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"loT as driver for Digital transformation"

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IOT Week, Aarhus June 19th 2019.

Session: "Factories are transforming... 110011010" Keynote Session on Future Man. & Industry;

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Existing situation

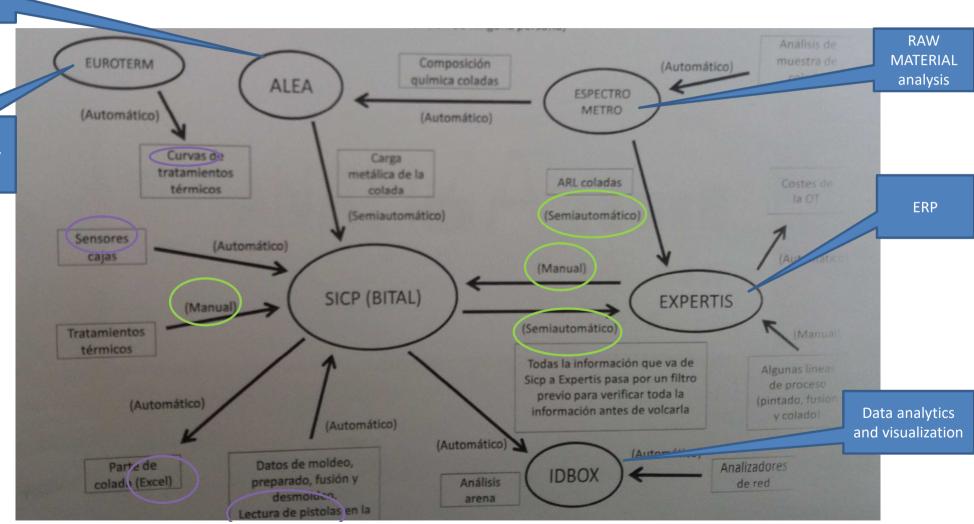


Existing situation on manufacturing industries

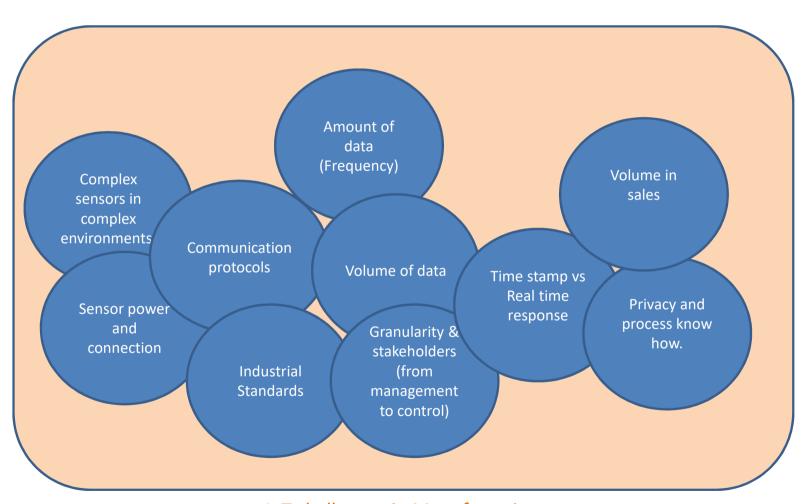


Process optimization SW

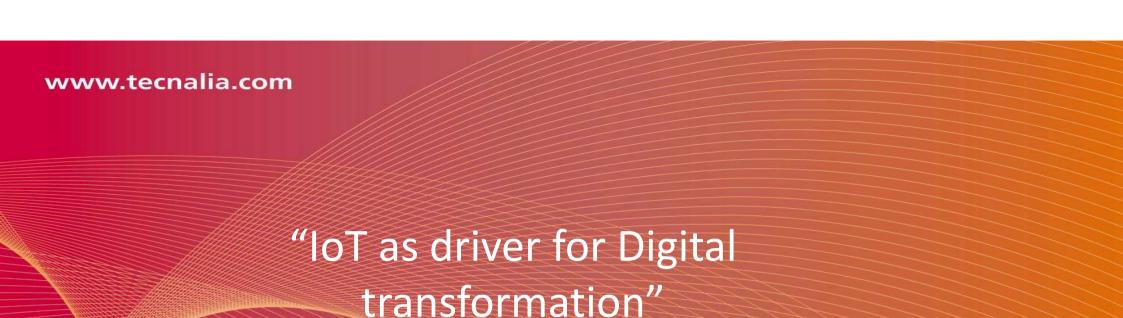
Process Models.
Algorithms (energy saving, control....)







IoT challenges in Manufacturing

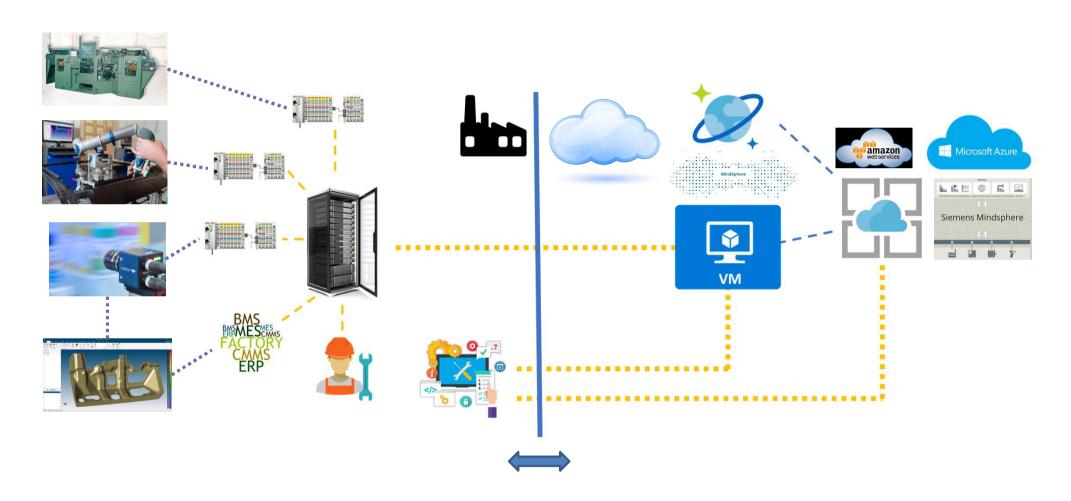


Approach



ARCHITECTURE GENERAL OVERVIEW





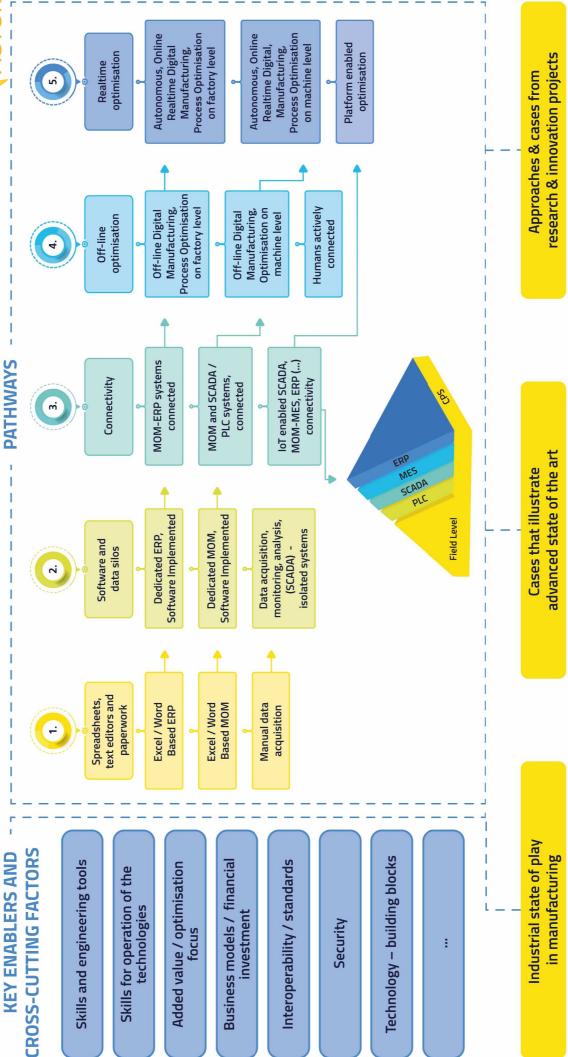


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Pathways









PATHWAY – HYPERCONNECTED FACTORIES



(a)

Dedicated

Dedicated software in silos

General purpose

software

EXCEL/WORD Based SCM, CRM

Software Implemented

Dedicated ERP

EXCEL/WORD
Based ERP

Administrative transactions digitalised

Intra-factory integration

SCM-ERP Software Connected ERP-MOM Software Connected

Software Implemented

Dedicated SCM

IoT enabled SCADA, MOM-MES, ERP (...) connectivity

- isolated systems

analysis (SCADA)

monitoring/

Data acquisition/

information digitalised

Product

(4)

Inter-factory integration with (long term) value network partners SCM-ERP Software connected to SCM-ERP software of some suppliers

High level Planning of manufacturing

Forecasting of required capabilities (link with Autonomous Smart Factories)

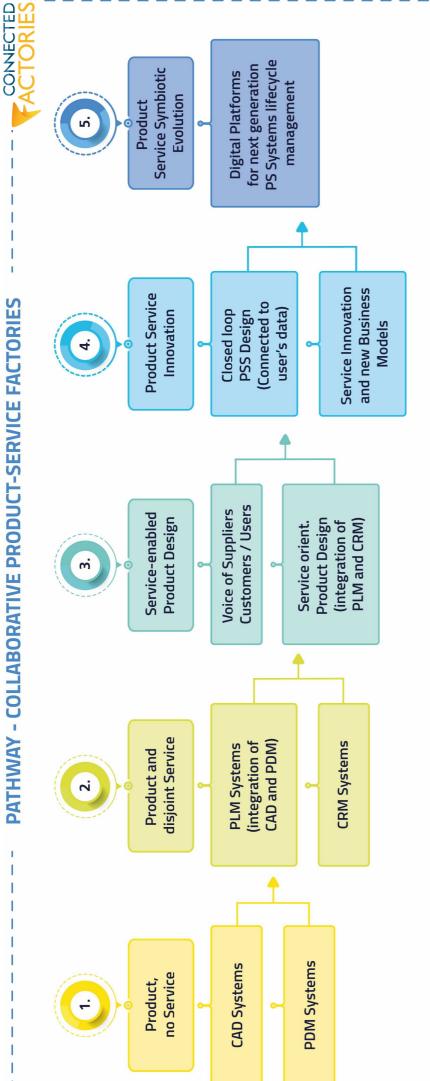
(h)

Inter-factory integration with new value network partners

Common digital platform used for tenders and bidding (dynamically connecting to new suppliers/customers)

Dynamic detailed scheduling and rescheduling

Visibility of work in progress at the supplier's site



PSSs induce Digital Manufacturing companies services in their value integrate innovative proposition **PSS Design Engineering** open to customers Advanced services and final users.

integrated

along their own lifecycle. **Products are considered**

> Organizations based on highly qualified

Product-Oriented

Complex Interactions between Lifecycles

considered

or design-manufacturing professional knowledge

Collaborative PS Factories technical organizational transformations and procedural. at all levels:



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IoT – AIOTI positioning



ORCHESTRATING the ECOSYSTEM of ASSOCIATIONS on MFG.



MANUFACTURING DEMAND PULL SPARC/EUROBOTICS **EFFRA SPIRE AGRI FOOD** 'EFFRA vision for a manufacturing partnership in Roadmap 2050 **DIGITAL DIGITAL TWINS CPS** DIH **PLATFORMS Smart Energy Smart Mobility Smart Cities** ECS-SRA Smart... electronic components and Big Data Challenges in white paper on IDS and Data 5G whitepaper systems (ECS) Strategic Smart Manufacturi Marketplaces?? Research Agenda (SRA). **AENEAS** IA **CIBERSEC ECSEL JU AIOTI IDSA** 5G **BDVA** ARTEMIS-IA PPP PPP **EPoSS**

IT TECHNOLOGY PUSH



Thank you very much

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