Hitachi Vantara AWS IoT developed on AWS Consulting Offer

Manufacturing Insights | Maintenance Insights | Video Insights

Overview

The Hitachi solution portfolio builds on the intelligent manufacturing maturity model and empowers the digital innovation foundation essential to Manufacturing 4.0. Leveraging AI and ML techniques applied to 4M (Machine, Man, Material and Methods) Industrial Analytics provides machine, production, and quality insights that drive transformational business outcomes.

ENABLE DIGITAL EXPERIENCE

- Customer Experience
- Partner Experience
- Employee Experience and Safety

DRIVE OPERATION EXCELLENCE

- Asset and Operations
- Predictive Quality
- Digital Twins

MODERNIZE YOUR DIGITAL CORE

- ERP Transformation
- Edge-to-Cloud
- Digital Thread

BECOME A DATA-DRIVEN ORGANIZATION

- Integrated IoT Solutions
- Advanced Analytics
- Supply-Chain Optimization

ACCELERATE DIGITAL INNOVATION

- Program and Change Management
- Digital COE
- Digital Strategy

Opportunities

- Manufacturers are feeling the pressure to adopt digital technologies and business models.
- Data is central across all critical issues that Manufacturing Leadership Council vote as top of mind.
- Manufacturing 4.0 is challenging the industry to focus on the adoption of new digital technologies to help with the creation of new business value.
- Digital transformation requires new IT skills and investments in technologies not typically seen in Industrialized sectors.

Factories of the Future

4.0 **Establishing Manufacturing 4.0 Culture**
Collaborative, Innovative, Integrated and Connected

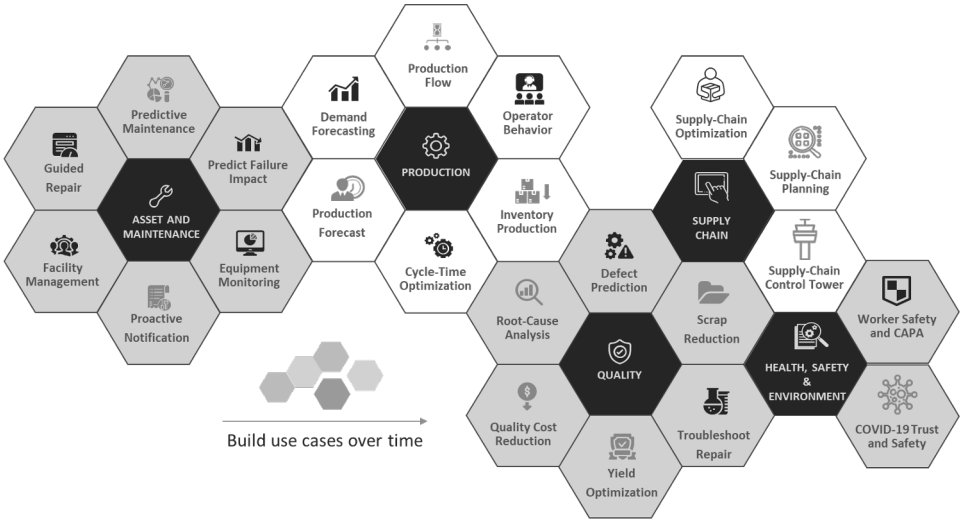
Transformative Technologies

Manufacturing 4.0 Sustainability

Next-Generation Manufacturing Leadership and the Changing Workforce

Benefits

From a manufacturing perspective, most use cases can be categorized under asset and maintenance, production, quality, supply-chain and health, safety and environment. The key is to diagnose the current state and develop a roadmap of the use cases that will help build organization capabilities, gain maturity, and deliver tangible outcomes.



Achieved Impact from Successful Digital Industrial Solutions

Cost			
IoT, AI and digitization are creating financial and competitive advantages for capacity growth and lower cost per unit through optimization of deliver, quality and safety.	Predictive Maintenance & Machine Vision Analytics **$2,300,000 / year** *Reduction in unplanned downtime* ▼	Digital Supply Chain Optimization & Operations Advisory **$22M+ / year** *Improved operational expenses through improved OEE, yields, production accuracy* ▼	Process Intelligence & Operations Advisory **13%** *Improved operations efficiency through better material flow* ▲
Safety, Security, Environment			
Application of data science on input from sensors, edge device health, safety and reliability to operators, facility, equipment and assets.	Energy Management **$420,000 / year** *Reduction facility energy costs* ▼	Asset Monitoring & Predictive Maintenance **2%** *Energy consumption due to broken component* ▼	Asset Monitoring: Safe Operations **100%** *Warning of unsafe operating conditions on manual heavy equipment* ▲
Quality			
Sensors, connected devices, smart systems and AI are revolutionizing quality, material scrap, customer returns of overall cost of quality and repair. The focus of quality initiatives is shifting from reaction to prediction.	Internal Predictive Quality & Vision Analytics **$600,000 / year** Improved production yield through waste reduction ▼	Predictive Maintenance **15%** Reduction of cars halting production due to equipment-caused quality anomaly ▼	Predictive Supplier Quality **$4,000,000 / year** Improved production yield through supplier shortages avoidance ▼
Delivery			
Manufacturers need real-time collaboration with customers and suppliers/OEMs to develop a true pull system. Machine learning and AI allows for elimination of delivery variances.	Supply Chain & Operations Planning **4% and 18%** *Reduced Import duty burden & Reduced freight costs* ▼	Equipment Monitoring & Maintenance Insights **5,500t / month** *Increased mining production operations ($500k+ I month)* ▲	Predictive Diagnostics and Guided Repair **15 min / repair** *Improved service levels to customers and decreased maintenance costs ($18M I year)* ▼

HITACHI
Inspire the Next

aws partner network

Case Studies

Electromechanical equipment and services

Connected Workforce

- Complete digitization of utilization, planning and scheduling of workers
- Waste elimination and appropriate manpower cost-allocation to jobs

LUMADA

Off-road tires and rubber tracks manufacturer

Smart Manufacturing

- Connected factory
- Production monitoring with product traceability (tracing assets, operators and process parameters)
- Insights and analytics with a focus on quality

Tire manufacturing

Digital Transformation

- Define standards for setting up a dream factory (business requirement mapping)
- Assess technology roadmap to align on ERP vs. MES vs. IoT requirements

Electromechanical equipment & services

Operations Excellence

- Manpower optimization to become a globally benchmarked player in manpower
- Ton of steel production

Information subject to change

Get Started

- Engage with Hitachi Vantara manufacturing experts to develop transformative use cases
- No-Risk and No-Commitment workshop to develop a manufacturing transformation roadmap
- ASSESS : 4-week proof of value | MOBILIZE/MODERNIZE : 3-months scale to production