

September 2026

Building an AI-ready Workforce

Creating a skills system that
prepares UK knowledge workers
for the AI transition



About Learning and Work Institute

Learning and Work Institute is an independent policy and research organisation focused on lifelong learning and better work. Our vision is for a fair and prosperous society where learning and work enable everyone to realise their potential. We research what works, influence policy and develop new ideas to improve practice.

Stay informed. Be involved. Keep engaged. Sign up to become a Learning and Work Institute supporter: learningandwork.org.uk/supporters

About The Rigby Foundation

Founded by tech entrepreneur Sir Peter Rigby in 1992, The Rigby Foundation builds on the Rigby family's wealth of experience in the tech sector, helping to ensure that employers and educators are well placed to address the challenges and embrace the opportunities that AI presents. Alongside this, the Foundation's main funding focus is supporting young people from less advantaged backgrounds in Birmingham and the West Midlands to achieve educational success and access meaningful employment opportunities.

Charity registration no: 1207788 www.rigbyfoundation.org.uk

Building an AI-ready Workforce

Creating a skills system that prepares UK knowledge workers for the AI transition

Bradley Phipps, Emily Andrews, Corin Egglestone,
Catherine Marren, Sara Treneman and Anna Dent



Contents

Foreword by Steve Rigby	4
Weaknesses in the UK skills system are a major threat to the potential £80 billion economic opportunity of AI adoption	6
What this report does	10
The AI upskilling journey	11
Stage 1: Employer identifies a need for AI skills	11
Stage 2: Employer chooses an approach to filling skills gaps	15
Stage 3: Employer attempts to access suitable training	18
Stage 4: Employer embeds AI skills	25
The case for government action	26
The size of the prize: how might the benefits of AI upskilling compare with the costs?	28
Recommendations	31
Recommendation 1: Incentivise employer investment in AI upskilling	31
Recommendation 2: Close the AI skills information gap	32
Recommendation 3: Build AI-ready management capability in the UK	34
Recommendation 4: Make the accredited system more relevant and adaptive for AI	36
Recommendation 5: Make AI skills portable and ensure everyone can make the most of the opportunities ahead	38
Advisory Board	40
Appendix A – Project aims and methodology	43
Appendix B – Modelling the costs and benefits of AI skills	46
References	55

Foreword by Steve Rigby

The Rigby Foundation



The daily discourse on artificial intelligence zips back and forth between a few familiar themes. Favoured topics include the billions of dollars pouring into new models, the soaring cost of compute, the threat of AI-driven cyber attacks and the unknowable implications of superintelligence.

We hear far less about the opportunity for British businesses from making smart use of the technology. We estimate this opportunity to be worth £80 billion in productivity gains by 2035, providing a potentially transformative boost for the UK economy.

This report aims to highlight the under-discussed problem of the skills required to build an AI-ready workforce. It examines the opportunities AI offers for organisations and the barriers to effective adoption of AI in relation to employee skills. It also analyses how policy can support upskilling across the economy.

The need for action is urgent. The UK workforce does not yet have the skills to successfully adopt and scale AI technologies. I see this reality every day in my work with businesses across the country. There is a widespread willingness to engage with AI – this report finds that most employers (85%) are currently using AI in some capacity – but a lack of extensive adoption and effective deployment.

There are sectors – particularly the legal sector – and individual businesses in the UK which are leading the way globally on AI adoption. But these are not the norm. Under-developed AI literacy and organisational leadership skills, and a reliance on ad-hoc experimentation and vendor-provided training, mean the transformative potential of AI remains out of reach for too many organisations.

Here, the AI imperative meets longstanding weaknesses in the UK skills system – a system which does not currently have the investment, adaptability and energy to fill these skills gaps. Employer investment in skills for individual employees has fallen by more than a third over the last twenty years. The process to update the standards underpinning our technical education system can still take years.

Organisations (and their leaders) are responsible for their own development – and they are better placed to decide the best course of AI implementation than the State. However, Government does have a significant role in enabling that activity. To do so, it must address the information gaps slowing down employer action, boost employer skills investment incentives, address weak leadership skills, and introduce much greater flexibility and adaptability into the accredited technical education system.

The task is achievable. Our modelling shows that the actual scale of investment needed to tackle these skills gaps is minimal compared to the scale of the prize: we estimate that the benefits of AI upskilling could outweigh the costs by £80 billion by 2035.

I would like to personally thank Learning and Work Institute and the Advisory Board for producing this excellent report. The investment is manageable, the path forward is clear, and a strong political opportunity has arrived. Now we must act.

Steve Rigby
The Rigby Foundation
www.rigbyfoundation.org.uk



Weaknesses in the UK skills system are a major threat to the potential £80 billion economic opportunity of AI adoption

AI has transformative potential for the UK economy: the potential net uplift to productivity (minus costs) could reach £80 billion by 2035, according to our calculations based on the OBR's central estimate.

That potential comes not primarily from our ability to build silicon, or develop a new general-purpose large language model (LLM) to rival OpenAI or Anthropic. It comes from our ability to use these technologies: to boost productivity and innovation in our areas of comparative economic advantage – such as life sciences, professional services, insurance, legal and finance – and boost administrative productivity across sectors.¹

In other words: **the UK's AI advantage does not lie in the hands of frontier tech companies – but in the leaders and workers that make up the UK economy at large.**

This is the source of the UK's biggest AI potential, but also where it faces one of its greatest – but less-discussed – risks.

The UK workforce does not yet have the skills to successfully adopt and scale AI technologies in a truly transformative way. AI usage is growing at pace, but this adoption is currently shallow. Our survey of UK-based HR decision makers found that:

- Most employers (85%) surveyed are currently using AI in some capacity
- But only 18% are using it 'extensively' (falling to 13% among SMEs)
- In spite of this, ambitions are high: more than half (57%) expect AI to significantly or fundamentally change the way they work in the next 2–3 years.

There are sectors – particularly the legal sector – and individual businesses in the UK which are leading the way globally on AI adoption. But these are not the norm. Under-developed AI literacy and organisational leadership skills, and a reliance on ad-hoc experimentation and vendor-provided training, mean the transformative ambitions they hold remain out of reach for too many organisations.

Here, the AI imperative meets longstanding weaknesses in the UK skills system – a system which does not currently have the investment, adaptability and energy to fill these skills gaps. Employer investment in skills for individual employees has fallen by more than a third over the last twenty years.² The process to update the standards underpinning our technical education system can still take years. Under-developed organisational leadership skills are holding back technical innovation and adoption of all kinds – including AI.

- Learning on-the-job is the favoured mode of AI upskilling – being adopted by 50% of employers questioned who are currently using AI
- Tech companies are nearly four times more likely to be considered as a training provider (49%) as FE colleges (13%)

Organisations (and their leaders) are responsible for their own development – and they are better placed to decide the best course of AI implementation in their business than the State. Government's role is to enable and support that activity. And without Government action to address the fundamental market and institutional failures that underpin those longstanding weaknesses in the wider skills system, businesses will not move at the speed or depth needed to reach their goal of making the UK the fastest AI adopter in the G7.

We need to move fast to address the information gaps slowing down employer action, boost employer skills investment incentives, address weak leadership skills, and introduce much greater flexibility and adaptability into the accredited technical education system.

- The most important features of AI training for employers are relevance (36%), tailored content (33%) and a clear ROI (32%)
- Only 15% prioritise AI training that results in a recognised qualification

The new Prime Minister's agenda and interests create the strongest opportunity we have had for some years to tackle these fundamental issues. As a devolution evangelist, he is particularly well placed to shape Whitehall into a 'strategic state' that boosts industrial activity, rather than trying to do everything itself. He has made an early commitment to boosting the technical skills of the UK workforce – via a revitalisation of vocational education. Despite collapsing DSIT, he has maintained the same AI Minister in post, and moved strategic ownership of AI policy into Number 10.

The task is do-able. Our modelling shows that the actual scale of investment needed to tackle these skills gaps is minimal compared to the scale of the prize: we estimate that the benefits of AI upskilling could outweigh the costs by £80 billion by 2035.

The investment is manageable, the path forward is clear, and a strong political opportunity has arrived. **If we squander this moment, UK organisations will lose their early mover advantage, and that £80 billion prize will fall out of reach.**



Table 1: Summary of key findings and recommendations

Skills cycle stage	Issues	Market and institutional failures to be addressed	Recommendations to Government
Employer identifies a need for AI skills	1. Employers don't have a clear view on what AI can achieve	Information gaps risk slow or poor upskilling decisions Under-developed leadership and management capability across the UK economy	Close the AI skills information gap: - Establish an AI skills intelligence unit - Commission and support sector bodies to fill information gaps - Pilot direct business support and advice for SMEs Ensure everyone can make the most of the opportunities ahead: - Renew the push on essential literacy, numeracy and digital skills
	2. 'AI skills' are too narrowly understood, currently considered as 'how to use AI tools'		
	3. The pace of change makes this even harder		
	4. Weak management capability in the UK creates a shaky foundation for change		
	5. Patchy underlying digital skills in the UK workforce		
Employer chooses an approach to filling skills gaps	1. Investment incentives do not fully support upskilling vs other forms of investment	Uncertainty deters investment – while the pace of change demands it Under-developed leadership and management capability across the UK economy	Incentivise employer investment in AI upskilling. Consider: - Introducing a Skills tax credit, including a time-limited AI super-rate to 2030 - Reform of the Growth and Skills Levy: creating flexibilities that allow some funds to be spent on non-apprenticeship provision (matched with commitments to young people).
	2. Bottom-up learning and decision-making fill the gap left by strategic decision-making		
Employer attempts to access suitable training	1. Accredited training is not yet fit to fully meet AI skills needs	Information gaps risk slow or poor upskilling decisions The skills system does not have the required agility to respond to this rapidly evolving landscape	Make the accredited system more relevant and adaptive for AI: - Make occupational standards AI-ready - Halve standards approval times - Expand the suite of AI-related apprenticeship units - Pilot routes to support training providers to develop their AI training offers
	2. Training providers also lack skills for effective AI upskilling		
	3. Identifying high-quality non-accredited training is challenging		
Employer embeds AI skills	1. Data 'immaturity' will hold organisations back 2. Breadth over depth: AI is treated as a standalone tool, not a stimulus for business transformation	Under-developed leadership and management capability across the UK economy	Build AI-ready management capability in the UK: - Refresh Help to Grow: Management for the AI transition - Identify and test what works to build management capability at scale - Commit to measurable AI action across the public sector - Strategic Authorities to promote local management capabilities

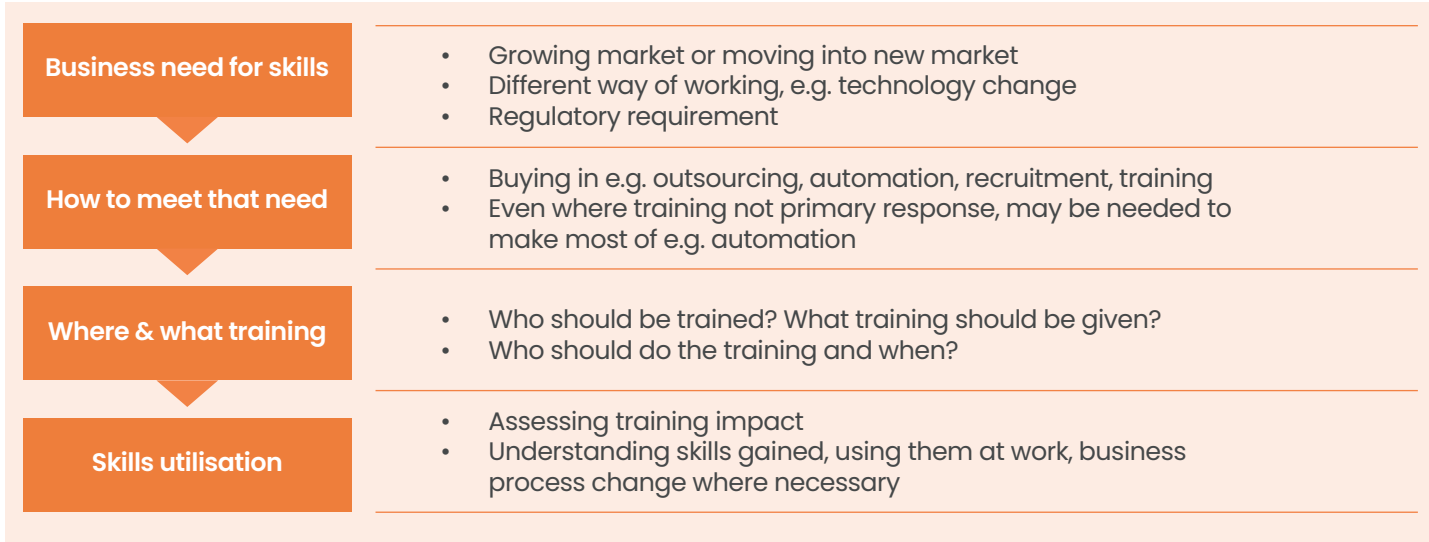
Table 2: Government actions over the next 1, 2 and 5 years

1 year: Budget 2026 to Spending Review 2027: Laying the groundwork	2 years: Spending Review 2027 to the next election: Decisive action	5 years: Commitments for the next Parliament: Long-term change
Recommendation 1: Incentivise employer investment in AI upskilling		
Launch consultation for Skills Tax Credit – including time-limited AI super-rate	Implement Skills Tax Credit Reform the Growth and Skills Levy in England	
Recommendation 2: Close the AI skills information gap		
Establish an AI Skills Intelligence Unit (by end of 26/27 financial year)	Launch industry-led quality indicators for AI training (e.g. kitemarks)	Roll out direct SME AI business support, based on pilot learning
Commission and support sector bodies to fill information gaps	Pilot routes to provide direct AI business support and advice for SMEs	
Recommendation 3: Build AI-ready management capability in the UK		
Commit to measurable AI skills action across the public sector, publishing departmental playbooks	Refresh Help to Grow: Management for the AI transition ‘What works’ review of approaches to building management capability at scale	Test out new approaches to developing management capability at scale
Recommendation 4: Make the accredited system more relevant and adaptive for AI		
Establish timetable for making occupational standards AI-ready Rapidly test mechanisms to shorten approval times for occupational standards: creating fast-track routes and data-led tracking systems	Halve approval times for occupational standards – considering legislation Review occupational standards and develop AI “bolt-ons” to KSBs Expand the suite of AI-related apprenticeship units Pilot routes to support training providers to develop their AI training offers	Wide-scale action to support training providers to maintain up-to-date AI training offers
Recommendation 5: Make AI skills portable and ensure everyone can make the most of the opportunities ahead		
Renew the push on essential literacy, numeracy and digital skills	Boost AI microcredentials Guarantee training completion on redundancy Consult on introduction of Personal Learning Accounts at Level 3 and below	Introduce Personal Learning Accounts at Level 3 and below

What this report does

In this analysis, we have applied Learning and Work Institute’s (L&W) four-part framework for understanding employer skills decisions specifically to the question of AI upskilling. This was developed as part of a wider two-year Nuffield Foundation-funded investigation into the fall in employer investment in skills.

Figure 1: Framework for understanding employers’ skills decisions



Applying this framework to AI skills in particular highlights where the biggest risks are for AI upskilling: weak understanding of skills needs (and AI use cases in general); a lack of suitable training offers in the private market or via accredited provision; and a ‘shallow’ approach to AI tools (limiting opportunities for true business transformation).

It also highlights one of the major opportunities: that AI skills are too rare for ‘buying in’ to be the default employer response. Upskilling of existing staff is currently the key path for employers to adopt. That means AI adoption offers a moment for pushing forward skills development in the UK in general – but only if we address the fundamental market and institutional failures which have held back change to date.

The research took a mixed-methods approach, comprising a literature review, employer survey, quantitative analysis, and qualitative fieldwork with stakeholder representatives. A full methodology can be found in Appendix A.

Throughout this report, our focus is on ‘knowledge workers’: workers whose jobs are focussed on analytic work done at a desk. Often described as ‘white collar’ occupations, these are the jobs which the research consistently suggests will be most impacted by AI – via augmentation, not simply replacement.³

The AI upskilling journey

S1 Stage 1: Employer identifies a need for AI skills

This is the stage where the foundations are set: an employer recognises that skills are part of the AI implementation equation and identifies where their gaps are. But they are hampered by two major issues: low levels of AI literacy (71% of employers in our survey said this would constrain their AI adoption), and under-developed leadership capability to recognise skills gaps in general.

As one interviewee put it:

‘A lot of people are scared that they need to act because [AI is] the next big thing, but not necessarily sure how.’ Employer-focused organisation

This pressure cooker environment, combined with limited knowledge, does not create a context where strategic decision-making can easily thrive.

Issue: Employers don’t have a strong grip on what AI can do
Employers may be curious about how AI could be used in their organisation, but this will not translate into action if leaders struggle to see what the use case might be.

This has been a major issue in the early stages of AI adoption: difficulty identifying business use cases was the most frequently cited barrier to adoption among non-adopters of AI in the 2023 Office for National Statistics (ONS) Management and Expectations Survey.⁴ Among adopters, difficulty identifying use cases remains a prominently-cited barrier in 2026 – alongside level of expertise and cost.⁵

This challenge – pulling relevant practical examples from the noise around AI’s transformational potential – came up consistently in our interviews. We heard that available case studies are dominated by technology companies and/or frontier adopters, whose use of AI doesn’t translate well to more ‘everyday’ use.



Bright spot: Industry and Government action to collate and publicise use cases

The AI Skills Hub, launched by DSIT in 2025, is the Government’s central catalogue of AI training – supporting its ambition to upskill 10 million workers in AI by 2030. It also contains use cases across sectors with lower AI adoption, such as construction and agriculture, gathered in late 2025.⁶ These use cases are easy to critique – not regularly updated, and carrying a heavy disclaimer that they have not been independently verified – but they provide the kind of structured, useable account of AI implementation that our interviewees said organisations need.

Awareness of these use cases does not appear to be high: they were not referred to in our interviews. Instead, interviewees pointed to industry bodies producing sector-relevant use cases: TechUK was an early mover in 2023;⁷ the Chartered Institute of Personnel and Development (CIPD) – the sector body for HR – has produced a catalogue of case studies supported by Innovate UK’s Bridge AI programme;⁸ and the Law Society provides regularly updated generative AI guidance for legal firms.⁹ There is good practice here – that is relevant, timely, and well-placed to respond to business needs – with the potential to be more widely used.

Issue: ‘AI skills’ can be understood too narrowly as ‘how to use AI tools’

Understanding how AI might meet a business need does not, by itself, constitute all the knowledge needed to implement that solution effectively. ‘AI skills’ is a broad category (see Box 1) – including the data and governance skills needed to create the right infrastructure (technical and ethical) to support effective and safe deployment; the critical skills to understand and judge what a Large Language Model (LLM) can actually do (and what it can’t); the leadership skills to transform business operations, and the ‘human’ skills (communication and teamwork) which emphasise the activity an AI cannot replace.¹

Box 1: What do we mean by ‘AI skills’?

We have not created a new typology of AI skills for this report: many of these already exist, from the solid, high-level four-part framework developed by the Confederation of British Industries, to the Turing Institute’s much more detailed ‘AI Skills for Business Competency’ framework. There are two key themes common to these frameworks:

Some of the skills which are vital to AI implementation are AI-specific (e.g. understanding how models work; prompt engineering), some are entirely generic (e.g. process improvement; change management), and some are in the middle (e.g. output QA; data governance). Organisations which focus only on the first category will fail to implement AI effectively.

Uncertainty is a key theme, and so ‘adaptability’ is a key skill. For the purpose of our research, we interpret adaptability as something which can also be trained, and readiness improved, especially for employees who might be more at risk or have less adaptability.

¹ On the importance of human skills for AI use, see: World Economic Forum (2025) *AI is shifting the workplace skillset. But human skills still count*; McKinsey (2026) *Human Skills Will Matter More Than Ever in the Age of AI*; Skills England (2025) *AI skills tools package*



But despite strong emphasis in the literature, our interviewees were concerned that these wider skills are getting missed out by employers. Over-confidence is perhaps the biggest risk here. One Skills England-supported employer survey found that only 10% reported challenges developing the ‘non-technical skills’ needed for AI deployment: a finding interpreted by the author as a sign of hubris rather than competence.¹⁰

Issue: The pace of change makes all of this even harder

As the technology changes, so too do skills needs. The potential rise of agentic AI (currently small in scale, except among frontier tech-led organisations¹¹) is the most obvious change on the horizon – but even changes to the operation, value and risks of chatbot-style models we are all getting used to have consequences that organisations need to grasp.¹² Current models reasonably assume that AI adoption trends in business will follow, or outpace, trajectories of adoption of previous technological innovations, such as the Internet and cloud computing.¹³

This pace of change strains the claim in the Government’s ‘AI Skills for Life and Work’ report that ‘as AI technologies become more ubiquitous and user-friendly, the foundational skills for understanding AI are not expected to change significantly’.¹⁴ Although there are likely to be fundamental AI literacy skills that remain relevant, such as data protection and the need for quality assurance of outputs, the rapid pace of change means skills needs – and organisational competence in understanding them – will need to be consistently refreshed.

Adaptability, then, emerges as a key skill – and fostering that in an organisation requires sophisticated and confident leadership. But this is an area where UK organisations display particular weakness.

Issue: Under-developed management capability in the UK creates a shaky foundation for AI upskilling

Almost two-thirds (63%) of employers in our survey thought that leadership and management skills would constrain AI adoption. That is a high proportion – but it was also the lowest-rated skills gap in our survey. We should not take comfort from this.

At a basic level, AI literacy at management level is necessary to develop policy on AI use, determine risk appetite, and communicate acceptable use across the business.¹⁵ But the importance of management skills to successfully adopt AI goes far beyond this.

Quality of leadership is intrinsically linked to technological adoption of any kind. The ONS Management and Expectations survey shows that organisations which deploy good leadership practices – such as use of data and KPIs, and prioritising continuous improvement – are more likely to adopt new technologies, including AI.¹⁶ This is true when controlling for the size, sector and even age of a firm: the quality of management makes a significant difference, whatever other characteristics an organisation holds.

Skills identification is a key part of this picture – and an area of weakness. Fewer than one in five organisations have workforce plans with a horizon beyond two years and one in three look no more than six months ahead. Nearly two thirds of employers (62%) collect no data on skills gaps within their organisation.¹⁷ This tells us that many employers in the UK don't just struggle to identify skills needs in relation to AI – they struggle to identify skills needs full stop.

Developing their own leadership skills is easily de-prioritised by leaders trying to manage a challenging external environment, support their staff, and keep business-as-usual going. But under-investment in this area creates long-term costs: one landmark study found that one third of the gap between total factor productivity in the US (the world leader) and other countries was explained by management gaps.¹⁸ Management capability was already an urgent issue for the UK: AI adoption makes it more so.

Issue: Patchy underlying digital skills in the UK workforce

The level of existing digital skills in the UK is below the Government's target: less than half (48%) of the UK's working-age population can do all 20 tasks in the Government's Essential Digital Skills for Work framework.¹⁹ This includes skills vital for safe AI use, such as following IT policies and data protection guidelines.²⁰ The task fewest adults can do is 'understand that different digital tools can improve my own and the organisation's productivity'.²¹

Even faster-adopting sectors show gaps: a third of technology-sector employees, and two-fifths in financial services, cannot carry out all 20 digital skills.²² This uneven baseline compounds the challenge of AI training, which adds a further layer of skill onto existing digital competencies. These gaps are compounded by low essential skills more broadly: nearly nine million adults in England have low proficiency in literacy and/or numeracy.²³

S2 Stage 2: Employer chooses an approach to filling skills gaps

Employers can fill skills gaps in three main ways: upskill existing staff, buy in already-skilled staff (via recruitment or outsourcing), or try to use a technological solution instead. AI may eventually make the latter point more feasible – but even then, the remaining workforce will need the right skills to make the most of technology.

Recruitment and outsourcing alone can't currently meet AI needs: there simply aren't enough skilled people in the labour market. But the management gaps outlined above mean that well-intentioned 'learning by doing' initiatives can lead to risks being missed, or a diffuse strategic focus.

Bright spot: Employers say they are prioritising AI upskilling over 'buying in' competencies from outside

Business surveys show that organisations are choosing upskilling for AI, over trying to buy in the skills from elsewhere. Over 60% of businesses in the 2026 ONS Business Insights and Conditions Survey that cite 'lack of expertise' as a barrier to AI adoption say training existing staff is their preferred response, against just 7% seeking to outsource and 3% to recruit.²⁴

This is echoed in our own survey. Nearly two thirds of employers (62%) questioned report that AI-related training and upskilling is a moderate or high priority at their organisation. Nearly two thirds (65%) report that their current investment in AI-related training and upskilling is moderate or significant. The same proportion (65%) expect levels of investment in AI-related training to increase moderately or significantly over the next two to three years, while around one fifth (21%) do not expect any change.

However, investment expectations vary by business size. Our survey found that SMEs invest less in AI training and upskilling than large employers. Only 18% of SMEs said they currently invest significantly in AI training compared to 34% of large employers, and one in five (19%) SMEs currently have no dedicated investment in AI training. SMEs also see AI training as lower priority than large organisations. This echoes findings from the Federation of Small Businesses that 19% of SMEs have taken no steps to support adoption of tech and AI.²⁵

This may reflect a wider difference in how businesses perceive the future impact of AI: 27% of large employers expect AI to fundamentally transform their business operations and services in the next 2-3 years, while only 13% of SMEs expect the same. Over the same period, 33% of large employers expect their investment in AI upskilling to significantly increase, compared to 22% of SMEs.

Issue: Investment incentives do not fully support upskilling vs other forms of investment

The above tells us that employers want to prioritise AI upskilling. But the tax system doesn't reward this choice as well as it could. Currently, the balance of tax policy incentives is more favourable for investment in capital or research and development (R&D) than for employing and upskilling workers. Training expenditure is deductible for Corporation Tax, as is capital expenditure on qualifying plant and machinery, which can receive 100% relief upfront through 'full expensing'.²⁶ But once purchased, capital investment carries no ongoing tax liability, whereas employers must continue paying National Insurance on staff.

Training (and capital) expenditure cannot be reclaimed for employers who are not in profit. In contrast, while R&D is also deductible for profit-making companies, loss-making companies can claim a subsidy on their R&D expenditure through the R&D tax credit.²⁷ This is a substantial incentive, with around £7.6 billion of R&D tax relief claimed in financial year 2023-2024, against a total R&D expenditure of £46.1 billion, meaning over 16% of this expenditure was reimbursed.²⁸

Issue and bright spot: Bottom-up learning and decision-making fill the gap left by weak strategic leadership

Employers currently favour on-the-job learning for AI: half of those implementing AI say learning happens on the job (Figure 2), the most common form reported – consistent with employer preference for on-the-job training generally (48% in the most recent Employer Skills Survey).²⁹ KPMG's survey of employees in the US found that 'workers are experimenting with AI on their own, weaving it into daily tasks, and discovering how it can be a force-multiplier for growing their capabilities'.³⁰ An interview with a sectoral employer organisation noted a similar trend of employers 'starting with a more curiosity driven approach, and then start[ing] to embed it'.

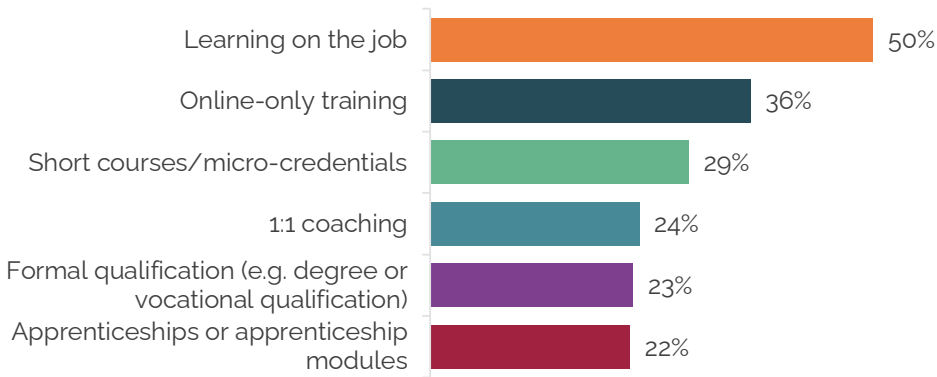
This experimental, learning-by-doing approach has real benefits – it reflects how adults learn best, and can support the cultural shift AI adoption needs:

'When your manager or somebody else in your team is actually doing something to show you what they're doing, then that goes much further than sending people on a [...] lunch and learn.' *Employer-focused organisation*

But it has downsides too: uneven experimentation risks widening digital skills gaps among those who already have lower digital skills,³¹ and increases risks such as improper data protection practices. Over-reliance on this mode means employers may miss the underlying AI literacy skills – like data protection and critically assessing outputs – that formal training builds. Perhaps most importantly, it limits deep, strategic adoption: AI tools cannot be used to transform business practices if experimentation with them is limited to isolated experiments taking place within existing organisational silos and structures.

³¹ On digital skills gaps, see: Lloyds (2025) [Essential Digital Skills 2025](#)

Figure 2: Employers mainly provide informal, short form, online training for AI



Base: 863 employers. Shows approaches to AI training that employers are currently using.

Employees themselves are often the ones filling this gap – not just in how they learn, but in shaping decisions about where AI is used. They are well placed to identify potential AI use cases, benefits, risks and the skills they need,³¹ filling gaps in employers' knowledge of individual tasks and workflows. Stakeholders told us that working groups or communities of practice help employers spread knowledge, with employees sharing practice with colleagues. Bringing employee voice into AI decisions can also assuage the job-loss fears our employer interviewees flagged as crucial to address.

However, we found little evidence of consistent approaches to feeding employee voice into skills decisions.³² Our interviewees emphasised employee voice as key to ensuring AI supports, rather than degrades, job quality, and generates real productivity gains rather than blunt and potentially unsustainable economies. 'Bottom up' approaches to AI upskilling will only work if there are genuine feedback loops to strategic decision-making at the top.





S3 Stage 3: Employer attempts to access suitable training

Once an employer has decided that training is their preferred strategy for meeting AI skills needs, they face the task of identifying the right sort of provision.

Employers in general value training that is relevant, sector-specific, and offers good value for money. Our survey found that the most important factors in decision-making around AI training are: relevance to sector (36%), training tailored to business needs (33%), clear return on investment (32%), the cost of training fitting within budget, and up-to-date content (both 31%). These factors are consistent across employers of different sizes, with no notable differences between large employers and SMEs.

However, the current training landscape does not always meet these preferences. Three separate problems compound here: the accredited system is too slow to adapt; providers themselves often lack the capability to teach AI skills; and quality in the non-accredited market is hard for employers to judge. These issues are not unique to AI – they are offshoots of fundamental issues in the skills system as a whole. But the responsibility to fix these issues at government level (UK-wide, devolved and regional) is diffuse.

Issue: Accredited training is not yet fit to fully meet AI skills needs

Accredited courses – resulting in recognised, publicly-fundable qualifications – have real benefits: they are recognised by all employers so are portable between jobs, and have strong mechanisms to ensure teaching quality.

‘We’ve always been a fan of kind of accreditation of courses, because that gives companies and people [...] the quality seal of approval. They know it’s a good course, they know it’s valuable.’ *Employer-focused organisation*

They help ensure that skills spending benefits the wider economy and for the long-term, not just partial and short-term needs and interests of a single employer. In England, this form of training is supported by the Growth and Skills Levy (introduced in 2017 as the Apprenticeship Levy): a 0.5% tax on monthly payrolls for large employers, which can then be spent on the training element of an apprenticeship.

These are all positive attributes. But the need to ensure quality and retain consistency over time (as well as among a wide range of employers), creates an inflexible system. The process for developing new occupational standards is ‘rigorous but bureaucratic’, with review cycles spanning years and multiple stakeholders – holding back qualifications in all fast-moving sectors, including AI.³³

‘It takes two years for qualifications to get through the regulatory system. So that’s one of the big challenges that [providers] face, is that no sooner have you designed a new qualification than it is no longer relevant in the digital space, because digital moves so quickly.’ *Training Provider*

Partly as a result, the accredited system is not employers’ go-to choice: only 13% said they would consider training from a further education college (Figure 3).

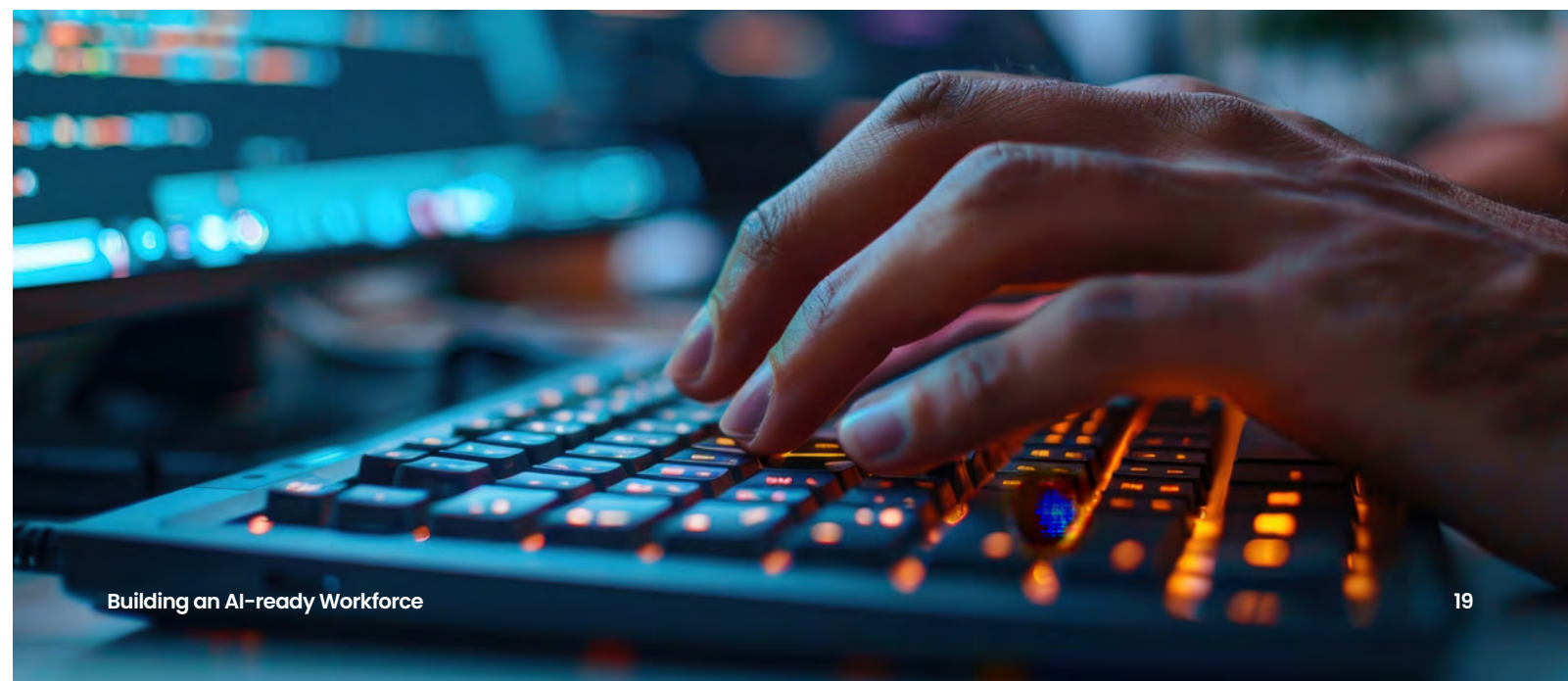
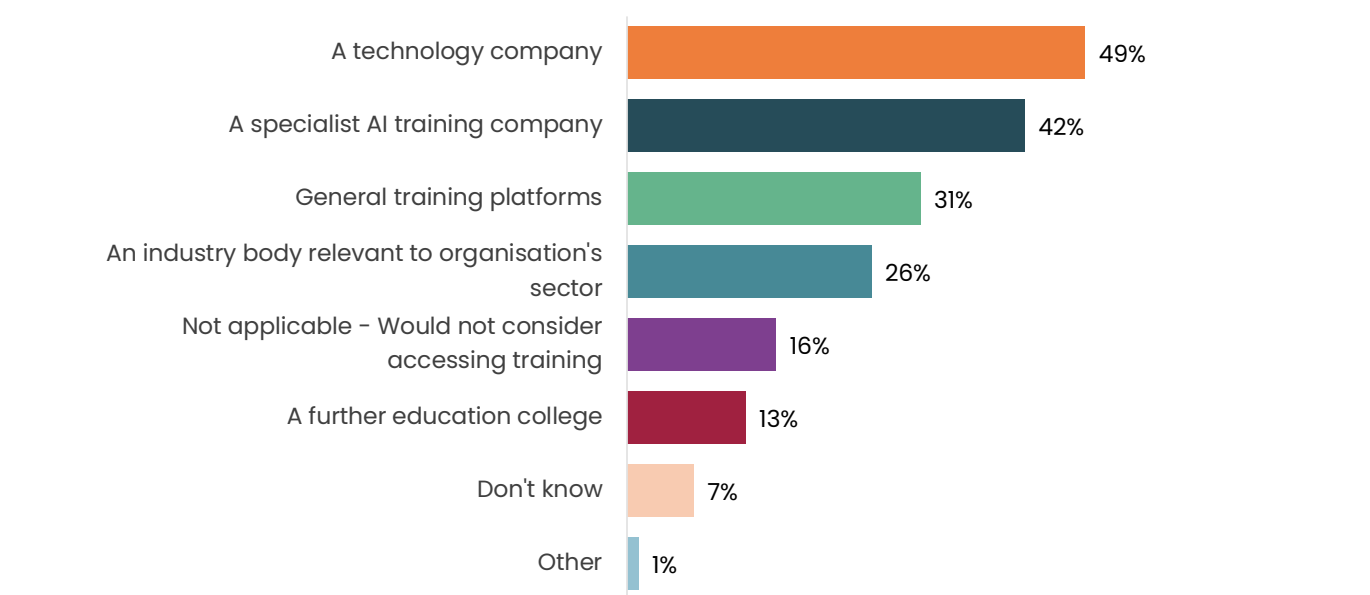


Figure 3: One half of employers would consider accessing AI training from a technology company



Base: 1,012 employers. Percentages will not total 100% as employers were allowed to select multiple responses to this question. Figure shows types of organisations respondents would consider accessing AI training from.

The Government has taken some action here: making AI skills a priority for the new ‘apprenticeship modules’ launched in England in 2026, with three ‘AI leadership’ units available to be paid for using levy funds. This approach was cautiously welcomed by the stakeholders we spoke to – but it also became clear that employers were likely to prefer a different approach. Rather than specific AI training, we heard that employers were looking for AI skills to be embedded in different qualifications and standards: delivering AI content as a bolt-on to existing training standards was seen as the quickest way to scale AI capability:

‘We definitely feel it in terms of [...] customers wanting AI included or, you know, thinking around AI included in programmes that are not specifically to do with artificial intelligence.’ *Training Provider*

This shift reflects a broader view among providers that AI provision must move beyond basic literacy and respond to specific business needs. But creating these AI bolt-ons to existing qualifications will only work if there are people who can teach them.

Issue: Training providers also lack skills for effective AI upskilling
The training providers we spoke to reported that AI skills were consistently being requested by employers – coming up in most conversations. But the pace at which demand was growing far outstripped their developing capability to meet it. This is leading to gaps in provision, even where there are suitable accredited standards:

‘And it is genuinely a skills gap, I think, in the training world that there isn’t enough people. For example, there’s a fantastic level 4 automation AI standard that got approved [...] I’ve seen two providers actually delivering that [...]. And that’s clearly because they’re digital, they were already digital apprenticeship providers [...] So their staff either already had those skills or very quickly were able to upskill to have them to deliver the apprenticeship.’ *Training Provider*

This problem is not unique to AI skills. Data on the adult education workforce is poor, but recruiting people from industry to teach technical qualifications is a well-established challenge: due to the pay differential between industry and education, but also the combination of skills and experience required to perform the role well.³⁴ In reality, training providers (particularly in the public sector) will struggle to recruit industry experts in the growing field of AI to the teaching workforce, so they too must upskill their wider ‘digital’ staff.

Issue: Identifying high-quality non-accredited training is challenging
Employers seeking more flexibility (and potentially more relevant expertise) than the accredited system can offer can turn to the large and varied private training provision available on the open market. But identifying useful and high-quality training is not straightforward: for AI skills, or any others.

Generic ‘AI training’ is widely available: there are over 500 courses available on the Government’s ‘AI Skills Hub’, and this only represents a portion of what is out there on the market. This type of provision theoretically has the benefit of total flexibility (compared with the accredited system), but the launch of the AI Skills Hub was met with some scepticism over the quality of the training provided (only a handful of courses were benchmarked by Skills England), and its potential role as a marketing opportunity for AI firms rather than an unbiased source of employer-recognised, meaningful courses.

We heard that employers think much of this widely available AI training isn’t sufficiently relevant or tailored to their sector or roles. The largest organisations are able to respond by building their own training capability: we heard about customised AI academies, internal programmes, or role-specific learning pathways. But this is not accessible by smaller organisations.

Those smaller employers must then face the task of trying to identify training that is actually high-quality and meets their needs. This is a challenge across the board, as one employee memorably stated when interviewed for our employer investment in skills project:³⁵

‘Sometimes I find it hard to know what is actually going to be a fulfilling useful training programme, and what’s just grift? Because I think there’s a lot of grift out there where a lot of people are just trying to make money and you probably won’t learn that much from it.’ Employee

Without reliable independent markers of training quality – in a landscape where true AI expertise is not widespread – technology companies are filling the gap. Almost half of employers (49%) said they would consider training from companies like Google, Microsoft or OpenAI (more than any other type of provider). Vendors do have a role to play in helping employers understand how to use their tools – but their popularity also reflects the lack of alternatives on the market, and overreliance on them. Some stakeholders expressed real reservations: they told us employers recognise the technical expertise on offer, but worry training may reflect a provider’s own commercial interests or products.

The problems outlined above are not unique to the issue of AI upskilling. The urgency of the AI transition (real and imagined) reveals and heightens fundamental problems in the skills system. It puts the sluggish accredited system further on the back foot than it already was, while creating a noisy and frenetic information environment that makes discerning quality signals an even bigger challenge. But all of these problems were recognised before anyone had heard of ChatGPT. Solving them requires a co-ordinated and focussed response from the state. But where does responsibility sit?

Bright spot: **Employers finding their way through**

A large banking group: Widespread employee AI literacy, and the value of specialist expertise pathways

Lloyds has committed to providing AI training for all employees through its AI Academy. The Academy aims for all employees to be ‘AI literate: confident, capable, and responsible users of AI’, with ‘100 percent AI literacy’ across the company by the end of 2026.³⁶

The Academy includes a variety of learning methods, including modules, short courses, articles, and podcasts. The organisation has recognised that the way staff interact with AI varies by role, and so training is tailored to meet the needs of four types of employee: AI User, AI Leader, AI Enabler, and AI Builder.³⁷ As of June 2026, over 65,000 employees (almost all of its workforce) have completed training on working responsibly with AI.³⁸

Beyond the AI Academy, it is also investing in hiring specialist AI roles and offering a dedicated specialist training route for AI expertise. This training is taking place through Level 6 apprenticeships in AI Engineering to help the organisation develop agentic AI.

Charity and housing association: apprenticeships and AI evangelist role

A large charity and housing association, with close to 900 employees, is taking a two-pronged approach to AI upskilling:

1. Around 25 employees are undertaking a practical, AI-focused project management apprenticeship. Apprentices will then use their new skills to develop pilot projects to introduce AI into the organisation more broadly.
2. An AI evangelist role was created within the organisation’s IT team. The AI evangelist provides guidance to trainees on the AI apprenticeship, coordinates AI pilots in the organisation to ensure that they are beneficial and meet data security and other governance requirements, and acts as an ‘open door’ for colleagues to ask for advice, support, and coaching on AI.

The organisation considers this phase the ‘seed sowing’ of AI skills before looking to embark on a more widespread upskilling on AI.



A creative SME: taking a phased, self-guided approach³⁹

Vertis Media, an SME working in marketing and advertising, recognised that AI was having a fundamental impact on their sector. They took a phased, predominantly in-house approach to AI upskilling to ensure that AI improved productivity and enabled the business to provide new services so that they remained competitive as AI became more widespread.

AI upskilling happened in four phases:

1. Self-directed learning and exploration of existing tools by key senior members of the business.
2. Creation of bespoke, internal AI training materials including short videos, guidance documents, and reference materials.
3. Introduction of a central AI knowledge hub housing AI tools, learning resources, updates, and experiments.
4. Culture of ongoing learning, with new learning, tools, and applications shared in weekly operational meetings, and existing processes, tools, and workflows refined.

Taking this approach allowed Vertis Media to upskill their workforce and embed AI without overwhelming their small team or relying on external hiring. One of the key elements that contributed to their success was using self-guided learning to ensure skills were highly tailored to each individual's role.



S4 Stage 4: Employer embeds AI skills

‘Forget everything you knew about being successful before. You’ve got to learn a different way of being successful now. [...] How we do things, how we serve customers, how we grow, how we structure our workforce. What organisational structure do you have when you want people managing agents and people? You know, you’ve kind of got to forget everything you knew already and rethink it.’
Employer-focused organisation

An organisation might clear every barrier above and build a workforce that understands AI’s capabilities and risks. But they will still fail to see substantial gains if they simply drop these tools into existing operations unchanged. To properly make the most of AI tools, employers need the capability to move from *breadth* to *depth*.

Issue: Data ‘immaturity’ will hold organisations back

Poor quality data, trapped in old (but business critical) legacy systems, has long blocked digital transformation – and will block AI automation too. Generative AI tools can tolerate messy and unstructured data (rather than simply returning an error message as a traditional rules-based algorithm would), but that does not mean they can use it to create accurate outputs. Agentic AI raises the stakes further, needing integrated, clearly labelled data to operate autonomously.

Getting this right takes technical skills to structure, integrate and clean an organisation’s data – but also data governance skills to enforce standards, and ensure data is being accessed and used legally.⁴⁰ The CBI calls data management a ‘rate limiting factor for AI adoption’, but notes ‘a shortage of people with the right mix of technical, analytical and governance skills’ to make this work. Organisations risk being stuck at the level of using LLMs to help rewrite emails – hardly a productivity booster – if they do not get their data in order. But realising that involves a level of strategic vision which many have not reached.

Issue: Breadth over depth – AI is treated as a standalone tool, not a part of wider business transformation

The last wave of digital transformation had a common mantra: ‘digital transformation is business transformation’. Moving services online took more than new technical capabilities, it needed new ways of working: of interacting with customers, of managing projects, of organising teams. Successful digital organisations did not just have better IT experts: they rebuilt their processes around better outcomes. These ‘intangible’ complementary changes are key to releasing productivity gains from new technologies.⁴¹

Right now, most organisations are not in the ‘transformative’ space. AI adoption in the UK is growing in breadth, not depth: ONS data shows the number of businesses using AI in the UK has tripled since 2023, while the average number of AI technologies used per business has risen just 15% over the same period.⁴² Our own survey reveals the same issue: 85% of employers reported that they were currently using AI in some capacity, but only one in five (18%) reported using AI ‘extensively’ in their operations. Almost one quarter (24%) of employers in our survey were still in the early stages of exploration or piloting. Even in the Professional and Business Services – a sector with both high AI penetration and high potential – DSIT’s AI Champion notes that ‘AI is often helping individuals complete the same work more quickly, rather than enabling fundamentally different ways of working.’⁴³

So, the final stage in the AI skills cycle takes us back to the start: organisations that want to climb this productivity curve fastest need leaders who can rigorously grasp AI’s potential and weave it into business and workforce strategy.

The case for government action

The barriers to effective AI upskilling are clear but not universal. Fast adopters exist among large and small employers alike. So why should the Government act rather than leave employers to catch up on their own, allowing the benefits to go to those business leaders that are taking the initiative right now?

Our assessment is that, left alone, the market will move too slowly to ensure our continued leadership in the UK economy’s main areas of comparative advantage. The Government’s stated ambition to make the UK the ‘fastest adopter of AI in the G7’ is founded on real strengths in the UK’s service-heavy economy. Our leading knowledge-work intensive industries – such as professional services, financial services, creative and digital – are also those facing the highest levels of AI exposure.⁴⁴

Government action to secure our global advantage in these areas is central to the current Industrial Strategy – and supporting meaningful AI adoption is now part of this equation.⁴⁵ Fast movement is critical here: not just to mitigate the risk of being ‘overtaken’ by other countries, but because early adoption can create a cumulative advantage (getting to grips with a technology quickly allows for more rapid exploitation of new developments).⁴⁶

The pace of change and sheer novelty of AI mean the UK might get there eventually but not fast enough to lead globally, and at the cost of delayed benefits and forgone first-mover advantage. Four specific failures need to be addressed to prevent that from happening.

Failure 1: Information gaps risk slow or poor upskilling decisions

The pace of AI development makes it difficult for many employers, particularly smaller firms, to know what AI could do for their organisation, what workforce upskilling is required, and how to identify high-quality training providers and content. Uninformed demand is shaping supply: technology vendors fill the gaps, while independent providers struggle to keep up. These information gaps create substantial friction in the upskilling market, slowing the AI adoption rate.



Failure 2: Uncertainty deters investment – while the pace of change demands it

There is a well-established tendency of markets to under-invest in skills.⁴⁷ Uncertain returns create a ‘brake’ on upskilling investment – an issue which is amplified in the case of AI, where the trajectory and benefits of adoption remain somewhat opaque to many businesses.⁴⁸ This results in a ‘wait and see’ approach, slowing employer action, at a moment when the pace of change requires front-footed responses, and widening the gap between AI capability and employers’ ability to deploy it effectively. This challenge is compounded by a tax system that does not reward training investment as it does capital and research investment.

Failure 3: Under-developed leadership and management capability

There are many brilliantly-managed firms in the UK, but poor management in the long tail of low-productivity UK firms is recognised as a major drag on economic growth,⁴⁹ and a key contributor to the so-called ‘productivity puzzle’.⁵⁰ This leaves us particularly exposed to slow realisation of AI-related benefits – with a cohort of individually capable but, on aggregate, underskilled leaders left without the tools they need to drive their organisation forward. As well as undermining employers’ ability to identify and fill skills gaps (including those relating to AI), under-developed leadership skills risk keeping adoption at a shallow level – not productivity-boosting transformation. Therefore, Government intervention to boost our leadership capability needs to continue.

Failure 4: The skills system does not have the required agility to respond to this rapidly evolving landscape

The need to ensure quality, and value-for-money in spending of public funds, has created a skills system that is complex, can be bureaucratic, and struggles to move at the pace of technological adoption. It can take years for a new occupational standard to be agreed – and those standards are often too narrow and inflexible to meet specific business needs. And if the pace of change speeds up, the capability of accredited training providers must similarly speed up to meet it. The AI transition requires adaptability – the Government needs to inject more of this into the system.

The size of the prize: how might the benefits of AI upskilling compare with the costs?

A potential AI prize of £80 billion will only be fully unlocked if people have the skills and they are used in the right way. We estimate 6.3 million people will need training over the next nine years. But that training will pay off. **Our model suggests AI training could boost productivity by £23 billion a year by 2035, with a net present value (benefits minus costs) of £80 billion over the next nine years.** Employees as well as employers would benefit: we estimate higher wages for AI-skilled people in the UK would total £13 billion over nine years.

All economic modelling involves high levels of uncertainty: modelling involving emergent technological change even more so. But even in our most conservative estimate, AI training delivers a productivity boost of £21 billion, or a net present value of £63 billion over nine years.

In this chapter, we unpack the assumptions and evidence that lead us to these numbers – that give us the size of the prize. What is clear is that **investing in people will be central to maximising AI’s potential benefits.**

AI adoption will only deliver its full benefits if employers invest in skills

The Office for Budget Responsibility’s (OBR) central scenario is that **AI could boost economy-wide productivity by 2.3% by 2035.**

There are, however, some uncertainties. Projections of the impact that AI will have on productivity growth range from no overall impact to a transformative one. The OBR gives a range for increased productivity growth of 0.1–0.8 percentage points a year by 2035, and the OECD estimate a 0.4–1.3 percentage points boost. A ‘J-curve’ effect, of slow initial uptake followed by rapid adoption, is also what the OBR regards as most plausible for investment in AI to translate into increased productivity.⁵¹

Cost of training

The starting point is the **number of jobs that will require use of AI.** We use Government-commissioned projections which suggest that, by 2035, 9.7 million jobs (26% of all jobs) will require more in-depth use of AI.⁵² This is broadly in line with the proportion of jobs the OBR estimates will be complemented by AI by this date.⁵³

Of these 9.7 million, we assume that 22% will require substantial (one month) training in these new skills and 11% will require lighter touch (three days in total) to gain basic AI skills that might be required. This is in line with the DSIT survey suggesting this proportion of staff in high AI use firms have received such training (see Appendix B), but could rise as AI develops and its use spreads and hence may be an underestimate. The remainder of workers we assume either already have the necessary AI skills (use is not zero today) or will gain them through education (as new workers with these skills enter the workforce), training outside work, or experimentation or short duration on the job training.

For the remaining (27.9 million) workers, we assume 11% will require the lighter touch training. Again, this may be an underestimate if more rapid AI rollout requires it, or an overestimate if people gain sufficient basic AI skills in their personal lives outside work or via education or coaching and so don’t require training at work.

Taken together, **this means 6.3 million would require formal training for the use of AI** (as opposed to lighter touch coaching or learning skills outside work) by 2035. We estimate that training would ultimately cost around £53.2 billion (the majority of which is lost productivity while training takes place and new skills are embedded, and £2.3 billion is direct training costs). Workers will also need IT hardware and AI software after training, which we estimate as an ongoing annual cost of £7 billion.⁵⁴ But these costs are substantially outweighed by the potential benefits.

Investment in AI skills is associated with substantial economic benefits

The above costs will all be essential to deliver the full potential productivity benefits of AI. We estimate the training itself would (without accounting for the extra costs of AI products and licenses) **be responsible for increased productivity of £23 billion per year by 2035 on the central scenario.**⁵⁵

There will also be benefits to employees. The IMF has used live vacancy data from Lightcast to estimate a wage premium for AI-skills in the UK and US.⁵⁴ Based on this, **we estimate higher wages for AI-skilled people in the UK would total £13 billion over nine years** in our central scenario, equivalent to an additional £4,500 per year for workers in AI-related jobs and £1,000 for others using basic AI tools.

In addition, the **boost to the economy could improve the public finances by over £5 billion** in additional tax and national insurance per year depending on the characteristics of those getting the training.⁵⁶

Benefit-cost analysis

To estimate the ultimate potential return on investment, we have considered the costs (including hardware, software, training and lost output) and benefits of the OBR’s central scenario over nine years. This takes us to 2035 (where the labour market projections run to) and also reflects the uncertainties beyond (and indeed up to) this. Areas of uncertainty include potential future changes to how businesses implement AI and the possibility of the development of new forms of AI, alongside new training investment needed to respond to changes. We have discounted the costs and benefits using Treasury Green Book methodology – and detail our assumptions in full in Appendix B.⁵⁵

£80 billion

Overall, the net present value (benefits minus costs) of this investment in people would be **£80 billion over nine years.**

⁵¹ This is based on survey averages. See Appendix B for full details.

⁵² This is based on early estimates of the impacts of AI training to date. See Appendix B for full details.

⁵³ In cost-benefit analysis (CBA), increased tax and national insurance contributions from higher wages are treated as transfer payments, meaning they do not count as net social benefits for society as a whole. They represent a financial transfer from individuals to the government rather than a creation or destruction of economic resources. Additionally, a percentage of displaced workers will claim unemployment benefits. This is not included as a social cost as increased welfare payments to the unemployed are also classified as transfer payments in a cost-benefit analysis (CBA). They represent a monetary shift from taxpayers to benefit recipients without consuming real economic resources or creating new goods and services.



Different scenarios and the costs of inaction

As noted above, there are a wide range of potential scenarios for the take up and impact of AI. **In each scenario, the number of workers needing training and the length and cost of that training remain unchanged; it is the size of the growth prize that changes.** We have based our analysis on the OBR's central scenario. However, to give a sense of the potential impacts if other scenarios happen, we also consider here the OBR's optimistic scenario (where productivity growth is 0.5 percentage points higher by 2035) and a conservative OBR scenario (where productivity growth is only 0.1 percentage point higher by 2035).

On the OBR's **optimistic scenario, training investment boosts productivity by £28 billion per year.** On the **conservative scenario, productivity is boosted by £21 billion.** This is a range of £63 billion to £118 billion in net present value over the next nine years. Given the levels of uncertainty, we have also undertaken a range of sensitivity analysis, reported in Appendix B.

Whatever the scenario, investment in skills is a necessary condition for fully unlocking the benefits of AI.

Recommendations

R1 Recommendation 1: Incentivise employer investment in AI upskilling

Tax policy currently favours capital and R&D investment over investment in people (see Failure 2). The Government could rebalance it through two actions, a new incentive or the reform of an existing one.

Action 1.1 — Reform the Growth and Skills Levy in England

The Government could further reform the Growth and Skills Levy in England to enable it to be used more effectively for AI upskilling. This could include:

- **Allow employers to use a proportion of levy funds for non-apprenticeship provision,** including AI-specific and wider training. This should use a “flex and match” mechanism: the flexible funds available to an employer match the share of its levy spent on apprenticeships for under-25s.⁵⁶ This would support the Government's aim of improving opportunities for young people while opening the levy to AI upskilling.

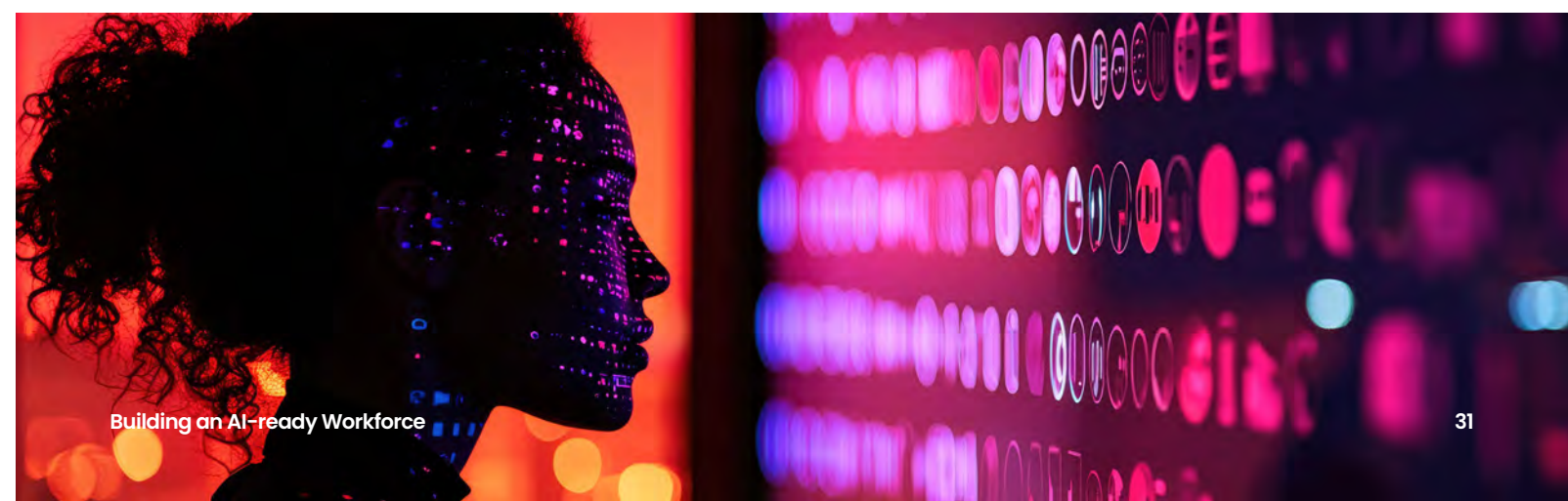
Owner: DWP / Skills England. **Metric:** Share of levy funds flowing to AI-related training.

Action 1.2 — Introduce a Skills Tax Credit

Modelled on the R&D tax credit, giving employers a 20p taxable credit for every £1 they spend on eligible (such as accredited qualifications or modules up to level 5) training. It would be targeted on high-quality provision, and should include two further features:

- **A time-limited AI super-rate:** a larger credit (30p) for every £1 spent on approved AI-related training until 2030, to specifically encourage AI upskilling and create urgency in the adoption window.
- **Revenue-neutral funding:** paid for by limiting existing Corporation Tax relief on training expenditure, redirecting the same taxpayer cost towards higher-value training and better SME support than the current system provides.

Owner: HM Treasury / HMRC. **Metric:** Take-up by firm size; volume of AI training funded.



R2 Recommendation 2: Close the AI skills information gap

Action 2.1 — Establish an AI Skills Intelligence Unit (AISIU)

The Government should create a small team of AI experts based in the Department for Business, Innovation, Science and Trade (DBIST),^{vi} staffed partly through industry secondments. Its mandate would be to supply AI expertise on a flexible basis to skills policymaking across Whitehall, devolved administrations and Strategic Authorities (SAs), support occupational standards reviews where needed and act as a hub for industry intelligence.

Owner: DBIST. **Metric:** Unit operational and fully staffed by end of 26/27 financial year.

Action 2.2 — Commission sector bodies to fill critical AI use-case and skills information gaps

Building on guidance and use-case compendiums by bodies such as TechUK and CIPD, the AISIU should seed-fund industry, sector and professional bodies to produce: impartial guidance on AI implementation, sector-specific use-case libraries with committed refresh cycles, tips for identifying high-quality training, and the business case for investing in AI skills. The AISIU should also deploy expertise to those bodies to support this work, and facilitate sharing between those bodies and the wider skills and AI policy community.

Owner: AISIU commissions; industry bodies deliver. **Metric:** Quantity and quality of guidance produced. Number of employers accessing guidance.

Action 2.3 — Support industry bodies to introduce new measures of quality for non-accredited AI training, including quality kite-marks

The AISIU should work with industry and professional bodies to develop mechanisms to assess and highlight quality of non-accredited training. This includes investigating whether light touch kitemarks, based on industry standards and/or the KSBs (see Recommendation 4) developed for accredited training, would assist employers in their decision making.

Owner: AISIU and industry bodies. **Metric:** Identify effective ways to highlight quality of provision and, where agreed with employer groups, introduce kitemarks.

^{vi} We have suggested the AISIU is hosted in DBIST given its links to industry and joint remit for AI with the Cabinet Office.

Action 2.4 — Pilot direct AI business support and advice for SMEs

There is some evidence that SME leaders can be enthusiastic AI experimenters – but also that they are less likely to move into the transformative stage.⁵⁷ Our survey suggests nearly one in five (19%) SMEs have no dedicated investment in AI training. Intensive, one-to-one support is consistently cited in research as a key feature of effective SME upskilling (including to improve uptake in technology), and was also flagged by our stakeholders.⁵⁸

We suggest piloting two approaches to support employers to identify their specific use-cases, and the skills and training that would be most effective in enabling efficient integration of AI.

- Central Government could co-invest with sector bodies, or groups of employers in a particular geography, to pilot advisor networks; this could take a similar approach to CITB's regional skills advisors, who offer all eligible employers in a region a yearly one-to-one session.
- SAs could coordinate the delivery of advice in their area through local chambers of commerce, growth hubs and other local stakeholders.

If these pilots are successful, the Government should explore allowing sectors or groups of employers (where a majority of eligible employers agree) to introduce an additional skills levy, based on the model in construction or Business Improvement Districts, to fund the long-term roll out of these programmes. The pilot and evaluation phase should mirror 2023's 'Labour Market Evaluation and Pilots' Fund, which received an investment of £37.5 million to fund 25 projects.⁵⁹

Owner: DBIST commissions, SAs and sector/local bodies deliver. **Metric:** Advisory sessions delivered; SME uptake.



R3 Recommendation 3: Build AI-ready management capability in the UK

Action 3.1 — Refresh Help to Grow: Management for the AI transition

Help to Grow can be a vehicle for delivering AI management training. Help to Grow itself is as yet unproven in terms of long-term impacts, but it could provide an infrastructure to quickly deploy AI management training. DBIST should commission an AI adoption module for the programme, covering use-case identification, workforce planning for AI, data readiness and responsible deployment; this should be developed in collaboration with the AI Skills Intelligence Unit (Action 2.1) and delivered through the existing Small Business Charter network. It should be paired with a short “Help to Grow: AI Essentials” version for owner-managers who cannot commit 12 weeks.

Owner: DBIST and Small Business Charter. **Metric:** Uptake; participant AI-adoption decisions at 12 months.

Action 3.2 – Identify and test what works to build management capability at scale

Although Help to Grow is a useful existing vehicle for management training, its take-up has been relatively poor, so we do not have strong evidence on the recipe for successfully building management capabilities.⁶⁰ DBIST should therefore review existing and historical management and business support – building on the ‘Business Basics’ programme that was interrupted by the pandemic. This should have a particular focus on SMEs and low productivity firms, and on what works to strategically plan and embed substantial organisational change, referencing previous technological transformations. The findings from this review should be used to develop, test and (if successful) implement a revised Help to Grow offer or a new place-based service for improving management capability.

Owner: DBIST. **Metric:** Completed review and testing process.



Action 3.3 — Commit to measurable AI skills action across the public sector

The public sector should lead by example by making a commitment to making effective use of AI to improve the quality and efficiency of public services. This should include plans for AI adoption and use, AI-literacy training for senior civil service and public sector line managers (as well as others as necessary), measuring the specific impacts of AI adoption and use, and publishing departmental AI-adoption playbooks that SMEs can reuse.

Owner: Cabinet Office / Government Skills. **Metric:** Percentage of SCS trained; playbooks published.

Action 3.4 — Strategic Authorities to promote local management capabilities

Strategic Authorities should take a lead in supporting the development of management capabilities in their area, as part of their role in leading local economic development. This could include ensuring management capabilities are included within expanded local skills improvement plans that include employer commitments to increase training alongside plans for publicly-funded training, and local growth plans and a focus on management training and standards in local public service reform.

Owner: SAs. **Metric:** Inclusion of management capabilities in local plans; active measures to improve standards in local public services.



R4 Recommendation 4: Make the accredited system more relevant and adaptive for AI

Action 4.1 — Make occupational standards AI-ready

Skills England should set a rolling timetable for reviewing occupational standards, prioritising the 'Industrial Strategy 8 sectors',⁶¹ so that each includes the AI knowledge, skills and behaviours (KSBs) feasible for that occupation. This would be informed by the AI Skills Intelligence Unit (Action 2.1), which would work with Skills England to support route panels who would also be able to draw on tech-company expertise where needed. Alongside this, Skills England should develop standard AI KSB "bolt-ons" for existing standards to enable rapid adaptation; this would follow Dutch practice, where add-on elements update in response to new technologies and industry changes.⁶²

Owner: Skills England / DWP. **Metric:** Standards reviewed per year.

Action 4.2 — Halve standards approval times

Development and approval of new occupational standards takes between six months and two years,⁶³ but the Government has committed to shorter approval timelines.⁶⁴ Skills England should adopt three proven mechanisms: a fast-track route for critical standards (Switzerland); statutory time limits per development stage (Germany); and a data-driven approach to reduce the need for lengthy consultation, including an occupational skills database (itself AI-assisted) to flag when standards need review (Netherlands).⁶⁵

Owner: Skills England. **Metric:** Accelerated approval time, published annually.

Action 4.3 — Expand the suite of AI-related apprenticeship units

Skills England should work with DWP and SAs to expand AI apprenticeship units below the current three management-level offerings, to level 5 and below, covering operational use of AI and its integration into workflows.

Owner: Skills England / DWP. **Metric:** AI units live at level 5 and below.



Action 4.4 — Pilot routes to support training providers to develop their AI training offers

There is no clear solution that we are confident offers value for money, so we suggest piloting approaches to improving training provider capability. Providers cannot match AI-sector salaries and can struggle to keep tutor skills current as the technology rapidly evolves, so we suggest testing two models:

- Fractional joint appointments splitting AI experts' contracted hours between tech firms and providers (a lighter-touch version of Clinical Academic Contracts).⁶⁶ This could learn from current 'Dual Professional' approaches,⁶⁷ but with more formal agreements between providers and industry.
- SA-brokered local partnerships giving providers access to seconded industry experts (informed by Shanghai's vocational-industry collaborations).⁶⁸

Pair these with place-based market-development pilots, led by SAs to convene and coordinate between SMEs, providers and local government on a model L&W developed for higher technical education.⁶⁹ Every pilot should carry built-in evaluation.

Owner: DWP funds; SAs and providers deliver. **Metric:** Joint appointments/secondments; provider AI course volume (including kitemarked).



R5 Recommendation 5: Make AI skills portable and ensure everyone can make the most of the opportunities ahead

Action 5.1 — Boost the development of AI microcredentials

For individuals to benefit from these changes as much as their organisations, we need to ensure that those skills are 'portable' across the labour market. We recommend standardised, portable badges verifying AI skills gained through training or on the job, trusted across employers. Built on industry standards, they can help to assure workers that skills developed with one employer will be recognised by the next.

Owner: Skills England, sector bodies and employer representative groups. **Metric:** Employer recognition; credentials issued.

Action 5.2 — Guarantee training completion on redundancy

Workers made redundant part-way through kitemarked AI training should have completion funded through the Adult Skills Fund in England, with the Government or SAs brokering continuation. This would mirror the existing guarantee for apprentices made redundant or whose provider fails.

Owner: DWP / SAs. **Metric:** Completion rate for learners made redundant.

Action 5.3 — Introduce Personal Learning Accounts at Level 3 and below

We have previously argued the case for learning accounts – a funded entitlement attached to the individual, spendable on approved learning with tax-incentivised employer and individual co-investment (an ISA for learning).⁷⁰ The Lifelong Learning Entitlement is creating a loan-based system for higher-level qualifications, which helps professionals retrain but excludes many in the administrative roles most exposed to AI. Accounts for qualifications at Level 3 and below close that gap, and would allow people in roles most exposed to AI to benefit. This should be supported by analysis from the AI Economics Institute to identify who would benefit most.

Owner: DWP / HMT. **Metric:** Account take-up among at-risk occupations.

Action 5.4 — Renew the push on essential literacy, numeracy and digital skills

SAs should conduct detailed mapping of local literacy, numeracy and digital skills gaps through their LSIPs, and work with local employers and training providers to create and promote opportunities for essential skills upskilling. Nationally, since essential digital skills standards have been newly updated to increase focus on AI and extended to level 2, the Government should increase access for workers starting from very low essential skills.

Owner: SAs / DWP. **Metric:** Essential skills attainment, by area.



Advisory Board

This research was supported by an Advisory Board. We would like to thank members for their time, expertise, input and support. The participation of members does not constitute an endorsement of this report, its findings or recommendations. The views expressed in the report are those of the authors.



Josie Cluer is a partner at EY in the UK who leads work on the human impacts of AI. She helps clients grapple with AI adoption, AI skills, changes to operating models, and how to lead in an AI world. She is a former Special Adviser to the Secretary of State for Innovation, Universities and Skills and continues to speak and write on workforce transformation, talent and the labour market.



Martin Dury is Director of Emerging Technology at BPP. Martin has worked in the education sector for over 25 years, enabling businesses to adopt current and future disruptive technologies. Previous roles include collaborating with Innovate UK, IFATE and the DfE, on future skills foresighting and technology education standards. Martin is part of the Senior Leadership team in BPP’s School of Technology and is passionate about ensuring the technology portfolio is future proof.



Nikki Pound is Head of Public Services and Skills at the TUC. She and her team work across a range of policy and campaign areas including skills and union led learning, public sector workforce and industrial relations, insourcing, procurement and infrastructure and devolution. Prior to this Nikki worked as the TUC Women’s Equality Officer.



Polly Mackenzie is a policy and purpose leader with a career spanning Government, think tanks and innovation. She served as Director of Policy to the Deputy Prime Minister from 2010 to 2015, shaping major reforms across business, welfare and education before helping establish the Women’s Equality Party, leading the think tank Demos and founding the Money and Mental Health Policy Institute. A regular media commentator, Polly also has extensive non-executive experience across the charitable and private sectors, and is co-founder of science-focused venture builder Zinc Innovation Partners.



Ben Rowland has been Chief Executive of AELP since December 2023 and is a long-standing champion of skills and apprenticeships. He founded Arch Apprentices in 2012, growing it into a leading independent training provider, rated Outstanding by Ofsted in 2016. Ben also served for five years on the Department for Education’s Apprenticeship Stakeholder Board. He later advised businesses, non-profits and government bodies and is the author of Understanding Apprenticeships: A Student’s Guide.



Kate Shoesmith is Director of Policy & Insights at the British Chamber of Commerce. There are 7 million employees in the network membership, representing businesses of every size, sector and location. Prior to joining the BCC, Kate was Deputy Chief Executive at the Recruitment & Employment Confederation, having previously worked at City & Guilds and the Federation of Awarding Bodies. These roles instilled in Kate an ongoing belief that skills, employability and employment are critical drivers of growth.



Chloe Smith is a senior leader with expertise in technological change, workforce transformation, global economics, regulation, risk and governance. She is President of CIPD and strategic adviser to a major international professional services firm along with pioneering technology companies. Chloe served for fifteen years in Parliament and Government and was the first to head both the UK’s technology and labour market ministries. She is also a charity trustee.



Ann-Marie Soyinka is an independent strategic adviser and founder of The Systems Practice. Formerly Assistant Director for Skills and Employment at the Greater London Authority, she led major citywide strategies and programmes spanning skills, employment and workforce development. She has extensive experience working with Government, employers and public-sector partners to translate policy into delivery, and has advised on the implications of technological and economic change for labour markets, skills systems and future workforce priorities.



Naomi Weir is the Director of Innovation and Technology at the Confederation of British Industry (CBI), the voice of business in the UK. She and her team work at the interface between policymakers and business leaders seeking to improve the policy, regulatory and operating environment so that tech and innovation help drive growth and resilience for businesses and the UK.

Several members did not agree to be named, but we are grateful for their support.



Appendix A

Project aims and methodology

Learning and Work Institute (L&W) was commissioned by The Rigby Foundation to deliver a research project exploring the skills and training that employers and employees will need as AI becomes more widely adopted, and to understand how public policy can support them to develop these skills. Its focus was on how the existing jobs and workforce will need to change to make the most of the transition, rather than which jobs might be lost, which might be created and how people can manage this transition.

More specifically, the research aimed to provide insights into:

- The opportunities AI offers for organisations
- The skills organisations and workers need to adopt to make effective use of AI and realise opportunities
- The training and learning employers are currently offering in relation to AI, how this is changing, and how that compares to the skills demands created by growing uptake of AI
- The barriers and enablers to effective adoption of AI in relation to employee skills
- How policy can support upskilling in response to changing skills needs.

The research took a mixed-methods approach, comprising a literature review, employer survey, quantitative analysis, and qualitative fieldwork with stakeholder representatives.

Advisory Board

Shortly after project commencement, L&W set up an external advisory group of key stakeholders to inform the research and development of recommendations. The group met three times across the project. L&W and The Rigby Foundation would like to thank Advisory Board members for their contributions.

Literature review

L&W carried out a literature review to build a clearer picture of the current and expected impact of AI on the workforce, with a focus on the impact on knowledge workers and knowledge-intensive firms. The review mainly included UK evidence published since 2020. Evidence was gathered through searches in an iterative process, and, given the continuous development of AI technologies and their adoption, was augmented by monitoring of news outlets and the social media of relevant experts and stakeholders. Relevant literature was then analysed through thematic categories.

Qualitative interviews

Overall, 16 semi-structured interviews were conducted with stakeholders, comprising:

- Seven employer-focused organisations including employer representative bodies, sector organisations and charities. They were asked about the employers in their networks and how they are using AI (if at all), their approaches to training and upskilling, and any challenges they face,
- Five organisations working across further education, vocational training, digital skills, and employability. This included a mix of publicly funded providers, representative bodies, and independent charities. Organisations did not necessarily need to be offering AI training themselves, but able to comment on the challenges employers face when it comes to upskilling staff and the impact that growing uptake of AI is having on providers.
- Three policy makers who shared national and regional perspectives on training pathways, employment support and business growth.
- One trade union representative who discussed the impact that growing uptake of AI is having on their members.

Interviews were conducted online across May and June 2026 and digitally transcribed. Participants were recruited through L&W and The Rigby Foundation’s networks.

Employer survey

A total of 1,012 UK-based HR decision makers were surveyed on their organisation’s current stage of AI adoption, expectations of future impacts, and approach to workforce upskilling. Most respondents were from SMEs (59%), with the remaining 41% representing large employers. This closely reflects the UK private sector employment profile, where SMEs account for approximately 60% of employment and large businesses 40%.⁷¹

The HR decision-maker omnibus aims for a balanced sample rather than a representative sample to ensure, for example, that both SMEs and large employers are included. Respondents were drawn from a range of sectors, although there was high representation among IT and telecoms (21%) and finance and accounting (12%). Most respondents (90%) were from businesses based in England, 6% were based in Scotland and 3% in Wales. A high proportion of respondents overall were working for businesses based in London (33%); London accounts for around 14% of UK employment.⁷²

The survey was conducted online by YouGov in June 2026.

Stakeholder roundtables

L&W facilitated two online roundtables in June and July 2026. The first brought together four training providers: three independent training providers (ITPs) and one higher education institution. It was intended to capture the perspectives of individual providers, as earlier interviews had mainly involved training provider representative bodies. None of the attendees had taken part in the earlier interviews. The discussion focused on how providers are responding to AI skills needs among employers and employees, and the challenges they face in meeting those AI skills needs.

A second roundtable brought together policy makers and representatives from employer-focused organisations, training providers, and policy and research organisations. Attendees included advisory group members, stakeholders who had taken part in earlier interviews, and participants who were new to the project. This session focused on the challenges different stakeholder groups face in meeting AI skills needs, and how policy can alleviate some of these challenges and support the development of AI skills.

Benefit-cost analysis

L&W designed a benefit-cost ratio (BCR) model to estimate the financial and economic impacts of AI adoption and subsequent AI-related training in the UK workforce up to 2035. An outline of the model can be found in Appendix B.

A note on AI use

The L&W team used this report to support their own AI-related upskilling, and test different modes of integrating AI tools into their work. Microsoft Copilot was used as a research support tool to assist with the analysis of transcripts from interviews and roundtable discussions. Copilot was used to identify recurring themes and areas of agreement and divergence across participants’ responses. AI-generated outputs were reviewed and checked by the research team against the original transcripts, with researchers making final decisions about interpretation and reporting of findings. Copilot was used to aid in the literature search to help identify some relevant sources and provide thematic summaries of content. The sources were checked by members of the research team and thematic summaries written with the aid of Copilot’s summaries. Both Copilot and Claude were used to help team members condense text they had drafted. Claude was used to help identify aspects of the policy landscape to help the team get a quick grasp on certain issues (such as the operation of skills policy across the four nations).

Appendix B

Modelling the costs and benefits of AI skills

This benefit-cost ratio (BCR) model evaluates the economic impact of artificial intelligence (AI) integration into the UK workforce up to 2035. It assesses the BCR for three AI scenarios: Conservative, Optimistic, and Central.

These OBR based scenarios suggest AI could potentially increase annual productivity growth by anywhere between 0.1 and 0.8 percentage points by 2035.^{vii} The OBR feel that while the optimistic scenario is possible, they consider the assumptions about exposure and feasibility elements to be unlikely.

The **conservative** scenario applies the lowest external estimates for exposure of jobs to AI, feasibility of its implementation, and cost savings from it. It projects the productivity gains will be equivalent to less than 0.1 percentage points annually on average over the next decade.

The **optimistic** scenario uses the average for the external estimates for exposure (rather than the lowest). It suggests the annual productivity gains from AI could be highly significant at around 0.5 percentage points on average.

Overall, the OBR think that a **central scenario** is that AI will boost productivity growth by around 0.23 percentage points per year by 2035. But given the high degree of uncertainty around their central scenario, they constructed the above scenarios to illustrate the range of possible outcomes. Table 3 and Table 4 show the outcomes based on OBR’s conservative, central and optimistic scenarios.

Methodology and key assumptions

The model applies the standard framework outlined in HM Treasury Green Book supplementary guidance for social appraisal and value-for-money metrics.⁷³ Sources for figures and estimates used in the model are outlined below; in some cases these are indicative only due to limited evidence.

Core model parameters

Appraisal Period: 9 years (to 2035) to align with IER and Skills Imperative forecasts.

Real Discount Rate: Applies the Social Time Preference Rate (STPR) from the Green Book — currently 3.5% real terms for the initial 30 years — to adjust future social costs and benefits to present values.

^{vii} Office for Budget Responsibility (2025) [Briefing paper No.9: Forecasting productivity](#)
Note: The 0.8 percentage point estimate refers to a transformative scenario which uses the highest external estimates for exposure, feasibility, and cost savings. We have not used this scenario in our modelling as the OBR consider it to be very unlikely

Real GDP growth rate: 1.5% per year based on OBR estimates⁷⁴

A 9-year annuity factor (flat real cash flow) is used in the model to inflation-adjust future cash flows. The formula to calculate the present value annuity factor is:

$$AF = \frac{1 - (1 + r)^{-n}}{r}$$

Where:

- **AF** = Annuity Factor
- **r** = Real interest rate per period (expressed as a decimal)
- **n** = Total number of periods

The model also calculates the total present value of a series of future cash flows based on the scenarios. The present value growing annuity factor (GAF), when the discount rate (r) is greater than the growth rate (g), for (n) periods is:

$$GAF = \frac{1 - \left(\frac{1+g}{1+r}\right)^n}{r - g}$$

Where:

- **GAF** = Growing Annuity Factor
- **r** = Discount rate or interest rate per period (expressed as a decimal)
- **g** = Constant growth rate per period (expressed as a decimal)
- **n** = Total number of periods

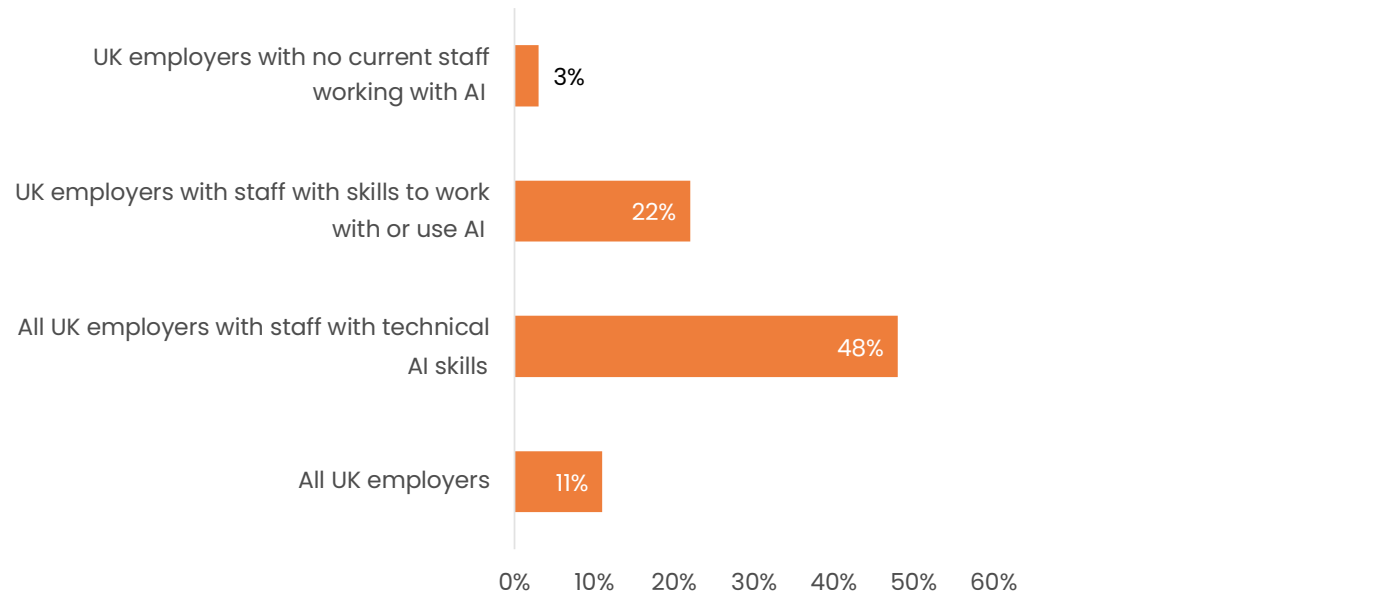
Workforce baseline (2035): This is 37.6 million people aged 16 and over in employment in 2035.⁷⁵ This is split between those forecast to be in AI-related occupations in 2035 (9.7 million)^{viii} and requiring a mix of some specialist training and minimal training and the remaining workforce (27.9 million) that will require minimal training.

Percentage of workforce requiring training: Higher level training is set at 22% and lower-level training at 11%.

These are in line with an employer survey showing the proportion of workers in firms currently receiving AI-related training (Figure 4).^{ix}

^{viii} DSIT and DCMS (2026) [AI Skills for Life and Work: Labour market and skills projections](#)
Note: The study uses the established Working Futures (WF) framework as its baseline. Total jobs in the CBA model use the 'Technological Opportunities Scenario', which factors in both job loss and new job creation. This figure is adjusted up or down using the adoption rates in the CBA model.
^{ix} DSIT and DCMS (2026) [AI Skills for Life and Work: Employer survey findings](#)
Note: Figure 5.6: 22% for businesses with AI users and 11% for all businesses.

Figure 4: In the last 12 months, have you or your employees undertaken any training to improve AI knowledge or skills? Percentage that answered “yes”



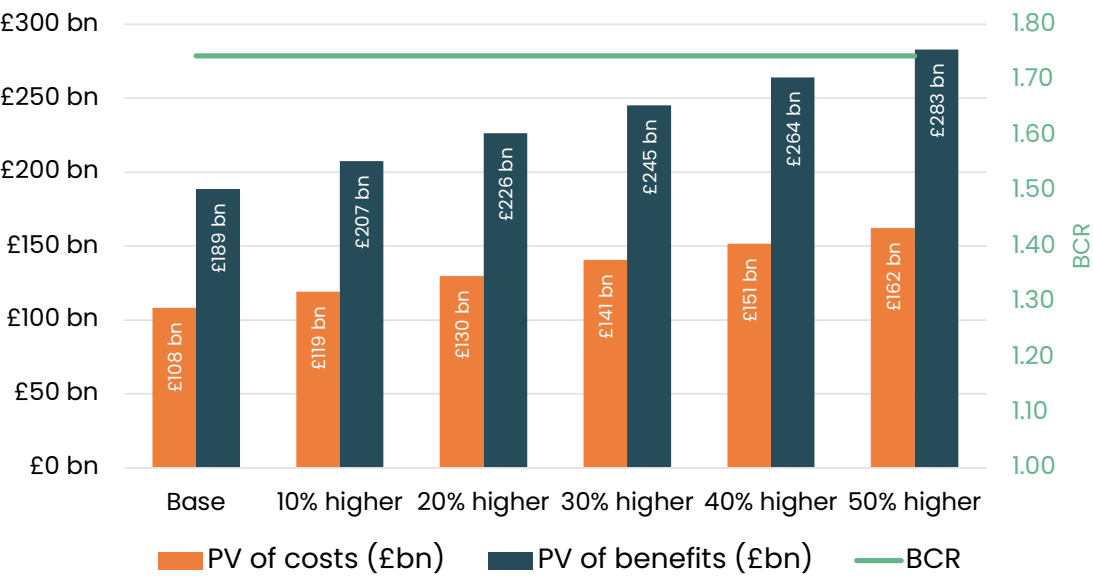
Source: AI Skills for Life and Work: Employer survey findings, DSIT

The chart shows that the rate could be as high as 48% for those employers needing advanced technical skills in AI. The UK Government’s AI Skills Boost initiative aims to provide 10 million workers with foundational AI training by 2030.⁷⁶ This target represents nearly 30% (around one third) of the UK workforce, delivered through free online modules developed with major technology and industry partners. Additional evidence suggests that roughly 70% of employees currently using AI tools at work are self-taught or experimenting without formal instruction, with 19% having actively taken a formal AI training course (closer to our 22% rate).⁷⁷ For simplicity, we have not considered the impact of different AI adoption scenarios on training requirements.

We have tested the impact on the costs, benefits and the BCR with higher rates for both groups. Figure 5 shows a significant increase in the present value (PV) of both costs and benefits but little impact on the overall BCRs.

A 50% increase in training rates results in a higher training rate of 33% and a lower training rate of 17%.

Figure 5: Impact of increasing training rates (OBR central scenario)



Cost drivers and assumptions

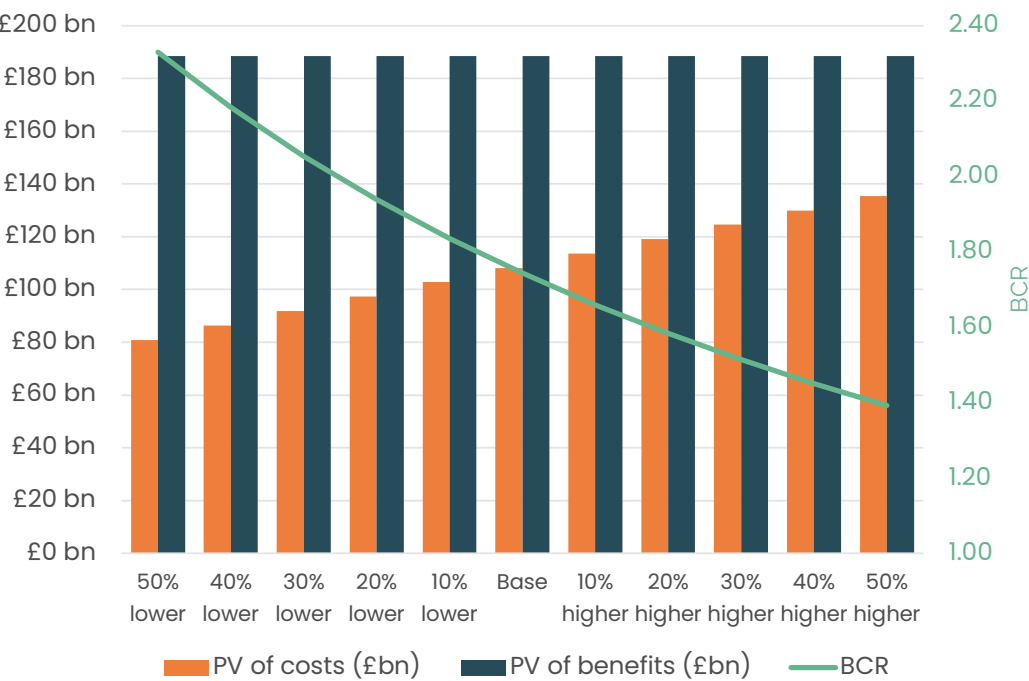
Capital investment

Capital investment is modelled at an average of £1,550 (£1,919 using a CPIH inflation rate for 2035 of 2.4%) per UK employee, capturing infrastructure updates alongside SaaS allocations like Copilot licences.⁷⁸ AI spending is largely handled as a subset of Software-as-a-Service (SaaS) and Information and Communications Technology (ICT) capital tracking. Evidence suggests that AI tools currently make up 26.4% of all enterprise SaaS purchases.⁷⁹ Given that mid-market UK firms spend an average of £200 to £300 per employee monthly on total software, the baseline software-only capital expenditure on AI sits roughly between £50 and £80 per employee, per month or £600 to £960 annually.

However, national accounts show that overall business spending on plant and machinery has risen to £22.1 billion per quarter. Evidence shows that this surge is driven by companies funding hardware and ICT infrastructure to run complex AI operations. The above is equivalent to £2,500 per employee in the UK. This gives us a range of £600 to £2,500, with a midpoint of £1,550 per UK employee.⁸⁰ The midpoint results in an annual cost of £7 billion.

Reducing these costs has a significant impact on the BCR. Figure 6 shows that a 50% decrease in all capital investment costs results in a BCR of nearly 2.3, up from 1.74 in the original base. To achieve this the costs would need to be £959 for AI-related jobs and £371 for other jobs. A 50% increase results in a BCR of 1.39.

Figure 6: Impact of a change in capital investment costs (OBR central scenario)



Training cost

Averaged at £689 per month per trainee (£853 using a CPIH inflation rate for 2035 of 2.4%). This is based on the average cost per month for a range of AI-related courses sourced via an online literature review. Providers include further education colleges, universities and private providers providing AI-related courses including:

- Apprenticeships at various levels
- Foundation, bachelor’s and master’s degrees
- Short courses and training modules

Course durations are split into ‘higher-level use’ (1 month) and ‘lower-level use’ short courses/ informal modules (3 days). Changing the course duration or the training cost per month (50% higher or lower) has little impact on overall costs and benefits and the BCR rate as it represents only a small proportion of overall costs in the model.

Lost output

Training employees to use AI effectively involves two separate timelines: hours of structured practice to achieve basic functional competence but weeks of regular application for AI use to become a natural daily habit, therefore there is a cost (to the business) for the time it takes a trained employee to put those new skills to use productivity wise.⁸¹

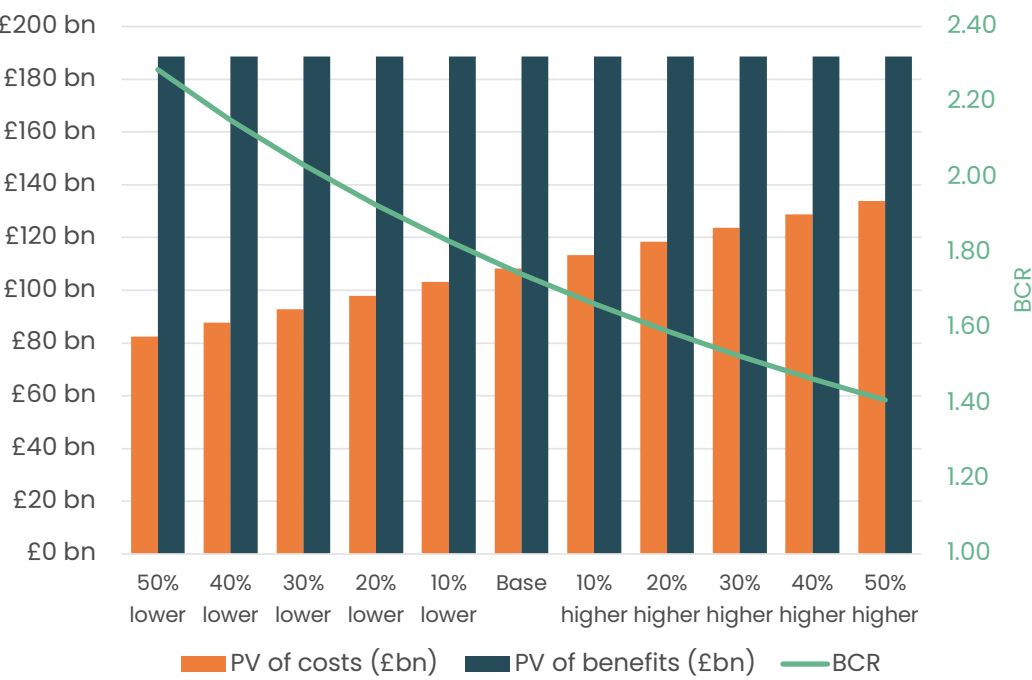
We estimated an output per job of £86,732 for AI-related occupations and £67,083 for all other occupations. These were calculated by using the projected number of AI-related occupations in 2035 from Labour market and skills projections (IER). We then used the Annual Population Survey (ONS) to show the distribution of these occupations in each broad sector. We calculated a weighted average output per job for each sector using data from the ONS.⁸² The model adjusts the output per job data up to 2035 by the estimated growth rates, depending on the scenario picked.

We set the time period for a trained employee to become fully AI competent at 3 months for AI intensive jobs and 2 weeks for less intensive AI jobs. These were reduced to take into account that some employees would utilise these skills straight away. To estimate lost outputs, we applied the full output per job by the number of months for a trained employee to become fully AI competent.

Changes in assumptions on the time to become fully productive after training have a significant impact on the BCR. Figure 7 shows that a 50% decrease in the time to become fully productive results in a BCR of nearly 2.3, up from 1.74 from the original base. To achieve this, the time would need to be just over a month for AI-related jobs and less than one week for other jobs. A 50% increase results in a reduced BCR of 1.41.



Figure 7: Impact of a change in time to become fully productive (OBR-central scenario)



Benefit drivers & assumptions

GVA uplift: Benefits are driven by a modelled productivity gain from AI training, using expected uplifts per trained employee per year. This is based on a wage premium after AI training of 7.5% for AI-related occupations and 2% for other occupations and applied to the average GVA (output) per job of £86,732 for AI-related occupations and £67,083 for all other occupations. In the model the wage premium is adjusted up to 2035 using OBR growth rates (depending on the scenario picked).⁸³

Other benefits (not included in the BCR): The wage premium calculations after AI training, generates wage additions of £13 billion^x (under the OBR-central scenario) and corresponding Tax/National Insurance returns of £5 billion.^{xi}

The following tables show that the primary way to achieve a higher value for money relies on reducing recurring costs (e.g. software licence fees) or increasing the annual real growth rate above standard inflation levels to achieve a >2.00 BCR threshold.

^x Based on the average gross annual earnings for all full-time employees (ONS (2026) *Annual Survey of Hours and Earnings*) and the average for those occupations forecast to expand due to increased AI use (DSIT and DCMS (2026) *AI Skills for Life and Work: Labour market and skills projections*)
^{xi} Calculations based on 2026 Tax and National Insurance rates

Table 3: Variable values by scenario

Metric	Conservative	OBR-central	Optimistic
Lost output			
Lost output - higher	£42 bn	£42 bn	£43 bn
Lost output - lower	£9 bn	£9 bn	£9 bn
Total	£51 bn	£51 bn	£52 bn
Wages, tax & NI			
Total wages - higher	£9 bn	£10 bn	£11 bn
Total wages - lower	£4 bn	£4 bn	£5 bn
Total	£12 bn	£13 bn	£16 bn
Additional tax and NI - higher	£3 bn	£4 bn	£5 bn
Additional tax and NI - lower	£1 bn	£1 bn	£1 bn
Total	£4 bn	£5 bn	£6 bn
GVA per annum			
Total - higher	£15 bn	£17 bn	£20 bn
Total - lower	£6 bn	£7 bn	£8 bn
Total	£21 bn	£23 bn	£28 bn

Note: Higher and lower refer to employees with high or low training needs. Totals may not appear to correctly add up due to rounding

Table 4: Cost and benefit totals, BCR rates and value for money categories by scenario and impact of halving annual costs

Scenario	Annual cost (£bn/yr)	PV of costs (£bn)	Benefit basis	PV of benefits (£bn)	BCR	VfM category
Conservative						
1. Base case	£7.2 bn	£108 bn	Flat in real terms	£161 bn	1.49	Low
2. Benefits grow 1.5%/yr real	£7.2 bn	£108 bn	Growing (real)	£171 bn	1.58	Medium
3. Annual cost halved, benefits flat	£3.6 bn	£81 bn	Flat in real terms	£161 bn	2.00	Medium
4. Annual cost halved, benefits grow 1.5%/yr real	£3.6 bn	£81 bn	Growing (real)	£171 bn	2.12	High
OBR-central						
1. Base case	£7.2 bn	£108 bn	Flat in real terms	£178 bn	1.65	Medium
2. Benefits grow 1.5%/yr real	£7.2 bn	£108 bn	Growing (real)	£189 bn	1.74	Medium
3. Annual cost halved, benefits flat	£3.6 bn	£81 bn	Flat in real terms	£178 bn	2.20	High
4. Annual cost halved, benefits grow 1.5%/yr real	£3.6 bn	£81 bn	Growing (real)	£189 bn	2.33	High
Optimistic						
1. Base case	£7.2 bn	£109 bn	Flat in real terms	£214 bn	1.97	Medium
2. Benefits grow 1.5%/yr real	£7.2 bn	£109 bn	Growing (real)	£227 bn	2.08	High
3. Annual cost halved, benefits flat	£3.6 bn	£82 bn	Flat in real terms	£214 bn	2.62	High
4. Annual cost halved, benefits grow 1.5%/yr real	£3.6 bn	£82 bn	Growing (real)	£227 bn	2.78	High

References

¹ OECD (2026) [The OECD AI exposure measure](#); Tony Blair Institute for Global Change (2025) [Sovereignty, Security, Scale: A UK Strategy for AI Infrastructure](#)

² Learning and Work Institute (2026) [Understanding employer investment in skills: How to raise, widen and deepen training for growth and opportunity](#)

³ Pew Research Center (2023) [Which US workers are exposed to AI in their jobs?](#); Anthropic (2026) [Labor market impacts of AI: A new measure and early evidence](#)

⁴ ONS (2025) [Management practices and the adoption of technology and artificial intelligence in UK firms](#)

⁵ ONS (2026) [Business Insights and Conditions Survey](#)

⁶ AI Skills Hub [Use Cases](#)

⁷ TechUK (2023) [AI Adoption in the UK: Putting AI into Action](#)

⁸ CIPD [AI in the workplace](#)

⁹ The Law Society [AI and lawtech](#)

¹⁰ Nisreen Ameen (2026) [What Works for AI Upskilling in the UK: Research Evidence, Analysis and Methodology](#)

¹¹ DSIT (2026) [AI Adoption Research](#) - GOV.UK; The Law Society (2026) [The future of agentic AI in legal practice](#)

¹² Ipsos, for DSIT and DCMS (2026) [AI Skills for Life and Work: summary report](#); Deloitte (2026) [State of AI in the Enterprise: the untapped edge](#)

¹³ University of Pennsylvania (2025) [The Projected Impact of Generative AI on Future Productivity Growth](#)

¹⁴ Ipsos, for DSIT and DCMS (2026) [AI Skills for Life and Work: summary report](#)

¹⁵ Ibid.

¹⁶ ONS (2025) [Management practices and the adoption of technology and artificial intelligence in UK firms](#)

¹⁷ CIPD (2024) [Resourcing and Talent Planning Survey](#)

¹⁸ NBER (2016) [Management as a Technology?](#)

¹⁹ Lloyds (2025) [Essential Digital Skills 2025](#)

²⁰ Future.now [20 Essential Digital Work Tasks](#)

²¹ Lloyds (2025) [Essential Digital Skills 2025](#); UK Government (2019) [Essential digital skills framework](#)

²² Lloyds, UK [Essential Digital Skills for Work](#)

²³ NFER (2024) [Survey of Adult Skills 2023 \(PIAAC\): National Report for England](#)

²⁴ ONS (2026) [Artificial intelligence in UK businesses](#)

²⁵ FSB (2026) [Policy Report | The Confidence Code](#)

²⁶ Gov.uk [Claim capital allowances](#)

²⁷ BDO (2025) [R&D Tax Reliefs – what you need to know](#)

²⁸ HM Revenue and Customs (2025) [Research and Development Tax Credits Statistics: September 2025](#)

²⁹ DfE and Skills England (2025), [Employer Skills Survey calendar year 2024](#)

³⁰ KPMG (2025) [The American Worker in the Age of AI](#)

³¹ Charter (2023) [Using AI in ways that enhance worker dignity and inclusion](#)

³² Thomas Kochan, Ben Armstrong, Julie Shah, et al. (2023) [Bringing Worker Voice into Generative AI](#)

³³ Learning and Work Institute (2025) [Development and use of occupational standards](#)

References

³⁴ NFER (2024) [Building a stronger FE college workforce: How improving pay and working conditions can help support FE college teacher supply](#)

³⁵ Learning and Work Institute (2026) [Understanding employer investment in skills](#)

³⁶ Lloyds (2026) [Lloyds Banking Group launches AI Academy](#)

³⁷ [ibid.](#)

³⁸ Lloyds Banking Group (2026) [Lloyds targets more than 1,000 new AI roles as it expands agentic AI capability](#)

³⁹ DWP and Skills England (2026) [Supporting case studies: What works for AI upskilling in the UK](#)

⁴⁰ Described in good detail in Government Digital Service and DSIT (2026) [Guidelines and best practices for making government datasets ready for AI](#)

⁴¹ Eric Brynjolfsson, Daniel Rock and Chad Syverson (2020) [The productivity J-curve: How intangibles complement general technologies](#)

⁴² ONS (2026) [Artificial intelligence in UK businesses](#)

⁴³ DSIT (2026) [AI Adoption Plan: Professional and Business Services](#)

⁴⁴ Anthropic (2026) [Labor market impacts of AI: A new measure and early evidence](#)

⁴⁵ DBT (2025) [The UK’s Modern Industrial Strategy](#)

⁴⁶ OECD (2025) [Early divides in the transition to artificial intelligence](#)

⁴⁷ Learning and Work Institute (2026) [Understanding employer investment in skills: How to raise, widen and deepen training for growth and opportunity](#)

⁴⁸ DSIT and AI Security Institute (2026) [Assessment of AI capabilities and the impact on the UK labour market](#)

⁴⁹ ONS (2024) [Management practices in the UK](#)

⁵⁰ Sam Williams, Anthony J. Glass, Madeleine Matos, Thomas Elder, David Arnett (2024) [The UK Productivity Puzzle: A Survey of the Literature and Expert Views](#), International Journal of the Economics of Business, 32 (1)

⁵¹ NBER (2020) [The Productivity J-Curve: How Intangibles Complement General Purpose Technologies](#)

⁵² DSIT and DCMS (2026) [AI Skills for Life and Work: Labour market and skills projections](#)

⁵³ Office for Budget Responsibility (2025) [Briefing paper No.9: Forecasting productivity](#)

⁵⁴ International Monetary Fund (2026) [Bridging Skill Gaps for the Future: New Jobs Creation in the AI Age](#)

⁵⁵ HM Treasury (2026) [Guidance: The Green Book](#)

⁵⁶ Learning and Work Institute (2024) [Flex and match: a new Skills Levy for growth and opportunity](#)

⁵⁷ CMI (2026) [Artificial Intelligence; Real Leadership Report](#)

⁵⁸ Department for Business, Energy and Industrial Strategy (2024) [Unpicking the productivity puzzle](#)

⁵⁹ Cabinet Office (2025) [Labour Markets Evaluation and Pilot Fund: funded projects](#)

⁶⁰ CIPD (2023) [Improving UK management capability](#)

⁶¹ DBT and DBIST (2025) [Sector Plans](#)

⁶² OECD (2024) [Getting Skills Right: Agile Occupational and training standards for responsive skills policies](#)

⁶³ IfATE (2024) [Written evidence from Apprenticeships and Technical Education](#)

⁶⁴ Gov.uk (2026) [Britain’s growth sectors to get major skills boost from new ‘fast track’ apprenticeships reforms](#)

⁶⁵ OECD (2024) [Getting Skills Right: Agile Occupational and training standards for responsive skills policies](#)

⁶⁶ UCEA [Clinical Academic](#)

⁶⁷ DfE [Training others alongside your current career](#)

⁶⁸ RSA (2019) [Adopting global skills innovation for the UK](#)

⁶⁹ Learning and Work Institute (2021) [Making a market for the missing middle: Higher technical education](#)

⁷⁰ Learning and Work Institute (2025) [Ambition skills: toward a lifelong learning century](#)

⁷¹ DBT (2025) [Business population estimates for the UK and regions 2025: statistical release – GOV.UK](#)

⁷² Calculated from Nomis data: 4,857,000 in employment in London, out of a total of 34,475,000 in the entire UK, which is around 14.1%.

⁷³ HM Treasury (2026) [Guidance: The Green Book](#)

⁷⁴ Office for Budget Responsibility (2026) [Economic and fiscal outlook](#)

⁷⁵ NFER (2025) [The Skills Imperative 2035](#)

⁷⁶ DSIT and Skills England (2026) [UK Government’s AI Skills Partnership](#)

⁷⁷ Personnel Today (2026) [UK workforce winging it with AI](#)

⁷⁸ Office for Budget Responsibility (2026) [Inflation](#)

⁷⁹ Cledara (2026) [AI is Eating the SaaS Budget](#)

⁸⁰ Reuters (2026) [AI boom is starting to show in UK economy’s performance](#)

⁸¹ Ivey (2026) [How Long Does AI Training Take? Two Clocks, Not One](#)

⁸² ONS (2026) [Output per job, UK](#)

⁸³ International Monetary Fund (2026) [Bridging Skill Gaps for the Future: New Jobs Creation in the AI Age](#)



**“AI readiness isn’t a technology strategy.
It’s a workforce strategy.”**

Steve Rigby, The Rigby Foundation