NetThings – A future with smarter Things

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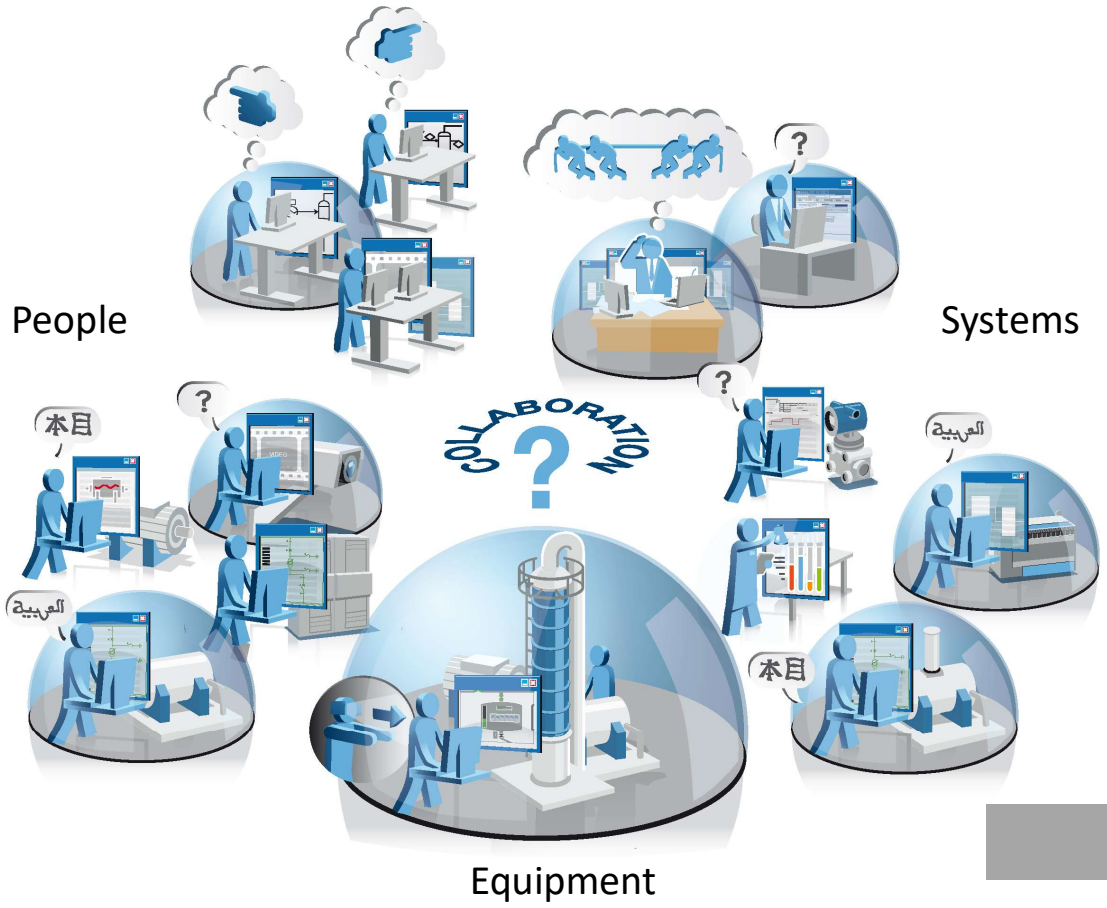
- The Goal of Digitalization
- Trends and Concepts
- Industry Transformation and Challenges
- NetThings
- Industrial Metaverse

Industry Challenges – Why Digitalization



Industry 3.0

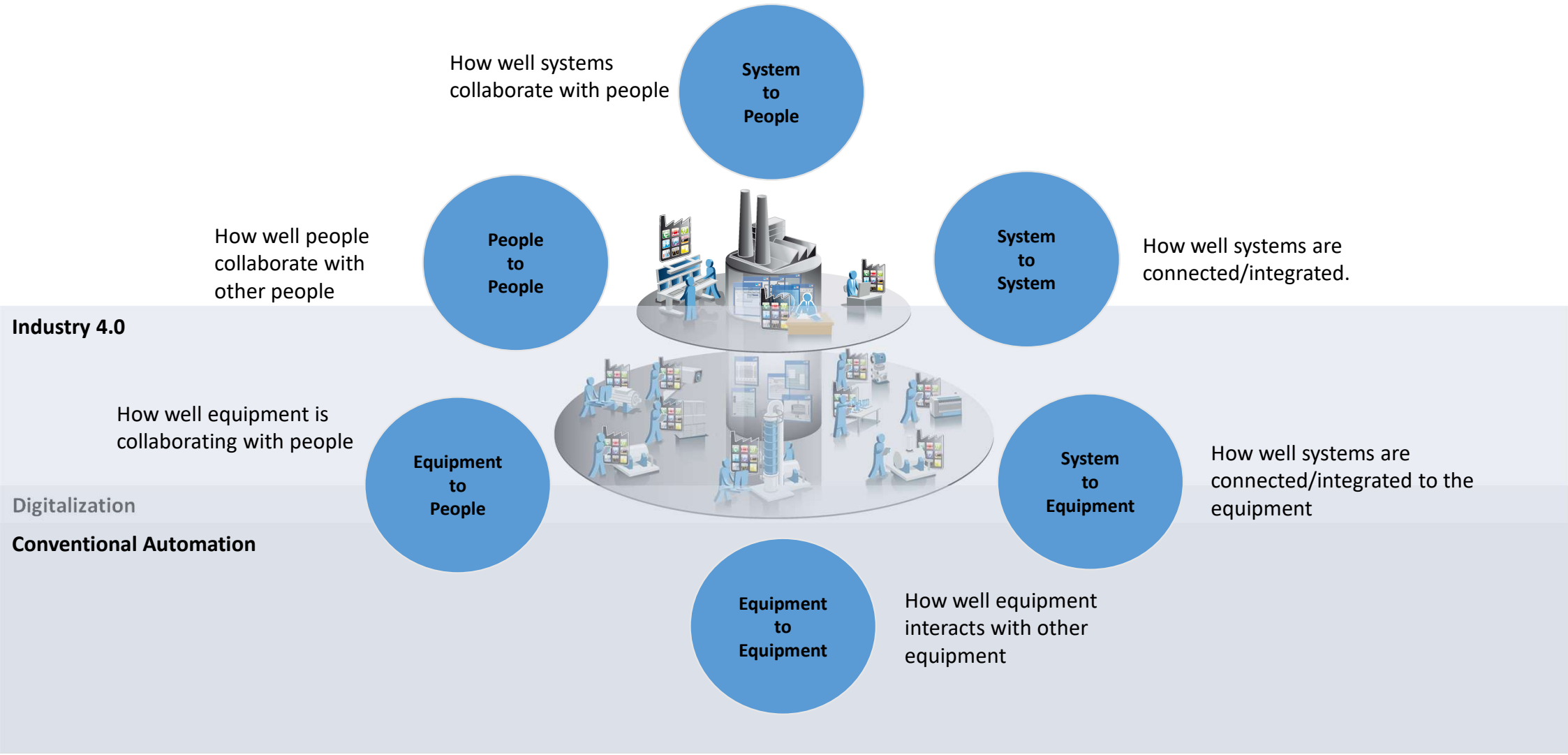
People, Systems and Equipment Collaboration > Productivity

Industry 4.0

People, Systems and Equipment Collaboration > Productivity

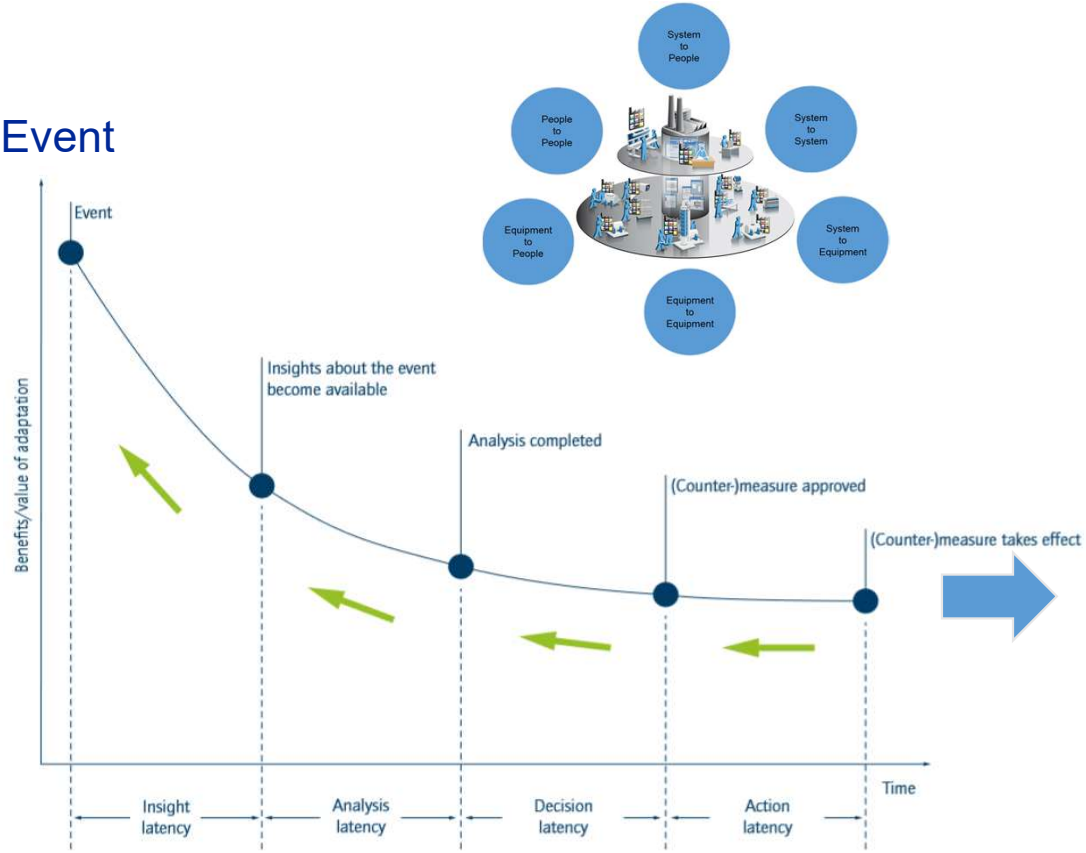
Industry 4.0

The Collaboration components

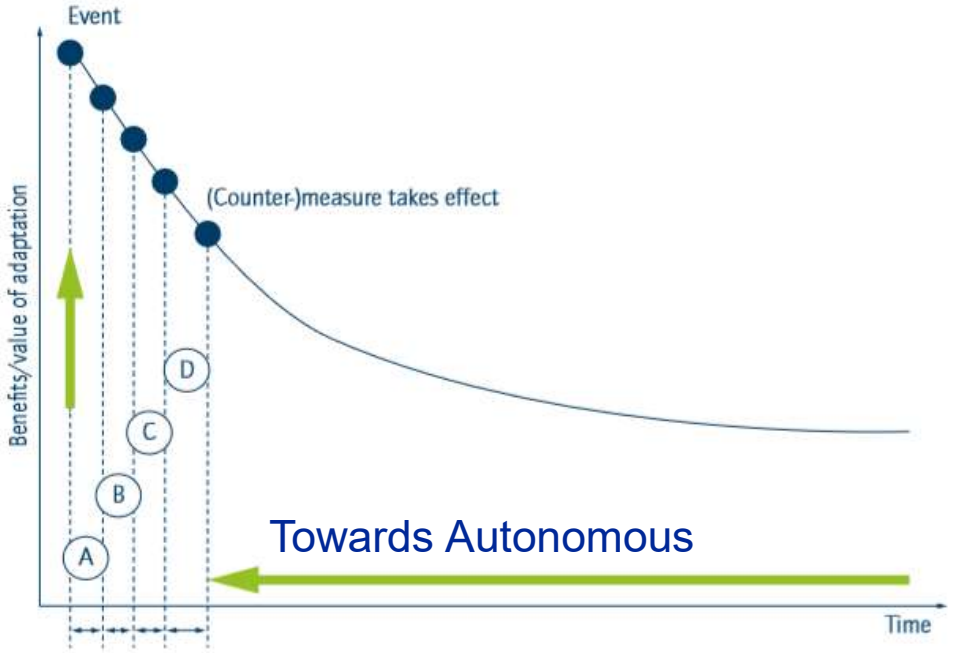


The effect of improving collaboration

Event

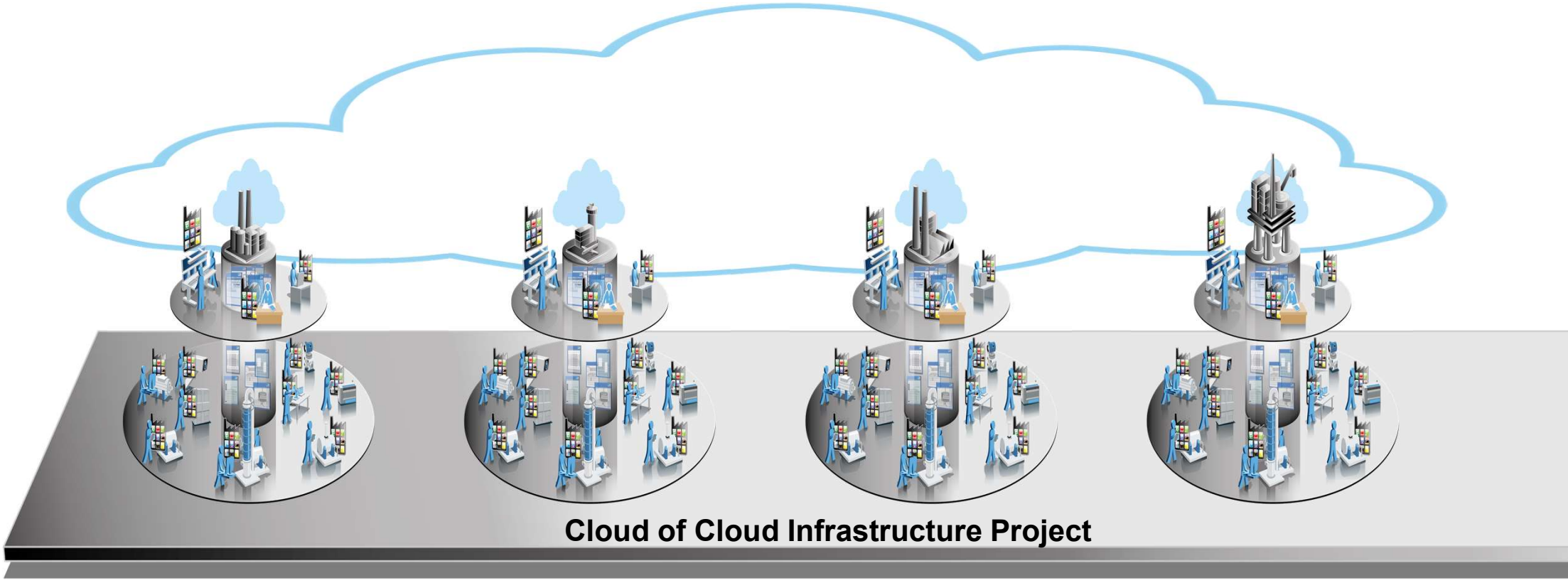


Counter Measures



Digitalization brings the ultimate collaboration effect

People, Systems and Equipment Collaboration – Vision



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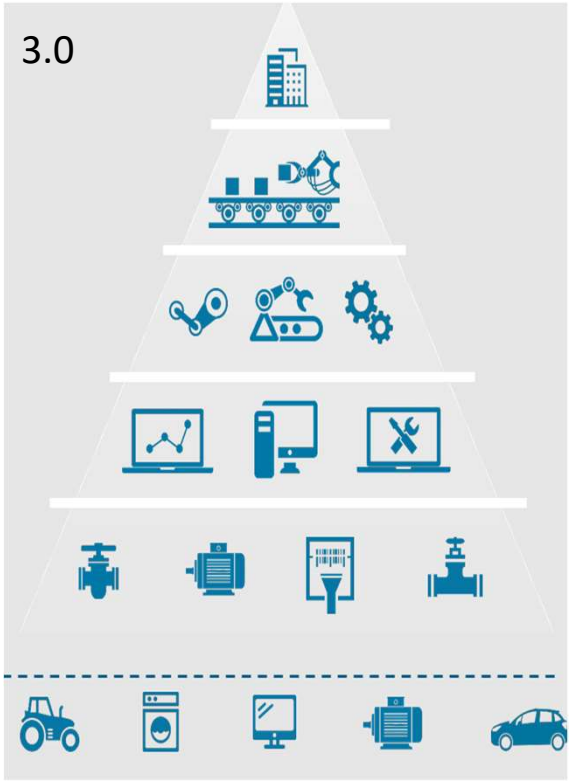
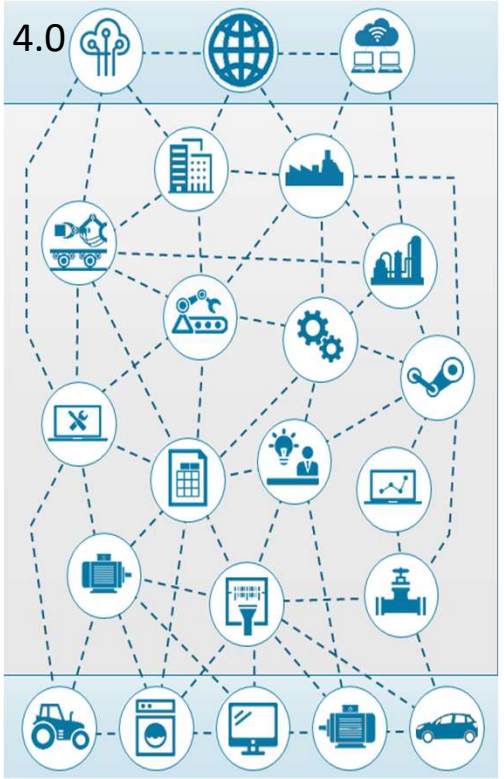
Industry 4.0

- Industry 3.0
  - Hardware based structure
  - Functions bound to hardware
  - Hierarchy based communication
  - Isolated Products

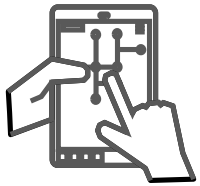


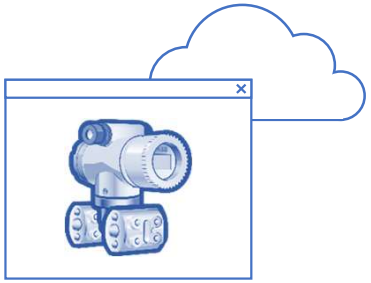
- Industry 4.0
  - Flexible systems and machines
  - Functions are distributed in the network
  - Communication among all participants
  - Products are part of the network



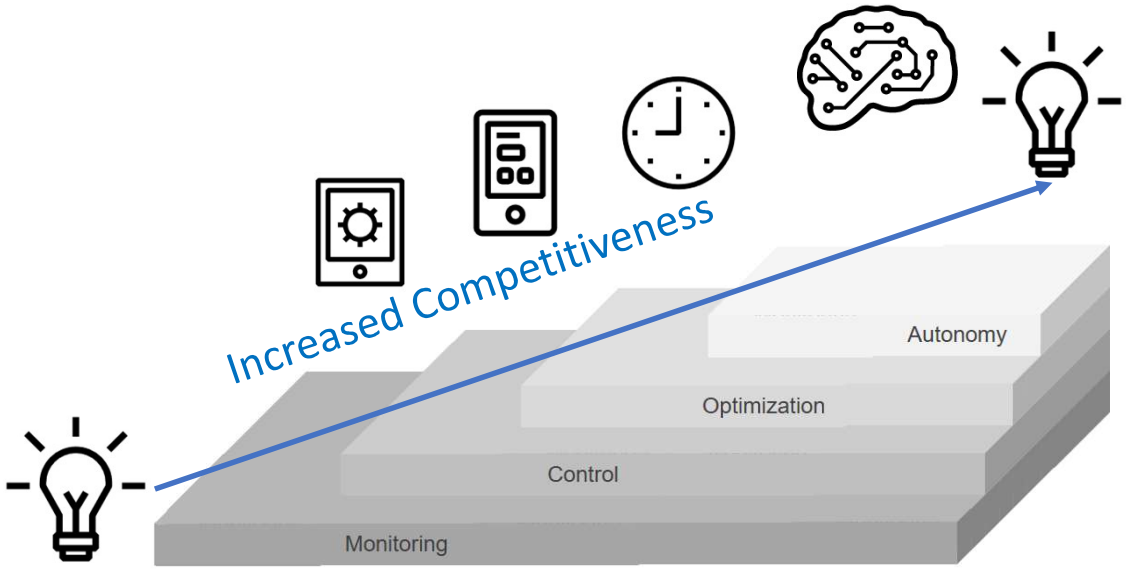
Digital Twins and Internet of Things (IoT)

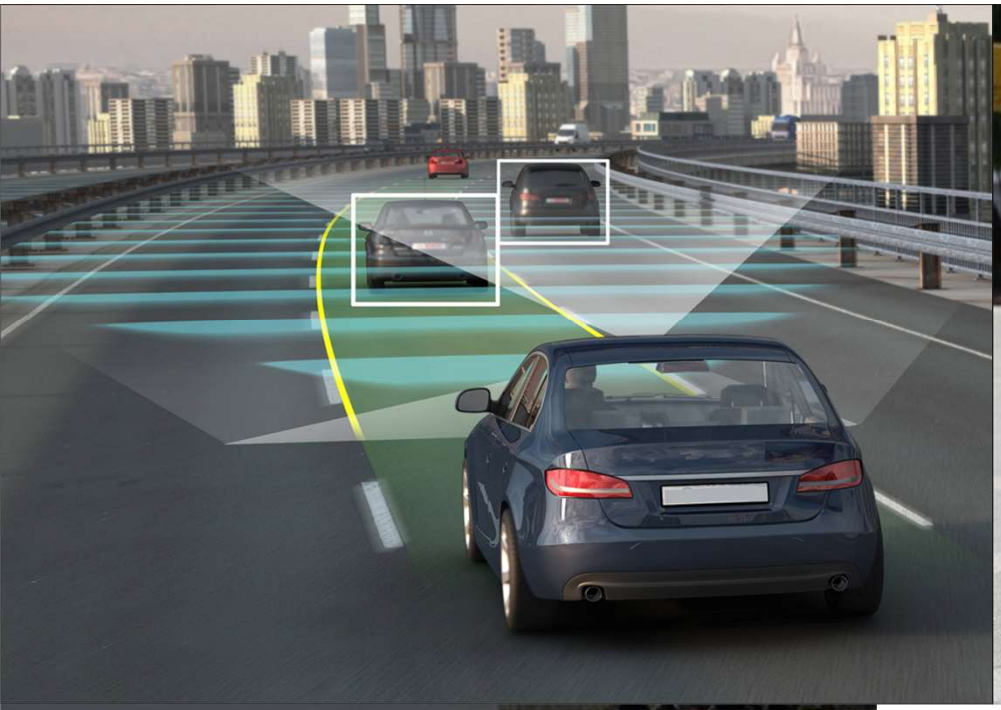
- Digital Twin
  - Represent equipment with an IOT replica in the IT space
  - Connect and empower it with advanced services
  - One
    - App Ecosystem
    - Thing / Family of Things

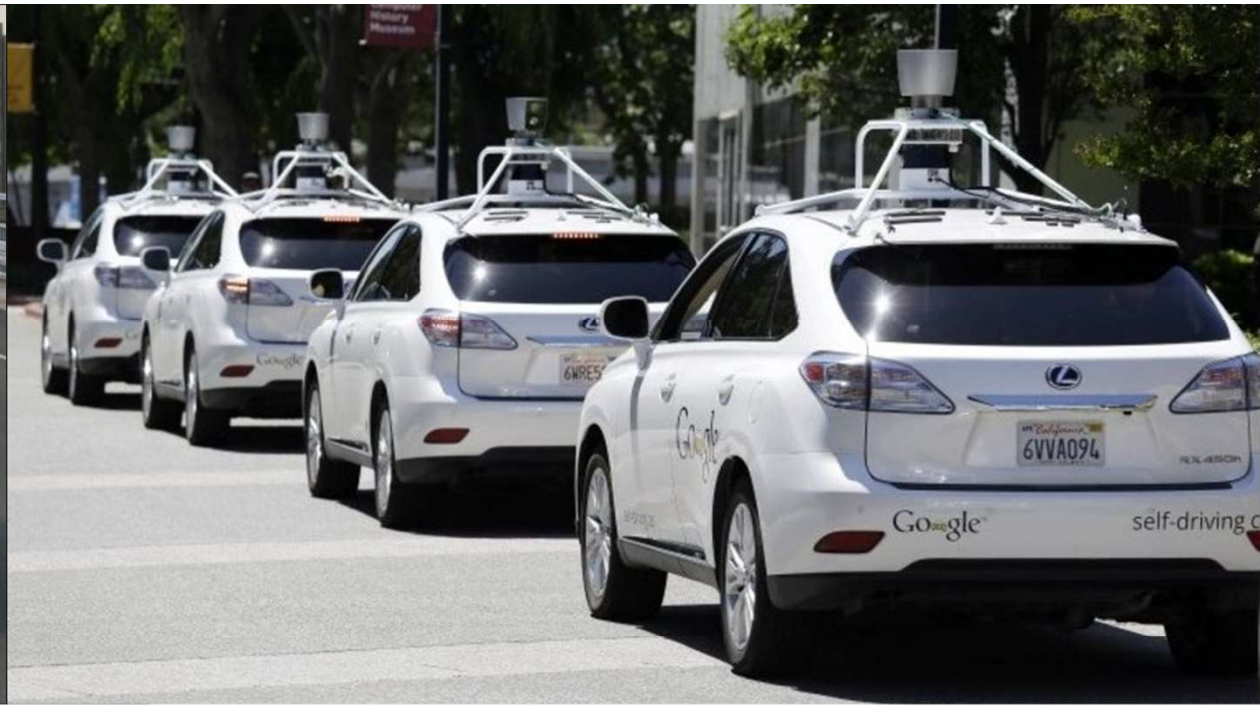


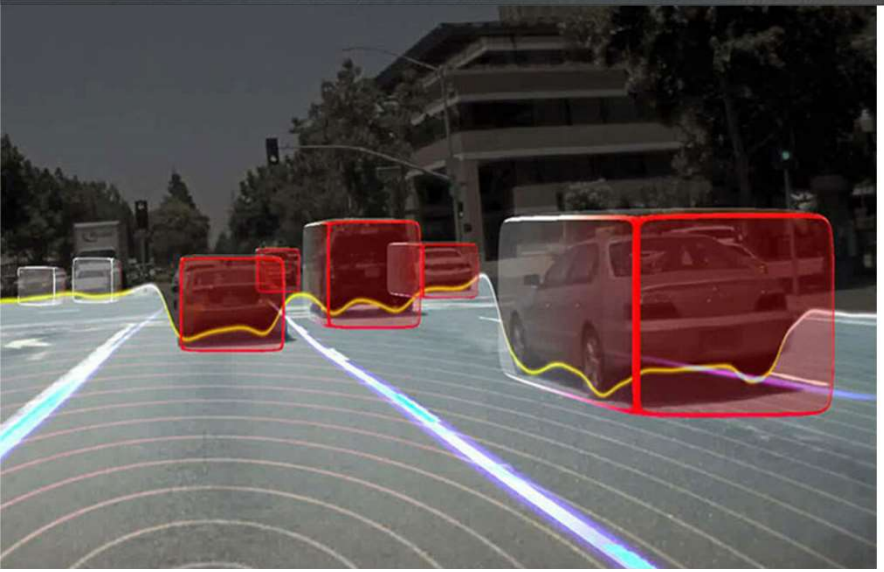


The goal of IoT products









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intel
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LAND ROVER
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Mercedes-Benz
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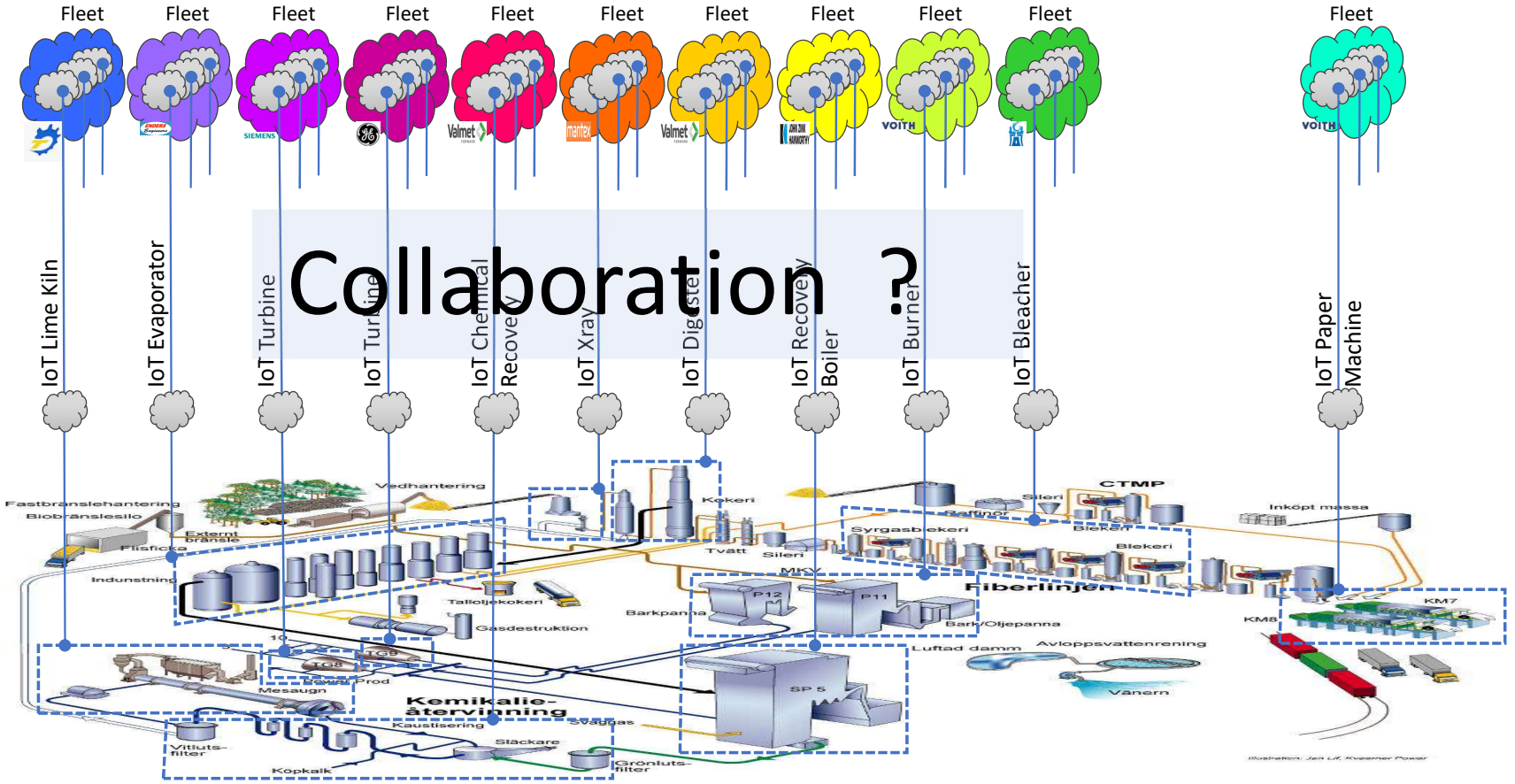
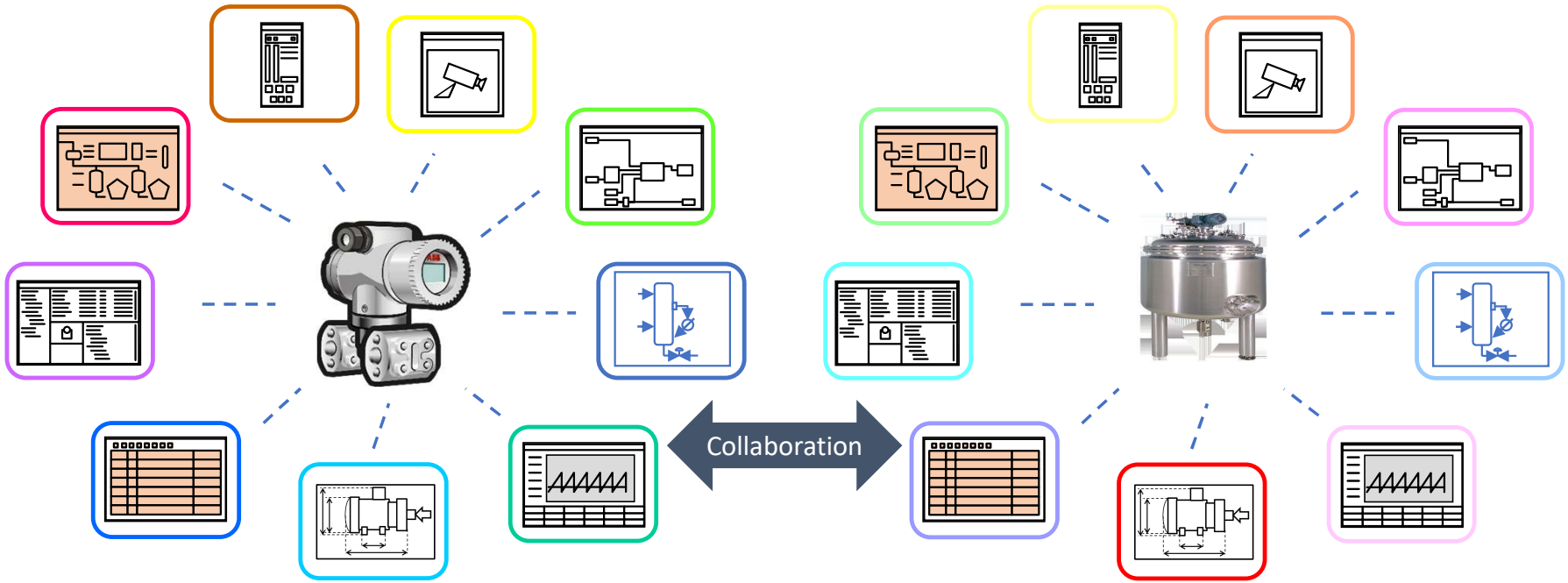
PSA GROUPE
SCANIA
TATA ELXSI engineering creativity
TESLA
TOYOTA
Volkswagen
VOLVO
YUTONG

IoT Ecosystems in a factory scenario



Autonomous Equipment, Digital Twins, Apps & Collaboration

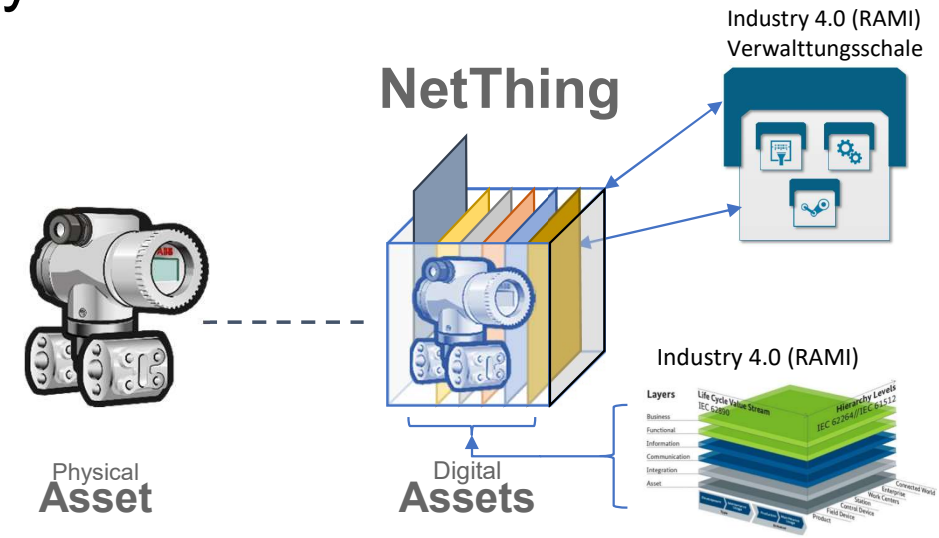


The future of Industrial Equipment is collaborating Apps !

App Ecosystem Collaboration
This is the Problem we need to solve !

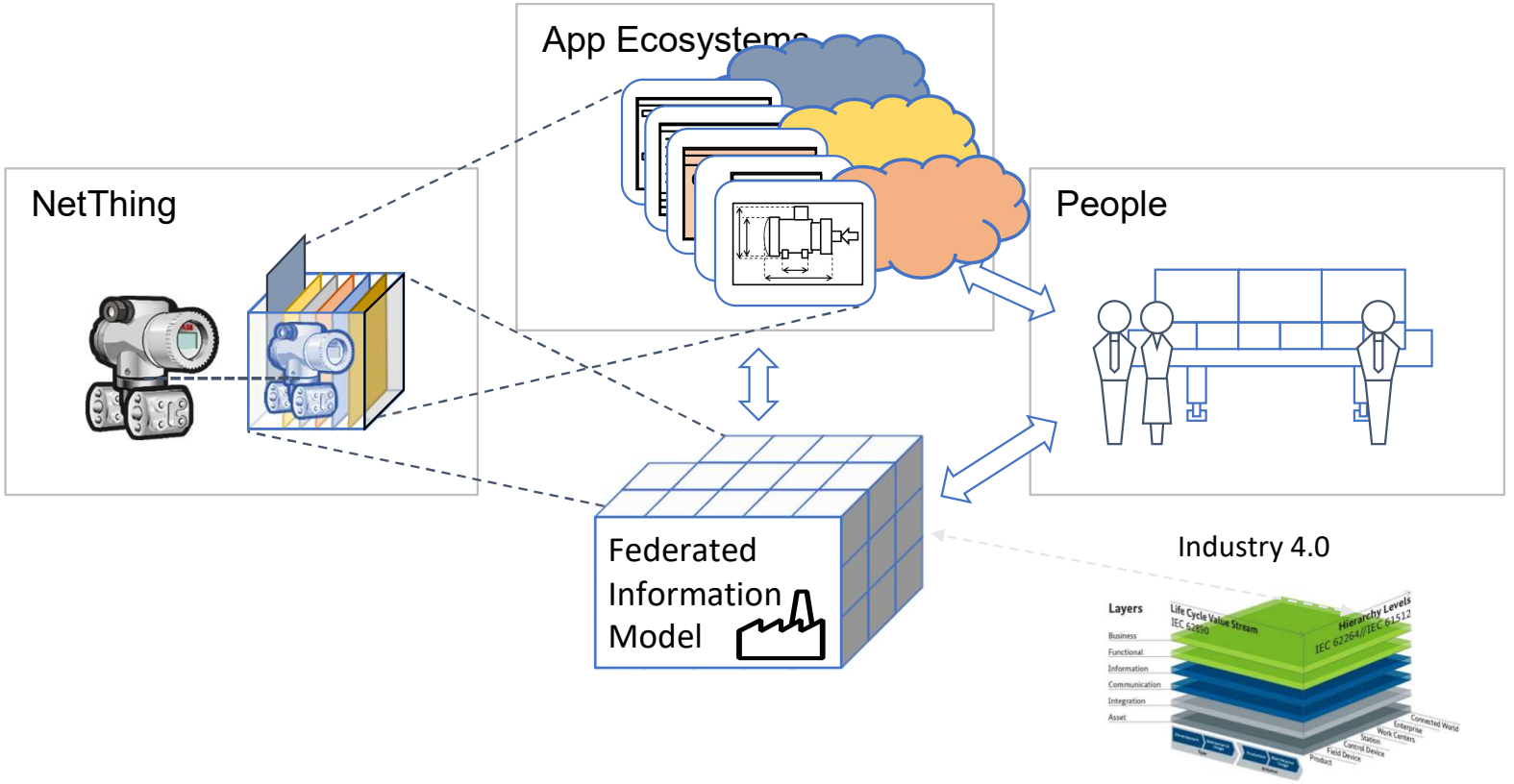
Things and related Ecosystems

- Production Ecosystem functionality
  - Faceplates, Graphic Symbols
  - Alarm management
  - Trend, History
  - Drawings, Documents
  - Instructions
  - Pictures
  - Video, CMMS…



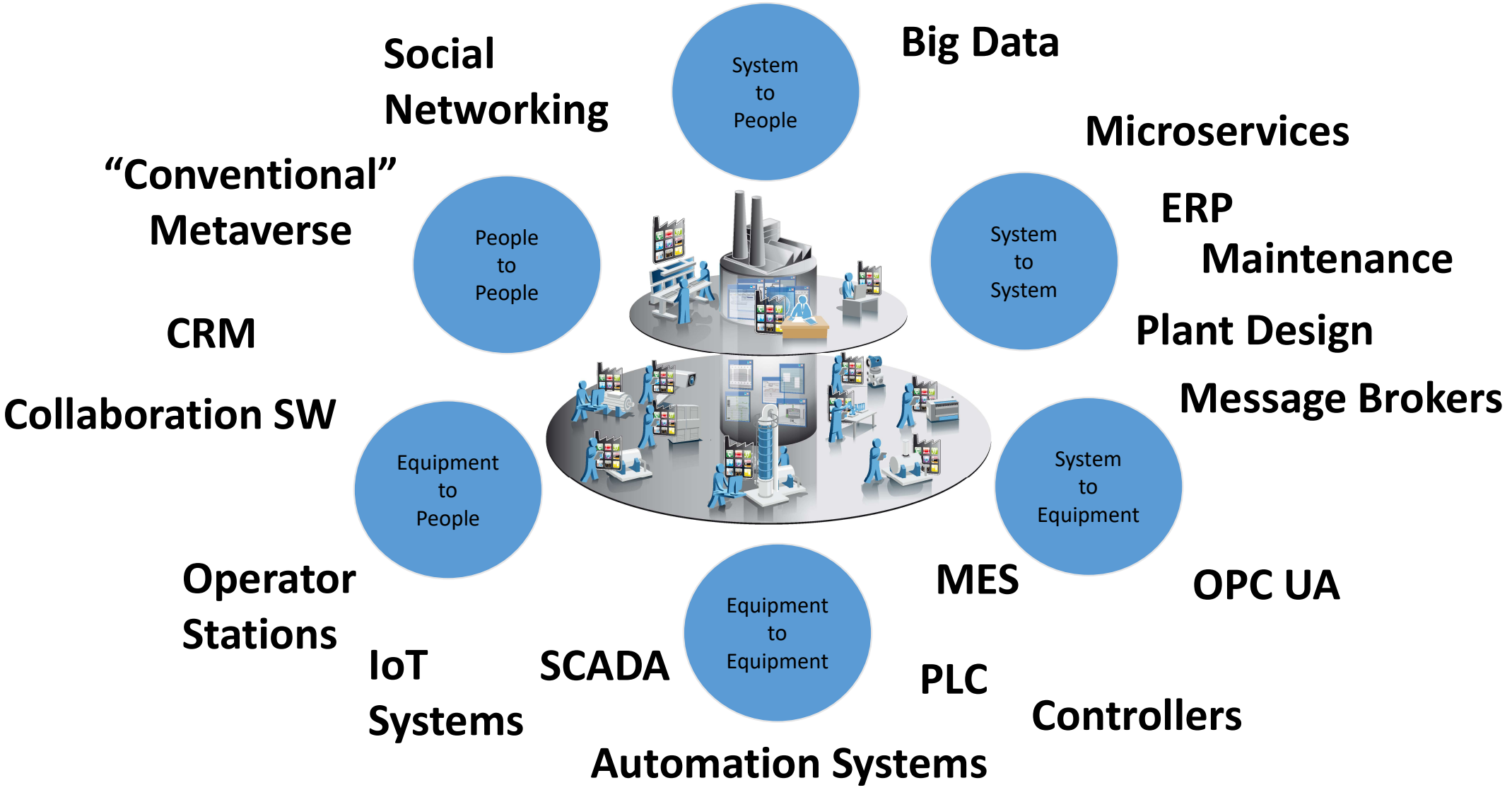
NetThing - Cyber Physical Thing – A Digital Twin Container

NetThings and App Ecosystems

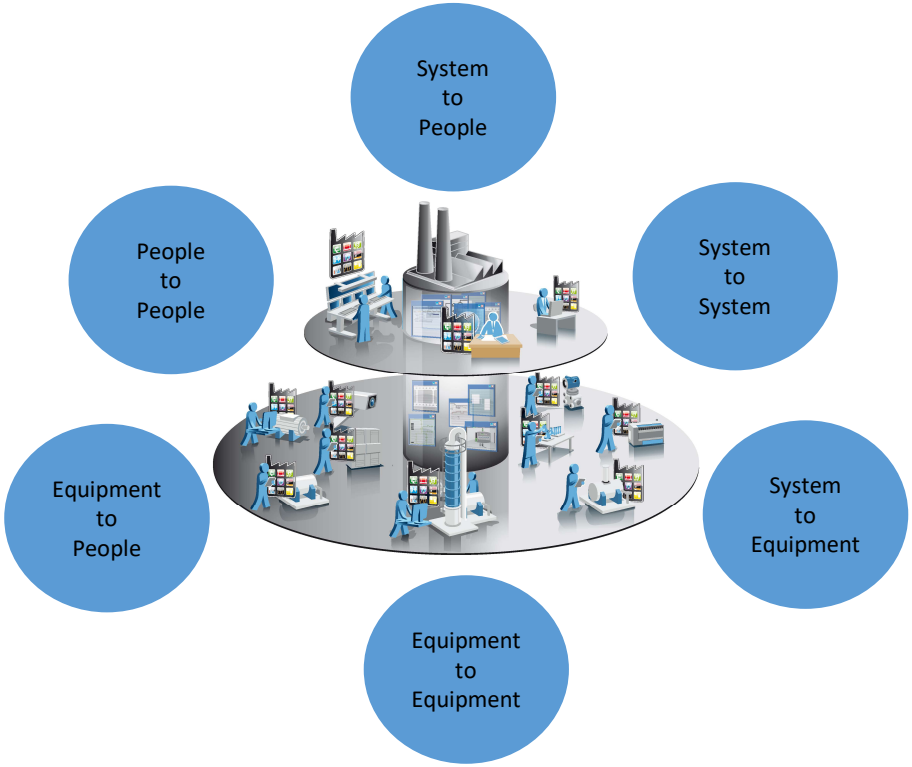


Internet of Things, Systems, and People

The industrial Metaverse



Summary



The goal of Digitalization is
Efficient Collaboration between People, Systems and Things

Comments

Questions ?