



This activity has received funding from the European Institute of Innovation and Technology (EIT). This body of the European Union receives support from the European Union's Horizon 2020 research and innovation programme.

TAKEOFF for Intelligent Industry

Innovation, Talent and Competence Development for Industry 4.0

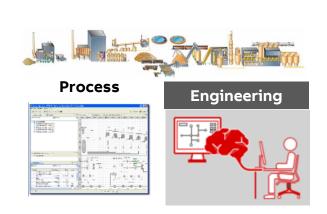
Simo Säynevirta, Digital Lead, ABB Oy, Ismo Laukkanen, Cluster Lead of Learning and Development, FI/RU/BLT, ABB Oy Antti Lukkari, Project Coordinator, ABB Oy



Why traditional way of working is not good enough?

Total system design rigid and inefficient due to system silos and stacking of the safety margins

Process design / System design



System design:

Selection of main concepts, process equipment, overall control principles etc.

Sub system Design / component selection / dimensioning

Sub system 1



Component selection



Manufacturing components /
Building the system

Sub system 2

Sub system n#

Detailed design

Design of subsystems Selection of components Running the systems



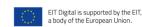














©ABB

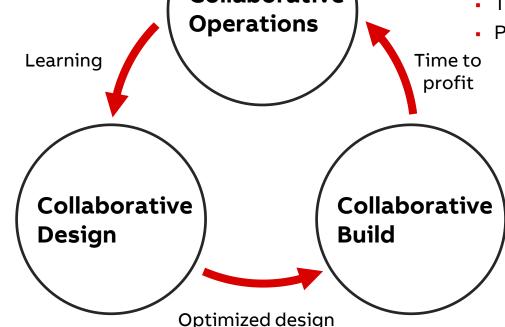
New way: Collaborative Design-Build-Operate ecosystem

Optimization throughout the lifecycle



- Process and yield optimization
- Asset Management
- Energy Management
- Troubleshooting
- Performance and knowledge support

- Overall optimization
- Functional integration
- Project management
- Supply management
- Change management



- Site management
- Supply logistics
- Equipment installation
- Commissioning and Start-up
- Accelerated ramp-up

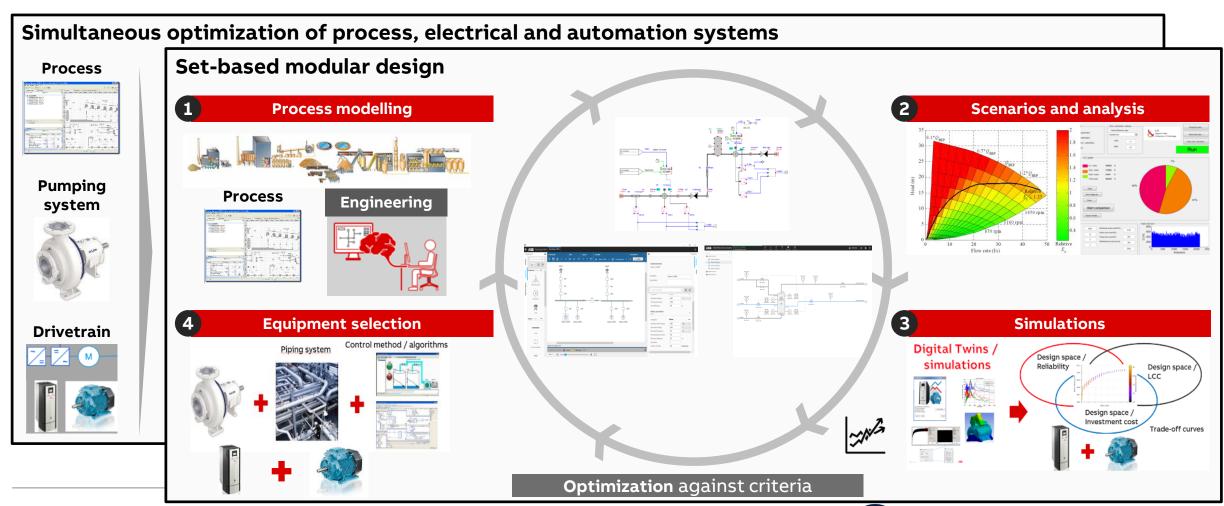






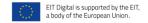
New way: Collaborative Design-Build-Operate ecosystem

Digital twins enable simulation for optimal system and component design

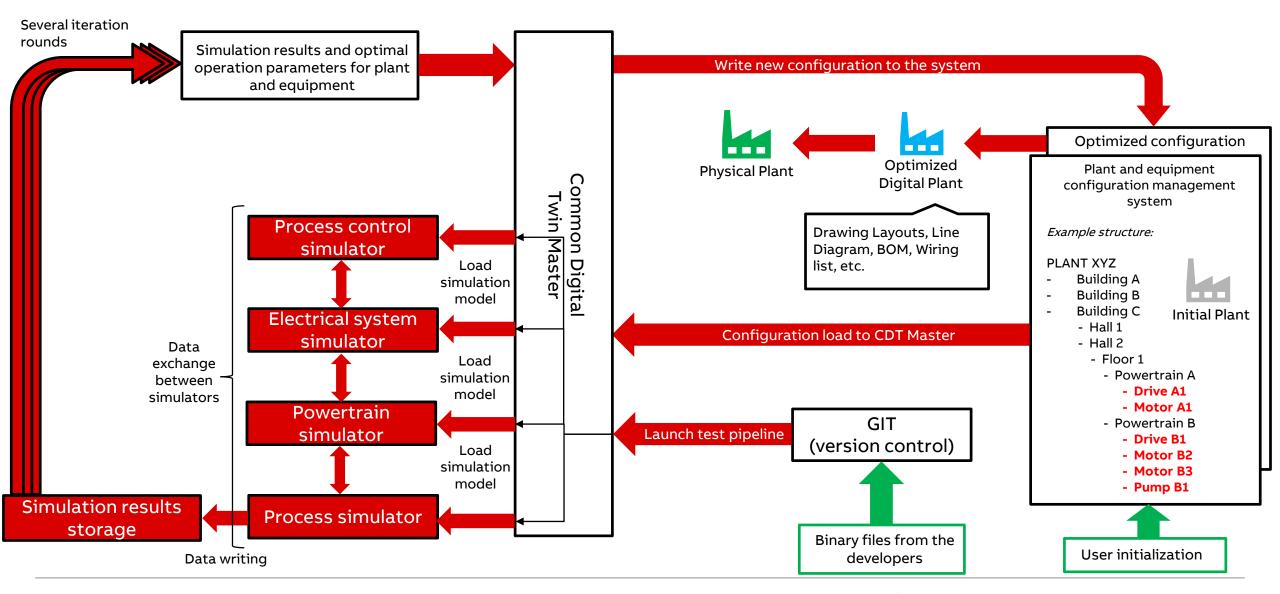




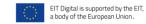
Slide 4













©ABB

May 19, 2020

TAKEOFF – Innovation, Talent and Competence Development in Industry 4.0

EIT Digital - Innovation projects for digital platform innovations

1 TAKEOFF Intelligent Process Industry – Future Process Plants
Partners: Aalto and Semantum

Piloting in Project Teams

COMPETENCE DEVELOPMENT CONCEPT

Competence Development Concept (70:20:10)
(ABB, EIT, Aalto EE, Mercuri International,
universities + companies) Innovation project
teams/organizations as pilots
in competence development

Concept & Portfolio Development Knowledge Creation in Projects

KNOWLEDGE TRANSFER

Knowledge transfer from innovation Projects into EIT, universities and companies

Concept and tools piloted in

Innovation projects

Knowledge integration into Comp.Development

Talent & Strategic Workforce planning

TALENT & RESOURCES FOR DIGITAL BUSINESS

Aalto/EIT: M.Sc. Students, D.Sc. Students, summer schools + other mechanisms

ABB: talents and resources working in projects (action learning)

Talent & Competence Development (70:20:10)

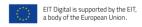
2 Upskilling Digital Workforce 2019

(3)

Upskilling Digital Workforce 2020 to be decided

Talent & Competence Dev. for Digital Business & Innovation (ABB+EIT+Aalto+AaltoEE+UCLA/Berkeley)

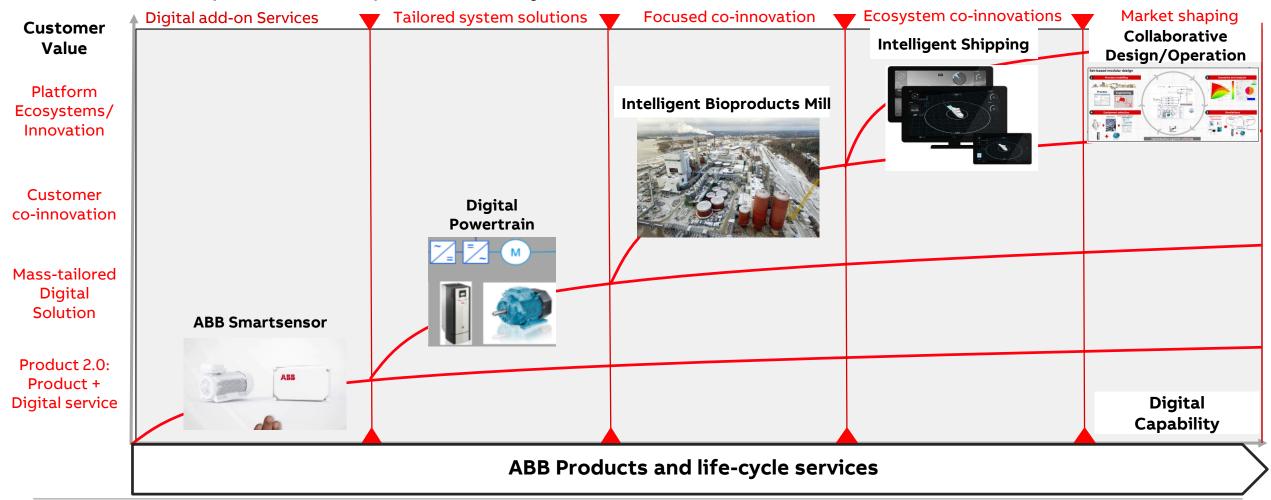




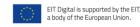


Ramp-up of Digital Business Capabilities

From extended products into platform ecosystem innovations





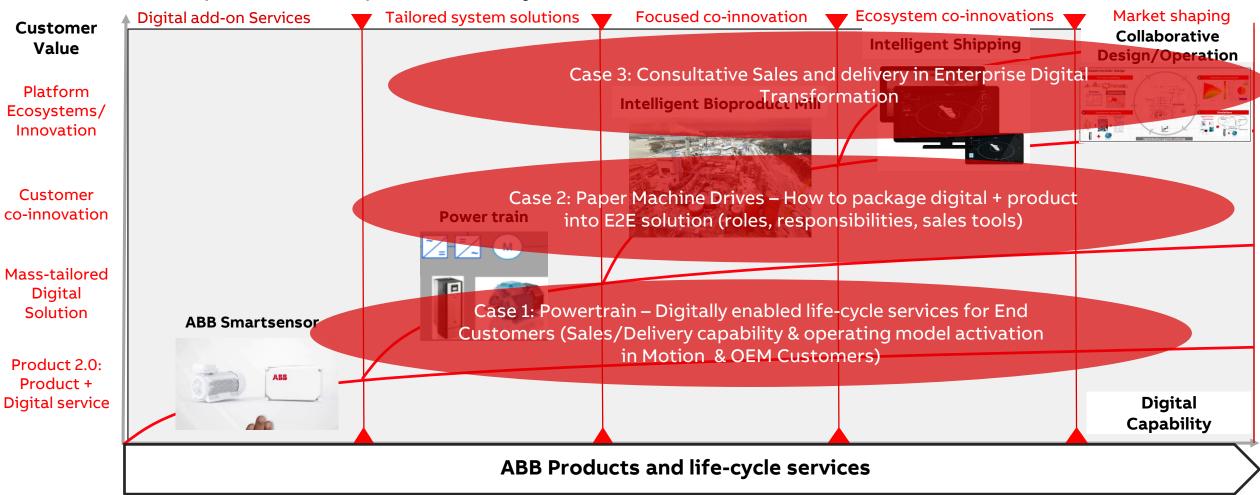




Slide 7

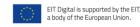
Ramp-up of Digital Business Capabilities

From extended products into platform ecosystem innovations



This activity has received funding from the European Institute of Innovation and Technology







Slide 8

#