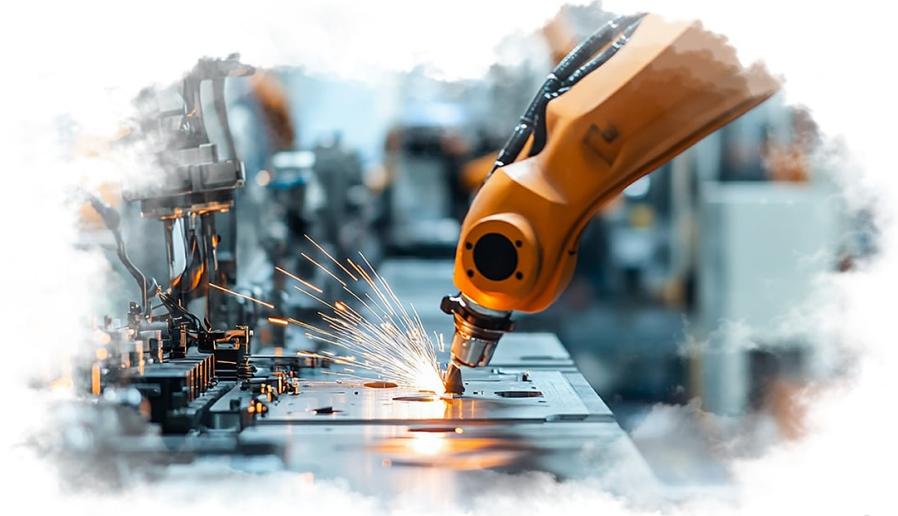


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Manufacturing Industry Trends 2025: AI, Digital, and Sustainability Shaping Growth



PRODUCT INFORMATION MANAGEMENT

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Dagmara Śliwa

on September 19, 2025

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Building Resilience and the Transformation

The manufacturing industry in 2025 stands at a crossroads. Manufacturers are not only continuing their digital transformation journeys but are also confronting the need to integrate sustainability and resilience into their core strategies.

This guide explores the latest manufacturing trends across industries.

Executives, e-commerce leaders, and CTOs alike will find:

- actionable insights on how to adapt to recent trends in manufacturing technology,
- manage regulatory shifts such as Digital Product Passports (DPPs),
- and build resilience in a volatile global economy.



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Trend 1: Digital Transformation & Smart Manufacturing

Preparing for 2026 and Beyond

Manufacturers are moving from pilot projects to fully integrated smart factories. With sensors, IIoT networks, and advanced software, plants are becoming more adaptive and data-driven. The [National Association of Manufacturers notes](#) that smart factories can adjust in real time to market demand, driving efficiency and lowering costs.

Surveys suggest that by 2026, half of manufacturers expect to deploy AI, machine learning, and IIoT at scale, while many are already committing close to a third of their operating budgets to digital tools such as [cloud platforms](#), generative AI, and 5G. The shift includes:

- MES and MOM platforms that link enterprise planning directly to the shop floor.
- Unified namespace architectures to standardise real-time data across systems.
- 5G and edge computing, which enable faster data capture and more agile production.

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Trend 2: Artificial Intelligence and Generative AI

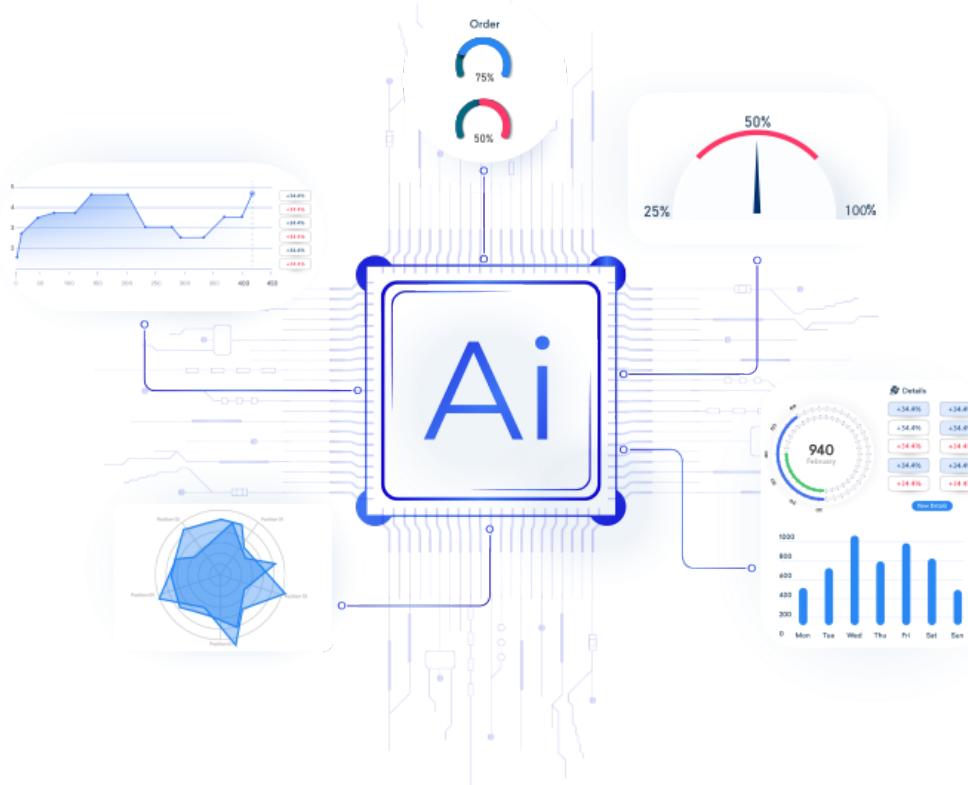
AI is moving firmly into mainstream use.

[Deloitte's surveys](#) show that more than half of industrial product manufacturers already use generative [AI tools](#), and many plan to step up investment over the next three years. Unlike early pilots, projects now come with clearer [ROI metrics](#) and are closely aligned to broader digital strategies.

Key applications include:

- Generative design: aerospace and automotive firms are using AI to create lighter, stronger parts with less material.
- Predictive maintenance: AI analyses equipment data to prevent breakdowns before they happen, saving time and cost.
- Automated documentation: generative AI streamlines technical paperwork and speeds up prototyping.

Data quality remains the biggest barrier. Nearly 70% of manufacturers cite poor or inconsistent data as their main obstacle to AI adoption. Success will depend on solid data governance, interoperable systems, and an approach that supports workers rather than displaces them.



Trend 3: Data-Driven Maintenance and IoT

Maintenance is shifting from reactive to strategic. Cheaper sensors and IoT devices, paired with predictive analytics, mean unplanned downtime can now be anticipated and avoided. With 5G connectivity, vast amounts of data can be transmitted quickly for real-time analysis.

For manufacturers, this means:

- Extending the life of expensive equipment.
- Scheduling repairs more efficiently.
- Increasing productivity by keeping lines running.

For smaller companies, predictive maintenance is becoming more accessible and will be a key lever for competitiveness.

Trend 4: Supply Chain Resilience and Reshoring

Global supply chains are under strain from conflict, extreme weather, and labour shortages. Shipping rates have already surged after [incidents in the Red Sea and the Panama Canal](#), and similar risks are expected to continue.

Manufacturers are responding with:

- Diversification and nearshoring, to reduce exposure to single-source dependencies.
- Digital supply chain planning, with more than three-quarters of companies investing in advanced planning software.

- AI-driven forecasting, modelling disruptions and suggesting alternative routes.
- End-to-end visibility, using real-time tracking to monitor suppliers and shipments.

The balance is shifting from lowest-cost sourcing towards more resilient networks, with reshoring expected to accelerate in 2025.



Trend 5: Digital Commerce and IT Architecture Transformation

Manufacturers in 2025 are not just innovating on the factory side,

but they are also transforming how they go to market. The rise of digital commerce in manufacturing (especially B2B commerce and direct-to-customer channels) is a significant trend, bridging traditional industry and modern e-commerce.

Shifting Business Models: From B2B to B2C

Industrial buyers now expect the same convenience and transparency as B2C shoppers. By 2025, manufacturers are moving beyond brochure-style websites and investing in full-scale digital commerce portals that offer:

- Rich online product catalogues
- Instant quoting and pricing tools
- Self-service ordering workflows
- Personalised dashboards with account history

Composable and Cloud-Native Architecture

To support agility, manufacturers are modernising their software architecture. Monolithic legacy ERP and MES systems are gradually giving way to microservices-based, cloud-native applications that can scale and adapt quickly.

In [manufacturing](#), this modular approach enables faster rollout of new capabilities (e.g. a new scheduling app or quality control service) without overhauling entire systems. It also underpins the [shift to MACH](#) (Microservices, API-first, Cloud, Headless) frameworks in digital commerce, where flexible integration with e-commerce, PIM software, CRM, and supply chain systems is crucial.

PIM Software for Manufacturing

Manufacturers often manage vast, highly technical catalogues, including CAD files, safety data, specifications, and compliance details. A [composable Product Information Management](#) (PIM) system acts as the operational backbone, ensuring that:

- ✓ Data from multiple sources (ERP, PLM, MDM) is centralised and enriched.
- ✓ Every channel, such as websites, distributor portals, marketplaces, CPQ, and print is powered by consistent, high-quality product content.
- ✓ Localised product data is available at scale, meeting global buyer expectations.

Trend 6: Sustainability and Carbon Neutrality

Sustainability is no longer optional. Manufacturing produces around [20% of global emissions](#), and regulators are demanding greater accountability. New rules such as the EU's Corporate Sustainability Reporting Directive and the upcoming [Digital Product Passport](#) (DPP) will require companies to track and disclose detailed environmental data.

Key priorities include:

- Cutting emissions with renewable energy and circular-economy models.
- Using digital tools to measure, report, and optimise energy and material use.
- Positioning sustainability as a driver of innovation and brand differentiation, not just compliance.

The most competitive companies will combine digital and sustainability initiatives, using AI to optimise energy use or deploying carbon-tracking systems that strengthen both compliance and efficiency.



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Trend 7: Additive Manufacturing and Customisation

3D printing is moving beyond prototypes to full production. Advances in speed and precision mean manufacturers can produce parts on demand, reducing stock levels and cutting lead times.

Benefits include:

- Tailoring products to individual customer needs without

retooling.

- Rapid prototyping to shorten development cycles.
- On-demand production for spare parts and small batches.

This technology is especially powerful for smaller manufacturers, enabling them to compete in niche markets with customised, high-value products.

Trend 8: Building Resilience and the Triple Transformation

Digital and sustainability transformations are no longer enough on their own. The [World Economic Forum](#) argues for a third pillar: resilience.

This involves:

- System-level reinvention rather than isolated fixes.
- Coordinating digital and sustainability programmes to boost returns.
- Assessing resilience in areas such as supply chains, logistics, and product portfolios.

The idea of a “triple transformation”: digital, green, and resilient sets the benchmark for manufacturers aiming to thrive in a volatile world.

Preparing for 2026 and Beyond

Generative AI, predictive maintenance, 5G, additive manufacturing, and direct-to-consumer models all promise new ways to grow. But the pressure from regulators, customers, and global disruptions means that digital, sustainability, and resilience must now advance together.

Firms that act decisively and strengthen their product data with a composable PIM software will be better placed to withstand shocks and capture opportunities in the industrial economy of the future.

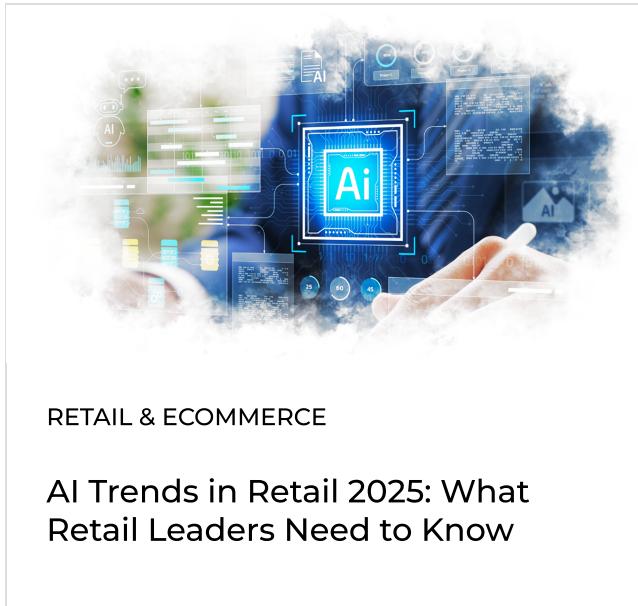
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This could also be interesting



AI Trends in Retail 2025: What Retail Leaders Need to Know

RETAIL & ECOMMERCE

A hand holding a smartphone with a digital interface showing various AI-related icons like a brain, charts, and code, set against a background of a circuit board and a hand writing on a tablet.



10 Examples of Digital Product Passport-like Initiatives

SUSTAINABILITY

A person holding a smartphone displaying a digital product passport icon (a blue cube with a checkmark) in a clothing store. The store has mannequins and racks of clothes.



Digital Product Passport: Which Industries Will Be Affected...

PRODUCT INFORMATION MANAGEMENT

A woman sitting in a chair, looking at her phone. Various icons representing different industries (clothing, food, home, etc.) are connected to her phone by lines, illustrating the interconnected nature of the digital product passport.



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