Innovate UK

White Paper

Unlocking UK economic growth through Artificial Intelligence: case studies and guidance for employers

February 2026

Contents

Executive Summary

Artificial intelligence (AI) in principle provides a powerful opportunity for the United Kingdom (UK) to unlock productivity, drive business innovation, and strengthen economic growth. While the potential is clear, however, the UK's ability to capture this value at scale is constrained. Employers report significant shortages in both the technical AI skills and the behavioural skills required for successful AI adoption and many organisations, particularly small and medium sized businesses (SMBs), are uncertain about how to start integrating AI. Research and other evidence show clearly that employers in the UK are keen to learn about where and how they can start or further their AI journey; and what they can learn from other organisations. Additionally, our earlier research, published in June 2025, suggests an element of fear amongst SMBs regarding AI adoption, particularly in the areas of governance, ethics and data quality (UKRI, 2025).

This White Paper begins to address such issues by presenting a series of case studies that illustrate, based on a systematic programme of research and engagement, where UK businesses have used AI effectively to drive innovation and growth. The aim is to help SMBs feel more confident about adopting this technology, easing their concerns and uncertainty. The case studies are not isolated or cherrypicked success stories; rather they are indicative of the wider patterns of AI adoption evidenced across the national and international research.

The case studies presented here confirm that UK businesses are already applying AI to address some tangible business challenges and achieve clear, measurable outcomes, for example:

- **AI is streamlining recruitment, onboarding, and learning** by automating repetitive tasks, improving candidate experience, reducing bias in decision-making, and cultivating agile learning environments that enhance skill development and organisational knowledge sharing. For example, a 2024 survey found that 92% of firms recognised the positive impacts from AI in recruitment, and over 10% reported productivity gains of more than 30% (BCG, 2025).
- **AI is transforming business operations** by automating routine processes, optimising resource allocation, and facilitating predictive maintenance for improved efficiency and reliability.
- **AI is revolutionising health, safety, and compliance** by enabling real-time risk detection and automating compliance monitoring, allowing organisations to shift from reactive management to proactive assurance. A powerful example is Protex AI, an AI-driven safety solution implemented across Marks & Spencer's warehouse operations, which delivered an impressive 80% reduction in workplace incidents (Protex AI, 2025).
- **AI is supporting supply chain and logistics** by delivering accurate demand forecasting, identifying emerging risks, and optimising inventory and fleet operations, generating significant cost savings, reducing disruption, and advancing organisations' sustainability objectives.
- **AI is elevating the customer experience** by enabling organisations to anticipate customer needs, optimise service delivery, and provide efficient, tailored interactions that drive measurable improvements in retention, conversion, and trust. For instance, 92% of companies who completed Twilio Segment's survey are leveraging AI-driven personalisation to accelerate business growth (Twilio Segment, 2023).

A consistent pattern emerges across our case studies; organisations that have been successful with AI treat it as an integral part of their wider business transformation. They

begin with clear strategic objectives, invest early in data, governance, and capability, and build workforce confidence through role specific training and responsible use principles. It is this integrated, evidence-based approach that has enabled successful organisations to scale AI adoption and achieve meaningful outcomes.

Building on these insights from the case studies, along with our other research and engagement activities, this White Paper also sets out a practical five-step approach to AI adoption. This is intended to help UK organisations, particularly SMBs, and other organisations at the early stages of AI maturity, to kick-start or ramp up their AI journey. A summary of the key steps is as follows:

1. **Set the direction**: Set the strategic vision, align on business objectives, and assess readiness.
2. **Establish the foundations**: Establish the digital infrastructure and ensure that high quality data are readily accessible.
3. **Find a focus**: Identify, assess, and prioritise specific AI projects that are likely to deliver business value.
4. **Run AI pilots**: Design, run and evaluate AI pilots, and then scale new solutions across the business.
5. **Upskill the workforce**: Develop strategic workforce plans to identify skills gaps, design targeted learning journeys and embed these into talent strategies. Foster a culture that embraces AI, adopts it responsibly, and supports change.

It is hoped that these simple steps, along with the guidance and resources that underpin them, will be useful for UK employers seeking to begin or further their AI adoption journey. They also, in principle, provide Government and other stakeholders with a focus for the public communications campaigns that are likely to be required to drive momentum towards AI adoption, particularly amongst the UK business community.

Taken together, the evidence is clear. AI in principle represents a significant economic opportunity for the UK, but seizing it requires coordinated action, investment in skills and organisational capability, and a structured approach to adoption. As UK businesses continue to embrace and integrate AI, it is hoped that the case studies and guidance presented in this White Paper will be a useful resource for them on the journey.

Introduction

Economic growth, artificial intelligence, and skills in the UK

Driving stronger economic growth remains a key focus for policy makers and businesses in the UK. The latest official figures suggest that growth in 2025 has been slower than in 2024 (ONS, 2025); and we know from research that productivity challenges remain across many UK sectors (House of Commons, 2025). Unlocking new sources of growth and competitiveness, therefore, remains one of the top priorities for the UK economy.

In this context, AI is clearly one of the most powerful levers that, in principle, can be used to accelerate growth. The AI Opportunities Action Plan and Public First's research identifies that AI adoption could boost the UK economy by up to £400 billion by 2030 (Public First, 2024). From boosting efficiency in operations to transforming customer experience and enabling smarter decision-making, AI is already reshaping the UK economy and creating new opportunities for innovation across every sector. For example, according to a recent PwC survey on AI adoption in the UK, 15% of the UK workforce now use generative AI (GenAI) daily and are benefiting from it (PwC, 2025c).

At the same time, there is a significant opportunity to ensure that national ambition translates into local impact. AI-driven growth will not be uniform across the UK, and targeted delivery at regional and sector levels will be essential to realising the full economic potential. The UK's diverse regional ecosystems, including established innovation hubs, emerging sector clusters, and place-based partnerships, provide the foundations for scaling adoption in ways that reflect local strengths and labour market needs. Ensuring that national AI strategies are activated through regionally responsive skills programmes, employer networks, and innovation ecosystems will be critical to driving equitable, economy-wide benefits.

Notwithstanding the good progress that has been made, the UK is still grappling with a significant and widening AI skills gap. Our earlier White Paper, published in June 2025, found that 96% of employers across four key sectors reported a persistent mismatch between the AI skills they require and those available in the workforce (UKRI, 2025). Almost all warned that these shortages would have serious implications for their organisations, from rising costs to reduced capacity for innovation. This aligns with wider business sentiment: nearly half of UK Chief Executive Officers (CEOs) now view skills shortages as the single biggest barrier to adopting AI, and more than half are prioritising workforce upskilling to stay competitive (PwC, 2025a). Challenges are evident across the wider labour market too; only 18% of workers surveyed felt current AI skill levels were adequate (The Alan Turing Institute & UK AI Council, 2021). Crucially, the gap extends beyond technical expertise, with employers also highlighting a shortage of behavioural skills that are essential for using AI responsibly and effectively.

These challenges are often amplified for SMBs, which make up the backbone of the UK economy but face distinct constraints. Compared to larger organisations, many SMBs report low levels of AI maturity, driven by limited access to essential enabling inputs such as skills, quality data sets, and capital required to adopt advanced technologies (OECD, 2025). This fragmented starting point slows productivity gains across the sector. UKRI research and stakeholder engagement shows that SMBs have a strong appetite to engage with digital technologies. However, they face structural barriers, including uncertainty about where to invest, limited internal expertise, and difficulties accessing external support, which prevent

them from realising potential growth benefits. These patterns underscore the need for targeted interventions that reduce adoption risk, build confidence, and enable smaller firms to fully participate in the UK's AI-driven growth opportunity.

These themes are reflected in evidence from the BridgeAI programme. Analysis of SMB responses highlight the scale of the UK's digital maturity gap: across core digital technologies, more than half of SMBs rated their in-house capability as *low* or *very low*, with "N/A" responses common even for foundational areas such as data exploitation and modelling. At the same time, Hartree Centre innovation voucher projects delivered through BridgeAI showed that SMBs engaging in even small-scale AI experimentation reported measurable skills gains, most commonly progressing from "very low" to "low" or "high", demonstrating the productivity potential of targeted intervention. The high proportion of SMBs indicating low investment capacity and limited technical expertise underscores the need for continued, accessible funding to unlock AI-driven growth at scale.

The AI Skills Hub

In this context, UK Research and Innovation (UKRI) established the "AI Skills Hub" in June 2025, marking the UK's first-of-its-kind, government-funded, free at point-of-use, digital platform, designed to close the AI skills gap and promote AI adoption and growth. It is funded by Innovate UK, under the BridgeAI programme, and supported by the Department for Science, Innovation and Technology (DSIT). BridgeAI is a delivery programme designed to assist UK organisations in adopting, piloting and scaling AI technologies, offering support and funding throughout the process. It is delivered by a consortium including Innovate UK, Digital Catapult, The Alan Turing Institute, the Science and Technology Facilities Council (STFC) Hartree Centre, and the British Standards Institute (BSI).

PwC was commissioned, following a robust competitive tender process, to design, build, and run the Hub. The Hub provides resources and opportunities to drive collaboration, partnership and innovation, including sector-specific, role-based and skill-level-tailored learning pathways, all curated by experts. It also provides access to expert-reviewed courses, real-world industry case studies, upskilling events, and workforce trends. (see box below).

Key focus of the AI Skills Hub

- **Coordinating AI upskilling efforts:** The Hub is a national investment designed to help organisations overcome barriers to workforce development. By curating sector-specific training, it encourages employer engagement and supports productivity growth.
- **Empowering collaboration and unlocking AI opportunities:** The Hub brings together employers, training providers, and technology partners, creating a dynamic ecosystem for sharing best practice and opening new markets. It enables training providers to reach new audiences and gives technology partners direct channels to showcase AI solutions.
- **Supporting UK competitiveness:** By embedding best practice and tackling systemic barriers, the Hub contributes to the UK's ambition to lead globally on AI skills. Its regional coverage supports balanced economic growth and strengthens the UK's global competitiveness in AI.

Note: The AI Skills Hub is a publicly available resource and can be accessed via https://aiskillshub.org.uk/

Purpose, approach, and structure of White Paper

This is the second White Paper to be published as part of the programme of work associated with the Hub. The first White Paper was published in June 2025 and provided a research-based, empirical analysis of the nature and extent of the AI training and skills gaps across four selected sectors (UKRI, 2025).

This second White Paper focuses more on practical applications of AI. Evidence indicates that employers in the UK are keen to understand how they can begin or advance their use of AI, as well as what insights they can gain from the experiences of other organisations. The research for the first White Paper highlights fears and uncertainty amongst businesses in relation to adopting AI, citing elevated levels of risk, widespread skills gaps, and lack of trust as primary challenges (UKRI, 2025). This White Paper, therefore, aims to showcase some high-impact AI case studies from UK businesses; and provides some guidance for employers about how best they can begin to adopt AI in their organisations and day-to-day working. The material presented in this White Paper is based on a systematic programme of research and engagement, summarised in the table below.

Overview of methodological approach

Literature review	• A literature review was conducted in the AI and skills space, with a particular focus on the five functional areas. • 40+ documents with a range of reports from the UK government, think-tanks, research institutions, and international advocacy non-profit organisations.
Employer survey	• A targeted survey aimed at human resource (HR) and technology leads in UK businesses was conducted between October and November 2025 with 218 respondents. • The survey included sections on AI adoption, AI case studies, and the Hub priorities. It was administered in full compliance with the Market Research Society Code of Conduct.
Stakeholder engagement	• Between February 2025 and January 2026, 88 qualitative interviews were held with relevant stakeholders, including employers, training providers, technology partners, and others. • In addition, we hosted virtual AI discussions/focus groups via the AI-powered Natter platform, with a total of 99 attendees. • Furthermore, we hosted and attended 67 conferences and events, in total, to gather information on case studies, the demand for skills, and connect with sector stakeholders.
Employer case studies	• 47 real-world AI case studies were identified via desktop research, attendance at industry events, and stakeholder engagement. • Each case was evaluated based on criteria including relevance, impact, and maturity prior to being selected for inclusion in the White Paper. • Shortlisted case studies were documented using a standard framework, ensuring consistent and relevant information.

***Note**: Further information on our methodological approach is provided in Annex A.*

This White Paper is structured under the following key sections:

- **The WHAT: *Examples of UK businesses driving growth through AI***
  This section explores the key business functions — such as recruitment, operations, compliance, supply chain, and customer experience — where AI is already making a measurable impact. It presents practical applications and case studies to illustrate how organisations are leveraging AI across these areas.

- **The HOW: *Practical guidance for employers adopting AI***
  This section provides a practical guide for businesses seeking to begin or further their AI adoption journey. It is based on the core components required to successfully adopt AI, and covers setting the direction, building digital and data foundations, identifying and prioritising use cases, piloting and embedding solutions, developing workforce skills, and fostering governance and change readiness.

- **Conclusions**
  This section presents a short synthesis of the key findings.

In addition, the White Paper contains two annexes as follows:

- **Annex A:** Methodological approach
- **Annex B:** Glossary
- **Annex C:** Bibliography

The WHAT: *Examples of UK businesses driving growth through AI*

Introduction

AI is reshaping how organisations operate, offering tangible benefits that extend across business functions. Rather than being confined to isolated teams or specialist workflows, AI is being applied in parallel across a range of business functions, each representing a different opportunity to unlock efficiency, enhance decision-making, strengthen compliance, and improve customer and operational outcomes. Despite these potential benefits, as outlined above, however, many businesses are often uncertain or apprehensive about where to start on their AI adoption journey, particularly in relation to risk and governance.

To address these barriers, we have carefully examined the functional areas where AI is already delivering measurable value. To identify these functional areas, we engaged in a systematic programme of research including an extensive literature review, a survey of UK businesses, and stakeholder engagement. Five core business functions emerged consistently through this process — recruitment, onboarding and learning; business operations; health, safety and compliance; supply chain and logistics; and customer and user experience. These areas were identified based on two main criteria: their *frequency*, i.e. they were the areas that appeared most frequently across research; and their *impact*, i.e. they were the areas where there was strong evidence of AI driving tangible business benefits and growth (see figure below).

Five functional areas where AI contributes to business growth

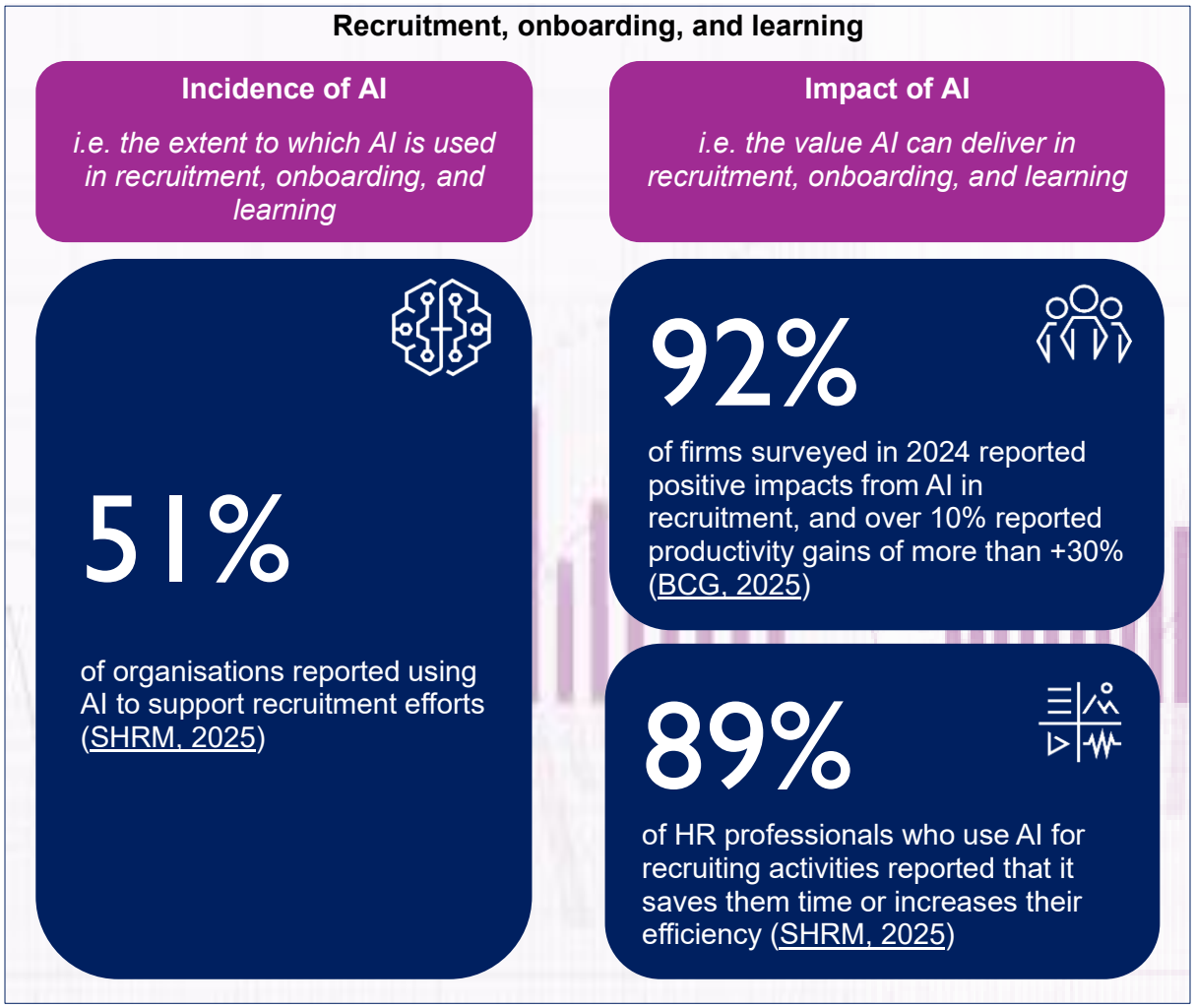
Recruitment, onboarding, and learning

AI is streamlining recruitment, onboarding, and learning by automating repetitive tasks, improving candidate experience, minimising bias in decision-making, and cultivating agile learning environments that enhance skill development and organisational knowledge sharing.

Organisations are under growing pressure to preserve workforce knowledge and develop skills at the pace their business demands. Yet, traditional learning processes are struggling to keep up. Knowledge attrition can have huge impacts on organisations and when mismanaged can cost a business up to 25% of its annual revenue (Bloomfire, 2025). These pressures extend into recruitment, where inconsistent assessments and human error remain common.

However, AI is driving change. Employees increasingly need timely access to reliable knowledge and tailored skill building; something AI is well placed to deliver. At the same time, AI-driven tools now help standardise recruitment evaluations, expanding opportunities for overlooked candidates, and reducing human error and recruiter bias (World Economic Forum, 2025).

Evidence on the incidence and impact of AI



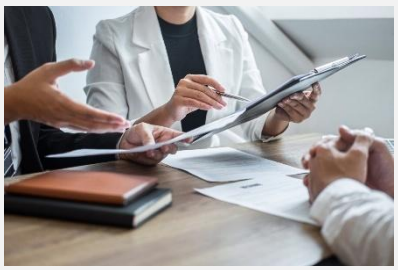
"My startup uses an AI knowledge buddy to onboard new staff regarding business processes."

Source: AI Skills Hub employer survey, conducted in October and November 2025, based on 218 UK businesses

We have summarised, in the boxes below, three case study examples of where AI has been used effectively by UK businesses to add tangible value to recruitment, onboarding, and learning processes.

Case study #1 – Valitron.ai

Enhancing recruitment efficiency and feedback



Valitron.ai is an AI-powered interview platform that streamlines recruitment for organisations and enhances the candidate experience by automating structured interviews, evaluating responses with global competency standards, and providing actionable feedback to every applicant. It customises questions based on the company's job description, leading candidates through unscripted interviews that assess genuine skills and abilities. Supporting over 50 languages, Valitron.ai can simultaneously interview hundreds or even thousands of applicants.

The tool helps reduce bias, aligns hiring with diversity and organisational values, and promotes business growth by streamlining fair and efficient talent acquisition.

Impact of AI on business growth

- ✓ **AI can streamline recruitment processes:** Employers receive structured recruiter notes, quantitative suitability scores, and ranked shortlists, significantly reducing hiring costs and time while improving fairness and transparency.
- ✓ **AI can empower candidates and learners:** Individuals can practice interview techniques and receive constructive feedback before real interviews, benefiting from a more objective, skills focused assessment experience.
- ✓ **AI can expand capability for training providers and technology partners:** Valitron.ai can be integrated into programmes to showcase innovative hiring solutions and support broader adoption of scalable, data-driven recruitment practices.

Further detailed information about this case study and lessons learned is accessible on the AI Skills Hub.

Case study #2 - Lorefully

Supporting institutions to turn shared discussion into trusted qualitative insight

Lorefully is a knowledge capture and insight platform designed for institutions and organisations that generate insight through discussion, engagement and collaboration, but struggle to retain and reuse what is shared.

The platform supports the capture and organisation of qualitative insight from workshops, roundtables, events and research activity. AI operates in the background to assist with the time-consuming work of structuring contributions, identifying themes and supporting report preparation, while interpretation and judgement remain with people at all stages.

Impact of AI on business growth

- ✓ **AI can accelerate insight generation and reduce operational effort:** In practice, Lorefully enables organisers and facilitators to convert engagement into structured insight more quickly. Insight reports are typically produced within twenty-four hours of an event, significantly reducing post-event analysis and write-up effort while allowing outputs to be shared while discussions are still current.
- ✓ **AI can improve quality and confidence in findings:** Evidence-grounded approaches, including retrieval augmented generation, ensure outputs remain traceable to approved documents and verbatim participant contributions, reducing the risk of unsubstantiated output and supporting confidence in the integrity of findings.
- ✓ **AI can strengthen organisational knowledge retention:** The platform enables institutions and organisations to retain and reuse insights generated through discussion, engagement and collaboration, addressing challenges with knowledge loss and fragmentation.
- ✓ **AI can convert engagement activities into strategic assets:** By treating events and engagement as research assets rather than one-off activities, organisations can move more quickly from discussion to evidence and from insight to action.

Further detailed information about this case study and lessons learned is accessible on the AI Skills Hub.

Case study #3 - ARVAST

Enabling on-the-job learning

ARVAST is an AI-driven augmented reality (AR) assistant designed to address skills shortages, knowledge loss, workforce agility issues, and high rework costs. Delivered via smart glasses, ARVAST overlays animated, step-by-step guidance directly onto real-world tasks, enabling handsfree, voice-activated support for workers. Built for the UK construction sector, ARVAST's approach is highly transferable to manufacturing, healthcare, retail, warehousing, and other industries where real-time, handsfree knowledge transfer and guidance is critical.

Impact of AI on business growth

- ✓ **AI can accelerate on-the-job skill development:** Real-time, immersive guidance enables workers to learn as they perform tasks, supporting faster capability building.
- ✓ **AI can boost operational performance:** Scenario modelling and benchmark analysis indicate the potential for ARVAST to deliver significant efficiency gains, including up to 60% reductions in build time, quality improvements of up to 70%, productivity gains approaching 80%, and substantial cost savings through reduced rework, waste and training overheads.
- ✓ **AI can preserve and standardise critical expertise:** By capturing and delivering consistent task instructions, ARVAST reduces errors, minimises rework, and supports smoother onboarding and handovers.
- ✓ **AI can enable adaptive, scalable training:** AI generated overlays adjust to different tasks and environments, allowing training to be tailored to individual learning needs and project requirements at scale.

Further detailed information about this case study and lessons learned is accessible on the AI Skills Hub.

So what? – reflections for UK businesses

Across the three case studies, a consistent theme emerges: AI is amplifying human capability and capacity. Whether improving fairness and efficiency in recruitment, preserving critical knowledge for faster decision making, or enabling workers to learn hands on in real time, each solution demonstrates how AI can unlock significant productivity gains while empowering people at every stage of the employee journey.

However, it is important to note, AI models are susceptible to inheriting biases present in their underlying data. This highlights the ongoing necessity of human oversight in complex decision-making, as well as the importance of robust data governance, quality assurance measures, and maintaining accurate, unbiased datasets. Robust governance frameworks and strict adherence to ethical standards — such as DSIT's Responsible AI in Recruitment Guidance (2024a) — together with ongoing development of behavioural skills, are essential for promoting fairness, transparency, and regulatory compliance.

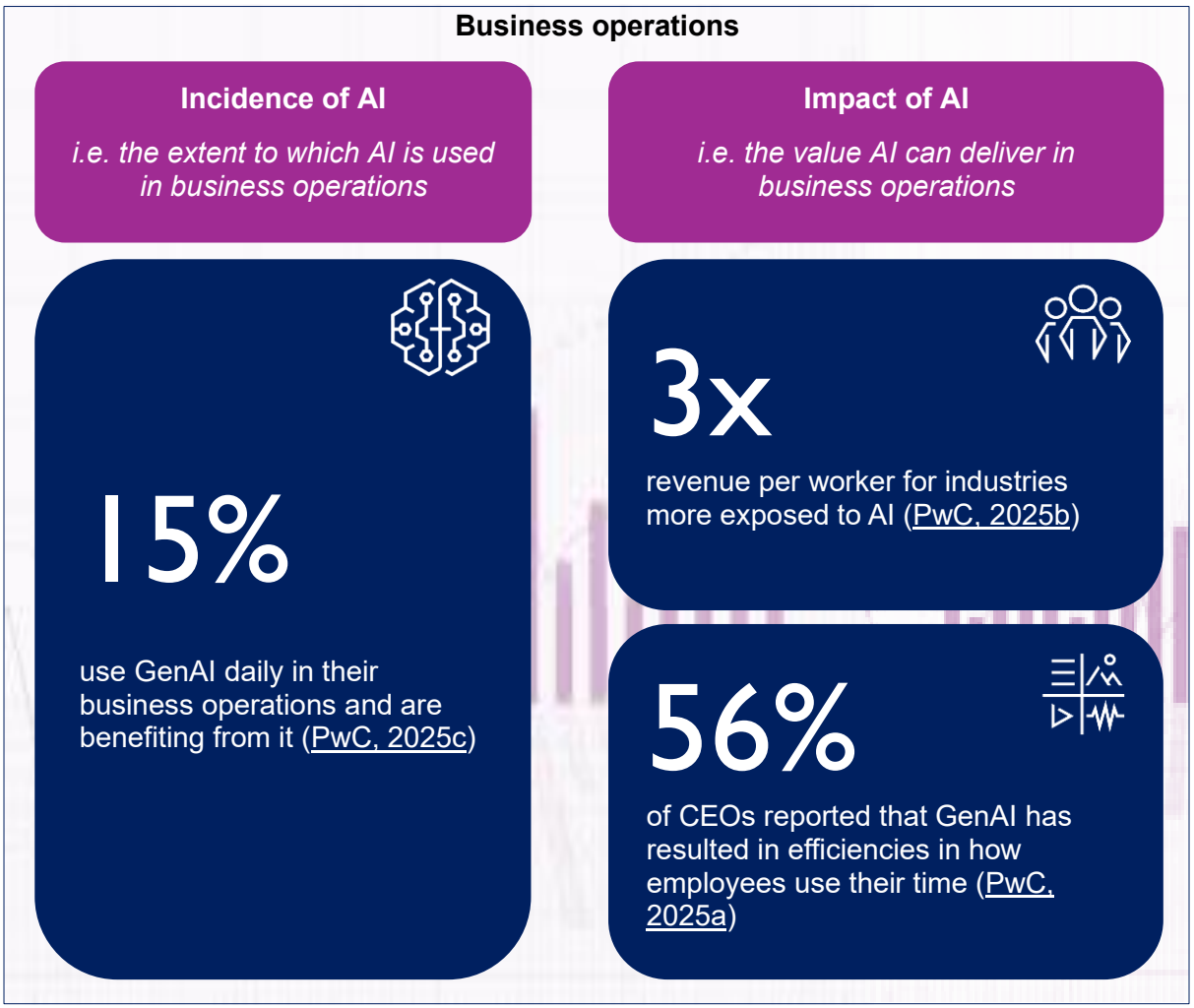
Business operations

AI is transforming business operations by, for example, automating routine processes, optimising resource allocation, and facilitating predictive maintenance for improved efficiency and reliability.

Organisations are under mounting pressure to optimise costs, increase productivity, and operate with greater efficiency. Efficiency was consistently identified in our research as both the primary driver for AI adoption and the most significant benefit realised after implementation, highlighting the positive impact on business operations.

AI is accelerating this shift to more efficient operations by enabling faster, data-driven decision-making. These capabilities are proving particularly valuable in sectors defined by operational complexity. In the built environment and wider infrastructure industries, for instance, organisations are deploying AI regularly for business operations, including for advanced modelling, project design, and urban planning (Arup, 2025).

Evidence on the incidence and impact of AI



"We aim to streamline business workflows to minimise repetitive tasks. My startup uses AI for preconstruction information gathering and risk analysis."

Source: AI Skills Hub focus groups, conducted in November 2025, based on 99 UK businesses

We have summarised, in the boxes below, two case study examples of where AI has been used effectively by UK businesses to add tangible value to business operations.

Case study #4 - PestGPT

Using AI to inform environmental and operational recommendations

PestGPT is an AI-driven solution embedded in the Pezego mobile app, designed to address the persistent challenge of crop pest management, a problem that can cause up to 80% yield loss, if not managed effectively. Many farmers lack the tools and taxonomic expertise to identify pests accurately or to know when intervention is truly necessary, particularly as regulations tighten and pest resistance increases.

By combining lightweight computer-vision models with large language models (LLM), PestGPT enables real-time, offline pest detection and personalised, region-specific guidance. Designed for accessibility in rural or low-connectivity environments, the app offers intuitive, field-ready support. PestGPT identifies key pests across 38 species and 10 major crops, mapping pest levels to regionally validated economic thresholds to support confident, data-driven Integrated Pest Management (IPM).

This approach to mobile AI optimisation, context-aware analytics, and field-ready usability can also be applied to sectors such as environmental monitoring, healthcare diagnostics, manufacturing quality control, and retail inventory management.

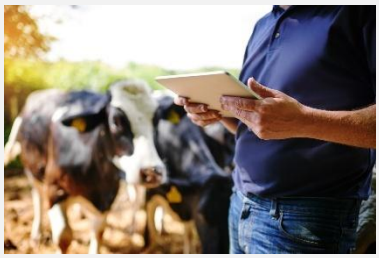
Impact of AI on business growth

- ✓ **AI can enhance diagnostic accuracy and speed:** Algorithm improvements have increased pest-identification accuracy by 15% and reduced image-processing time by 20%, enabling faster, more reliable field decisions.
- ✓ **AI can enable data-driven decision-making:** Tailored, climate-aware recommendations and an analytics dashboard help farmers track pest trends and crop health, strengthening planning and resilience.
- ✓ **AI can promote sustainable and efficient operations:** Early deployments show reductions in unnecessary pesticide use, supporting more sustainable integrated pest management practices and regulatory compliance.
- ✓ **AI can expand access to expert guidance:** Mobile AI optimisation and knowledge-distillation techniques deliver real-time, offline insights, even in remote or resource-constrained settings.

Further detailed information about this case study and lessons learned is accessible on the AI Skills Hub.

Case study #5 – Galebreaker and Smartbell

Optimising resource allocation and reducing labour requirements



Galebreaker and Smartbell have developed an AI-powered heat stress detection system, initially designed for the dairy sector, that is transforming animal welfare and operational efficiency on farms. By combining AI, internet of things (IoT) enabled ear tags, and real-time analytics, this solution empowers farmers and livestock managers to proactively manage heat stress, one of the most significant threats to herd health and productivity.

While designed for dairy herds, this combination of advanced analytics, sensor technology, and cloud-based dashboards is highly transferable across the wider agriculture sector, including beef farming, food supply chains, and veterinary services. Its versatility supports early intervention, resource optimisation, and consistent quality across diverse livestock environments.

Impact of AI on business growth

- ✓ **AI can enable early detection and intervention:** Real-time monitoring identifies heat stress quickly, enabling timely adjustments to ventilation and cooling systems that improve milk yield and overall herd health.
- ✓ **AI can reduce labour requirements:** Automated alerts and analytics decrease reliance on manual observation, reducing the likelihood of missed issues and freeing up staff time.
- ✓ **AI can optimise resource allocation:** Data-driven insights support targeted, cost-effective cooling strategies that minimise financial losses and enhance sustainability.
- ✓ **AI can improve animal welfare:** Proactive, data led management reduces health complications, boosts fertility, and strengthens herd resilience.

Further detailed information about this case study and lessons learned is accessible on the AI Skills Hub.

So what? – reflections for UK businesses

Across both case studies, AI consistently strengthens frontline decision-making by turning real-time data into clear, actionable insight. Together they show that when AI is embedded directly into everyday workflows, it reduces manual effort, improves the accuracy and timing of interventions, and supports more efficient, sustainable use of resources. In these cases, AI amplifies, rather than replaces expertise, highlighting the importance of developing the necessary skills to work alongside AI-driven technologies.

In environments like these, that are particularly resource-constrained and always changing, the research also indicates that it is particularly important to develop AI pilots because they allow organisations to test solutions in real operating conditions, surface data and workflow gaps early, and refine tools before scaling.

Health, safety, and compliance

AI is revolutionising health, safety, and compliance by enabling real-time risk detection, applying predictive analytics and automating compliance monitoring, empowering organisations to move from reactive management to proactive assurance.

AI is emerging as a critical enabler, shifting safety management from reactive incident response to proactive prevention and assurance. Traditionally viewed as a defensive function, compliance is being transformed by AI into an intelligence-driven capability that enhances agility, resilience, and strategic value. Adoption is accelerating with 56% of compliance experts reporting the use of AI in 2024, up from 41% the year before, highlighting the growing scale and influence of AI in the space (KPMG, 2025a).

At the same time, AI-powered predictive maintenance and digital resilience strategies are helping organisations anticipate failures and maintain compliance in real time. While adopting AI offers many benefits for this functional area, it also comes with certain risks. To address this, the UK Health and Safety Executive (HSE) (2024) oversees AI use when it affects health and safety, requiring appropriate risk assessments. These measures promote responsible use and compliance with UK law.

Evidence on the incidence and impact of AI

Health, safety, and compliance

Incidence of AI

i.e. the extent to which AI is used in health, safety, and compliance

98%

of organisations reported AI and advanced analytics have already improved their approach to risk identification, monitoring, and mitigation (KPMG, 2025b)

Impact of AI

i.e. the value AI can deliver in health, safety, and compliance

80%

reduction in workplace incidents at Marks and Spencer using Protex AI, an AI-driven solution, across their warehouse floor (Protex AI, 2025)

We have summarised, in the boxes below, two case study examples of where AI has been used effectively by UK businesses to add tangible value to health, safety, and compliance processes.

Case study #6 – Brunel Innovation Centre

Tackling safety-critical training and data-heavy workflows

Brunel Innovation Centre has developed two complementary AI solutions to tackle safety-critical training and data-heavy workflows in industrial environments:

SafeXtend: An AI-powered virtual reality (VR) training platform that allows workers to rehearse complex physical tasks in simulated hazardous or time-critical conditions. This immersive approach improves preparedness, reduces accidents, and enables consistent, scalable training without exposing employees to real-world risks.

LASER (Language-Guided Zero-Shot Segmentation with Multi-Angle Reprojection): An AI tool that automates object extraction from dense 3D point cloud data using simple natural language prompts like “window” or “excavator”. By eliminating manual labelling and segmentation, LASER cuts processing time by up to 90%, freeing technical teams to focus on higher-value tasks such as design optimisation and safety planning. Together, these solutions demonstrate how AI can embed safety, compliance, and operational efficiency into everyday industrial workflows.

Impact of AI on business growth

- ✓ **AI can improve workforce safety and readiness:** VR-based training reduces exposure to hazardous environments and accelerates skills development in low-risk settings.
- ✓ **AI can strengthen regulatory confidence and compliance:** AI-enabled training supports consistent adherence to health and safety standards, reducing audit risks and potential penalties.
- ✓ **AI can accelerate project delivery and boosts efficiency:** LASER streamlines 3D data workflows, enabling faster turnaround times and improved resource allocation.
- ✓ **AI can deliver cost savings beyond training:** Reductions in safety incidents and manual data-processing workloads can lower insurance costs, minimise downtime, and reduce operational overheads.

Further detailed information about this case study and lessons learned is accessible on the AI Skills Hub.

Case study #7 - Calyo

Enabling reliable navigation and hazard detection in poor visibility conditions

Calyo is a UK-based technology company pioneering a world-first safety solution that uses 3D ultrasonic sensing combined with AI to deliver spatial awareness in environments where traditional optical sensors fail. The solutions, Calyo Pulse and Calyo Sensus, interpret sound reflections to construct high-fidelity environmental maps, enabling reliable navigation and hazard detection in poor visibility conditions such as fog, rain, or darkness. Supported by BridgeAI and Innovate UK, Calyo has progressed from research to a validated pilot platform now ready for industrial collaboration.

Calyo's approach is lightweight, scalable, and adaptable across autonomous vehicles, drones, industrial robots, and accessibility solutions for vulnerable road users. By embedding AI-driven signal processing into ultrasonic sensing, Calyo enables real-time hazard detection and compliance assurance, reducing safety risks and supporting operational resilience in unpredictable conditions.

Impact of AI on business growth

- ✓ **AI can enhance safety and reliability:** AI-powered ultrasonic perception delivers robust performance in fog, rain, and darkness, reducing collision risk, improving worker safety, and supporting compliance with safety standards.
- ✓ **AI can strengthen operational resilience:** Maintaining reliable sensing where optical systems fail helps prevent operational downtime, supporting continuity in sectors where delays can cause financial or reputational impacts.
- ✓ **AI can enable cost-effective scalability:** Lightweight hardware and compatibility with existing platforms make the solution easy to adopt, enabling rapid scaling and strong return on investment.

Further detailed information about this case study and lessons learned is accessible on the AI Skills Hub.

So what? – reflections for UK businesses

Across both cases, AI strengthens safety-critical work by improving how organisations anticipate, detect, and manage risk. These solutions show that when AI is applied to safety and compliance, its biggest contribution is increasing reliability in situations where human judgement alone is constrained — whether by limited visibility, high-risk tasks, or data-heavy workflows. AI's value, therefore, lies in making safety processes more consistent, reducing dependency on manual effort, and enabling faster, more accurate decisions that lower operational risk.

In safety-critical environments, workforce capability and skills development is particularly important because the consequences of error can be severe. Organisations therefore need employees who can understand, oversee, and validate AI-generated recommendations, allowing automation to enhance, rather than replace, human judgement.

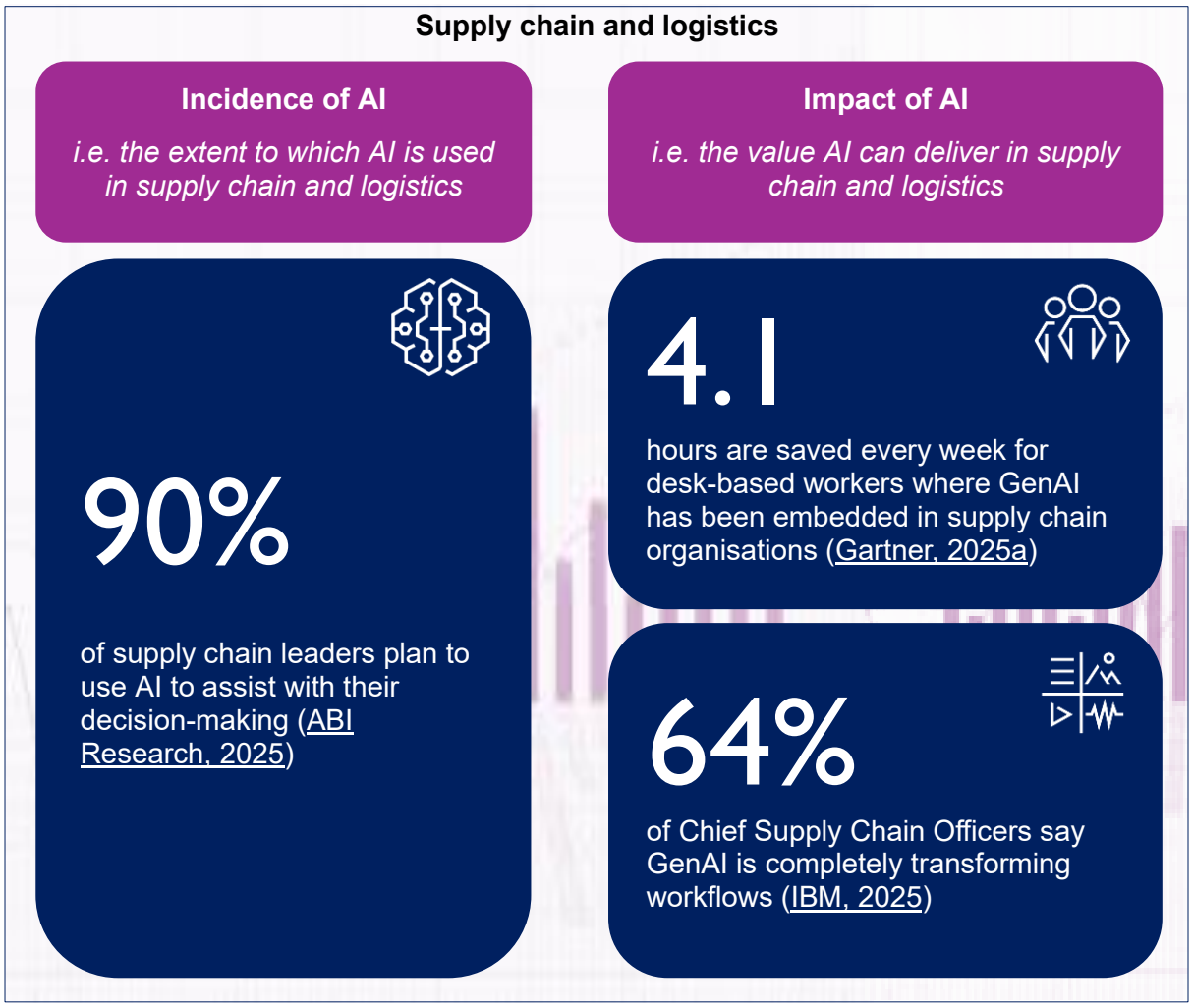
Supply chain and logistics

AI is supporting supply chain and logistics by delivering accurate demand forecasting, identifying emerging risks, and optimising inventory and fleet operations, generating significant cost savings, reducing disruption, and advancing organisations' sustainability objectives.

AI is integral to shifting supply chain management from reactive to proactive. By leveraging AI-enabled tools, organisations gain real-time visibility, predictive analytics and intelligent automation that optimise every link in the chain. The global AI supply chain and logistics market reached $24 billion in 2024 and is expected to accelerate, forecasted to hit $134 billion by 2029 (The Business Research Company, 2025). Across industries, AI-driven solutions are delivering measurable impact, improving forecast accuracy, reducing stockouts, and cutting operational costs.

Beyond operational impact, AI-enabled supply chains are advancing sustainability objectives, reducing organisations environmental footprint. A recent analysis spanning 6–12 months saw AI interventions avoided emissions of 500–1,500 tCO_2 and cut fuel consumption by 12–15%, highlighting AI's pivotal role in boosting efficiency and climate resilience (Frikha, M.A. & Mrad, M, 2025).

Evidence on the incidence and impact of AI



We have summarised in the boxes below, two case study examples of where AI has been used effectively by UK businesses to add tangible value to supply chain and logistics.

Case study #8 - Syselek

Accelerating the transition to electric mobility across supply chains

Syselek, in collaboration with the University of Cambridge, has developed an AI-driven Fleet Charging Schedule (FCS) optimiser to orchestrate cost-efficient depot charging for electric vehicles. The system computes the lowest-cost charging plan across chargers and vehicles using predictive energy demand models and live operational constraints such as vehicle availability, tariff blocks, and charger limits. This innovation supports fleet operators meeting decarbonisation targets without costly infrastructure upgrades, accelerating the transition to electric mobility across sectors and supply chains.

Impact of AI on business growth

- ✓ **AI can reduce energy costs through intelligent scheduling:** The optimiser achieves around a 30% reduction in energy costs by aligning charging to time-of-use tariffs, avoiding peak pricing, and replacing blanket 100% charging with tailored, per-vehicle charging plans.
- ✓ **AI can improve fleet readiness without new infrastructure:** Dynamic, grid aware scheduling ensures zero missed departures and optimises charging within existing site capacity, charger limits, and operational windows.
- ✓ **AI can enable predictive and integrated optimisation:** Accurate energy-needs forecasts feed into a real-time scheduler that integrates with transport-management systems and a simple dashboard, helping operators identify lower-cost charging windows, manage demand-response opportunities, and reduce emissions.

Further detailed information about this case study and lessons learned is accessible on the AI Skills Hub.

So what? – reflections for UK businesses

In the cases above, we see how AI is transforming supply chain and logistics by enabling predictive, data-driven decision-making, and optimisation at scale. AI-powered risk intelligence strengthens assurance by prioritising interventions, reducing disruption, and improving compliance across complex networks, while intelligent scheduling solutions optimise resource use, cut energy costs, and accelerate progress toward decarbonisation targets, all without costly infrastructure upgrades.

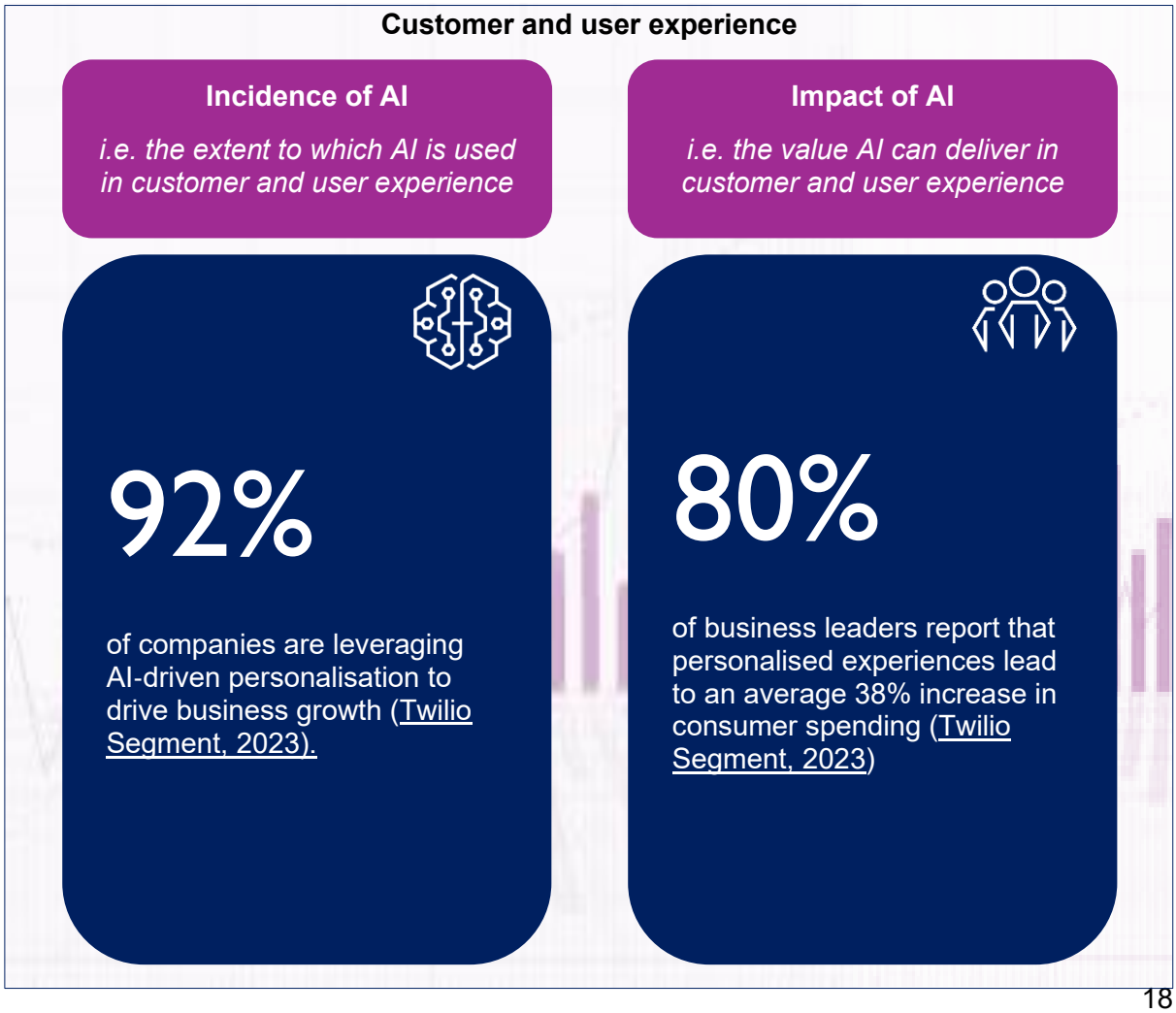
Customer and user experience

AI is enhancing customer and user experience by equipping organisations to anticipate needs, optimise service provision, and deliver efficient, tailored interactions, resulting in measurable gains in customer retention, conversion, and trust.

As customer expectations continue to rise, organisations face mounting pressure to deliver experiences that feel tailored, seamless, and genuinely helpful. Yet many struggle to keep pace with consumers who now see personalisation as a baseline requirement — 76% report frustration when it's missing (McKinsey, 2021) and 64% prefer brands that adapt experiences to their individual needs (Qualtrics, 2024).

Against this backdrop, AI is emerging as a critical enabler, unlocking new levels of personalisation, loyalty, and operational efficiency. Businesses are responding: investment in personalisation initiatives is accelerating, and fast-growing companies attribute 40% more of their revenue gains to personalisation relative to their slower-growing peers (McKinsey, 2021). The key to unlocking meaningful personalisation lies in using AI to deliver real-time, relevant experiences, however this opportunity comes with responsibility. To genuinely enhance, rather than compromise, the customer relationship, AI-enabled personalisation must be used ethically and transparently, building trust while minimising potential risks (Comviva, 2023).

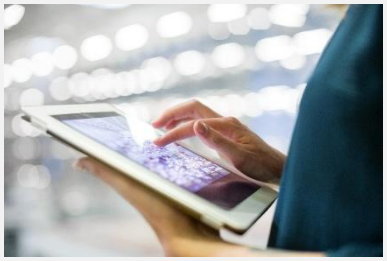
Evidence on the incidence and impact of AI



We have summarised in the boxes below, two case study examples of where AI has been used effectively by UK businesses to add tangible value to customer and user experiences.

Case study #9 – Onefit.ai

Using AI-powered scanning tools to improve accuracy and reduce returns



Onefit.ai tackles one of the biggest challenges in online retail: footwear returns caused by sizing mismatches. Using advanced computer vision and machine learning, the platform enables customers to scan their feet via a smartphone in under 30 seconds, generating a precise measurement of the foot and matching it to brand-specific sizing data across 100+ brands. Many consumers engage in "bracketing orders", purchasing multiple sizes with the intention of returning items that do not fit. By integrating this technology, retailers can provide accurate and personalised sizing recommendations, which can lower return rates and enhance customer confidence.

Impact of AI on business growth

- ✓ **AI can reduce product return rates and operational costs:** Retailers report a 20–50% reduction in returns among customers who completed a scan, lowering reverse-logistics costs and improving profitability.
- ✓ **AI can boost conversion rates:** Personalised sizing guidance delivers a 33% uplift in conversion rates and reduces "bracketing" behaviour.
- ✓ **AI can support sustainability goals:** Cutting returns reduces reverse logistics costs and environmental impact from shipping and disposal.

Further detailed information about this case study and lessons learned is accessible on the AI Skills Hub.

Case study #10 – DAO CreaTech™

Transforming cultural funding and co-creation

DAO CreaTech™ combines community governance models with blockchain technologies and AI assisted design (Figma AI and Code Connect within Dev Mode) to build a transparent, participatory cultural ecosystem. Developed by Intercultural Roots for Public Health and funded by Innovate UK and the Department for Digital, Culture, Media & Sport (DCMS), it represents a first-of-its kind initiative in the UK. The project responds to growing demand for a more democratic, inclusive and ethically grounded, technology-enabled approach to cultural production and resourcing. By dissolving traditional boundaries between organisers and participants, it cultivates more collaborative, community led ways of creating and experiencing cultural events.

The platform enables communities to propose, evaluate and fund creative projects through decentralised governance mechanisms underpinned by auditable smart contracts. Blockchain technology provides the foundation for decentralised governance, ensuring that proposals, votes and funding allocations are recorded transparently and

cannot be altered. Smart contracts automate agreed rules and processes for decision-making, supporting accountability and reducing reliance on central intermediaries.

Impact of AI on business growth

- ✓ **AI can enable earlier, clearer collaboration:** Groups could explore co-organisation and co-funding options in advance, with shared visibility of what was being proposed and why.
- ✓ **AI can strengthen transparent participation:** Stakeholders could see the process, not just the results, thereby strengthening confidence that decisions were fair and traceable.
- ✓ **AI can support new models of funder collaboration:** The pilot highlighted the value of inviting funders to become DAO co-organisers, choosing to support DAOs that align with their objectives, in a more mutual, less top-down relationship.

Further detailed information about this case study and lessons learned is accessible on the AI Skills Hub.

So what? – reflections for UK businesses

In the cases above, we see that AI is redefining what “good” looks like in customer experience by enabling hyper-personalisation, predictive services, and seamless interactions that far exceed traditional models. These capabilities allow businesses to deliver tailored recommendations, anticipate needs, and resolve issues faster, creating frictionless journeys that strengthen trust and loyalty. AI also equalises access to services and promotes transparency, ensuring consistent, high-quality experiences at scale.

To realise the clear commercial gains demonstrated, UK businesses should focus on embedding AI where it directly improves customer outcomes. This means, for example, using AI to deliver precise, data-driven personalisation that reduces friction and prevents costly issues, such as product returns. Organisations should reinforce governance frameworks to ensure that AI-generated recommendations remain fair, explainable, and consistent with brand values and the authenticity of their brand voice.

Key takeaways

This section presents clear quantitative and qualitative evidence to show that AI is already delivering significant value across a number of key functional areas in UK businesses. The evidence suggests that a strategic, organisation-wide approach is required for successful AI adoption; and that ownership and buy-in from business leaders, managers, and front-line staff is essential. Several cross-cutting points are worth noting in conclusion:

- **Successful AI adoption was led with a strong focus on business outcomes:** Across the case studies, organisations that achieved the highest impact were those that mapped AI opportunities to clear business outcomes rather than adopting technology for its own sake. This allowed the organisations to have more focused investment to areas where AI can deliver strategic impact, whether accelerating recruitment, strengthening supply chain resilience, or improving safety compliance.

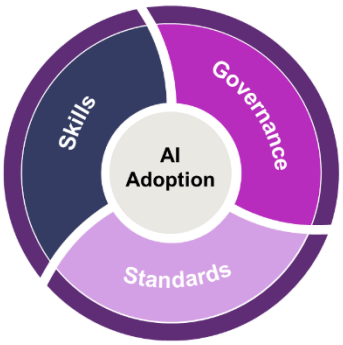
- **Firm foundations, particularly in relation to high quality data, were built by businesses to support successful AI adoption:** Organisations that achieved scale did not overlook the basics. Those that invested early in robust data pipelines and systems that integrate AI seamlessly avoided bottlenecks and unlocked scalability. Readiness assessments covering data and digital infrastructure, governance, and pain points, such as manual workflows or inconsistent decision-making were critical for these organisations in preventing stalled programmes and ensuring AI delivered measurable return on investment.

- **Organisations that invested in AI literacy and role-specific training saw faster AI adoption and built greater trust within their workforce:** This helped to address the skills gap, the main barrier to operational AI impact. Governance frameworks were equally as decisive in building confidence amongst employees and customers. Applying recognised standards allowed organisations to reduce compliance risks, but also to strengthen stakeholder trust in their ethical use of AI.

- **Clear value was achieved from small-scale AI pilot initiatives:** Incremental adoption emerged as a consistent success factor. Organisations that piloted high-impact case studies, such as AI-driven recruitment or predictive maintenance and attached clear key performance indictors (KPIs) i.e. cost savings, productivity gains, bias reduction, were able to demonstrate value quickly. Internal case studies from these pilots became powerful tools for building momentum and securing leadership buy-in. Conversely, organisations that attempted wholesale transformation without evidence-based learning were prone to greater resistance and risk.

- **The fear factor remained, so transparency and trust in AI decisions were essential for successful AI adoption:** Maintaining human-in-the-loop assurance helped organisations avoid reputational risks and build stronger stakeholder confidence internally and externally. In recruitment, applying DSIT's Responsible AI in Hiring guidance (2024a) and in safety-critical environments aligning proportionate risk assessments with HSE's AI standards (2024) have enabled responsible deployment that combines automation with human validation, ensuring fairness, compliance, and workforce wellbeing without compromising trust.

- **Workforce skills, governance, and recognised AI standards need to operate as a cohesive system to support safe and scalable AI adoption:** Organisations that combined workforce capability with clear governance frameworks and AI standards-aligned practices built stronger confidence in AI use, reduced uncertainty, and improved decision-making. Treating these enablers as an integrated system rather than separate activities helped businesses progress from isolated pilots to enterprise-wide deployment that is responsible, trustworthy, and impactful.



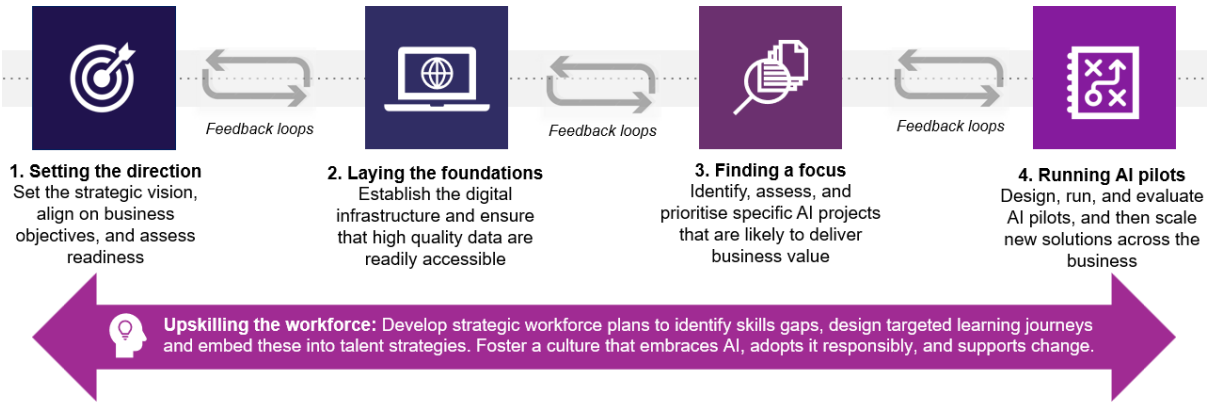
The HOW: *Practical guidance for employers adopting AI*

Introduction

Research for this White Paper reveals that many employers, particularly SMBs and those just beginning their AI journey, are keen to identify practical guidance and support that can help kick-start and scale their AI adoption efforts. As previously discussed, employers frequently identify significant barriers to adopting AI, citing an element of fear, elevated levels of risk, and widespread skills gaps as primary challenges (UKRI, 2025).

This section begins to address these findings by setting out some foundational steps that, in principle, organisations can take to begin or further their AI adoption journey. The four key foundational steps — setting the direction, laying the foundations, finding a focus, and running AI pilots — along with a fifth, underpinning step — upskilling the workforce — are summarised in the figure below.

A simple step-by-step guide to AI adoption



It is important to note that, as shown in the figure, all our research suggests strongly that successful AI adoption is rarely linear. Rather the process is iterative; and feedback loops allow organisations to refine their approach as they progress. For example, a small-scale AI pilot may reveal data quality issues, prompting a return to strengthen infrastructure before scaling further. Similarly, skills gaps uncovered during implementation can inform updated training plans.

The practical guidance for AI adoption was developed by drawing on insights from cross-cutting themes such as strategic alignment, robust data foundations, and workforce capability from Section 2. It also combines good practice from BridgeAI frameworks, employer surveys, stakeholder interviews, and sector-specific discussions to ensure relevance for UK organisations at various stages of adoption. The process was refined in collaboration with UKRI, sector experts, technology partners, and employers to ensure it remains practical and scalable.

Setting the direction

Set the strategic vision, align on business objectives, and assess readiness.

The first step is about laying the groundwork for successful AI adoption, starting with a strategy that matches the business's goals and assessment of readiness. The research shows that this can transform AI from a costly experiment into a value-driving asset by ensuring initiatives support strategic goals such as reducing operational overruns, improving safety, and enhancing customer experience. It also allows leaders, technical experts, and operations teams to become aligned under a single vision.

External evidence reinforces the importance of strong upfront alignment. Research from Gartner (2025b) indicates that 40% of agentic AI projects will be cancelled by the end of 2027 due to escalating cost, unclear business value, or inadequate risk controls. These are issues that stem directly from the strategic foundations not being in place. The results from our employer survey also highlights this (see box below).

56% *of organisations report uneven AI maturity across teams, with some progressing far faster than others.*

Source: AI Skills Hub employer survey, conducted in October and November 2025, based on 218 UK businesses

A structured, organisation-wide baseline assessment helps reveal these differences, identify capability gaps, and support consistent uplift across the business.

"We need to formalise our approach to AI adoption, moving away from the current ad hoc practices towards a clear strategy."

Source: AI Skills Hub focus groups, conducted in November 2025, based on 99 UK businesses

Key activities for business leaders and managers

- **Set the strategic vision:** Describe the future state and the role AI will have in transforming the organisation over time (e.g. the future operating model, competitive positioning). This defines *what* is the purpose and vision of the AI investment.
- **Define and agree the strategic business case:** Identify the strategic aim where AI can unlock tangible, measurable value (e.g. reducing operational overruns, improving safety, enhancing customer experience). This provides the rationale for the investment and clarifies the *why.*
- **Assess organisational readiness:** Conduct a baseline assessment of digital maturity, governance, and workforce capability to identify gaps and prioritise improvements for adoption readiness. This helps to understand *where* the organisation is today before investing.
- **Secure corporate sponsorship:** Engage leadership and cross-functional teams. This empowers *who* to lead, accelerates decision-making, and unblocks dependencies.

Good practice guidance for employers #1: Digital Catapult

AI Adoption Framework

Digital Catapult's AI Adoption Toolkit uses assessments to determine an organisation's progress in their AI adoption journey. There are three main tools — Digital Maturity Assessment, Data Maturity Assessment, and Data Readiness Assessment — which provide a current view on an organisation's capabilities across these areas.

1. **Digital Maturity:** This assessment is a valuable tool to kickstart a digital transformation journey or refine existing digital strategies. By evaluating an organisation's current digital capabilities and identifying areas for improvement, it provides a structured roadmap for growth.
2. **Data Maturity:** This assessment is designed to help organisations embark on or refine their data journey. By evaluating an organisation's data practices, governance, and data-driven culture, this assessment provides a structured approach to identifying strengths and areas for improvement within the data strategy.
3. **Data Readiness**: This assessment evaluates an organisation's capacity to use data effectively for decision making and to leverage it as a strategic asset.

Benefits for employers

These tools offer objective benchmarks to assess an organisation's readiness for AI adoption, providing practical insights that help speed up the responsible integration of AI technologies. Furthermore, they are designed to align with UK standards and established best practices, ensuring that AI is deployed in a manner that is both ethical and secure.

For more information, please visit the Digital Catapult website.

Skills for success

Assessing readiness and ensuring alignment with business goals a create a strong foundation for progress, enabled by three essential skills:

Skills	Why it matters	Relevant courses on the AI Skills Hub
Strategic thinking	Enables leaders to interpret organisational priorities, assess where AI can create the most value, and make informed decisions about sequencing, investment, and risk trade-offs. Helps avoid tech-driven adoption and ensures AI aligns with the long-term strategy.	AI Skills Hub course catalogue
Business case development	Ensures AI initiatives are justified with clear objectives, expected benefits, costs, risks, and assumptions.	AI Skills Hub course catalogue
Relationship management	Enables effective stakeholder engagement, cross-functional alignment, and leadership sponsorship. Helps teams co-own AI initiatives and embed them sustainably.	AI Skills Hub course catalogue

Further courses are accessible on the AI Skills Hub course catalogue.

Laying the foundations

Establish the digital infrastructure and ensure that high quality data are readily accessible.

The second step is all about data. Evidence confirms that robust digital infrastructure and high-quality, accessible data are the bedrock of successful AI adoption. Without these foundations, even the most advanced AI solutions will fail to scale or deliver reliable results. Yet, our research also shows that most organisations continue to struggle at this stage. Fivetran (2025) illustrates the scale of the issue: 42% of enterprises say more than half of their AI projects have been delayed, underperformed, or failed due to data readiness issues. The results from our employer survey also highlights this (see box below).

No.1

Poor data quality is the number one barrier to effective AI adoption

Source: AI Skills Hub employer survey, conducted in October and November 2025, based on 218 UK businesses

Key activities for business leaders and managers

- **Digitise the basics:** Move core processes (e.g. emails) to simple cloud tools and centralise file storage. Establish basic access controls and create a lightweight data inventory. This means AI has a stable digital footing, especially for SMBs and those early in their digital maturity.
- **Connect systems and clean data:** Use no code connectors to integrate apps or data sources. Apply basic data quality rules and assign owners. This creates consistent, usable data for AI to learn from.
- **Introduce governance and assurance:** Define simple policies for security, retention, roles and permissions. Start basic fairness, bias, and data quality checks. This reduces risk and strengthens trust in AI outputs.
- **Prepare for scalable infrastructure:** Upgrade legacy systems only once fundamentals work. Adopt cloud data platforms (e.g. Azure, AWS) or integration pipelines as maturity grows. This enables reliable scaling of AI across teams and AI applications.

It is important to note that, while these steps provide a simple roadmap, the actual implementation can involve significant cost, effort, and complexity depending on your starting point and scale. Plan for phased adoption and seek expert guidance where needed to avoid underestimating resource requirements.

"Lots of organisations are still actually at that much more basic digital adoption stage… you do need some of that very basic digital infrastructure in place so that the AI has something to overlay on."

Source: AI Skills Hub stakeholder engagement interviews

Good practice guidance for employers #2: Digital Catapult

Data and Digital Transformation Frameworks

Digital Catapult has created two practical frameworks designed to support organisations adopting AI. Together, the two frameworks outline how organisations can become digitally mature and AI-ready.

1. **The Digital Transformation Framework** provides a 10-step plan, from assessing current capabilities to securing leadership buy in, prioritising initiatives, investing in scalable technology, fostering a digital culture, and continuously measuring progress.
2. **The Data Strategy and Governance Framework** complements this by explaining how to treat data as a strategic asset through both defensive (security, compliance) and offensive (innovation, analytics, monetisation) approaches. It sets out phases for building a data roadmap and details how to design a robust governance programme with clear roles, stewardship, and ongoing monitoring.

Benefits for employers

By adopting these frameworks, organisations can boost decision-making quality, unlock innovation, streamline operations, and strengthen data security and compliance. They also improve customer experience, create new value from data, enhance organisational agility, and build long-term competitiveness in an increasingly digital and AI-enabled landscape.

For more information, please visit Innovate UK's website.

Skills for success

Strong digital and data foundations reduce risk and help to build scalable AI solutions. Three skills underpin this step:

Skills	Why it matters	Relevant courses on the AI Skills Hub
Data engineering	Ensures organisations can build and maintain the digital infrastructure required for AI workloads. Data engineering skills help to integrate systems, develop data pipelines, and prepare the technical environment so AI solutions can operate reliably.	AI Skills Hub course catalogue
Data stewardship and standards	Responsible management and oversight of data is critical. Data stewardship and standards skills ensure data accuracy, accessibility, and trustworthiness, as well as alignment to rules, policies and legislation.	AI Skills Hub course catalogue
Data collection and management	Reliable AI outcomes depend on robust processes for collecting, storing, and maintaining data. Effective management ensures organisations can identify gaps, improve data accessibility, and meet regulatory requirements.	AI Skills Hub course catalogue

Further courses are accessible on the AI Skills Hub course catalogue.

Finding a focus

Identify, assess, and prioritise specific AI projects that are likely to deliver business value.

The third step involves organisations beginning to identify and evaluate where AI can realistically deliver measurable outcomes, where risks can be managed, and where investment will generate the strongest return. Doing this prevents wasted investment in low-impact or unscalable projects and "use cases". Despite momentum around AI, many organisations are still in the early stages of figuring out where to apply it for meaningful value (see box below).

34%

A significant proportion of stakeholders (34%) were in the exploration stage of their AI adoption process.

Source: AI Skills Hub focus groups, conducted in November 2025, based on 99 UK businesses

This means that, while organisations recognise AI's potential, many have not yet translated their AI ambition into a clear and prioritised set of use cases. Additionally, choosing the right solution was the second most common reported barrier encountered whilst implementing AI in our research. This highlights a widespread challenge that organisations frequently jump to solutions before assessing whether they are the right fit, from a value, feasibility, or risk perspective.

Key activities for business leaders and managers

- **Explore real-world examples:** Our research found that case studies are critical for workforce learning and building confidence. Draw sector examples and real-world applications to explore the art of the possible and identify AI opportunities.
- **Map opportunities to business priorities:** Map AI opportunities to strategic goals defined in the first step. This avoids choosing applications because they are "cool" and maintains strategic alignment.
- **Shortlist options:** Use a framework to shortlist options and balance ambition with practicality, prioritising a mix of quick wins and long-term use cases. For example:
    - *Strategic alignment*
    - *Feasibility (data, infrastructure, regulatory considerations)*
    - *Impact potential (cost, efficiency, safety, customer outcomes)*
    - *Risk and governance requirements*

  When prioritising use cases, consider both the areas where AI is already embedded and those where adoption is lagging.
- **Engage stakeholders early:** Validate shortlisted use cases with business and technical leads. This prevents misalignment and strengthens buy-in.

Good practice guidance for employers #3: The Alan Turing Institute

AI Use Case Framework

The framework provides a structured, strategic approach for organisations to evaluate and prioritise use cases and responsibly embed AI in their operations. The framework relies on nine categories of information in relation to a given AI use case, with each category of information comprising a set of possible values. These nine categories of information can be subsumed under four higher-level "dimensions", depending on whether they capture information about the (1) organisation, (2) AI system, (3) input data processed by the system, or (4) the economic sector in which the use case is deployed:

1. **Organisation:** Focuses on how AI integrates into business operations, distinguishing between product/service-centric applications and process-centric use cases.
2. **AI System:** Examines the capabilities, environment, and readiness level of the technology.
3. **Data:** Addresses the types of input data required and whether personal data is processed.
4. **Economic Sector:** Contextualises AI adoption by mapping use cases to specific sectors and sub-sectors.

Benefits for employers

By systematically analysing these dimensions, businesses can identify where AI will create the most value, assess technical feasibility, and anticipate governance requirements.

For more information, please visit Innovate UK's website.

Skills for success

Identifying and prioritising the right use cases helps organisations deliver measurable value and build momentum on their AI adoption journey. Three skills underpin this step:

Skills	Why it matters	Relevant courses on the AI Skills Hub
Data analysis and model building	Enables teams to assess feasibility, understand data availability and quality, and design effective AI solutions. Helps ensure shortlisted use cases are technically viable and grounded in realistic operational conditions.	AI Skills Hub course catalogue
AI ethics and safety	Ensures potential use cases meet ethical, regulatory, and organisational standards. Helps teams identify risks early, consider bias, safeguard data, and prioritise use cases that are safe, responsible, and aligned with governance requirements.	AI Skills Hub course catalogue
Project evaluation	Ensures organisations can assess potential impact, risks, costs, and strategic alignment of each use case. Enables evidence-based prioritisation and supports development of a scalable AI roadmap.	-

Further courses are accessible on the AI Skills Hub course catalogue.

Running AI pilots

Design, run, and evaluate AI pilots, and then scale new solutions across the business.

The fourth step is a pivotal moment in the AI adoption journey. It enables organisations not only to design, run, and evaluate AI pilots, but also to translate successful pilots into scalable, enterprise-wide solutions. This stage bridges early experimentation and long-term deployment, ensuring that proven AI initiatives move from isolated teams to becoming embedded across the organisation.

Successful pilots, therefore, generate early proof points that build leadership confidence, accelerate buy in and create the conditions required for scaling and fully integrating the AI application into the business.

Key activities for business leaders and managers

- **Design the pilot with clear goals:** Define the problem, success measures and what the pilot must prove (e.g. accuracy, efficiency, adoption). This allows pilots to be value-driven.
- **Select a representative environment:** Choose a team or process that is safe to test in but reflects the conditions the solution will face when scaled. This means results are realistic and transferable while still protecting operations.
- **Run the pilot and validate feasibility:** Test model performance, data flows, workflow integration and human-AI interaction. Use the pilot to surface blockers early — data quality issues, process gaps, governance requirements — and iterate quickly. Pilots validate technical feasibility, business impact, and user adoption before committing full investment.
- **Evaluate impact and gather evidence:** Measure outcomes against KPIs and business goals. Collect qualitative to understand reliability, usability, risk and required process changes. This evidence is what builds confidence with leadership and secures investment.
- **Build a repeatable model and scale:** Document what worked, what must change and the minimum conditions for safe rollout. Standardise processes, governance checks, assurance steps, and integration patterns, so that the solution can be deployed consistently across functions or regions. Use relevant standards (e.g. ISO/IEC 5259 for data quality) to support with robustness and replicability.

Good practice guidance for employers #4: BSI

BSI BridgeAI Standards Community – SME Standards Roadmap

Standards are equivalent with international best practice since they are developed through consensus by international standards bodies. This ecosystem and network captures agreed best practice and offers a structured approach to risk management, governance, transparency and technical implementation. As part of the BridgeAI programme, BSI has established a community where SMEs can understand the value of and receive support in adopting standards, among which are those cited for consideration as part of the UK Government's AI Regulation White Paper and the European Union (EU) AI Act.

Core standards to consider

BSI developed the SME standards roadmap to help address the need for clearer and more accessible standards support throughout the AI adoption journey. For example:

- ISO/IEC 42001 – AI Management System: Provides a structured framework for governing AI across its lifecycle, including controls that support safe piloting, monitoring, and scaling. Design, run, and evaluate AI pilots, and then scale new solutions across the business.
- ISO/IEC 23894 – AI Risk Management: Offers practical guidance for identifying, assessing, and mitigating risks during pilot testing and before wider deployment.
- ISO/IEC 27001 – Information Security Management: Ensures data used in pilots is managed securely and that scaled solutions meet enterprise-grade security requirements.
- ISO/IEC 5259 – Data Quality and Data Lifecycle Governance: Supports the development of data pipelines needed for replicable, scalable AI deployment.

Practical tools
The BSI BridgeAI standards community provides a wealth of free content and tools, helping organisations understand which standards are most relevant as they design and scale AI pilots.

Benefits for employers
International standards capture agreed best practice and offer a structured approach to:

- Ensuring consistent governance and risk management during pilot testing.
- Strengthening data quality, security, and model reliability.
- Supporting safe scaling from pilot environments to enterprise deployment.
- Demonstrating compliance with emerging UK and EU regulatory expectations. For more information, please visit BSI's website.

For more information, please visit BSI's website.

Skills for success

Scaling starts with a well-designed pilot. To de-risk adoption and build a repeatable playbook for roll-out, organisations need to strengthen three skill areas:

Skills	Why it matters	Relevant courses on the AI Skills Hub
AI development platforms and frameworks	Provides teams with the ability to prototype, test, and iterate AI use cases quickly. Understanding platforms (e.g. cloud AI tools) enables rapid experimentation, reduces dependency on external vendors, and accelerates learning during the pilot phase.	-
Deployment	Ensures pilots are designed and executed effectively, with clear KPIs, controlled testing, and a repeatable process for scaling.	AI Skills Hub course catalogue
Sustainability and best practices	Embeds responsible AI principles, documentation, governance, and continuous learning into the pilot. Ensures that solutions can be maintained, audited and scaled safely, and that pilots generate usable lessons, not one-off experiments.	AI Skills Hub course catalogue

Further courses are accessible on the AI Skills Hub course catalogue.

Upskilling the workforce

Develop strategic workforce plans to identify skills gaps, design targeted learning journeys and embed these into talent strategies. Foster a culture that embraces AI, adopts it responsibly, and supports change.

AI adoption is ultimately a people and governance transformation. Technology alone cannot deliver value unless employees have the skills, confidence and structures needed to use AI responsibly and effectively. Across all the functional areas in "*The What*" section, workforce capability consistently emerged as the biggest enabler. The fifth step focuses not only on identifying skills gaps and designing targeted learning pathways, but also on shaping the culture, governance, and change readiness that determine whether AI becomes embedded — or remains an isolated experiment.

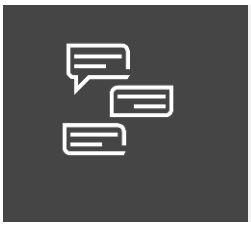
Workforce capability is not the final step in the AI journey, and it is recommended that skills, governance maturity and change management is integrated throughout the entire adoption process. From identifying alignment on business objectives (step one) to piloting solutions (step two), organisations rely on a workforce that understands AI's potential, its risks, and how to apply it responsibly. This means upskilling cannot be treated as a standalone intervention; it is a cross-cutting enabler that underpins Steps 1–4 and ensures each stage delivers value. Our research also highlights this (see box below).

No.1

Skills gaps are the most reported barrier organisations encountered when implementing AI

Source: AI Skills Hub focus groups, conducted in November 2025, based on 99 UK businesses

Our research also shows that 66% of employers say upskilling and reskilling are vital as AI becomes more integral to their operations; and 86% view tailored, role-relevant AI training as critical to successful adoption.



"Frequent changes in AI technologies both help and hinder their adoption. We need more consistency as changes necessitate adjustments in our processes."

Source: AI Skills Hub focus groups, conducted in November 2025, based on 99 UK businesses

Key activities for business leaders and managers

- **Assess current and future skills needs:** Use diagnostics and workforce planning tools to map required capabilities across technical, ethical, and behavioural domains. This creates clear, evidence-based view of capability gaps so your workforce plan matches your AI ambition.
- **Design targeted, role-specific learning pathways:** Create differentiated learning journeys for leaders, operational teams, technical specialists, and frontline workers. This allows them to build confidence and competence.

- **Embed skills in workforce and talent strategy:** Integrate AI capability development into recruitment, progression, performance management, rewards, and professional development. This means skills are continuously built, not reactively addressed.
- **Foster a culture of responsible AI:** Promote trust, governance, and continuous learning to overcome resistance and support change. Identify "superusers" and champions to mentor peers and accelerate adoption.
- **Strengthen change readiness through governance and leadership:** Establish the frameworks, guardrails, and leadership behaviours needed to support responsible AI adoption. This creates clear accountability, consistent decision-making, and scalable AI operations.

"An AI champion within the company helps drive adoption, highlighting possibilities and aligning with change management and tech needs for consistency and board-level support."

Source: AI Skills Hub focus groups, conducted in November 2025, based on 99 UK businesses

Good practice guidance for employers #5: The Alan Turing Institute

AI Skills for Business Competency Framework

The AI Skills for Business Competency Framework, developed by The Alan Turing Institute in partnership with the DSIT and Innovate UK BridgeAI, has been developed to provide a structured understanding of the skills needed across the workforce. It offers a clear, role-aligned articulation of the knowledge, skills, and behaviours required for responsible and effective AI engagement across the workplace and wider society. The framework is designed to support organisations, educators, and policymakers in planning capability development, informing curriculum design, guiding organisational governance, and targeting professional training.

The AI Skills for Business Competency Framework was formally launched in May 2024 in response to the UK Government National AI Strategy commitment to "publish research into what skills are needed to enable employees to use AI in a business setting and identify how national skills provision can meet these needs. Since its launch, the framework has been used to underpin national skills infrastructures, support supply-demand-gap analysis for AI skills in the UK and support the development of national curricula (including apprenticeships) to meet the needs of industry.

Benefits for employers

For employers, the framework offers a clear way to understand the AI skills their workforce needs and where current gaps may lie. It supports more accurate job design and recruitment and helps organisations target training where it will have the most impact. By setting out practical expectations for safe and responsible AI use, it also strengthens day-to-day governance and reduces avoidable risks as AI becomes more embedded in business operations.

For more information, please read the published framework.

Skills for success

Upskilling is the engine of sustainable AI adoption. It transforms employees from passive users into active AI accelerators. Three skills underpin this step:

Skills	Why it matters	Relevant courses on the AI Skills Hub
Self-development	Supports adaptability, encourages experimentation, and helps individuals keep pace with emerging tools, methods, and best practices.	AI Skills Hub course catalogue
AI governance and compliance	Ensures that AI is deployed safely, transparently, and in line with organisational, regulatory, and sector requirements.	AI Skills Hub course catalogue
Change management	Enables staff to support transitions, communicate clearly, manage resistance, and help teams integrate AI into everyday work.	AI Skills Hub course catalogue

Further courses are accessible on the AI Skills Hub course catalogue.

Key takeaways

This section presents a simple framework designed to assist businesses with adopting AI by offering practical guidance about key steps they can take in the process. In conclusion, three cross-cutting points are worth considering in relation to how UK businesses can engage with this framework:

- **Start with clarity about business outcomes — do not lead with the technology:** Organisations should define the problem before they define the solution. This means setting clear business objectives, identifying measurable outcomes, and agreeing the criteria by which success will be judged. Leaders should commission a structured readiness assessment, map existing data and workflows, and select only those AI opportunities that directly support strategic priorities. This helps investment go into initiatives with a clear value case, rather than technology led experiments with limited impact.

- **Adopt an iterative, evidence-driven approach to AI adoption:** Instead of moving straight to full implementation, organisations should build adoption around structured pilots, with clear KPIs, governance checkpoints, and user testing. Each pilot should generate evidence — what works, what needs refining, and what conditions must be in place for scale. Teams should formalise these learning loops by documenting lessons, addressing gaps, updating processes, and creating a repeatable scaling playbook. This disciplined approach reduces risk, accelerates value realisation, and helps AI solutions integrate smoothly across teams and functions.

- **Invest early in people, capability, and culture:** Organisations must take deliberate action to build the skills and trust required for long term AI success. This includes assessing workforce capability, defining role specific training requirements, and embedding AI literacy, governance, and responsible use principles into everyday practice. Leaders should establish clear accountability for AI decisions, create internal “super users” to champion adoption, and communicate openly about how AI will change roles and workflows. Embedding these capabilities early helps employees use AI confidently, question outputs appropriately and contribute to safe, sustained adoption at scale.

Overall conclusions

This White Paper has shown that AI is currently providing substantial value to many UK businesses. The case studies have illustrated how some leading UK businesses are leveraging AI across a wide range of functional areas, including recruitment, operations, health and safety, supply chain management, and customer experience. The evidence shows that AI is beginning to address significant business challenges and is already delivering quantifiable business benefits in each of these areas, e.g. it is helping to mitigate bias in recruitment, streamline onboarding processes, and improve the customer experience.

The organisations that have used AI successfully have *not* led with the technology. They have approached AI adoption as a strategic, evidence-led, business transformation process. These businesses have aligned AI initiatives to business objectives, built strong digital foundations, prioritised high impact use cases, and, importantly, invested in the skills and governance required for sustained impact. In doing so, such businesses have had to engage and interact constructively with other stakeholders in the AI ecosystem. This, in conclusion, highlights the importance of all key stakeholders working effectively together to accelerate AI adoption in the UK:

- **Employers** can act as strategic drivers of AI adoption, ensuring their teams have the clarity, support, and conditions needed to use AI safely and confidently. By driving cultural readiness, encouraging responsible innovation, and enabling cross-team collaboration, employers can remove organisational barriers that often hold back AI adoption at scale.

- **Training providers** can align learning pathways with employers' evolving needs, offering accessible and practical training that builds confidence as well as competence. Additionally, programmes may be tailored by refining terminology and incorporating relevant use cases to support learners' objectives more effectively. Training providers also play a crucial role in maintaining AI skills provision that is up to date, of high quality, and adaptable to technological advancements.

- **Technology partners** can prioritise transparency, usability, and responsible design, providing explainable, secure, and standards-aligned AI tools. Their role is crucial in helping organisations integrate AI effectively, build trust in outputs, and scale solutions safely across complex operational environments.

- **Government** has an important role to play in supporting skills development ecosystems, such as the AI Skills Hub, and upholding standards that encourage trust, innovation, and safe implementation. BridgeAI 2.0, supported by DSIT, will keep assisting organisations in building the foundations, but with an updated strategy geared toward advancing organisations' past pilot phases and early adoption. The focus of Government support now needs to shift towards scaling, interoperability, and broader sector transformation. Ongoing public investment and clear policy guidance is also crucial for closing capability gaps and ensuring widespread, fair access.

With global competition for AI skills intensifying and AI capabilities advancing rapidly, the window to secure leadership in responsible, skills-driven AI adoption is narrowing. But the opportunity is still firmly within reach. The AI Skills Hub will keep supporting employers, business representative organisations (BROs), training providers, technology partners, and the UK workforce, including both current employees and job seekers, as

they move through this transition by offering resources, networking opportunities, and valuable insights to help develop skills for the future. With coordinated action and investment, the UK can harness AI not only to strengthen individual businesses, but to drive more inclusive skills development, higher-quality jobs, and a more competitive, dynamic economy.

Annexes

Annex A. Methodological approach
Annex B. Glossary
Annex C: Bibliography

Annex A. Methodological approach

Literature review

We conducted an extensive literature review drawing on more than 40 documents and data sources to inform both the functional areas through which UK businesses are driving growth and the development of the AI adoption guide. The review followed a structured, multi-stage process to enhance rigour, relevance, and traceability.

Search approach and selection criteria
Our search strategy combined academic databases, government publications, think-tank reports, industry analyses, and newsletter-curated content. Search terms included *"AI adoption," "digital transformation barriers," "AI skills," "data governance,"* and *"technology enablers."* Sources were included if they provided empirical evidence, business function analysis, or conceptual frameworks relevant to organisational AI adoption in the UK. We prioritised peer-reviewed research, government/industry reports, and publications with transparent methodologies.

Data extraction and evidence profile
Selected documents were systematically reviewed, with relevant evidence extracted and categorised according to functional challenges and the thematic structure of the adoption guide. The evidence base comprised a mix of qualitative and quantitative material; quantitative benchmarking was mainly drawn from large-scale datasets such as the PwC Global CEO Survey, the AI Jobs Barometer, and the Global Hopes and Fears Survey.

Analytical process
Extracted insights were analysed to identify recurring themes, convergent trends, and business function challenges. To situate UK sector performance relative to international trends, we analysed insights from global datasets including the PwC Global CEO Survey, the AI Jobs Barometer, and the Global Hopes and Fears Survey. These sources acted as reference points, enabling us to assess whether the challenges and opportunities identified in the UK align with or diverge from global patterns across similar sectors

To enhance the reliability of findings, we validated early insights through discussions with subject matter experts. These conversations served two purposes: they confirmed where the literature accurately reflected current industry experience, and they enriched our analysis with practical perspectives on implementation challenges, workforce capability needs, and organisational readiness. This iterative dialogue meant that the final synthesis balanced academic and industry-based evidence while reflecting the realities facing UK businesses.

Employer survey

A survey distributed to HR and tech leads in UK businesses collected data on AI adoption and skills. It provided quantitative insights into macro-level AI trends and skill demands. The survey compared sectors, regions, and organisation sizes to assess AI usage, adoption drivers, impacts, and barriers. It also evaluated AI skill requirements, acquisition methods, and support for adoption.

The survey was designed to minimise respondent burden and maximise response rates. It started with an introduction explaining the project's purpose and how the data would be used, assuring respondents of confidentiality and anonymity. The survey included multiple-choice and Likert-style questions to capture a comprehensive understanding of stakeholders' perspectives.

The survey questionnaires underwent a thorough review and refinement process. The internal research team tested the question sets for consistency, coherence, and bias. The survey was then built and deployed using Qualtrics, a platform enabling smooth and efficient data collection. Administered in full compliance with the Market Research Society Code of Conduct, the survey aimed to provide reliable and valuable insights into employer views, perceptions, and experiences regarding AI and their skills needs.

Surveys were distributed via stakeholder engagement. In addition, the panel survey was also distributed using a reputable panel provider. Informed consent was obtained from all participants, with assurances of anonymity and confidentiality regarding their responses. Data was collected across the UK using a quota sampling method to support representation from diverse sectors and organisations of varying sizes. Quotas were based on sector, number of employees, and geographic region to explore employers' experiences and perceptions regarding AI adoption and skills development within their organisations.

#	Theme	Interview Question
1	Segmentation	What is your role in your organisation?
2	Segmentation	Do you consent to us processing your survey responses for research purposes?
3	Segmentation	In which sector(s) does your organisation operate?
4	Segmentation	In which sub-sector(s) does your organisation operate?
5	Segmentation	How many employees does your organisation have in total?
6	Segmentation	In which region(s) does your organisation have a presence or delivers services? This includes regions where your organisation has offices, staff, or delivers services, either physically or virtually.
7	AI upskilling platform	What would you and your organisation’s workforce value most on an AI upskilling platform?
8	AI maturity	Has your organisation adopted AI in any capacity?
9	AI maturity	Do different teams, departments, or region(s) within your organisation adopt AI at different rates?
10	AI adoption	What were the primary reasons your organisation began adopting AI?
11	AI adoption	What impact has AI adoption had on your organisation so far?
12	Barriers to AI adoption	What barriers have you encountered whilst implementing AI?
13	AI adoption	Which AI applications are in use?

#	Theme	Interview Question
14	AI skills	Which technical and behavioral skills have been most critical to adopting AI?
15	AI skills pathway	How has your organisation acquired these skills?
16	AI skills pathway	If you have not implemented talent acquisition programmes/acquired these skills, why?
17	Organisational enablers	Which of the following are in place to support AI adoption across your organisation
18	Adoption support	How relevant would be the following forms of support be in accelerating AI skills development in your sector?
19	Adoption support	Which stakeholder group should play the biggest role in shaping AI skills development in your sector?

Sample size and response rates by segmentation

In total, the survey received 218 responses. The final sample included over 50 responses from each of the BridgeAI selected sectors as well as representation across all organisation sizes and regions (see tables below). Organisations not operating within the target industries, those based outside the UK, and respondents whose roles were unrelated to HR or technology leadership were screened out. To increase representation across different segments, response rates were monitored and reported by sector, region, and organisation size. This stratified approach supports broad coverage.

#	Sector	Organisation Size			Total
		Small (1 - 49 employees)	Medium (50 – 249 employees)	Large (250+ employees)	
1	Agriculture and Food Processing	21	17	13	**51**
2	Construction	5	28	20	**53**
3	Creative Industries	16	14	23	**53**
4	Transport, Warehousing and Logistics	10	24	18	**52**
	Total	**52**	**83**	**74**	**209**

The remaining nine survey responses were from organisations in sectors classified as “Other”.

Stakeholder engagement

Focus groups

To supplement quantitative insights, qualitative insights were gathered through focus groups on the Natter platform, an AI-powered conversational tool, involving a diverse range of stakeholders. These 60-minute sessions were designed to explore real-world AI adoption, sector-specific case studies, and evolving skills needs, while also surfacing practical challenges and opportunities related to AI integration. A total of 99 participants attended these sessions.

Each session was structured to balance breadth and depth, combining brief introductory segments with focused, time-limited breakout discussions. The agenda was consistent across each session to facilitate consistency, with each event comprising an initial orientation and entry survey, three themed breakout discussions (covering case studies, adoption and integration, and skills development), and a concluding segment comprising of an exit survey.

Participants were recruited via partner networks, using Natter's tagging system for segmentation by sector, type, size, and region. This ensured demographic benchmarking and diverse pairings.

All data was anonymised, cleaned, and thematically coded, with quantitative responses cross-tabulated and qualitative findings used to identify themes and recommendations. Insights from Natter sessions were combined with survey and interview data to validate trends and inform the White Paper and AI Skills Hub. Efforts were made to minimise participant burden, standardise processes, and uphold confidentiality and consent.

Stakeholder interviews

We conducted 88 interviews in total: 41 with employers and BROs, 19 with training providers, 18 with technology partners, and 10 with organisations classified as either government department or "Other". In addition, we have attended 67 AI/Tech conferences and events to gather information on case studies, gather information on demand for skills and connect with stakeholders.

The following interview guides were utilised during the one-to-one interviews to elicit insights on workforce challenges and skills gaps associated with the adoption of AI across various stakeholder types, including employers, training providers, technology partners, and business representative organisations.

Prior to each interview, extensive research was conducted on each organisation to better understand their specific context, needs, and challenges. This preparation allowed us to tailor existing questions and generate new, relevant inquiries that addressed the unique circumstances of each interviewee. While the interview guides served as a general framework, not all questions were posed to every participant, and they were encouraged to introduce other pertinent topics related to AI skills needs. This approach helped to create a more tailored and meaningful dialogue, fostering richer insights.

#	Interview Question Theme	Interview Question
1	AI / Tech Trends	How is AI currently shaping your sector, and what emerging trends or developments are you observing?

2	AI Hub Activation Matrix	To what extent have you adopted AI in your organisation?
3	AI Case Studies	Could you share any successful AI case studies within your organisation, both technical and non-technical? Are there any further successful AI case studies across your sector?
4	Current Demand	What is the impact of this on job roles and skills you need in your organisation?
5	Barriers to Adoption	To what extent has a lack of skills been a barrier to AI adoption?
6	Supply and Training Provision	What would be your preference for how you'd bring these skills into your organisation? e.g. recruiting talent, upskilling existing staff, buying in expertise as part of AI adoption (e.g. support from AI tech supplier/vendor), other?
7	Supply and Training Provision	If you see a need to upskill staff, which parts of your workforce would you target?
8	Future Demand	To what extent have you thought about the future impact of AI on your organisation and opportunities to increase adoption? How do you think your skills needs will change aligned to these future plans?
9	Platform requirements	From having used the Hub and created an account and training pathway, which features or resources do you find, or think others would find, most valuable on the Hub? What changes would you recommend to improve the Hub and tailored training pathways?
10	Platform requirements	Is there anything that would stop you from sharing the Hub with your workforce?
11	Signposting	Which communication channels do you think are most effective for sharing key findings, promoting opportunities to engage with the AI Skills Hub (e.g. events) and gathering feedback to inform future development, for your sector (from frontline to back office)?
12	Signposting	What other employers/training providers/technology partners in the sector do you think we should talk to, or resources do you think we should look at?

Employer case studies

The approach to identifying AI case studies for this White Paper was grounded in a multi-stage process designed to improve relevance, quality, and organisational consent.

Identification and development of case studies

- **Desk research:** AI initiatives across a wide range of organisations were reviewed and potential case studies were mapped to functional areas.
- **Event-based sourcing:** 67 external and internal events, including conferences, roundtables and technology showcases, were attended to identify organisations actively deploying AI. Each event functioned as a discovery touchpoint.
- **Insight-gathering sessions:** Insight-gathering sessions with organisations were conducted to assess AI skills and training requirements, enabling identification of new case studies.
- **Referrals and signposting:** Organisations often introduced peers and partners working on relevant initiatives, expanding the pipeline.

After selecting potential case studies, drafts were shared with organisations to request participation and gather further input. Each case study was documented using a standard framework covering challenges, AI solutions, outcomes, required skills, cross-functional insights, lessons learned, and next steps ensuring consistent and relevant information.

Prioritisation of case studies

After the creation of a longlist, a structured two-stage evaluation process was implemented to select case studies for inclusion in the White Paper. The first step involved pre-qualification, using Yes/No criteria including confirmation of organisational contact, consent for publication, recency within the past two years, relevance to AI beyond basic automation or analytics and availability of sufficient information. Cases meeting all criteria advanced to detailed scoring; others were excluded.

In the second stage, each case study was evaluated on several criteria scored from 0 to 2: maturity of AI adoption (conceptual, pilot, or operational), impact and value (focusing on measurable and quality benefits), implications for skills development and the workforce, degree of innovation and future potential, and overall narrative quality.

The inclusion of the organisations and case studies does not constitute an endorsement by the AI Skills Hub, Innovate UK or the UK Government of any organisation, product, service, or technology. Alternative organisations, products and services may exist.

Annex B. Glossary

AI	Artificial Intelligence
AR	Augmented Reality
BRO	Business Representative Organisation
BSI	British Standards Institute
CEO	Chief Executive Officer
DCMS	Department for Digital, Culture, Media and Sport
DSIT	Department for Science, Innovation and Technology
EU	European Union
FCS	Fleet Charging Schedule
GenAI	Generative AI
HR	Human Resources
HSE	Health and Safety Executive
IoT	Internet of Things
IPM	Integrated Pest Management
KPI	Key Performance Indicator
LLM	Large Language Model
SMB	Small and Medium Sized Businesses
STFC	Science and Technology Facilities Council
UK	United Kingdom
UKRI	UK Research and Innovation
VR	Virtual Reality

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