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Artificial Intelligence and the Changing Labour Market

Opportunities, challenges and implications for adult learners

Stakeholder analytical report | Advancing Careers Through AI (ACT AI) | Erasmus+ KA210-ADU

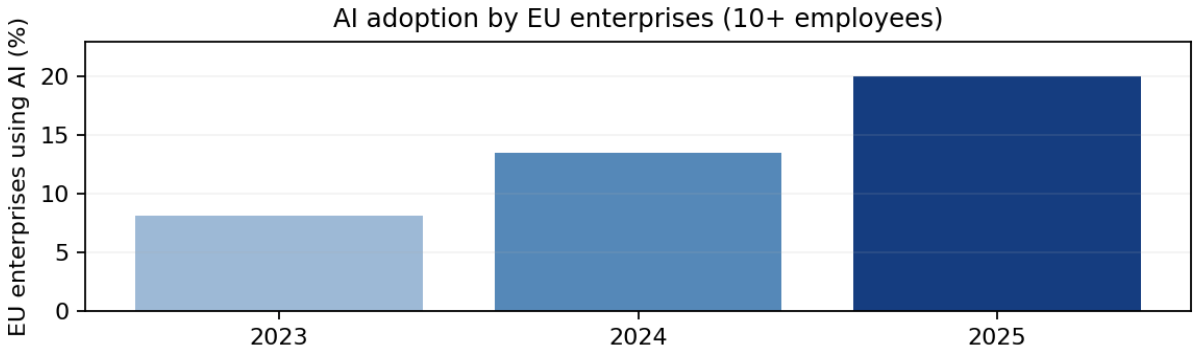
Executive overview

Artificial intelligence (AI) is becoming part of routine work across Europe. Employers use it to analyse information, generate content, assist customer services and support administrative decisions. The immediate effect is not uniform job loss: many occupations are being reorganised as particular tasks change. The International Labour Organization (ILO) estimated in 2025 that one in four workers worldwide held an occupation with some exposure to generative AI, while stressing that transformation was more likely than full replacement [2].

European business adoption has accelerated. Eurostat reported that 20.0% of EU enterprises with at least ten employees used AI in 2025, compared with 13.5% in 2024 and 8.1% in 2023 [1]. These figures indicate organisational uptake, not the proportion of employees using AI. The pace of adoption varies sharply between countries and business sizes.

Why this matters for adult learning

The key policy challenge is ensuring that workers can benefit from new tools without losing access to employment, training or fair treatment. Adults changing careers, people with limited digital skills and migrants may need additional support to understand new requirements and evaluate AI-generated information. Adult education can connect basic digital confidence with realistic workplace tasks.



Source: Eurostat, enterprise AI-use statistics, 2023–2025. Figures are percentages, not counts of workers.

Scope: This report synthesises published research and policy evidence. It does not claim to measure the results of ACT AI training activities.

1. How AI is reshaping employment

AI adoption affects the composition of work before it necessarily affects the number of jobs. Text summarisation, document classification, translation, routine correspondence and data processing can be partly automated. Human oversight remains important where accuracy, judgement, interpersonal trust or legal accountability are required. The ILO identifies clerical occupations as particularly exposed, while exposure is also rising in some professional and media-related roles [2].

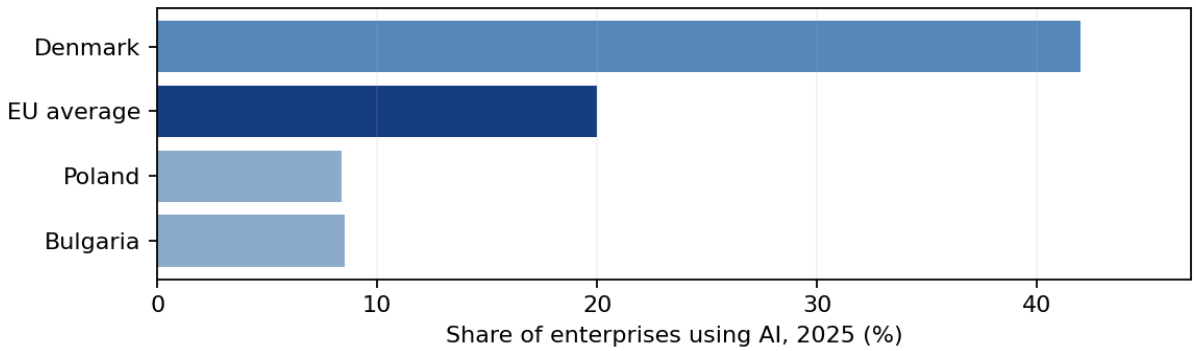
Different sectors, different effects

Office and administrative work. AI can draft routine messages and process documents, changing the balance between repetitive work and checking, coordination and customer interaction. **Professional services.** Analysts, educators and communications staff may use AI to prepare initial material, but must assess reliability and context. **Customer-facing services.** AI can help answer standard enquiries, while complex cases continue to require human problem-solving and empathy.

Exposure is not the same as displacement. Whether AI substitutes for or complements a worker depends on employer choices, task design, regulation, costs and access to training. Stakeholders should therefore assess occupations at task level rather than treating every role labelled “AI-exposed” as endangered.

Uneven adoption across Europe

The 2025 Eurostat figures illustrate a substantial gap: 42.0% of enterprises in Denmark used AI, compared with 20.0% across the EU, 8.5% in Bulgaria and 8.4% in Poland [1]. These differences should not be interpreted as direct measures of worker ability; they reflect business adoption in the surveyed sectors.



Source: Eurostat, enterprise AI-use statistics, 2023–2025. Figures are percentages, not counts of workers.

For employment services, this variation argues for local labour-market assessment. Training priorities should reflect the tools that employers actually use, while also preparing learners for broader changes likely to spread across sectors.

2. Skills, opportunities and risks for adults

A changing skills mix

Employers increasingly need people who can use digital systems, check AI outputs and work effectively with others. AI literacy should be understood as the ability to identify appropriate uses, formulate clear instructions, verify results and recognise limitations. It complements rather than replaces communication, numeracy, professional judgement and sector-specific knowledge.

In the World Economic Forum's 2025 employer survey, respondents expected 39% of workers' existing skill sets to change or become outdated over 2025–2030 [3]. This is a forecast based on employer expectations, not a measured share of workers who have already lost skills. It reinforces the need for regular learning opportunities throughout working life.

Potential advantages for adult learners

More accessible career information. AI-assisted tools can help learners compare job descriptions, identify transferable skills and explore training routes. **Practical workplace support.** Drafting, translation and structured information retrieval may reduce time spent on repetitive tasks. **Personalised practice.** Learners can rehearse interview questions or receive feedback on sample documents, provided they check the output and do not disclose sensitive information.

Risks that require active management

Unequal access. Devices, connectivity, language, disability-related barriers and paid subscriptions may prevent some adults from benefiting. **Incorrect outputs.** AI systems can produce confident but false statements; verification is essential. **Bias and privacy.** Recruitment or workforce-management tools may reproduce unfair patterns or process personal data in ways that require scrutiny. **Job-quality concerns.** Productivity gains do not automatically produce higher wages, better conditions or greater worker autonomy.

The European Commission's 2025 Digital Decade assessment reported that only 55.6% of Europeans had at least basic digital skills [4]. This baseline shows why AI-specific training cannot assume that every adult already has the digital foundations needed to participate.

Implication for stakeholders

Programmes should combine foundational digital skills, applied AI use and clear guidance on limitations. Learners need opportunities to practise on realistic, low-risk tasks and to ask questions without assuming prior technical expertise.

3. What adult education can contribute

Adult education has a distinct role in the AI transition because many people already in employment cannot return to full-time study. Others are seeking work, changing occupations or re-entering the labour market after a break. Effective provision must therefore be flexible, accessible and closely linked to practical needs.

Principles for effective provision

Start with needs, not software. Establish what learners can already do and which employment tasks matter to them. **Use practical examples.** Job-search documents, workplace emails, information checking and skills mapping are more relevant than abstract technical demonstrations for many learners. **Build critical judgement.** Ask learners to compare AI output with trusted sources and explain when they would not use it. **Offer multiple entry points.** Short sessions, supported practice and reusable materials can accommodate different confidence levels.

Design for inclusion. Plain language, accessible formats, multilingual support where needed and low-cost tools can widen participation. **Protect learners.** Exercises should avoid entering real CVs, identity documents, health information or employer-confidential material into unapproved systems. **Update regularly.** Tools and workplace expectations change quickly, so examples and guidance require periodic review.

Lessons from current evidence

First, AI exposure differs by task, so broad predictions of job disappearance can mislead learners [2]. Second, business adoption is growing but uneven, making locally relevant examples important [1]. Third, employer expectations suggest that skills renewal is a continuing need rather than a one-off course [3]. Finally, the persistent basic digital-skills gap means that advanced AI sessions should not displace foundational support [4].

Partnerships beyond the classroom

Education providers can work with employment services to identify barriers to recruitment, with employers to obtain realistic task examples and with community organisations to reach adults who may not enrol through conventional channels. Trainers also need continuing professional development so they can assess new tools without promoting any single commercial product.

A useful programme evaluation should track participation and completion, practical skill demonstrations, confidence before and after learning, and follow-up use of skills. Employment outcomes may also be monitored, but changes in employment cannot automatically be attributed to a short training intervention.

4. Recommendations and outlook

The evidence supports a balanced approach: encourage useful AI adoption while strengthening inclusion, worker voice and accountability. The following priorities are relevant to adult education providers, employment agencies, employers and public authorities.

Recommended actions

1. Make AI literacy part of basic employability support. Include safe prompting, output verification, privacy awareness and an understanding of where human judgement is essential.

2. Prioritise people facing access barriers. Offer beginner-friendly pathways, assisted access to devices and suitable language or accessibility support.

3. Connect learning to actual jobs. Use local vacancies, employer consultation and occupation-specific tasks to keep training relevant; avoid promising employment outcomes that cannot be demonstrated.

4. Promote responsible use. Review bias, transparency, data protection and human oversight when AI is used in recruitment, assessment or guidance.

5. Measure and refresh provision. Evaluate skill gains with practical exercises and update materials as technology and workplace practices change.

Conclusion

AI is altering the European labour market, but its consequences are not predetermined. The central question is whether workers can access the skills, tools and safeguards needed to benefit from the transition. Adult education offers a practical route to that goal when it combines digital foundations, realistic AI applications and inclusive support. Stakeholders should invest in ongoing learning and judge success by demonstrated capabilities and improved access to opportunity, not by the number of tools introduced.

Selected references

[1] Eurostat (2025). 20% of EU enterprises use AI technologies.
https://ec.europa.eu/eurostat/web/products-eurostat-news/w/ddn-20251211-2

[2] ILO (2025). Generative AI and jobs: A 2025 update.
https://www.ilo.org/publications/generative-ai-and-jobs-2025-update

[3] World Economic Forum (2025). Future of Jobs Report 2025.
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[4] European Commission (2025). State of the Digital Decade 2025.
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