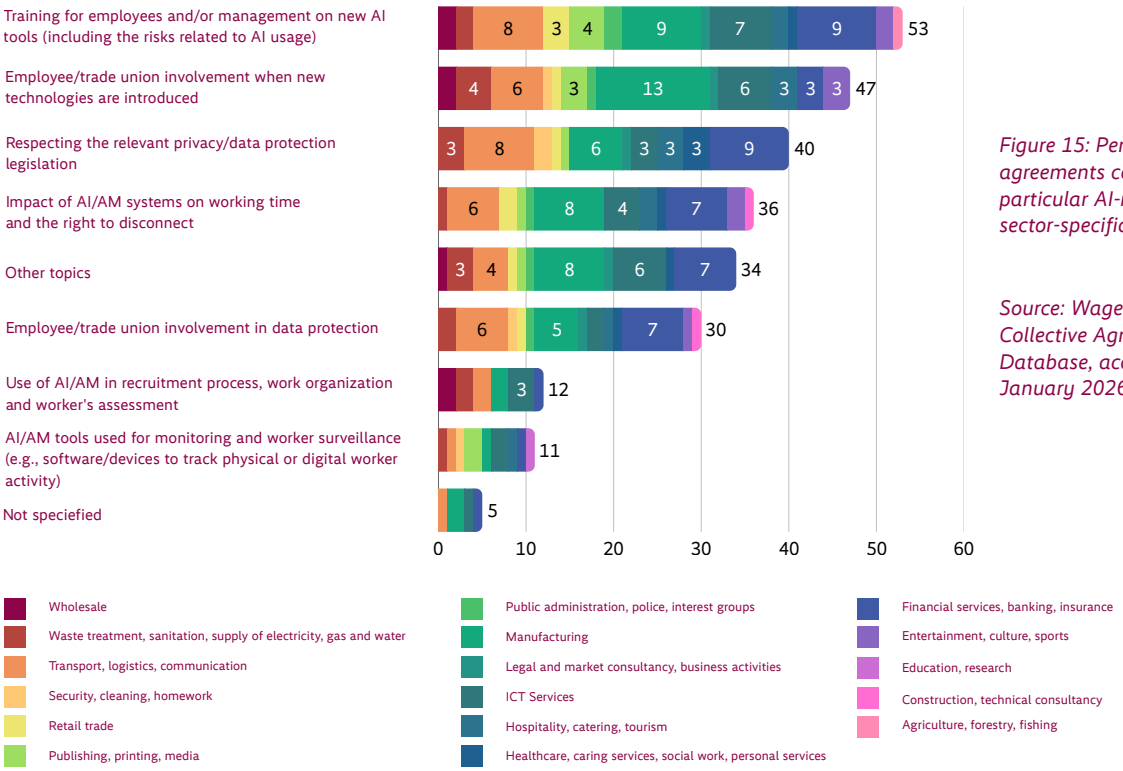


Figure 15: Percentage of agreements covering particular AI-related topics – sector-specific data

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

As shown in Figure 15, a clear pattern can be seen across sectors: those that are more digitalised, such as manufacturing, finance, transport, ICT, and media, address a wider range of AI/AM topics in their CBAs. For example, in the French Manufacturing sector, the 2025 SYENSQO Global Framework Agreement lays down broad principles for responsible AI, applying these to all significant digital or AI projects, and makes workers' protection and the "human-in-control" a core principle, noting that:

"The agreement covers all employees... and goes beyond legislation," and that "Humans will be kept at the centre... with Responsible AI principles... reviewed with the input of the EWC."

A similar pattern can be discerned in the Spanish Finance sector, where the 2020 UNESPA–AMAT–ASECORE agreement addresses video surveillance, audio recording, and geolocation, specifying that such systems may be used only "in accordance with the Law" and must be communicated in advance to workers, including information on rights of access, rectification, restriction, and erasure. These illustrate how digital-intensive sectors incorporate both overarching AI governance commitments and detailed rules on monitoring technologies, supporting the overall finding. In contrast, more traditional or less tech-intensive sectors, such as agriculture, construction, hospitality, education, and security services mention AI/AM far less often, suggesting that rules and arrangements develop fastest where adoption of new technologies is already high.

Table 4

Table 4: Number of agreements that include clauses on the relevant topics and the years when the agreements commenced

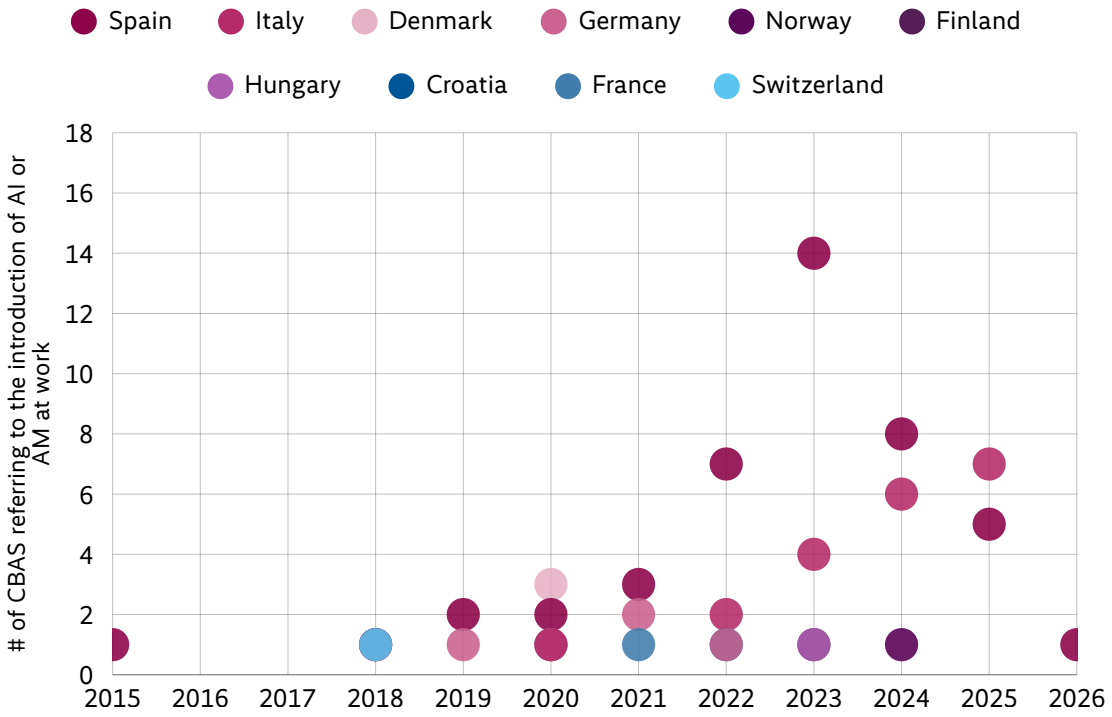
	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Training for employees and/or management on new AI tools (including the risks related to AI usage)	1	1	1	2	6	5	10	14	6	8	
Employee/trade union involvement when new technologies are introduced		1	3	4	4	2	11	10	4	9	
Respecting the relevant privacy/data 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 process, work organization and worker's assessment		1				1	2	3		5	
AI/AM tools used for monitoring and worker surveillance (e.g., software/devices to track physical or digital worker activity)				1	2	2		5		1	
Not specified			1				1	2	1		
Grand Total	1	1	4	4	10	8	18	23	20	14	1

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

Table 4 reflects the years the CBAs commenced recorded in the dataset that include AI or AM references. Most CBAs available to the database begin between 2020 and 2025, which is why the majority of AI-related topics appear in those years. Earlier years show fewer entries simply because fewer agreements commencing in those periods were captured. References were rare before 2020, but they rose steadily from 2020 to 2023, with 2023 emerging as the peak year across almost all topics. Training on AI tools, worker involvement in new technologies, and data-protection issues become especially salient during this period.

Fig. 16

Figure 16: Artificial Intelligence (AI) and/or Algorithmic Management (AM) at work included in collective agreements in the different countries



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

Figure 16 presents CBAs recorded in the WageIndicator database that reference AI or AM, plotted according to their year of commencement and country. Countries appear in the plot only when a CBA from that starting year is included in the dataset. Spain stands out because a large share of the CBAs with AI-related content originate from Spain and commenced between 2015 and 2026. Other countries, such as Denmark, Germany, France, Croatia, and Italy are represented more sporadically, with only a single or a few CBAs recorded in specific years. These patterns, therefore, reflect data availability and the years in which CBAs in the sample begin, rather than showing when countries actually started including AI or algorithmic management in their negotiations. Countries with few or no points in certain years may still have relevant CBAs.

Fig. 17

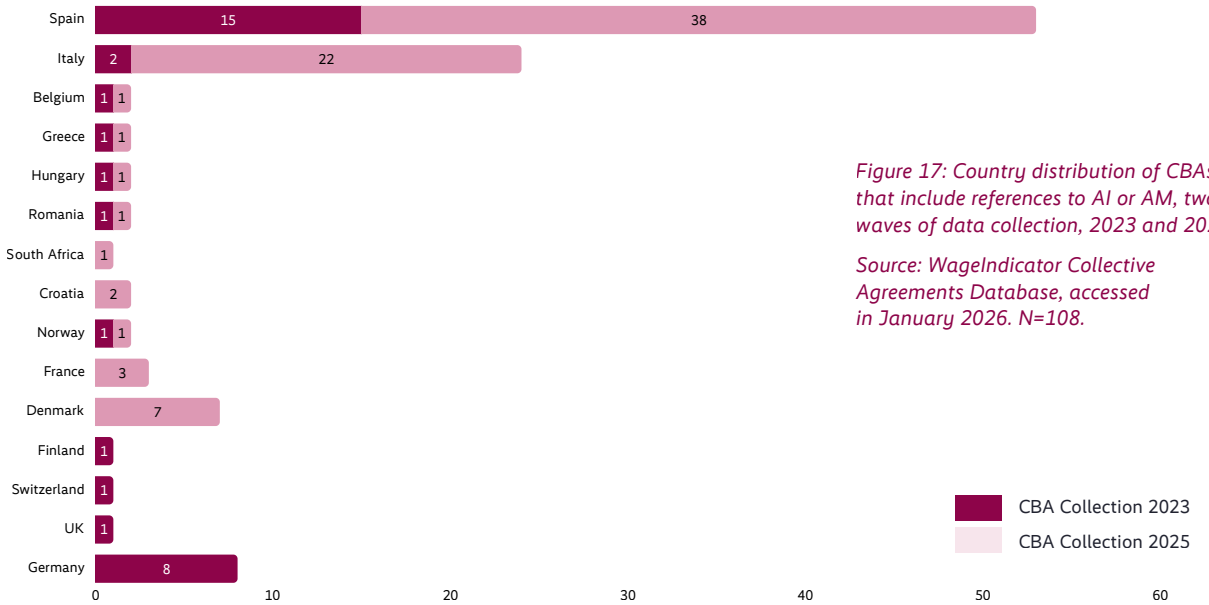


Figure 17: Country distribution of CBAs that include references to AI or AM, two waves of data collection, 2023 and 2025

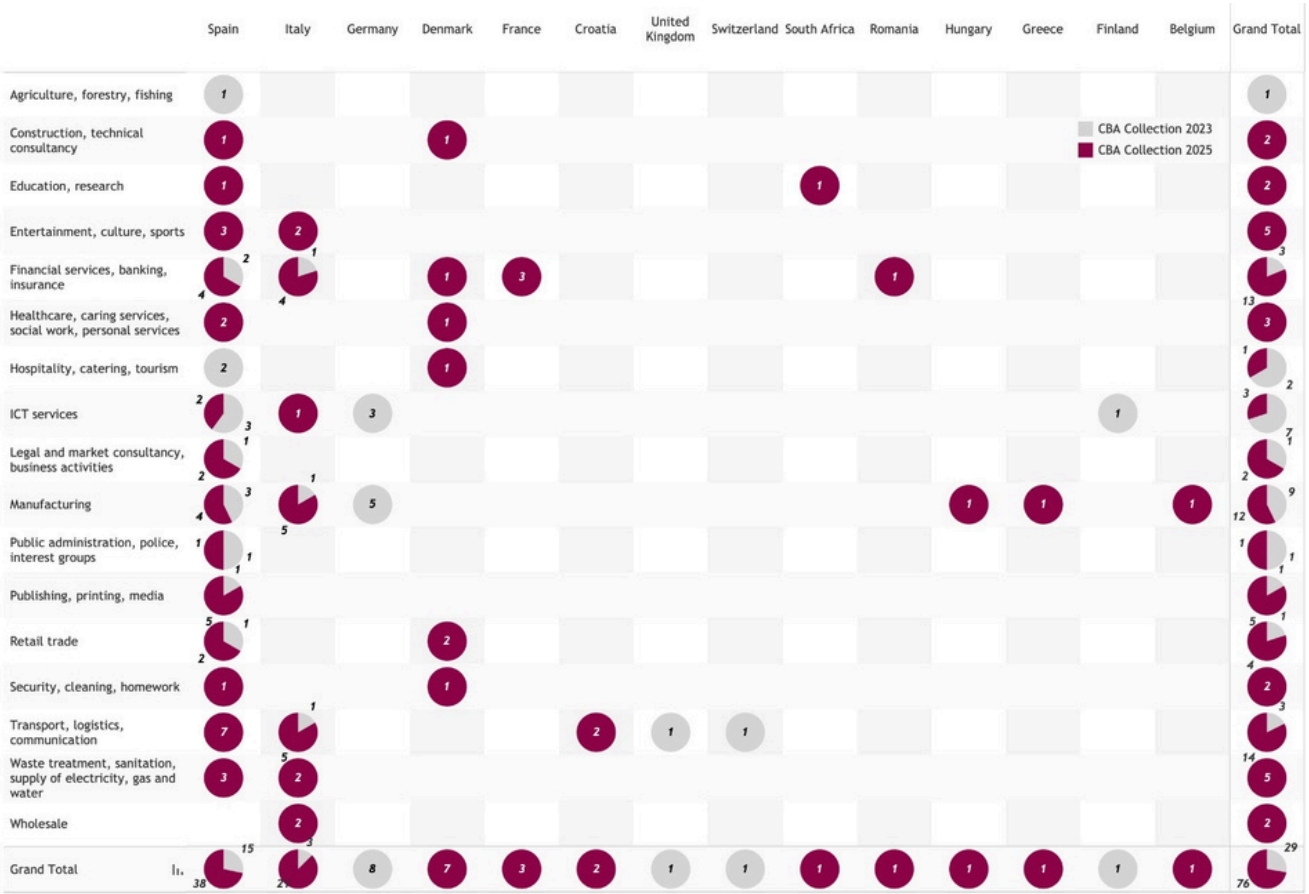
Source: WageIndicator Collective Agreements Database, accessed in January 2026. N=108.

Figure 17 shows the countries represented in the recorded CBAs that include references to AI or AM, distinguishing between agreements captured in the CBA Collection 2025 and those previously available in the CBA Collection 2023. Spain accounts for the largest share in both collections, followed by Italy, Germany, and Denmark, with smaller numbers. Most other countries only have one or a few recorded CBAs. Overall, the distribution reflects the countries for which CBAs with AI/AM mentions were recorded in each collection year, rather than offering a complete overview of all AI-related bargaining activity across Europe.

Figure 18 shows the recorded CBAs that include AI/AM references, grouped by both sector and country, and separated into those collected in 2023 and those added in the 2025 collection. Spain appears across the widest range of sectors, while Italy, Germany, and Denmark also contribute multiple entries. Many other countries appear only once within specific sectors. The pattern therefore reflects which sector and country combinations are represented in the recorded CBAs, rather than a complete map of where AI-related clauses exist in all national agreements. The distribution should be understood as a snapshot of what is captured in the database, shaped by the availability of CBAs in each collection cycle.

Fig. 18

Figure 18: Country distribution of CBAs that include references to AI or AM, two waves of data collection, 2023 and 2025, by sector and country



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

Figure 19 compares the recorded AI/AM-related topics in CBAs from the CBA Collection 2023 and the CBA Collection 2025. Training on AI tools, worker involvement, privacy protection, and working-time impacts remain the most common topics across both collections. The differences between the two bars mainly reflect which CBAs were captured in each collection cycle, rather than shifts in actual bargaining priorities. Some topics, such as surveillance tools or AI use in recruitment, appear less frequently because fewer recorded CBAs include them.

Fig. 19

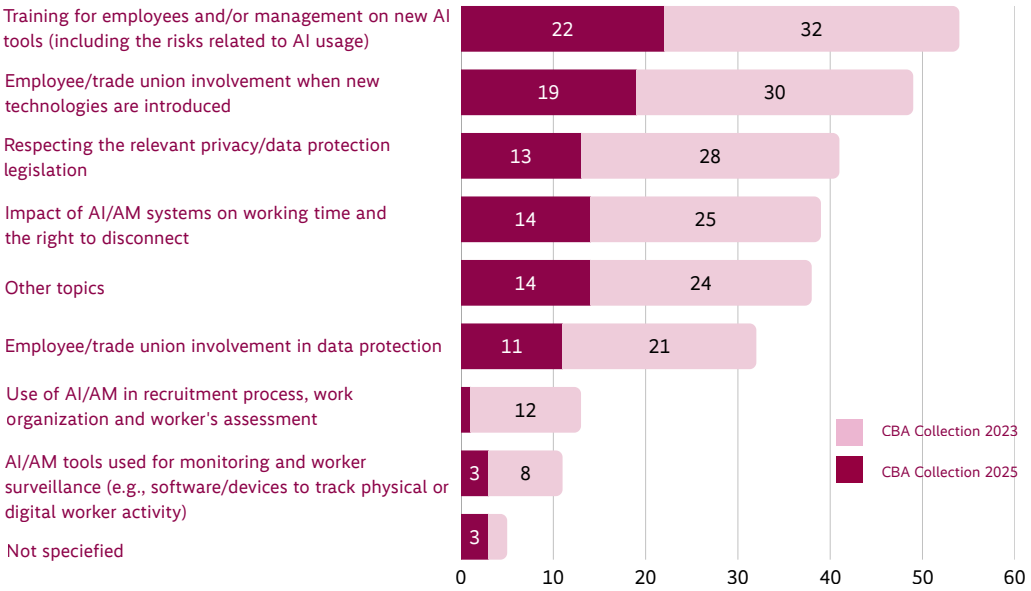
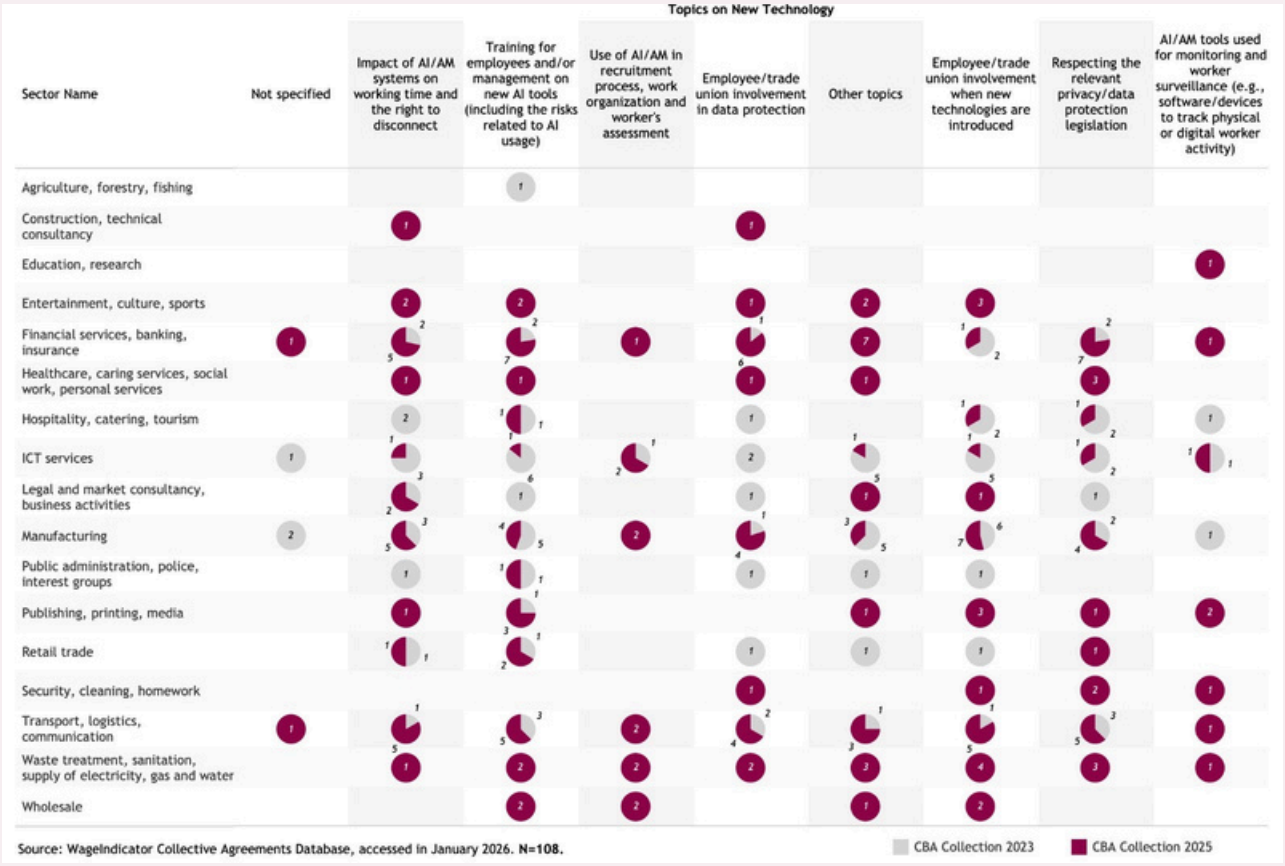


Figure 19: Topics appearing in CBAs, comparison of two waves of data collection, 2023 and 2025

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

Fig. 20

Figure 20: AI/AM-related topics covered in CBAs per sector, comparison of two waves of data collection, 2023 and 2025



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

Taking a comparative perspective across sectors, Figure 20 shows that AI and AM-related topics appear most frequently in manufacturing, finance, ICT services, legal and business consultancy, and transport/logistics.

Overall, the pattern indicates that sectors with higher technological exposure or more structured work processes tend to address a broader set of AI/AM topics. These sectors engage with a wide range of issues, including training, worker involvement, privacy, and the impact of AI/AM on working time.

Several service sectors, such as healthcare, hospitality, and entertainment, also show activity on multiple topics. In contrast, sectors like agriculture, education, security, and construction appear in only a few topical areas, suggesting a more limited integration of AI-related clauses.

Overall, the pattern indicates that sectors with higher technological exposure or more structured work processes tend to address a broader set of AI/AM topics.

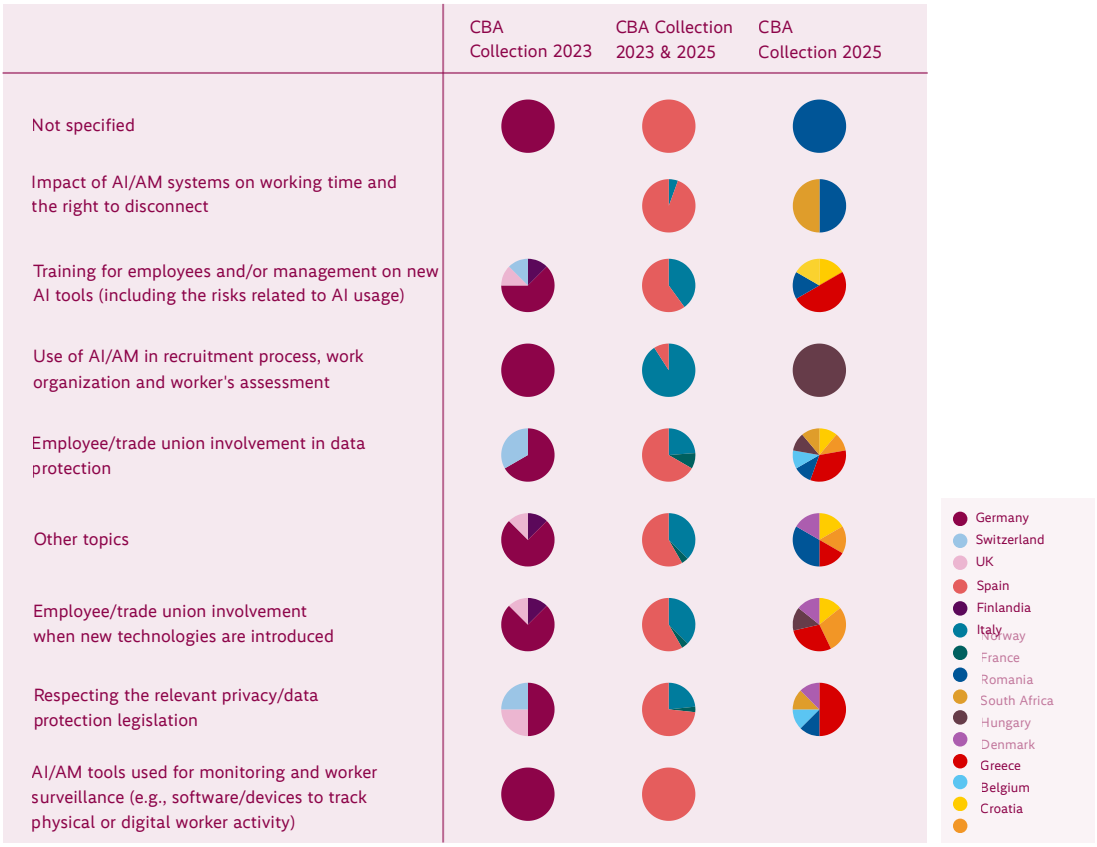
Analysing country-specific changes in the CBA content on AI/AM-related issues, Figure 21 shows how AI/AM topics are distributed across three groups:

- CBAs appearing only in the CBA Collection 2023,
- CBAs appearing in both the 2023 and 2025 collections,
- CBAs appearing only in the CBA Collection 2025.

Core topics, such as training on AI tools, worker involvement when technologies are introduced, and privacy/data protection, are associated with a mix of countries across both collections. In contrast, themes like AI-based recruitment or monitoring tools tend to be linked to fewer countries and appear more concentrated within a single collection. Overall, the pattern shows that some topics attract wide and sustained engagement across years, while others remain more limited to specific countries or newer CBAs.

Fig. 21

Figure 21: Changes occurring in the CBA content related to AI/AM per country since 2023



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

The onboarding of AI/AM-related topics is also interesting from the perspective of broader industrial relations systems that vary across Europe (Visser 2009), as shown in Table 5.

Table 5: Visser's classification of countries in Europe

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-centered	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 industrial relations	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

Source: Visser (2009) and Tros (2023), extended on the basis of Ebbinghaus & Visser (1997), Crouch (1993, 1996), Esping-Andersen (1990), Schmidt (2002, 2006), and Platzer & Kohl (2007).
(*) France, Spain, and Portugal have dual systems of employee representation combining unions and workplace representatives, whereas Italy and Greece rely mainly on union-based representation regulated by law.

Figure 22: CBA content by industrial relations systems: Nordic countries

Fig.22



Source: WageIndicator Collective Agreements Database, accessed in January 2026. N=10

Based on Figure 22, Nordic countries show strong early involvement across foundational topics in the 2023 collection, particularly privacy, worker involvement, and data protection.
However, in the 2025 collection, only Denmark continues to appear, suggesting:

- Stability and institutionalisation of AI-related clauses in Denmark
- A tapered presence for Finland and Norway in the newest documents

This indicates that Nordic countries tend to adopt early, broad governance approaches, but updated CBA activity may be more fragmented. In particular, the Danish Hilfr CBA (2024) stands out as a good practice in terms of quality and quantity of AI/AM related topics covered by the agreement.

Figure 23 shows that the countries characterised by social partnership in our sample include Belgium, Germany and Switzerland. CBAs in these countries address many various topics but show a more selective continuation into 2025. German CBAs remain committed to address AI/AM-related issues in both waves of data collection. In contrast, in Belgian and Swiss CBAs AI/AM-related topics appear only occasionally. The overall pattern reflects the structured but sector-driven nature of Western European bargaining: wide coverage in 2023 but a more specialised footprint in 2025. See Section 3.2 for an example of a German CBA as good practice.

Figure 23: CBA content by industrial relations systems: Social partnership countries

Fig. 23



Source: WageIndicator Collective Agreements Database, accessed in January 2026. N=10

Fig.24

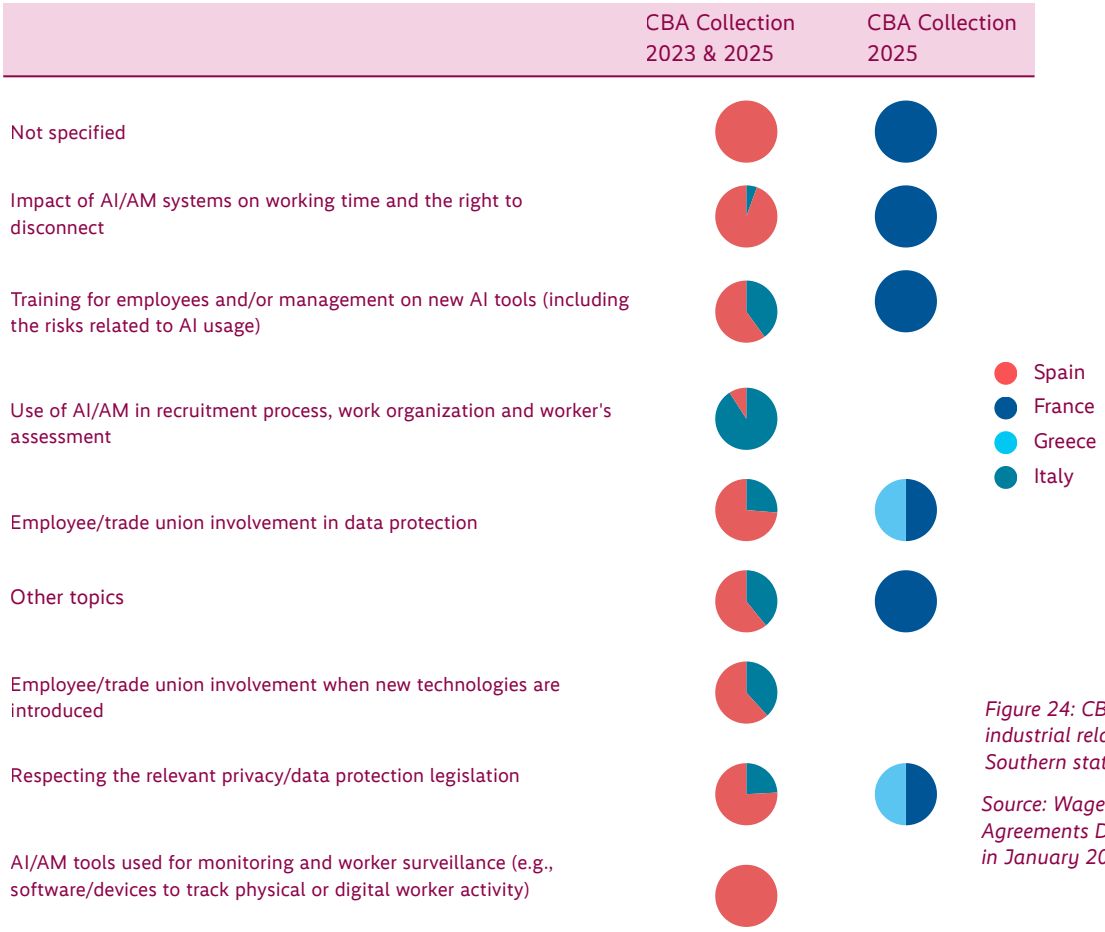


Figure 24: CBA content by industrial relations systems: Southern statist countries

Source: WageIndicator Collective Agreements Database, accessed in January 2026. N=82

Southern European countries show the strongest presence overall, especially Spain and Italy (see Figure 24). Distinct features include:

- Spain appears across nearly every topic and in both collections.
- Italy and France appear consistently but more selectively across topics.
- Greece shows minimal but targeted involvement.

This aligns with Southern Europe's high bargaining centrality and strong legal frameworks, driving widespread inclusion of AI/AM topics.

Among Central and Eastern European countries, the dataset contains CBAs only from Romania, Croatia, and Hungary exhibiting sporadic representation on specific topics and countries, rather than across the full set of topics and the region. As seen in figure 25, Croatia contributes to several governance-oriented topics (e.g., involvement and privacy),

Fig. 25

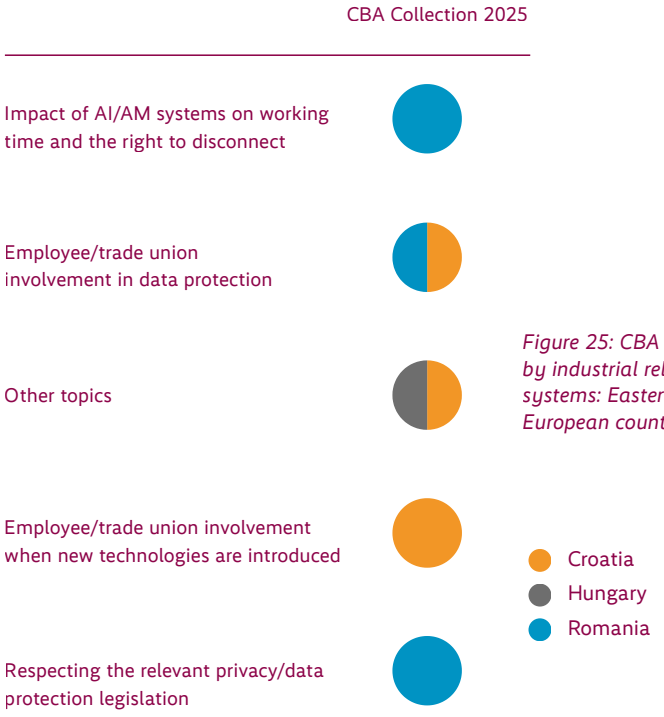
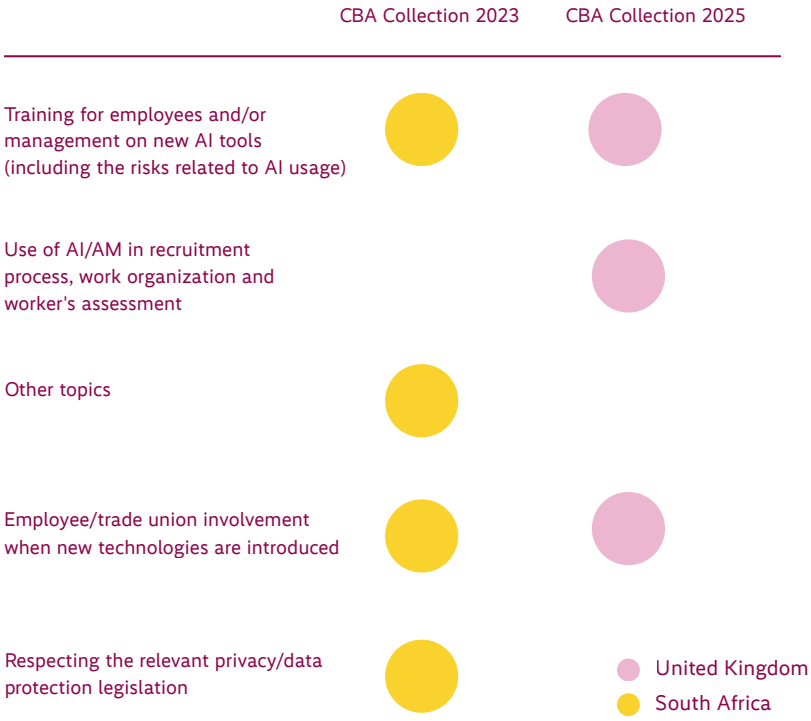


Figure 25: CBA content by industrial relations systems: Eastern European countries

Source: WageIndicator Collective Agreements Database, accessed in January 2026. N=10

while Romania appears in a narrower range, usually in single-topic entries. Hungary appears only under "other topics," with no representation in the AI/AM-related governance or data protection categories being found. These findings, together with the 'slow lane' of picking up AI/AM-related topics in collective agreements in the Central and Eastern European countries, align with less institutionalised collective bargaining traditions and some hesitation from onboarding new topics in this part of Europe, resulting in fewer but more targeted inclusions.

Fig.26



In Figure 26, The United Kingdom and South Africa show a selective and topic-specific pattern in the AI/AM topics identified so far, though their appearances occur in different collection cycles. The UK is present only in the CBA Collection 2023, with CBAs starting from 2020, while South Africa appears only in the CBA Collection 2025, with CBAs starting earlier, in 2017. These differences reflect the timing of the agreements currently identified rather than a confirmed absence in other years. Despite appearing in separate collection cycles, both countries show a narrow spread across AI/AM topics, consistent with more decentralised bargaining structures where AI clauses emerge in a small number of agreements.

Figure 26: CBA content by industrial relations systems: Anglo-Saxon liberal and non-European countries

Source: WageIndicator Collective Agreements Database, accessed in January 2026. N=10

3.2 Best practices and specific stipulations in collective agreements

Analysis of CBAs' content shows some clear best-practice patterns when comparing countries through Visser's (2009) categories. Southern statist countries, especially Spain and Italy, include the widest range of AI and AM clauses.

Across both the CBA Collection 2023 and the CBA Collection 2025, some topics clearly stand out as the best covered. These include worker involvement, training on AI tools, privacy and data-protection rules, and working-time impacts. These topics appear frequently across countries, sectors, and starting years. There are also signs of improvement, such as Spain and Italy expanding their range of topics and sectoral coverage.

Overall, while the level of activity is different across countries and sectors, many of them are already building important elements of AI governance into their CBAs, with outstanding contents and best practices:

Box 1: Spain - Broad and Detailed Digital Rights in Collective Bargaining

Spain provides an example of how collective bargaining addresses digital transformation and digital rights in a broad and structured manner. Spanish CBAs recognise digital transformation as a factor with significant implications for employment and working conditions, establishing collective bargaining as the main instrument to anticipate and govern these impacts. They lay down workers' rights to digital disconnection, privacy in the use of digital devices, and protection against disproportionate monitoring, alongside commitments to digital skills training. Spanish agreements also address the use of artificial intelligence by limiting fully automated decision-making, safeguarding against algorithmic discrimination, and requiring information and transparency towards worker representatives when AI systems are used in human resources and labour relations.

Source: Collective agreement between the Allianz Group and CC.OO., UGT and CGT (2021): https://tusalario.es/leys-laborales/base-de-datos-de-convenios-colectivos/convenio-colectivo-de-grupo-allianz-2022

Box 2: Spain - Comprehensive Digital Rights and Data Protection

The IV Convenio colectivo de Enercon Windenergy Spain, SL. 2025–2029 establishes comprehensive protections for employees' personal data and digital rights, ensuring that the use of digital tools, surveillance systems, and geolocation devices respects privacy, proportionality, and legal requirements:

"Enercon Windenergy Spain, SL shall implement the necessary means for the proper exercise of employees' digital rights. The Company shall inform employees of decisions regarding digital or technological transformations, and data processing shall be governed by the principles of minimisation and proportionality, maintaining secrecy and confidentiality at all times. Employees have the right to privacy when using digital devices, which must be used for professional purposes, and any monitoring through video, sound, or geolocation systems must be justified by a legitimate purpose, respect proportionality, and be clearly communicated in advance. All employees must be informed of their rights regarding personal data protection, the use of digital devices, and the processing of information obtained through these systems, ensuring that data processed is adequate, relevant, and limited to its intended purpose."

Source: IV Convenio colectivo de Enercon Windenergy Spain, SL. 2025_2029 (2025): https://tusalario.es/leys-laborales/base-de-datos-de-convenios-colectivos/iv-convenio-colectivo-de-enercon-windenergy-spain-sl-2025-2029

Box 3: Italy - Sectoral Guidelines (Chemical Industry) for Responsible AI Use

The CCNL Industria Chimica – Ipotesi di rinnovo 2025–2028 outlines a sectoral approach to governing the use of artificial intelligence in corporate organisations, recognising AI as a driver of efficiency, innovation, and sustainability while underscoring the need to anticipate and manage associated legal, ethical, and organisational risks:

"The use of artificial intelligence systems in corporate organisations represents opportunities in terms of competitiveness, improved health and safety, environmental protection, and increased professional skills," while also giving rise to risks linked to "personal data protection, discrimination and prejudice, transparency," and the "disclosure and dissemination of confidential data and know-how," which must be "carefully map[ped] and analyze[d] before introducing such systems, in full compliance with the provisions of current regulations."

Source: CCNL_INDUSTRIA CHIMICA_Ipotesi di rinnovo_ (2025): https://iltuosalario.it/le-leggi-italiane-sul-lavoro/contratti-collettivi-nazionali-di-lavoro-in-italia/ccnl-industria-chimica-ipotesi-di-rinnovo-2025

Box 4: Italy - Human-Centered Integration of AI in the Workplace in the Tertiary Sector – Trade, Distribution and Services

The CCNL Terziario – Commercio, Distribuzione e Servizi – Ipotesi di rinnovo 2024 outlines how companies providing AI services should integrate artificial intelligence in the workplace, emphasising both the opportunities for efficiency and innovation and the need to maintain human oversight and skill development:

"The introduction of artificial intelligence represents a key driver of changes in the world of work. While AI can increase organisational efficiency, productivity, competitiveness, and sustainability, it also carries the risk of replacing human resources in routine tasks. It is therefore essential to integrate AI gradually, keeping workers at the center, ensuring they remain the final decision-makers in AI-supported processes, and providing adequate training and preparation to develop their skills."

Source: CCNL terziario_commercio_distribuzione e servizi_Ipotesi di rinnovo (2024): https://iltuosalario.it/le-leggi-italiane-sul-lavoro/contratti-collettivi-nazionali-di-lavoro-in-italia/ccnl-terziario-commercio-distribuzione-e-servizi-ipotesi-di-rinnovo-2024

Box 5: Denmark – Binding AI and Algorithmic Management Rules in a Platform CBA

Denmark provides a leading example of detailed regulation of AI and algorithmic management through collective bargaining. The 2024 collective agreement between Hilfr ApS and the trade union 3F contains a dedicated chapter on artificial intelligence and algorithmic decision-making. It guarantees transparency of algorithmic decisions, the right to contest them as if made by a human, full justification for any significant algorithmic decision (including dismissal), strict rules on data collection, and strong limits on third-party data access and workplace apps. Individual waivers of data rights are declared invalid unless explicitly laid down in the collective agreement.

Source: Hilfr–3F Collective Agreement (2024): https://lontjek.dk/arbejdsretten/database-over-kollektive-overenskomster/collective-agreement-hilfr-aps-2024

Box 6: Finland – Social Dialogue on the Future Impact of AI in ICT

In Finland, the collective agreement for salaried employees in the ICT sector (2023–2025) between Palta and Trade Union Pro institutionalises continuous social dialogue on digitalisation, robotics, and artificial intelligence. A joint working group is tasked with assessing future impacts of AI on work, changing skill demands, future competence needs, and the maintenance of work ability and well-being. The agreement also encourages company-level dialogue to link technological change with productivity, competitiveness, and employee welfare.

Source: ICT Sector Collective Agreement 2023–2025: https://wageindicator.fi/tyooikeus/tyoehtosopimustietokanta/the-collective-agreement-for-salaried-employees-in-the-ict-sector-2023-2025-final

Box 7: Norway – Technology Governance with Strong Social Safeguards

Norway's Basic Agreement between the Confederation of Norwegian Enterprise (NHO) and the Norwegian Confederation of Trade Unions (LO) establishes overarching rules for the introduction and use of new technologies and computerised systems. The agreement explicitly frames technological development not only as a technical and financial issue but also as a social one, with particular emphasis on personal data protection. It requires impact assessments that consider work organisation, employment, information routines, human relations, and gender equality when new technologies are launched.

Source: LO–NHO Basic Agreement on Technological Development: https://lovdata.no/dokument/TARHE/tariff/tarh-1

Nordic countries display attention to worker involvement and privacy (see Box 5, 6 and 7 below, with some examples of best practices). In contrast, Western Social Partnership countries adopt a **more balanced and sector-based approach** (see Box 8 for an example of a German CBA). Eastern European, Anglosaxon liberal, and non-European countries appear to cover fewer AI/AM-related topics in their collective agreements. However, they still provide good examples of targeted agreements in specific areas (see Box 9 for an example of a United Kingdom CBA). These differences show that each industrial-relations system has its own way of responding to AI/AM in the workplace.

Box 8: Germany – Governance of Artificial Intelligence

The 2020 German works council agreement (Betriebsvereinbarung über die Einführung und den Einsatz von Systemen der Künstlichen Intelligenz / Artificial Intelligence) illustrates the comprehensive, multi-layered approach to AI governance found in German industrial relations. Rather than just setting ethical goals, it establishes a legally binding, risk-based classification system and concrete worker protections:

1. Core Ethical Principles & Human Oversight
The agreement sets strict baseline principles for any AI implementation, emphasising that technology must augment, not replace, human agency:

- **Guiding Principles:** Transparency, explainability (traceability) of results, non-discrimination/fairness, and the quality assurance of data and algorithms.
- **The Human-in-the-Loop Imperative:** "The purpose of the AI systems is the data-driven preparation of the best possible decisions within the company. Under no circumstances do they replace the final decision made by a human."

2. Risk-Based Classification & Co-Determination
The Central Works Council (KBR) is empowered to evaluate and categorise AI systems based on their potential to harm employees or monitor behavior and performance (VuLK).

3. Mandatory Safeguards, Retraining, and Welfare
The CBA explicitly links AI deployment to employment security and workplace well-being:

- **Retraining Guarantees:** "In the event of job loss or modification of the activity due to the use of AI systems... the employer must, as far as possible, offer the affected employee an equivalent position. If necessary, the employee shall receive corresponding retraining."
- **Protection of Human Dignity:** Working conditions must be designed so they "do not lead to any long-term health impairment... that the free development of the employee's personality is protected and promoted, and that the right to human dignity is respected."

Source: Betriebsvereinbarung über die Einführung und den Einsatz von Systemen der Künstlichen Intelligenz / Artificial Intelligence (2020): https://wageindicator.org/de-de/arbeiten-in-deutschland/tarifvertrag/konzernbetriebsvereinbarung-uber-die-einfuhrung-und-den-einsatz-von-systemen-der-kunstlichen-intelligenz-artificial-intelligence

Box 9: United Kingdom – Key Principles of Technology Deployment in Workplace

The UK provides an example of principled technology deployment in collective bargaining. The Royal Mail CBA (2020) establishes that technology must not de-humanise operational decision-making and should complement, not replace, managerial, union, and employee input in resourcing decisions. Manual systems replaced by technology, such as sign-on sheets, will continue to support the same processes, and scan in/out data cannot be used to reduce contractual pay or agreed overtime. Technology is intended to enhance insight, improve processes, and replace outdated methods, while all data use must comply with Royal Mail policies, the GDPR, and the 2018 Guiding Principles.

Source: GBR Royal Mail group ltd (2020): https://wageindicator.co.uk/advice/collective-agreements-database/18-12-20-incorporating-cwu-amends-from-18-12-20-rmg-cwu-key-principles-framework-agreement

3.3 Key takeaways from the analysis of collective agreements

Taken together, the visuals indicate that references to AI and algorithmic management in collective bargaining remain uneven but increasingly diverse across Europe and beyond. Countries such as Spain, Italy, Germany, and Denmark appear across a wide range of topics and sectors, reflecting more extensive engagement with AI-related issues in their agreements. In contrast, many countries appear to have only a small number of themes or limited sectoral contexts, suggesting that the negotiation of AI issues is still emerging across many parts of the labour market. Across sectors, technologically intensive areas such as manufacturing, ICT services, finance, legal/business consultancy, and logistics display the broadest coverage of AI/AM topics, while more traditional sectors contribute to fewer themes.

The early years of the CBAs show a strong concentration from 2020 to 2023, the core period during which most agreements containing AI and AM references begin. Earlier starting years appear only occasionally, while entries starting in 2024 and 2025 come mainly from the updated collection. This pattern reflects the years in which CBAs with AI-related clauses were initiated, with the majority of topics, especially training, worker involvement, and privacy found in agreements starting from 2020 onwards.

When the patterns are viewed through Visser's classification of industrial relations systems, clearer structures become visible. Southern statist countries, particularly Spain, show the widest and most sustained presence across AI/AM topics, while Western social partnership systems reflect structured, but more selective engagement. This is illustrated by the Global Framework Agreement on Digital Transformation & Artificial Intelligence between SYENSQO and the Global Forum SYENSQO (GFS) & European Works Council (EWC) (Belgium, 2025), which stipulates that "a process of information and consultation will take place between management and employee representatives" before significant AI projects are implemented. Nordic countries demonstrate early and broad attention to core AI themes, as reflected in the Collective Agreement for Salaried Employees in the ICT Sector 2023–2025 (Finland), which jointly examines "the impacts of digitalization, robotics, and artificial intelligence on white-collar work" alongside future skill requirements and employee well-being. Eastern European countries contribute in targeted ways across fewer topics, and the Anglo-Saxon liberal and non-European systems (United Kingdom and South Africa) show selective entries across different collection years, consistent with more decentralised bargaining environments.

Across CBA Collection 2023 and CBA Collection 2025, many of the most common AI/AM topics, such as AI training, worker involvement, privacy legislation, and working-time impacts, continue to appear in multiple countries and sectors. Other themes, such as AI-based recruitment or monitoring tools, remain more concentrated. These patterns indicate that while the integration of AI into collective bargaining is still developing, certain areas of governance are already gaining consistent attention. Overall, the findings suggest that AI and algorithmic management have begun to take on a recognisable place within collective bargaining frameworks, though the scope, depth, and distribution of this inclusion still varies widely across countries, sectors, and industrial relations traditions.

As previously mentioned, the visuals with related textual analysis, as well as best practices identified and highlighted in the report, are based on a limited sample of Collective Agreements in Europe containing AI/AM-related clauses. The collection was based on the availability of CBAs, which were collected through official public registers freely accessible and through direct cooperation with the social partners who aimed at sharing their CBAs. Nevertheless, our study and CBA sample indicate a clear and reliable trend in which it is noticeable that the social partners are more and more willing to address AI/AM-related topics in their agreements, as shown by the second wave of our CBA collection and analysis. The vibrant current trend opens a very interesting scenario for further investigation and analysis of AI/AM-related clauses in CBAs to be explored in the future.

4.
Conclusions and lessons learned

This report examines how artificial intelligence (AI) and algorithmic management (AM) are entering European workplaces and how collective bargaining is responding to these developments. AI and AM systems are increasingly being used for monitoring, scheduling, evaluation, and decision-making across service sectors, yet their regulation through social dialogue is still developing unevenly. While policy frameworks such as data protection law and the EU AI Act are evolving, collective bargaining is emerging as a crucial complementary tool to address workplace-level risks, including surveillance, opaque decision-making, workload intensification, and data misuse. The study draws on desk research, two waves of a UNI Europa survey (2023 and 2025), and the analysis of 108 collective agreements with AI/AM-related clauses.

The desk research shows a growing governance gap: AI/AM is spreading faster than regulatory responses thereto, which creates new risks for privacy, fairness, and working conditions, even though they hold out the promise of efficiency gains. While consultations and negotiated solutions can improve job quality without harming productivity, legal regulation of AI/AM used alone remains insufficient. This underlines the strategic importance of collective bargaining to establish practical rules on transparency, data protection, surveillance limits, and automated decision-making at the workplace level.

Survey results reveal a sharp rise in attention to AI/AM in collective bargaining. In 2025, 65% of survey respondents reported engagement in negotiations on AI/AM-related topics. This is an increase of 23 percentage points compared to 2023. The share of collective agreements containing AI/AM-related provisions increased from 20% to 38%. The most established bargaining areas remain privacy, data protection, and restrictions on data-sharing. In contrast, recruitment-related automation (e.g., social media background checks and automated CV screening) remains the least regulated via collective bargaining. Trade unions increasingly seek bargaining on workers' involvement in data protection impact assessments, access to understandable information about AI systems, the right to external data experts, and the effects of AI on workload intensity.

At the same time, AI/AM is still not systematically embedded in collective bargaining. Respondents consistently identify employer resistance, low perceived urgency, limited knowledge, and reliance on existing legislation as the main obstacles. Many employers argue that existing labour and data protection laws are sufficient or that AI is evolving too quickly to regulate. Some view AI as "not necessary yet" for bargaining because its current impact on jobs appears limited compared to other priorities. Knowledge gaps, legal and ethical uncertainty, and fear of misuse further weaken unions' bargaining position, making engagement largely reactive rather than anticipatory.

Beyond formal bargaining, trade unions are increasingly relying on complementary measures and initiatives. Training and workshops on AI/AM risks aroused the greatest interest in the instruments used in the 2025 survey wave (72% of respondents, up from 36% in 2023). Policy strategy papers and joint social partner initiatives are now being used by 44% of respondents. Qualitative comments confirm that AI frameworks are emerging at the company level in some cases and that regulation has visibly increased over time.

The analysis of 108 collective agreements shows uneven but growing institutionalisation of AI governance. Spain, Italy, Germany, and Denmark display the broadest thematic and sectoral coverage, particularly in manufacturing, ICT, finance, consultancy, and logistics. Most AI-related CBAs originated between 2020 and 2023, the period when AI clauses began to diffuse more widely. Core topics such as AI training, worker involvement, privacy protection, and working-time impacts appear most consistently. By contrast, AI-based recruitment and monitoring remain concentrated in a smaller number of agreements.

In sum, AI/AM and algorithmic management have clearly entered the collective bargaining agenda, but their integration remains uneven, fragmented, and heavily constrained by employer resistance, uncertainty, and limited expertise. While privacy and information rights are becoming standard bargaining topics, a deeper regulation of algorithmic decision-making and management power is still rare. The findings point to a growing need for anticipatory bargaining strategies, stronger worker involvement, and substantial capacity-building to ensure that AI governance keeps pace with rapid technological change through collective bargaining.

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About the authors

Marta Kahancová, PhD., is the cofounder and managing director of the Central European Labour Studies Institute (CELSI) and an associate professor in public policy at Comenius University, Faculty of Social and Economic Sciences, Bratislava, Slovakia.

Daryn Zholdasbay, is a junior researcher at the Central European Labour Studies Institute (CELSI), specialising in digitalisation, AI and algorithmic management systems.

Intan Citra Phonskaningtyas, is a Data Analyst at WageIndicator Foundation, specialising in visualisations and analysis of Collective Agreements, and Minimum Wages and Living Wages.

Gabriele Medas, is the Collective Agreements Database manager of the WageIndicator Foundation.

Tomas Sarközi, is a junior researcher at Central European Labour Studies Institutes (CELSI) and a PhD candidate at the University of Economics in Bratislava, focusing on a quantitative labour market research and labour market policies.

Fiona Dragstra, is the Director of the WageIndicator Foundation. She coordinates research projects in close cooperation with research partners, trade unions, employers associations and policy makers.

ABOUT CELSI
The Central European Labour Studies Institute (CELSI) is a non-profit research institute based in Bratislava, Slovakia. It fosters multidisciplinary research on the functioning of labour markets and institutions, work and organisations, business and society, ethnicity and migration in the economic, social, and political life of modern societies. CELSI strives to make a contribution to cuttingedge international scholarly discourse. In its applied research and policy analysis, CELSI promotes a focus on Central and Eastern European countries.

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WageIndicator Foundation is a global, independent, non-profit research organisation that collects, analyses and shares information on Minimum Wages, Cost of Living and Living Wages, Salaries and Wages, Labour Laws, Gig and Platform Work, and Collective Agreements across 216 countries worldwide. Their mission is to improve labour market transparency to ensure workers, employers, trade unions and other stake holders can make informed decisions.

Artificial Intelligence, Algorithmic Management and Collective Bargaining in European Services

Artificial intelligence (AI) and algorithmic management (AM) tools are becoming more visible in workplaces, creating both opportunities and risks for workers. As regulation struggles to keep pace, collective bargaining can play an important role in governing their use. The report presents findings from two waves of an original survey conducted in 2023 and 2025 among 195 trade union representatives affiliated with UNI Europa across 43 countries, alongside an analysis of 108 collective agreements containing AI/AM provisions. The findings show growing trade union engagement with AI/AM, with collective agreements increasingly addressing issues such as privacy, data protection, worker involvement, and training. Spain, Italy, Germany, and Denmark show the broadest thematic and sectoral coverage of AI/AM topics. However, employer resistance, limited knowledge, and legal uncertainty remain important barriers to further engagement with AI/AM topics.

Further information on the topic can be found here:
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