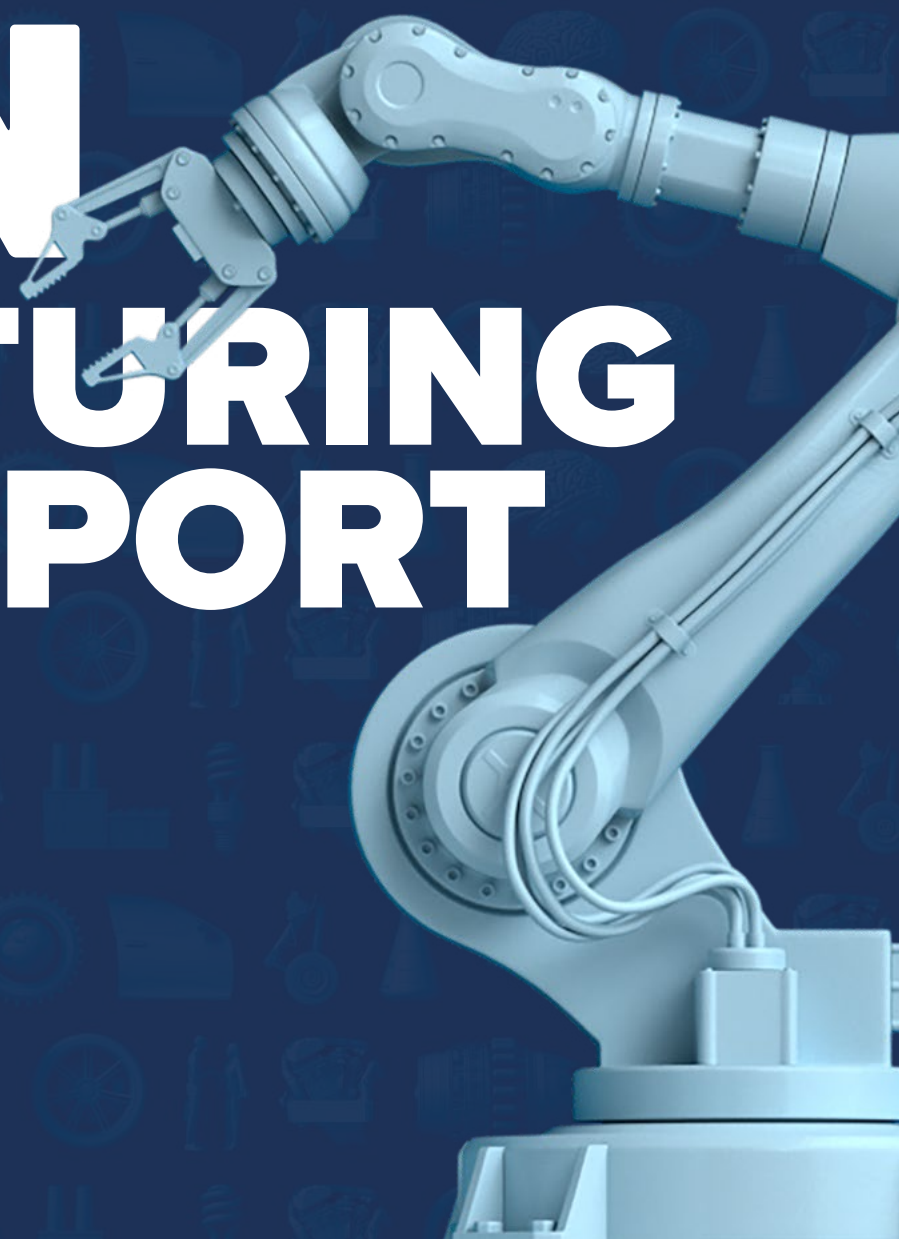


SUBCON



MANUFACTURING TRENDS REPORT

SUBCON

THE MANUFACTURING SOLUTIONS SHOW

4 - 5 JUNE 2025 • THE NEC, BIRMINGHAM

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EXECUTIVE SUMMARY

The UK manufacturing sector is an imperative part of the national economy, contributing approximately £220 billion annually and employing 2.7 million people. With half of its output exported, the sector comprises around 30,000 businesses, 98% of which are SMEs.

As highlighted by The Manufacturing Technology Centre's SME support expert Steve Morris, this structure contrasts with Germany's more consolidated manufacturing base, where only 25% of businesses are SMEs. Despite being the 12th largest manufacturing nation globally, the UK faces pressing challenges, including a fragmented SME landscape, lagging productivity, and escalating costs.

In response to these challenges, the UK government is taking decisive steps to boost the sector. The Advanced Manufacturing Plan, announced in the Autumn Statement, allocates £4.5 billion over five years from 2025 to strengthen supply chain resilience and reduce operational costs. Complementing this, the forthcoming industrial strategy, Invest 2035: the UK's modern industrial strategy, aims to provide the certainty and stability businesses need to thrive. This 10-year strategy emphasises high-growth sectors like manufacturing, encouraging investment and scaling up through sector-specific plans tailored

The Advanced Manufacturing Plan, announced in the Autumn Statement, allocates £4.5 billion over five years from 2025 to strengthen supply chain resilience and reduce operational costs.

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to address unique challenges and opportunities.

The Subcon manufacturing trends report delves into the critical issues affecting the future of UK manufacturing. Rising employment costs, identified by Make UK as the primary concern for 92% of manufacturers, are exacerbated by volatile energy prices and geopolitical uncertainties. These pressures

compel businesses to prioritise productivity-enhancing technologies such as AI, IoT, and automation. Workforce development is also a central theme as there is a huge lack of skilled workers causing new challenges, but reskilling programmes, apprenticeships, and industry outreach are solutions that are tackling this issue.

Amid these challenges, manufacturers remain optimistic about what the year 2025 will bring as significant opportunities are emerging. Manufacturers are exploring new markets, expanding product portfolios, and integrating digital technologies to secure growth. Sustainability and AI are increasingly transforming every aspect of manufacturing, offering potential for streamlining operations, enhancing customer experiences, and maintaining competitiveness.



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CONTRIBUTIONS

This report has been made possible through the invaluable insights, data, and expertise provided by key organisations dedicated to supporting and advancing the UK manufacturing sector. Their contributions have played a huge part in forming an analysis and helped shape a comprehensive understanding of the challenges and opportunities facing the industry.



Make UK, as the voice of UK manufacturing, provided critical data and perspectives on the sector's economic impact, workforce dynamics, and the pressing issues manufacturers face today. Their insights into employment costs, productivity challenges, and the need for government intervention have been instrumental in this report.



The Manufacturing Technologies Association (MTA) contributed valuable expertise on the role of advanced manufacturing technologies in driving productivity and innovation. Their emphasis on investing in innovative solutions highlights the importance of securing the future of UK manufacturing.



WMG (Warwick Manufacturing Group) shared vital perspectives on workforce development, reskilling, and the integration of digital tools and AI into manufacturing operations. Their focus on lifelong learning and collaboration offers a roadmap for sustainable growth.



The Manufacturing Technology Centre (MTC) emphasised the importance of innovation and productivity, shaping discussions around how SMEs can adopt new technologies, improve efficiency, and remain competitive in a global market.



The Coventry & Warwickshire Growth Hub (CW Growth Hub) offered perspectives on regional manufacturing challenges and opportunities. Their focus on collaboration and providing resources has been instrumental in helping businesses thrive in a competitive environment. Additionally Made Smarter West Midlands, a programme designed to support the digital transformation of UK manufacturing, provided insights into how SMEs can harness the power of AI, IoT, and automation to streamline operations and enhance productivity.



KEY STATISTICS FROM 2024



The UK is the
12TH LARGEST
manufacturing
economy globally by
value of output



Manufacturing
accounts for 9% of
UK GDP and
£394 BILLION
of exported goods



The sector
provided
2.6 MILLION
jobs



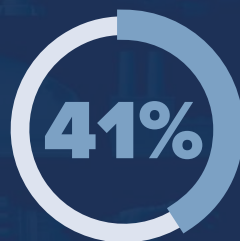
The manufacturing
sector has
58,000
live vacancies



Manufacturers paid
9% HIGHER
wages than the
whole economy
average



£224BN
of output came
from the UK
manufacturing
sector



of all UK business
**RESEARCH
AND
DEVELOPMENT**



of total UK business
investment
**WAS MADE BY
MANUFACTURERS**

FORECAST

2025

49%
BELIEVE THE
UK WILL BE A
COMPETITIVE
LOCATION FOR
MANUFACTURING
IN 2025.



29%
WILL LOOK TO
TECHNOLOGY,
CLOUD AND
AI TO SUCCEED
IN 2025.



Source: MAKE UK Executive Survey 2025 in association with PwC UK



KEY TRENDS SHAPING UK MANUFACTURING

SME support expert at MTC, Steve Morris, lead digital transformation specialist at Made Smarter, Tim Kirby, and principle engineer at Made Smarter, Onur Eren focus on four key trends:

Automation for productivity:

Labour and skills shortages are driving the adoption of automation. "One of the answers to a lack of labour and skilled labour is moving towards automation," explained Morris.

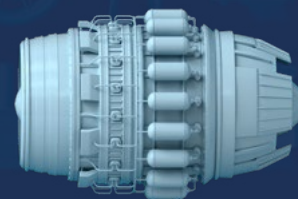
Kirby added: "I've worked with companies bringing in robots to address rising wage bills and labour shortages. One machining company faced a £1 million increase in wage costs, forcing them to adopt automation to remain competitive." The UK ranks 25th globally for robot adoption, highlighting the need to close the productivity gap through advanced technologies.

Onshoring:

Advanced technologies like 3D printing are reducing reliance on overseas supply chains. "The business case for outsourcing components to countries like China has diminished," said Morris. Kirby agreed but added nuance: "We see SMEs exploring 3D printing, though not on the same scale as larger businesses. Onshoring offers better control over quality, timing, and costs."

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Pivoting for growth:

Companies are diversifying into new sectors such as aerospace and pharmaceuticals. "SMEs traditionally serving automotive are now pivoting to industries with greater demand while adopting sustainable practices like decarbonisation and circular economy principles," Morris noted. Kirby observed a similar trend: "Since COVID, many businesses realised they could branch into other markets. Companies stuck producing the same product for decades are now exploring new opportunities to stay afloat."

Road mapping:

SMEs are embracing structured road mapping to prioritise innovation, productivity, and profitability initiatives. "Road mapping helps businesses see the wood for the trees," Morris explained. "It allows them to tackle challenges in a strategic order, driving innovation and growth."

Addressing the skills gap remains critical. "Although we're the 12th largest manufacturing country, we're ranked 25th for robot adoption. Upskilling is essential to help people embrace automation and advanced technologies," Morris emphasised.

SMEs are embracing structured road mapping to prioritise innovation, productivity, and profitability initiatives

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THE ROLE OF AUTOMATION, ROBOTICS, AND AI

Automation, robotics, and artificial intelligence (AI) are expected to influence UK manufacturing in the coming years. There is huge potential of AI to drive productivity and innovation, while also addressing challenges related to adoption and trust.

Trustworthy AI and regulatory frameworks:

"AI often gets a bad reputation in the news, with stories of 'bad AI' dominating the narrative," Morris noted. "At MTC, we've focused on developing 'trustworthy AI,' which involves creating models and data systems that enhance productivity and innovation in a positive way."

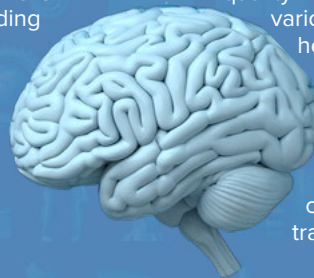
He emphasised the need for a robust regulatory and standards framework to support AI adoption. "We're actively working with trade and regulatory bodies to shape the future of AI standards. Establishing these frameworks is crucial to speeding up adoption and ensuring AI is used responsibly."

Applications of AI in manufacturing:

Morris described AI as an evolution of long-standing statistical methods, now accelerated by advanced computing. "AI is essentially about automating processes and tasks through algorithms. For instance, vision systems are being trained to identify the optimal time to pick strawberries, apples, or grapes based on size and colour, improving yield in the food industry."

AI is also transforming quality control. "From spotting irregular crisps or cookies to detecting errors during the manufacturing process, AI is enhancing quality inspection across various sectors," he explained.

"It's also being used for health and safety applications, like managing crowd control in train stations."



Sector-specific adoption rates:

The adoption of AI varies significantly across industries. "Automotive and pharmaceutical sectors are leading the way, while food manufacturing lags behind," Morris observed. "Aerospace is making progress, but many SMEs remain hesitant due to uncertainty and a lack of understanding."

AI has enormous potential to revolutionise manufacturing, but it must be championed in a way that gives people confidence in its value and reliability

We're working hard on upskilling, training, and providing real-world use cases that demonstrate the benefits of AI

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Upskilling and demonstrating value:

To address these challenges, MTC is focused on building confidence among SMEs. "We're working hard on upskilling, training, and providing real-world use cases that demonstrate the benefits of AI. When businesses see how AI can improve efficiency, boost productivity, and reduce costs, they're more likely to embrace it."

"AI has enormous potential to revolutionise manufacturing, but it must be championed in a way that gives people confidence in its value and reliability", says Morris.

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ADDRESSING WORKFORCE CHALLENGES

The UK manufacturing industry is facing a significant challenge due to a shortage of skilled workers and a lack of interest from younger demographics. This growing skills gap is leaving critical positions unfilled which poses a serious threat to the sector's growth and development. Companies within the industry are increasingly concerned about this issue and are actively seeking ways to address it.

Retention and upskilling:

Kirby identified workforce retention as a major concern. "Retention of skills is a significant challenge," he stated. "In some industries, staff retention rates are as low as 50%, which is staggering. Companies are increasingly investing in training their existing workforce because they understand the value of their people. They're prioritising development and engagement to avoid losing talent."

Many businesses are also leveraging apprenticeships to address the skills gap. "I've seen companies shift from hiring just two apprentices a year to over 100, recognising the need to fill the skills gap proactively," Kirby shared. "Apprenticeships provide a pathway to develop new talent while ensuring that critical skills are passed down from experienced professionals to the next generation."

AI, robots, and cobots can help fill some of the gaps, but they're not a complete solution

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The skills gap and workforce development:

Kirby highlighted the long-term nature of addressing skills shortages. "It takes years to replace skilled workers. For example, when a nurse leaves, it takes four years to train a replacement. The same applies to skilled engineers, computer operators, and programmers," he explained. He described a mentorship approach some companies are adopting: "When a skilled worker reaches 50, they're paired with an apprentice. Over the next five years, the apprentice gains hands-on experience while the skilled worker gradually steps back. By the time the worker retires, the apprentice is fully trained. It's a structured way to ensure knowledge transfer."



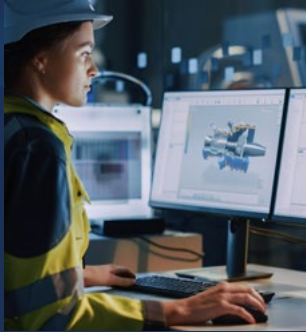
Role of technology and education:

Technology, including AI and robotics, plays a role in bridging the skills gap. "AI, robots, and cobots can help fill some of the gaps, but they're not a complete solution," Kirby noted. "Education needs to step up too. Schools and colleges must align their curricula with industry needs. We need courses that directly support manufacturing and inspire young people to pursue careers in this field." ➤

Companies are increasingly investing in training their existing workforce because they understand the value of their people

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Making manufacturing attractive:

Kirby emphasised the importance of reshaping the perception of manufacturing. "We need to make manufacturing more appealing to younger generations. I've spoken to companies that struggle to recruit talent because the industry isn't seen as 'attractive', but when you show people the reality—clean, high-tech environments—they're often surprised and impressed," he said.

Addressing these challenges requires effort from all sides—businesses, educators, and policymakers. Whether it's through better training, modern technology, or inspiring younger generations, we need a collective approach to secure the future of UK manufacturing.

Bridging the generational gap in UK manufacturing:

Morris emphasised the importance of engaging manufacturing leaders in adopting modern methods and technologies. "One of the challenges is around how to give training, insight, and confidence to leaders and decision-makers within SME manufacturers," he explained. "Many leaders are accustomed to older methods of manufacturing. When you don't understand something, and you lack confidence, you tend not to adopt it."

He highlighted the need for leaders to embrace Industry 4.0, digitisation, AI, robotics, and automation to remain competitive. "Trying to educate leaders to see how these modern applications can help their business is a critical step," Morris said.

Morris pointed to a generational gap in technology adoption as a significant barrier. "We've got a younger cohort being trained in modern applications, but they're often met with resistance from an aging workforce and leadership that doesn't fully grasp these technologies," he explained.

Morris warned of the consequences of failing to adapt. "If leaders don't learn to listen to those being trained or educate themselves on new technologies, employees become frustrated and leave. In a modern UK manufacturing sector, we can't afford to lose talent," he stated.

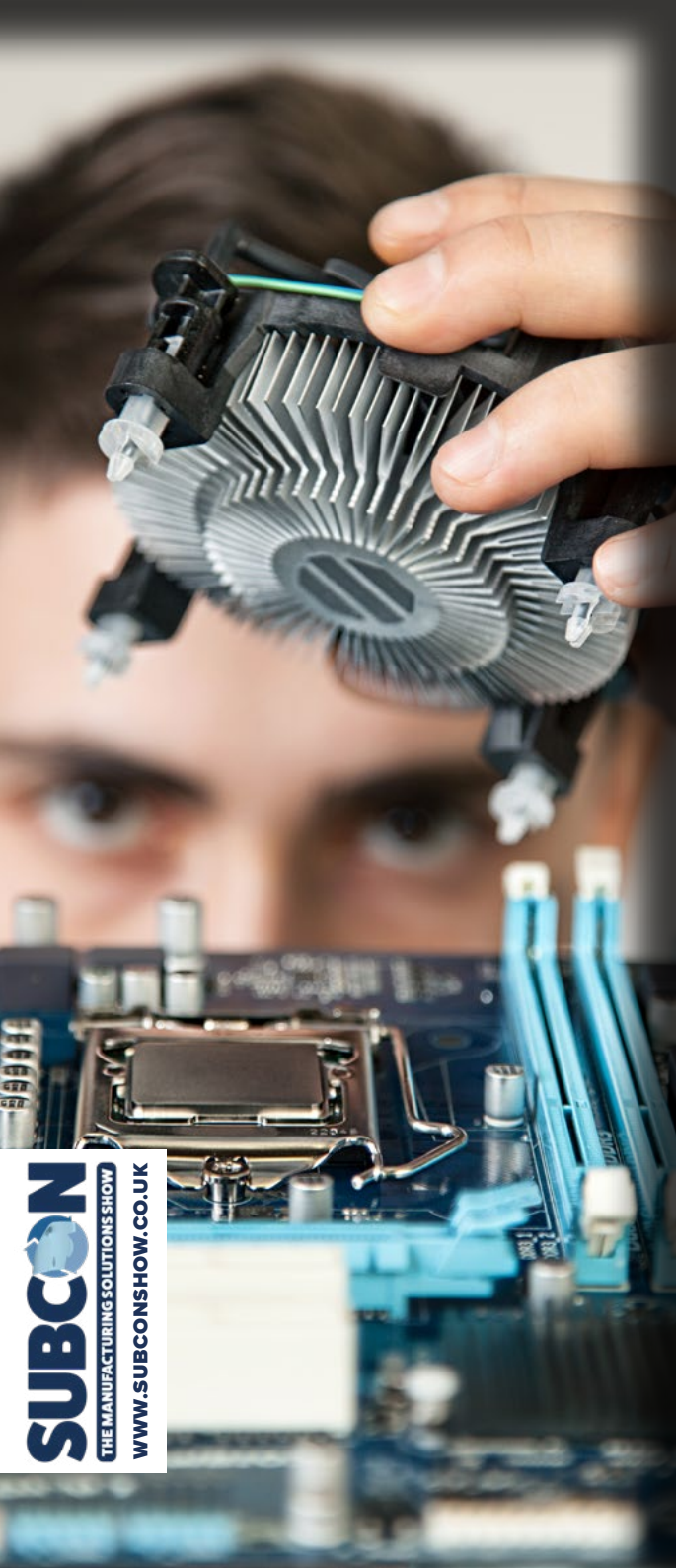
Challenges in UK manufacturing investment:

Onur Eren, principal engineer at Made Smarter, highlighted a key challenge for SME manufacturers: the difficulty of balancing financial sustainability with investment in new technologies. "In my experience, running an SME manufacturing business is incredibly challenging. Many of these businesses operate in highly competitive markets and must carefully prioritise their spending depending on the business case," he explained. "As a result, investment in new machinery and technology can sometimes be delayed, even when businesses are performing well."

He noted that while some UK manufacturers continue using older equipment, this is often due to the high upfront costs of new technology and the need to ensure financial stability. "In countries like Germany, there is often a stronger emphasis on continuous reinvestment in efficiency and productivity. While the business case for new machinery is clear, UK manufacturers sometimes face barriers to making these investments as quickly as they might like," he added.

ADDRESSING WORKFORCE CHALLENGES





CHALLENGES AND OPPORTUNITIES

Rising costs and stricter compliance demands are reshaping the manufacturing sector with businesses struggling to balance financial pressures and regulatory requirements. Employment costs are the top concern, cited by 92% of respondents following the 2024 Autumn Budget. SMEs feel particularly vulnerable, with energy costs and inconsistent demand further straining profitability.

Despite these challenges, opportunities exist to boost productivity through technology, AI, and cloud solutions. Enhanced efficiency could help mitigate cost pressures, with 68% of manufacturers identifying productivity gains as a critical pathway. Sustainability is also driving innovation, as shifting consumer preferences push businesses to adapt despite limited capital.

Growth strategies are evolving, with 47% of manufacturers focusing on product diversification, 37% exploring international expansion, and 20% investing in digital technologies like AI. AI, once experimental, is now integral to operations, enabling predictive maintenance, process optimisation, and tailored customer experiences. Commenting on the current challenges, Fhaheen Khan, senior economist at Make UK, stated: "Having faced a cost creep for most of the year, manufacturers are now facing a cost crisis which has brought a sharp dip in their confidence. While overall conditions had begun to gradually

Growth strategies are evolving, with 47% of manufacturers focusing on product diversification, 37% exploring international expansion, and 20% investing in digital technologies like AI

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improve during the year, the Budget has brought this to a shuddering halt with the substantial increase in national insurance contributions, potentially the straw that might break the camel's back for some. There is now an urgent need for Government to look at other measures which might mitigate the impact of the rocketing costs that businesses are now facing."

Richard Austin, head of manufacturing at BDO, added: "While manufacturers have welcomed the Government's industrial strategy green paper, optimism across the sector is declining, driven by increased input costs, the implications of the latest budget on employment costs, and lacklustre domestic demand. An overlay of a turbulent geopolitical landscape and talk of potential tariffs adds to future uncertainty in the short to medium term. Increasing investment in improving productivity is vital now more than ever to maintain stability and offer opportunities for growth in the sector."



THE MANUFACTURING TECHNOLOGIES ASSOCIATION

Anais Almi, PR and communications manager at MTA, believes that as the UK manufacturing sector moves towards 2025 and beyond, it will continue undergoing transformative change.

Despite economic headwinds in recent years, such as pandemic-driven shifts and the complexities of Brexit, the sector remains key to the national economy. It has contributed £224 billion to GVA (Gross Value Added), employing 2.6 million people, and accounting for nearly half of all UK exports. Furthermore, 43% of the nation's R&D investment is driven by manufacturing—a testament to the industry's commitment to innovation.

In the coming five years, we can expect to see a pronounced increase in the adoption of digital technologies. Artificial intelligence, automation, and robotics will become more deeply embedded in production lines, helping manufacturers overcome productivity challenges. While the UK currently lags behind some global competitors in these areas, accelerating investment in smart technologies will not only enhance efficiency but also encourage the development of new skill sets, attracting a fresh wave of engineering and technology talent to the industry.

Additive manufacturing (AM) represents a particularly bright spot. The UK's share of the global AM market has fluctuated—falling from just under 7% in 2015 to roughly 4% in 2022, before a recent uptick towards 5.5% in 2023.

Renewed focus on innovation, from advanced materials and integrated electronics to AI-driven design optimisations, will position the UK as a competitive hub

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With global AM valuations projected to surge to \$45-\$105 billion by 2030, there is significant room for the UK to regain ground and even exceed its previous market share. Renewed focus on innovation, from advanced materials and integrated electronics to AI-driven design optimisations, will position the UK as a competitive hub. The healthcare sector, for instance, has seen a notable influx in AM-related research funding, signalling a future where personalised medical devices and implants could be produced more efficiently and sustainably.

The aerospace and automotive sectors are also set to prosper, leveraging next-

generation materials and advanced manufacturing techniques for lighter, more sustainable components—particularly in emerging areas like electric battery vehicles. Yet challenges will remain. Skill shortages, the need for more robust supply chains, and uncertainties around trade will continue to test UK industry leaders.

Nevertheless, these hurdles create opportunities. By developing its workforce, investing in R&D, and encouraging cross-sector collaboration, the UK can carve out a stronger position on the global stage. If the right environment is fostered—one that embraces technology, supports supply chain resilience, and encourages bold innovation—the UK manufacturing sector can look forward to not only steady growth, but also a more sustainable, digitally driven, and internationally competitive future.



Anais Almi, PR and communications manager at MTA

THE FUTURE OF UK MANUFACTURING: A VISION FOR 2025



The need for investment:

Kirby highlighted the importance of adopting a proactive approach to reinvestment, drawing comparisons to Germany's manufacturing practices. "In Germany, manufacturers typically reinvest in new machinery every two to three years once it has paid for itself. In the UK, we often see machines that are 20 to 30 years old still in operation," he noted. For smaller SMEs, however, this can be a significant challenge. "Proactive companies are starting to recognise the need to invest, but for many smaller businesses, it's a tougher journey," Kirby said.



The role of support programmes:

Kirby highlighted the critical role of support initiatives like the Made Smarter West Midlands programme, MTC, and WMG in helping SMEs navigate these challenges. "These programs are vital for opening the eyes of smaller manufacturers to what needs to be done and how to achieve it," he emphasised.

Manufacturing is essential—not just for productivity, but to ensure the UK returns to being a leader in manufacturing output

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SMEs taking ownership:

Morris emphasised that SMEs need to take ownership of their future by addressing key challenges that have already been identified. However, he also highlighted the crucial role of organisations like WMG and MTC in supporting the industry. "The challenge for us is how we drive impact into industry, particularly around innovation and productivity," he stated. He explained that catapults currently impact businesses in various ways—strategically, operationally, financially, technologically, and sustainably—but the task remains to improve the way they support the manufacturing sector.



The role of government:

Morris also pointed out that the government has an important role to play in revitalising UK manufacturing. "Manufacturing's contribution to GDP has declined over the last few decades as the country has shifted towards a service-based economy," he noted. However, he believes the government is starting to recognise the importance of reinvesting in manufacturing. "Government investment in manufacturing is essential—not just for productivity, but to ensure the UK returns to being a leader in manufacturing output," he said.

He emphasised that government intervention should include tax incentives for R&D and the adoption of robotics. "Four and a half billion pounds of investment goes into manufacturing every year, and we need to ensure we provide a return on that investment," Morris explained.



The rise of AI in manufacturing:

Eren highlighted that AI is no longer just a novelty but is becoming a crucial part of business operations, especially for SMEs. "Up until almost two years ago, AI was still seen as a gimmick for businesses, particularly on the SME side," he explained. "But I believe 2025 will be the year AI truly takes off, with conversational AI and language models like GPT becoming more integrated into business operations."

Eren pointed out that AI will offer SMEs significant benefits in streamlining internal operations, automating repetitive tasks, and improving customer service. "There's a lot of lower-hanging fruit for SMEs in these areas," he said. "AI will enable businesses to increase efficiency and effectiveness, particularly by automating repetitive processes and boosting cybersecurity defenses."

SEE YOU AT SUBCON 2025

At Subcon, we are committed to championing gender equality and inspiring the next generation to pursue careers in manufacturing. As editor, I'm proud to reflect the Mark Allen Group's dedication to inclusivity and innovation. I look forward to connecting with many of you at the show and seeing fresh talent shaping the future of this industry. Thank you for reading!

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Head over to the website to
confirm your free place or
follow the link in the QR code



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