

## **Smart Manufacturing - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)**

Market Report | 2025-06-01 | 150 pages | Mordor Intelligence

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### **Report description:**

Smart Manufacturing Market Analysis

The smart manufacturing market size is valued at USD 339.80 billion in 2025 and is projected to climb to USD 709.20 billion by 2030, registering a 15.90% CAGR. Real-time analytics, machine connectivity, and AI-powered process control are converging to unlock large efficiency gains, while governments channel incentives toward resilient domestic production capacity. Rising energy costs and carbon-pricing schemes heighten interest in factory-level transparency solutions, and labor shortages intensify demand for collaborative robots and autonomous material-handling systems. Vendors are embedding private 5G and edge analytics in new offerings, enabling micro-second response times for safety-critical processes. Competitive focus is shifting from hardware refresh cycles to software subscription models that monetize predictive insights and energy optimization.

Global Smart Manufacturing Market Trends and Insights

Rising adoption of Industry 4.0 / IIoT for efficiency

IIoT deployments now deliver 52% productivity gains and 25% cost reductions as factories integrate sensors, analytics, and cloud dashboards. The U.S. Manufacturing Extension Partnership supported 36,000 firms in 2024, adding USD 16.2 billion in sales through smart manufacturing programs. As connected assets feed unified data lakes, operators can eliminate line stoppages and dynamically rebalance capacity. Precision-critical sectors such as aerospace embrace digital traceability to reduce scrap and warranty claims, fueling sustained upgrades in connectivity architectures.

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## Government incentives & policy mandates for digital factories

Federal and state-level funding initiatives are accelerating smart manufacturing adoption through targeted financial support and regulatory frameworks. The State Manufacturing Leadership Program offers USD 50 million to enhance manufacturing capacity through high-performance computing resources and technical assistance for small and medium manufacturers. Germany's Industrie 4.0 initiative projects EUR 40 billion annual investment by 2020, supported by Mittelstand 4.0 centers of excellence that provide SMEs with technology adoption guidance.

## High CAPEX & uncertain SME ROI

Small and medium enterprises face significant barriers to smart manufacturing adoption due to substantial upfront capital requirements and unclear return on investment timelines. Implementation costs for comprehensive smart manufacturing systems can range from hundreds of thousands to millions of dollars, creating financial strain for companies with limited resources. The complexity of calculating ROI for interconnected systems makes it difficult for SME decision-makers to justify investments, particularly when benefits may not materialize for 2-3 years.

Other drivers and restraints analyzed in the detailed report include:

Skilled-labour shortages accelerating automation uptake / Carbon-Border Adjustment Mechanism spurring factory-level energy transparency / Cyber-security / data-sovereignty concerns /

For complete list of drivers and restraints, kindly check the Table Of Contents.

## Segment Analysis

Manufacturing Execution Systems held 22.4% of the smart manufacturing market in 2024, underscoring their role as the digital backbone of plant operations. The smart manufacturing market size for MES is projected to reach USD 41.78 billion by 2032 as manufacturers mandate real-time visibility across global plants. Digital-twin platforms, expanding at an 18.7% CAGR, let engineers simulate equipment behavior under varying loads, trimming commissioning times by 30%. PLCs and SCADA remain foundational, yet vendors embed AI modules that autonomously tune parameters. Edge-analytics software shortens decision loops for high-speed packaging lines, illustrating the shift from centralized servers to shop-floor micro-data centers.

Software-defined upgrades create sticky annual recurring revenue, prompting incumbents to bundle analytics with license renewals. Human-machine interface tools migrate toward augmented reality, giving line technicians guided workflows. Product lifecycle management solutions integrate with supply-chain portals so designers validate manufacturability early. Collectively, these innovations reinforce the smart manufacturing market as the primary conduit for continuous improvement investments.

Software commanded 49.6% of 2024 revenue, reflecting the pivot toward data-driven workflows. Industrial robotics, projected to post a 17.5% CAGR, responds to chronic labor gaps and the need for flexible batch sizes. Smart sensors and machine-vision units feed high-resolution imagery to AI models that flag defects within milliseconds. Control devices now incorporate on-device inference engines, enabling autonomous adjustments without cloud latency. Service revenues expand as factories outsource integration, training, and managed cybersecurity.

Private 5G networks reshape the communication segment by supporting tens of thousands of end-points on a single floor with deterministic latency. Vendors co-develop spectrum strategies with telecom operators, turning connectivity into a strategic moat. As a result, the smart manufacturing market continues to blur lines between OT hardware and IT software, creating a unified

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platform for digital value creation.

The Smart Manufacturing Market is Segmented by Technology (Programmable Logic Controller (PLC), Supervisory Controller and Data Acquisition (SCADA), and More), Component (Hardware and More), Deployment Mode (On-Premise, Cloud and More), End-User Industry (Automotive, Semiconductors, and More), and Geography. The Market Forecasts are Provided in Terms of Value (USD).

## Geography Analysis

North America accounted for 42.3% of 2024 revenue, underpinned by the U.S. Department of Energy's USD 33 million grant program and the Manufacturing Extension Partnership's nationwide outreach . Venture capital flows accelerate technology diffusion, and private equity funds pursue platform roll-ups that bundle MES, robotics integration, and cybersecurity services. Regional suppliers adopt private 5G testbeds to validate latency-sensitive use cases such as remote welding.

Asia Pacific is the fastest-growing region with a 15.9% CAGR, propelled by China's 33 Innovation Centers under the "Made in China 2025" banner and South Korea's world-leading robot density of 1,012 units per 10,000 employees. India's Digital Infrastructure Growth Initiative, backed by trilateral partners, lowers entry barriers for smart manufacturing startups, positioning the country as a rising hub for localized MES development.

Europe delivers steady adoption rooted in Germany's Industrie 4.0, backed by EUR 40 billion (USD 44 billion) annual investment projections and Mittelstand 4.0 competence centers. The Carbon Border Adjustment Mechanism amplifies demand for energy-intensity dashboards, giving European vendors first-mover advantage in carbon accounting modules. Collectively, these dynamics reinforce regional specialization within the smart manufacturing market, shaping vendor go-to-market playbooks.

## List of Companies Covered in this Report:

ABB Ltd. / Emerson Electric Co. / FANUC Corporation / General Electric Co. / Honeywell International Inc. / Mitsubishi Electric Corp. / Robert Bosch GmbH / Rockwell Automation Inc. / Schneider Electric SE / Siemens AG / Texas Instruments Inc. / Yokogawa Electric Corp. / Cisco Systems Inc. / IBM Corp. / Oracle Corp. / SAP SE / Johnson Controls Intl. plc / PTC Inc. / Dassault Systems SE / 3D Systems Corp. / Stratasys Ltd. / Delta Electronics Inc. / Capgemini SE /

## Additional Benefits:

The market estimate (ME) sheet in Excel format /  
3 months of analyst support /

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