

„Digital Dialogue“ Agenda | September 22, 2020

01.
8AM | 3PM

Keynote – The future of
#digital transformation

Anton Kotov

Chief Strategy Officer | Chief Digital Officer
ABB Electrification

02.
9AM | 4PM

Empowering data-driven decisions -
Overview of ABB's digital solutions

Andrea Temporiti

Head of Digital, ABB Electrification

03.
10AM | 5PM

Digitalization of data centers

Dave Sterlace

Global Head of Technology Data Center Solutions, ABB

04.

11AM | 6PM

The “Digital Feedback Loop”
– turning Data into Action

Roger Mueller

Industry Executive Manufacturing Western Europe, Microsoft

Please wait. The webinar session is about to start soon!

Roger Müller

Industry Executive Manufacturing
Microsoft, Western Europe

The “Digital Feedback Loop” - Turning Data into Action

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Digital trends continuing to transform manufacturing



Enhance customer experience

rethink processes to engage end user



Innovate Faster

offer significantly more options, be agile in customization



Create service-based business models

provide more value add support and in new ways



Focus on EBITDA Improvement

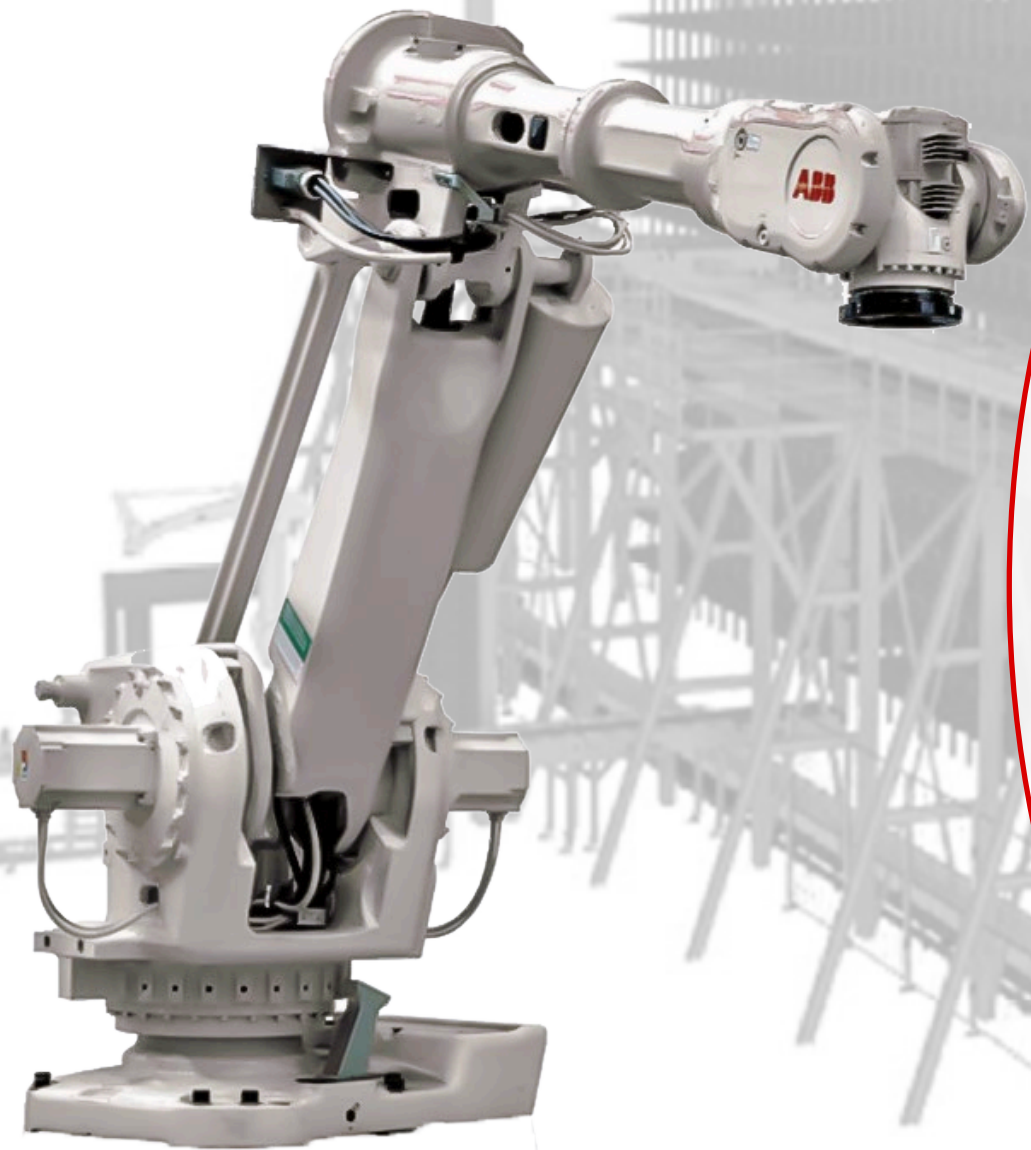
provide lower cost options by using digital & new tech

75% of purchasing agents say they are more likely to buy from manufacturers that inform them of progress and new products

55% of online consumers now demanding more customization of purchased products

83% of manufacturers currently seeing services or self-identified services as major opportunity area

92% of manufacturers either piloting or scaling digital technologies to target cost reduction



Imagine...

Imagine if you could have a flexible production which leverages sensor data to ensure processes are updated in real time.

Imagine if you could stay one step ahead of your maintenance needs, identifying optimum times and processes for refreshing your equipment.

Managing a factory means managing a number of increasingly complex trade offs between often conflicting objectives

Error free

Sustainable

On-time

Flexible

Cost effective

Secure



New capabilities in connectivity in manufacturing are required

Error free
Operational Visibility

Sustainable
Energy Management

On-time
Asset productivity

Flexible
Process optimization

Cost effective
Quality management

Secure
Process control



Implementation of agile factories typically occurs in three phases

Microsoft Digital Manufacturing - Transformation Journey

Phase
3

Amplify with algorithmic decision making and automated execution
Intelligent. Empowered.

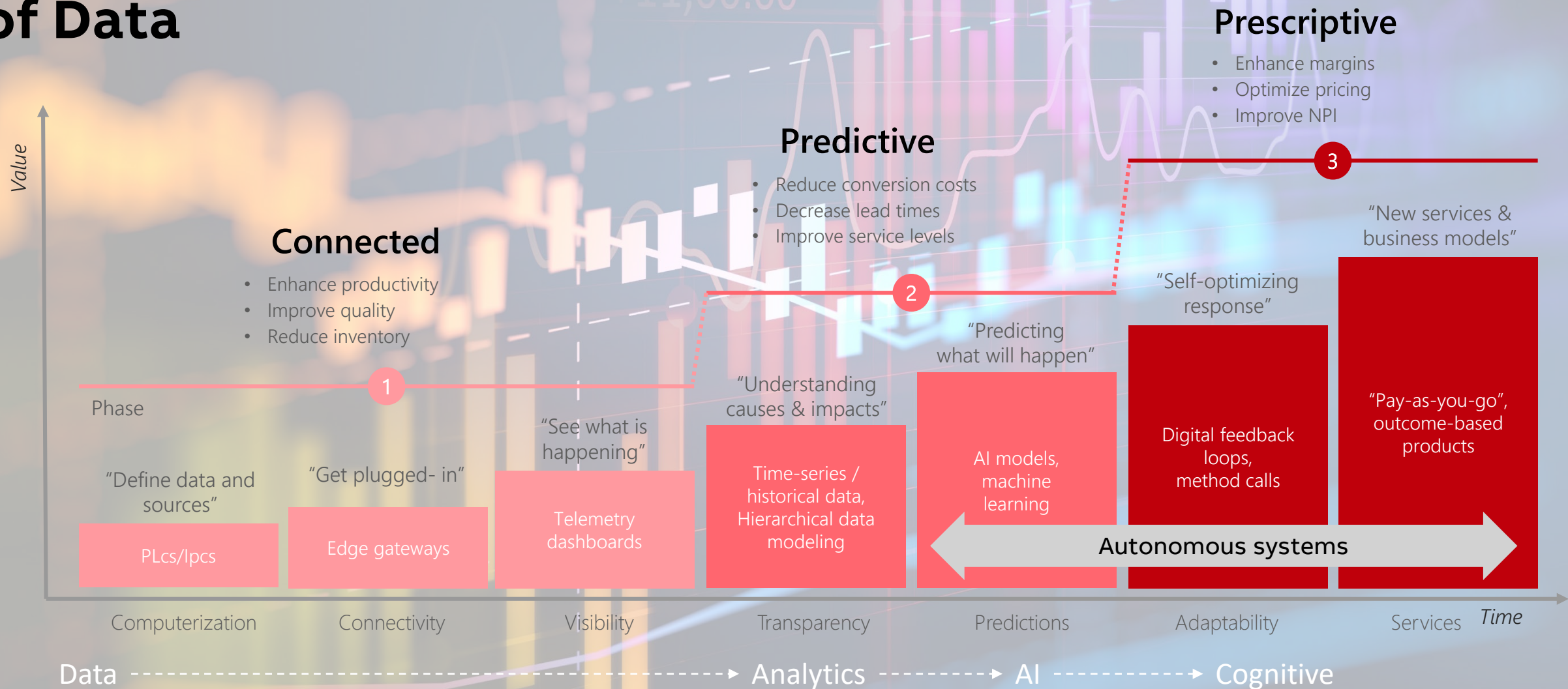
Phase
2

Move from reactive to predictive with big data, machine learning, IoT
Smarter. Faster.

Phase
1

Leverage the cloud to connect, automate, visualize E2E view of business
Interconnected. Aligned.

Bringing autonomy to industrial control systems – the role of Data



The “Digital Feedback Loop” – turning Data into Action

1 Data: Capture digital signal across business

2 Insight: Connect and synthesize data

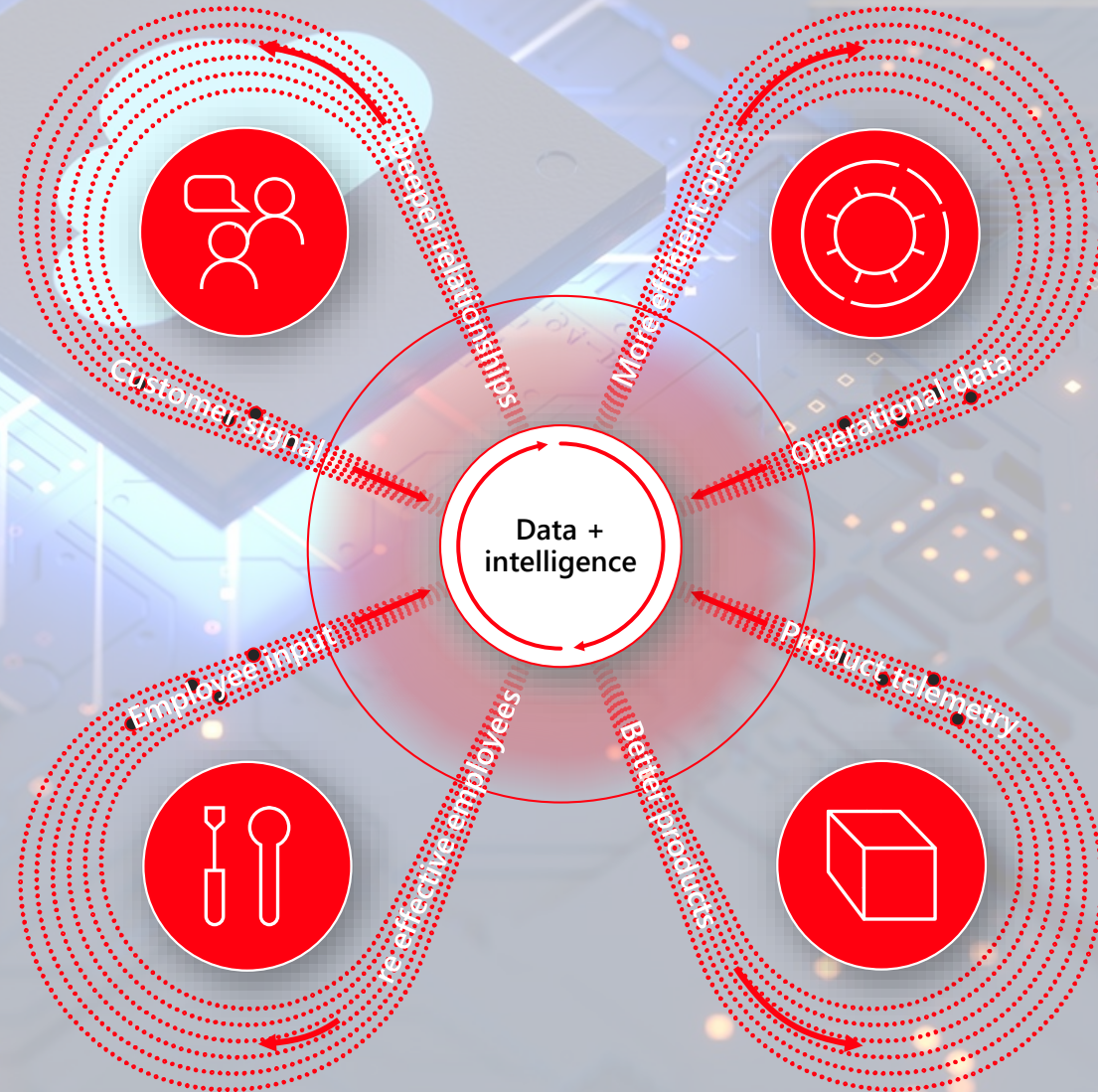
3 Action: Improve business outcomes

Engage
customers

Optimize
operations

Empower
employees

Transform
products



Achieve new levels of productivity by augmenting OT with IT innovations applying digital feedback loop

Build AI learning engines to simulate production process and optimize the autonomous model.

Modeling and simulation



System design and behavior

Achieve autonomy through life learning, collaborative working with humans (and other machines), safety and integration into the current factory environment

Autonomous systems replace, augment or complement human activity in a real production environment, leading to advances in physical and intelligent capabilities, in a safe and effective manner

Advanced collaborative working



Sensing and sensor integration

Deploy multiple and variable sensor inputs into the factory to be managed in an accurate, reliable and robust manner, leading to data analysis and interpretation appropriate to the integrity of the data and the task

Autonomous systems gain information about their environment, situation and the complex task they need to carry out, adapt and independently make decisions and plans based on reasoning

Learning and decision making



Improving Autonomous Production Reliability

Leverage Deep Reinforcement Learning to optimized AI based decision engines and simulation models.

Prescriptive use cases

Security & Compliance

Provide essential security and compliance in keeping critical information safe while enabling increased connectivity and mobility.

Microsoft and ABB – Providing access to a world of solutions

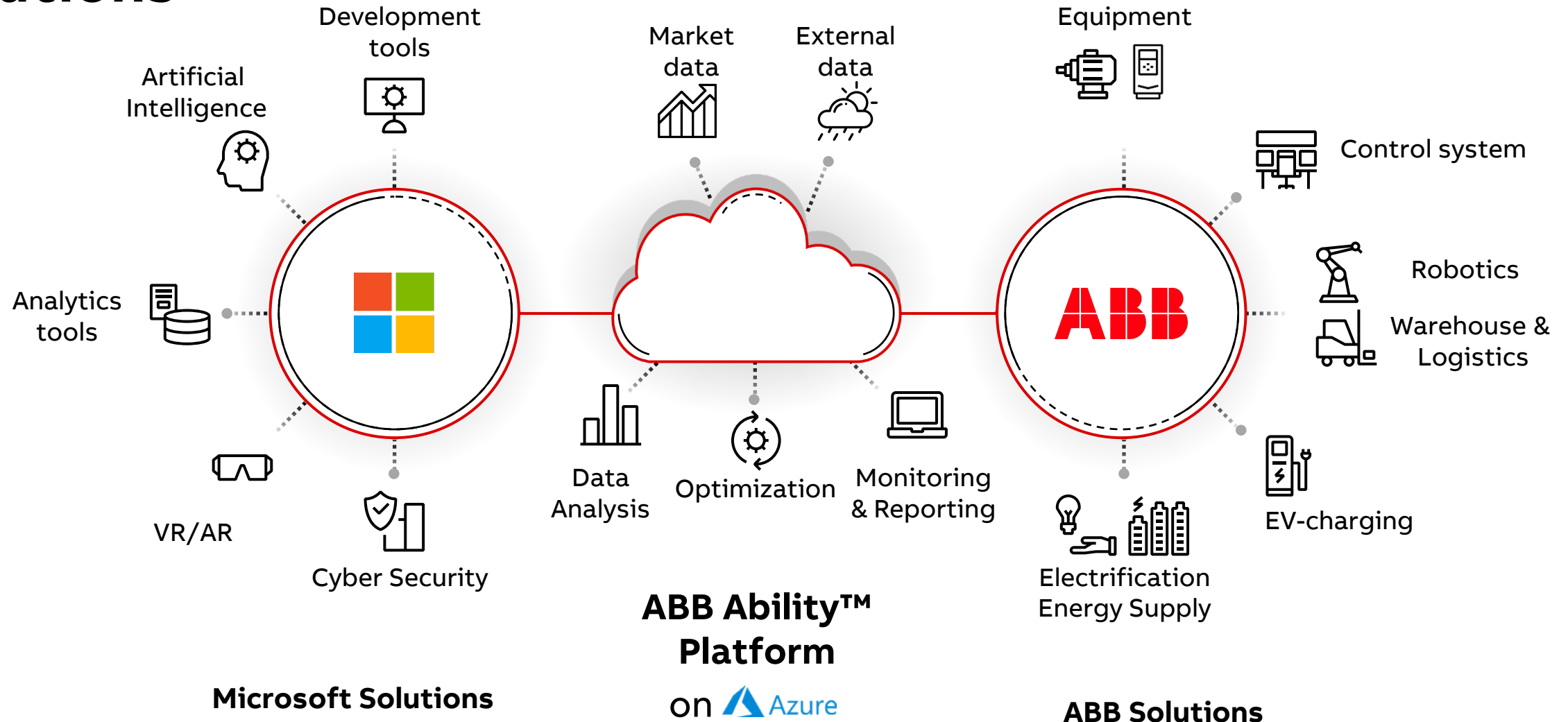


ABB and Microsoft empowers fish farmers with an AI-infused solution for sustainable aquaculture

Challenge An aquaculture customer, Norway Royal Salmon (NRS), needed to accurately measure fish biomass and minimize employee risk in harsh weather.

Solution ABB partnered with Microsoft to expand its existing solution, ABB Ability™. Together, they developed ABB Ability for Aquaculture™ using AI and IoT technologies from Microsoft to process data from underwater cameras inside the fish pens.

Benefits NRS will improve fish farmer safety now that employees can gather data from the cameras instead of physically measuring the fish in bad conditions. ABB will also help NRS boost ROI by calculating precise fish biomass and taking full advantage of its aquaculture licenses.

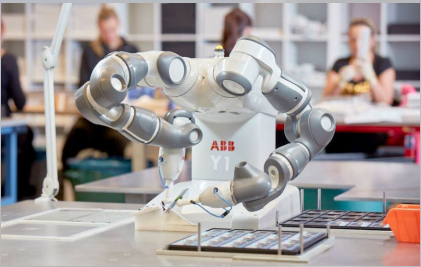


“The collaboration between ABB, Microsoft, and NRS has been outstanding. With Azure AI technology, we created a solution that helps our customer maintain its commitment to a sustainable food future.”

– Tatjana Milenovic,
Global Head for Food and Beverage Segment, ABB

ABB Ability™ solutions using Microsoft technologies bring value to customers - examples

Robotics



Azure Cloud



VR/AR

25% less incidents and
60% faster response time
and issue resolution

ABB Ability™ Connected Services,
RobotStudio Holographic

Electrification Products



Azure Cloud

30% operating cost savings
20% reduction in
infrastructure investment

ABB Ability™ Smart Buildings
with EDCS Solution

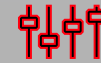
Industrial Automation



Artificial
Intelligence



Azure Cloud



Next Gen
Manufacturing
Systems

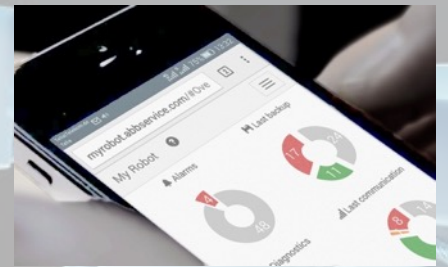


VR/AR

Enhanced productivity, safety,
>50% reduction in
ventilation energy costs

ABB Ability™ Energy Management
for Sites – OPTIMAX

Motion



Azure Cloud



Artificial
Intelligence



VR/AR

24% reduction in downtime
60% faster turnaround

ABB Ability™ Condition
Monitoring for Digital Powertrain

ABB and Microsoft your strong partner in IoT — anytime, anywhere



Speed and acceleration

- Start faster with a low investment and a proven solution
- Allow quick integration with partners and legacy systems, thanks to an open and interoperable design



Security

- Experienced in security and compliance experience
- Deployed in 70,000+ installations (ABB)
- Embraced new international standard for Cloud privacy, ISO 22018 (first to do so)



Scalability

- Deploy easily
- Pay only for what you use
- Get globally (Azure- 100+ services in over 54 regions)
- Integrates partner solutions from the wider Microsoft ecosystem



ABB Ability™



 **Azure**



Q&A





Microsoft