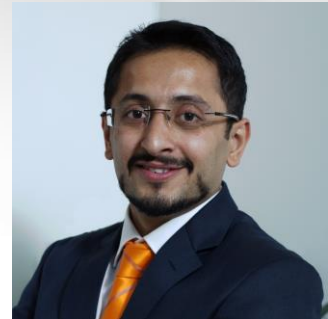




Challenges, Opportunities & Way Forward

Factory of the future

Ninad Deshpande
Head – Marketing & Corporate Communications
B&R Industrial Automation





Business Challenges for future factory

Health Index of an organisation



Annual Turnover

Earnings per share

Share value

Further Indices –

Product Quality

Price of product or service

Ease of doing business

After Sales service

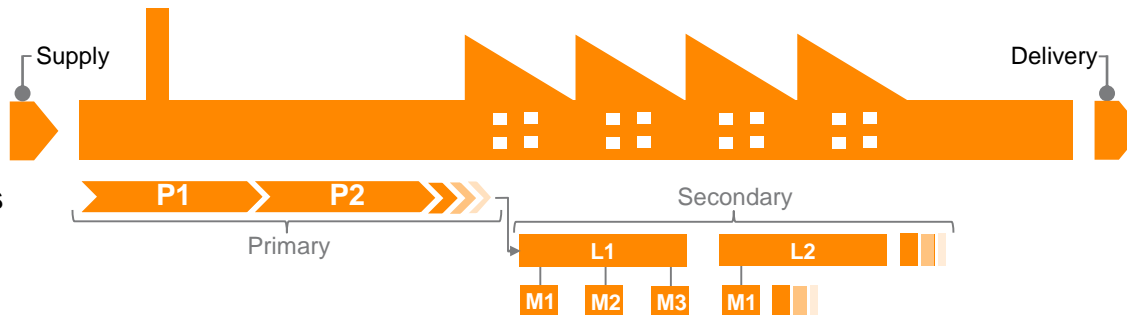
What every factory manager wants

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Today and Tomorrow !

- **Site**
- **Processes**
- **Lines**
- **Machines**



Productivity

OEE

Coordination

Availability

Quality

Approved Standards

Track & Trace

Monitoring of KPIs

Maintenance

Diagnostics

Asset Management

Condition Monitoring

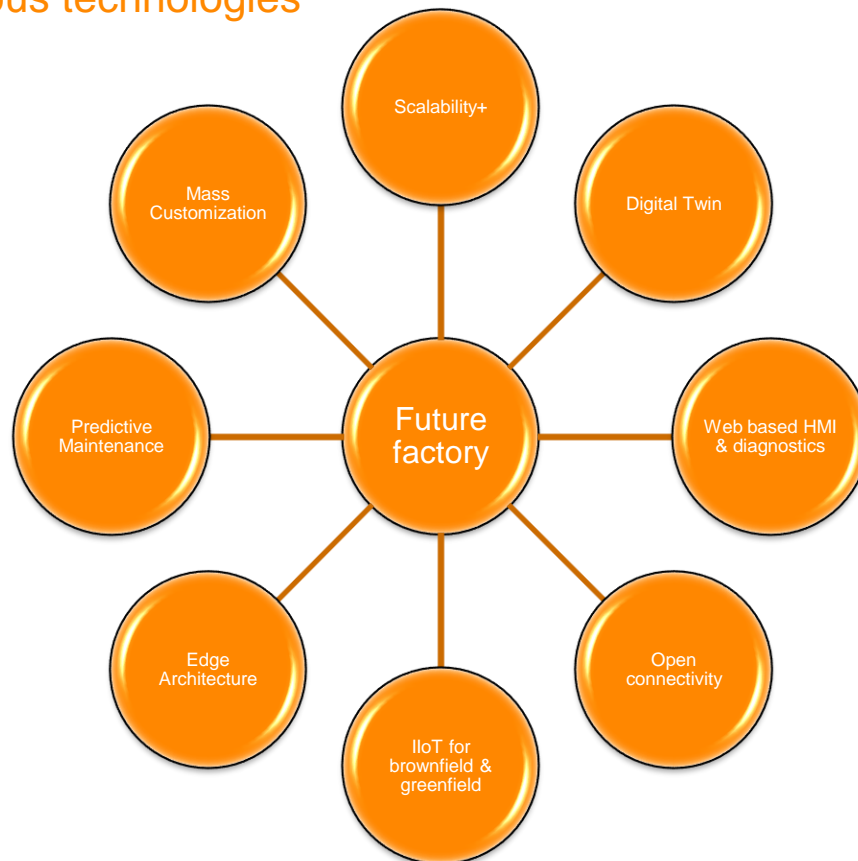


Future factory

Enable industries to increase their competitive advantage !



Coming together of various technologies



What is the current reality?



The "connected machine" is not yet common



Limited insight into installed machines

No possibilities to learn from machines

Aftersales operations are limited to
service work and spare-parts business



The value of digital transformation

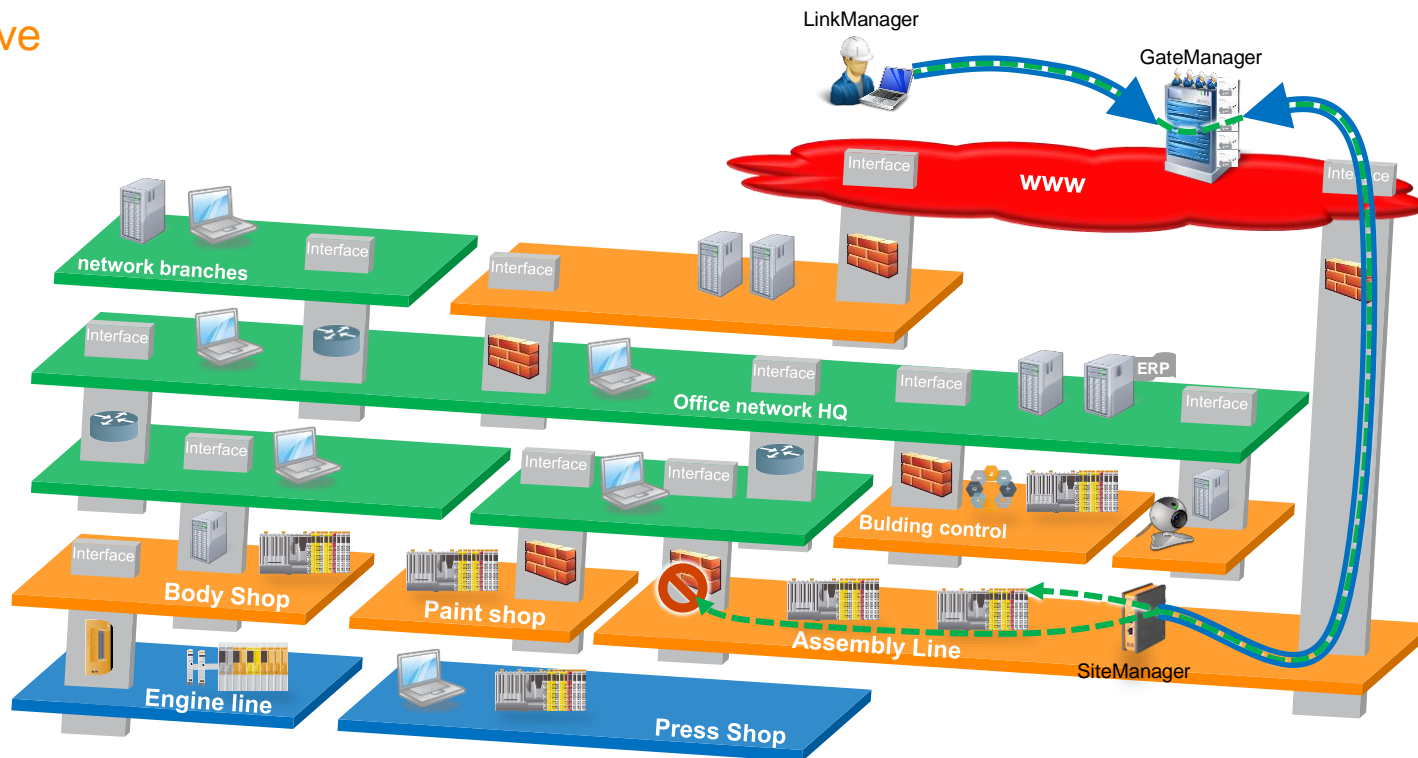


Secure remote working in factories

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Automotive



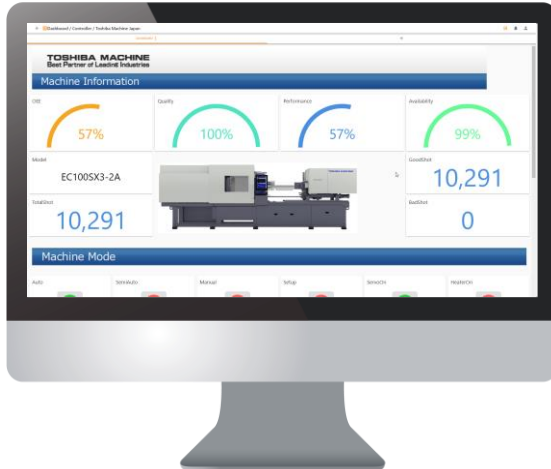
Easily in touch with your machines

... anytime, anywhere

Asset Performance Monitor



- Bring your service operations to the next level
 - Automatic status collection from a global fleet of machines
 - Faster response to service issues
 - Reduced service cost
- Identify machine improvement potential
 - See how machines are operated and utilized on an ongoing basis
 - Compare machine KPIs across your entire installed base





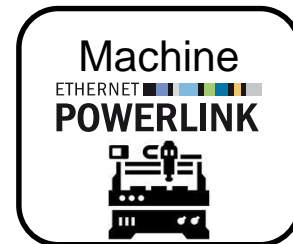
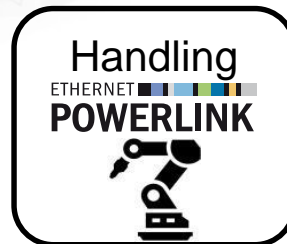
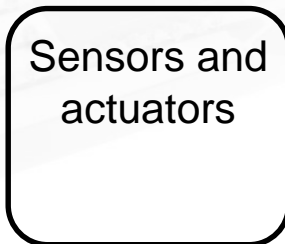
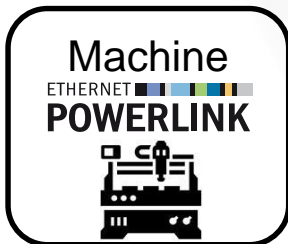
Internet

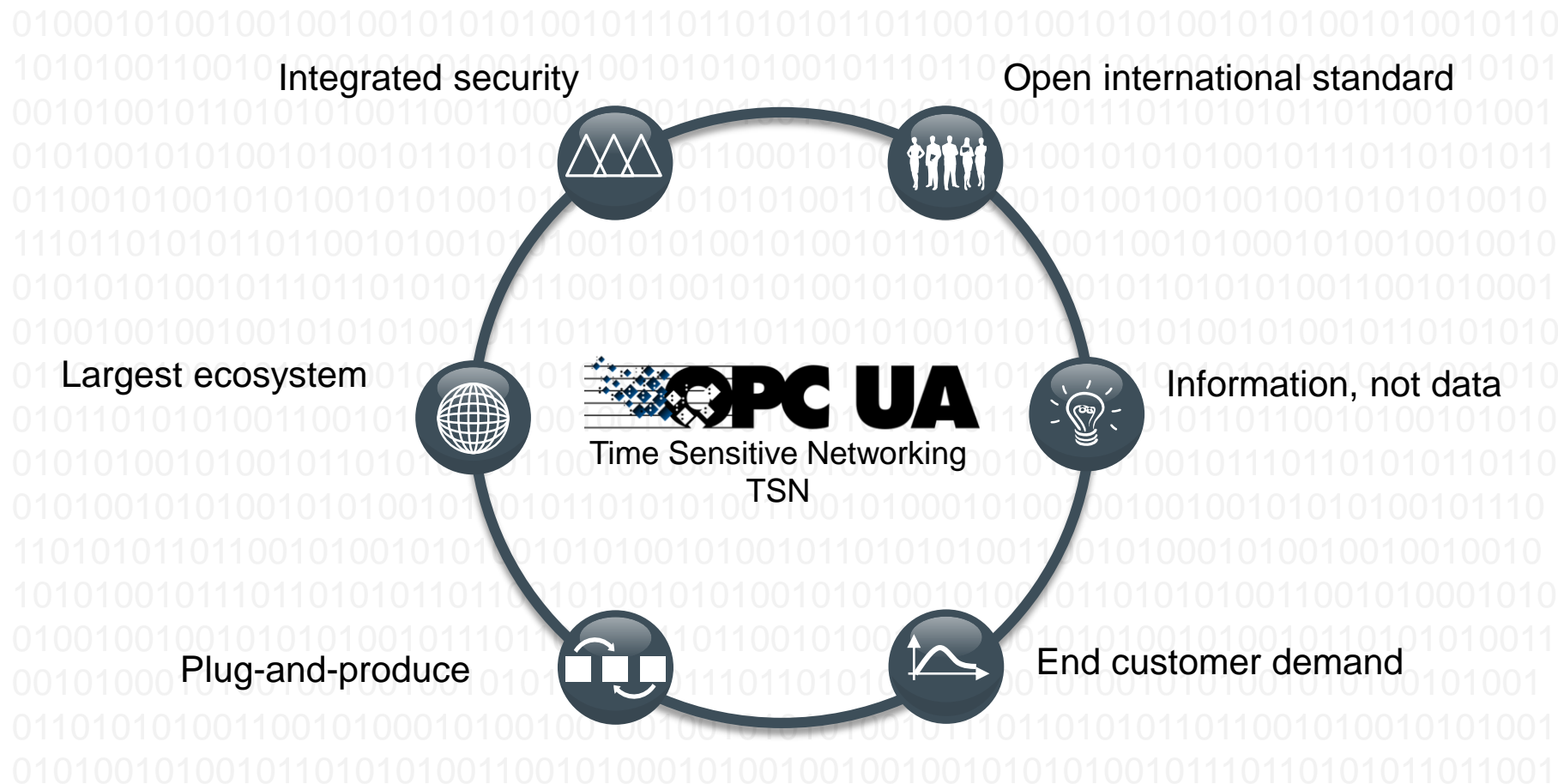


Industrial



Things





Future factory – Industrial IoT



Predictive maintenance

Automotive



Application:

- Online vibration monitoring on assembly line
- Data aggregation on edge controller

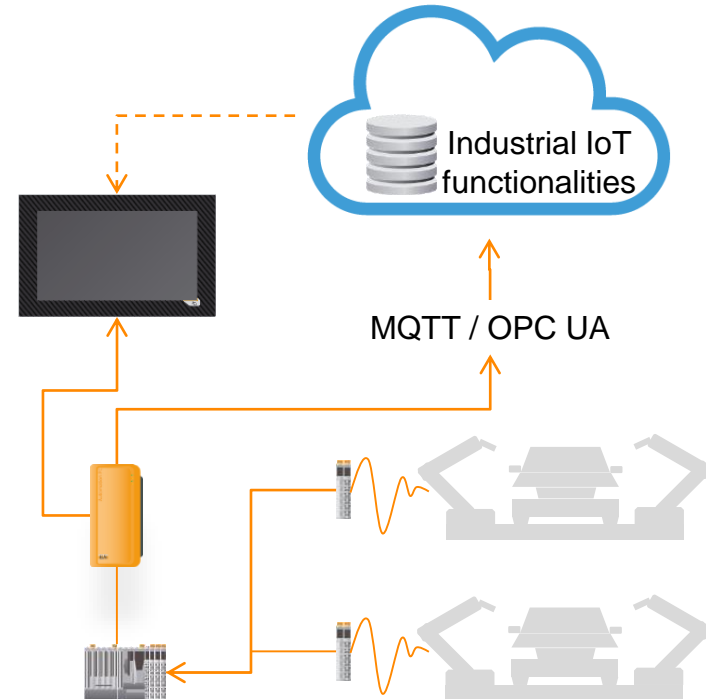
B&R products:

- X20CM4810, X20 I/O, X20 PLC
- Automation PC 910, APROL ConMon

Customer value:

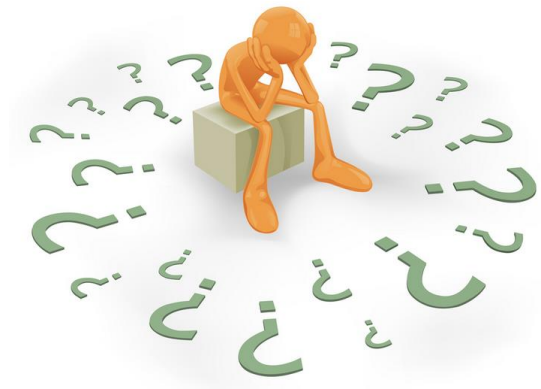
- Prevent secondary damage
- Reduced unplanned downtime

Architecture





Implementation FAQs



Where do I begin ?

What are steps for implementation ?



Your first IIoT implementation

Identify business imperatives & current level of digitalization

Map relevant techniques

Conduct feasibility studies

Prioritize technologies

Create a roadmap & select partners



- ✓ Management Commitment
- ✓ Realise that this is a transformational project, not an IT implementation
- ✓ Vision of what transformation will be achieved
- ✓ Critical analysis of what is status today
- ✓ Buy-in from key members of your team



About us

B&R Industrial Automation (A member of the ABB Group)



Automation for machines and factories

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**Machine
automation**



**Open Automation
Technologies**



**Solutions for
process optimization**



**Integrated
automation**

**Plant
automation**



**Factory
automation**



**Process
automation**



Industries

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Automotive



Robotics & handling



Metal



Mobile applications



Maritime & offshore



Consumer goods



*Food & Beverage industry,
home & personal care,
tobacco*

Processing industries



*Chemical, pharma,
metallurgy, mining, oil & gas*

Energy



Packaging



Plastics



Textile



Woodworking



Printing & converting



Complete product portfolio

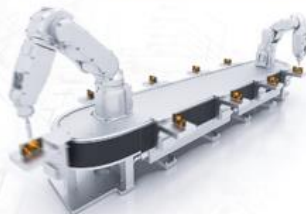
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Vision systems



Track technology



Frequency inverter



Motion control



Industrial PCs



Operation and monitoring



Integrated safety technology



PLC systems & I/O systems



Scalability+
Integrated Automation



B&R India – 7 offices, since 20 years, customers in every industry

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More than 200 offices



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