Briefing: Bridging the Talent Gap: Enabling AI Adoption for UK SMEs through Literacy, Skills and Talent

Jeff Watkins

07/09/2025

Problem/ Need

Artificial intelligence (AI) holds transformative potential for UK small and medium-sized enterprises (SMEs), from boosting productivity to unlocking new services and markets. Yet despite increasing availability of AI tools, SME adoption remains low, with one of the most significant barriers being the lack of AI literacy, skills and specialist talent. This is in contrast to large organisations, which are showing a much higher degree of AI adoption.

Surveys conducted in 2025 show that:

- 27% of SMEs cite lack of internal expertise as a core barrier to AI adoption

- 25% are uncertain about the Return on Investment (RoI)

- 22% are concerned about high implementation and operational costs

- 50% of SME leaders report distrust in AI systems, largely due to a poor understanding

- Many SME boards and executive teams lack the literacy to set a vision for AI or assess opportunities responsibly

However, over 50% of businesses believe that AI is an essential long-term strategic goal, meaning there is a rift between these two positions, largely due to the availability of literacy, skills, and talent. Efforts in addressing this deficit shouldn't focus on hiring specialist AI and machine learning engineers, more focus on creating a foundational understanding at all levels, enabling confident decision-making, and building capacity to experiment safely with AI, leading to beneficial adoption. If this issue is left unaddressed, the talent gap will further widen the divide between AI-capable firms and the majority of SMEs, undermining national productivity and competitiveness.

<Heading: Context>Opportunity

The UK has a unique and time-sensitive opportunity to lead globally in building an AI-confident SME economy. A timely national strategy focused on AI literacy, skills, and access to talent can:

- Enable SME boards and executives to become strategic adopters of AI

- Create improved organisational scaling opportunities through the use of technology

- Create career pathways into AI for underrepresented groups and sectors

- Connect SMEs to expert guidance and peer networks to minimise waste and maximise adoption

- Improve trust, understanding and uptake in AI across the entire UK SME ecosystem

---

1 *ANS and YouGov AI Readiness Report* https://www.ans.co.uk/data-ai/ai-readiness/ai-readiness-report/#form-3

2 *Institute of Directors Survey on blockers in AI adoption in UK businesses* https://www.iod.com/news/science-innovation-and-tech/major-blockers-to-ai-adoption-in-british-business/

Public-private collaboration, targeted incentives, and scalable delivery models would help ensure that the benefits of AI adoption in the UK are not confined to large firms and urban tech clusters, but spread across all sectors and regions.

Case Study Examples

AI Upskilling Fund (UK, 2024) - A DSIT-funded pilot offering 50% match funding for SMEs in professional services to upskill staff in AI. The fund saw strong uptake, demonstrating that cost remains a key barrier to training and that targeted support can unlock SME investment.

Mittelstand 4.0 Centres (Germany) - Germany's regional centres provide embedded digital and AI trainers who work directly with SMEs to deliver sector-specific and applied support to help organisations in the context of Industry 4.0. These centres foster both literacy and capability through peer workshops, hands-on pilots, and mentoring.

Copilot for SMEs (Singapore, 2024) - This programme paired Microsoft tools with government-backed training, giving SMEs easy access to generative AI and templates. It focused on practical skills for staff and awareness at the leadership level.

SME Constraints

Despite the growing interest in AI skills, SMEs face multiple constraints in developing AI capabilities:

- Few have training budgets or hiring budgets for AI-specific headcount, and owners, managers and executives often cannot commit to long courses.

- This results in a general awareness gap in the context of use cases, available tools, implementation pathways and risks.

- Boards and executive teams generally lack the overall AI literacy necessary to set an AI vision and strategy, evaluate potential AI investments, and address governance challenges.

- There is also a current lack of access to AI experts, with most SMEs operating without AI advisory capacity and internal champions for implementation.

These constraints disproportionately affect SMEs outside major tech clusters and in traditional sectors, and this situation will be slow to resolve without appropriate targeting.

Recommendations

1. Enhance access to training resources

It is recommended that the support for AI literacy and skills is scaled, reopening and expanding the AI Upskilling Fund beyond professional services to cover all sectors. This could be made more easily accessible through the creation of an AI Skills Voucher Scheme, which provides SMEs with flexible credits to spend on certified training providers. Consideration should be given to whether this is a potential use of the apprenticeship levy. Making these training resources scalable will ensure this investment works smarter for the UK, which could be achieved through the development of free, bite-sized online literacy modules for SME staff, tailored to different industries and roles, including both technical and non-technical ones. This new AI content could be integrated into existing business support programmes (e.g. Help to Grow, Local Growth Hubs).

1 *ANS and YouGov AI Readiness Report* https://www.ans.co.uk/data-ai/ai-readiness/ai-readiness-report/#form-3
2 *Institute of Directors Survey on blockers in AI adoption in UK* businesses https://www.iod.com/news/science-innovation-and-tech/major-blockers-to-ai-adoption-in-british-business/

Desired outcome: SMEs can invest in relevant training without prohibitive costs or complexity, and all staff, not just technical teams, build confidence in AI.

2. Build Executive and Board-Level AI Literacy

Launch a national "AI for SME Leaders" programme, delivered via webinars, online tools, and in-person briefings. Consult and partner with trade associations and chambers of commerce to run executive-level AI workshops. Create practical guides and checklists for boards (e.g. "10 questions every board should ask about AI"). Promote the inclusion of AI strategy and risk in board development and governance training.

Desired outcome: SME leaders, including boards and executives, are equipped to make informed AI decisions, evaluate risk, and set strategic direction.

3. Connect SMEs with Experts and Trusted Advisors

To equip SMEs with expert knowledge, it is recommended to establish a national SME AI Advisory Network of vetted experts, mentors and peer champions. This scheme could offer subsidised "Ask an Expert" hours via gov.uk or through Growth Hubs and industry bodies, and fund short-term placements of AI students and professionals (e.g. consultants, PhD students, fellows) into SMEs.

Desired Outcome: SMEs can easily access real-time, trusted advice, reducing hesitation and costly mistakes.

1 *ANS and YouGov AI Readiness Report* https://www.ans.co.uk/data-ai/ai-readiness/ai-readiness-report/#form-3
2 *Institute of Directors Survey on blockers in AI adoption in UK* businesses https://www.iod.com/news/science-innovation-and-tech/major-blockers-to-ai-adoption-in-british-business/