

Accelerate your Smart Factory

Fujitsu Smart Factory FY2021
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FUJITSU

Human Centric Innovation

Driving a Trusted Future

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Key Trends of the AI & Data Platform For Industrial 4.0



Business Requirement

focuses on analyzing historical data. New Analytics systems extend this process to include **real-time** analytics and a shift to a predictive future.



New techniques

- Real Time Data Visualization
- Faster Time-to-Information
- Real-time Analytics(AI)
- Machine Learning of data patterns (AI)



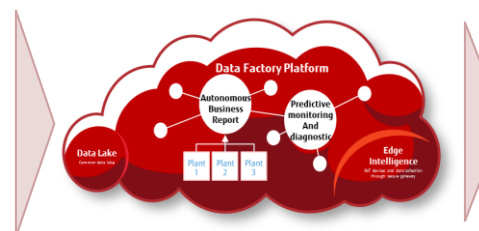
With a clearer understanding based on the data and facts derived from the analytics, **business decision making** is improved with:

- Interactive Dashboards
- Prediction (what will happen next)
- Prescription (what to do next)
- Decision Automation

Data source

Large Data Volumes
Various Data Types
Versatile Data Sources
High Velocity

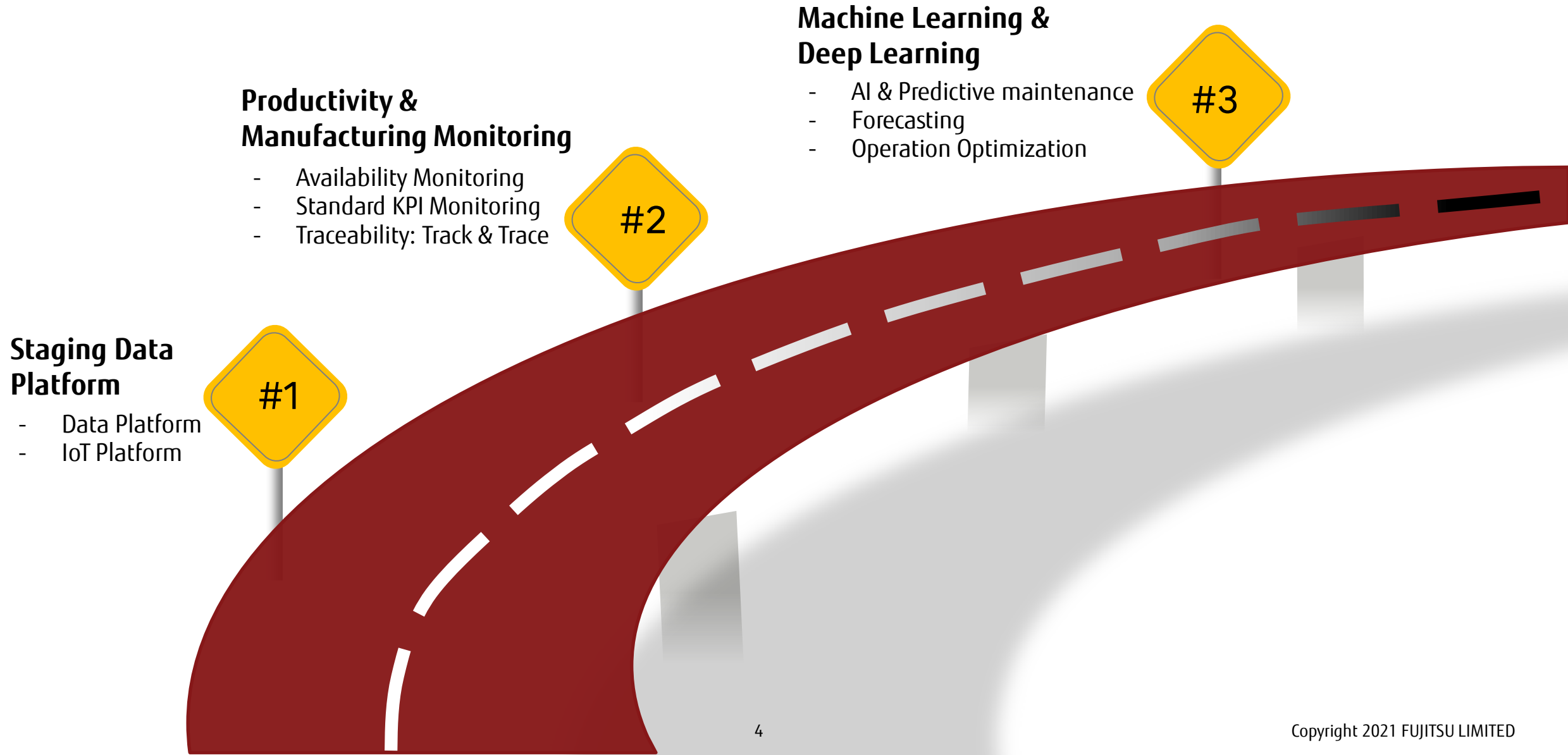
IoT Data Platform



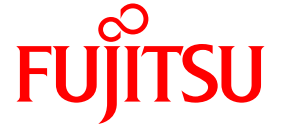
Interactive Dashboards



Factory Data Driven : Next Journey Approach



Fujitsu IoT Data Platform Overview



We offer a IoT data platform solution, which is a easy to set up system. Which can be deployed on cloud, or on the customer premise to support :

Availability and Virtualization Monitoring

- Environment monitoring
- Production Monitoring



Management



Centralised Management



Operation Staff



Smart Factory Dashboard

Analysis Dashboard

Fujitsu IoT Platform System

Communication Layer

Custom connector

IoT connector

API connector

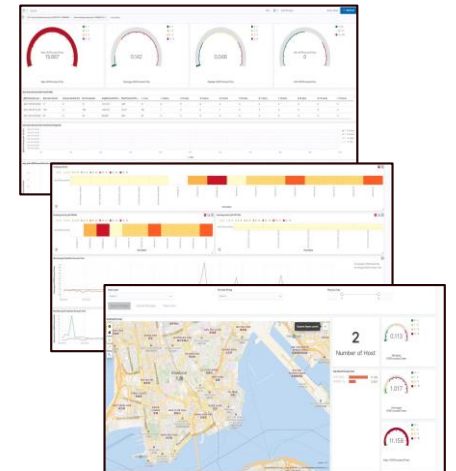
Security

System / Gateway

Endpoints

Preventive Maintenance

- Abnormally Detection
- Predictive Maintenance**



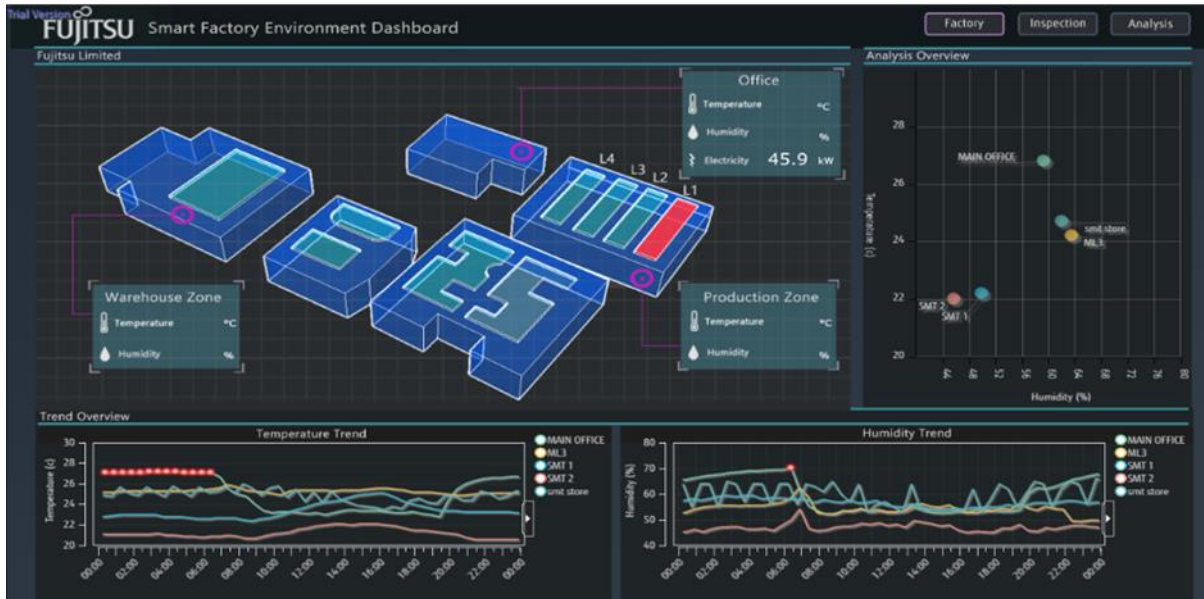
Here's what you need to know:

- ❑ The tools provide the capability to load and index data and store it in a resilient and expandable cluster
- ❑ The system can be scaled according to the volume of data and the complexity of the analysis, and expanded over time.

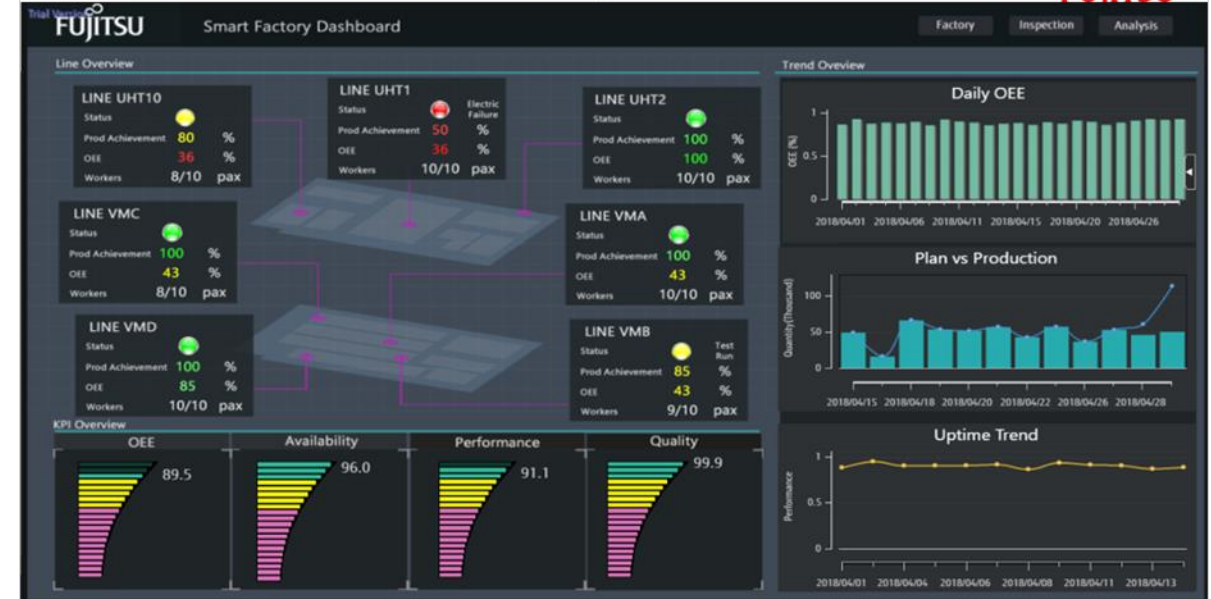
Smart Factory Dashboard

Example Factory Monitoring

Template –Environment Monitoring



Template –Line Status Monitoring



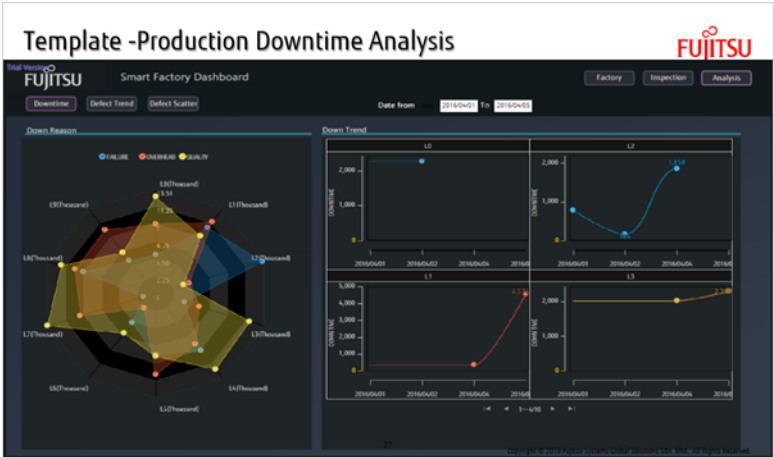
Features



- ❑ Simplify to upload and customize floor plan graphics map (2D) and customize area/zone
- ❑ Mapping and display device(s) status, alarms and events of sensors equipment
- ❑ Display summary of all current incidents, name and time stamp and multiple PIC
- ❑ Sending notification to Email or Line Messenger
- ❑ Display real-time data, history data & Trends (real-time & history data)

Analysis Dashboard

Analysis Template



- ❑ Better to Monitoring Incidents/cases inside the Factory/Production Plant.
- ❑ Better to Drill down to Incidents/Cases per production line
- ❑ Abnormally Detection



Connected Platform

Analysis Algorithm

Sensor

PLC

Machine

Scada

Operation process
(Stop-Call-Wait)

Data Source

OPC Gateway

Data Collector

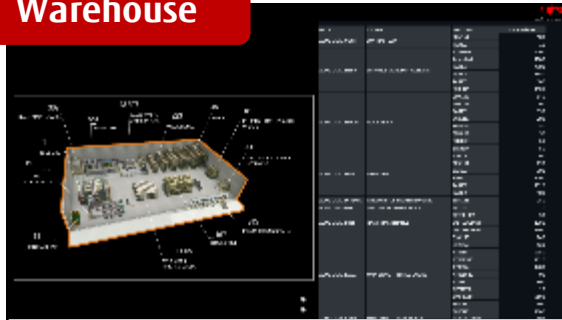
Server

Database

Factory Data

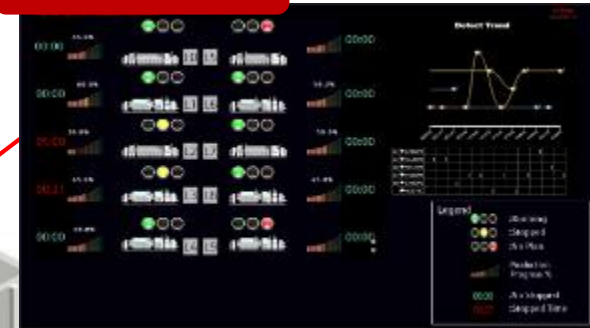
Scenario Use Case

Warehouse



Product Stock Tracking

Production



Visualize Machine Operation Status of Production Line

Control Room



Real-time Production Progress & Machine Status & Energy Consumption Monitoring

Quality Assurance



Product Inspection Check Management

Operator and Productivity Monitoring

Traditional Worker Monitoring



- ❖ A supervisor's job is to oversee the employees and make sure the employees are performing their job satisfactorily
- ❖ End of Day/ End of Month Data Summary Report

Operator and Productivity Monitoring



Automating data collection and it also allows for real time data analysis. In addition to collecting an accurate computerized record, it is also possible to control an entire process based on the input from the condition that the customer can define



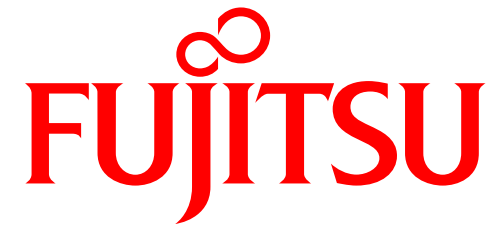
Key benefits

- ❑ Automatic collection and aggregation of data, delivered in real-time.
- ❑ Monitoring of improvement activities and their results.
- ❑ Reduced time-to-action with real-time performance feedback.
- ❑ Graphical view of the performance of your plant, department or specific machine or machine group.
- ❑ Ability to scale your IT landscape as your business evolves and your requirements grow

- ❑ Operator Monitoring system AI. Plug-in existing IP camera with dIA Intelligence software and turns it to AI Camera with Process Automation that able to detect various types of things and re-act to environment as preference presets
- ❑ Tracking and automatically monitoring workers/ operators at their working stations with AI and Automation Process to detect and identify working performance, time in condition, time out conditions and idle stage for process and productivity improvement.

SMART FACTORY DASHBOARD

A centralized window for your factory



shaping tomorrow with you