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The Digital Divide in UK & Ireland Manufacturing

June 2026

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EXECUTIVE SUMMARY

The Digital Divide in UK & Ireland Manufacturing

June 2026

Manufacturing is the backbone of both the UK and Irish economies. The UK ranks eleventh globally in manufacturing output, with a sector valued at $279 billion. Ireland's manufacturing industries recorded output growth of over 33% year-on-year. Yet beneath these headline figures, the same structural problem is quietly widening a competitive gap that will become increasingly difficult to close.

Most manufacturers, and in particular most small and medium-sized ones, are running operations on disconnected legacy systems that were never designed for today's data-driven environment. The result: fragmented data, manual processes, duplicated effort, and a growing inability to deploy AI and automation tools that competitors in Germany, the US, and elsewhere are already using at scale.

The data tells a compelling but sometimes contradictory story. Vendor surveys suggest the UK leads Europe in AI adoption. Official government research tells a more uncomfortable truth. The DSIT AI Adoption Research (February 2026), built on 3,500 structured business interviews, found that only 1 in 6 UK businesses currently uses any form of AI. The ONS recorded manufacturing AI adoption at just 5% in 2023. A 2025 government Technology Adoption Review found only 7% of manufacturers had fully adopted advanced digital technologies.

That gap between vendor claims and government data is not noise. It is the distance between what large, well-resourced enterprises are doing and what the SME manufacturers that make up the vast majority of both countries' industrial base are actually doing. This report sets out the evidence, acknowledges the contradictions, and offers a clear view of what connected infrastructure delivers for manufacturers of all sizes.

Key findings at a glance

1 in 6	**UK businesses currently use AI; 80% have no active plans to adopt it** *DSIT, February 2026*
7%	**of UK manufacturers have fully adopted advanced digital technologies** *DSIT Technology Adoption Review, June 2025*
29.2%	**Small Irish enterprise ERP adoption, versus 78.7% for large enterprises** *CSO Information Society Statistics: Enterprises 2025*
74%	**of UK manufacturing firms still rely on legacy software or spreadsheets** *Made Smarter, April 2026*
10%	**UK manufacturing productivity below G7 average; Germany is 16% ahead** *The Manufacturer / Barclays, November 2025*
£149bn	**Potential GDP uplift from matching best-in-class digital adoption by 2035** *Make UK, 2025*
4%	**of European SMEs achieve very high digital maturity; most are stuck in pilot purgatory** *Irish Manufacturing Research / World Economic Forum, 2025*
£45bn	**Estimated annual UK productivity cost of legacy systems** *Stromasys, 2026*

1. THE PRESSURE HAS NEVER BEEN GREATER

Why standing still is no longer an option

Consider a mid-sized precision engineering firm in the East Midlands, or a food and drink producer in County Cork. The production line is running. Orders are coming in. But the production manager is reconciling yesterday's output from a spreadsheet. The purchasing team is checking stock on a system that does not talk to the factory floor. The finance director is waiting for end-of-week reports assembled manually from three sources. The quality record for the last batch sits in a shared drive nobody has organised since 2019.

Nothing has broken. But the firm is carrying an enormous structural cost: wasted time, delayed decisions, inability to quote accurately, and a complete inability to deploy the AI and analytics tools that could transform its productivity. Competitors with connected infrastructure are pulling further ahead each quarter.

Pressure point	UK	Ireland
Productivity gap	10% below G7 average; Germany 16% ahead per hour worked (Barclays / The Manufacturer, Nov 2025)	Ranked 23rd in digital readiness; 9th most expensive country for salaries (IMR, 2025)
Legacy system drag	74% of manufacturers still relying on old systems or spreadsheets (Made Smarter, Apr 2026)	59% of European businesses at only basic digital adoption; 4% of SMEs at very high maturity (IMR / WEF, 2025)
AI adoption gap	Large firms: 44% AI adoption. Small firms: just 26% (Cambridge Bennett School, 2026)	30% of Northern Ireland SMEs using or exploring AI; Republic SME gap persists (ProfileTree, 2025)
ERP gap	42% of UK manufacturers have adopted ERP (Barclays, Nov 2025)	29.2% small enterprise adoption vs 78.7% for large enterprises (CSO, 2025)
Skills shortage	56.5% of manufacturers cite workforce challenges as primary barrier (Barclays, 2025)	Two in three Irish manufacturers name talent shortages as a critical risk (IMR, 2025)

The firms pulling ahead in both markets share one characteristic: connected infrastructure that gives management real-time visibility, eliminates manual rekeying, and creates the clean data foundation without which AI tools cannot function.

2. WHAT THE DATA ACTUALLY SHOWS

Reading the evidence, and the contradictions

The most striking feature of the current evidence landscape is not the consensus. It is the disagreement. Vendor surveys and official government research produce dramatically different pictures of UK manufacturing's digital progress. Understanding why that gap exists matters for any firm trying to benchmark itself honestly.

Source	Claim	Methodology	What it actually measures
AWS, April 2026	64% of UK organisations use AI	Survey of 1,000+ businesses, enterprise-weighted	Broad AI use including basic tools; skews large
Rockwell Automation, June 2025	53% of UK manufacturers implementing ML or AI	1,500 manufacturing leaders globally, UK findings	Manufacturing leadership, not SME shop floor
DSIT, February 2026	Only 16% of UK businesses currently use any AI	3,500 structured telephone interviews, all business sizes	Full UK business population, properly weighted
ONS, 2023	AI adoption in manufacturing: 5%	Official business statistics survey	All UK manufacturers, including micro firms
DSIT Tech Review, June 2025	Only 7% of manufacturers fully adopted advanced tech	Government call for evidence; 200+ responses	Full tech adoption depth, not surface-level use

These figures are not describing different realities. They are describing different populations. Vendor surveys oversample the large enterprises that are their primary clients. Government surveys capture the full business population, where small and medium-sized firms vastly outnumber large ones. The Cambridge Bennett School confirmed that large UK firms (250+ employees) nearly doubled their AI adoption rate to 44% between 2023 and 2025. Small firms reached just 26% over the same period.

The practical implication is important: an SME manufacturer reading vendor headlines and concluding it is too late or too expensive to catch up is drawing the wrong conclusion from the wrong data. The majority of its direct competitors are at roughly the same stage. The window to establish a meaningful operational advantage through digital infrastructure is still wide open.

16%
UK businesses using AI (DSIT, Feb 2026)

7%
Manufacturers fully adopting advanced tech (DSIT Tech Review, Jun 2025)

80%
UK businesses with no AI plans (DSIT, Feb 2026)

29.2%
Irish small enterprise ERP adoption (CSO, 2025)

78.7%
Irish large enterprise ERP adoption (CSO, 2025)

£45bn
Annual UK productivity cost of legacy systems (Stromasys, 2026)

3. THE COST OF DISCONNECTION

What fragmented systems are actually costing you

The costs of running disconnected manufacturing systems are real but rarely appear in a single line item. They are distributed across production scheduling, procurement, quality management, customer service, and finance. They compound every quarter.

Cost category	How it shows up in manufacturing	Evidence
Management time	Managers assembling reports manually from multiple systems; no real-time view of production, stock or margin	Made Smarter, April 2026
Legacy debugging	Manufacturers lose an average of 45 hours per month on debugging tasks caused by legacy industrial code tools	Copia Automation State of Industrial DevOps, 2025
AI lockout	Clean, connected data is the prerequisite for every AI tool. Legacy systems structurally prevent deployment of predictive maintenance, demand forecasting, and quality analytics	DSIT Technology Adoption Review, June 2025
ERP gap (Ireland)	Irish SMEs without ERP face an average cost of EUR 47,000 annually from inefficiency and missed opportunity	Dublin Digital Maturity Index, ProfileTree, 2025
Productivity leakage	UK manufacturing productivity 10% below G7 average;	The Manufacturer / Barclays, November 2025

Cost category	How it shows up in manufacturing	Evidence
	Germany 16% ahead per hour worked	
Revenue opportunity cost	Matching best-in-class digital adoption could add GBP 149bn to UK GDP by 2035	Make UK, 2025
Cybersecurity exposure	Legacy systems estimated to cost the UK GBP 45bn annually in lost productivity; unpatched systems create regulatory and breach risk	Stromasys, April 2026

The AI lockout problem

The most consequential hidden cost of disconnected systems in 2026 is not the time lost to manual processes. It is the inability to use AI. This point is made consistently across sources that otherwise disagree sharply on adoption rates.

AI tools manufacturers want to use

- Predictive maintenance
- Demand forecasting
- Quality inspection automation
- Supply chain optimisation
- Real-time production analytics
- Energy consumption monitoring

Why legacy systems block them

- All require clean, structured, integrated data
- Legacy systems hold data in disconnected silos
- Incompatible formats prevent AI model training
- Manual exports produce stale, not live, inputs
- DSIT identifies data quality as primary technical barrier
- Made Smarter: AI tools simply cannot integrate with legacy software

The Cambridge Bennett School data confirms that large firms are pulling away from small firms on AI adoption at an accelerating rate. The longer the gap persists, the harder it becomes to close: each quarter of connected operation generates more training data, more refined models, and more embedded process improvements that a disconnected competitor cannot replicate overnight.

The pilot purgatory problem

A distinct but related challenge is what the World Economic Forum and McKinsey have labelled pilot purgatory: the state in which manufacturers have experimented with digital tools, often successfully at small scale, but have been unable to embed or scale them across the organisation. Irish Manufacturing Research (November 2025) estimates that while 59% of European businesses report at least basic digital adoption, only 4% of SMEs achieve very high digital maturity.

4. THE SECTOR PICTURE

Where each part of the sector stands

The underlying challenge is consistent across manufacturing sub-sectors in both markets: systems acquired at different times, for specific purposes, that were never designed to share data. The detail and urgency varies by sector.

Sub-sector	Core disconnection challenge	2026 pressure point
Food & Drink (UK)	Production planning, stock management, and compliance records in separate systems; no real-time margin visibility	Largest UK manufacturing sub-sector; thin margins; traceability requirements tightening post-Brexit
Engineering & Precision (UK)	Shop floor data not connected to ERP; quality records manual; scheduling reactive rather than predictive	Energy costs; skills shortage; customer demand for faster quoting and shorter lead times
Pharma & Life Sciences (Ireland)	Ireland's Modern sector growing fastest (18.3% annual output growth, CSO 2025); compliance data often fragmented across legacy systems	EU AI Act (February 2025) classifies many manufacturing AI applications as high-risk; connected audit trails become essential
Traditional Manufacturing (IRE)	Traditional sector annual output down 3.4% (CSO, October 2025); cost pressure acute; digital investment deprioritised	Ireland ranked 23rd in digital readiness despite being 9th most expensive for salaries; competitive pressure from lower-cost markets
Automotive (UK)	AI adoption leading at 60% (DataNucleus, 2025) but concentrated in Tier 1; supply chain of smaller firms lagging significantly	Tariff disruption; EV transition; customer demand for real-time supply chain transparency
SME Manufacturing (Both markets)	Most SMEs running on spreadsheets and isolated legacy tools with no integrated data foundation	DSIT (2026): only 7% of manufacturers have fully adopted advanced digital technologies

The Ireland picture in detail

The CSO's Information Society Statistics: Enterprises 2025 is the clearest single data point on Ireland's manufacturing digital divide. Across all Irish enterprises, ERP adoption sits at 34.7%. Split by company size, the picture is stark.

34.7%
Overall Irish enterprise ERP adoption (CSO, 2025)

29.2%
Small enterprise ERP adoption (CSO, 2025)

78.7%
Large enterprise ERP adoption (CSO, 2025)

Ireland faces a particular cost-competitiveness squeeze. The country is the ninth most expensive in the world for salaries yet ranks only twenty-third in digital readiness. Germany deploys 429 industrial robots per 10,000 workers; Ireland's density remains far lower. In 2024, three out of four Irish manufacturers expected higher wage bills and two out of three identified talent shortages as a critical risk. Without digital productivity gains, rising costs cannot be offset.

Enterprise Ireland's 2025 to 2029 strategy commits to supporting the twin transition of digitalisation and sustainability, with grants covering up to 50% of qualifying transformation costs. The IDA has made AI-related smart manufacturing a priority for inward investment. The policy framework is supportive; what remains is for individual firms to act on it.

The UK picture in detail

The Manufacturer / Barclays Mind the Gap report (November 2025) found that UK manufacturing productivity is around 10% below the G7 average, with Germany 16% ahead per hour worked. While 53% of firms use real-time KPI dashboards and 42% have adopted ERP, 56% of surveyed manufacturers perceive national manufacturing productivity to be in decline.

The government's Made Smarter programme, expanded to all English regions from April 2025 with a GBP 16 million commitment, exists specifically to address this. Its research found that 74% of manufacturing and engineering firms still rely on old systems or spreadsheets, and that 42% cite budget constraints as the main barrier. Documented outcomes from the programme include firms reducing manpower needs by up to 20% and increasing efficiency by 40% following structured digital adoption support.

Make UK's long-term framing is the most compelling: matching best-in-class digital adoption across UK manufacturing could add GBP 149 billion to GDP by 2035. That figure assumes no technological breakthrough. It requires only the systematic adoption of tools and platforms that already exist and are already available.

5. WHAT INTEGRATION DELIVERS

The documented case for connected infrastructure

The evidence from manufacturers that have moved from fragmented to connected infrastructure is consistent. The table below summarises documented outcomes across comparable deployments.

Benefit	What it means in manufacturing	Documented outcome
Production visibility	Live view of output, OEE, downtime, and quality across lines and sites without manual data collection	Faster intervention on bottlenecks; better scheduling decisions in real time
Inventory accuracy	Stock levels, goods-in, and work-in-progress visible in a single system; no manual reconciliation	Reduction in stock-outs and over-ordering; lower working capital tied up in safety stock
AI readiness	Clean, structured, accessible data enables predictive maintenance, demand forecasting, and quality analytics to be deployed	74% of UK manufacturing organisations using AI report productivity gains (AWS, 2026); WEF lighthouse factories report 15 to 30% productivity uplift
Quoting speed	Accurate cost and lead time data available at point of enquiry without manual system-checking	Faster customer response; fewer pricing errors; improved win rate on time-sensitive tenders
Compliance and traceability	Complete production records, quality data, and batch traceability generated automatically	Audit readiness reduced from weeks to hours; traceability obligations met by design
Management reporting	Live dashboards replacing weekly manual exports; margin and productivity data available in real time	Better decisions; earlier identification of cost pressures; reduced finance team workload

Without integration

- Production data collected manually and entered into spreadsheets
- Stock levels reconciled weekly from separate systems
- Quality records held in disconnected folders or paper
- AI tools unavailable without clean integrated data
- Management reports assembled from exports; always one week behind
- Batch traceability requires manual reconstruction

With integration

- Live production data flowing automatically into ERP and dashboards
- Inventory updated in real time across purchasing, production, and dispatch
- Quality data linked to batch, machine, operator, and customer record
- AI tools deployable on a trusted, connected data foundation
- Management dashboard updated continuously; margin visible in real time
- Full traceability record generated automatically at every stage

Why manufacturers delay, and why the data challenges each reason

Most manufacturing business owners understand that their technology is not working as efficiently as it should. The reasons they have not yet addressed it cluster into a small number of consistent categories, each with a clear counter-argument.

Barrier	The concern	The counter-evidence
Cost	Capital commitment at a time when margins are already under pressure	The ongoing cost of disconnected systems: lost debugging hours, manual reporting, AI lockout, stock inaccuracies. Enterprise Ireland grants cover up to 50% of qualifying costs. Made Smarter offers match-funded grants to UK SMEs.
Implementation risk	Stories of ERP projects running over time and over budget	Risk is concentrated in big-bang implementations. Phased deployments starting with the highest-pain areas deliver measurable returns within months, not years.
No internal IT resource	No dedicated technology team to manage a project	The right implementation partner works within your operational reality. The business does not need to become a technology organisation.
Legacy complexity	Systems inherited through growth or acquisition that are hard to untangle	Every integration programme starts with a discovery phase mapping what exists and identifying the highest-value connections first. Legacy does not need to be replaced all at once.
We are doing fine	Current systems are working well enough	They may appear to be. But every month that competitors deploy AI on connected data while your firm does not, the gap compounds. DSIT data shows 80% of UK businesses are in the same position; the question is who acts first.

7. HOW TARGET INTEGRATION CAN HELP

18 years. Two markets. One focus.

Target Integration is a digital adoption specialist with 18 years of experience implementing ERP, CRM, and integration solutions for businesses across the UK, Ireland, and internationally. Our work in manufacturing is grounded in a practical understanding of production workflows, supply chain complexity, and the constraints of firms running live operations.

We do not begin with a prescribed solution or a preferred platform. We begin with your processes, your systems, and your most pressing operational pain points.

Service	What it covers
Digital maturity assessment	Structured review of current systems, workflows, and data flows; clear prioritisation of where to start and what the highest-impact changes are
ERP implementation and integration	Connecting production, stock, purchasing, quality, and finance into a single connected environment; eliminating rekeying and manual data assembly
Shop floor to back-office integration	Linking MES, production monitoring, and IoT data to ERP and management dashboards; enabling real-time visibility of output, OEE, and cost
AI readiness foundation	Building the clean, integrated, accessible data infrastructure that AI tools require; so that when you are ready to deploy predictive maintenance, demand forecasting, or quality analytics, the foundation is in place
Automated workflow design	Eliminating manual data entry, scheduling, reporting, and compliance processes through workflow automation
Data migration	Moving data cleanly from legacy systems without disrupting live production operations
Ongoing support and training	Structured onboarding and continued support to ensure adoption and sustained return on investment

We work with manufacturers at every stage of the digital journey: from firms running entirely on spreadsheets and looking to implement their first ERP, to established operations with multiple systems that need connecting, to manufacturers ready to layer AI tools on top of connected infrastructure.

8. A PRACTICAL ROADMAP

How to start, and what each phase delivers

The most effective digital transformation programmes in manufacturing are defined by sequencing, not ambition. Beginning with the highest-impact, shortest-payback interventions generates early returns and the organisational confidence that sustains the programme through later, more complex phases.

Phase	Focus	Key activities	Typical outcome
1. Discovery	Baseline audit	Map all systems, data flows, and manual processes; quantify the cost of current workarounds; identify the highest-value integration points	Clear picture of where time and money are being lost; business case for investment
2. Foundation	Single source of truth	Implement or connect ERP to cover production, stock, purchasing, and finance; eliminate manual rekeying between systems	Real-time operational visibility; rekeying eliminated; management reporting automated
3. Shop Floor	Production integration	Connect MES, IoT sensors, and production monitoring to ERP; automate OEE and downtime recording; link quality data to batch records	Live production dashboard; faster response to production issues; compliance records generated automatically
4. Automation	Process efficiency	Automate demand planning, purchase order generation, scheduling triggers, and compliance workflows	Measurable reduction in admin hours; fewer errors; faster customer response times
5. AI & Analytics	Insight and foresight	Deploy predictive maintenance, demand forecasting, and quality analytics on the connected data foundation built in earlier phases	Competitive differentiation; AI delivering operational returns rather than sitting in pilot purgatory

Most firms begin to see measurable improvements in management visibility and operational efficiency within Phase 1. There is no requirement to reach Phase 5 before realising value. The important thing is to start with an honest assessment of where current systems are generating the highest cost.

CONCLUSION

The gap is real. The tools exist. The question is sequence.

The operational pressure on manufacturers in the UK and Ireland is not easing. Input costs remain elevated. Skills shortages persist. Customer expectations for speed, flexibility, and traceability are rising. And the competitive gap between manufacturers that have invested in connected infrastructure and those that have not is now measurable in productivity data published by governments, not just claimed in vendor marketing.

The evidence is consistent across both markets and all sub-sectors. The firms absorbing these pressures most effectively share one characteristic: they built their digital foundation before the pressure peaked. They are spending less time on manual administration and more time on production. They are deploying AI tools on connected data that their competitors cannot yet access.

The critical insight from the DSIT data is not discouraging. It is clarifying. Only 7% of manufacturers have fully adopted advanced digital technologies. The window to establish a meaningful competitive advantage through digital infrastructure is not closing; it is wide open. The question is not whether to act, but where to start.

That is the conversation Target Integration has with every manufacturing client across the UK and Ireland. It begins with a straightforward assessment of where your current systems are generating the most cost and risk.

Start the conversation

Speak with a Target Integration consultant for a no-obligation **Digital Health Check**: a clear, structured view of where your current systems are generating cost and risk, and where the highest-impact improvements lie. No commitment required beyond the conversation.

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SOURCES AND REFERENCES

This report draws on research and analysis published between January 2024 and May 2026. Where sources present conflicting findings, the report acknowledges the discrepancy and explains the likely methodological reasons, rather than selecting only the figures that support a particular narrative.

- DSIT: AI Adoption Research (February 2026) — gov.uk
- DSIT: Technology Adoption Review (June 2025) — gov.uk
- ONS: AI and Employment Research; AI Adoption by Sector (2025) — ons.gov.uk
- Make UK: Making it Smarter; Global Lessons for Accelerating Automation and Digital Adoption in UK Manufacturing (2025)
- Make UK: UK Manufacturing; The Facts 2025
- The Manufacturer / Barclays: Mind the Gap; Closing the Productivity Divide in the UK's Manufacturing Sector (November 2025)
- Rockwell Automation: 10th Annual State of Smart Manufacturing Report; UK Findings (June 2025)
- FourJaw / Beaming: Digital Excellence in Manufacturing (2025)
- Made Smarter: Legacy Software Is Quietly Holding Back UK Manufacturers (April 2026) — madesmarter.uk
- Made Smarter: North West SME Manufacturers; GBP 230k Digital Transformation Funding (March 2026)
- AWS: Unlocking the UK's AI Potential (April 2026) — aboutamazon.co.uk
- Bennett School of Public Policy, University of Cambridge: What Does Firm-Level Data Tell Us About AI Adoption in the UK? (April 2026)
- IBM: Race for ROI; AI Productivity Survey (October 2025) — uk.newsroom.ibm.com
- British Chambers of Commerce: Powering Productivity; AI and the Future of UK Work (March 2026)
- OECD: SME Technology Adoption in the United Kingdom (November 2025)
- UK Government SME Digital Adoption Taskforce: Interim Report (February 2025); Final Report (July 2025)
- Deloitte: UK Digital Maturity Survey 2024
- Stromasys: How Legacy Systems Are Costing the UK and Europe in 2026 (April 2026)
- Maverick Solutions: The Cost of Standing Still; Legacy Systems in Manufacturing (June 2025)
- Copia Automation: State of Industrial DevOps Workforce Report 2025
- CSO Ireland: Information Society Statistics; Enterprises 2025
- CSO Ireland: Industrial Production and Turnover; October 2025 (December 2025)
- Irish Manufacturing Research (IMR): Digital Transformation (November 2025) — imr.ie
- Microsoft Ireland / Trinity College Dublin: AI Economy in Ireland Report (March 2025)
- OECD: Progress in Implementing the EU Coordinated Plan on AI; Ireland (2025)
- ProfileTree: Dublin Business Digital Maturity Index (August 2025)
- ProfileTree: AI in Ireland 2025; Adoption Stats and Opportunities (June 2025)
- Enterprise Ireland: Delivering for Ireland, Leading Globally; Strategy 2025 to 2029
- DataNucleus: AI in Advanced Manufacturing; UK Sectoral Adoption Rates 2025 (September 2025)
- Target Integration: Bridging the Digital Adoption Gap; Why Ireland's Manufacturers Must Embrace ERP (May 2026) — targetintegration.com
- World Economic Forum / McKinsey: Digital Manufacturing; Escaping Pilot Purgatory (referenced in IMR, 2025)