



WORLD CLASS MAINTENANCE

zuid

De Autonome 'Plant'

Staf Seurinck





The new ABB: pioneering technology leader in digital industries





Writing the future with pioneering innovation



Breakdown



waiting/measuring/analyzing/organizing (+80% time spent) vs acting/solving (-20% time spent)

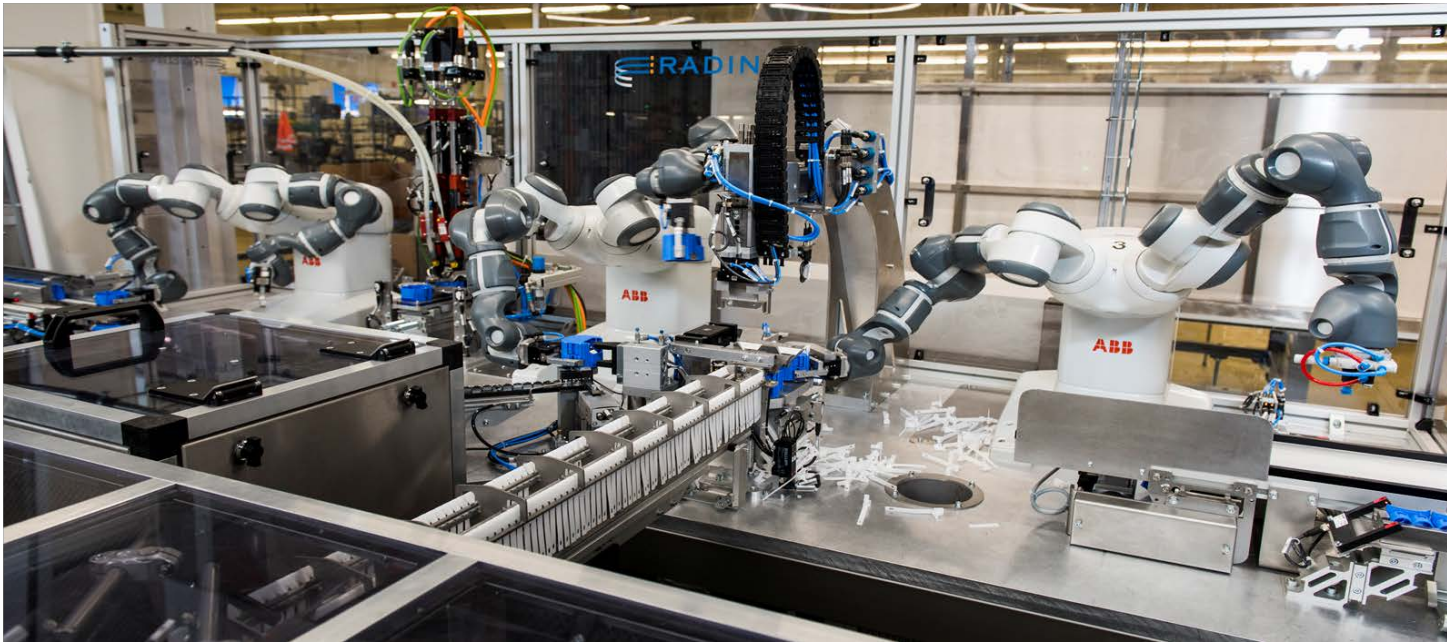
Autonomous driving ...



Autonomous logistics ...



Autonomous manufacturing ...



Autonomous operations ...



Digital technologies are driving new innovation in industrial markets



Virtual/augmented
reality



Software-defined
machines



Machine learning



Time-sensitive
networking



Big data



Inexpensive
computing



Cloud
computing



Cybersecurity

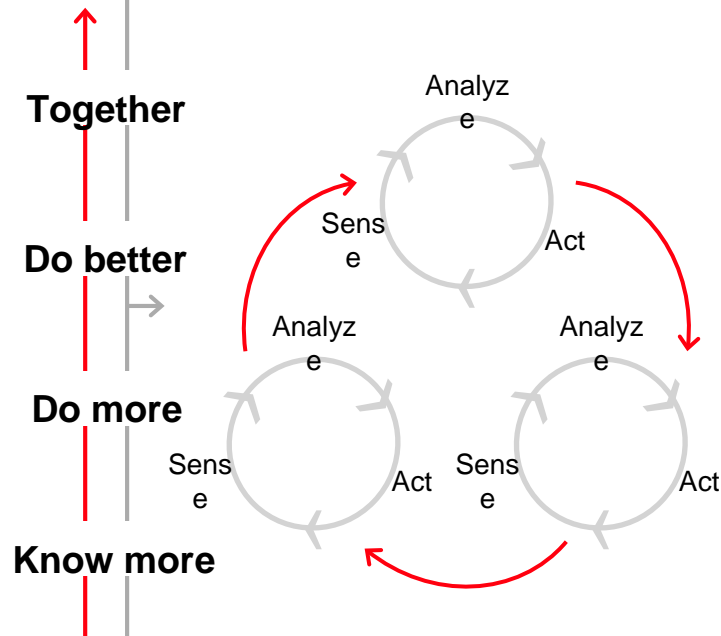


Connectivity



Blockchain

Digitally connected products and services providing expertise



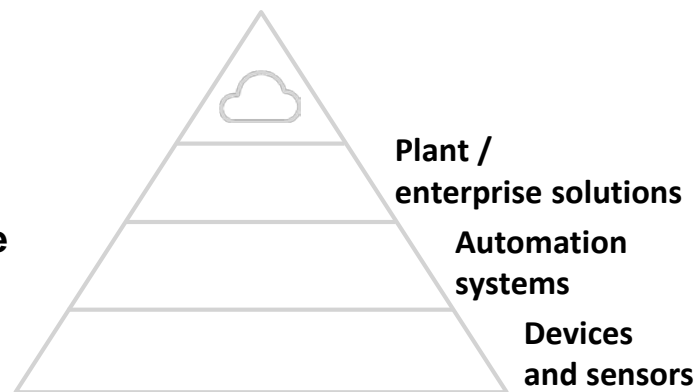
Collaborate

Optimize

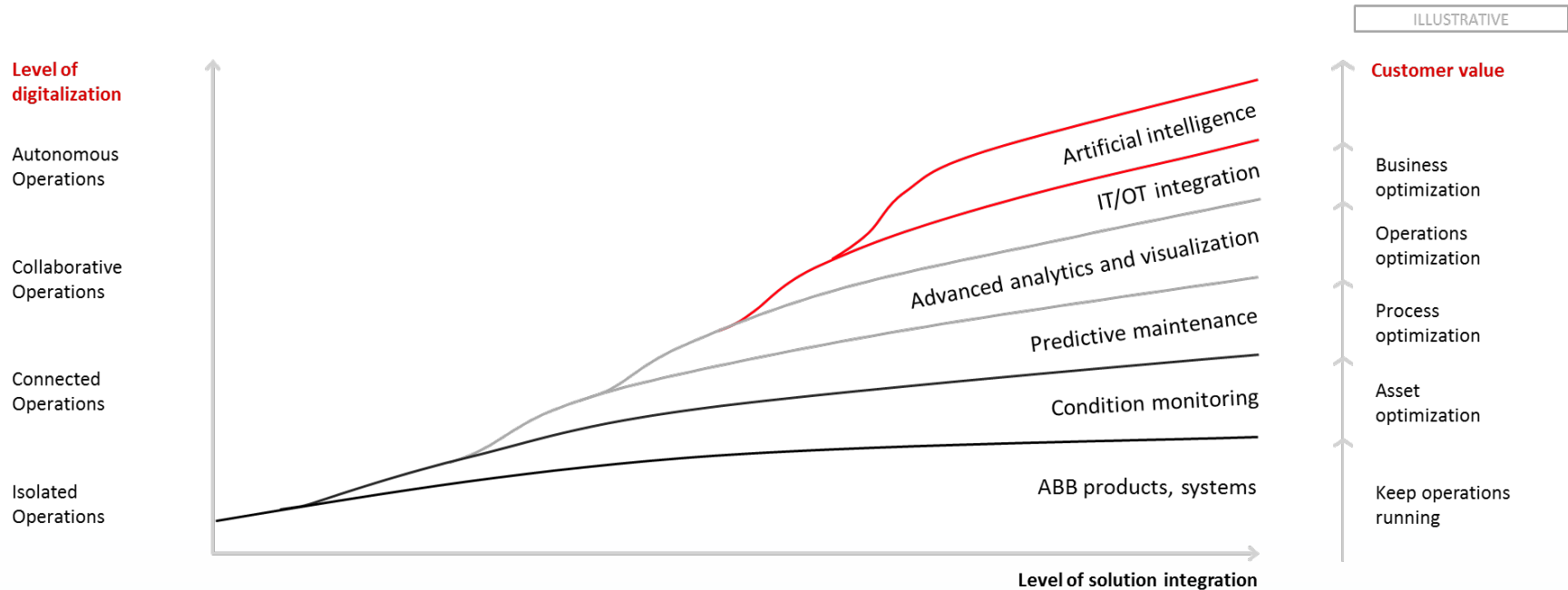
Automate

Assess

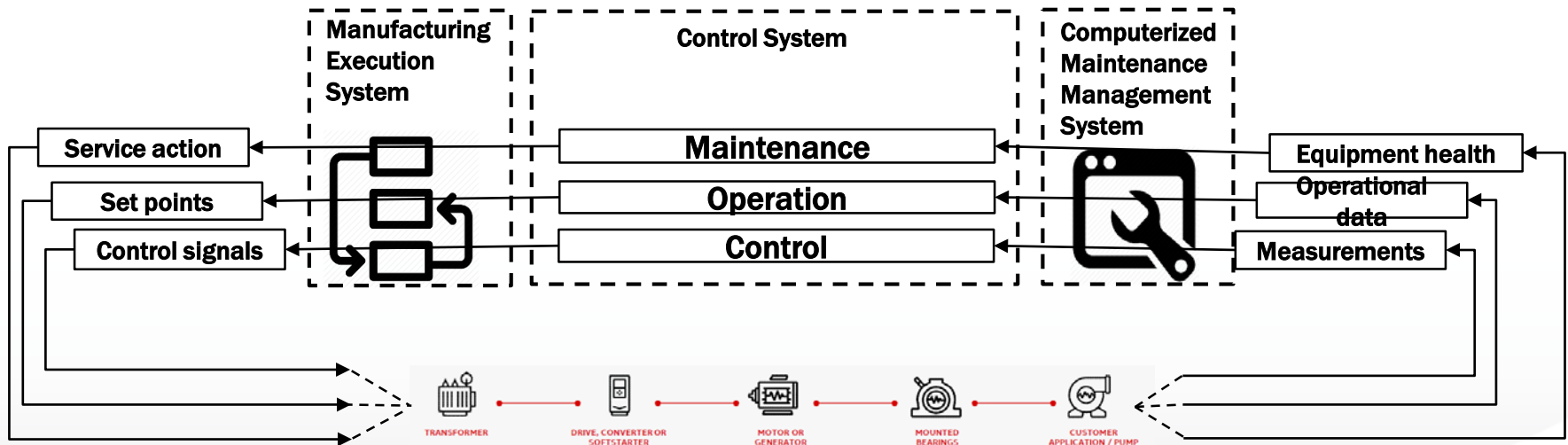
ABB Ability™



The future: enhanced customer value creation in digital industries

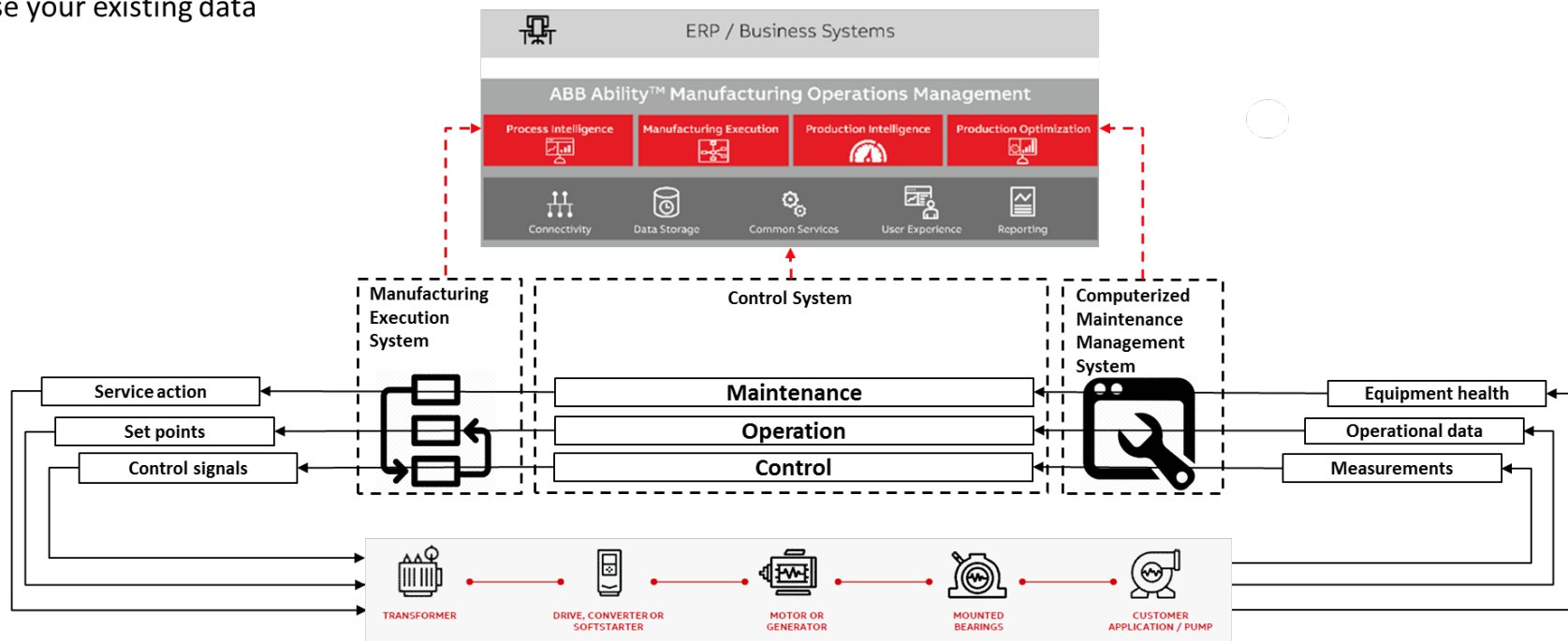


How to operate and maintain your assets?



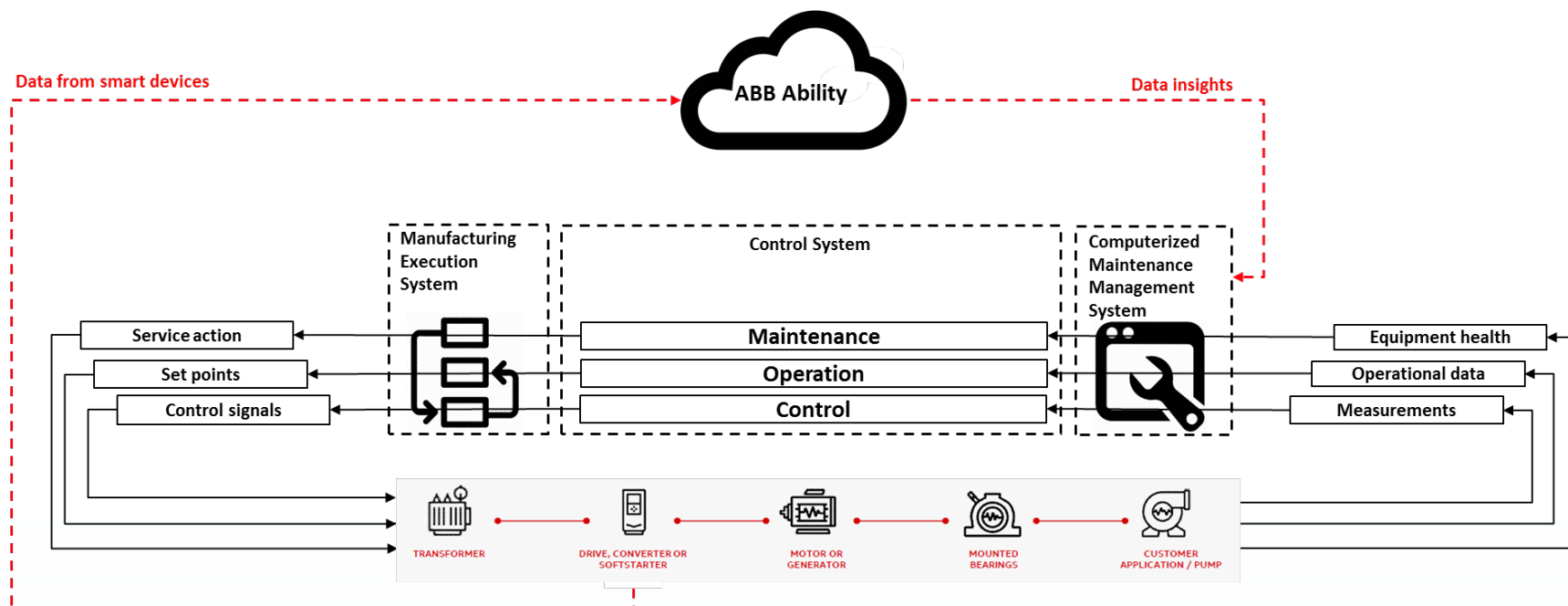
How to operate and maintain your assets?

Use your existing data



How to operate and maintain your assets?

Unlock data from your smart devices



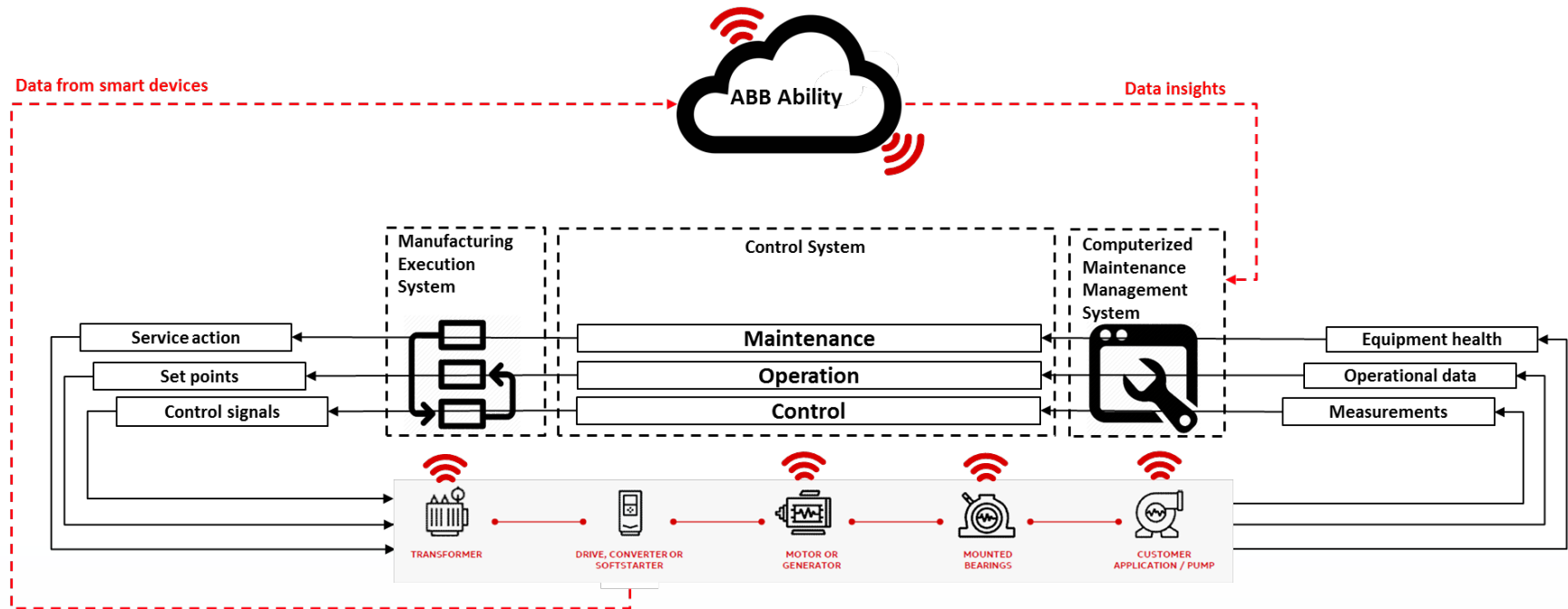
Example unlock data from your smart devices

ABB Ability™ Condition Monitoring for Drives



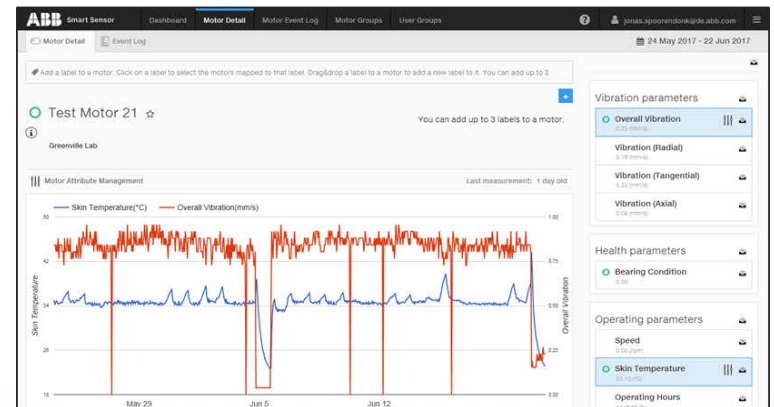
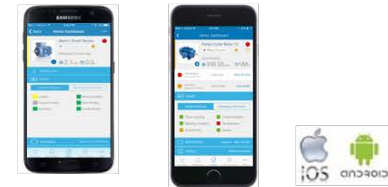
How to operate and maintain your assets?

Make your assets even smarter



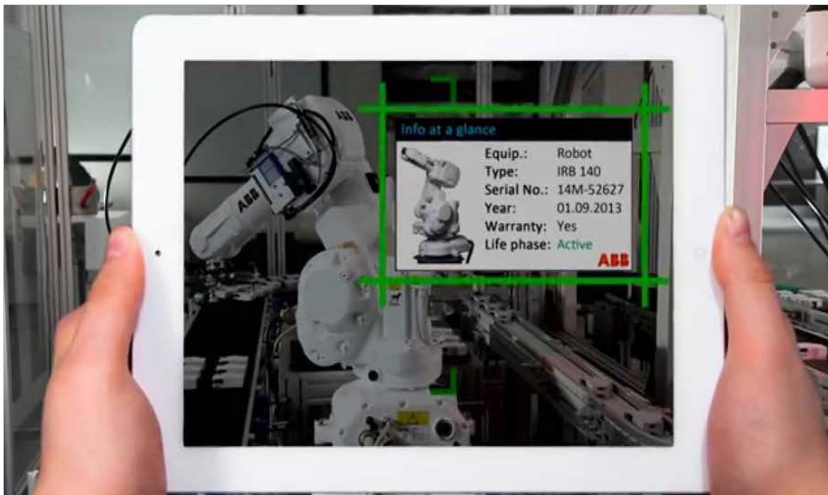
Example make your assets even smarter

ABB Ability™ Smart Sensor for rotating equipment



Applying latest technology to optimize maintenance and operations

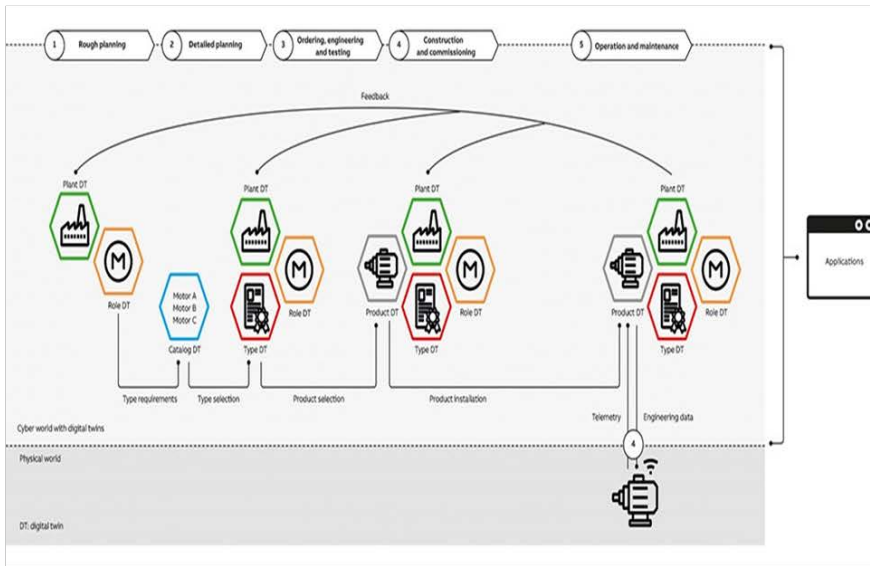
Driving operational efficiency with Augmented Reality & Mixed Reality



Remote support with fewer engineers and faster MTTR > robotized analysis and remote services

Applying latest technology to optimize maintenance and operations

Driving operational effectiveness with Digital Twins & Virtual Reality



Digital twins > virtual engineering > virtual commissioning > virtual training > virtual modelling > better digital twins

Applying latest technology to optimize operations

From automated towards autonomous logistics and Transport-as-a-Service



Automated Cranes > Automated Guided Vehicles > Transport-as-a-Service

Where are you on the digital journey?



Know more



Do more



Do better



Together

The Autonomous Plant – Practical approach

1. Start with the low hanging fruit
2. Address hazardous and/or heavy and/or monotonous tasks
3. Involve your key ambassadors / guiding coalition
4. Build the business case for change & seek management sponsorship
5. Develop required skills & attitude
6. Optimize processes & structure
7. Use available technology
8. Manage the (pilot) project & monitor progress
9. Share success stories & get more colleagues engaged
10. Create your digital transformation journey

The Autonomous Plant - Participants



sappi



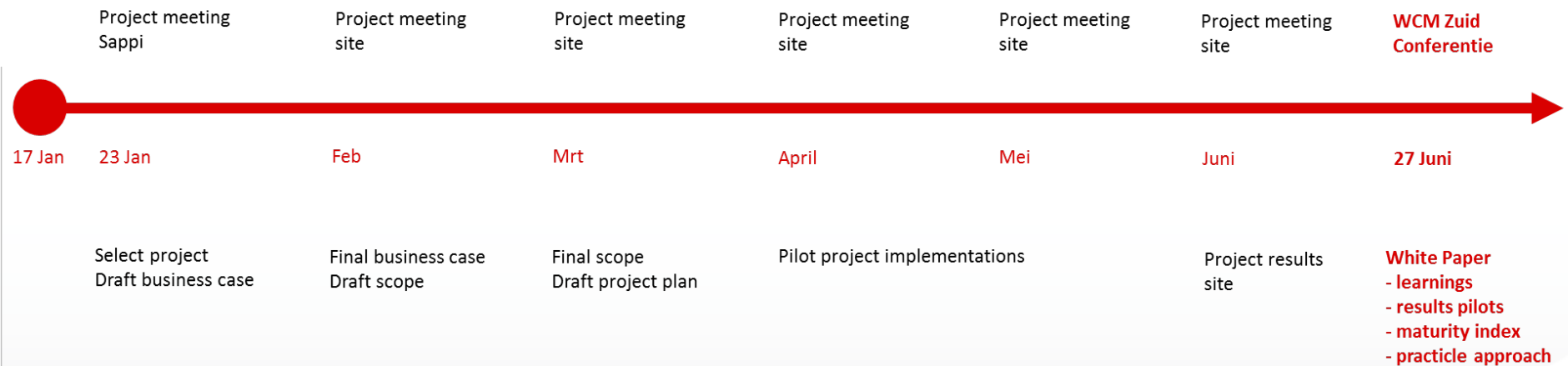
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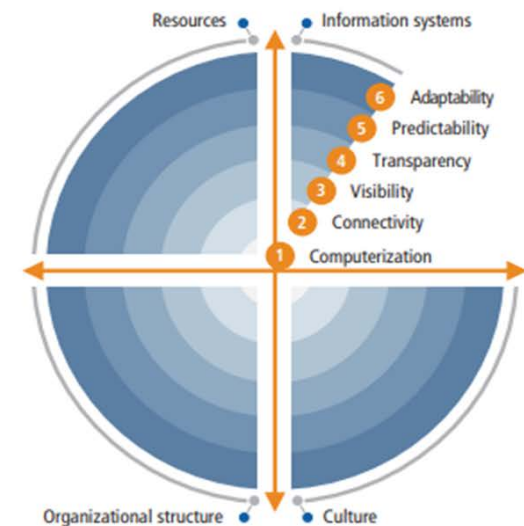
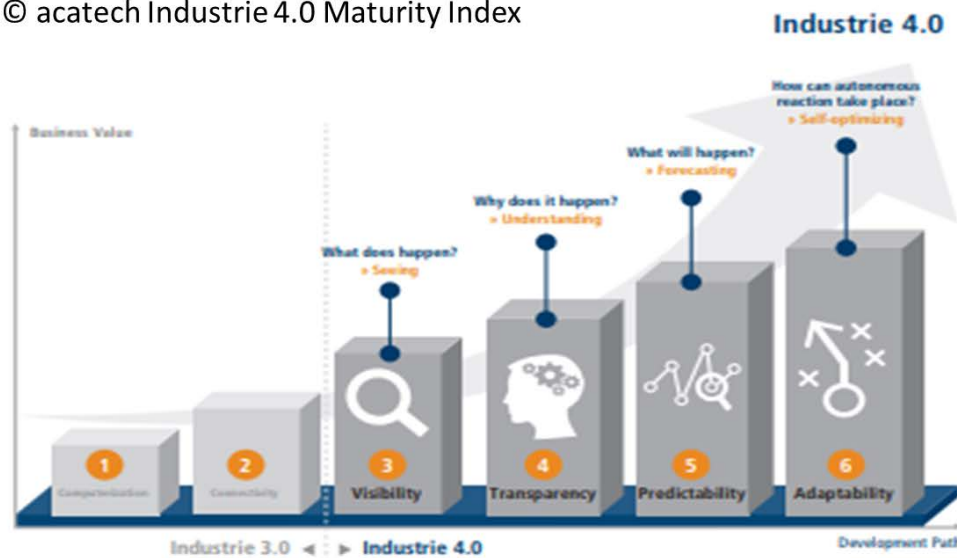
The Autonomous plant - Timeline



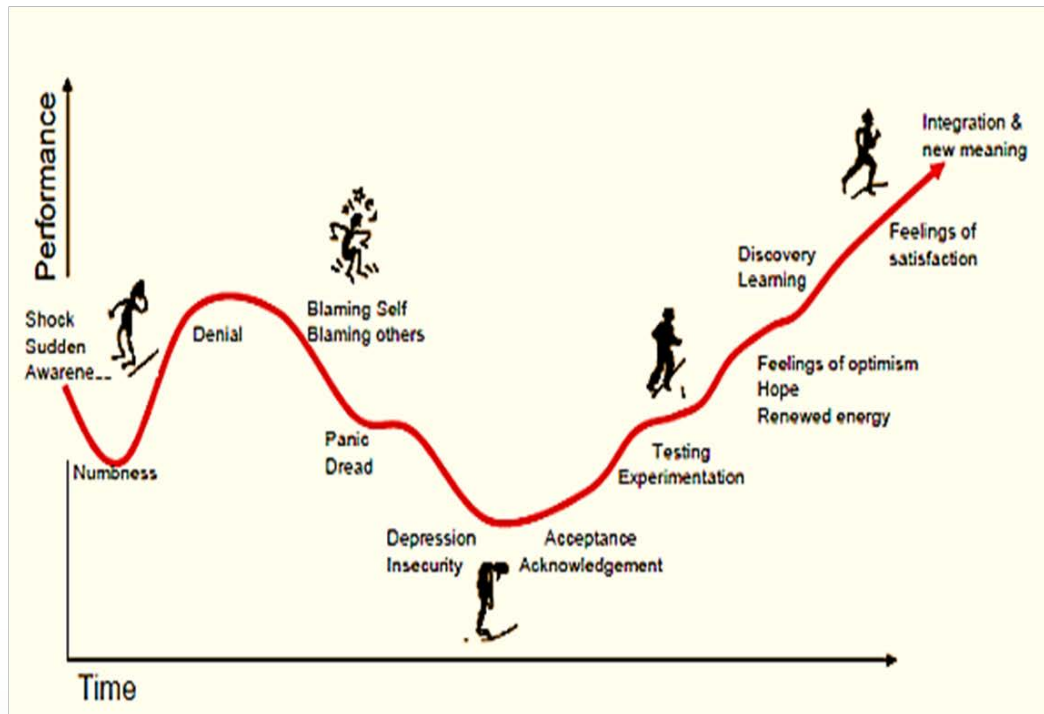
The Autonomous Plant – Possible approach “Maturity Index”

“Objective of a digital transformation is to become a learning, agile enterprise which, on the basis of data, makes better decisions faster and is capable of continually adapting itself to a changing environment”

© acatech Industrie 4.0 Maturity Index



Transition / Transformation



Thank you!