

Industrial IoT Viewpoint Service

Part of the Industrial IoT, Software and Communications Service Area Package

Tracking customer needs and market development of digitalization in the industrial sector.

“ Convergence of IT and OT is accelerating through the emergence of technologies such as AI, Edge computing, 5G and Digital Twins, driving the need for Vendors across the value chain are being challenged to prioritize where investment should be and how to tailor solutions to customer needs. ”

Alex West
IIoT Analyst

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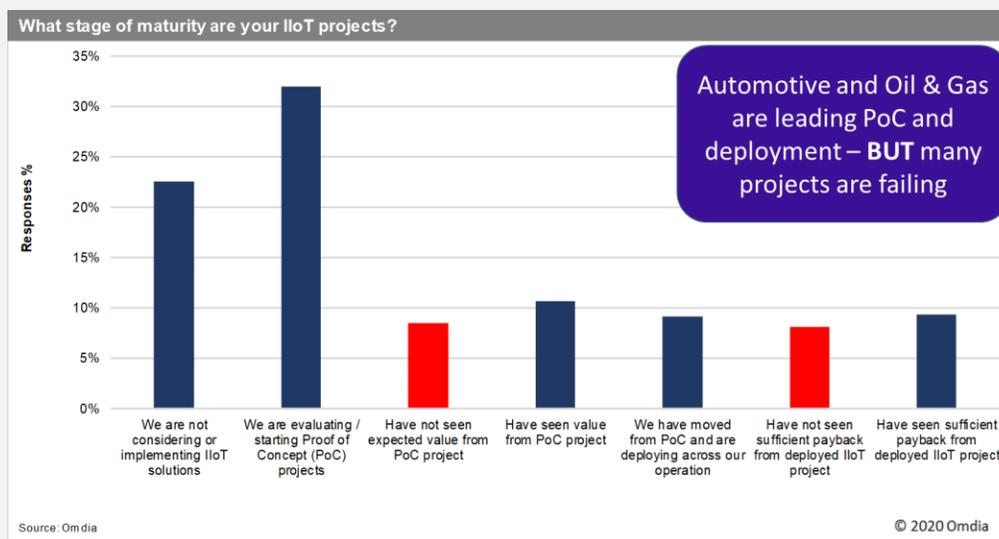
HOW OMDIA HELPS YOU

- Understand the market opportunity and potential of technologies across the equipment value chain
- Optimize your business model to an everchanging environment
- Measure market disruption through valuation of its impact on industrial components, devices, and machinery
- Benchmark against the competition and within the industry

KEY QUESTIONS ADDRESSED

- Where the industry is on the road to IIoT?
- IIoT's impact on the value chain
- How key IIoT use cases will evolve and be monetized?
- User readiness across key IIoT use cases: automotive, chemical, CPG, life sciences, mining, oil and gas, power generation, other

IIoT Projects Maturity Stage



Industrial IoT: Our Expert Analysts



Alex West
Associate Director
IIoT
UK



Greg Johnson
Senior Analyst
Analytics
United States

Industrial IoT: Deliverables



Surveys

Tracking industrial readiness and market development to bring a fuller view of the impact of IIoT marketplace success and challenges and objectives of customers



DATABASES

Providing market sizing several topics including 5G, Edge Compute, device connectivity and machine connectivity



Reports

Analysis on trends affecting the market



ANALYST INSIGHTS

—Ongoing—

Analyst commentary on product launches, market news and analysis.



ANALYST ACCESS

—Ongoing—

For prompt responses to urgent and unique questions.

Industrial Edge Compute and the Future of Automation - 2020

KEY ISSUES ADDRESSED	COVERAGE			
<ul style="list-style-type: none"> • What are the key drivers for the market in the next five years? • What is the current size of the market and how will this change for each device over the next ten years? • What devices are currently available, which processors and OS' are used. • How will new applications bring additional opportunities to the market? • What is the potential for distributed intelligence across automation products? • Review and outlook of the competitive landscape as new players enter the OT environment 	<p>Forecast Period</p> <ul style="list-style-type: none"> • 5-year Forecast + 10 year extended outlook <p>Measures</p> <p><i>2019-2024 forecast by region and product</i></p> <ul style="list-style-type: none"> • Revenues • Average Selling Prices • Units <p><i>Additional market segmentations by revenue only</i></p> <p>Regions</p> <ul style="list-style-type: none"> • EMEA • Americas • Asia & Oceania 	<p>Edge compute products</p> <ul style="list-style-type: none"> • Discrete industrial sensors • LV drives • Smart cameras • PLCs • DCS • IPCs • Networking devices • Software defined controllers • Robot controllers 	<p>Deployment</p> <ul style="list-style-type: none"> • Module • Embedded <p>Analytics capability</p> <ul style="list-style-type: none"> • Threshold analytics • Machine learning <p>Industry Sector</p> <p>Discrete industries</p> <ul style="list-style-type: none"> • Automotive • Food and beverage machinery • Machine tools • Material Handling Equipment • Metal processing • Packaging machinery • Robotics • Rubber & plastics machinery • Semiconductor and electronics 	<p>Industry Sector</p> <p>Process industries</p> <ul style="list-style-type: none"> • Cement & Glass • Chemical • Food and beverage • Mining • Oil and gas • Pharmaceutical • Power • Pulp and Paper • Refining & Petrochemical • Rubber & plastics • Water and wastewater <p>“Other” industry sectors</p> <p>Industry edge compute product database</p> <p>Includes 60 products with detail by processor type and operating system</p>

Industrial Edge Compute and the Future of Automation Report – Table of Contents

Executive summary

Introduction, scope and methodology

Overview

- Edge an enabler- Industrial Internet of Things (IIoT)
- Why companies are considering IIoT
- The decision for edge or cloud
- Cloud and edge selection considerations
- Advantages of edge over cloud
- Advantages of the cloud over edge
- Where is the edge?

Semiconductor development for the edge

Connectivity

- Industrial connectivity – the first step to the edge
- OPC UA
- Time Sensitive Networking (TSN)

- 5G
- Capabilities of 5G
- Single Pair Ethernet (SPE)
- Other technology trends
- The growth of IT in OT
- Open standards
- Open standards organizations
- Operating systems for edge compute
- Virtualization – Containers and VMs

Market performance

- Growth drivers
- Scenario analysis
- Industry for edge compute
- Regional for edge compute
- Deployment – Embedded vs. Module
- Analytics capabilities - Threshold vs. Machine Learning
- Convergence of automation

Product level

- Discrete industrial sensors
- Distributed Control System
- Industrial edge networking components
- IPCs
- Low voltage motor drives
- Machine vision
- PLCs
- Robot controllers

Competitive environment

Appendix 1 – Product definition

Appendix 2 - Industrial automation market outlook – including COVID-19 impact

Industrial Predictive Maintenance - 2021

KEY ISSUES ADDRESSED	COVERAGE			
<ul style="list-style-type: none"> • How are companies deciding between different approaches and models for their predictive maintenance solutions? • What approaches are required for hosting asset health data – cloud vs. Edge? • How are manufacturers working with outsourced services vs. in-house solutions? • To what degree will predictive maintenance be deployed in different industry sectors and regions? • How are new technologies, from sensing to connectivity, supporting growth in predictive maintenance solutions? • Review and outlook of the competitive landscape from automation vendors to analytics suppliers 	<p>Forecast Period</p> <ul style="list-style-type: none"> • 5-year Forecast <p>Measures</p> <p><i>2020 base year</i></p> <p><i>2021-2025 forecast</i></p> <ul style="list-style-type: none"> • Revenues • Average Selling Prices • Units <p>Regions</p> <ul style="list-style-type: none"> • EMEA • Americas • Asia Pacific 	<p>Products Covered</p> <ul style="list-style-type: none"> • Pumps • Compressors • Fans • Motors • Generators • Turbines • Bearings • Gearboxes • Pneumatics and Hydraulics • Fixed Industrial Robots 	<p>Offering</p> <ul style="list-style-type: none"> • Hardware • Software • Services <p>Service Types</p> <ul style="list-style-type: none"> • Deployment/Installation • Support & Maintenance • Training & Consulting <p>Deployment</p> <ul style="list-style-type: none"> • Customized • Out of the Box <p>Installation</p> <ul style="list-style-type: none"> • Pre-installed • Retrofit 	<p>Analytics Location</p> <ul style="list-style-type: none"> • Near Edge • On-premise • Cloud (Private vs Public) <p>Technique</p> <ul style="list-style-type: none"> • Current • Temperature • Vibration • Oil Analysis <p>Industry Sectors Covered (still being considered based on feedback from clients)</p>

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5G in Manufacturing Report - 2020

This new report from Omdia provides an overview of 5G in manufacturing, looks at its roadmap, examines its use cases, assesses the business models for 5G in manufacturing sector.

DETAILS

Frequency: Annually

- 5-year forecasts

Measures

- Spending

Regions

- Germany
- United Kingdom
- Italy
- Japan
- USA
- China
- South Korea
- Japan

COVERAGE

Quantitative Analysis

- Technology
- Business Model
- Drivers
- Challenges
- Use cases
- Ecosystem
- End-User survey analysis

News Tracker and Cost Calculator

- Licensing fee calculator for Germany
- News/POC tracker

Industrial IoT: Database

Industrial IoT Project Database

This database provides **over 500** examples of public IIoT projects, with detail by industry sector, region, % improvement by KPI addressed, and where available the end-user contact for the project. This dataset also provides average improvement for IIoT projects by KPI- to show real world payback for IIoT projects.

DETAILS

Frequency: Annually

- 5-year forecasts

Measures

- % performance improvement

Regions

- Americas
- EMEA
- Asia-Pacific

COVERAGE

ROI by KPIs

- Quality
- Productivity
- Production efficiency
- New product introduction
- Maintenance
- Safety
- Supply chain
- Design
- Asset management
- Workforce management
- Energy management
- Sustainability

Industry(includes)

- Aerospace
- Automotive
- Chemicals
- Food & Beverage
- Industrial Machinery
- Life sciences
- Oil & Gas
- Power
- Refining & Petrochemicals
- Semiconductor and electronics
- Textiles

Industrial IoT : Legacy Content Accessible to Subscribers

Industrial IoT Connectivity Database

This database looks at the current state of industrial connectivity and analyzes new technologies with the potential to transform how equipment will be networked in the future

Measures: Units, Connected devices, IIoT enabled devices

Regions :Americas, EMEA, Asia-Pacific

IIoT Devices: Discrete control and vision, Discrete field devices, Discrete safety, Process control, Process field devices, Motors and motor actuated equipment, Motor control, Switchgear, Networking equipment

Industrial IoT Readiness Benchmarking Report and Survey & Leadership

An assessment of the manufacturing industry's readiness to deploy IoT solutions and identify areas where further investment is needed using actual survey results from companies in different industries, regions, and of size.

Key Pillars of Readiness: Networking and infrastructure, Data handling, Skillsets and collaboration, Software, Cybersecurity, Governance

Regions: Americas, EMEA, Asia-Pacific

Industries: Automotive, chemical, CPG, life sciences, mining, oil & gas, power generation, other

Company size: 1-100, 101 –1000, >1000

Industrial IoT Machine Connectivity Database

This database examines the installed base of industrial machinery, and considers the proportion of these machines that are can be networked and of these, the proportion that are IP} addressable (and so IIoT machines) This gives unparalleled insight on the opportunity for machine based services.

Measures: Units, Machinery installed base, Connectable machines, IIoT enabled machines

Regions: Americas, EMEA, Asia-Pacific

Machinery: Agricultural machinery, Food, Beverage & Tobacco, Machine Tools, Materials Handling, Packaging Machinery, Paper & Paperboard, Printing Machinery, Rubber & Plastics Textile, Woodworking Machinery, Other Machinery

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Related Content: Industrial IoT, Software and Communications Service Area Coverage



Service Area Package: Industrial IoT, Software and Communications

Industrial IoT
Viewpoint Service

Industrial Edge Networking Components –
Annual Intelligence Service

Industrial Software
Intelligence Service

Industrial Communications - Annual
Intelligence Service

Digital Innovation in Manufacturing End-
User Survey

Industrial IoT Readiness
End-User Survey

Transactional reports

- Discrete Industrial Sensors
- 5G in Manufacturing
- Manufacturing Edge Compute and the future of Automation

About Omdia's

Industrial IoT, Software and Communications Research

With a background as a market leader in industrial automation and machinery, Omdia's Industrial IoT, communications and software research provides a unique insight into the market potential, opportunities and challenges in the digital transformation of the industrial/manufacturing sector.

The research portfolio spans industrial connectivity (including 5G and TSN), industrial software (MES, APM, Digital Twin), Analytics (including Edge compute and Artificial Intelligence), and Industrial Cybersecurity. A robust primary research methodology supports quantitative analysis of these markets, alongside discussion of forecast scenarios, the competitive environment, technology trends as well as ongoing coverage of market developments. This is combined with comprehensive "voice of the customer" analysis, highlighting customer challenges, objectives and maturity levels in deployment of new solutions and business models.

This insight is used to support vendors understanding of new business opportunities, prioritizing markets and investment, as well as guiding end-users in understanding best practices for digital transformation

Our “Ask an Analyst” Service Provides Best in Class Customer Support

Whether you need guidance to navigate the service, information regarding our methodologies or you want to better understand a data trend, Omdia’s support team is here to help.

Draw on our expertise

- Make the right decisions
- Sanity-check your own findings
- Get the most out of your subscription
- Understand more about our methodologies

Our Ask an Analyst service gives you direct contact via telephone, email or face-to-face session with our expert analyst team:



Tom Coate
Customer Success
Manager



Kâren Dyer
Customer Success
Manager



CONNECT WITH US

 @OmdiaHQ | [omdia.com](https://www.omdia.com)

Customer Success

E: customersuccess@omdia.com

SALES

US: +1 (212) 652 5335

APAC: +61 (0)396 016 700

EMEA: +44 (0)7771 980 316

ABOUT OMDIA

Omdia is a global technology research powerhouse, established following the merger of the research division of Informa Tech (Ovum, Heavy Reading, and Tractica) and the acquired Omdia technology research portfolio*. We combine the expertise of more than 400 analysts across the entire technology spectrum, covering 150 markets. We publish over 3,000 research reports annually, reaching more than 14,000 subscribers, and cover thousands of technology, media, and telecommunications companies.

Our exhaustive intelligence and deep technology expertise enable us to uncover actionable insights that help our customers connect the dots in today's constantly evolving technology environment and empower them to improve their businesses—today and tomorrow.

* The majority of Omdia technology research products and solutions were acquired by Informa in August 2019 and are now part of Omdia.