Boosting the use of Artificial Intelligence in Europe’s micro, small and medium-sized enterprises (MSMEs)

An EESC study commissioned by its Employers' Group

The diversity and potential of AI applications are nearly limitless. Today, a growing number of businesses and citizens unknowingly rely on AI-driven solutions to enhance their work and life. As these innovative technologies become increasingly mainstream, **MSMEs should adopt AI** to maintain their competitive advantage. This study will shed light on the **opportunities and challenges of AI uptake for Europe’s MSMEs** with an in-depth sectoral and EU/Member state analysis. Effective key actions that could boost AI uptake in MSMEs include:

- To support education and training systems to ensure all **new skills** demanded by the labour market are acquired and **general knowledge on AI** is gained, enabling civil society members to be responsible and informed users of AI devices and applications.
- To ensure SMEs, the largest employers in Europe, have a **targeted support system** from finance and infrastructure to data availability and interoperability, allowing for a **successful pan-European AI adoption**.
- To **raise awareness** about issues such as **cybersecurity and the potential impact of data bias**.
- To provide guidance on **best practices**, promote success stories, and share experiences that can serve as a starting point for a broad AI uptake among MSMEs.

A toolbox for both policymakers and MSMEs will be presented to support the uptake of AI within MSMEs and preserve these businesses’ economic relevance in Europe. The study will be published in **June 2021**.

**Opportunities in AI uptake for MSMEs**

AI functionalities such as prediction, automation, and generation of insights offer **various opportunities and use cases** ranging from **optimised operations and customer engagement** to **transformed products and services** and **employee empowerment**.

Consider the daily administrative burdens faced by MSMEs. **AI-driven automation and insights could make these tasks more manageable** by processing large volumes of data and documents. **By optimising operations and improving time management**, AI-driven automation could also significantly reduce managerial challenges often caused by limited staffing and time constraints.

Of course, specific applications are **quite sector-dependent**. Industries that are labour intensive, such as agriculture and construction, benefit from **robotisation and automation**, which corresponds with the increased safety of workers. AI-driven applications can support or **take over rather mundane tasks** associated with information processing in document-rich sectors such as the liberal professions, accounting and legal services. Within the healthcare sector – a high priority within the EU due to the aging population and shortage of healthcare professionals – AI has the potential to **drive major change** and enable efficiencies in patient management, better treatments, potentially predictive medicine and also reductions in expenditure of social security budgets.
A portion of the accounting sector has already successfully adopted applications based on Machine Learning, a subset of AI. **Al-enabled bookkeeping** automates the most time-consuming and mundane work, freeing up accountants to focus on consulting and advising. While third parties such as financial institutions pose a potential threat in capturing part of the market by harnessing AI accounting technology, the industry as a whole sees excellent opportunities in and benefits of AI uptake.

**Perceived threats and challenges for MSMEs**

The very emergence of AI brings with it a number economic and societal threats to Europe’s smallest enterprises that should not be overlooked.

The **Economic threats** produced by AI could have potentially disruptive effects on entire MSME sectors, due to the increased market dominance of both existing and new players.

The **Societal threats** of AI can be identified in incomplete, compromised, biased or discriminatory data sets. Ethical concerns arise when examining AI’s transparency and human-driven nature, specifically its automated decision making based on personal data. Civil society in the EU has expressed its concerns for citizens’ privacy and the use of AI and biometrics for citizen monitoring in preventive policing applications. The legal liability for damage caused by an AI-driven action also raises concerns.

The **external and internal challenges** that MSMEs encounter on their journey towards an AI-enabled business fall within five major groups: skills, cost, data, market and company. Despite the inherent differences in the studied sectors, there are clear overarching challenges for MSMEs, including a **lack of awareness around AI benefits** by company management and a **lack of skill amongst existing (technical) staff**, in addition to **missing or inaccessible data**. External market conditions, such as too restrictive or too broad legal frameworks, hamper the successful adoption of AI technologies by MSMEs.

Industry associations play a **crucial role in overcoming AI uptake challenges** by raising awareness on digitalisation, providing education such as MOOCs with sector-specific use cases, and first guidance on best practices in the AI uptake. In 2019, Belgium technology business association AGORIA launched a free online course called “AI in Business” to accelerate the use of AI within the Belgian industry by increasing the digital literacy of all employees. The course also contains over thirty application examples to inspire AI uptake.
Assessment of AI uptake across sectors and member states

A deep dive into five sectors confirms that AI accelerates recurring and mundane tasks, increases worker safety and security, and can highly improve efficiency and effectiveness in everyday work. It’s critical to recognize, however, that these developments are not without their implementation challenges:

The national AI policy levels and strategies are shaped by the different market conditions and their starting positions; however, AI uptake opportunities arose in all Member States independent of policies:

- The Romanian government announced a national AI strategy to be released at the end of 2019. While the strategy has not yet been released, this has not hampered AI uptake in Romania.
- A first draft version of Italy’s AI strategy was released in August 2019, which proposed strengthening AI competences at all education levels and creating and fostering the required infrastructure.
- While the primary Irish AI strategy has not yet been released, the Industry 4.0 Strategy has implications for AI and will strengthen Ireland’s role as an ICT powerhouse in Europe.
- The French AI strategy published in March 2018 foresees an investment of EUR 1.5 bn until 2022, and targets to double AI students by the end of 2022, and support workforce transition.
- Sweden’s AI strategy serves as a reference for future policy initiatives and pushes the application of AI in high-priority areas such as healthcare and climate change.

MSMEs views on potential toolboxes

This study envisions an integrated toolbox to support AI uptake, driven by MSMEs’ policy-making needs:

**Think small first:** Formulate policies tailored towards MSMEs that can be adapted for large enterprises later.

**Decrease regulatory requirements:** Propose policies that enable easy adoption into MSMEs’ business practice.

**Raise awareness:** Improve the coordination and synergies of policy instruments and initiatives and enable an MSME platform to overcome the communication gap.

**Create a business-friendly environment:** Provide AI upstream stakeholders with enabling rules, a reliable regulation framework and the freedom to develop their AI applications.

**Foster a pan-European approach:** Stimulate the single market on the European level and tailor policies towards the current needs of member states from AI development to uptake.