

# The case for accelerating business investment in robotics and digital technologies has never been stronger



The UK's manufacturing legacy stretches back to the 18th century, when coal and steam revolutionised production and put the country at the forefront of innovation. Hundreds of years later, the UK's diverse and dynamic manufacturing sector remains a key contributor to the economy, accounting for c. 8% of GDP, nearly half of all exports and over 50% of all R&D activity. However, in a globally competitive environment, could there be a case for accelerating adoption of robotics and automation?

## Current outlook for UK manufacturing

The latest global PMI sentiment surveys show the manufacturing sector remains under pressure, as elevated borrowing costs dampen demand.

However, the UK continues to show resilience relative to other European nations, notably Germany, as businesses continue to look for ways to strengthen their supply chains, respond to geopolitical events, and make progress towards net-zero. There is much to be optimistic about; UK government policies are increasingly becoming more supportive for the sector, e.g. £4.5bn Advanced Manufacturing Plan.

That said, the sector continues to face multiple challenges. Shortage of skills and labour remains acute, with c. 70k unfilled vacancies, and productivity growth has slowed following a period of sluggish business investment since 2016. Manufacturers are also facing stiffer global competition, which is putting additional pressure on firms to be cost-competitive, resilient and agile to meet ever changing customer demands.

This is forcing businesses to look deeper at the potential use cases of robotics and digital technologies across the full spectrum of their operations.

## Closing thoughts

It's clear that the shortage of skills and labour are unlikely to be addressed meaningfully in the short term. It is therefore imperative that businesses further embrace technology to add agility, drive productivity growth, and optimise the use of available workforce in order to enhance business activity. An increasingly favourable policy environment is clearly helpful, however it will require bold vision and decision making from management teams to grab the opportunities ahead.

## Current adoption rates

Our recent client interactions suggest progress is being made, due to cost pressures, and shortage of labour in specific areas e.g. spray painting, welding, warehouse and logistics, picking and packing. That said, there is more to do. A recent study from the International Federation of Robotics (IFR) stated that the UK ranks 24th globally in robotics density, with 111 robots per 10,000 employees. This is significantly lower than France (163), Italy (217), US (274) and Germany (322).

## Upside potential

A UK government study in 2021 estimated that at current adoption rates, robotics and automation could add c. £6.5bn to gross value added (GVA) by 2035. However, this number could jump to c. £149bn if adoption is accelerated to match potential opportunities for automation across all sectors. That's equivalent to the size of the West Midlands' economy!

## So what is holding back progress?

High perceived investment costs, a focus on quick payback, the pace of technological change, lack of appropriate digital architecture and internal preparedness, combined with shortage of skills to maximise benefit immediately jump out. But there are also social factors, e.g. impact on people's jobs from automation.

## Solutions

- Take a holistic approach to mapping out strategic opportunities for technological adoption.
- Identify key risks and enablers.
- Clearly define and communicate problems.
- Focus on scalability and adaptability of solutions.
- Collaborate with partners to navigate the marketplace.

## Policy and financing

Policymakers can help through:

- Consistent and long-term vision e.g. Full Expensing being made permanent.
- Clear signposting of available support e.g. The Made Smarter Programme, grant funding etc.
- Development of smarter financing solutions to reduce upfront costs and risks of investment, particularly for SMEs.



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