

Overview

The Market

OPC Opportunity

Q&A

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WW Manufacturing & Resources
Microsoft Corporation

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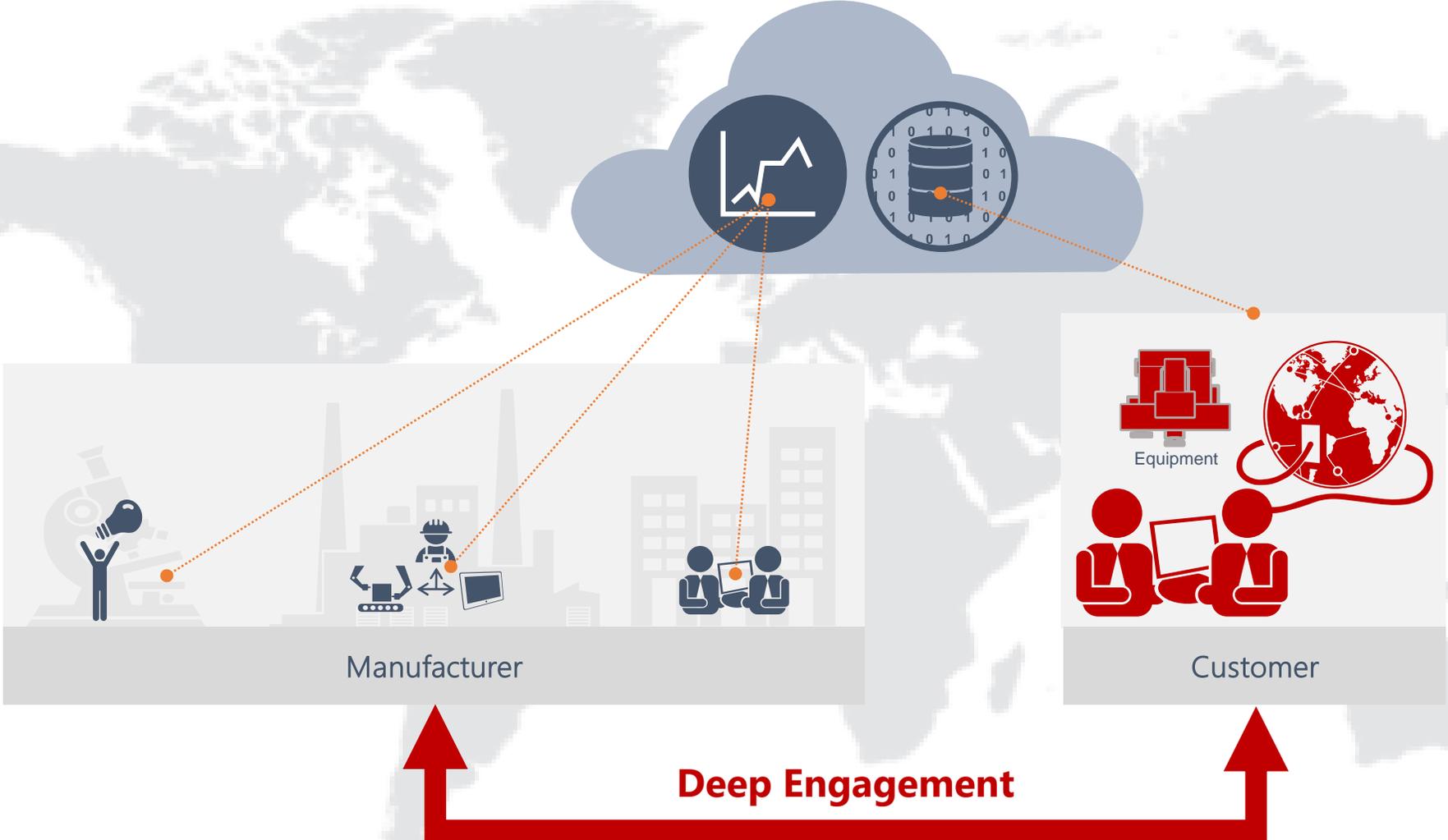
Director Product Development
Europe
Iconics

Connected Operations

The internet of things, people and services



Manufacturer – Transformation is happening



Horizontal Integration



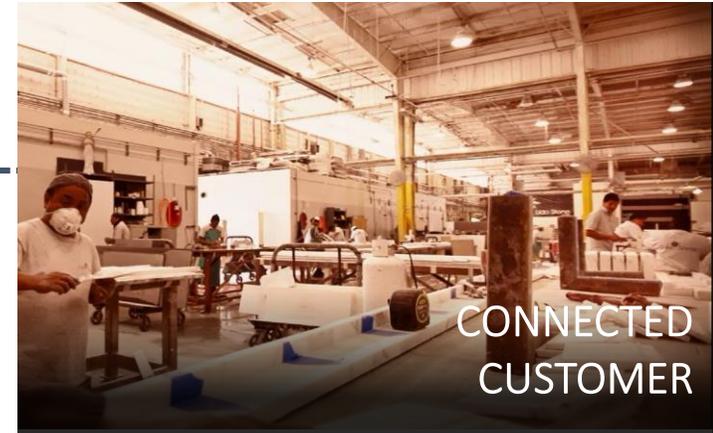
Vertical Integration



E2E Engineering Integration

Deep Engagement

Transforming the business



Connecting devices enable new service models

Customer insights enable process improvement to enhance services

Predictive service delivery based on asset condition creates differentiation

Service optimization and productivity creates growth and revenue

Data and the value of standardization

$-e^{i\pi} = \underline{\hspace{2cm}}$

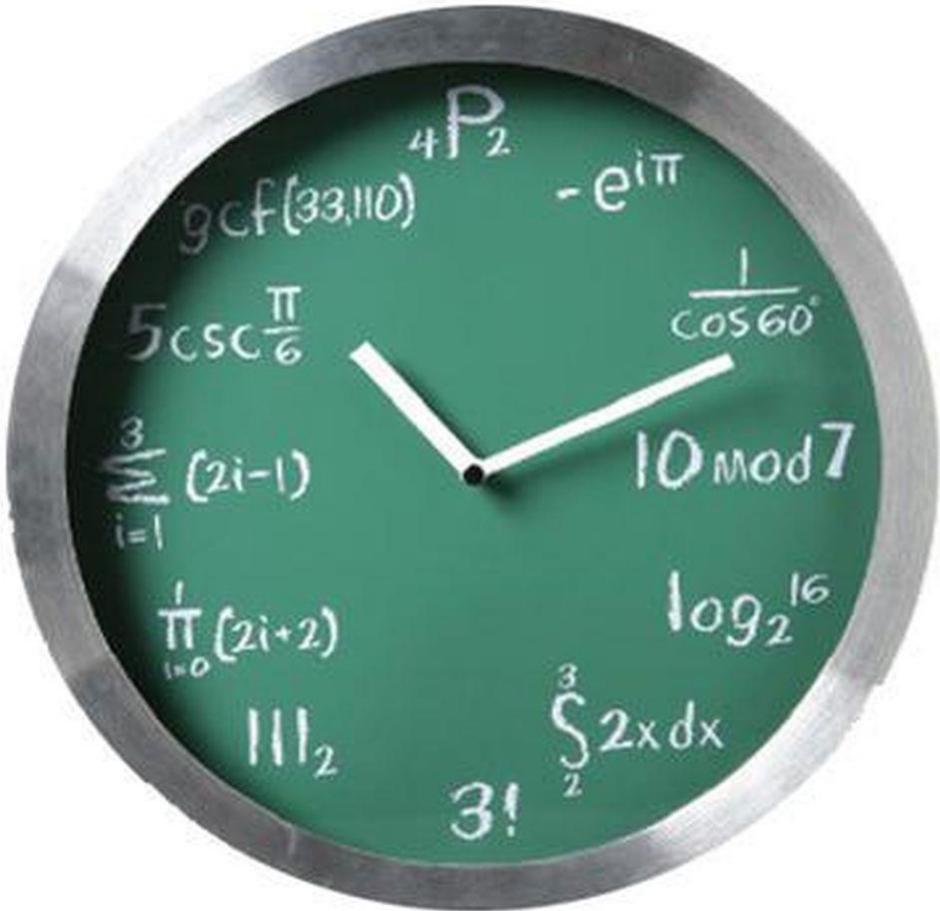
$1/\cos(60^\circ) = \underline{\hspace{2cm}}$

$10 \bmod 7 = \underline{\hspace{2cm}}$

$\log_2^{16} = \underline{\hspace{2cm}}$

$\int_2^3 2x \, dx = \underline{\hspace{2cm}}$

$3! = \underline{\hspace{2cm}}$



Resolves business challenges

- Security
- Speed
- Interoperability
- Scale
- Agility
- Repeatability
- Cost effectiveness
- Transform (ETL)
- ...

Working with data in the new connected world

“5% of my data is all I can take advantage of”

“I don’t have storage to keep more than ½ day of data”

“if I connect, manage and analyze quickly, then I can uncover trends and react”

“I cannot download and upload quickly enough that much data ”

Connect | Manage | Analyze | Use Transform

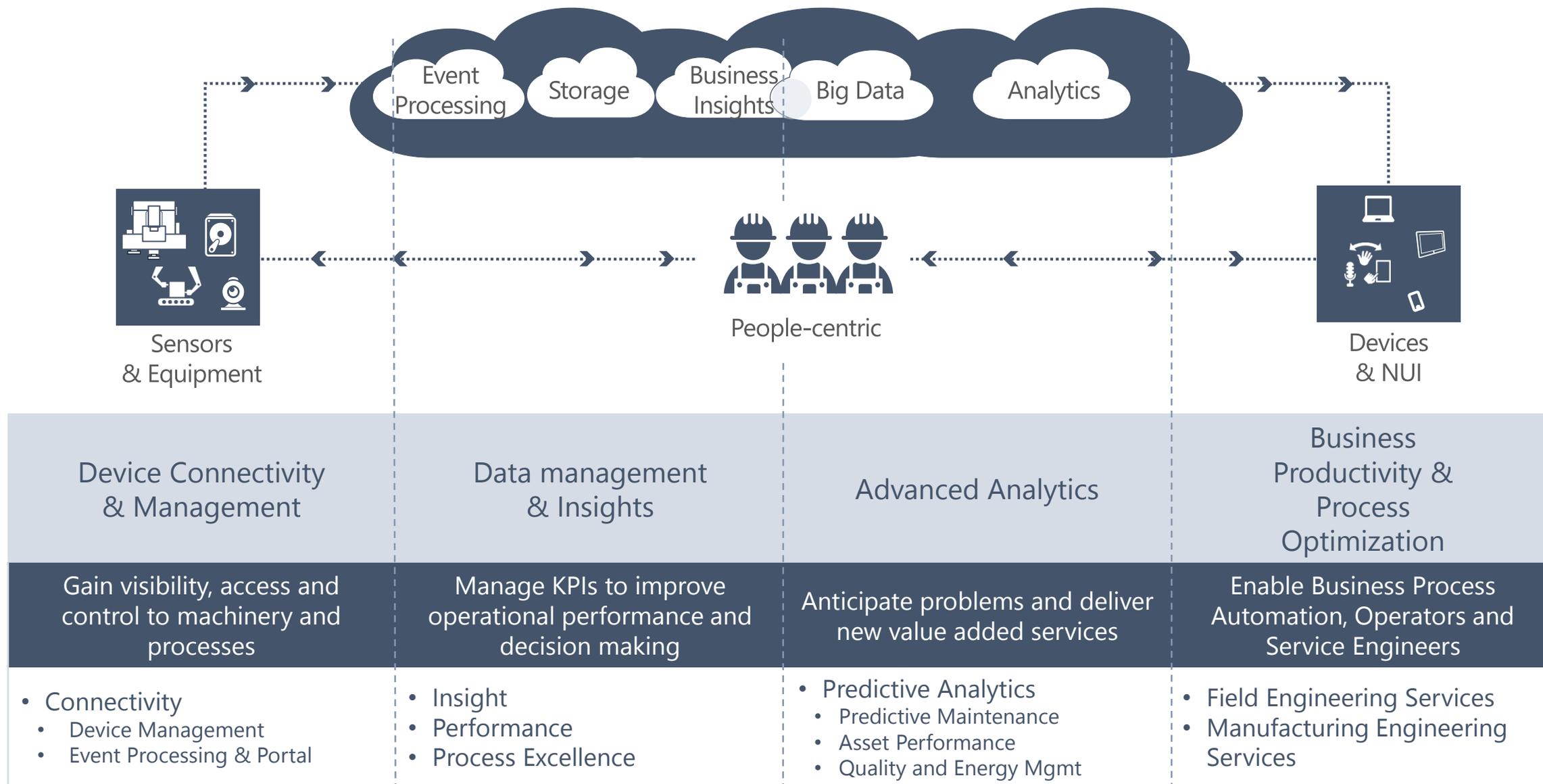
“I can gather data; I cannot translate it fast enough....”

“All this data is meaningless; by the time it is meaningful shipment is gone”

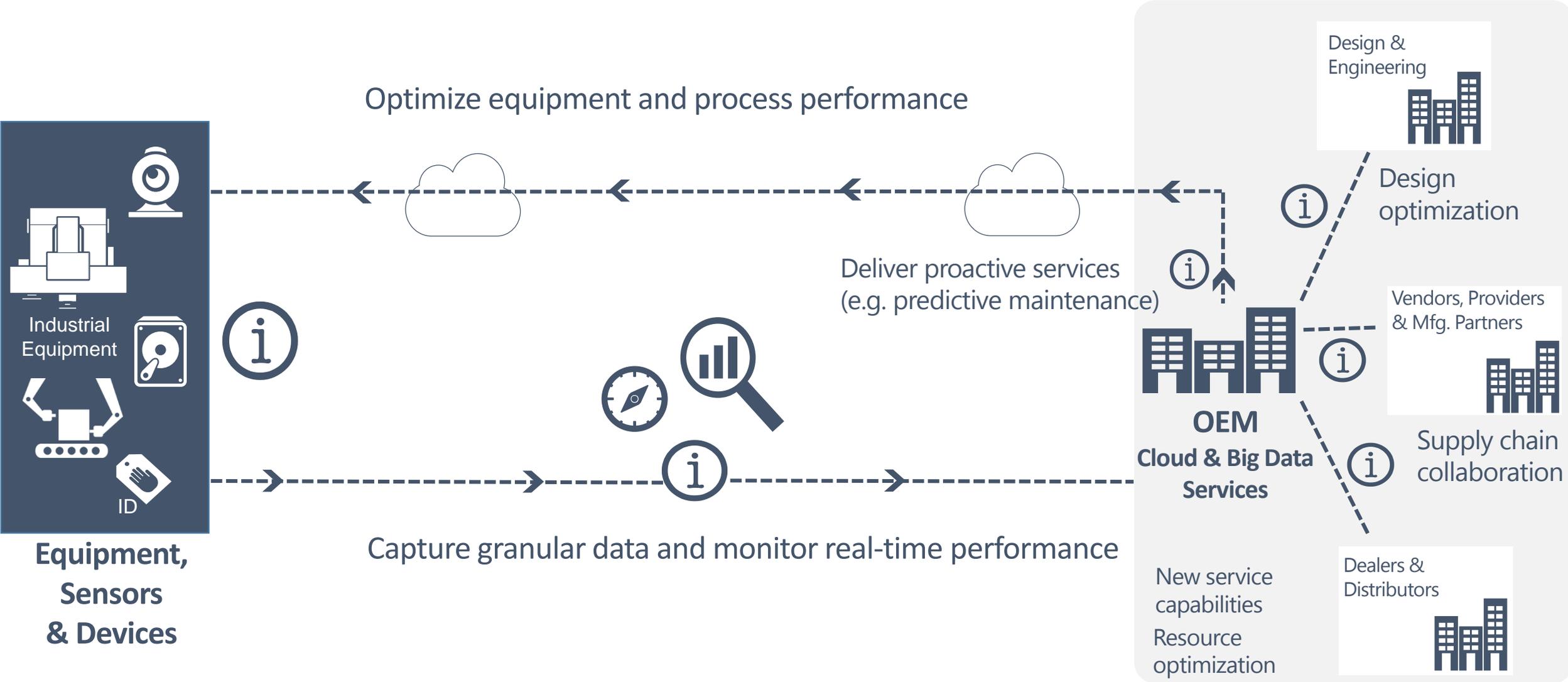
“I don’t have the complete context to make engineering changes”

“I cannot merge my data, syndicated data and vendor data easily”

Internet of Things, People and Services – Connected Operations



Information flows enabling service engagement



Enterprise & plant transformation – Cloud & Big Data

Enterprise & Plant Topology

Information Systems



Finance, HR, SCM, SRM, CRM ...

Plant Schedules, Products, BOMs, Routings, Quality, Performance ...

HMI, SCADA, Alarms, Events, Historians ...

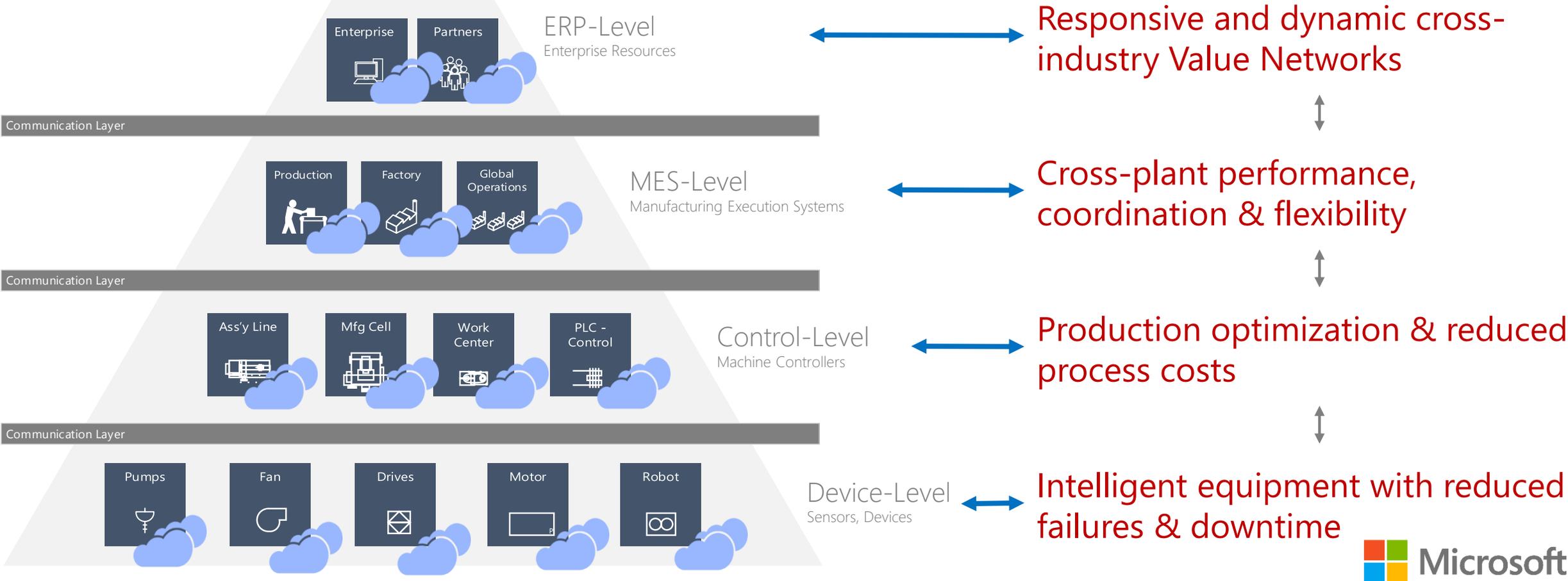
Automation Control, Safety, ...



Enterprise & plant transformation – Cloud & Big Data

Enterprise & Plant Topology

Enhanced Information Systems

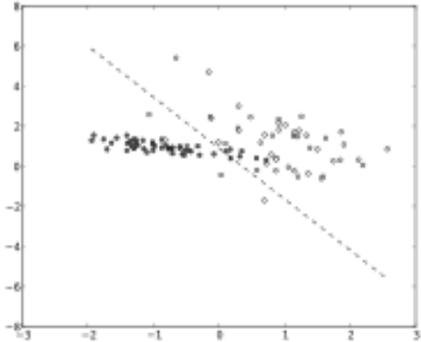
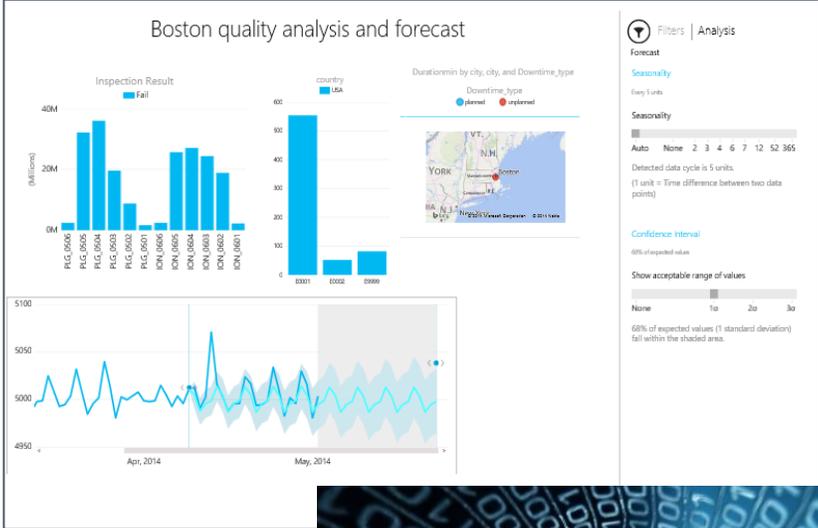


Data from M2M to Industrial IoT

- Sources
- Intensity
- Purpose
- Volume
- Management
- Disparity
- Structure
- Batch transfer



The Interoperability Standard for Industrial Automation™



Evolution with innovative approaches



People centric and cost-effective solutions easy to configure that adapt quickly to ever-changing business transformation

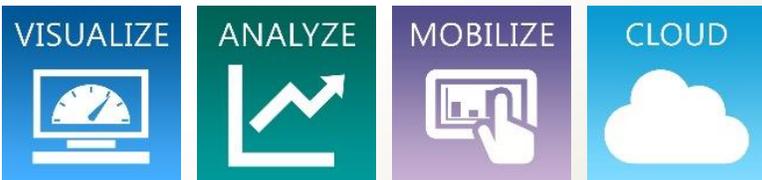
Partner in Manufacturing



Vojtech Kresl, European Development Director



2014 Microsoft
CityNext Partner of the Year



Global Presence

Established 1986

Headquarters: *Foxborough, MA- USA*

Privately Owned
200+ Employees

Largest Independent provider of
HMI/SCADA worldwide

Offices

USA, Netherlands, Czech Republic, UK, Germany, Italy, France, China, India, Australia



Microsoft Partner
Gold Application Development



Industrial IoT



Building Energy
Sustainability



Manufacturing
Intelligence



Mobile
Analytics

CityNext



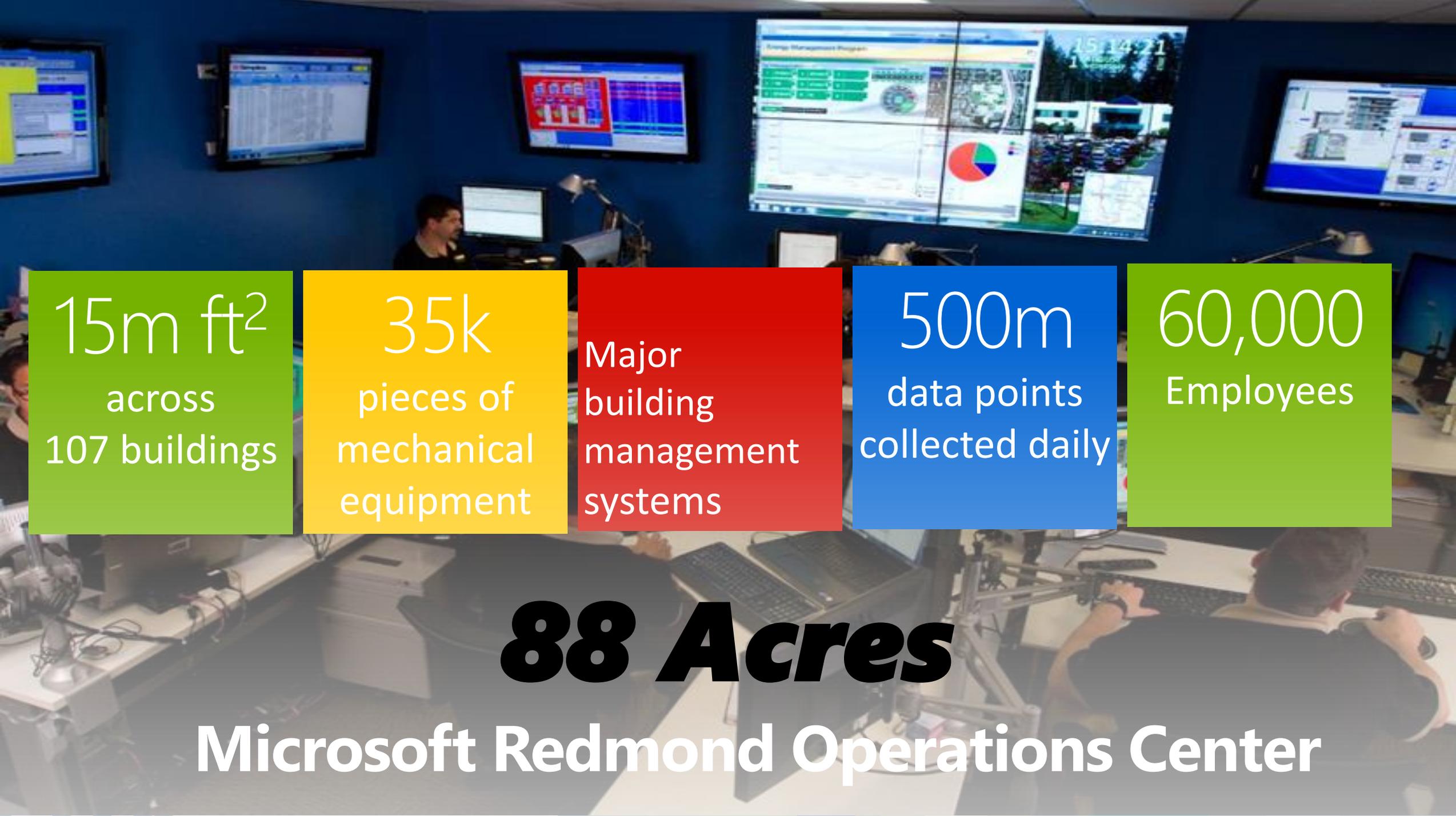
Energy &
Water



Buildings,
Infrastructure,
Planning



Transportation



15m ft²
across
107 buildings

35k
pieces of
mechanical
equipment

Major
building
management
systems

500m
data points
collected daily

60,000
Employees

88 Acres

Microsoft Redmond Operations Center

ICONICS has 4 Windows apps on the Store:

1. MobileHMI
2. MobileHMI for Water
3. MobileHMI for Oil & Gas
4. MobileHMI for Energy
5. MobileHMI for Manufacturing

MobileHMI for Water



Description

The MobileHMI for Water application is built to highlight the ability of MobileHMI and ICONICS to aid the Water Industry in aggregating the wealth of data provided to them and increase mobility. In order to accurately portray the industry a story has been developed to guide the user of this demonstration application.

Users

Each user has a different subset of information that they are allowed to view based on security. Some will be able to view only high level KPIs, others will have access to more detailed information that will enable them to fix issues and track assets.

User Roles



Customer

Customers can view a personalized dashboard of their commercial building or residence. Viewing current water usage as well as comparisons to past usage enable smarter consumption and when compiled with cost data allows for cost savings.



Operator

Operators receive calls from customers reporting problems within metering areas and must respond by combining data to figure out root causes and provide details for field service technicians.



Technician

Field Service Technicians spend most of their time moving. While onsite they work with the Operators to fix issues that arise for customers. Also responsible for maintenance they need to be able to pull up details about where they are and any equipment near by.



Manager

Managers can view high level KPIs that allow them to get an idea of operations without confusing the details with the message. While they are allowed to view how things are running their main concern is the overall cost and efficiency.

Click to Begin Tutorial

 or select a role



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United States

Plant Overview

- Plant Overview
- OOE
- Production
- Reporting
- Analytics

64%

OOE

553 kWh

ENERGY (last hour)

Plant Overview

1 LINE

OOE

82%

EN

2 LINE

OOE

55%

EN

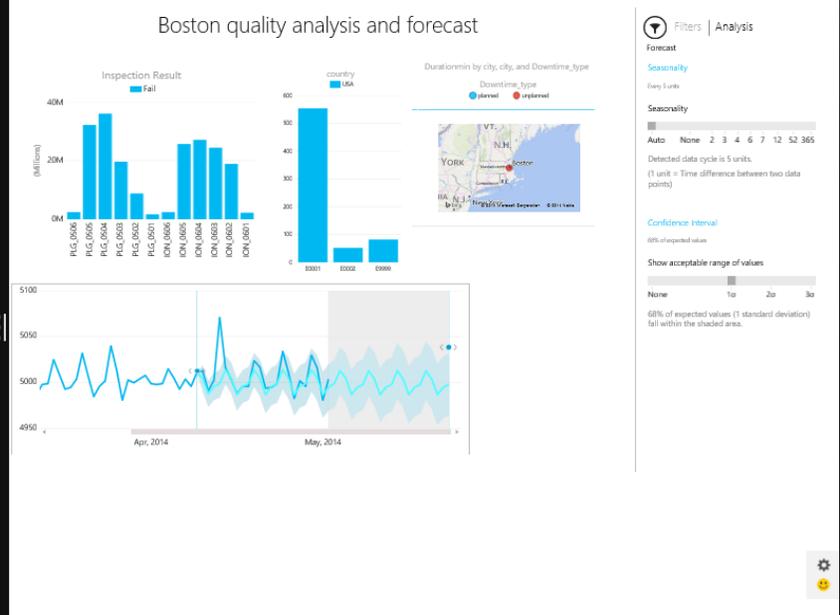
3 LINE

OOE

82%

EN

Boston quality analysis and forecast



Inspection Result

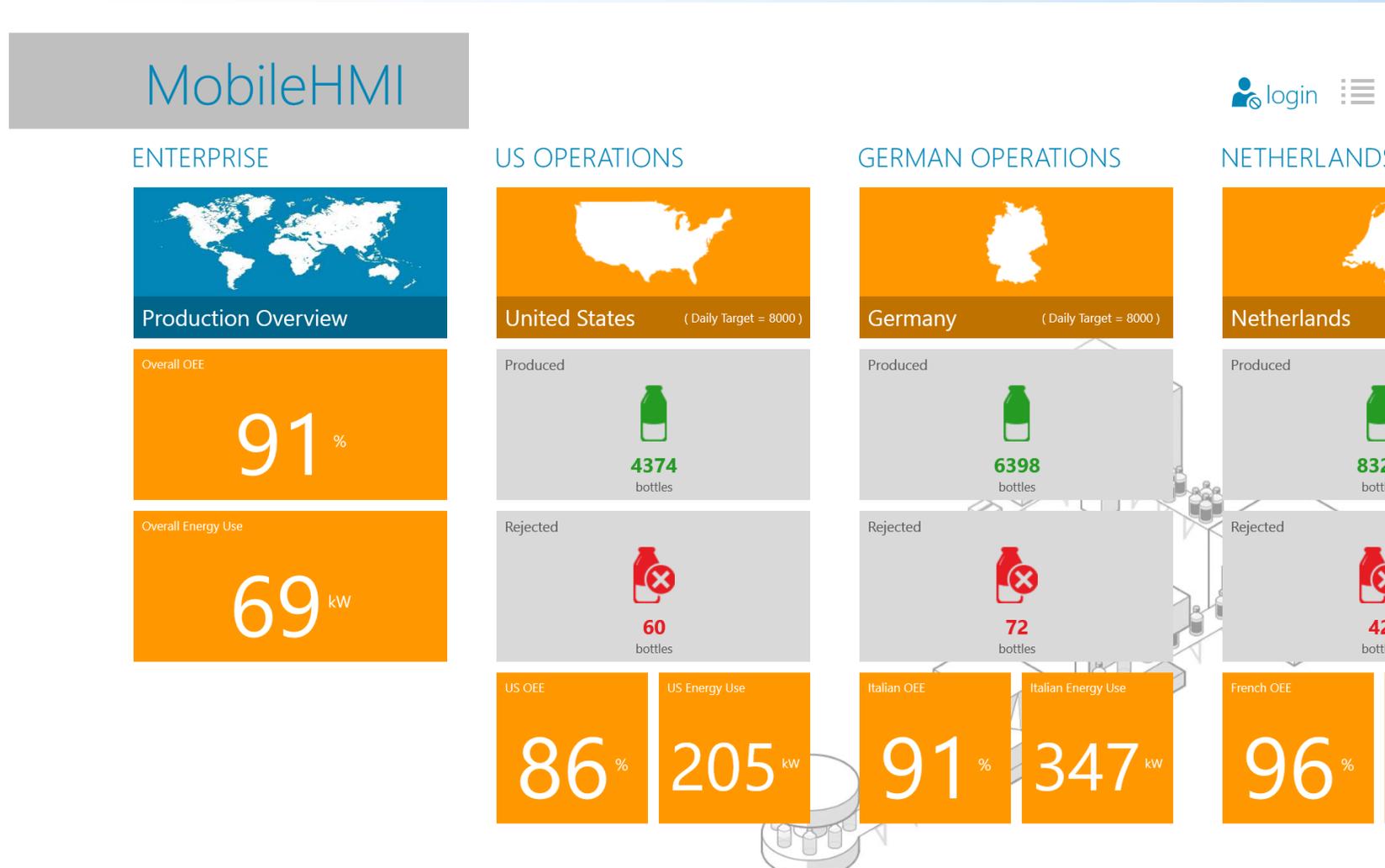
| Item | Fail | Inspected | Repaired |
|----------|------|-----------|----------|
| PLC_0506 | 35 | 40 | 5 |
| PLC_0504 | 30 | 35 | 5 |
| PLC_0503 | 25 | 30 | 5 |
| PLC_0502 | 20 | 25 | 5 |
| PLC_0501 | 15 | 20 | 5 |
| ICN_0605 | 10 | 15 | 5 |
| ICN_0604 | 10 | 15 | 5 |
| ICN_0603 | 10 | 15 | 5 |
| ICN_0602 | 10 | 15 | 5 |
| ICN_0601 | 10 | 15 | 5 |

Quality Forecast

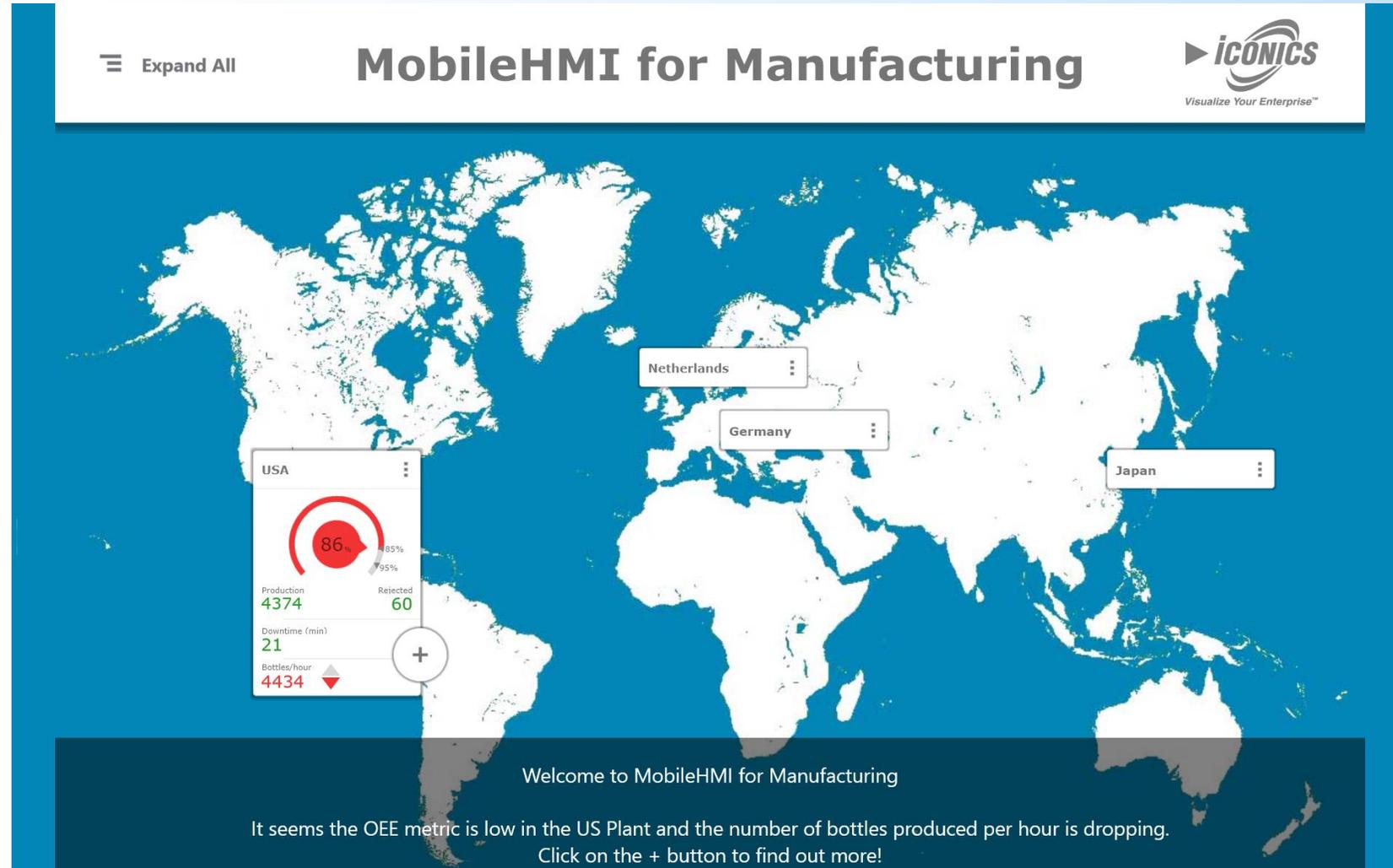
Apr, 2014 - May, 2014

5100, 5050, 5000, 4950

ICONICS MobileHMI for Manufacturing



ICONICS MobileHMI for Manufacturing



Expand All

MobileHMI for Manufacturing



Visualize Your Enterprise™

USA

86%

85%

95%

Production
4374

Rejected
60

Downtime (min)
21

Bottles/hour
4434

Netherlands

Germany

Japan

Welcome to MobileHMI for Manufacturing

It seems the OEE metric is low in the US Plant and the number of bottles produced per hour is dropping.
Click on the + button to find out more!

ICONICS MobileHMI for Manufacturing

United States
Boston ▾
Manager

Plant Overview

- OEE
- Production
- Reporting

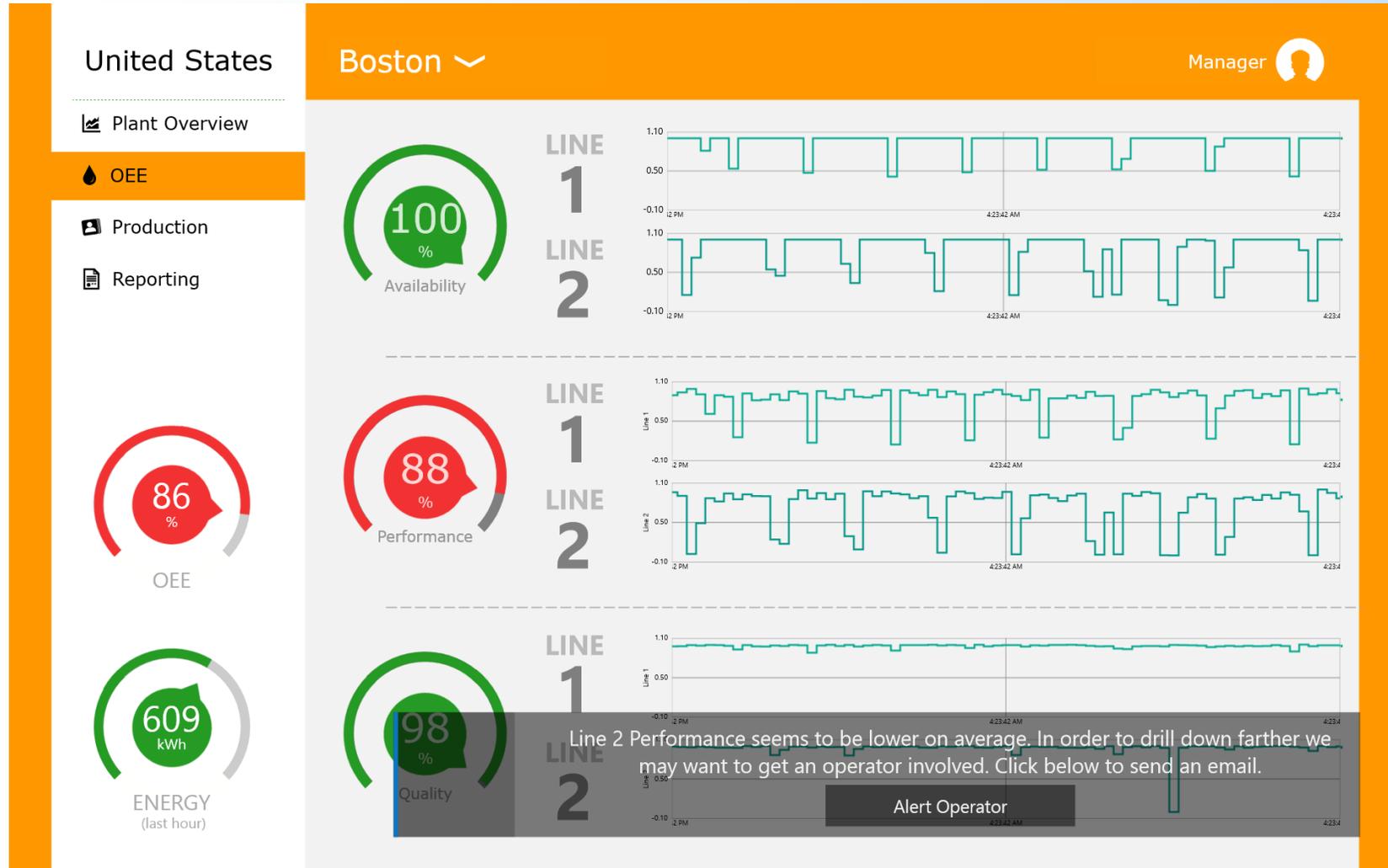
OEE

ENERGY (last hour)

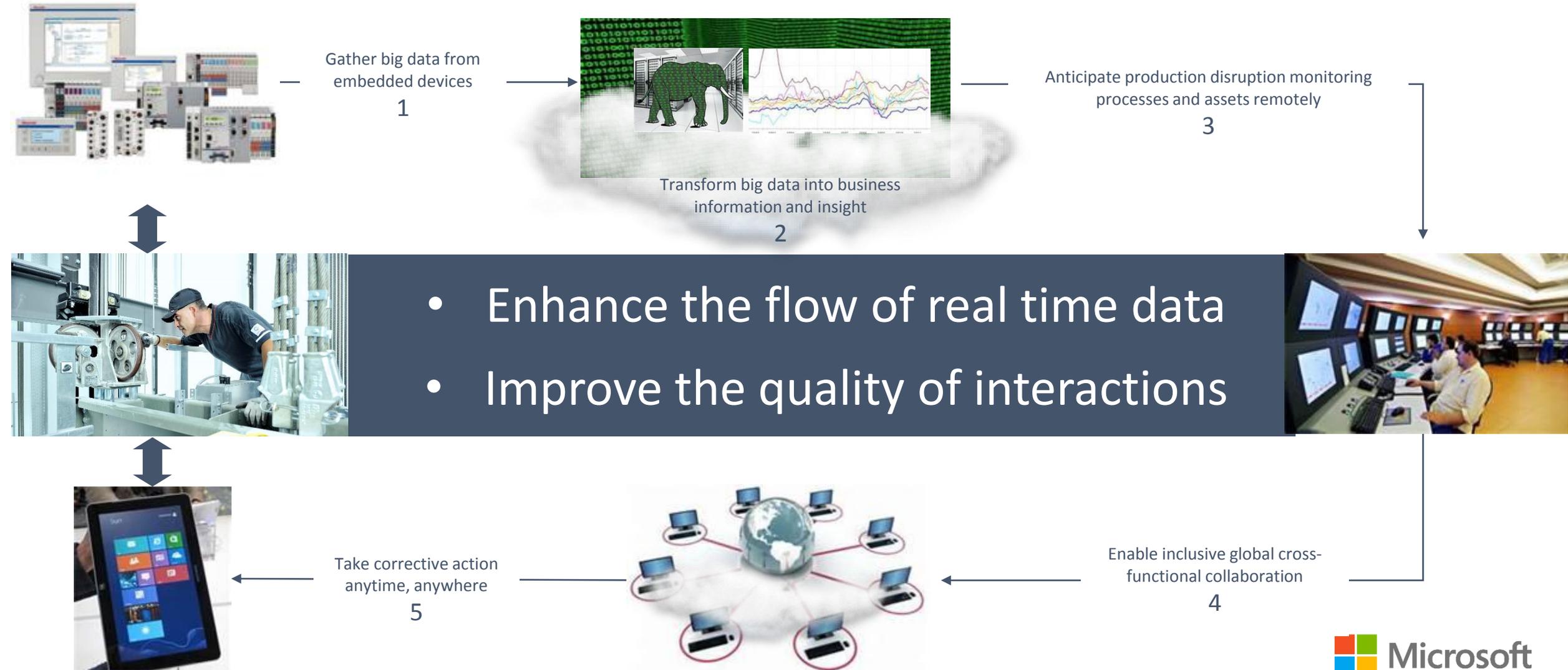
| LINE | OEE | ENERGY | Summary |
|--------------------------------|-----|--------|--|
| 1 Probe_10 Sectioning_10 | | | <ul style="list-style-type: none"> BAD PRODUCT: 60 GOOD PRODUCT: 2278 DOWNTIME min:sec: 5:00 DAILY AVERAGE kWh: 963 |
| 2 Probe_10 Sectioning_10 | | | <ul style="list-style-type: none"> BAD PRODUCT: 0 GOOD PRODUCT: 2096 DOWNTIME min:sec: 22:00 DAILY AVERAGE kWh: 1024 |
| 3 Probe_10 Sectioning_10 | | | <ul style="list-style-type: none"> BAD PRODUCT: 60 GOOD PRODUCT: 2278 DOWNTIME min:sec: 7:00 DAILY AVERAGE kWh: 963 |

Line 2 seems to be experiencing issues. With the downtime we should look into Availability and Performance. We can check by choosing the OEE tab on the left.

ICONICS MobileHMI for Manufacturing



Transforming to service centric engagement





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