“IoT as driver for Digital transformation”
"IoT as driver for Digital transformation"

• Existing situation
Existing situation on manufacturing industries

- Process optimization
- SW
- Process Models. Algorithms (energy saving, control....)
- RAW MATERIAL analysis
- ERP
- Data analytics and visualization
Complex sensors in complex environments.

Sensor power and connection.

Communication protocols.

Industrial Standards.

Amount of data (Frequency).

Volume of data.

Granularity & stakeholders (from management to control).

Time stamp vs Real time response.

Volume in sales.

Privacy and process know how.

Amount of data (Frequency).

Volume of data.

Granularity & stakeholders (from management to control).

Time stamp vs Real time response.

Volume in sales.

Privacy and process know how.

IoT challenges in Manufacturing.
“IoT as driver for Digital transformation”

• Approach
ARCHITECTURE GENERAL OVERVIEW
“IoT as driver for Digital transformation”

• Pathways
1. Product, no Service
   - CAD Systems
   - PDM Systems

2. Product and disjoint Service
   - PLM Systems (integration of CAD and PDM)
   - CRM Systems

3. Service-enabled Product Design
   - Voice of Suppliers Customers / Users
   - Service orient. Product Design (integration of PLM and CRM)

4. Product Service Innovation
   - Closed loop PSS Design (Connected to user’s data)
   - Service Innovation and new Business Models

5. Product Service Symbiotic Evolution
   - Digital Platforms for next generation PS Systems lifecycle management

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Product-Oriented Organizations based on highly qualified professional knowledge for design-manufacturing

Products are considered along their own lifecycle. Complex Interactions between Lifecycles considered

PSS Design Engineering open to customers and final users. Advanced services integrated

Manufacturing companies integrate innovative services in their value proposition

PSSs induce Digital transformations at all levels: technical, organizational and procedural. Collaborative PS Factories
“IoT as driver for Digital transformation”

• IoT – AIOTI positioning
ORCHESTRATING the ECOSYSTEM of ASSOCIATIONS on MFG.

MANUFACTURING DEMAND PULL

EFFRA
Discrete mfg

SPIRE
Process mfg

SPARC/EUROBOTICS
Robots & mechatonic

AGRI

FOOD

ECSEL JU

AIOTI

IDSA

5G

BDVA

IA PPP

CIBERSEC PPP

DIH

CPS

DIGITAL PLATFORMS

DIGITAL TWINS

Ecosystems of the value chain
Smart Energy
Smart Mobility
Smart Cities
Smart...

ECS-SRA electronic components and systems (ECS) Strategic Research Agenda (SRA).

AENEAS ARTEMIS-IA EPoSS

5G whitepaper

Big Data Challenges in Smart Manufacturing

white paper on IDS and Data Marketplaces??

5G whitepaper

IT TECHNOLOGY PUSH
Thank you very much

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