

## **Internet-of-Things (IoT) In Manufacturing - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)**

Market Report | 2025-07-01 | 120 pages | Mordor Intelligence

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### **Report description:**

Internet-of-Things (IoT) Market Analysis

The Internet of Things in the manufacturing market is valued at USD 0.49 trillion in 2025 and is forecast to reach USD 1.51 trillion by 2030, expanding at a 25.33% CAGR. Rising investments in connected equipment, low-latency wireless infrastructure, and data-driven automation are collectively accelerating digital transformation across global plants. Manufacturers are prioritizing predictive maintenance, edge-enabled analytics, and digital-traceability projects because these use cases improve productivity, cut downtime, and enhance regulatory compliance. Demand is further reinforced by private 5G roll-outs in key industrial zones, growing Equipment-as-a-Service contracts that convert capital expenditure into operating expenditure, and the proven return on investment of IoT-enabled energy savings. At the same time, component shortages and legacy network limitations are still restraining roll-outs in selected brownfield facilities.

Global Internet-of-Things (IoT) Market Trends and Insights

Private 5G and LPWAN roll-outs in German and Japanese discrete factories

The introduction of private 5G and LPWAN networks is transforming production floors in Germany and Japan. Latency below 10 ms for 99.99% of packets supports time-critical robotic cells, while network slicing guarantees deterministic performance for quality-inspection cameras. Automotive manufacturers adopting 5G testbeds report productivity jumps of up to 245% and operating-cost cuts of as much as 90% thanks to predictive maintenance and automated re-work loops. Edge servers attached to

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the private networks enable on-site analytics, removing cloud round-trips and maintaining data sovereignty.

#### EU/US digital-traceability mandates driving sensor adoption

The EU Digital Product Passport and comparable US rules require serialised, life-cycle data for every industrial good. Manufacturers are embedding IoT sensors to log provenance, composition, and process parameters automatically. Early movers achieve 25% fewer unplanned stoppages and 30% leaner inventory because live material flow is visible across sites. Beyond compliance, the same infrastructure feeds continuous-improvement dashboards that expose bottlenecks for immediate remediation.

#### IPv4 address exhaustion in legacy Indian plants

Brownfield facilities rely on outdated control systems that cannot accommodate the flood of new devices. IPv4 blocks are depleted, and IPv6 upgrades cost on average USD 2.4 million per large enterprise, including firmware, training, and downtime allowances. These expenses and integration hurdles delay broad-scale sensor roll-outs in India's fast-growing manufacturing corridor.

Other drivers and restraints analyzed in the detailed report include:

Equipment-as-a-Service models requiring embedded IoT metering / Workforce-safety wearables mandated in Australia and Canada / Shortage of TSN-certified chipsets for retrofit Ethernet /

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

#### Segment Analysis

Software held 51% of the Internet of Things in manufacturing market share in 2024 and remains the intelligence layer that converts raw sensor streams into actionable recommendations. Device-management platforms dominate because factories need secure onboarding, firmware updates, and policy enforcement for thousands of heterogeneous nodes. Analytics engines form the fastest-growing niche, reflecting demand for failure prediction, asset performance insights, and adaptive process controls. Services revenue is set to outpace both hardware and software with a 23.6% CAGR from 2025-2030, as integrators orchestrate complex retrofits and training programs. Gateways and industrial PCs still underpin the edge tier, while sensor unit prices continue to decline and unlock new measurement points.

Hardware remains indispensable for physical sensing and actuation, yet the investment focus is shifting toward flexible subscription-based software stacks. System integrators now assemble composable building blocks sourced from broad ecosystems rather than monolithic suites. That shift improves interoperability and accelerates proof-of-concept deployments. Cybersecurity modules are bundled with every new software drop because attack surfaces grow with device counts. Manufacturers increasingly rely on managed-service partners for 24/7 monitoring and zero-day patching, tightening the link between recurring software fees and guaranteed line availability.

Wireless links captured 64% of connectivity revenue in 2024. Within the basket, 5G is forecast to surge at a 40% CAGR because its blend of 1 Gb/s throughput, sub-10 ms latency, and network slicing supports machine vision, mobile robots, and AR-assisted maintenance. LPWAN variants such as NB-IoT and LoRaWAN address energy-constrained sensors that transmit small packets at kilometre-scale range. The wired backbone keeps a firm role where electromagnetic interference is high or deterministic behaviour is mandatory; TSN upgrades extend standard Ethernet to micro-second synchronisation.

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The coexistence of 5G and deterministic Ethernet inside the same plant enables tiered service levels without duplicated cabling. Short-range Bluetooth LE modules cost pennies and fill specialised roles like tool-identification tags or operator location services. Emerging 5G-TSN convergence profiles promise single-network coverage for both motion-control loops and cloud back-haul, simplifying switch cabinets. Yet silicon shortages and certification queues slow adoption of these advanced chips, highlighting the importance of multi-path architectures that can fall back to legacy protocols during supply crunches.

The IoT in Manufacturing Market Report is Segmented by Component (Hardware, Software, and Services), Connectivity Technology (Wires and Wireless), Deployment Model (On-Premise, Cloud, and More), Application (Predictive Maintenance, Asset Performance and OEE Optimisation, and More), End-User Vertical (Automotive and EV Manufacturing, Electronics and Semiconductors, and More), and Geography

## Geography Analysis

North America generated 33.3% of 2024 revenue for the Internet of Things in manufacturing market. Early adoption, strong industrial IT ecosystems, and tax incentives for automation propel deployments. US factories deploy IoT to offset skilled-labor shortages and to reclaim reshored product lines. OEMs increasingly integrate metering hardware to support usage-based rental models, deepening supplier-customer ties while smoothing cash flow.

Asia Pacific is projected to grow at a 25.6% CAGR from 2025-2030, the fastest worldwide. China funds nationwide smart-manufacturing parks, while Japan blends 5G with robotics to maintain output despite demographic decline. India's digital-factory programs advance, yet IPv4 exhaustion in brownfield sites slows hyperscale roll-outs until affordable IPv6 gateways arrive. South Korea leverages its telecom infrastructure to pilot 5G-enabled cobots and AI-powered quality control on high-end electronics lines.

Europe maintains a sizable share as Germany's Industrie 4.0, France's Alliance Industrie du Futur, and Italy's Transition 4.0 incentives co-finance upgrades. The EU Digital Product Passport requirement compels sensor networks to capture materials genealogy. Local vendors champion open-architecture platforms that protect digital sovereignty and reduce dependence on non-EU clouds. Nordics prioritize energy-efficient operations, while Southern Europe channels recovery funds into automation modernisation. The Middle East, led by Saudi Arabia and the UAE, channels diversification plans into advanced manufacturing zones equipped with campus-wide private 5G. In Africa, South Africa pilots smart-plant retrofits where connectivity is stable, setting precedents for neighbouring economies.

## List of Companies Covered in this Report:

Cisco Systems Inc. / Siemens AG / IBM Corporation / Microsoft Corporation / SAP SE / PTC Inc. / Schneider Electric SE / Honeywell International Inc. / Rockwell Automation Inc. / Bosch Rexroth AG / ABB Ltd. / GE Digital (General Electric) / Emerson Electric Co. / Mitsubishi Electric Corp. / Hitachi Vantara LLC / Huawei Technologies Co. Ltd. / Advantech Co. Ltd. / Fanuc Corp. / Hexagon AB / Dassault Systemes SE / Oracle Corp. / Fujitsu Ltd. / Yokogawa Electric Corp. / Zebra Technologies Corp. /

## Additional Benefits:

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

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