Impacts on Regional Growth and Policy Effectiveness:

Addressing Barriers to Digital and Sustainable Adoption in West Midlands Manufacturing SMEs

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February 2026

EXECUTIVE SUMMARY

Manufacturing Small and Medium-sized Enterprises (SMEs) play a central role in the West Midlands economy, yet their adoption of digital technologies and Net Zero practices remains uneven. This report examines why uptake remains limited, how adoption affects regional economic performance, and what can be done to improve the effectiveness of current support. The study brings together evidence from the Longitudinal Small Business Survey, interviews with manufacturing SME leaders, and focus groups with policymakers and regional stakeholders.

The evidence shows that most manufacturing SMEs are not resistant to digitalisation or sustainability. Instead, they respond rationally to high costs, uncertainty and fragmented support. Adoption tends to occur where it clearly improves efficiency, reduces costs or strengthens competitiveness. Where these conditions are not present, firms delay or avoid investment.

Key barriers to adoption

The most consistent barrier facing manufacturing SMEs in the West Midlands is the cost of energy. Survey data show that more than three-quarters of firms report energy prices as a major obstacle, and this was reinforced strongly in interviews and focus groups. High and volatile energy costs reduce cash flow and increase risk, making it harder for firms to invest in digital tools, energy efficiency or low-carbon technologies.

Place-based structural conditions also matter. Many manufacturing SMEs operate as suppliers rather than lead firms, work from older industrial buildings and rent rather than own their premises. These factors limit firms' ability to retrofit buildings, install new equipment or electrify processes, even where there is a willingness to invest.

Infrastructure and energy system issues further weaken the case for adoption. Lower uptake of smart meters reduces firms' ability to monitor and manage energy use. High electricity prices relative to gas, combined with uncertainty about future heating options for non-domestic buildings, make electrification and digital energy management appear risky.

Support systems are often difficult to navigate. Stakeholders described uneven access to programmes across the region, short-term and poorly coordinated initiatives, limited specialist advice and unclear messaging around Net Zero. Many SMEs are unaware of what support exists or struggle to judge whether it is suitable for them.

Internal constraints reinforce these external pressures. Manufacturing SMEs face limited time, skills shortages, ageing workforces and low operational readiness. These constraints make it difficult to engage with complex programmes or unfamiliar technologies, particularly when returns are uncertain.

What adoption delivers for regional growth

Where adoption does occur, it contributes to regional economic growth mainly through productivity rather than immediate job creation. Digital technologies are valued because they help firms reduce costs, improve efficiency and operate more competitively. Productivity improvements allow firms to stabilise operations, diversify into higher-value markets and secure larger contracts.

Employment effects tend to be modest and gradual, usually following productivity gains rather than leading them. New roles are more likely to appear in areas such as sales or management rather than on the production line.

Net Zero adoption is viewed as more uncertain than digitalisation. While digital tools are associated with visible short-term benefits, low-carbon investments are highly sensitive to energy prices, policy clarity and funding continuity.

At a regional level, adoption can support supply-chain resilience and broader economic benefits. However, these gains remain uneven. Survey evidence shows limited integration of supply chains into carbon-reduction strategies in the West Midlands compared with stronger regions, which restricts wider spillover effects.

High energy costs and international competition also raise concerns about offshoring energy-intensive manufacturing. Stakeholders viewed carbon-related measures mainly as ways to protect existing regional manufacturing strengths rather than as drivers of entirely new industries.

Why current policies underperform

The evidence highlights a gap between policy ambition and delivery. Funding mechanisms tend to prioritise low-risk, incremental projects, which limits support for more transformative change under uncertainty. This reflects a tension between innovation, which involves experimentation and public-sector accountability, which seeks to minimise risk.

Place-based conditions further limit policy impact. Poor energy performance of commercial buildings and landlord–tenant split incentives reduce the effectiveness of retrofit and decarbonisation policies. Support is also poorly sequenced. SMEs often lack a clear pathway from basic readiness to more advanced digital or Net Zero adoption. Without clear progression, firms struggle to know where to start or how to manage risk.

Translation between national policy objectives and local delivery is weak. Limited manufacturing expertise within delivery bodies and tensions around enforcement reduce trust and engagement. Trusted intermediaries, particularly sector-specific organisations, were consistently identified as more effective than generic consultations in engaging SMEs and translating policy into practical action.

Implications for future support

The findings suggest that improving adoption requires less focus on promoting individual technologies and more attention on the conditions that shape SME decision-making. Effective support needs to reduce risk, improve coordination and align with commercial realities. This includes strengthening trusted, independent advisory support, developing clear and staged adoption pathways, simplifying access to funding and improving communication using sector-

relevant language. Long-term, place-based collaboration and stronger skills pipelines are also essential to support sustained adoption.

Overall, policies that recognise the specific structure of the West Midlands manufacturing economy, including energy intensity, legacy buildings, supply-chain dependence and the practical constraints of rented premises, are more likely to deliver lasting productivity gains and support inclusive regional economic growth.

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Thank you

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This document relates to IRC Project FFTwo0012: Impacts on Regional Growth and Policy Effectiveness: Addressing Barriers to Digital and Sustainable Adoption in West Midlands Manufacturing SMEs

Acknowledgements

This work was supported by Economic and Social Research Council (ESRC) grant ES/X010759/1 to the Innovation and Research Caucus (IRC).

The authors gratefully acknowledge the manufacturing SME leaders and regional stakeholders who contributed to this study through interviews and focus groups. Their time, openness and practical insights were essential to the development of the evidence presented in this report.

We would like to express our sincere thanks to Professor Delma Dwight, our non-academic partner, for her invaluable contribution to this project. Her deep understanding of the regional economy and strong connections with industry partners were essential in identifying participants and shaping the policy discussions that underpin this work.

Our thanks also go to Dr Priscilla Eke, our research assistant, for her dedication and hard work throughout the project. She played a key role in managing the literature review, transcription, and data analysis. Her careful organisation and commitment greatly strengthened the quality of the research and its outcomes.

We are also very grateful to Nazia Iqbal and Sarah Honeybone at Innovate UK, UKRI for their support in helping us connect with stakeholders and for providing valuable guidance on how Innovate UK and the Innovation and Research Caucus (IRC) envisage the impact of this research.

We would also like to acknowledge and appreciate the efforts of the IRC Project Administration Team involved in proofreading and formatting, for their meticulous attention to detail and support.

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Cite as: Mahmood, S., Asghar, N. and Kousha, K. 2026. *Impacts on Regional Growth and Policy Effectiveness: Addressing Barriers to Digital and Sustainable Adoption in West Midlands Manufacturing SMEs*. Oxford, UK: Innovation and Research Caucus