

NISO



Production Monitoring System



“If you can't measure it,
you can't manage it.”

Peter Drucker

PURPOSE



Dynamic

The aim of production facilities is to produce a large number of products in the most efficient way. All devices contain different parameters and operate in different operating dynamics.



Time

If any device in the production facility malfunctions, the entire production process suffers. Problems should be understood and resolved within hours or even minutes.



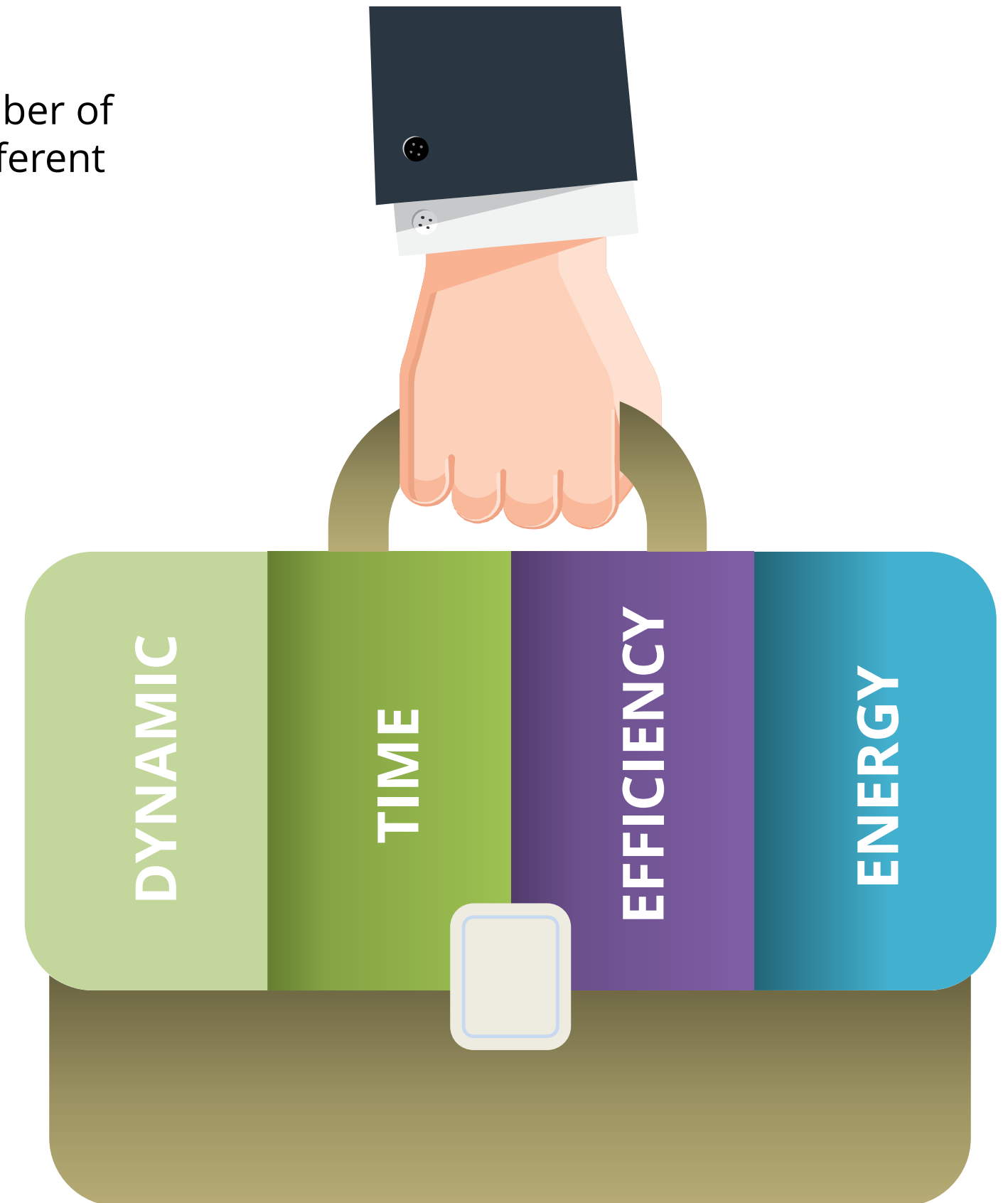
Efficiency

By using big data analytics and artificial intelligence methods, it is aimed to define all processes of the production facility, increase efficiency and support predictive maintenance, in parallel with the concept of smart factories.



Energy

By identifying inefficiency points in facilities and providing solutions with quick actions, it will contribute to a greener future by using less energy.



NISO

Light Up Your Manufacturing !



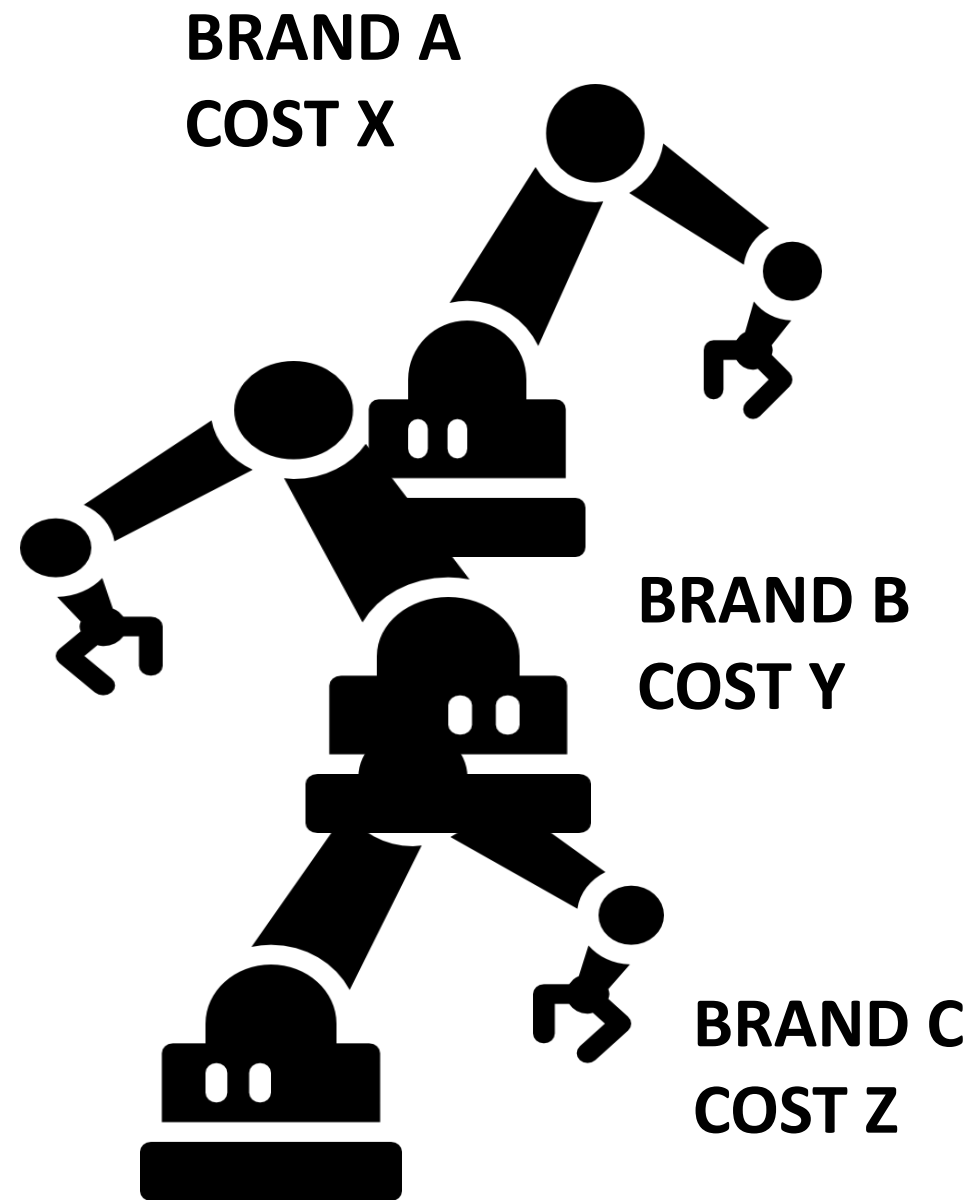
Content

- What is PaMiS?
- Data Collection
- Management
- Tracking & Monitoring
- Machine Learning / AI
- Why PaMiS?

What is PaMiS?

PaMiS is developed as a hybrid product with microservice architecture.

It is designed as a generic product that will be a solution for supporting all production.



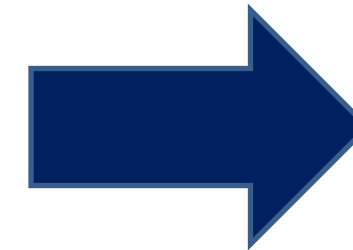
DASHBOARD
A



DASHBOARD
B



DASHBOARD
C



A & B & C BRANDS
SINGLE COST
SINGLE DASHBOARD



Real-time Monitoring

Streaming of continuously
updated zero-to-low
latency information



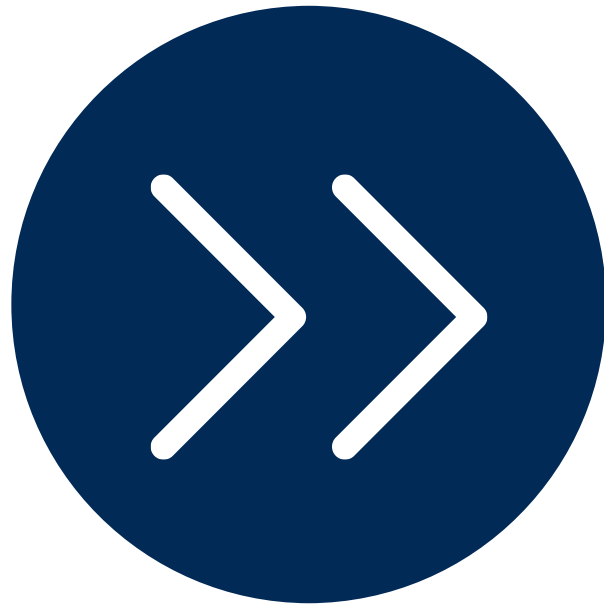
Transparency

Full availability and access to
information required for
collaboration and collective
management decision making



Anomaly Detection

Define anomalies and
detect them



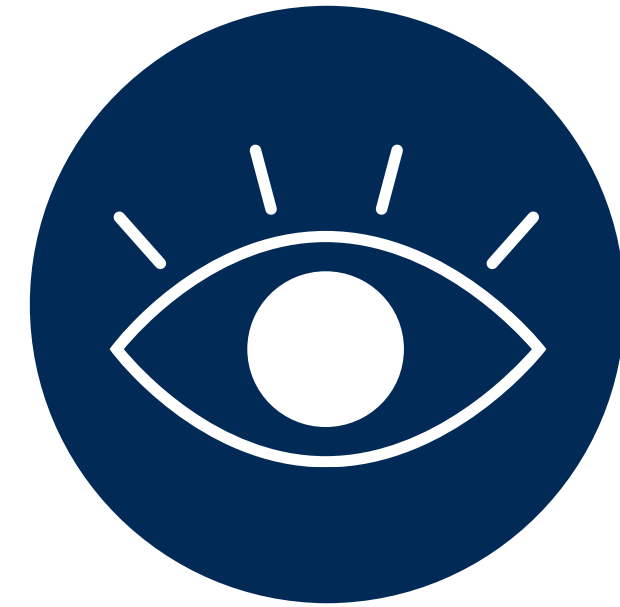
Fast Reaction

Monitor the defects and
defect cause and take
action



Easy Access

Available on web and mobile

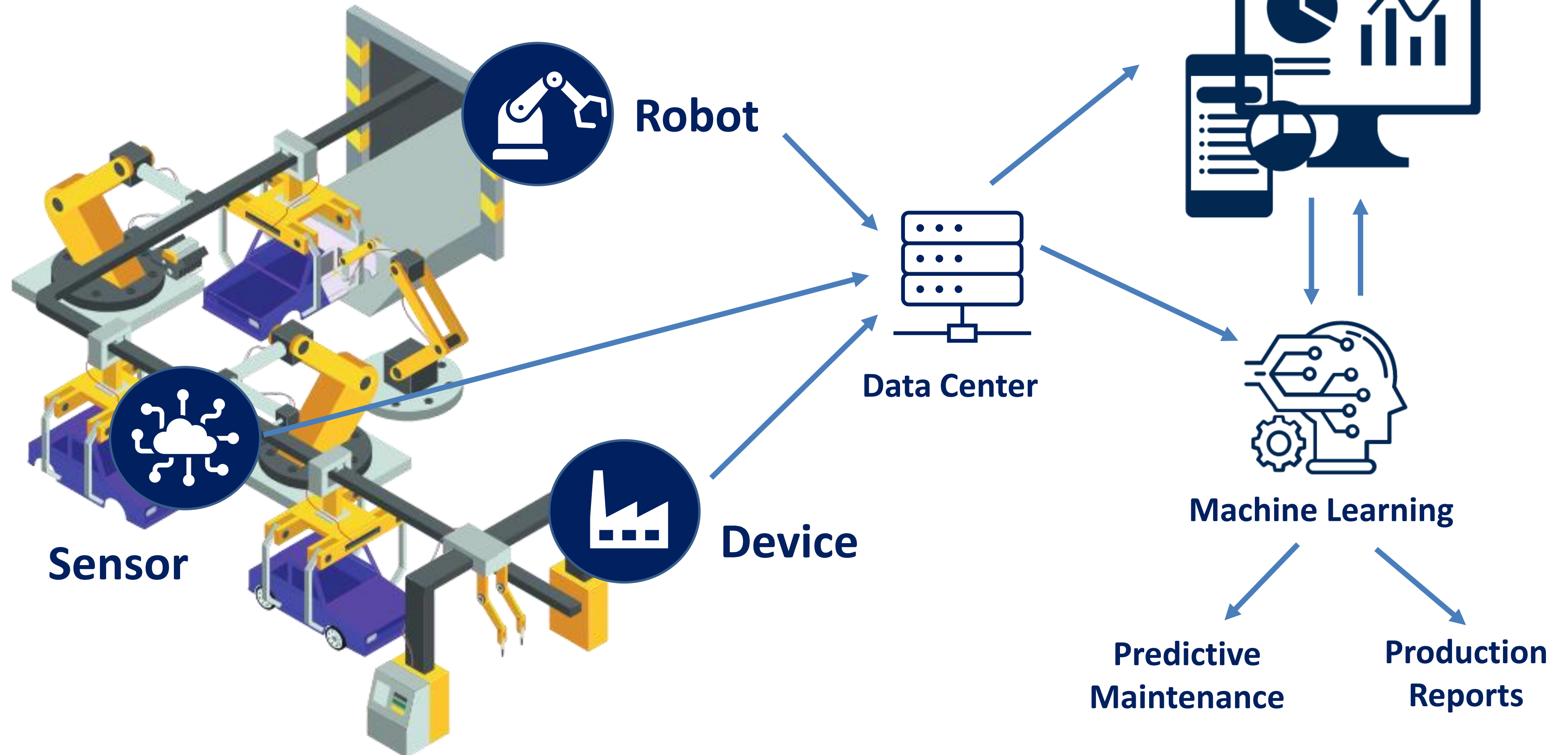


Production Insights

Structured information

DATA COLLECTION

Data Collection



Data Collection



Country / Factory / Plant



Sensor, device



Robot, PLC

Various
data
protocols

MQTT
OPC/UA
Modbus
...

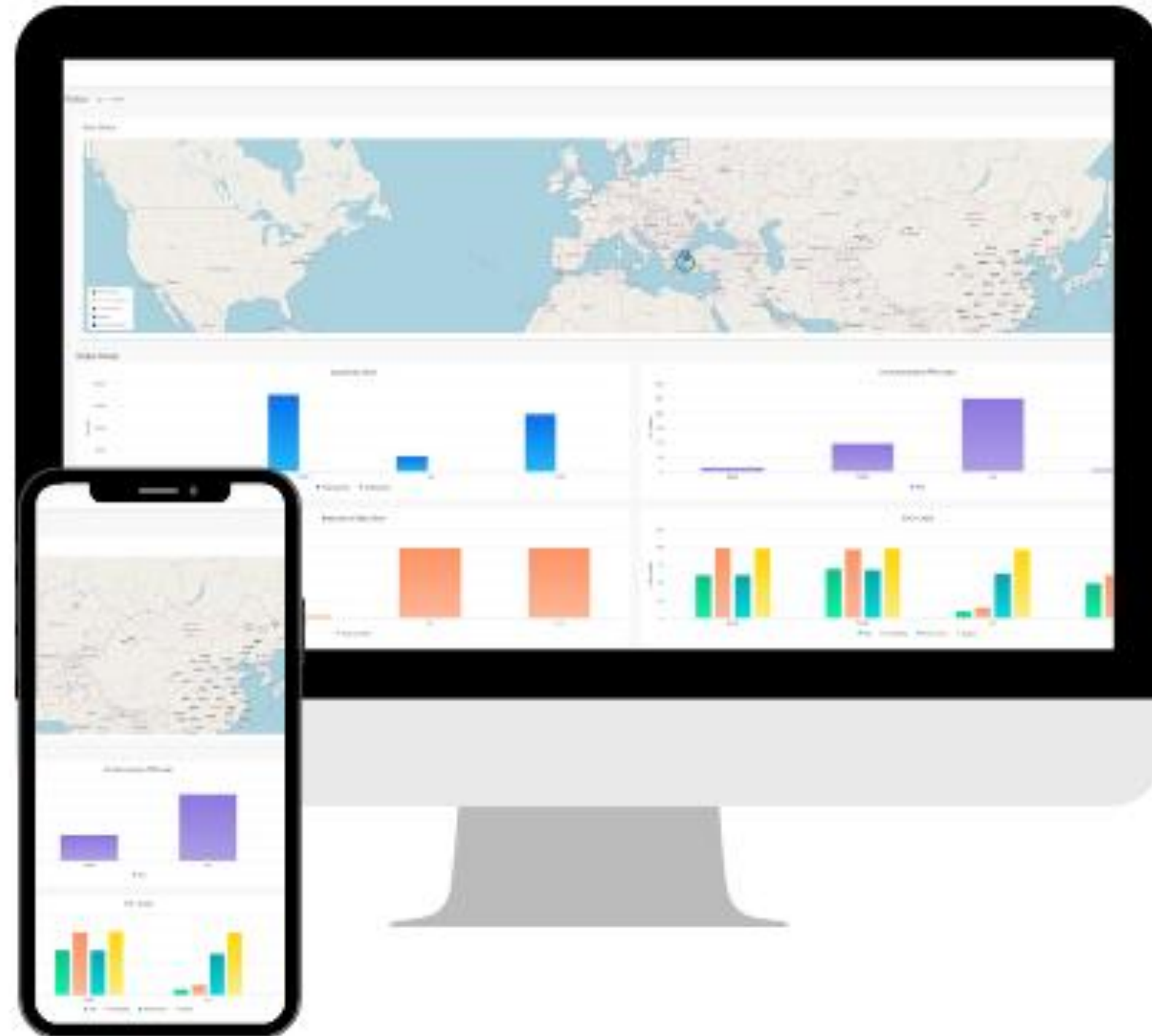


MSSQL
MySQL
PostgreSQL
Influx
MongoDB
Oracle



MANAGEMENT





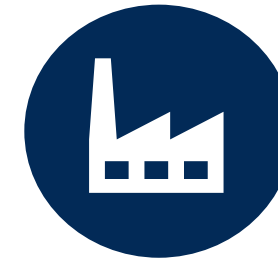
- ROLE/USER BASED MANAGEMENT
- COUNTRY/LINE MANAGEMENT
- ASSET MANAGEMENT
- QUALITY MANAGEMENT
- SHIFT MANAGEMENT
- WORK ORDER MANAGEMENT
- NOTIFICATION MANAGEMENT
- TASK MANAGEMENT

ROLE/USER BASED MANAGEMENT



- Different user level support
- Level management
- User levels:
 - C Levels
 - GM/PM/Directors
 - Managers
 - Engineers
 - Technician

COUNTRY/LINE MANAGEMENT



- All countries, lines data in one platform
- Country, line operations

ASSET MANAGEMENT



- Define/modify asset
- Assign product specs. & parameters to an asset
- One page asset monitoring
- Asset follow-up with real-time production data

QUALITY MANAGEMENT



- Production Quantities
- Efficiency
- OEE
- Availability
- Performance
- Quality
- PPM
- Breakdown Rate

SHIFT MANAGEMENT



- List all the shifts
- Define/modify shifts
- Monitor asset's shift-based production data

WORK ORDER MANAGEMENT



- List and view workorders
- Schedule and assign workorders
- Integrate workorders from ERP/CMMS

NOTIFICATION MANAGEMENT



- Anomaly types
- Priority management
- Convert anomalies to tasks

TASK MANAGEMENT

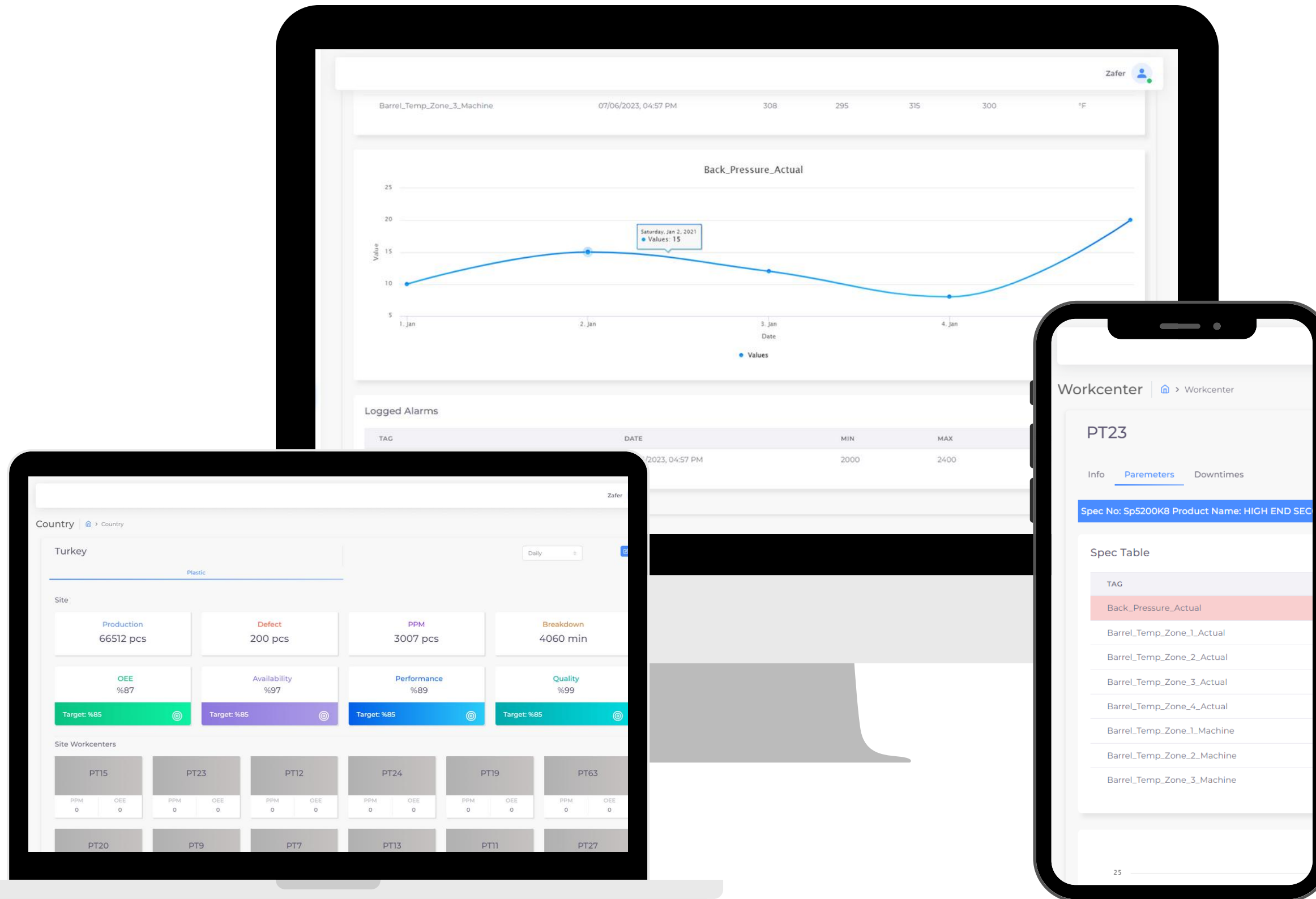


- Listing tasks
- Assign tasks
- Update and add actions to tasks

TRACKING & MONITORING



- All Data In One Platform
- End-to-end Monitoring And Tracking Production Data
- Breakdown Tracking
- Production Insights
- User Friendly & Responsive Design



MACHINE LEARNING & AI

PaMiS Can Detect Anomaly Situations With Machine Learning & Artificial Intelligence

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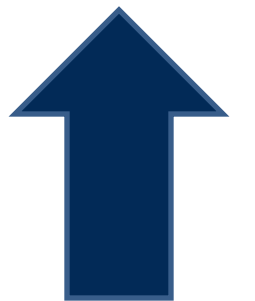


REDUCE BREAKDOWNS

Prevent the breakdowns with predictive maintenance by recognizing abnormal patterns, allowing for real-time anomaly detection.

INCREASE EQUIPMENT LIFE

Extend equipment life by contributing to the identification of root causes of chronic malfunctions.



INTEGRATION

ERP

MES

3RD PARTY APPS

ADVANTAGES

- Production Data

- Fault Data

- Trend Data

- Equipment Data



Production Quality

Customer Satisfaction

Raw material and stock efficiency

Equipment/employee capacity efficiency



Energy and maintenance costs

Faulty production and scrap/waste quantities

Downtime times and numbers

WHY PaMiS?

COLLECT DATA FROM ALL KINDS OF MACHINERY DEVICES
AND SENSORS AND VIEW THESE DATA ON A SINGLE
PLATFORM BASED ON USER GRANTS



ON PREMISE/CLOUD OPTIONS

INTEGRATION WITH ERP, CMMS, SAP, 3RD PARTY,
TEAMS, SLACK

PREDICTIVE MAINTENANCE

USER FRIENDLY & SIMPLE DESIGN

Thank You For Your Time!

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