

AI Adoption in the WMCA

March 2024



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Executive summary

About this research

This report presents findings from research into the UK Artificial Intelligence (AI) labour market, carried out by The Economic Intelligence Unit in February to March 2025, on behalf of the West Midlands Combined Authority (WMCA). This study aims to assess the impact of AI adoption on job roles across the West Midlands, focusing on both the risks of job displacement and opportunities for adaptation. It will play a significant role in the WMCA's strategic response to national initiatives, such as [DSIT's Technology Adoption Review](#).

This report explores the current state of AI adoption, its sectoral impact, and the opportunities and challenges it presents for businesses and the workforce.

The study involved:

- A literature review to understand work completed to date on the impact on AI on the UK economy and the potential disruption to the labour market;
- Creation of case studies detailing examples of AI integration across businesses in key sectors such as aerospace, retail, healthcare and education;
- In-depth stakeholder interviews conducted with business leaders, industry experts, educators, and policymakers across the West Midlands; and
- The report explores and seeks to quantify the potential impact of AI and automation on the WMCA labour market by conducting in-depth research and analysis of job postings to understand employer demand. It also examines the current strength and skill competencies of workers with AI skills within the WMCA area, leveraging job postings data from the Adzuna and Lightcast databases¹.

Key findings

It is important to note that much of the literature on automation and employment has highlighted that, since the 1970s, routine jobs have been most susceptible to automation pressures. Generative AI could clearly change this and thus have much more wide-ranging impacts on tasks across the knowledge economy.

The adoption of AI often requires training and reskilling the existing workforce, as well as hiring new talent with advanced digital skills. Certain roles may evolve, but employees with adaptable skill sets can often transition into other valuable positions within organisations. This approach not only supports AI adoption, but also helps retain institutional knowledge and fosters a culture of learning.

We expect AI to have a limited influence on the role of physical abilities in occupations and industries, these are more likely to be impacted by automation and these industries will see displacement due to this. The research leads us to believe that AI is likely to have the biggest impact on abilities related to information processing. This reflects the larger influence of AI on cognitive tasks and abilities and a smaller influence on physical tasks and abilities. As a result, occupations and sectors that involve complex manual work such as the skilled trades or construction are likely to be less exposed to AI. By contrast, workers who perform routine cognitive tasks, particularly in

¹ A health warning must be noted. Results should be interpreted with caution as the estimates of which jobs are more exposed to AI are based on a number of uncertain assumptions so the results should be interpreted with caution. Quantifying occupations in terms of abilities to perform a job role will never fully describe all roles and a level of judgement is required when interpreting the results. Further, the extent to which occupations are exposed to AI will change due to the pace at which AI technologies are developing and as new data becomes available. However, the themes highlighted by the analysis are expected to continue and provide a good basis for considering the relative impact of AI across different parts of the labour market.

administrative occupations, and those who work in data-intensive industries where it is easier to train new AI models (such as banking and finance), are likely to be more exposed.

AI will mostly affect transactional and repetitive roles, including:

- Manufacturing & logistics (quality control, predictive maintenance)
- Finance & HR (payroll, recruitment, financial forecasting)
- Junior software development (AI-generated code reducing demand for entry-level programmers)
- Customer service & sales (AI chatbots, lead generation, analytics-driven marketing)
- Most, if not all administrative and secretarial work.

We find that AI is disproportionately impacting back-office work, part-time work, and entry-level roles. This has implications for young people at the start of their career who may find fewer entry-level positions available to them. There are risks that AI could widen inequalities as women are more likely to work in AI exposed occupations. Automation will significantly impact manual and routine roles and this in turn will have impacts on workers in these sectors who tend to be older.

The data indicates that the AI sector is not performing as well in the WMCA compared to the UK average, with stakeholder interviews echoing this view, as businesses struggle to move from experimentation to meaningful adoption. At present, the AI sector is growing across the UK at 9.0% per year, yet growth in the WMCA comes in at 3.5%. GVA per AI employee is also much lower than the national average, suggesting lower productivity in the sector. The WMCA receives just 2.8% of total UK-wide investment into AI. Despite this, AI roles now make up 27% of tech positions within the WMCA. Notably, 88% of AI-related job postings require higher-level qualifications, while only 11% are accessible to lower-skilled candidates, suggesting a significant barrier to entry.

In addition, 75% of AI job postings are concentrated in five key sectors: Public administration, Education, Professional & scientific services, Information & communication, Administrative & support services, revealing how AI skills are becoming increasingly important across a range of industries.

AI will disrupt the labour market, but its overall impact will be transformational rather than destructive. AI is expected to displace 1 to 3 million jobs in the UK gradually, with 60,000 to 275,000 annual job losses at peak. AI adoption will increase market dynamism, leading to job transitions rather than mass unemployment, and so, the labour market will require upgraded infrastructure to support displaced workers. With targeted policy interventions, the WMCA labour market can maximise AI's benefits while minimising worker displacement.

Strategies for AI workforce adaptation must include accessible training for employees at all career stages, including business leaders who must understand AI's potential and limitations to their business operations. AI literacy and interdisciplinary learning will be essential for non-technical employees, and upskilling initiatives must prioritise data analytics, cybersecurity, AI ethics, and decision-making skills.

This review captures the dual nature of AI as both a disruptor and an enabler. For the WMCA, the key challenges will include addressing skill gaps, mitigating job displacement, and ensuring equitable access to AI benefits. The region's strengths in advanced manufacturing, healthcare, and emerging tech clusters provide a solid foundation for leveraging AI to drive productivity, innovation, and economic growth. Policymakers, businesses, and educational institutions must collaborate to create a resilient, AI-ready workforce and ensure that the region capitalises on the opportunities presented by AI while minimising its risks.

1. Literature review

The literature review highlights the transformative potential of Artificial Intelligence (AI) on the UK workforce. The findings are structured around national insights, regional considerations, and sector-specific impacts, with a focus on opportunities, risks, and policy recommendations.

The full literature review can be found in a separate document.

1.1 How AI and automation relate to each other

During the literature review, it was established that the words AI and automation were sometimes used interchangeably. While both automation and AI have similar purposes, there are important differences between the two terms as highlighted in [a pro-innovation approach to AI regulation white paper](#). Firstly, AI is more adaptable than automation alone and can infer patterns and perform new functions that are beyond those initially envisioned by their human programmers. Additionally, some but not all AI systems can make decisions without interacting with a human, which is not typical of automated processes.

Robotics is an area where it is easy to mix-up the two terms as robots are often used to simply automate physical tasks but will increasingly use AI to perform physical or cognitive tasks. There is some complexity with people's understanding of these differences, which can influence their perception of use and experience in business and society.

The ONS article [Which occupations are at highest risk of being automated?](#) estimated that 7.4% of people in England were employed in jobs at high risk of automation in 2017. The ONS are currently exploring whether this research can be updated to provide an estimate of exposure to AI among the UK labour market.

1.2 National insights

1.2.1 AI's impact on jobs and skills

Advances in Artificial Intelligence (AI) are likely to have a profound and widespread effect on the UK economy and society, though the precise nature and speed of this effect is uncertain. It has been estimated by the International Monetary Fund (IMF) that that 40% of global jobs will be 'disrupted' by AI.²

The impact of AI is likely to vary from industry to industry. According to [a recent report by Goldman Sachs](#), administration, legal professions, architecture, and engineering are among the sectors likely to be worst affected, with up to 46% of tasks in administrative sectors potentially replaced by AI. In contrast, more practical sectors involving manual labour, such as construction (6% of jobs affected) and cleaning (1% of jobs affected), are predicted to be less impacted.³

AI is expected to automate 10-30% of jobs in the UK⁴, with professional occupations which require higher qualifications (e.g., finance, law, insurance, education and information technology) being most exposed to be augmented or replaced by AI (Figure 1), while roles in construction, manufacturing, and transportation are less exposed (Figure 2).

While evidence in the literature states that Generative AI (e.g., ChatGPT) is likely to complement rather than replace jobs, tasks in customer service, administration, and clerical roles are at higher risk of automation.⁵

² The AI Age: How Automation Is Disrupting the UK Workforce (The European Financial Review, February 2025)

³ The AI Age: How Automation Is Disrupting the UK Workforce (The European Financial Review, February 2025)

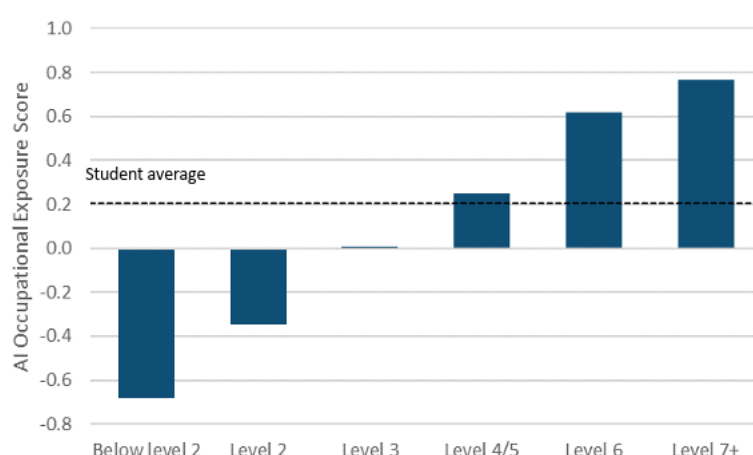
⁴ The Impact of AI on UK Jobs and Training (Department for Education, November 2023)

⁵ The Impact of AI on UK Jobs and Training (Department for Education, November 2023)

Academic research looking into the occupation and industry level exposure to AI reveals the highest-scoring exposed occupations consist almost entirely of white-collar occupations that require advanced degrees, such as genetic counsellors, financial examiners, and actuaries. The lowest-scoring occupations are largely nonoffice jobs that require a high degree of physical effort and exertion, such as dancers, fitness trainers and aerobics instructors, and painters and plasterers.⁶

Just as with the ranked occupations, the study finds that the most exposed industries tend to be white-collar industries requiring high levels of education, such as financial services, accounting, insurance, and legal services. Perhaps not surprisingly, exposure to AI is particularly high in certain service industries that involve a high level of information processing. On the other hand, the lowest-scoring industries tend to be blue-collar industries that involve manual labour, such as support activities for crop production, building and dwellings services, construction contracting services, and warehousing and storage, (Figure 2).⁷

Figure 1: Exposure to AI by highest level of attainment for early-career employees



Source: *The Impact of AI on UK Jobs and Training* (Department for Education, November 2023)

The table below shows more detail on the subject area for the highest qualification held by early-career employees and exposure to large language models (LLM).

Figure 2: Top 5 subjects most and least associated with exposure to LLM by apprenticeship setting and AI Occupational Exposure (AIOE)

	Level	Subject	AIOE
Top 5	Level 4/5	Accounting and finance	1.17
	Level 3	Accounting and finance	1.04
	Level 3	Administration	0.77
	Level 3	Marketing and sales	0.60
	Level 3	ICT practitioners	0.44
...	...	...	...
Bottom 5	Level 2	Manufacturing technologies	-0.69
	Level 3	Transportation operations and maintenance	-0.81
	Level 2	Transportation operations and maintenance	-0.74
	Level 3	Building and construction	-0.83
	Level 2	Building and construction	-0.93

Source: *The Impact of AI on UK Jobs and Training* (Department for Education, November 2023)

⁶ Occupational, industry, and geographic exposure to artificial intelligence: A novel dataset and its potential uses (Wiley Online Library, April 2021)

⁷ Occupational, industry, and geographic exposure to artificial intelligence: A novel dataset and its potential uses (Wiley Online Library, April 2021)

Further evidence⁸ shows significant short-term job replacement after Gen AI tools were first introduced, and that jobs prone to automation, like writing and coding, were the most affected by ChatGPT. The introduction of ChatGPT and image-generating tools led to nearly immediate decreases in posts for online gig workers across multiple job types, but particularly for automation-prone jobs. After the introduction of ChatGPT, there was a 21% decrease in the weekly number of posts in automation-prone jobs compared to manual-intensive jobs. Writing jobs were affected the most (30.37% decrease), followed by software, app, and web development (20.62%) and engineering (10.42%). A similar magnitude of decline in demand was observed after the introduction of popular image-generating AI tools (including Midjourney, Stable Diffusion, and DALL-E 2) were introduced. Within a year of introducing image-generating AI tools, demand for graphic design and 3D modelling freelancers decreased by 17.01%.⁹

Additionally, the research showed there were no signs of demand rebounding, revealing a growing trend of job replacement. When compared to the impact of typical seasonal demand fluctuations on the job platform and the effects that automation had on traditional labour markets, the impact produced by gen AI tools was significantly more substantial.¹⁰

While AI may be able to augment and replace many tasks, it will also create new jobs for people requiring new skills. With the cost of recruitment in sectors such as finance and business services so high and the reality that many of the AI and AI adjacent skills of the future are still relatively new and not yet prevalent in the labour market, employers should consider bridging the AI knowledge gap via training and development rather than by looking to recruit AI talent in the scarce and highly competitive marketplace.¹¹

In healthcare, AI can augment the work of doctors and nurses, leading to better patient outcomes and potentially more jobs, but it could also automate administrative tasks, reducing the need for support staff. In finance, AI's role in risk management and customer service could create high-value jobs but also eliminate others. Similarly, manufacturing may see increased efficiency and output from AI-driven processes but a decrease in manual labour roles.¹²

Employers will seek an augmented skillset from employees to best utilise AI applications, with Oxford Economics forecasting that 12% of workplace tasks will be fully automatable by 2032. However, this does not correspond with all jobs, as each job faces different degrees of exposure to AI based on the composition of tasks. The fastest-growing job roles are likely to be within technology, digitalisation and sustainability, with a decline in the number of roles that are solely clerical/ secretarial focussed. Over the longer term, Savills¹³ expects to continue to see a structural shift towards service sector job growth and office-using employment. Oxford Economics forecasts eurozone office-based employment to increase by over one million jobs over the next ten years.

As AI adoption increases, job churn may increase over the short/ medium term, as employers decide which skillsets they are seeking and workers take time to reskill. Governments and businesses will therefore upskill and retrain staff for them to utilise rather than compete with, artificial intelligence. Analytical and creative thinking, AI/big data and leadership are among the key skills that employers are seeking to upskill over the next five years, according to the World Economic Forum (WEF).¹⁴

In a large-scale assessment of 22,000 tasks in the UK economy, IPPR¹⁵ find that about 11% of tasks are exposed to generative AI right now (Phase 1), and this could increase fivefold (59%) if AI systems

⁸ Research: How Gen AI Is Already Impacting the Labor Market (HBR, November 2024)

⁹ Research: How Gen AI Is Already Impacting the Labor Market (HBR, November 2024)

¹⁰ Research: How Gen AI Is Already Impacting the Labor Market (HBR, November 2024)

¹¹ Research: How Gen AI Is Already Impacting the Labor Market (HBR, November 2024)

¹² The future of AI and the impact on demand for workspace (CBRE, September 2024)

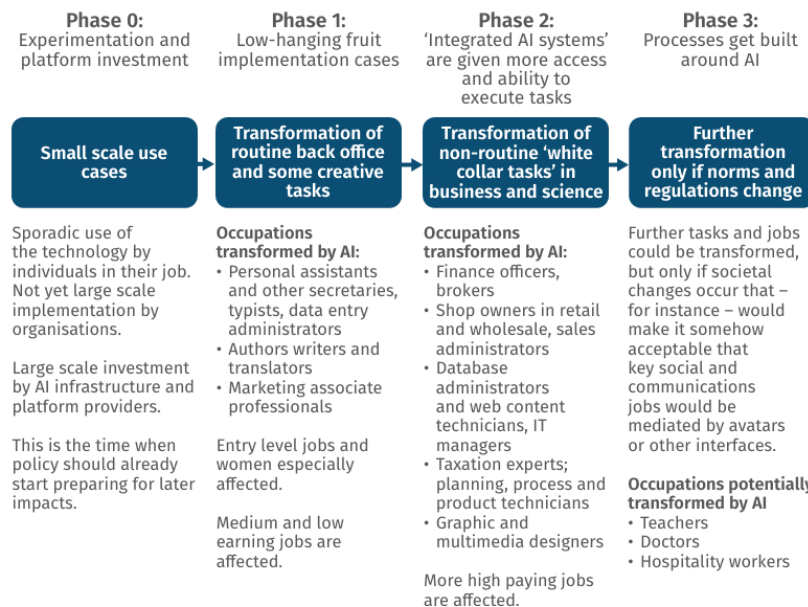
¹³ Spotlight: The impact of AI on offices (Savills, August 2024)

¹⁴ Spotlight: The impact of AI on offices (Savills, August 2024)

¹⁵ Transformed by AI: How generative artificial intelligence could affect work in the UK – and how to manage it (IPPR, March 2024)

became more deeply integrated in organisational processes (Phase 2). A scenario for how this could play out over time, in four stages, can be seen in the figure below.

Figure 3: A much higher share of tasks in the UK labour market could be done with Generative AI if social norms and process were to change



Source: *Transformed by AI: How generative artificial intelligence could affect work in the UK – and how to manage it* (IPPR, March 2024)

IPPR argue the phase which we have been in roughly since the advent of GPT4 in 2023, can be described as experimentation phase. Companies and governments are testing which types of tasks AI models can correctly perform, and how they can be introduced in workflows while ensuring quality and oversight. Meanwhile, large tech companies are investing hugely into building generative AI platforms, seeking to make it easier for organisations to integrate generative AI in their work.

Phase 1 refers to implementation in organisations that will likely target 'low hanging fruit' use cases. These are the cases where generative AI programmes are relatively easily plugged into existing IT processes, without many changes to workflows. About 11% of tasks would be heavily impacted by this. Back-office jobs (such as personal assistants), entry level jobs and part time jobs will be most exposed in this first phase. And IPPR find that women will be significantly more affected (as they are more likely to work in the most exposed occupations, such as secretarial and administrative occupations). While the overall labour market impact in this phase could be limited, it could nonetheless be disruptive in these occupational groups. For example, in administrative occupations, about a third of jobs could be displaced.

Phase 2 is one where generative AI becomes more deeply integrated with existing organisational processes. If organisations decide to integrate existing AI technology more deeply into their processes (which is not a given), IPPR find that almost five times more tasks – about 59% of tasks – are exposed. This means many jobs could 'feel' its impact, and it will also increasingly affect high paying jobs too. Such integration into existing processes would, for instance, mean giving AI the ability to access proprietary data, providing inputs via apps or giving AI systems the ability to execute tasks (e.g. making orders or bookings). Whether this will materialise and who gains and who loses will depend on several policy and organisational factors. Crucially, it is likely that that not all organisations will adopt the technology at similar rates, leading to inequalities.

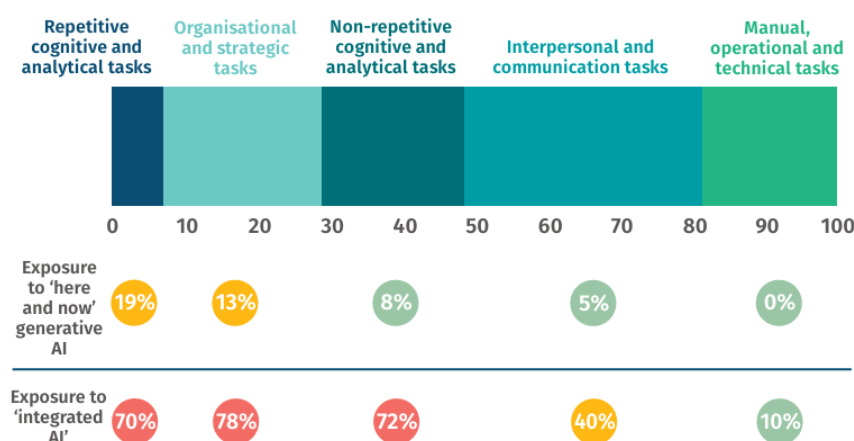
Phase 3 refers to processes being rebuilt to enable the use of AI. This includes tasks that could only be done if social norms changed or that would require significant regulatory change (e.g. an AI system advising patients on treatment plans or making personnel decisions at work).

Cognitive tasks are most exposed to generative AI

There is a large diversity of tasks in the economy. To simplify this IPPR break down all tasks performed in the UK economy into five intuitive groups, shown in the figure below. It shows for example that interpersonal and communications tasks (such as customer interactions in retail sales) make up the largest number of tasks performed in the UK economy, constituting about 32% of overall hours of work in aggregate. Together, manual and social tasks account for about half of the hours worked in the UK economy.

Half of tasks in the UK economy have low exposure to existing Generative AI technologies but higher exposure to 'integrated AI'.

Figure 4: Tasks as a share of hours worked, and degree of exposure of these tasks to Generative AI



Source: Transformed by AI: How generative artificial intelligence could affect work in the UK – and how to manage it (IPPR, March 2024)

Note: exposure means share of tasks in this category that AI could help conduct at least 50% faster. High exposure is marked as red circles (defined as higher than 40% of tasks), medium exposure is shown as yellow (between 11% and 40%), and low exposure is shown as green, with 10% or lower exposure.

This matters for how AI will impact the economy. Repetitive cognitive tasks and organisational and strategic tasks are the most exposed to 'here and now' generative AI. But strikingly in the 'integrated AI' scenario, also non-repetitive cognitive and analytical tasks are highly exposed.

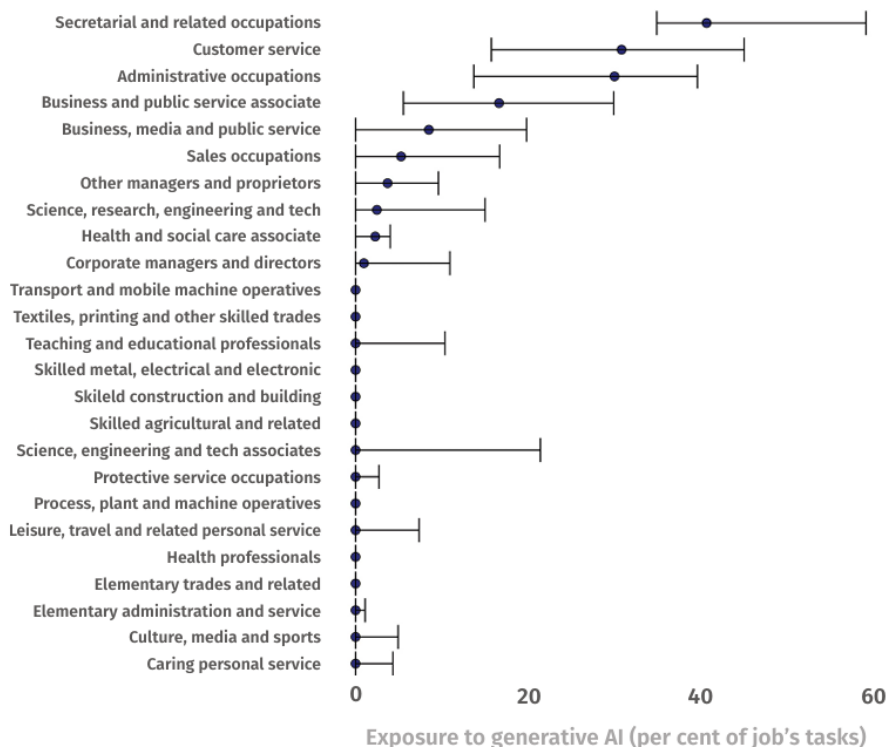
Back-office jobs are most exposed to 'here and now' AI

Based on IPPR's bottom-up analysis, they find that 6% of jobs are automatable with 'here and now' AI. And two thirds of jobs are highly exposed to 'integrated AI'. In the former, the automated tasks are fairly concentrated in a relatively small number of occupations. In the latter, for integrated AI, the exposed jobs are more widely dispersed.

Occupational groups most exposed to 'here and now' AI are mostly back-office occupations. The top five professions with the highest exposure are personal assistants and other secretaries (69% exposure) human resources administrative occupations (68% exposure), other researchers (65%), marketing associate professionals (65%), Authors, writers and translators (65%). IPPR find that women will be significantly more affected (as they are more likely to hold to work the most exposed occupations, such as secretarial and administrative occupations).

Moreover, IPPR find that for a given job, entry level positions are more at risk than those of more experienced professionals. For instance, administrative professionals with less training and experience have 14 percentage points higher risk of automatability than those with a higher level of experience. Across all jobs, those with lower experience, on average, have 16 percentage points higher exposure.

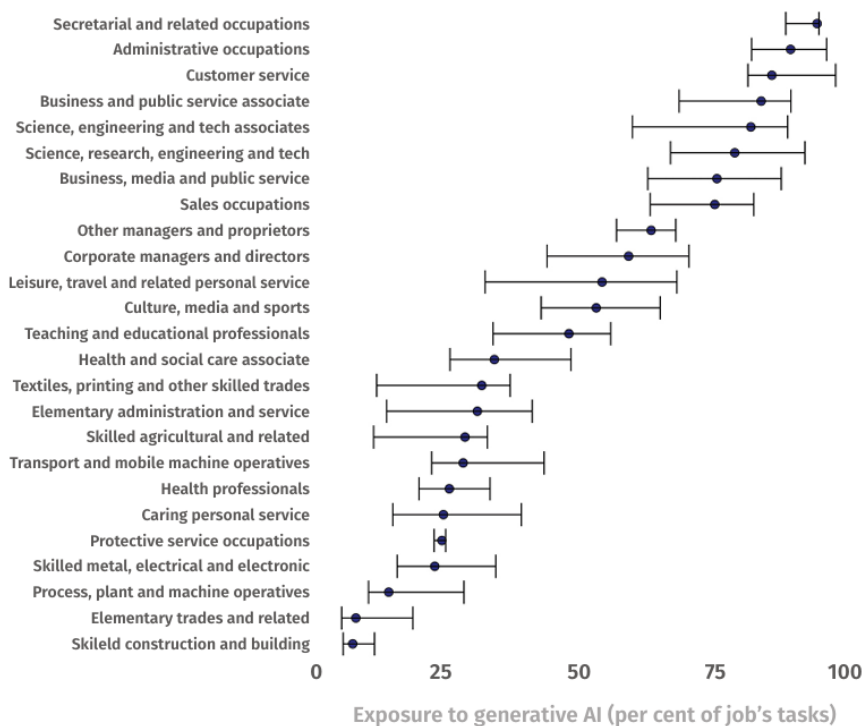
Figure 5: Share of exposed tasks by occupation in 'here and now' (25 percentile, median, 75 percentile)



Source: Transformed by AI: How generative artificial intelligence could affect work in the UK – and how to manage it (IPPR, March 2024)

In phase 2, where AI becomes more integrated in workflows, more than half of occupations are highly exposed.

Figure 6: Share of exposed tasks by occupation in 'integrated AI' scenario (25 percentile, median, 75 percentile)



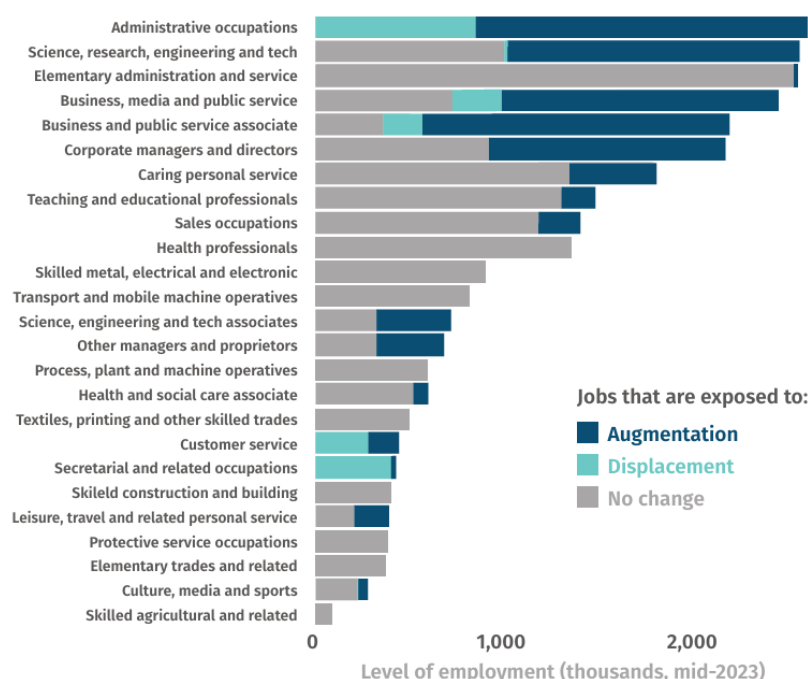
Source: Transformed by AI: How generative artificial intelligence could affect work in the UK – and how to manage it (IPPR, March 2024)

1.2.2 Scenarios for how Generative AI could affect work in the future

The speed and degree of adoption will vary significantly between larger and smaller firms. With 'here and now' AI, overall job disruption would be limited, but significant in some occupational groups. For instance, in administrative occupations, about a third of all jobs could be displaced in IPPRs central scenario. In secretarial occupations, over 90% of jobs could be displaced.

'Augmentation' means the technology is used to boost worker productivity to produce more or better output, while 'displacement' means it is used to lay off workers with less boost to output.

Figure 7: Number of jobs and exposure to augmentation or displacement, 'here and now' AI.



Source: Transformed by AI: How generative artificial intelligence could affect work in the UK – and how to manage it (IPPR, March 2024)

The implications of different scenarios could be as follows:

- The augmentation only scenario (Figure 8) highlights the possibility that workers with access to generative AI become more productive, being able to make either more or higher quality (and thus more valuable) outputs. All workers remain in place, producing more and directly boosting GDP. For instance, a marketing copy writer might produce 30% more content. And a personal assistant might be able to support more people in the same amount of time. These examples suggest that there might be limits to increased demand as well as quality.
- The 'displacement only' scenario is notable in that it illustrates that we could have an economy hugely impacted by generative AI, but without any aggregate output increase. In this scenario, exactly the same amount of output is produced, but fewer employees are required to achieve that – with those remaining made more productive by AI. So fewer people produce the same amount of output as before, with the displaced people finding no new work. This scenario is extreme, merely for illustrative purposes. It shows that large scale deployment of AI need not go hand in hand with improved aggregate performance. Displaced people could of course also move to new, other jobs.
- In scenarios with displacement, those staying in work or the company owners are the biggest winners. As AI helps to produce more output with fewer workers, the ones that remain become more productive and 'reap' the productivity gains. Of course, the productivity gains might feed into to company profits and not in fact increase wages. Those who lose out in these scenarios are the people whose jobs are displaced, if there are no new jobs emerging.

Figure 8: Employment and productivity scenario

	'Here and now' generative AI		'Integrated' AI	
	Change in employment due to displacement	Change in aggregate output due to augmentation	Change in employment due to displacement	Change in aggregate output due to augmentation
Augmentation only scenario	0	£92bn (4 per cent of GDP)	0	£305bn (13.4 per cent of GDP)
Displacement only scenario	-1,500,000	£ 0	-7.9 million	£ 0
Central scenario: Augmentation and displacement	-545,000	£64bn (3.1 per cent of GDP)	-4.4 million	£144bn (6.3 per cent of GDP)

Note: The augmentation and displacement scenario assumes that jobs with more than 40 per cent exposure are displaced, while those with less than 40 per cent exposure are augmented. Central scenario: assumes a mix of higher demand for goods produced by augmented jobs and constant demand for good/services produced by displaced job. Augmentation only scenario: Assumes increase in demand (for quantity of quality) for goods produced by augmented occupations. Displacement only scenario: assumes no aggregate change in demand for goods and services. The change in aggregate output is calculated as follows. Given our exposure metric indicates whether a task can be done 50 per cent faster or more, we assume that this is exactly what happens. The share of a job's tasks is exposed to generative AI is assumed to be done 50 per cent faster and that this increases productivity in proportion to the job's wage level. The productivity of non-exposed tasks remains unchanged.

Source: Transformed by AI: How generative artificial intelligence could affect work in the UK – and how to manage it (IPPR, March 2024)

IPPR argue that the positive scenarios, with widespread gains to AI deployment, can only be realised through a wide range of targeted policy interventions, which they call a job-centric industrial strategy for AI. This includes a three-pronged approach:

1. protect existing jobs and ensure gains for workers
2. boost creation of new tasks, jobs and support job transitions
3. address the fallout from lower labour demand.

Figure 9: Policy pillars for a job-centric industrial strategy for AI

Objective	Policy	Time to have an impact
1 Protect existing jobs and ensure gains for workers	Actions to augment jobs	Medium term
	Ringfence tasks for human involvement	Medium term
	Change fiscal incentives	Short term
2 Boost creation of new tasks, jobs and support job transitions	Incentivising creation of jobs with low exposure tasks	Medium term
	Retraining and upskilling	Long term
	Competition policy	Medium term
3 Address the fallout from lower labour demand	Worktime reduction	Short term
	Tax the gains from automation	Medium term
	Social security reform, UBI	Medium term

Source: Transformed by AI: How generative artificial intelligence could affect work in the UK – and how to manage it (IPPR, March 2024)

1.3 Productivity and economic growth

The data suggests that AI is already making workers much more productive. Sectors that are especially exposed to AI are experiencing nearly 5 times higher growth in labour productivity. Growing labour productivity is a key driver of economic growth and rising living standards. Accordingly, AI is good news for a world facing persistently sluggish productivity growth.¹⁶

PwC's [2024 Global CEO Survey](#) confirms that 84% of CEOs whose companies have begun to adopt AI believe it will increase efficiency in their employees' time at work. Increasing productivity means more than just doing the old things faster. It also means finding new, AI-powered ways to create value. 70% of CEOs say that AI will significantly change the way their company creates, delivers and captures value over the next three years.

Global research from the OECD reveals workers and employers in finance and manufacturing tend to be very positive about the impact of AI on worker productivity and working conditions. Around 80% of AI users said that AI had improved their performance at work, compared to 8% who said that AI had worsened it. Across all indicators of working conditions considered (job satisfaction, physical health, mental health, fairness in management), AI users were more than four times as likely to say that AI had improved working conditions as to say that AI had worsened them. This indicates that AI, if used correctly, could contribute to higher productivity and better job quality.¹⁷

AI is already transforming the nature of work. AI results in a high degree of task reorganisation, with 66% and 72% of employers in finance and manufacturing, respectively, reporting that AI had automated tasks that workers used to do, while around half of employers in each sector reported that AI had created tasks that were not previously done by workers. Employers were twice as likely to say that AI had automated repetitive and dangerous tasks as had created them, which may explain why AI users were so positive about the impact of AI on performance and working conditions. Three-quarters of AI users said that AI had increased the pace at which they perform their tasks. While this could be related to increased worker productivity, it could also indicate increased work intensity.¹⁸

Research from the Tony Blair Institute¹⁹ estimates that full and effective adoption of AI by UK firms could save almost a quarter of private-sector workforce time – equivalent to the annual output of 6 million workers. The potential for AI to save time and boost productivity will vary significantly at the individual-worker level. The analysis suggests that most of the time savings from AI are likely to come from the use of AI-enabled software that performs cognitive tasks, rather than more costly AI-enabled hardware that focuses on physical work. As a result, occupations and sectors that involve complex manual work such as the skilled trades or construction are likely to be less exposed to AI. By contrast, those workers who perform routine cognitive tasks, particularly in administrative occupations, and those who work in data-intensive industries where it is easier to train new AI models (such as banking and finance), are likely to be more exposed.

The Tony Blair Institute²⁰ predicts AI could raise UK national income by between 5% and 14% by 2050 with the most likely scenario pointing to a substantial 11% boost, equivalent to more than £300 billion a year in today's terms. Gross domestic product (GDP) is expected to grow between 0.1% and 1% over the next five years and the level of unemployment by up to 180,000 by 2030. By 2035, the range of outcomes is much broader – with the level of GDP 0.6% to 6% higher depending on the scenario. How this plays out in practice will depend not only on the fundamental nature of AI or decisions made by private-sector firms but also policy decisions that have the capacity to accelerate or delay the implementation of AI.

¹⁶ PwC's 2024 AI Jobs Barometer (PwC, May 2024)

¹⁷ The impact of AI on the workplace: Main findings from the OECD AI surveys of employers and workers (OECD, March 2023)

¹⁸ The impact of AI on the workplace: Main findings from the OECD AI surveys of employers and workers (OECD, March 2023)

¹⁹ The Impact of AI on the Labour Market (Tony Blair Institute for Global Change, November 2024)

²⁰ The Impact of AI on the Labour Market (Tony Blair Institute for Global Change, November 2024)

However, historically, many technological advancements have [created far more jobs than have been lost](#). Between 2001 to 2015, automation and technological developments contributed to the loss of 800,000 jobs, but created nearly 3.5 million – a net increase of [+c.2.7 million jobs and +£140 billion for the UK economy](#).²¹

AI has significant potential to improve the supply of labour, by increasing the quantity, quality and effective use of workers in the economy, all of which can add further to growth.

First, the Tony Blair Institute estimates that AI could assist both teachers and students in the classroom and raise educational attainment by around 6% on average across students over their academic career. Emerging evidence suggests that lower-performing students are likely to experience the biggest boost from AI-enabled education, suggesting it could be a helpful social-levelling tool to equalise access to opportunities. A more educated workforce will be a more productive one, so as AI-educated students gradually enter the workforce they will raise productivity. While this is a slow-burn effect, it could be a substantial one – adding around 6% cumulatively to GDP over the next 60 years.

Case Study : Use Cases for Generative AI in Education

Industry: Education

Location: England

A proof-of-concept Large Language Model (LLM) was designed for the evaluation of Year 4 Literacy Work. Evaluating work against the National Curriculum and providing formative feedback and activities to pupils has previously been identified as a time-intensive process for teachers, and one which AI could support teachers with. This could not only reduce their workload, it is also an area where increased consistency would improve educational outcomes for students.

Source: Use Cases for Generative AI in Education, October 2024

Second, AI can support a healthier population and hence a healthier workforce, leading to fewer lost workdays, longer and more productive careers, and lower welfare costs. The country is in the foothills of AI applications in health services but already there is enormous potential for AI to speed up medical research, enable a preventative approach to health care, drive more efficient identification, treatment and discharge of people from the health system, and, importantly, spur further assistive technologies that can help disabled people or those with short-term health issues to re-enter the workforce.

²¹ Will the emerging role of AI take your job? (CBRE, June 2024)

Case Study : NHS and AI for Diagnostics**Industry:** Healthcare**Location:** England**Overview**

The NHS has adopted an AI Lab to accelerate the safe adoption of artificial intelligence in health care. The NHS AI Lab creates an environment for collaboration and co-creation by bringing together programmes that address the barriers to developing and deploying AI systems in health and care. This will unlock the potential of AI to revolutionise healthcare, whilst ensuring we can determine the right guidance and regulations to protect patients.

AI Imaging

Artificial intelligence (AI) technologies applied to imaging, such as cancer screening, are among the most advanced uses of AI in healthcare. AI has the potential to transform the prevention, early detection and treatment of diseases, helping the NHS to provide better care and faster access to treatment.

National COVID-19 Chest Imaging Database (NCCID)

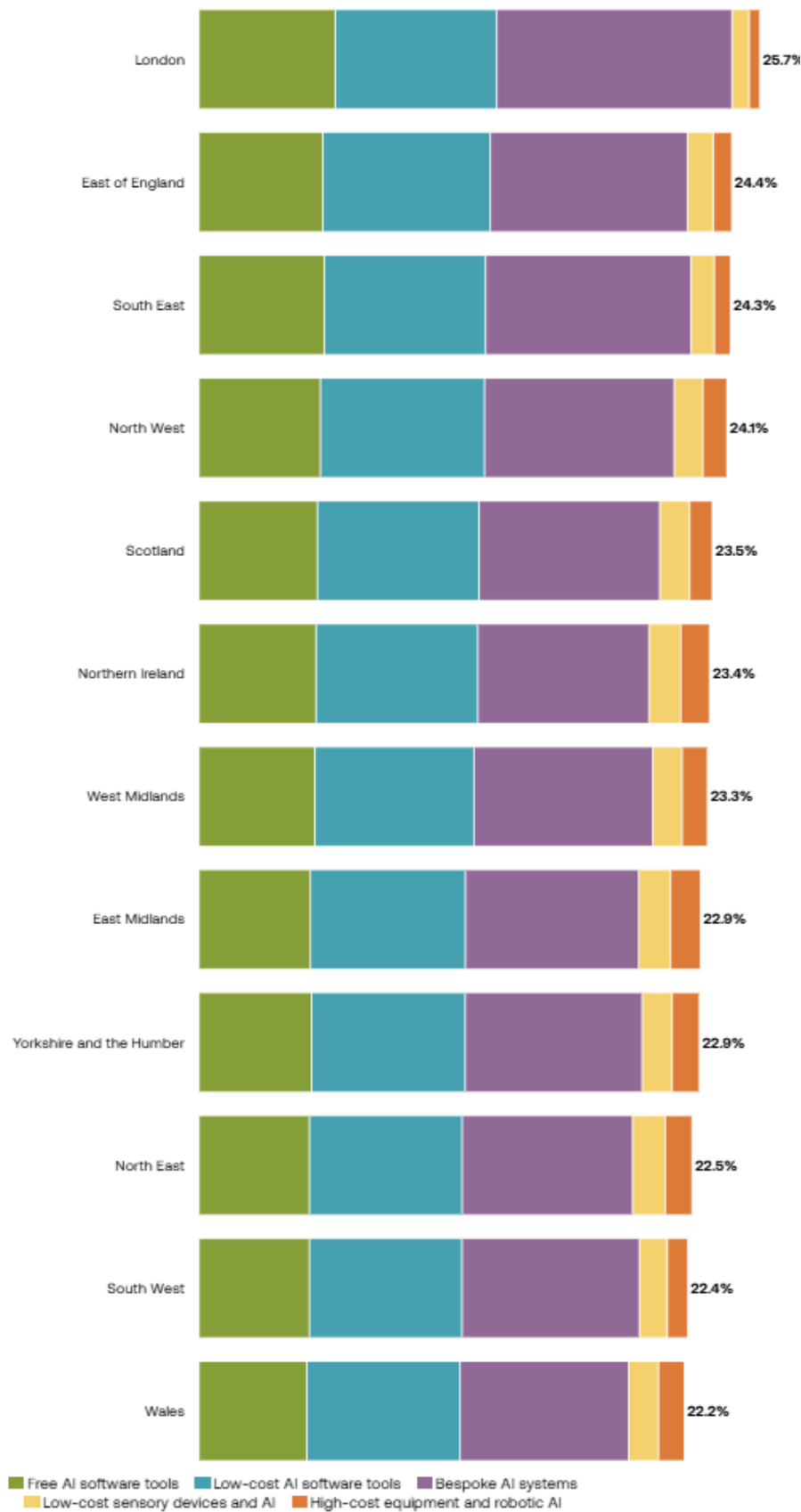
It is a centralised UK database containing chest X-ray (CXR), magnetic resonance imaging (MRI) and computed tomography (CT) images from hospital patients across the country. The database was created to support a better understanding of the COVID-19 virus and develop technology which will enable the best care for patients hospitalised with a severe infection.

Potential outcomes

The benefits of collecting chest imaging data are extensive. This data has the potential to enable faster patient assessment in A&E, save radiologists' time, increase the safety and consistency of care across the country, and ultimately save lives. It is being made available to researchers, clinicians, technology companies and all those wanting to investigate the disease and develop solutions that can support the COVID-19 patient care pathway.

Source: NHS England, 2025

Figure 10: Potential time savings from deploying AI split by worker characteristics



Source: *Governing in the Age of AI: A New Model to Transform the State* (The Tony Blair Institute for Global Change and Faculty, May 2024)

1.3.1 Public sector productivity

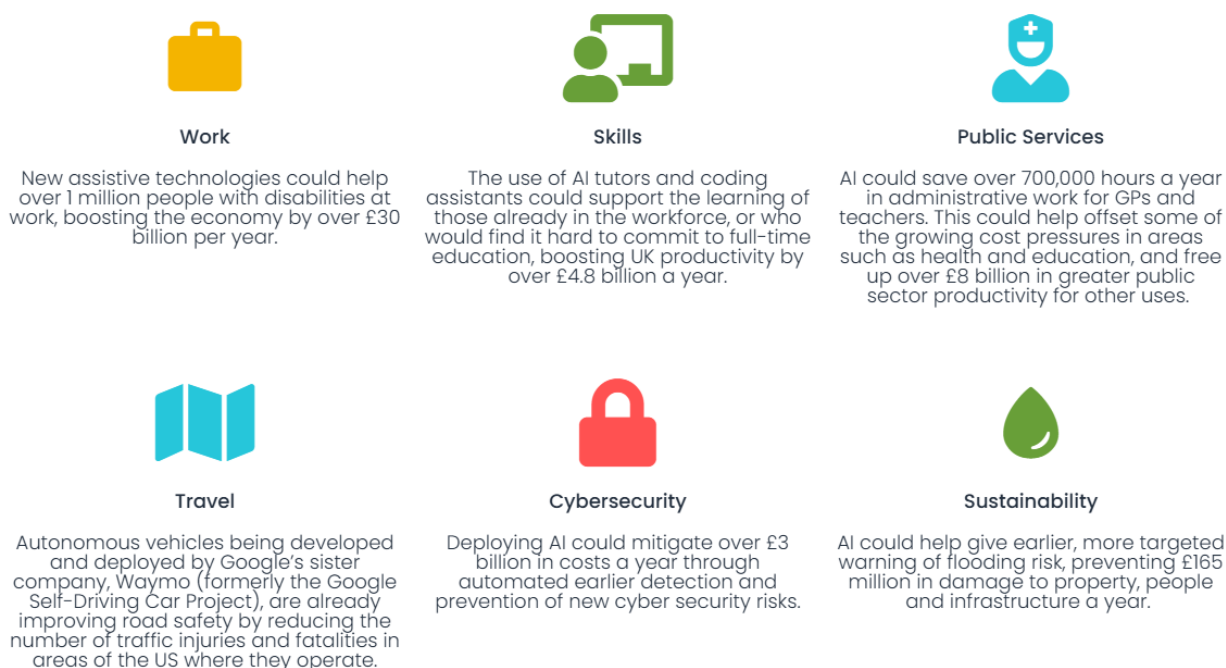
The UK government believes that up to a third of public-sector tasks could be improved with AI. Analysis shows that, after accounting for upfront and ongoing costs, the UK stands to gain £40 billion per year in public-sector productivity improvements by embracing AI, amounting to £200 billion over a five-year forecast.²²

The latest iterations of artificial-intelligence systems – generative AI such as large language models (LLMs) – are matching humans for quality and beating them on speed and cost. Knowledge workers using the GPT-4 model from OpenAI completed 12% more tasks, 25% quicker, with a bigger boost in productivity for less-skilled workers. Businesses using AI tools are 40% more efficient and have 70% higher customer and employee satisfaction than businesses that do not.

AI could make countless tasks performed by public-sector workers every day better, faster and cheaper. It could help them to match service supply to demand, accelerate processing of planning applications or benefits claims, upgrade investigations and analysis, communicate with citizens better, collect and process information for transactional services, model and intervene in complex systems, expedite research and support tasks, manage diaries, draft notes and much, much more.²³

Google²⁴ has estimated the economic and social potential of AI in the UK. AI could save over 700,000 hours a year in administrative work for GPs and teachers, offsetting cost pressures in sectors like health and education, creating over £400bn in value for the UK economy by 2030.

Figure 11: The potential of AI, digital technologies and better digital skills to help with societal challenges such as:



Source: Google's Impact in the UK 2023 (Public First, April 2024)

²² [Governing in the Age of AI: A New Model to Transform the State](#) (The Tony Blair Institute for Global Change and Faculty, May 2024)

²³ [Governing in the Age of AI: A New Model to Transform the State](#) (The Tony Blair Institute for Global Change and Faculty, May 2024)

²⁴ Google's Impact in the UK 2023 (Public First, April 2024)

1.4 Skills and training

The integration of AI into the workplace is likely to have a polarising effect on salaries. On one hand, workers with AI-complementary skills could see their value and wages soar. According to a study from researchers at the Oxford Internet Institute and the Centre for Social Data Science, University of Copenhagen, workers with artificial intelligence skills [command salaries 21% higher than average, and potentially up to 40% higher](#). In the UK, workers in AI-exposed roles are commanding wage premiums of up to 14%.²⁵

Figure 12: Wage premiums for occupations demanding AI skills in the UK, 2019 - 2023

Occupation	Wage Premium
Database Designers and Administrators	58%
Systems Analysts	34%
Lawyers	27%
Application Programmers	24%
Electronic Engineers	17%
Management Organisation Analysts	15%
Sales and Marketing Managers	14%
Training and Staff Development Programmers	8%
Civil Engineers	3%
Construction Managers	2%

Source: PwC's 2024 AI Jobs Barometer (PwC, May 2024) UK Findings

On the other hand, those in easily automated roles may face downward pressure on wages. A recent report by PwC suggests that [AI could contribute up to £232 billion to the UK economy by 2030](#), but the distribution of this wealth will largely depend on how well businesses and workers adapt to the new paradigm.

There is a growing demand for AI-related skills. Upskilling and reskilling initiatives are critical to prepare the workforce for AI-driven changes, with a focus on creativity, critical thinking, and emotional intelligence alongside technical skills. The number of job posts seeking “ChatGPT” skills has grown steadily, with an average increase of 0.68 posts per week since its introduction.²⁶

Case Study : Upskilling and Curriculum enhancements in the age of AI ¹

Industry: Education

Location: Singapore and South Korea

Singapore has developed a national AI skills online platform with multiple training offers. South Korea is integrating AI, data and digital literacy throughout its education pipelines through an AI curriculum and a variety of training and education programmes.

Source: AI Opportunities Plan, January 2025

Research suggests that the ability to integrate AI tools into work is becoming increasingly valued, and workers are likely updating their skill sets to include gen AI capabilities. This shift underscores that reskilling is not only underway but is also becoming an essential response to the evolving job market

²⁵ PwC's 2024 AI Jobs Barometer (PwC, May 2024) UK Findings

²⁶ Research: How Gen AI Is Already Impacting the Labor Market (HBR, November 2024)

driven by gen AI advancements. Simply providing access to AI might not be sufficient; [recent findings](#) also indicate a substantial gender gap in the usage of ChatGPT at work, with women being significantly less likely to adopt ChatGPT in the same occupations. This highlights the need for tailored training programs to address these disparities and ensure equitable access to the advantages of gen AI across all employees.

While some experts say concerns about AI replacing some roles are valid, they also have simultaneously predicted that it won't eliminate all human jobs. Instead, workers will evolve to co-exist with this emerging technology, and the employees who are willing to learn and adapt to AI will see the greatest benefits. For many, this will require re-training in specific areas and employer-sponsored learning opportunities. A 2023 survey conducted by Jobs for the Future's Centre for Artificial Intelligence & the Future of Work (JFF) showed the majority of respondents believe they will [need new skills to compete in an AI-driven workforce](#). Younger workers are particularly feeling the pressure: 66% of Gen Z and millennial respondents said they felt the need to hone and update their skillsets to maintain a competitive edge.²⁷

While employers say that AI has increased the importance of specialised AI skills, they suggest that it has increased the importance of human skills and the need for highly educated workers even more so. This suggests that a broad range of skills will be needed as AI becomes more pervasive within the economy.²⁸

Research from PwC²⁹ reveals employer demand for many skill sets that AI can assist with to some degree such as coding in Javascript is declining fast, while demand for many skills that make use of AI or are hard for AI to do (like sports coaching or ecological restoration) is booming. Workers in AI-exposed roles may need to demonstrate or acquire new skills to stay relevant in a jobs market that is fast-evolving. PwC's 2024 Global CEO Survey makes it clear that 69% of Global CEOs anticipate that AI will require most of their workforce to develop new skills.

Skills England's work

Skills England³⁰, the government body to help improve the skills landscape is focused on a few key areas to make sure the workforce is prepared for AI:

- Closing skills gaps: Partnering with others to identify and address skill shortages.
- Preparing for change: Training workers to meet the needs of a tech-driven economy.
- Boosting AI education: Supporting the education system, including [universities](#), to produce more AI graduates and offer job-relevant training.
- Promoting diversity: Making the AI field more inclusive by addressing inequalities.
- Encouraging lifelong learning: Helping people adapt throughout their careers as technology evolves.

AI will make hiring and layoff processes more equitable

HR professionals are already [prepared to use artificial intelligence](#) in the hiring process to create a more equitable hiring landscape, but the current technology is [far from perfect](#). In response, academics and industry experts are working to reduce algorithmic bias on electronic hiring platforms and other HR tools through AI.

Beyond the hiring process, some companies, including the global consultancy firm Deloitte, are using artificial intelligence technology to retain talent. The firm is currently experimenting with using AI data to more effectively reallocate budgets, move workers to more in-demand positions and, in

²⁷ AI in 2024: Five trends workers need to know (BBC Worklife, January 2024)

²⁸ The impact of AI on the workplace: Main findings from the OECD AI surveys of employers and workers (OECD, March 2023)

²⁹ PwC's 2024 AI Jobs Barometer (PwC, May 2024)

³⁰ What AI means for jobs and how we're preparing the workforce (Department for Education, January 2025)

turn, [stave off layoffs](#). This could particularly help marginalised groups, [who are often the targets of corporate cuts](#).

However, many experts and HR professionals agree that although AI development will be helpful in creating a more diverse candidate funnel, it may not be able to solve all issues, including [human bias in hiring](#). However, a heightened awareness of hiring inequity may help HR professionals understand their own implicit judgements and how to move past them.³¹

As the rapid advances in AI technology [threaten to outpace efforts](#) to create a flexible and comprehensive framework for its use, workers may be left concerned about job protections, privacy in the workplace and industry shifts. These concerns have real-life consequences – according to the American Psychological Association's 2023 Workplace in America survey, respondents who were [worried about AI affecting their jobs reported greater amounts of stress, anxiety and professional burnout](#), than those who embraced the technology.

1.5 Regional insights: West Midlands

Regional characteristics

The West Midlands has a strong advanced manufacturing base, particularly in automotive and aerospace industries, which are less exposed to AI-driven automation compared to white-collar sectors. The region faces structural vulnerabilities, including a high proportion of low-skilled workers and reliance on energy-intensive industries, which could increase inequalities in the face of AI disruption.³²

Economic impact

Whilst the current economic impact of AI technology is small, when it arrives, its impact will not come directly from businesses creating AI-based products or services. Instead, impact will potentially come from increased productivity, efficiencies and supply-chain efficiencies because of the use of predictive modelling algorithms. As AI technology improves and proliferates, it will introduce both new career opportunities as well as a risk of job displacement in some sectors. For example, customer service roles are facing competition from AI chat bots and this trend could continue to other white-collar professions as the technology develops.³³

Bridging the skills gap

The literature suggests a skills gap within the Midlands with 41.5% (just over 2.55m) of working age residents in the Midlands Engine educated to RQF 4+ levels compared to 47.1% UK-wide in 2023 – a further 345,411 of the working age Midlands Engine residents are required to obtain an RQF 4+ qualification to equal the UK average. This could be disadvantageous as further growth and innovation in AI requires a skilled, often highly educated workforce. While the Midlands has 23 universities and most of them have an AI or AI-related course, these education programmes need to be enhanced using the relationship between industry and educational institutes. Teaching applications of AI technologies within the courses could be improved so that learning aligns with industry requirements.³⁴

³¹ AI in 2024: Five trends workers need to know (BBC Worklife, January 2024)

³² [AI – Risks and opportunities for the West Midlands?](#) (City Redi, December 2024)

³³ [AI in the Midlands \(Midlands Engine and Keele, October 2024\)](#)

³⁴ [AI in the Midlands \(Midlands Engine and Keele, October 2024\)](#)

The following recommendations are outlined in a Midlands Engine study³⁵ for the UK government, Midlands' local governments and industry stakeholders to increase the region's capability in developing an AI-driven economy:

Enhance AI literacy and education within the Midlands: For the Midlands to be established as a UK hub for AI innovation, there needs to be a stronger understanding of the technology. For businesses, this means integration of relevant technologies through education and practical training.

Invest in infrastructure to grow AI capability: The Midlands needs to improve its digital connectivity and infrastructure. Good digital infrastructure will not only support startups but attract more companies from outside, not just the Midlands, but the UK.

Update HMRC SIC Codes to include AI representation: It is extremely difficult to identify AI, or AI-related, companies from Companies House and other business datasets. It is recommended that a separate SIC code for AI is implemented.

Implement ethical and sustainable policies: As AI adoption grows in products and services, it's crucial for the Midlands to lead in implementing ethical policies that promote Equality, Diversity, and Inclusion (EDI), while also addressing sustainability concerns around energy use, circularity and carbon emissions.

Set up a Midlands AI Venture Capital ecosystem: The Midlands AI ecosystem currently lacks the venture funding necessary to embrace the technology and its associated benefits. Establishing a funding / venture capital ecosystem, akin to Silicon Valley in the USA, will go some way to address this.

Summary of key findings:

AI is expected to automate 10-30% of jobs, particularly in professional sectors like finance, law, and business management, as well as in education. Occupations involving clerical work, such as management consultants, accountants, and psychologists, are most exposed. The finance and insurance sector is the most AI-exposed, followed by information & communication, professional services, and education. Employees with advanced qualifications, particularly in accounting, finance, economics, and mathematics, are more likely to work in AI-exposed jobs.

The findings suggest that most jobs will be complemented rather than replaced by AI, with generative AI like ChatGPT augmenting tasks rather than fully substituting them. AI's influence extends to skills and training, as employees with qualifications in building, construction, and manufacturing are least exposed to AI, highlighting a growing divide between high- and low-skilled workers.

In the financial and professional services sector, AI adoption is expected to boost productivity by 12% in the short term and up to 50% in the long term, potentially adding £35 billion to the sector by 2030.

Meanwhile, generative AI has already disrupted the labour market for freelancers in writing, coding, and graphic design, with a 21% decline in demand for automation-prone jobs post-ChatGPT. Competition has intensified, with freelancers facing increased pressure to adapt. Employers are now seeking workers with AI-integration skills, and job complexity has risen, requiring a broader skill set.

³⁵ [AI in the Midlands \(Midlands Engine and Keele, October 2024\)](#)

2. Evolving AI employment in the WMCA

2.1 What is AI?

AI is a broad term used to describe the use of computer systems and machines that emulate human intelligence and cognitive processes to solve problems and automate decision-making. At its core, AI encompasses a wide range of technologies, including machine learning, natural language processing, and computer vision, which enable systems to recognise patterns, process information, and improve performance over time without direct human intervention. Businesses across all sectors, regardless of size or industry, are increasingly integrating AI into their operational models to enhance efficiency, reduce costs, and drive innovation.

A key development in the AI landscape is the rapid rise of Large Language Models (LLMs), which are trained on vast datasets and capable of generating human-like text, understanding context, and even engaging in complex problem-solving. The growing adoption of AI and LLMs reflects a broader shift towards automation and data-driven decision-making, with businesses leveraging these tools to streamline processes, personalise customer experiences, and gain a competitive edge.

When we refer to AI as a field in this report, we are primarily focused on its practical application, specifically, the ability of AI systems to undertake tasks that traditionally require human intelligence. This includes functions such as interpreting data, recognising patterns, making predictions, and automating complex workflows. The growing capability of AI to mimic cognitive functions and adapt to new information means its transformative potential across industries is revolutionary.

2.2 The rise of AI

There is little doubt that AI will change the course of human progress, much like previous general-purpose technologies that dramatically reshaped the world around them. But unlike past waves of change, much of the foundational infrastructure for AI is already in place: the internet and data, cloud and storage, chips, and computers. The scope and scale of change will be vast, and it is expected to come quickly.³⁶

AI is rapidly gaining traction across a broad spectrum of industries, demonstrating its versatility and potential to drive innovation. In healthcare, AI-powered diagnostic tools are enhancing the accuracy of disease detection, such as Google's DeepMind³⁷, which has achieved breakthrough results in predicting protein structures and improving early detection of eye diseases. In manufacturing, AI-driven predictive maintenance systems, like those employed by Siemens and GE, are reducing downtime and optimising production efficiency by identifying faults before they occur. In logistics, companies like Amazon and DHL are using AI to optimise delivery routes, manage inventory, and automate warehouse operations.

³⁶ [Governing in the Age of AI: A New Model to Transform the State](#), the Tony Blair Institute for Global Change and Faculty.

³⁷ [Google DeepMind](#)

Case Study : Ocado and AI-Powered Warehouse Automation

Industry: Logistics and Retail

Location: Hatfield, UK

Overview:

Ocado, a leading online grocery retailer, has developed an AI-powered warehouse system that uses robots to pick and pack groceries. The system relies on machine learning algorithms to optimise inventory management and order fulfilment.

Picking and packing are some of the most important and complex fulfilment challenges in global logistics. They are also some of the most difficult challenges to solve with robotics. Grasping and handling items, and determining the qualities of each product (fragility, weight, dimensions) are skills that humans are innately able to deploy.

Rigidly programmed robotic systems widely used in other industries are not fit for the unique demands of the grocery space. To address these challenges Ocado have developed a robust autonomous system, powered by advanced applications of machine learning, which is capable of making smart decisions on the fly.

Outcome:

These changes are improving productivity by:

- **Extending the picking window** - The robotic arm works around the clock, assembling customer orders at peak hours, and consolidating and organising stock in off-peak hours.
- **Enabling existing roles in the warehouse to be redeployed in wider ways** - The technology is designed to drive higher throughput and greater efficiency whilst also supporting colleagues by reducing the most arduous and repetitive activities associated with distribution and fulfilment centres.

Source: Ocado, October 2024

Financial services are also experiencing a shift, with AI being used to detect fraudulent transactions, assess credit risk, and automate trading strategies. JP Morgan's COiN³⁸ platform, for example, processes thousands of loan agreements in seconds, reducing manual workload and improving accuracy.

The practical applications of AI span various subfields, including machine learning, deep learning, natural language processing (NLP), and signal processing. For instance, NLP underpins virtual assistants like Amazon's Alexa and Apple's Siri, which interpret and respond to human speech, while machine learning algorithms are employed in recommendation systems used by Netflix and Spotify to personalise user experiences. AI-driven automation is transforming back-office operations by streamlining administrative tasks, processing large datasets, and enabling real-time decision-making. This growing integration of AI into core business processes has driven increased demand for skilled workers in high-tech roles. Occupations such as Java developers, data engineers, and software developers are particularly sought after, as companies require technical expertise to develop and maintain AI infrastructure. Furthermore, new job categories are emerging, such as AI ethicists, machine learning engineers, and AI product managers, reflecting the evolving nature of the workforce.

The rise of AI-driven enterprises signals a broader economic shift, with AI becoming a key driver of productivity, innovation, and long-term business sustainability. McKinsey estimates that AI could

³⁸ [Meet COIN: JPMorgan's Efficiency Wizard](#)

contribute up to \$13 trillion to the global economy by 2030³⁹, representing an additional 1.2% annual GDP growth. However, this technological shift is not without consequences for the labour market. Automation of routine and repetitive tasks is expected to displace certain jobs across a range of sectors such as administration, finance, legal, manufacturing, transportation, and retail. Governments and businesses will need to respond strategically to these labour market disruptions to ensure that AI adoption translates into net-positive outcomes for both businesses and workers.

2.3 WMCA AI ecosystem

The WMCA area is home to a growing AI sector, with 139 companies employing 69,408 people. While this represents a notable concentration of AI-related activity, growth rates in the WMCA area remain modest compared to the national average. As shown in Figure 13, the AI sector in the WMCA is expanding at an estimated annual rate of 3.3%, considerably lower than the UK average of 9.0%. This disparity might reflect some of the broader challenges around skills and inactivity faced by the WMCA in translating technological advances into economic output at the same rate as other regions.

The AI sector in the WMCA generates a total turnover of £32.4 billion, contributing £5.5 billion in Gross Value Added (GVA) to the regional economy. However, GVA per employee in the WMCA's AI sector stands at £23,595, lower than the national average of £39,730 which would suggest that AI-driven productivity and output per worker are not yet fully optimised. Similarly, the level of investment in AI within the WMCA lags national trends. While the UK AI sector has attracted a total of £38.8 billion in investment funding, the WMCA accounts for just over £1.1 billion, highlighting the need to strengthen the local AI ecosystem and attract greater capital inflows to drive expansion.

Innovate UK grant funding reflects a similar pattern. Nationally, the AI sector has secured over £509 million in grant funding, whereas AI firms within the WMCA have received £17.5 million. This implies that there may be opportunities to increase access to innovation funding and enhance the support infrastructure for AI firms in the region.

Figure 13: The AI-driven sector in the UK and the WMCA

Metric	UK	WMCA
Companies	4,881	139
Total Employees	1,674,698	69,408
Total Turnover	£297,226,094,089	£32,379,127,667
Estimated Growth Per Year	9.0%	3.3%
Total GVA	£66,536,336,104	£5,504,650,826
GVA Per Employee	£39,730	£23,595
Total Investment Funding	£38,764,099,890	£1,109,400,052
Total Innovate UK Grant Funding	£509,178,715	£17,482,814

Source: Data City

The relatively lower GVA per employee and slower growth rate point to structural challenges, including lower levels of AI integration within key sectors and a shortage of highly specialised AI talent. Nevertheless, the presence of around 70,000 AI-related jobs in the WMCA indicates a strong foundation for future growth. The region's established industrial base, combined with emerging clusters of AI innovation in Birmingham, Coventry, and Wolverhampton, could position the WMCA to capitalise on AI-driven transformation. Strategic interventions, such as increasing investment in AI research and development, enhancing skills pipelines, and improving access to funding, will be key to accelerating AI adoption and closing the productivity gap with the national average.

³⁹ Report: AI will add \$13T to global economy by 2030 | Smart Cities Dive

2.3.1 WMCA worker supply

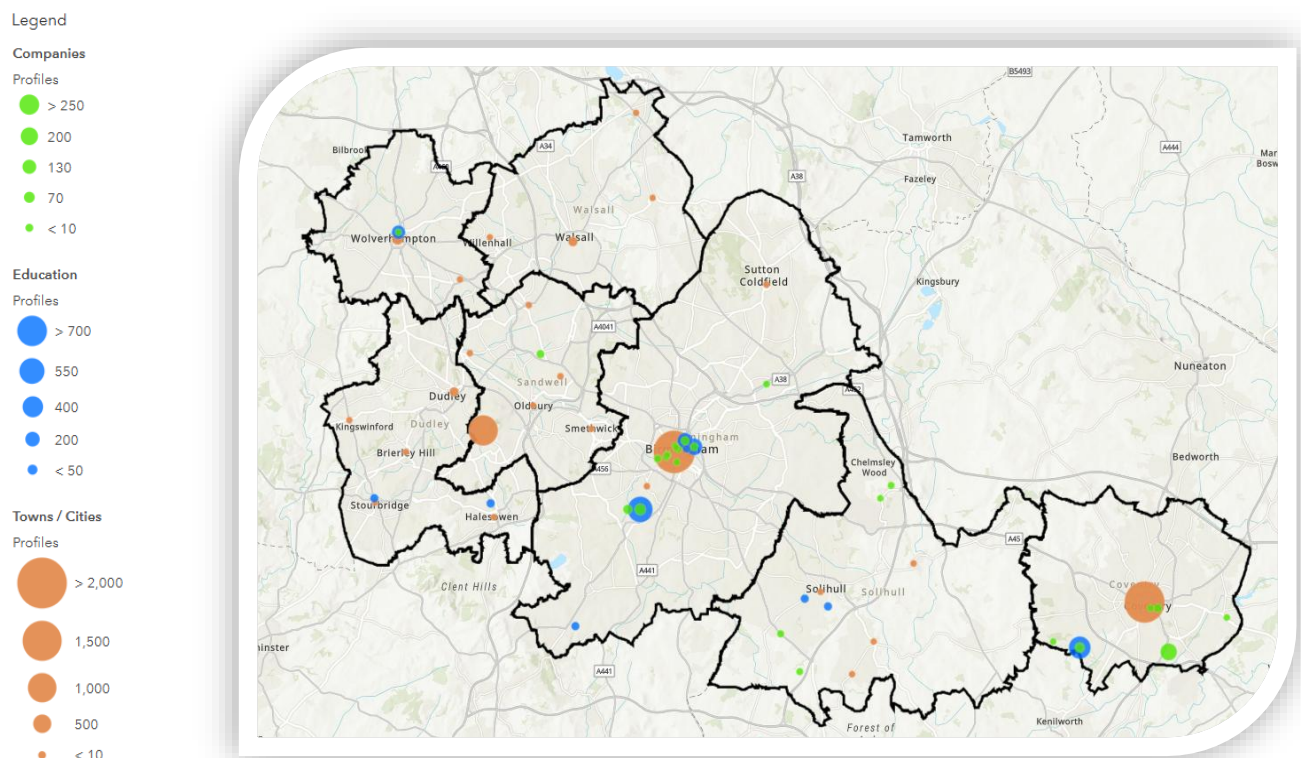
Understanding the availability and composition of the workforce is essential for assessing the potential for increasing AI adoption and aligning skills with industry demands. The Profile Analytics⁴⁰ report from Lightcast⁴¹ provides a detailed overview of worker supply by analysing online profiles, offering insights into the skills, qualifications, and professional backgrounds of the WMCA labour force. This includes data on AI-specific roles such as data scientists, which helps to identify the strengths and gaps in the talent pool within the WMCA area.

The map below illustrates the concentration of AI workers, key businesses leveraging AI technologies, and leading universities delivering AI-related skills across the WMCA area.

Birmingham emerges as a central hub for AI talent, with a high concentration of AI professionals and a cluster of major employers in sectors such as financial services, advanced manufacturing, and digital technology. Coventry and Sandwell also demonstrate strong AI activity, driven by the presence of automotive and engineering firms likely adopting AI for automation and predictive maintenance.

The map also identifies key employers integrating AI into their operations, including Jaguar Land Rover, HSBC, and NHS, alongside significant academic contributions from institutions such as the University of Birmingham, University of Warwick, and University of Wolverhampton amongst others. This regional distribution reflects the WMCA's potential for growth in AI-driven industries and the strategic alignment between business needs and educational output.

Figure 14: AI strength in the WMCA: key areas, companies, and educational institutions using AI



Source: [The Economic Intelligence Unit](#)

⁴⁰ The Profile Analytics report explores worker profiles by analysing specific occupations, job titles, schools, skills within online profiles. This report is used to describe worker supply in any region.

⁴¹ All data identifying AI worker supply and employer demand is derived from ©Lightcast 2024 - utilising Lightcast Global AI Skills 2024 taxonomy.

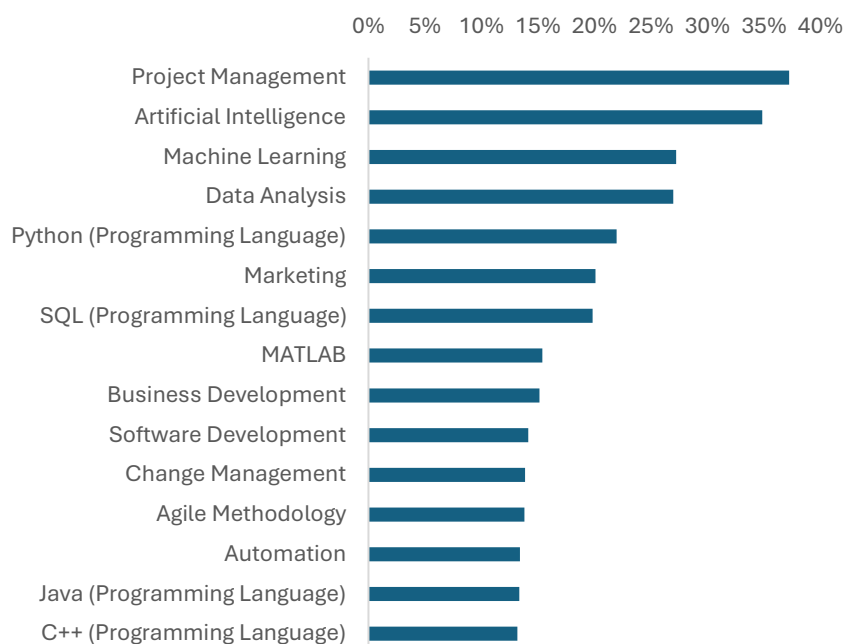
Further analysis of workforce profiles using Lightcast's Global AI Skills taxonomy identifies the current top 10 AI-related occupations within the WMCA area:

Occupations	AI Related Competencies
Programmers and Software Development Professionals	Responsible for coding, developing AI applications, and integrating machine learning algorithms into existing systems.
IT Business Analysts, Architects and Systems Designers	Focused on designing AI-based solutions and optimising business processes through AI integration.
Marketing, Sales, and Advertising Directors	Leveraging AI for customer segmentation, targeted advertising, and predictive sales modelling.
Actuaries, Economists and Statisticians	Using AI to analyse market trends, assess financial risks, and model economic scenarios.
Business and Financial Project Management Professionals	Overseeing AI implementation in financial services and business operations.
Management Consultants and Business Analysts	Using AI-generated insights to advise on business strategy and operational improvements.
Higher Education Teaching Professionals	Training the next generation of AI specialists and conducting research into AI applications.
Electrical Engineers	Integrating AI into smart systems, automation, and predictive maintenance.
Production Managers and Directors in Manufacturing	Applying AI to improve production efficiency and reduce downtime through predictive maintenance.

These findings highlight the diverse range of roles and the broad cross-sector applicability of AI within the WMCA area. The data reflects the growing integration of AI into business operations and the increasing demand for specialised skills to support AI-driven growth.

Linked to this the current most prevalent AI-related skills identified in workforce profiles are closely aligned to these roles, suggesting the region has a foundation for expanding AI adoption.

Figure 15: Prevalent AI specialised skills



Source: ©Lightcast 2024

2.3.2 WMCA AI labour demand

AI is transforming industries globally, driving innovation, productivity, and economic growth. This rapid technological shift is reshaping the nature of work, particularly in regions like the West Midlands, where routine and manual jobs are more prevalent, while also being home to a base of business and professional services such as legal, accounting and finance, of which lower level junior positions are under threat from augmentation. Whilst AI may displace certain roles, it is also creating demand for new, high-value positions.

Successful AI adoption should therefore not be seen as a threat to employment but as a means of augmenting human work, with businesses investing in upskilling and AI literacy to ensure employees can adapt to new technologies. Understanding this shift between job displacement and creation is essential for the WMCA to prepare for the growing demand for AI-driven skills and innovation.

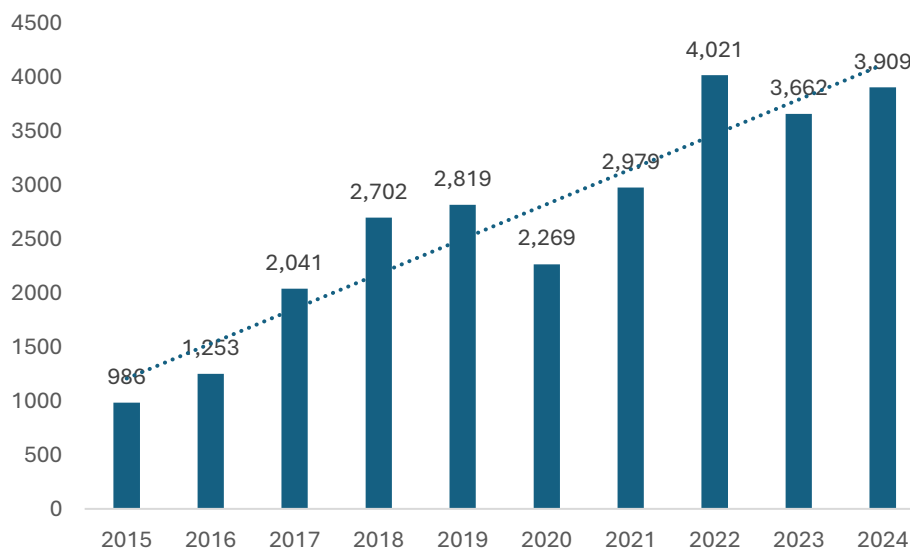
The following section provides an examination of the evolving landscape of AI-related job opportunities, identifying key trends in job postings, the industries most impacted, and the emerging skill sets required for success.

Drawing on data from Lightcast⁴², this analysis delves into the current demand for roles and specialised skills across WMCA region.

AI job posting trends

Analysis of historic AI-related job postings highlights a significant upward trend across the WMCA region over the past decade, reflecting the broader industrial shift toward AI adoption.

Figure 16: Unique job postings



Source: ©Lightcast 2024

Postings have increased by 297% in this time or from 986 in 2015 to 3,909 in 2024. This consistent sustained demand for AI-related skills, would suggest an ongoing need for upskilling and workforce development to meet industry needs.

⁴² All graphics Copyright 2024 Lightcast with data accessed in March 2025

Current job postings

Further analysis shows that in the first two months of 2025, 1,284 unique job postings were logged for AI roles, indicating that the growth trajectory in demand is poised to continue, potentially surpassing previous annual figures.

Figure 17: Unique job postings



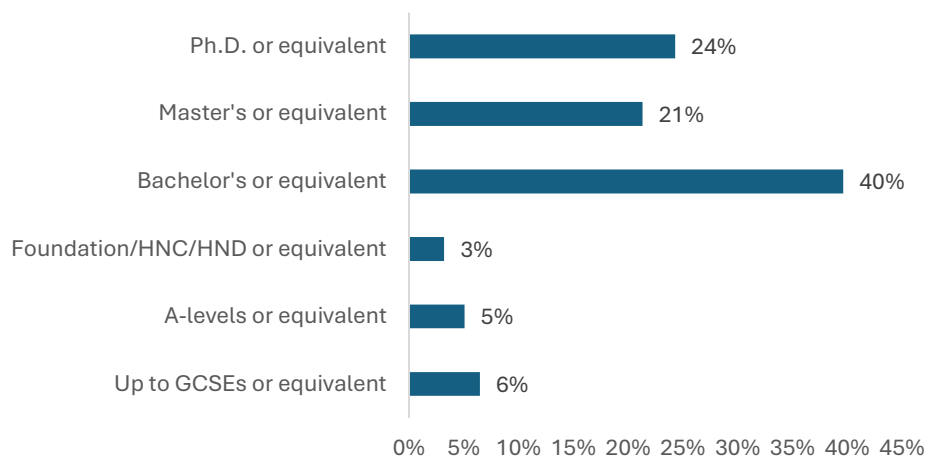
Source: @Lightcast 2024

A comparative analysis of current demand shows that AI-related job postings have increased by 60% when comparing January and February 2024 to the same months in 2025. This rise in postings reflects the continued escalating demand for AI.

Education levels

Analysis of the minimum requested education level for roles in the AI sector shows that 88% of advertised jobs require higher level qualifications, specifically RQF Level 4 and above⁴³.

Figure 18: Minimum education level



Source: @Lightcast 2024

Specifically, 40% of job postings specifically request a bachelor's degree or equivalent, over one-in-five (21%) postings a master's degree or equivalent and around a quarter (24%) of all job postings a Ph.D. or equivalent.

⁴³ A RQF Level 4 qualification includes Certificate of Higher Education (CertHE), a Higher-level Apprenticeship or Higher National Certificate (HNC).

Only 11% of roles are open to people with lower-level skills.

This emphasis on advanced degrees for AI-related roles suggests a significant barrier to entry in the AI workforce which risks slowing the adoption of AI across industries. It also potentially excludes individuals from lower socioeconomic backgrounds who may lack access to higher education.

Therefore, alternative education pathways such as bootcamps, online courses, and vocational training may be viable solutions to allow all individuals to acquire relevant AI competencies without traditional degrees.

For instance, initiatives like IBM's SkillsBuild⁴⁴ provide free courses in AI fundamentals, enabling learners to develop essential skills and earn industry recognised credentials. Similarly, institutions like Ada, the National College for Digital Skills⁴⁵, focus on delivering specialised training to diverse populations, ensuring a broader and more inclusive talent pipeline for the AI industry.

Top posted occupations

The top 10 posted AI-related occupations in the WMCA region encompass a wide range of roles beyond traditional technical positions, reflecting AI's integration across various sectors.

Figure 19: Top posted occupations in the WMCA

Career Area	Total/Unique (Jan 2024 - Feb 2025)	Posting Intensity	Median Posting Duration
Information Technology and Computer Science	2,706 / 1,503	2 : 1 	21 days
Engineering	666 / 333	2 : 1 	28 days
Business Management and Operations	619 / 324	2 : 1 	25 days
Education and Training	562 / 280	2 : 1 	26 days
Sales	433 / 229	2 : 1 	26 days
Finance	573 / 218	3 : 1 	28 days
Science and Research	392 / 213	2 : 1 	19 days
Marketing and Public Relations	328 / 204	2 : 1 	20 days
Healthcare	426 / 167	3 : 1 	29 days
Community and Social Services	473 / 157	3 : 1 	30 days

Source: @Lightcast 2024

These roles require a blend of technical proficiency and industry-specific knowledge, meaning that successful AI adoption should enhance human capabilities rather than replace them. For instance, pharmaceutical companies like Johnson & Johnson and Merck⁴⁶ are investing in AI literacy programs to integrate advanced technologies into drug development and operations, demonstrating the interdependent relationship between AI tools and human expertise.

Top posted job titles

Delving deeper into specific job titles however shows that there is high demand for data centric roles. The prevalence of positions such as Data Scientists, Data Engineers, Data Analysts, and Data Architects emphasises the need for professionals skilled in data management and analysis, and the increasing importance of data driven decision making.

⁴⁴ [Free Skills-Based Learning From Technology Experts | IBM SkillsBuild](#)

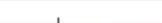
⁴⁵ [National College of Education](#)

⁴⁶ [Pharmaceutical Companies Embrace AI in Drug Discovery Efforts - Business Insider](#)

The relative high number of postings for Research Fellows also indicates a strong focus on research and innovation.

Beyond these data-centric roles, there is also notable demand for positions such as Social Workers, Assistant Store Managers, Programme Managers, Copywriters, Lecturers, Business Development Managers, and Recruitment Consultants amongst others. This diversity reinforces the cross-industry integration of AI.

Figure 20: Top posted job titles in the WMCA

Job Title	Total/Unique (Jan 2024 - Feb 2025)	Posting Intensity	Median Posting Duration
Data Scientists	190 / 99	2 : 1 	26 days
Research Fellows	173 / 90	2 : 1 	27 days
Data Engineers	89 / 60	1 : 1 	20 days
Software Engineers	60 / 38	2 : 1 	17 days
Data Analysts	40 / 31	1 : 1 	27 days
Controls Engineers	63 / 30	2 : 1 	33 days
Machine Learning Engineers	51 / 27	2 : 1 	12 days
Data Architects	35 / 21	2 : 1 	11 days
Social Workers	82 / 19	4 : 1 	30 days
Assistant Store Managers	38 / 17	2 : 1 	32 days

Source: ©Lightcast 2024

The distribution of these job postings reflects broader national industry trends. Notably, AI-focused roles now constitute 27% of all tech jobs advertised in the UK⁴⁷.

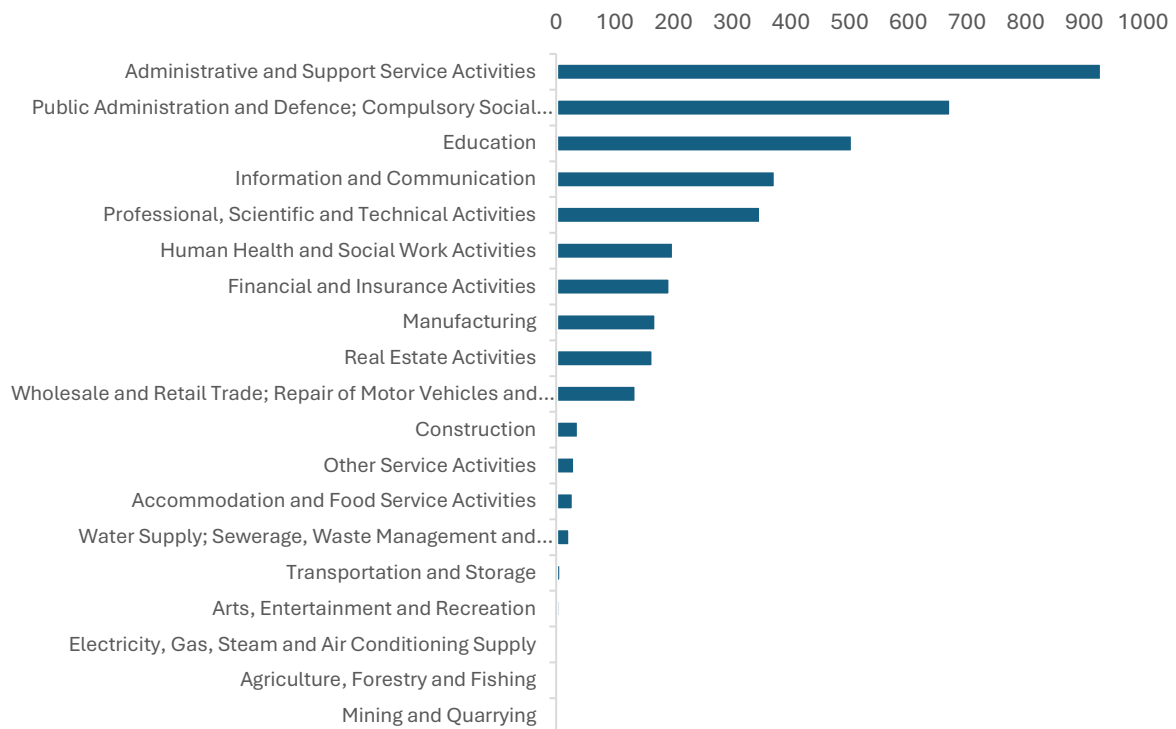
Top industries

In the WMCA region, almost 75% of all job postings for roles associated with AI are for positions within Administration and Support Service Activities, Public Administration and Defence; Compulsory Social Security, Education, Information and Communication and Professional, Scientific and Technical Services (SIC 2007 Major Section)⁴⁸.

⁴⁷ AI roles now make up 27% of all tech jobs advertised in the UK | Onrec

⁴⁸ UK SIC 2007 - Office for National Statistics (ons.gov.uk)

Figure 21: Top postings by industry in the WMCA



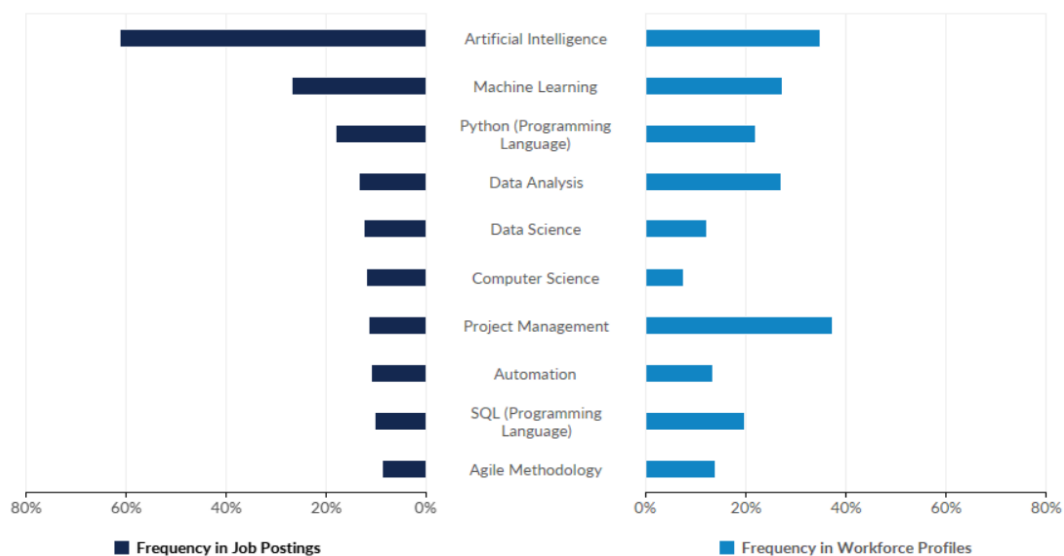
Source: ©Lightcast 2024

The distribution of AI-related job postings indicates where companies are currently strategically investing, and therefore which sectors are poised to benefit from automation and data-driven decision-making.

Top specialised skills

Our analysis reveals critical gaps between the current capabilities of the workforce in the WMCA region and the evolving skill demands of employers.

Figure 22: Top specialised skills in the WMCA



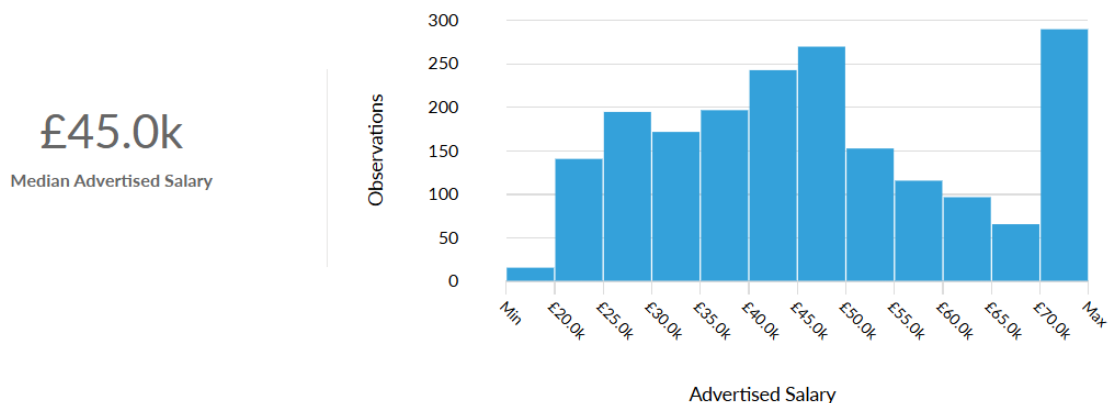
Source: ©Lightcast 2024

Addressing this issue necessitates the development of training programs and educational initiatives that foster interdisciplinary expertise.

Salary

Reflective of the higher-level skills required for AI-related roles, the median salary is £45,000. This is 18% higher than the overall advertised median salary for all other job roles in the WMCA area.

Figure 23: Advertised salaries in the WMCA



Source: ©Lightcast 2024

High salary trends can serve as a magnet for talent, encouraging professionals to invest in acquiring AI skills. This reinforces the notion that upskilling is not only a necessity for companies but also an attractive career move for individuals. Linked to this is AI's potential to drive economic growth. As AI roles command premium wages, they signal an investment in high-value work that can lead to overall productivity gains within organisations.

Summary of key findings:

Evolving AI Employment in the WMCA

AI's Growing Role Across Industries

- AI is being rapidly adopted across multiple sectors, enhancing efficiency, reducing costs, and driving innovation.
- AI-powered tools are transforming industries such as healthcare, manufacturing, logistics, and finance.
- The rise of Large Language Models (LLMs) and AI-driven automation is reshaping business operations and workforce needs.

AI Sector in the WMCA

- The WMCA has 139 AI companies employing 69,408 people, contributing £5.5 billion GVA to the economy.
- AI sector growth in the WMCA is 3.3% per year, which lags behind the UK national average of 9.0%.
- Investment in AI in the WMCA is £1.1 billion, 2.8% of the UK-wide total of £38.8 billion.
- The GVA per AI employee in the WMCA (£23,595) is much lower than the national average (£39,730), suggesting lower productivity and limited AI integration.

AI Workforce & Skills in the WMCA

The region has a strong AI talent pool, with concentrations in Birmingham, Coventry, and Sandwell. AI-related roles span industries, including finance, manufacturing, healthcare, and public services.

- **Top AI-related occupations in the WMCA include:**

- Software developers
- Data scientists
- AI business analysts
- Statisticians
- Marketing & sales directors

- **Most sought-after AI skills include:**

- Machine learning
- Data analytics
- Programming (Python, Java)
- Cloud computing
- AI ethics and governance

Rising AI Job Demand

- AI-related job postings have grown by 297% since 2015, increasing from 986 (2015) to 3,909 (2024). In early 2025, 1,284 unique AI job postings were recorded, marking a 60% year-on-year increase from early 2024. AI-related roles now account for 27% of all UK tech job postings. The median salary for AI jobs is £45,000, which is 18% higher than the average WMCA salary.

AI Education and Training Gaps

- 88% of AI-related job postings require higher-level qualifications (RQF Level 4 and above). 40% require at least a bachelor's degree, while 21% require a master's degree, and 24% a PhD. Only 11% of AI jobs are open to lower-skilled candidates, highlighting a barrier to entry.
- Alternative pathways such as bootcamps, vocational training, and online AI courses (e.g., IBM SkillsBuild) could help broaden AI workforce inclusion.

AI's Sectoral Impact in the WMCA

- **75% of AI job postings are concentrated in five key sectors:**

- Public administration
- Education
- Professional & scientific services
- Information & communication
- Administrative & support services

Policy Recommendations

- Increase AI investment in the WMCA to close the gap with national AI adoption rates.
- Expand AI training & upskilling programs, including alternative education models.
- Boost AI integration in key industries to improve productivity and job creation.
- Ensure an inclusive AI workforce by reducing education barriers and promoting AI literacy.
- Develop AI-friendly policies & funding to attract tech talent and businesses to the WMCA.

3. Sectoral shifts, occupational changes, and productivity gains

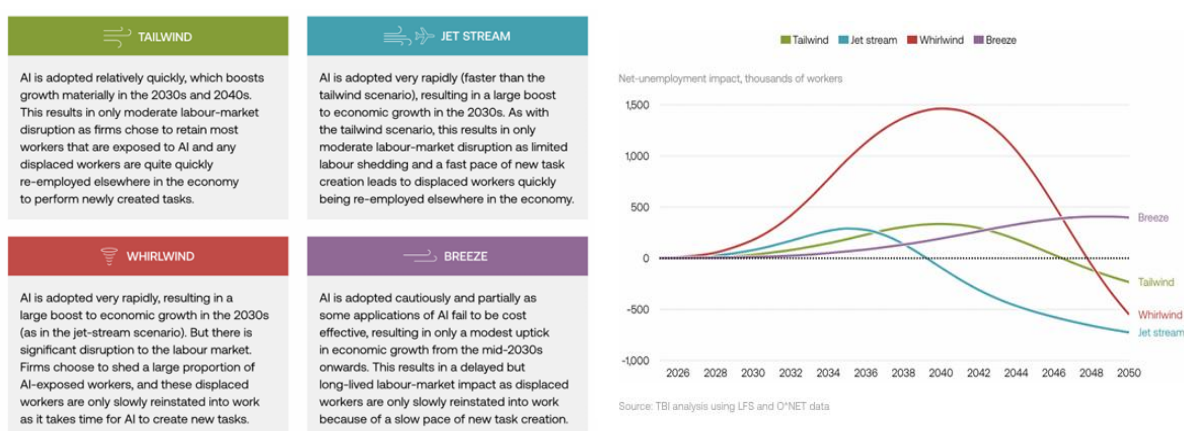
AI is poised to reshape industries and job markets across the UK, leading to both job displacement and the creation of new roles.

3.1 Labour demand scenarios

Given the high degree of uncertainty over how quickly, how fully, and how effectively AI could perform existing tasks and save workers' time, The Tony Blair Institute⁴⁹ reviewed a range of scenarios to help assess its potential impact. In all cases, AI is expected to generate some job losses, but this labour-substitution effect is only part of the story of how AI will affect labour demand. AI is also likely to create new demand for labour by boosting economic growth and productivity and speeding the development of new products and services that create entirely new jobs.

Modelling scenarios predict an initial rise in unemployment as some firms choose to bank the time savings from AI and reduce the size of their workforce. Based on historic rates of labour shedding, it is estimated 1 to 3 million jobs could ultimately be displaced by AI. Crucially however, these job displacements will not occur all at once, but instead will rise gradually with the pace of AI adoption across the wider economy. On an annual basis, this means job displacements peak at between 60,000 and 275,000 jobs a year, which are relatively modest figures compared with the average number of job losses seen over the past decade in the UK (450,000 per year) and even more so relative to the overall labour force (33 million).

Figure 24: Labour demand scenarios



Source: *The Impact of AI on the Labour Market* (Tony Blair Institute for Global Change, November 2024)

Research suggests that the rise in unemployment is likely to be capped and ultimately offset as AI creates new demand for workers, which pulls displaced workers back into the workforce. The best guess is that AI's peak impact on unemployment is likely to be in the low hundreds of thousands and for the effect to unwind over time. While there is a great deal of uncertainty over all these figures, a common lesson is that AI is likely to increase the dynamism of the labour market by prompting more workers to leave existing jobs and start new ones. As a result, the WMCA's labour-market infrastructure will need an upgrade to adjust to the AI era.

⁴⁹ The Impact of AI on the Labour Market (Tony Blair Institute for Global Change, November 2024)

3.2 Sectoral impact and workforce implications in the WMCA

The adoption of artificial intelligence (AI) is poised to transform the labour market by enhancing productivity across all industries. However, the extent to which these gains translate into job losses or role evolution varies significantly by sector and occupation. While AI offers clear efficiency improvements, the balance between automation and augmentation will determine whether productivity gains lead to workforce displacement or the creation of new opportunities.

In sectors heavily reliant on routine and process-driven tasks like manufacturing, transportation, and administrative support, AI's ability to automate repetitive work could reduce overall employment demand. Conversely, industries like healthcare, professional services, and education, where human judgment and interaction remain essential, are more likely to see AI augment existing roles rather than replace them. Financial services and retail, meanwhile, face a mixed outlook, with AI driving both automation of back-office functions and enhanced customer service through personalised insights.

The scale of disruption will therefore depend on how effectively sectors can adapt to these changes. Industries able to reskill their workforce and integrate AI into business processes without displacing human oversight are likely to see net productivity and employment gains.

Below is a synthesised overview of the likely impacts of AI adoption on jobs across various sectors. While quantitative estimates (mostly in terms of potential time savings and process efficiencies) vary by sector and specific occupational tasks, the following summary outlines the key trends and impacts:

A: Agriculture

Impact: AI is set to transform agriculture through precision farming, automated machinery, and predictive analytics. Technologies such as AI-powered drones, soil health monitoring, and automated harvesting systems are expected to enhance crop yields and reduce waste.

Quantification: AI could increase agricultural productivity by 15 to 20% through improved resource allocation, reduced input costs (e.g., fertiliser and water), and more effective pest and disease management.

Key Change: Increased automation in planting, harvesting, and monitoring may reduce demand for low-skilled labour while creating new roles in data analysis, equipment maintenance, and AI-driven farm management.

B: Mining and Quarrying

Impact: AI is expected to drive efficiency improvements through advanced sensor technology, predictive maintenance, and automated monitoring.

Quantification: Although overall direct labour savings are less dramatic than in sectors with routine cognitive tasks, AI could improve productivity by 10 to 15% by optimising operations and reducing downtime.

Key Change: Increased reliance on remote monitoring and robotics may reduce some manual roles, while creating demand for technical maintenance and data analysis skills.

C: Manufacturing

Impact: AI is anticipated to significantly enhance production efficiency, quality control, and predictive maintenance.

Quantification: Estimates suggest that up to 25% of working time could be saved overall, with routine tasks (e.g., process monitoring, data logging) most affected.

Key Change: While some repetitive roles may be restructured or reduced, new roles in digital oversight, process optimisation, and robotics management are expected to emerge.

Case Study : Rolls-Royce and AI-Driven Maintenance

Industry: Advanced Manufacturing

Location: Derby, UK

Overview

Rolls-Royce, a global leader in aerospace and power systems, has integrated AI into its manufacturing processes to enhance maintenance.

An average aircraft does 20,000 flights in its lifetime – that’s the equivalent of 60 million miles or 2,400 times around the world. The engines on the aircraft work hard and so regular inspections are carried out to make sure everything is in good working order. There are around 20,000 components in any engine and one way of getting inside the engine to look at them is with a borescope. A routine borescope inspection can take an aircraft out of service for 12 hours– that’s 12 hours that the aircraft is on the ground and not in the air making money for customers.

The Intelligent Borescope uses a state-of-the-art Waygate Technologies RVI inspection unit enabled with AI Apps to capture data from the engine as it is driven by a Rhinestahl CTS FutureDrive Electronic Turning Tool. The AI Apps, which Rolls-Royce developed with Roke Manor Research and integrated into the borescope inspection unit with Waygate Technologies, help identify any issues with the engine before sending all the data directly to the Rolls-Royce Cloud for further analysis. Connectivity to the Cloud means that certain inspections could even be completed offline once the data has been captured. This level of automation has never been seen in the aviation industry before.

This technology will not only speed up inspection times, but also transform many aspects of the business through the capture and analysis of high-quality standardised data from all of the engines, which can be exploited to maximise the efficiency of the entire fleet and improve future design.

Outcome

- Processing this data for particular inspections took an operator 90 minutes – it now takes just 10.

Source: Rolls-Royce

D: Electricity, Gas, Steam and Air Conditioning Supply

Impact: The energy sector will benefit from AI in network optimisation, fault prediction, and real-time monitoring of supply systems.

Quantification: AI could yield efficiency gains of around 15 to 20%, with the potential to reduce operational downtime and improve grid management.

Key Change: Roles in system management and maintenance will shift towards more analytical and technical functions, even as traditional monitoring tasks are automated.

E: Water Supply; Sewerage, Waste Management and Remediation Activities

Impact: AI solutions in these sectors include smart sensors for real-time quality monitoring, predictive maintenance of infrastructure, and optimised route planning for waste collection.

Quantification: Time savings and operational efficiencies are estimated at approximately 10–20%.

Key Change: Job profiles will likely shift toward data interpretation, system oversight, and maintenance of automated equipment, reducing the need for routine manual monitoring.

F: Construction

Impact: The construction sector's potential for AI-driven gains is more modest due to the complex, on-site nature of work.

Quantification: AI is expected to save around 16% of working time by improving project management, safety monitoring (using drones and sensors), and logistics.

Key Change: Rather than outright replacement, roles will evolve and workers will increasingly need to combine traditional skills with digital competencies (e.g., managing construction software, interpreting AI-generated insights).

G: Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles

Impact: AI in retail and motor repair is transforming inventory management, customer service (via chatbots), and predictive analytics for supply chains.

Quantification: In administrative and sales aspects, potential time savings are estimated between 30 and 40%, while repair services may benefit more from diagnostic AI tools that speed up troubleshooting.

Key Change: Traditional roles may shift towards technology-enhanced customer interactions, digital inventory management, and enhanced technical diagnostics.

Case Study : Tesco and AI for Customer Personalisation

Industry: Retail

Location: Nationwide, UK

Overview

Tesco is exploring the use of generative AI within its Clubcard loyalty scheme, and how the next generation of the technology could be used to improve a customer's shopping experience. This included potentially "nudging" customers to make specific health choices, identify better value, or help them reduce food waste.

Over the past few years, Tesco had already radically improved its supply chain efficiency, ability to forecast and how its stores picked on dotcom orders using AI. Now, the fifth wave of generative AI will revolutionise how supermarkets serve their customers, by improving personalisation and removing mundane tasks in store, therefore making it easier for staff to serve customers.

AI could help bring a shopper's bill down by analysing their past shopping habits to inform them when specific items could be coming on to promotion at a cheaper price. It could also help them reduce waste by substituting specific lines or telling them to buy less if they have not been using everything they've previously bought.

Source: The Grocer, September 2024

H: Transportation and Storage

Impact: AI is revolutionising logistics through route optimisation, automated vehicle technologies, and enhanced supply chain management.

Quantification: Efficiency gains in this sector could be in the range of 20 to 30%, particularly in operations like warehouse management and fleet optimisation.

Key Change: There will be a shift from manual scheduling and route planning toward roles that focus on monitoring, data analysis, and the oversight of automated systems, alongside new demands in autonomous vehicle maintenance.

I: Accommodation and Food Service Activities

Impact: AI applications in this sector include automated ordering systems, personalised guest services, and robotics in food preparation.

Quantification: While direct time savings are roughly 15 to 25%, the qualitative change in service delivery is substantial.

Key Change: Roles in customer service and food preparation will likely evolve to require digital literacy and technical skills, even as routine tasks become automated.

J: Information and Communication

Impact: AI is transforming content creation, data processing, cybersecurity, and network management in this highly digital sector.

Quantification: With potential time savings often exceeding 25 to 30% in routine data processing and communication tasks, productivity gains can be significant.

Key Change: The focus will shift toward higher-level tasks such as strategic decision-making, AI system oversight, and creative content development, while routine technical support tasks are increasingly automated.

K: Financial and Insurance Activities

Impact: This sector stands to benefit immensely from AI's capabilities in data analytics, fraud detection, risk assessment, and customer service automation.

Quantification: Routine tasks could see time savings of nearly 30%, boosting efficiency in back-office operations and decision support systems.

Key Change: While some administrative roles may decline, there will be robust growth in demand for roles focused on data science, risk management, and algorithmic trading oversight.

L: Real Estate Activities

Impact: AI can streamline property management, automate administrative processes, and enhance market analysis through predictive analytics.

Quantification: Efficiency improvements of around 15 to 20% are plausible, particularly in administrative functions and customer relationship management.

Key Change: Professionals will increasingly need to interpret AI-driven market insights, manage digital platforms, and integrate data analytics into client services.

Case Study : How is AI transforming office space?

Industry: Real Estate

Location: San Francisco

Comparing the stages of AI development in San Francisco and the UK offers valuable insights. San Francisco, with its established tech ecosystem, provides a glimpse into a potential future for the UK. [Significant investments and technological advancements in AI R&D have positioned San Francisco at the forefront of AI innovation.](#) These developments have already led to notable AI-driven office take-up in San Francisco, where AI-related companies have accounted for 25% of office leasing since 2023 (to H1 2024), totalling 2.3 million sq ft. The lessons from San Francisco's experience can help to predict the trajectory of AI development in the UK and suggests demand for office space to come from the sector.

However, any net change in the employment rate could be reflected in office footprint requirements, given that the 20 occupations most exposed to AI are, according to Oxford Economics, majority office-based.

Source: The future of AI and the impact on demand for workspace (CBRE, September 2024)

Case Study : How is AI being used to improve occupier experience?

Industry: Real Estate

Location: Global

From a building management perspective, landlords are employing more technology in order to improve building efficiency; however, AI usage generally remains in its infancy. Early-stage examples include:

- Building managers are using AI systems to
 - a) identify any erroneous energy usage data,
 - b) scrape building and legal documents to extract key information and automate actions,
 - c) quickly access building technical information to support maintenance work etc.
- Chatbots are helping buildings managers by gathering and collating building faults from tenants, so building managers can implement solutions more quickly and improve customer experience.
- Occupiers are utilising building management systems to direct employees to where they should sit in the office, in order to reduce energy usage on off-peak days. This more effectively manages the lift/ elevator capacity and lighting/heating costs on unutilised floors.
- Workplace advisory teams are increasingly able to provide real-time office design visuals as an indication to advise occupiers on fitout and improve speed of delivery. As AI will shift human labour to more collaborative, value-add tasks, over the longer term, we expect workplaces to feature more breakout areas and meeting rooms.

Source: Savills, Impact of AI on Offices

M: Professional, Scientific and Technical Activities

Impact: In this sector, AI is enhancing research capabilities, automating routine analysis, and providing decision-support tools that augment professional judgment.

Quantification: AI could save more than 25% of work time in tasks like data analysis, report generation, and regulatory compliance.

Key Change: While routine aspects are automated, professionals will transition toward roles that require oversight of AI systems, creative problem-solving, and strategic planning.

N: Administrative and Support Service Activities

Impact: This sector is one of the most affected by AI, given the high share of routine cognitive tasks that can be automated.

Quantification: Estimates indicate potential time savings as high as 46% in administrative functions.

Key Change: Traditional support roles will be redefined, with a growing need for workers who can manage and integrate AI tools into everyday workflows, requiring enhanced digital and analytical skills.

O: Public Administration and Defence; Compulsory Social Security

Impact: AI can improve the efficiency of public services through enhanced data management, fraud detection, and citizen engagement tools.

Quantification: While not as high as in the private sector, public administration could see efficiency gains in the range of 15 to 20%.

Key Change: Public-sector employees may experience a shift from manual record-keeping and processing toward roles that involve data oversight, policy analysis, and digital service management. However, ethical and accountability considerations will be paramount in these transformations.

P: Education

Impact: AI applications in education, such as personalised learning platforms, AI tutors, and administrative automation, could potentially boost educational outcomes and operational efficiency.

Quantification: Estimates suggests that AI-enabled education could increase productivity and educational attainment by around 6% over an academic career, with longer-term GDP benefits of up to 6% cumulatively.

Key Change: Roles in teaching and administration will evolve to incorporate digital tools. Educators may spend less time on routine tasks like grading and more on personalised instruction and strategic curriculum development.

Q: Human Health and Social Work Activities

Impact: AI is already making inroads in diagnostics, patient management, and predictive analytics in healthcare.

Quantification: While direct task automation may yield time savings of 20 to 30% in administrative and diagnostic roles, the overall impact on care quality and efficiency is significant.

Key Change: Healthcare professionals will see a shift toward more patient-focused and decision-support roles. Although some routine diagnostic tasks may be automated, the human element remains critical in care delivery, and new roles in AI system management and data analysis are expected to emerge.

R: Arts, Entertainment and Recreation

Impact: AI's role in creative industries includes content creation, recommendation algorithms, and audience engagement tools.

Quantification: Although the direct quantification in terms of time savings is less clear-cut than in administrative tasks, studies indicate that AI can enhance creative processes and efficiency by 10 to 20% in some areas (e.g., editing, production planning).

Key Change: Job roles in this sector will evolve to blend creative talents with digital technology skills. Content creators, performers, and production teams may increasingly rely on AI for ideation, post-production, and personalised audience engagement.

S: Other Service Activities

Impact: This catch-all category, which includes a range of personal services and small-scale enterprises, will experience varied impacts from AI.

Quantification: Efficiency gains may range from 10 to 30% depending on the specific service like personal care, repair services, and leisure activities, where routine tasks can be automated.

Key Change: Many traditional roles will be redefined, with service providers increasingly using digital tools to enhance customer engagement, streamline scheduling, and manage operations. This shift will necessitate widespread upskilling, particularly in digital and customer service competencies.

The risk matrix below merges these findings, highlighting vulnerable industries their likelihood of disruption, potential impact, and suggested mitigation measures. The matrix uses a qualitative scale of Low, Moderate, and High to classify vulnerability.

Figure 25: Sectoral risk matrix

Sector	Current WMCA Jobs 2024	Vulnerability (Likelihood of Disruption)	Impact on Job Roles	Key Risk Factors	Mitigation Strategies
Agriculture	500 (0%)	Moderate	Moderate efficiency gains of 15 to 20%; shift towards higher-skilled roles	Reduced employment opportunities for low-skilled agricultural workers	Develop targeted training programmes to equip agricultural workers with AI-related skills, including data analysis and equipment maintenance
Mining and Quarrying	125 (0%)	Moderate	Moderate efficiency gains (10 to 15%); shift toward remote	Reliance on traditional manual work; gradual	Invest in technical upskilling for data interpretation; develop remote monitoring

Sector	Current WMCA Jobs 2024	Vulnerability (Likelihood of Disruption)	Impact on Job Roles	Key Risk Factors	Mitigation Strategies
			monitoring and maintenance roles	adoption of sensor technologies	and predictive maintenance training
Manufacturing	120,000 (9%)	High	Up to 25%-time savings in routine tasks; reallocation from repetitive roles to digital oversight roles	High automation potential in routine and process tasks; need for digital integration	Reskill workforce in robotics oversight and process optimisation; introduce job redesign to integrate AI alongside traditional manufacturing skills
Electricity, Gas, Steam & Air Conditioning Supply	5,000 (0.4%)	Moderate/High	15 to 20% efficiency gains; roles shift from manual monitoring to system management and analytics	Complex technical systems needing constant monitoring; reliance on real-time data	Enhance digital infrastructure; upskill operators in advanced monitoring and data analytics
Water Supply; Sewerage, Waste Management & Remediation	13,000 (1%)	Moderate	10 to 20% gains; emphasis on data monitoring and route optimisation	Infrastructure age; need for continuous monitoring and maintenance	Provide training on smart sensor technologies; support integration of digital maintenance systems
Construction	53,000 (4%)	Moderate	Around 16%-time savings; role evolution rather than outright displacement	High variability of on-site tasks; limited automation of complex manual work	Promote blended digital and manual skills training; invest in AI for project management and safety monitoring
Wholesale and Retail Trade; Repair of Motor Vehicles & Motorcycles	190,000 (14.2%)	High	30 to 40% potential time savings in administrative tasks; shift toward tech-enabled customer service	Automation in inventory management and routine customer interactions; rapid growth of e-commerce	Implement digital upskilling programmes; support transition to roles focused on managing AI systems and customer engagement
Transportation and Storage	74,000 (5.5%)	High	20 to 30% gains via route optimisation and autonomous logistics; emergence of roles in system oversight	Rapid developments in autonomous vehicles; high potential for automation in warehousing	Invest in training for digital logistics management and AI system maintenance; develop robust oversight frameworks
Accommodation and Food Service Activities	99,000 (7.4%)	Moderate	15 to 25% efficiency improvements; transformation in service delivery through digital ordering and robotics	Increasing automation in customer interfacing and food preparation	Reskill workers in digital ordering systems and robotic management; emphasise human skills in customer experience
Information and Communication	38,000 (2.8%)	High	25 to 30% productivity gains in routine data processing and support tasks; shift to creative and strategic roles	High pace of digital transformation; heavy reliance on data and continuous content generation	Foster ongoing training in digital and creative skills; encourage collaboration between technical and creative teams
Financial and Insurance Activities	39,000 (2.9%)	High	Up to 30%-time savings; significant automation in data processing and risk management	Data-intensive processes; increasing adoption of machine learning for fraud detection and analytics	Prioritise upskilling in data science and risk analytics; support transition to supervisory roles overseeing algorithmic outputs
Real Estate Activities	25,000 (1.9%)	Moderate	15 to 20% gains mainly in administrative functions; shift towards digital client management	Increased use of predictive analytics for market trends; reliance on routine administrative tasks	Invest in digital platforms and analytics training; encourage continuous learning in market data interpretation
Professional, Scientific and Technical Activities	110,000 (8.2%)	High	Over 25% potential time savings in routine data analysis and reporting; roles evolve to focus on creative problem-solving	High potential for automating routine analysis; need for human oversight in strategic planning	Emphasise continuous professional development in AI oversight and innovation management; integrate AI tools to support rather than replace creative tasks
Administrative and Support	129,000 (9.7%)	Very High	Up to 50% reduction in routine task time;	High proportion of routine, repetitive	Accelerate comprehensive digital literacy and reskilling

Sector	Current WMCA Jobs 2024	Vulnerability (Likelihood of Disruption)	Impact on Job Roles	Key Risk Factors	Mitigation Strategies
Service Activities			dramatic shift toward digital management and system coordination	tasks; significant risk of displacement if upskilling does not occur	initiatives; redesign jobs to incorporate supervisory and analytical tasks instead of purely manual functions
Public Administration and Defence; Compulsory Social Security	63,000 (4.7%)	Moderate	15 to 20% efficiency gains; potential shift from manual record-keeping to data-driven public service management	Legacy systems - slower pace of technology adoption compared to private sector; strong accountability requirements	Invest in modern digital infrastructures; provide training focused on digital transformation and data management in public services
Education	131,000 (9.8%)	Low	Gains of between 5 to 10% in productivity through administrative automation and AI-enabled teaching support	Slow adoption due to system-wide integration challenges; long lag times for visible impact	Introduce targeted training for educators on AI tools; invest in long-term digital transformation initiatives for schools
Human Health and Social Work Activities	195,000 (14.6%)	Moderate/High	20 to 30% improvements in administrative and diagnostic processes; increased emphasis on decision-support roles	Balancing AI efficiency with essential human empathy and judgement in care delivery; ethical considerations	Upskill healthcare workers in digital tools; ensure robust training in AI-driven diagnostic and management systems; maintain human oversight in patient care
Arts, Entertainment and Recreation	25,000 (1.9%)	Moderate	10 to 20% efficiency improvements in post-production and content management; qualitative rather than quantitative changes	Creativity and human touch remain critical; AI primarily supports rather than replaces core creative processes	Support hybrid roles that combine creative talents with digital tools; provide training in digital content production and data analytics
Other Service Activities	25,000 (1.9%)	Moderate	10 to 30% gains depending on the specific service; varied impact across personal care, repair services, and leisure activities	Diversity of tasks; many small-scale enterprises with limited digital integration	Encourage local upskilling programmes; promote adoption of affordable, off-the-shelf AI tools tailored to small businesses; foster digital customer service skills

3.2.1 Policy considerations

While the above sector-by-sector breakdown shows a broad range of potential impacts, from modest efficiency gains in traditional sectors like construction to significant productivity improvements in administrative and professional roles, the common thread is that AI adoption will require a reconfiguration of job roles and skill sets.

For the WMCA, an area characterised by both heavy industry and a growing service economy, the following policy responses are recommended:

- 1. Reskilling and Upskilling Initiatives:**

Targeted training programmes must be designed for sectors where routine cognitive tasks are most exposed (e.g., administrative services, financial activities) and for those requiring digital transformation (e.g., manufacturing, and real estate). This ensures that workers displaced by AI can transition into emerging roles that require technical oversight and data interpretation.

- 2. Sector-Specific Support Measures:**

Industries such as construction - where AI adoption leads to more modest time savings - should be supported through subsidies, public/private partnerships, and research initiatives that focus on complementary AI applications rather than full automation.

3. **Enhanced Digital Infrastructure:**

Investments in digital infrastructure and AI-driven job-matching platforms will be critical to help workers in all sectors transition to new roles and mitigate frictional unemployment. This is especially important for public administration and service sectors where accountability and transparency are key.

4. **Regional Economic Diversification:**

The West Midlands must continue to diversify its economic base. By fostering growth in sectors like digital services, fintech, and creative industries, the region can absorb workforce shifts induced by AI, ensuring that the benefits of productivity gains are broadly distributed.

5. **Inclusive Policy Design:**

Given that certain groups, particularly women in administrative roles and older workers in traditional sectors may face more significant disruptions, policies must be tailored to address these disparities. This includes targeted reskilling programmes, enhanced social safety nets, and initiatives to promote lifelong learning.

3.3 Occupational changes in the WMCA

As AI systems automate routine tasks and enhance decision-making processes, the demand for certain skills and roles is shifting. While some occupations face a high risk of displacement due to automation, others are evolving as AI augments human capabilities, creating new opportunities for higher-skilled, strategic roles.

This section explores how AI adoption is influencing occupational structures, examining which roles are most at risk of displacement, where task augmentation is likely, and how workforce demand is shifting as a result.

SOC 2020 Groups 1 to 3

Managers, Directors, and Senior Officials; Professional Occupations; Associate Professional Occupations

Time Savings and Productivity Gains:

- **Quantitative Estimates:**
For occupations in these groups which typically involves complex decision-making, strategic oversight, and high-level advisory functions, AI's role is predominantly to augment rather than fully automate. In many cases, however, the savings are achieved indirectly through enhanced data processing and decision support, rather than replacing the core analytical or creative work.
- **Enhanced Decision-Making:**
AI tools (e.g., advanced analytics, natural language processing, and machine-learning algorithms) are increasingly used to sift through large datasets, flag emerging trends, and generate actionable insights. For managers and directors, this translates to faster and more informed decision-making, reducing the time spent on routine data analysis and administrative tasks.

Qualitative Changes:

- **Shift in Skill Requirements:**
The role of managers and professionals is evolving. Rather than focusing on repetitive reporting or manual analysis, these occupations will increasingly demand skills in AI oversight, interpretation of complex outputs, and strategic integration of technology-driven insights into business planning.

- **Increased Collaboration with AI:**

The integration of AI systems means that these roles may become more collaborative, with human experts working closely with digital assistants or algorithmic systems. This will likely lead to a greater emphasis on soft skills such as critical thinking, creativity, and adaptability.

Policy and Training Implications:

- **Upskilling:**

To harness the full potential of AI, managers, professionals, and associate professionals will need targeted training that combines technical literacy with domain expertise.

- **Redefined Workflows:**

Organisations should aim to redesign workflows to allow human workers to focus on non-routine, high-value tasks while delegating repetitive elements to AI systems.

SOC 2020 Groups 4 and 5

Administrative & Secretarial Occupations; Skilled Trades Occupations

Time Savings and Productivity Gains:

- **Administrative & Secretarial Occupations:**

This group is one of the most exposed to AI-driven automation. Routine activities such as scheduling, data entry, and document processing are highly amenable to automation via off-the-shelf AI tools (e.g., virtual assistants, automated document management systems).

- **Skilled Trades Occupations:**

In contrast, skilled trades, which involve a high degree of manual dexterity and problem-solving on the job, are less exposed to direct AI substitution. Estimated time savings in these roles tend to be more modest because many tasks are too nuanced or variable to be fully automated. However, AI can still enhance productivity by supporting diagnostic tools, predictive maintenance, and technical oversight (for example, in welding, electrical work, or plumbing).

Qualitative Changes:

- **Administrative Roles:**

The transformation in administrative roles is likely to be profound. Workers in these occupations will increasingly shift from executing routine tasks to managing and interpreting outputs from AI systems. This implies a re-skilling imperative: administrative staff will need to become proficient in managing digital workflows, using analytics dashboards, and liaising with technical support teams.

- **Skilled Trades:**

For skilled trades, the focus will be on using AI-enhanced diagnostic and monitoring tools. Rather than replacing the skill, AI is likely to serve as a tool that augments quality control and operational efficiency. Tradespeople may need to learn to interface with AI systems, for example, using smart tools to enhance their craftsmanship and safety on the job.

Policy and Training Implications:

- **Digital Literacy Initiatives:**

Given the high potential for automation in administrative roles, there is a need for comprehensive digital literacy and upskilling programmes.

- **Integration Support:**

In skilled trades, vocational training should integrate modules on new technologies, ensuring

that the workforce remains competitive as traditional manual methods increasingly incorporate digital enhancements.

SOC 2020 Groups 6 and 7

Caring, Leisure and Other Service Occupations; Sales and Customer Service Occupations

Time Savings and Productivity Gains:

- **Caring, Leisure and Other Service Occupations:**
AI's impact in service-oriented roles varies. In care settings, AI-driven diagnostic and administrative tools can help to free up time by streamlining routine tasks, such as appointment scheduling and data entry. However, the human element remains crucial in care delivery, so AI is more likely to act as an assistive tool rather than a replacement.
- **Sales and Customer Service Occupations:**
These occupations are expected to see substantial benefits from AI. AI can automate aspects of customer interaction thereby streamlining customer support and sales processes.

Qualitative Changes:

- **Caring and Leisure Roles:**
For occupations in health, social work, and leisure services, AI can help manage administrative burdens, allowing professionals to devote more time to direct human interaction. Nevertheless, these roles will also require enhanced emotional intelligence and interpersonal skills as AI takes over more routine aspects.
- **Sales and Customer Service:**
In sales, AI systems can provide real-time data on consumer behaviour and market trends, enabling more tailored customer interactions. Customer service roles will increasingly require employees to monitor, interpret, and override AI recommendations when necessary. This creates a hybrid role where technical know-how is paired with strong communication skills.

Policy and Training Implications:

- **Emphasis on Soft Skills:**
As routine tasks are automated, workers in care and customer service will need training that emphasises interpersonal skills, empathy, and crisis management.
- **Technology Integration:**
Sales organisations and service providers should invest in training programs that help employees leverage AI for customer insights, while also maintaining a personal touch where needed.

SOC 2020 Groups 8 and 9

Process Plant & Machine Operatives; Elementary Occupations

Time Savings and Productivity Gains:

- **Process Plant & Machine Operatives:**
AI has potential to automate routine monitoring, control processes, and predictive maintenance in industrial settings, particularly through AI-enabled hardware (e.g., sensors, robotics) that can monitor equipment performance in real time.
- **Elementary Occupations:**
In roles characterised by highly routine, manual tasks, the scope for AI-driven automation is

generally higher. However, many of these roles also involve physical labour or tasks in uncontrolled environments, which can limit the extent of full automation.

Qualitative Changes:

- Process Operatives:**
Workers in process plants will likely experience a shift toward oversight and maintenance of automated systems rather than direct manual intervention. This transition will require a blend of technical skills and an ability to work with diagnostic data provided by AI systems.
- Elementary Occupations:**
For elementary roles, AI is expected to reduce the burden of routine tasks such as sorting, packing, or basic assembly work. This can lead to improved safety and efficiency; however, it also increases the need for supervisory roles that can monitor automated systems and troubleshoot issues when they arise.

Policy and Training Implications:

- Focus on Technical Upskilling:**
In process plant and elementary roles, targeted technical training such as basic programming, sensor calibration, and machine maintenance will be critical to ensure that workers can effectively manage and interact with AI-enhanced equipment.
- Job Redesign:**
Workflows will need to be redesigned to balance automated processes with the need for human oversight. This ensures that while routine tasks are offloaded to machines, workers remain integral to quality control and system reliability.

The risk matrix should serve as a strategic tool for policymakers, business leaders, and educators in the West Midlands to prioritise efforts to enhance workforce resilience in an AI-enhanced future.

Figure 26: Occupational risk matrix

Sector	Current WMCA Jobs 2024	Vulnerability (Likelihood of Disruption)	Impact on Job Roles	Key Risk Factors	Mitigation Strategies
Groups 1 to 3: Managers, Directors & Senior Officials; Professional; Associate Professional	664,600 (49.6%)	Moderate/High	Core decision-making and strategic tasks remain human-led; routine aspects could see up to 20 to 40%-time savings	Complex tasks not easily automated; however, large volume of routine data processing remains vulnerable	Invest in strategic digital training; encourage integration of AI decision-support systems; redefine roles to leverage human creativity alongside AI-generated insights
Groups 4 & 5: Administrative & Secretarial; Skilled Trades	242,200 (18.1%)	Very High for Administrative and Secretarial Low to Moderate for Skilled Trades	Administrative tasks can see up to 40 to 60%-time savings; skilled trades are less vulnerable (10 to 15% savings)	High degree of routine, repetitive tasks in administrative roles; manual and nuanced skills in trades protect against full automation	Accelerate digital transformation in office roles; provide vocational training on AI-assisted tools for trades; redesign job roles to include supervisory functions of AI systems
Groups 6 & 7: Caring, Leisure & Other Service; Sales and Customer Service	187,600 (14%)	Moderate for Caring, Leisure and other High for Sales and Customer service	Care and leisure roles will benefit from AI assistance (20 to 30%-time savings); while Sales roles might see 33 to 40% automation of routine functions;	Reliance on human interaction remains; potential for significant gains in customer insights and support automation	Emphasise upskilling in digital customer engagement and AI oversight; ensure training balances technological competence with interpersonal skills
Groups 8 & 9: Process Plant & Machine Operatives;	245,700 (18.3%)	Moderate/High	Process operatives may see 20-to-30%-time savings; elementary roles (often highly routine)	High potential for automation in repetitive tasks; physical components of work limit total replacement	Implement technical training programmes; redesign roles to focus on overseeing automated systems; invest in digital

Sector	Current WMCA Jobs 2024	Vulnerability (Likelihood of Disruption)	Impact on Job Roles	Key Risk Factors	Mitigation Strategies
Elementary Occupations			could see up to 40 to 50% automation but are not expected to be exposed to AI	but increase supervisory demands	tools that complement rather than replace manual tasks

Therefore, whilst AI adoption promises gains in efficiency and productivity, its impact on the labour market will vary significantly by occupation. For managers, professionals, and associate professionals (Groups 1–3), the primary effect is an enhancement of strategic capabilities and decision-making. In contrast, administrative and secretarial roles (Group 4) are likely to experience profound changes, with nearly half of routine tasks being automated. Skilled trades (Group 5) will see more modest improvements, while service, sales, and customer service roles (Groups 6–7) will transform through a combination of automation and enhanced customer engagement. Finally, process operatives and elementary occupations (Groups 8–9) are poised to benefit from efficiency gains, though these groups will require significant technical upskilling to navigate the new AI-driven environment.

By understanding these differentiated impacts, the WMCA should tailor its strategies to ensure that AI's benefits are broadly shared while minimising disruptions. With forward looking policies that emphasise reskilling, technology integration, and adaptive job design, all occupational groups can be better prepared to thrive in an AI-enhanced future.

Across both industry sectors and occupational groups, targeted policy interventions including reskilling programmes, job redesign, and digital infrastructure investments are critical to mitigating risks and ensuring a smooth transition in the face of AI-driven disruption.

Summary of key findings:

Sectoral Shifts, Occupational Changes and Productivity Gains

AI will disrupt the job market, but its overall impact will be transformational rather than destructive. With targeted policy interventions, the WMCA labour market can maximise AI's benefits while minimising worker displacement.

Labour Market Disruptions & Adaptation

- AI is expected to displace 1 to 3 million jobs in the UK gradually, with 60,000 to 275,000 annual job losses at peak. AI adoption will increase market dynamism, leading to job transitions rather than mass unemployment.
- The labour market will need upgraded infrastructure to support displaced workers.

Sectoral Impacts

- Routine-driven industries (manufacturing, logistics) will see job displacement from the effects of automation, with generative AI having limited effects.
- Human-centric industries (healthcare, education, and some professional services) will benefit from AI augmentation rather than replacement and a potential increase in productivity.
- Sectors with mixed AI effects (retail, finance, real estate) will experience augmentation in some areas and job creation in others.
- Administration, sales and other data processing and customer facing sectors are likely to experience significant displacement.

Sector-by-Sector Breakdown

- Manufacturing: AI will improve efficiency by up to 25%, replacing repetitive tasks but creating digital oversight roles.
- Retail & Wholesale: AI could save 30-40% of administrative time, shifting jobs toward tech-enhanced customer service.
- Healthcare & Social Work: AI will assist in diagnostics and patient management, with a 20-30% time-saving impact.
- Finance & Insurance: AI will automate risk assessment and fraud detection, reducing 30% of routine tasks.
- Construction: AI will improve project management and safety, saving 16% of working time, but not replacing human oversight.
- Public Administration: Efficiency gains of 15-20% through data management, but ethical considerations will slow adoption.
- Transportation & Logistics: AI will optimise routes and fleet management, with 20-30% efficiency gains.

Occupational Changes

- High-skilled occupations (managers, professionals) will see AI augmenting decision-making and analytics rather than replacing jobs.
- Administrative roles are most at risk, with up to 46% of tasks being automated.
- Skilled trades (electricians, plumbers, machinists) will see modest AI impact, requiring adaptation to smart tools.
- Service roles (healthcare, customer support, retail) will require digital and interpersonal skills to work alongside AI.
- Process plant operators & elementary jobs will face high automation risk but new supervisory roles will emerge.

4. Stakeholder consultations

This section presents insights gathered from stakeholder interviews conducted with business leaders, industry experts, educators, and policymakers across the West Midlands. The interviews explored the current state of AI adoption, the challenges and opportunities faced by businesses, and the anticipated impact of AI on different sectors and workforce demographics. Stakeholders provided valuable perspectives on how AI is transforming business operations, influencing regional employment trends, and reshaping skill requirements. Their insights also highlight emerging best practices, support needs, and the role of policymakers in facilitating responsible AI adoption. This section synthesises these findings, offering a comprehensive overview of the factors driving AI adoption and the strategic considerations businesses must address to maximise AI's potential.

Current state and future trends of AI for business

How are organisations currently integrating AI technologies into operations?

In our conversations with industry stakeholders, a common theme emerged: the rate of AI adoption is highly sector-dependent, with larger firms leading the way, while SMEs that embrace AI early gain a competitive edge.

A stakeholder from the engineering sector explained that AI is being used for testing, simulation, and modelling, primarily to reduce costs and improve efficiency. Similarly, an expert in advanced manufacturing highlighted AI's role in process automation, and back-office functions.

Interviewees raised concerns around generative AI (e.g., ChatGPT, DeepSeek, Copilot). While one interviewee acknowledged its potential for marketing, content creation, and automation of repetitive tasks, another expressed scepticism due to data privacy risks and accuracy issues. It was believed that this hesitation is slowing adoption, particularly in customer-facing roles.

One stakeholder working with SMEs, pointed out that “AI remains underutilised in sales functions”, despite its potential to streamline proposals and enhance customer interactions. While experimentation with AI tools is increasing, another respondent noted that “many businesses are still unsure how to integrate AI effectively into their operations”.

Stakeholders agreed that the recent rise of Large Language Models (LLMs) has made AI more accessible. “The key challenge now is bridging the gap between experimentation and meaningful adoption”.

What are the main drivers behind AI adoption strategy?

Our interviews revealed that cost reduction, efficiency, and competitive advantage are the primary forces driving AI adoption, while “innovation remains a secondary priority”. We were told that businesses are focusing on “measurable returns, using AI to automate tasks, reduce labour costs, and optimise operations rather than experimenting with AI for its own sake”.

Interviewees suggested that beyond operational efficiency, AI is becoming an economic necessity in sectors where virtual testing can replace costly physical trials. “In engineering and manufacturing, AI-driven simulation and modelling tools are being integrated, enabling us to refine products without the expense of physical prototypes. This helps to reduce costs and accelerate innovation cycles”.

One interviewee said that For SMEs, AI adoption is proving to be “a key competitive advantage, allowing smaller firms to compete with much larger brands”.

We were also told that another emerging trend is AI's role in sustainability and energy management with businesses integrating “AI-driven energy monitoring to track and reduce carbon footprints, aligning AI adoption with environmental and cost-saving goals”.

Ultimately, AI adoption is being driven by practical business needs rather than innovation alone. Companies are implementing AI where it delivers immediate cost savings and operational efficiencies, with applications in automation, virtual testing, customer service, and sustainability taking priority. However, for AI to achieve its full potential, businesses will need to address trust issues and invest in AI literacy to navigate adoption challenges effectively.

How do you see AI impacting industry in the next 3–5 years?

We were told over the next three to five years, “AI is expected to transform business operations across all industries”, but stakeholders suggested that trust in AI-generated outputs must grow before full adoption takes place. Many businesses “still double-check AI’s work manually, limiting productivity gains”. One interviewee said that “AI adoption is likely to follow a trajectory similar to cloud computing, where initial resistance gives way to widespread use as businesses realise its necessity”.

Interviewees thought that the West Midlands was “well-positioned to benefit from AI-driven advancements due to its diverse industrial base, spanning engineering, manufacturing, and professional services”. Stakeholders also noted that companies leveraging AI for predictive analytics, automation, and cybersecurity will see the greatest competitive advantages.

However, stakeholders warned that businesses that fail to adopt AI will struggle to compete. “Those that harness AI for data-driven decision-making will see the greatest transformations, while those that resist may fall behind their more AI-savvy competitors. AI will not replace employees outright but will augment their roles, enabling workers to focus on higher-value tasks”.

It was also believed that AI-driven business models will continue to evolve, with “agent-based AI systems enabling real-time analysis and decision-making far beyond traditional database-driven approaches”. One interviewee said that “this shift is already influencing higher education, where universities are debating whether students should leverage AI in coursework or be trained in AI literacy and ethical use”.

Workforce transformation and automation

Which job roles are likely to be most affected by AI adoption?

The interviewees agreed that AI will impact every job role to some extent, but repetitive, non-customer-facing, and transactional roles are most at risk due to automation. “AI will augment rather than replace higher-value decision-making roles, certain job functions especially those involving routine tasks and low-level data processing are likely to undergo significant changes”.

One interviewee gave the example of “in logistics and manufacturing, AI-driven automation and robotics are already streamlining processes, reducing the need for manual assembly and quality inspection roles”. We were also told that “AI-powered predictive maintenance and process optimisation tools are being used in businesses to minimise downtime and improving operational efficiency”.

Transactional finance roles, including bookkeeping and accounting, were identified as particularly vulnerable, with AI-powered systems increasingly “automating payroll processing, invoice management, and financial forecasting”. Similarly, junior software development positions are being affected by AI-generated code, reducing demand for entry-level programmers. One stakeholder noted that while “senior developers and architects remain essential, businesses are hiring fewer junior developers as AI tools handle routine coding tasks more efficiently”.

Stakeholders also said that “AI is reshaping sales and marketing, where AI-driven lead generation and customer interaction tools are optimising outreach strategies”. While sales professionals are unlikely to be replaced outright, AI-empowered employees who leverage automation and analytics tools will

outperform those who do not. In marketing and content creation, “AI is streamlining tasks such as ad targeting, content optimisation, and campaign analysis, reducing reliance on manual effort”.

It was also noted that “while research and policy-related roles are less likely to be automated, AI is enhancing their efficiency by enabling professionals to process large volumes of information quickly”. Stakeholders noted that “AI-powered data analysis and policy modelling tools are helping decision-makers extract key insights more effectively”.

Overall, AI is not eliminating jobs outright but transforming the nature of work, particularly in roles that rely on structured, repetitive processes. As businesses continue integrating AI, employees who upskill and learn to work alongside AI tools will remain competitive, “while those who resist adaptation may struggle in the evolving job market”.

Have you observed any specific tasks or processes being automated?

We were told that AI is rapidly automating repetitive tasks across industries, freeing employees to focus on “more strategic, value-driven work”. In addition, interviewees felt that AI is “augmenting human decision-making rather than replacing it”, meaning employees must “develop AI collaboration skills and learn to interpret AI-generated insights effectively”.

Interviewees gave specific examples from their experience in:

- **Manufacturing** - AI-assisted quality control and defect detection are becoming standard, allowing workers to focus on higher-level oversight and process optimisation.
- **Retail and customer service** roles are also being aided by increased automation, particularly through AI chatbots and AI-powered customer service tools to handle booking, diagnostics, and general inquiries, reducing response times and lowering dependency on human agents for basic queries.
- **Finance and HR** - stakeholders pointed to AI’s role in automating payroll, recruitment, and financial forecasting, streamlining traditionally manual and time-consuming tasks. This automation enables HR and finance teams to shift their focus towards strategy, compliance, and employee engagement rather than routine processing.
- **Creative industries** - are also benefitting from AI’s impact, particularly in digital design and content creation to improve efficiency and scale content production.
- **Digital marketing companies** - have implemented automation processes, allowing businesses to enhance customer engagement and refine campaign strategies based on AI-generated insights.

Beyond these sector-specific applications, stakeholders noted that AI is already significantly reducing repetitive knowledge-based tasks. One example cited was a product manager’s research process being reduced from four hours to just ten minutes through AI-driven automation. “However, human oversight remains essential, as AI speeds up tasks but requires informed decision-making to ensure accuracy and reliability”.

Are there job roles you anticipate will become obsolete due to AI integration?

Stakeholders agreed that AI is unlikely to eliminate entire job roles outright, but it is “reshaping the nature of work, particularly in junior, repetitive, and manual roles”. Examples of low-skilled packing, logistics, data entry, and routine quality control jobs were given as among the most at risk of full automation. However, it was noted that, “many of these positions have already been difficult to fill, as workers seek roles with greater purpose and career development opportunities”.

One interviewee suggested that in professional services, “junior roles in analytics, research, and routine data processing are expected to shrink significantly”. By way of example, another stakeholder told us that junior lawyers, “must now learn AI tools to remain competitive in legal firms that are

investing in AI-driven case analysis and document processing”. Conversely, certain junior coding and manual content-generation roles are at risk, as AI-generated code and automated design tools reduce the demand for entry-level technical work.

Despite these shifts, AI is not replacing jobs entirely but enhancing certain employees over others. “Human oversight will still be needed to ensure AI-driven processes remain safe, effective, and aligned with business goals. As a result, new roles are emerging in AI system management, ERP⁵⁰ leadership, and AI security, requiring specialist training and apprenticeships”.

Strategies for AI-driven workforce adaptation

What strategies can organisations implement to help employees adapt to AI technologies?

Stakeholders agreed that AI literacy must be introduced across all job roles, not just for technical workers. We were told that as AI becomes increasingly integrated into business operations, organisations must “focus on training employees to collaborate with AI tools rather than viewing AI as a replacement for traditional roles”. Employees will need to “develop critical thinking skills to interpret AI-generated outputs” rather than relying on them without validation.

We were told that for businesses to “effectively implement AI adoption strategies, decision-makers at the executive level (CEOs, directors, and senior managers) must undergo AI training first. “Without leadership understanding of AI’s potential and limitations, adoption efforts risk being fragmented or ineffective”.

Ultimately, organisations must embed AI training into their workforce development strategies, ensuring that employees at all levels understand how to use AI effectively and ethically. Interviewees suggested that “interdisciplinary learning will become essential, as AI impacts not just technical teams but also decision-makers, creative professionals, and customer-facing roles”. Consequently, businesses that invest in AI literacy and workforce adaptation will be best positioned to thrive in an AI-driven future.

What skills should be prioritised?

Stakeholders recommended that “AI education must be accessible at all career stages, ensuring that both technical and non-technical employees develop the skills needed to work alongside AI rather than be replaced by it”. AI training should not be limited to developers “all employees must understand AI’s role in decision-making, data interpretation, and strategic planning”.

A strong emphasis was placed on analytical and research skills, as employees will need to validate AI outputs rather than rely on them blindly. Stakeholders highlighted the importance of data analytics for predictive decision-making, ensuring that organisations can leverage AI effectively while maintaining accuracy and accountability.

Cybersecurity expertise was also identified as a critical priority, particularly as businesses increasingly rely on AI-driven platforms that require strong security measures. With the rise of AI automation, there is a growing need for “specialists who can safeguard AI systems against cyber threats and ensure ethical AI usage”.

We were also told that AI-powered content creation is transforming workflows in creative industries. Examples of AI tools like Canva AI and AI-driven marketing automation were identified as already being used to “enhance digital content production”, meaning employees in marketing, design, and media must become proficient in integrating AI into their creative processes.

⁵⁰ Enterprise Resource Planning

One interviewee highlighted mid-career professionals specifically to embrace reskilling opportunities to remain competitive. As AI reshapes industries, organisations must offer training in digital literacy, AI ethics, and evolving AI capabilities to ensure that employees can adapt to new ways of working.

AI's Influence on workforce demographics and the West Midlands

Have you observed any disparities in how AI impacts different workforce demographics?

The stakeholders we spoke with thought that “AI adoption is not affecting all workforce demographics equally”, with age, skill levels, and socio-economic backgrounds playing a significant role in how individuals and industries adapt. We were told that “while younger employees and tech-savvy sectors are embracing AI quickly, older workers, traditional industries, and lower-income businesses often face greater challenges in integrating AI effectively”.

A key observation was the age divide in AI adoption. “Younger professionals and recent graduates are more likely to embrace AI-driven tools, particularly in creative industries, digital marketing, and technology-focused fields”.

Conversely, senior managers and older employees often require targeted AI training to bridge the gap. Stakeholders said that “a lack of AI literacy among leadership teams could slow down adoption across entire organisations”. Traditional industries, such as metalworking and manufacturing, also struggle with AI adoption, as many workers require additional training to transition into AI-assisted roles.

Interviewees also suggested that socio-economic barriers further widen the gap. We were told that “businesses in lower-income areas often face greater difficulties accessing AI resources due to limited funding and technical expertise”.

Stakeholders also highlighted gender disparities in AI adoption, noting that while representation in AI and STEM careers is improving, more work is needed to encourage diversity in AI-driven roles.

Ultimately, stakeholders agreed that AI adoption is widening the gap between businesses and workers who integrate AI effectively and those who do not. AI favours data-driven industries, potentially disadvantaging sectors that are slower to adopt new technologies. Furthermore, as AI disproportionately impacts white-collar, computer-based jobs, workers who fail to adapt to AI-driven tools risk being left behind. Therefore, to ensure AI benefits all workforce demographics, “targeted training, funding, and education initiatives will be essential to bridge skill gaps and support an inclusive, AI-driven future”.

How do you think AI adoption is influencing regional employment trends?

Stakeholders believed that “AI adoption is reshaping employment trends across the West Midlands, creating new job opportunities in high-tech and sustainability-focused roles, while also altering or displacing certain traditional jobs”. It was the consensus that companies that “integrate AI and invest in workforce reskilling are likely to thrive, while those that resist AI adoption may struggle with job displacement and reduced competitiveness”.

We were told that one of the most significant changes is the automation of routine jobs, particularly in customer service and administration. Interviewees gave examples of AI-powered chatbots, automated scheduling, and predictive analytics which they believed were reducing demand for low-skill customer-facing roles.

One interviewee thought that to address these shifting job requirements, “AI-specific apprenticeships should be introduced across manufacturing, business administration, and digital marketing” with these programmes aiming to prepare workers for AI-integrated roles by providing hands-on experience in AI-driven processes.

Interviewees also suggested that AI is enabling more flexible work models, particularly for SMEs. One interviewee gave the example of Your Digital Hub⁵¹ which has successfully integrated AI automation into workflow processes, allowing businesses to operate with hybrid and remote workforces. It was their belief that this shift could create new employment opportunities in AI-driven remote operations and digital transformation roles.

What are your thoughts on AI's potential to contribute to economic growth in the West Midlands?

All stakeholders agreed that AI presents one of the biggest economic growth opportunities for the West Midlands, “if AI adoption is well-managed, the region could position itself as a leader in AI-powered business transformation rather than simply consuming AI solutions from global tech giants”.

Interviewees also identified other areas of potential expansion including cybersecurity and AI resilience, which stakeholders’ thought were critical for business continuity. We were told that NHS Digital Champions and Cybersec Consulting, in collaboration with CISCO and IBM, are leading AI-based cybersecurity upskilling efforts to help protect businesses, healthcare systems, and financial institutions from emerging digital threats.

One interviewee also said that “sustainability is a key pillar of AI-driven economic growth” with AI helping to drive carbon reduction strategies and enabling energy-efficient operations. It was their opinion that these advancements contribute directly to “clean energy expansion and environmental sustainability, aligning with regional net-zero targets”.

Overall, stakeholders thought that AI can significantly boost regional economic growth by:

- Enhancing efficiency in traditional sectors such as manufacturing, logistics, and finance.
- Accelerating SME innovation through automation, AI-powered analytics, and business intelligence.
- Creating new job opportunities in AI development, cybersecurity, and digital transformation.

Overcoming barriers and leveraging AI benefits

What if any challenges do you anticipate for businesses adopting AI?

Stakeholders identified several key barriers to AI adoption, ranging from trust and data privacy concerns to skills shortages and leadership inexperience. While AI has the potential to drive efficiency and business transformation, many organisations “struggle with implementation due to knowledge gaps, high costs, and resistance to change”.

Several interviewees argued that a major challenge is “lack of trust in AI-generated outputs”. They said that in their experience, many businesses “double-check AI’s work manually”, which limits productivity gains and prevents AI from being fully integrated into decision-making processes. We were also told that data privacy concerns further slow adoption, particularly in “customer engagement and marketing”, where companies are hesitant to use generative AI tools due to fears of data misuse and regulatory compliance issues.

Interviewees also highlighted how workforce readiness is also a key issue, as “AI literacy varies significantly across different generations and job levels”. We were told older employees and leadership teams often lack the technical expertise needed to drive AI adoption, while younger, tech-savvy workers adapt more easily. However, even in AI-relevant fields, there are skills gaps - many professionals need additional training to “understand how to apply AI effectively in their roles”.

⁵¹ [Your Digital Hub - Streamlining workplace technology](#)

Leadership challenges was also reoccurring theme. Interviewees highlighted how “many leadership teams lack AI expertise, leading to poor implementation strategies”. We were told that “some businesses adopt AI without a clear roadmap, resulting in inefficiencies and disconnected AI initiatives that fail to deliver meaningful results”. Additionally, the absence of clear industry-wide policies on AI usage creates uncertainty, particularly in regulated sectors such as finance, healthcare, and legal services.

Do you think there maybe unexpected benefits from integrating AI?

We were told that one of the most significant advantages is AI’s role in data processing and decision-making. AI allows businesses to analyse vast amounts of data quickly, making it a powerful tool for “research, policy development, and strategic planning”. Interviewees thought that AI has the potential to improve efficiency in healthcare and legal systems in public services, streamlining administrative processes and enhancing service delivery.

Interviewees also discussed how AI is also “freeing employees from repetitive tasks”, enabling them to focus on higher-value work that requires creativity and problem-solving.

One interviewee also said that for SMEs, “AI has proven to be a competitive equaliser” with small businesses embracing AI to automate some tasks, allowing them to “compete with large enterprises on efficiency, customer engagement, and scalability”. This would suggest that AI-powered sales, marketing, and customer service automation is helping SMEs “punch above their weight in traditionally resource-intensive areas”.

Interviewees also discussed how they thought AI is increasing business agility, enabling organisations to adapt faster to market changes “by providing real-time insights and predictive analytics”, therefore helping businesses make informed decisions more quickly.

What support would help businesses navigate AI adoption?

When asked about what would help businesses, stakeholders discussed a combination of policy, financial, and educational support. While AI adoption offers significant opportunities, many organisations - particularly SMEs - lack the resources, expertise, and strategic guidance needed to implement AI effectively.

We were told that a key area of support would be regional investment in AI infrastructure, such as localised data centres, which would enable businesses to train AI models more efficiently without relying on external providers. Stakeholders also suggested that “AI growth zones” should be established, with government-backed tax incentives to encourage AI adoption. One interviewee said that financial support in the form of “grants and funding schemes, such as those provided by Innovate UK”, were critical for SMEs that may otherwise struggle with the cost of AI implementation.

Beyond financial incentives, interviewees discussed how “practical, hands-on education” would be effective. Stakeholders identified a need for “targeted AI training programs for both leadership and employees”, ensuring that “decision-makers understand how to integrate AI strategically while workers develop the technical and analytical skills needed to work alongside AI”.

To provide ongoing support, interviewees suggested the introduction of regional AI advisors, “specialists who can help SMEs navigate AI adoption, understand its potential, and implement tailored solutions”. Additionally, we were told that businesses require “clear AI security policies and ethical AI frameworks” to ensure responsible and fair AI deployment, mitigating risks such as bias, job displacement, and data privacy concerns.

The key themes stakeholders agreed that businesses needed included:

- Policy measures to promote fair AI adoption and job security.
- Financial incentives such as grants and tax breaks to encourage AI investment.
- Education and workforce training to enhance AI literacy and strategic implementation across all levels of business.

Policy, collaboration, and best practice

What role do you see policymakers playing in supporting AI adoption?

We were told by stakeholders that policymakers at both national and regional levels must work together to create an environment where AI can drive economic growth while ensuring responsible and ethical adoption. It was suggested that “effective policy intervention should focus on AI infrastructure, financial incentives, workforce transition, and regulatory frameworks”.

Several interviewees discussed AI infrastructure, with examples being the establishment of regional data centres “to support AI model training”.

Financial incentives were also seen to be essential for accelerating AI adoption, particularly for SMEs. Interviewees suggested Government backed tax incentives, funding grants, and training subsidies which they thought would help smaller businesses invest in AI without prohibitive costs. We were also told that local authorities and regional organisations like the WMCA should also play a role in providing expert AI guidance, ensuring that businesses receive practical support tailored to their needs.

Interviewees also mentioned that on the regulatory side, policymakers must develop clear AI governance frameworks that balance economic innovation with job security and ethical considerations. Stakeholders highlighted the need for responsible AI regulations, focusing on ethics, data governance, and security, “to prevent bias, misuse, and privacy concerns while ensuring that businesses can adopt AI confidently within a structured regulatory environment”.

Workforce transition support was also highlighted as another critical area. We were told that AI will reshape job roles, and “policymakers must help bridge the AI skills gap by funding training incentives and reskilling programmes”. They believed that these initiatives should be targeted at industries most affected by automation, ensuring that workers can adapt to AI-driven job functions rather than being displaced.

How can businesses collaborate with educational institutions or community organisations to ensure a smooth workforce transition?

Stakeholders agreed that strong collaboration between businesses, educational institutions, and community organisations is essential to ensure the workforce can adapt to AI-driven job roles. AI education must span all career levels, equipping both young professionals and experienced workers with the skills needed to work alongside AI rather than be replaced by it.

A key recommendation was that “universities and regional authorities should develop practical AI training programmes tailored to business needs”. Many businesses - especially SMEs - struggle to understand how to integrate AI effectively, and active engagement from universities and business groups can help bridge this gap. An interviewee suggested that a “regional AI task force should be established to guide businesses through AI adoption, providing structured learning pathways and hands-on support”.

Successful industry/education partnerships are already emerging. We were told that MEC COM's AI training academy⁵² "offers a model for how colleges and businesses can collaborate to build AI-ready talent". Similarly, AI apprenticeships at Tesla Wolverhampton are helping to future-proof manufacturing jobs by training employees in AI-driven production processes. Therefore, expanding these apprenticeship and vocational training models would ensure a smoother transition for workers in industries undergoing AI-led transformation.

Stakeholders also discussed how AI-driven education platforms are also playing a role in reskilling the workforce. Classfeed's⁵³ AI-driven training model, which integrates AI into personalised learning, was highlighted as an example of how businesses can upskill employees efficiently.

One interviewee suggested that to make AI education more accessible, "universities should integrate AI training into their curricula, which would ensure that graduates enter the workforce with AI-relevant skills".

Stakeholders also thought that there was a need for regional AI awareness campaigns, which would help businesses "understand the tangible advantages of AI adoption and demystify AI's role in various industries".

Are there any best practices or lessons learned from your AI journey?

The interviewees shared their experiences and lessons learned with AI, which they believe should help to shape effective support for further AI adoption. These best practices reflect the strategies that have driven successful AI integration across industries:

- **Enhance, Don't Replace** - treat AI as a productivity enhancer rather than a replacement for human work.
- **Cultural Shift** - approach AI adoption as a cultural change.
- **Strategic Infrastructure Investment** - invest in AI model training facilities to establish the West Midlands as a leader in AI-powered business.
- **Business-Driven Adoption** - ensure AI adoption addresses real business problems rather than being implemented for its own sake.
- **Cost-Effectiveness** - focus on practical, cost-effective AI adoption rather than pursuing AI as a trend or buzzword.
- **Phased Implementation** - start with small-scale AI projects and scale gradually based on results.
- **Upskilling and Training** - provide AI training to ensure employees can work effectively alongside AI tools.
- **Business Enabler Mindset** - position AI as a tool to drive business efficiency and innovation, not as a threat.
- **Structured AI Adoption Plans** - develop clear AI adoption strategies rather than relying on ad-hoc experimentation.
- **Leadership AI Literacy** - ensure decision-makers understand AI's capabilities and limitations to make informed strategic decisions.
- **Focus on Economic Opportunities** - leverage AI to drive growth in key sectors such as healthcare, logistics, and manufacturing.
- **Continuous Improvement** - encourage businesses to experiment with AI, monitor performance, and refine strategies over time.

⁵² [Introduction to AI: Integrate AI with Make](#)

⁵³ [Home | Classfeeds](#)

Summary of key findings:

In summary, AI adoption in the West Midlands is accelerating but remains uneven across industries and workforce demographics. While large firms lead the way, SMEs leveraging AI gain a competitive edge. Businesses primarily adopt AI for cost reduction, efficiency, and automation, with applications in manufacturing, finance, marketing, and sustainability. However, trust issues, skills gaps, and regulatory uncertainties slow full integration.

The workforce is transforming, with repetitive and transactional roles (e.g., admin, finance, junior coding) most at risk, while high-value roles in AI oversight, cybersecurity, and analytics emerge. AI literacy and reskilling are critical, particularly for older workers, SMEs, and low-income businesses, which face greater adoption barriers.

To ensure AI drives economic growth and job creation; regional investment, financial incentives, and targeted training must support businesses and workers. Policymakers should establish clear AI governance frameworks, promote AI apprenticeships, and foster business and education collaboration.

5. Recommendations

To fully capitalise on the opportunities presented by AI, the WMCA should look to adopt a strategic and coordinated approach. AI has the potential to drive significant improvements in productivity, innovation, and business efficiency across the region. However, the pace of adoption within the WMCA area remains slower than the national average, reflecting challenges such as skills shortages, limited infrastructure, and unequal access to funding. Moreover, the disruptive nature of AI presents potential risks, including job displacement, widening inequalities, and ethical concerns.

These targeted recommendations are aimed at accelerating AI adoption while managing the associated risks with a focus on strengthening the AI talent pipeline, supporting business adoption, enhancing infrastructure, and promoting inclusive growth. By addressing these key areas, the WMCA can establish a robust AI ecosystem that drives long-term economic growth and ensures the benefits of AI are shared equitably across the region.

Skills Development and Workforce Readiness

- **Initiate AI Training Programmes:** Develop targeted AI training initiatives in collaboration with employers and educational institutions. Focus on practical AI applications, such as machine learning, data analysis, and AI-driven automation.
- **Address Skills Gaps:** Establish upskilling and reskilling programmes to help workers transition into AI-influenced roles, particularly in sectors facing the most disruption (e.g., administrative support services, retail trade, manufacturing, and professional services).
- **Promote AI Literacy:** Introduce AI awareness and training modules at all education levels to build foundational knowledge and increase familiarity with AI-driven processes.

Support for Business Adoption

- **SME-Focused AI Support:** Develop dedicated funding and advisory services for SMEs to adopt AI technologies, ensuring equitable access across different business sizes and sectors.
- **Sector-Specific Pilots:** Establish AI adoption pilot schemes in key sectors (e.g., manufacturing, healthcare, and logistics) to demonstrate practical benefits and provide replicable models.

Innovation and Infrastructure

- **AI Hubs and Clusters:** Establish AI innovation hubs across the WMCA area to provide collaborative spaces for businesses, researchers, and developers.
- **Investment in AI Infrastructure:** Increase investment in data infrastructure, including cloud services, high-speed networks, and AI computing capacity.
- **Public-Private Collaboration:** Facilitate partnerships between business, and academia to drive AI research and development.

Inclusion and Accessibility

- **Reduce Barriers to Entry:** Provide support and guidance to businesses in deprived areas to close regional AI adoption gaps.
- **Promote Diversity in AI:** Ensure AI training and employment opportunities are accessible to underrepresented groups, including women and ethnic minorities.
- **Community Engagement:** Engage local communities in AI-related decision-making to build trust and ensure further AI adoption benefits all residents.

- **Monitoring and Evaluation:** Establish a monitoring framework to assess AI adoption rates and impact on employment, productivity, and business performance. This could include a regional AI adoption index to track progress and identify gaps.

These recommendations align with existing WMCA priorities on business growth, skills development, and economic inclusion. Further consultation with stakeholders across business, education, and local government will help refine these recommendations and ensure effective implementation.