# The Q5 Futures Taskforce

Q5 Futures Taskforce is an annual programme bringing together students from different universities and disciplines from across the UK to explore future megatrends. The Taskforce participates in interactive workshops in our London office, where they share multidisciplinary thinking and insights into the latest academic research.

The 2024/2025 cohort explored the role of AI and automation in shaping the future of work through a multi-sector lens. Here is what they have to say.

## Futures Taskforce Insights: The Impact of AI on the Future of Work Across Key UK sectors

Artificial Intelligence (AI) continues to revolutionise various sectors – transforming roles, boosting efficiencies, and prompting urgent strategic shifts in workforce management. The Q5 Futures Taskforce has explored the short-term impact of AI across several critical sectors, highlighting changes, challenges, and opportunities.

### Retail Sector: AI Revolutionising Supply Chains, Automation, and Customer Interaction

In retail, AI is reshaping everything from logistics to loyalty. Supply chains are becoming more predictive and efficient, increasing demand for roles in analytics, automation oversight, and inventory optimisation. In-store, automation is reducing manual labour and prompting new skillsets for managing digital infrastructure (Sucheta, 2024).

Customer-facing functions are evolving too. AI-powered chatbots and personalised recommendations are enhancing engagement, with early adoption from certain fashion houses. Yet the sector continues to wrestle with data ethics and customer trust (Vodafone Business, 2024).

## Infrastructure: AI Reshaping Operational Efficiency and Workforce Design

AI is transforming the UK's infrastructure backbone – across transport, major programmes, and utilities – by enhancing safety, efficiency, and forecasting. Real-time monitoring, predictive analytics, and AI-driven asset management are streamlining operations from traffic flow to grid resilience (FDM Group, 2024).

Yet this efficiency surge is triggering workforce redesign. Routine roles are disappearing, while technical positions in AI system maintenance, data governance, and cybersecurity are on the rise (Reynolds, 2024). Organisations are restructuring around digital capabilities, but progress is uneven. Leadership confidence, supply chain digitalisation, and strategic workforce planning vary significantly across the sector.

The UK energy sector, valued at £176 billion and employing 735,000 people, is undergoing major AI-driven transformation (Energy UK, 2025). With over £100bn earmarked for renewable investment, AI is underpinning the shift toward sustainability and efficiency. It is automating routine tasks such as data entry and machine operation, while catalysing new roles in cybersecurity, data science, and digital systems oversight (Reynolds, 2024).

However, barriers persist: mid-career reskilling remains urgent; high adoption costs continue to hinder smaller firms; and offshoring of digital operations to Asia is increasing due to digitalisation and cost pressures. For instance, a major oil company has restructured to promote flexible, purpose-driven work – yet continues to face challenges adapting its traditional workforce to rapid change.

## Public Sector: Significant Potential but Hampered by Legacy Systems and Culture

From central government to health and education, the public sector sees AI as a route to efficiency, accuracy, and innovation. Yet adoption lags due to legacy systems, fragmented digital strategies, and deeply embedded risk-averse cultures.

In education, tools like generative AI and intelligent tutoring systems hold promise for personalised learning and lesson planning – but success hinges on infrastructure upgrades and substantial investment in teacher training (DfE, 2023, pp. 4). In healthcare, AI is beginning to ease diagnostic and administrative workloads, though uneven rollouts and unclear workforce pathways – especially in the NHS – limit potential (Kumar et al., 2023).

A department-led approach to central government adoption is gaining traction, favouring tailored initiatives over blanket policy. Success will require trust-building through oversight units, investment in digital leadership, and cross-department collaboration.

## Financial Services Sector: AI Enhancing Productivity Amid Ethical and Regulatory Challenges

Across banking, insurance, and fintech, AI is already embedded in fraud detection, compliance, marketing, and underwriting. Over 70% of banks now use machine learning to streamline core services (rmahq.org). Generative AI is improving reporting, client interactions, and compliance monitoring.

Yet ethical and regulatory concerns remain live issues. The sector is investing heavily in AI auditability, fairness metrics, and explainability frameworks to bridge the trust gap (Accenture, 2023). Robo-advisory services are expanding access but displacing traditional advisory roles – compounding the need for reskilling.

Emerging workforce strategies include predictive analytics training, ethical AI literacy, and gamified talent development. Still, the gap between ambition and capability remains a drag on momentum.

## Media, Entertainment, Telecommunications, Technology, Sport (METTS): AI Boosting Engagement and Operational Efficiency

In METTS, AI is fast becoming a performance multiplier – influencing marketing, sales, software engineering, and supply chain operations (McKinsey and Company, 2024). Sports organisations are enhancing fan experiences through real-time insights and immersive content, while also using AI to optimise athlete performance and tactical planning. In entertainment, AI is powering personalised content delivery and automating production workflows – boosting both engagement and profitability.

Technology companies benefit from AI through productivity improvements, cybersecurity enhancements, and operational efficiencies (Vodafone Business, 2024). Several leading firms exemplify successful AI integration, significantly increasing revenue and improving customer experiences. However, consumers remain concerned about privacy and the ethical implications of AI use, highlighting the importance of transparency and trust (Vodafone Business, 2024).

## Key Takeaways

**Across these sectors, consistent themes emerge:**

### Leadership Matters

Leadership matters. Competent, AI-literate leadership is key to fostering adoption, building trust, and maintaining ethical standards.

### Urgent reskilling is non-negotiable

Workforce transition must be supported by clear career pathways and capability building in hybrid AI-human roles.

### Digital foundations must mature

Legacy infrastructure is a bottleneck to scale. Investment in platforms, interoperability, and data governance is essential.

### Oversight frameworks are crucial

Clear ethical standards, auditing mechanisms, and transparency protocols are needed to manage reputational risk.

To conclude, the short-term impact of AI across these sectors is profound, presenting both significant opportunities and notable challenges. Successfully navigating this transition requires targeted investment in human capital, infrastructure, and strategic oversight to ensure AI serves as a powerful tool for innovation and efficiency rather than a disruptor of stability.