



MRS30-291 · Smart Manufacturing Technologies

Industrial IoT Devices

A Global Sustainability Due Diligence & Market Research Study

History 2020–2024 · Base Year 2025 · Forecast 2025–2032 · Outlooks 2035 / 2040 / 2050 · Currency US\$

WHY THIS REPORT

Industrial IoT (IIoT) devices are the sensing-and-connectivity layer of the smart factory — industrial sensors, connected actuators and controllers, IIoT gateways, asset-tracking devices and wireless nodes that turn machines, lines and plants into a continuous stream of operational data. This decision-grade study sizes the global market three ways — value, units shipped and connected nodes — across device type, connectivity and application, across seven regions and four scenarios to 2032, with outlooks to 2050.

SUSTAINABILITY & SDG IMPACT — THE ANMD LENS

Sustainability is this report's backbone, not an afterthought. IIoT instrumentation is the precondition for energy efficiency, waste reduction and resource productivity on the factory floor, while responsible electronics lifecycle shapes the resource-security story.

Mapped Sustainable Development Goals:

SDG 9	SDG 12	SDG 8	SDG 7	SDG 13
Industry & Innovation	Responsible Consumption	Decent Work & Growth	Affordable & Clean Energy	Climate Action

Measurable sustainability outcomes assessed:

- Energy efficiency and waste reduction across the plant
- Resource productivity from continuous instrumentation
- Enablement of predictive maintenance and digital control
- Device e-waste, embodied carbon, cybersecurity and data-privacy as material risks

Framework alignment: Double materiality mapped to GRI, SASB, ISSB, TCFD, TNFD, CSRD and the EU Taxonomy, with greenwashing and SDG-washing screens applied throughout.

WHAT'S INSIDE AT A GLANCE

53 Chapters	9 Report Parts	7 Regions Covered	40+ Country Markets
2025–32 Forecast Horizon	4 Forward Scenarios	25+ Companies Profiled	5 SDGs Mapped



MARKET OVERVIEW

From connectivity pilots to plant-wide instrumentation — where data that feeds maintenance, control and energy analytics drives the value.

The industrial IoT (IIoT) devices market is read three ways — value, volume and connected nodes — and forecast under four scenarios, each region reported separately. Demand is propelled by the drivers below, supported by maturing incentives across Europe, North America and Asia Pacific.

- Asia Pacific is profiled first — China, Japan, India, South Korea, Taiwan — manufacturing scale, Industry 4.0
- Europe automation leader — Germany, France, Italy, Switzerland — Siemens, Bosch, ABB, SICK
- Segmentation reads the value across the report's structure, technology and application axes
- Resource-and-outcome economics is the differentiator — increasingly with service and data revenue

REGIONAL OUTLOOK

Across seven reporting regions, the report separates early commercialisation leaders from high-growth and emerging markets — each profiled in full rather than aggregated into Rest of World.

Region	Stage	Lead Markets & Drivers
Asia Pacific	Scale engine	China, Japan, India, South Korea, Taiwan — manufacturing scale, Industry 4.0
Europe	Automation leader	Germany, France, Italy, Switzerland — Siemens, Bosch, ABB, SICK
North America	Platform leader	United States, Canada — Honeywell, Rockwell, Cisco, PTC, reshoring
Latin America	Emerging	Brazil, Mexico — automotive & electronics manufacturing
Africa	Frontier	South Africa, Egypt — industrialisation, modernisation
Middle East	Frontier	Saudi Arabia, UAE — Vision-2030 industry, smart-factory investment

KEY MARKET DRIVERS & RESTRAINTS

Drivers	Restraints
• Industry 4.0 & smart-factory mandates • Labour-cost & efficiency pressure • Predictive-maintenance & analytics demand • 5G, TSN & wireless connectivity gains • Reshoring & supply-chain resilience	• OT/IT integration & legacy-equipment friction • Cybersecurity & data-governance risk • Upfront CAPEX & ROI-proof burden • Interoperability & protocol fragmentation • Skills gap in OT data & analytics



SEGMENTATION SNAPSHOT

By Device Type	Industrial sensors · actuators / controllers · IIoT gateways · asset-tracking · wireless nodes
By Connectivity	Wired (Ethernet / fieldbus) · wireless · 5G / TSN
By Component	Sensor / module · connectivity chipset · edge controller · software
By Application	Discrete manufacturing · process industries · automotive
By End User	Manufacturers · system integrators · OEMs · plant operators
By Deployment	On-premise · edge · cloud-connected hybrid

TABLE OF CONTENTS — PARTS & CHAPTERS

The full report is organised into nine parts across 53 chapters, listed below. Detailed sub-headings, country tables and directories are provided in the full report.

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COMPETITIVE & INVESTMENT SNAPSHOT

The competitive field spans established industrial-automation majors, specialist sensor and connectivity vendors, and systems integrators. Deal activity — partnerships, technology licensing and demonstration programmes — signals a market consolidating around bankable, repeatable solutions.

Representative players profiled in the full report:

Siemens AG · Robert Bosch GmbH · Honeywell International Inc. · ABB Ltd · Schneider Electric SE · and 20+ further profiled players across hardware, software and integration.

Investment intelligence: venture, infrastructure, development, climate and blended finance, green bonds and sustainability-linked loans — culminating in a bankability assessment and a Go / No-Go / Conditional-Go investment verdict.



KEY QUESTIONS THIS REPORT ANSWERS

- ? How large is the global industrial IoT (IIoT) devices market, and how fast will it grow to 2032?
- ? Which regions, countries and segments offer the strongest risk-adjusted opportunity?
- ? How do resource-and-outcome economics change returns versus conventional methods?
- ? Who leads, and where is the competitive and patent white space?
- ? Is the investment case bankable — and under what conditions?
- ? How does the technology align with the SDGs and emerging disclosure regulation?

WHY ANMD — THE DIFFERENCE

Most market studies stop at units and revenue. This report is built as a sustainability due diligence instrument — fusing market sizing with ESG, SDG, climate and natural-capital intelligence and a decision-ready bankability verdict in a single architecture.

- › **Triangulated sizing** — every market read three ways so value, volume and area views reconcile rather than conflict.
- › **Region-honest forecasting** — Latin America, Africa and the Middle East reported in full, never hidden inside Rest of World, every forecast resolved to the 2025 base year.
- › **Integrated evidence base** — company, patent and project databases linked to the analysis, with published-filing patents and FTO treated as an indicator, not a legal conclusion.
- › **No-fabrication discipline** — every estimate carries a data-confidence rating and disclosed sources; gaps are flagged for further diligence, never filled with invented numbers.
- › **Anti-greenwashing rigour** — SDG-washing and greenwashing screens plus claim-substantiation checks built into the ESG and project analysis.
- › **Decision-first structure** — 9 Parts and 53 Chapters culminating in stakeholder playbooks and a clear investment verdict.

WHO SHOULD BUY THIS REPORT

Investors, manufacturers, system integrators, OEMs, plant operators, policymakers, lenders, research institutions, strategic corporate planners, decision-makers.

Access the Full Report

The complete report delivers all 53 chapters in full, with every sub-heading, country table, company and patent directory, forecast model and due diligence checklist.

Purchase at www.anewmarketdynamics.com · Standard & Premium licences · Single-Site (SSL) and Global-Site (GSL) options at checkout.

Want the Complete Detailed Table of Contents?

This prospectus lists the nine parts and 53 chapters. The complete detailed table of contents — every sub-heading, country table, exhibit, company and patent directory and annex — is available on request to registered users. To receive it, register with your official company email at www.anewmarketdynamics.com. The full detailed table of contents will be sent directly to your registered company email address.