

“IoT as driver for Digital transformation”

- IOT Week, Aarhus June 19th 2019.
Session: "Factories are transforming... 110011010"
Keynote Session on Future Man. & Industry;
 - Luis Usatorre – Tecnalia R&I
 - Luis.Usatorre@tecnalia.com

“IoT as driver for Digital transformation”

- Existing situation

Existing situation on manufacturing industries

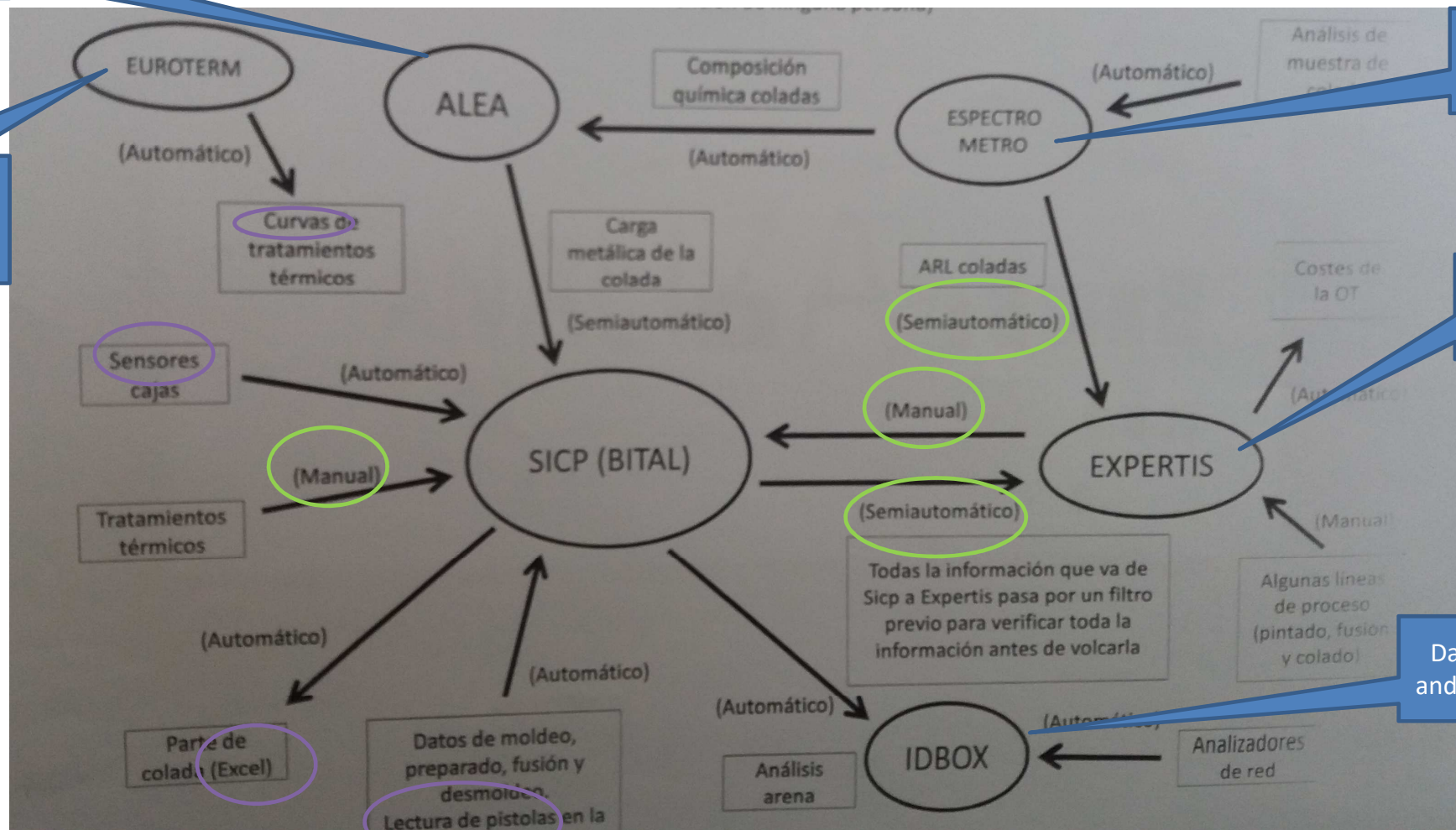
Process optimization
SW

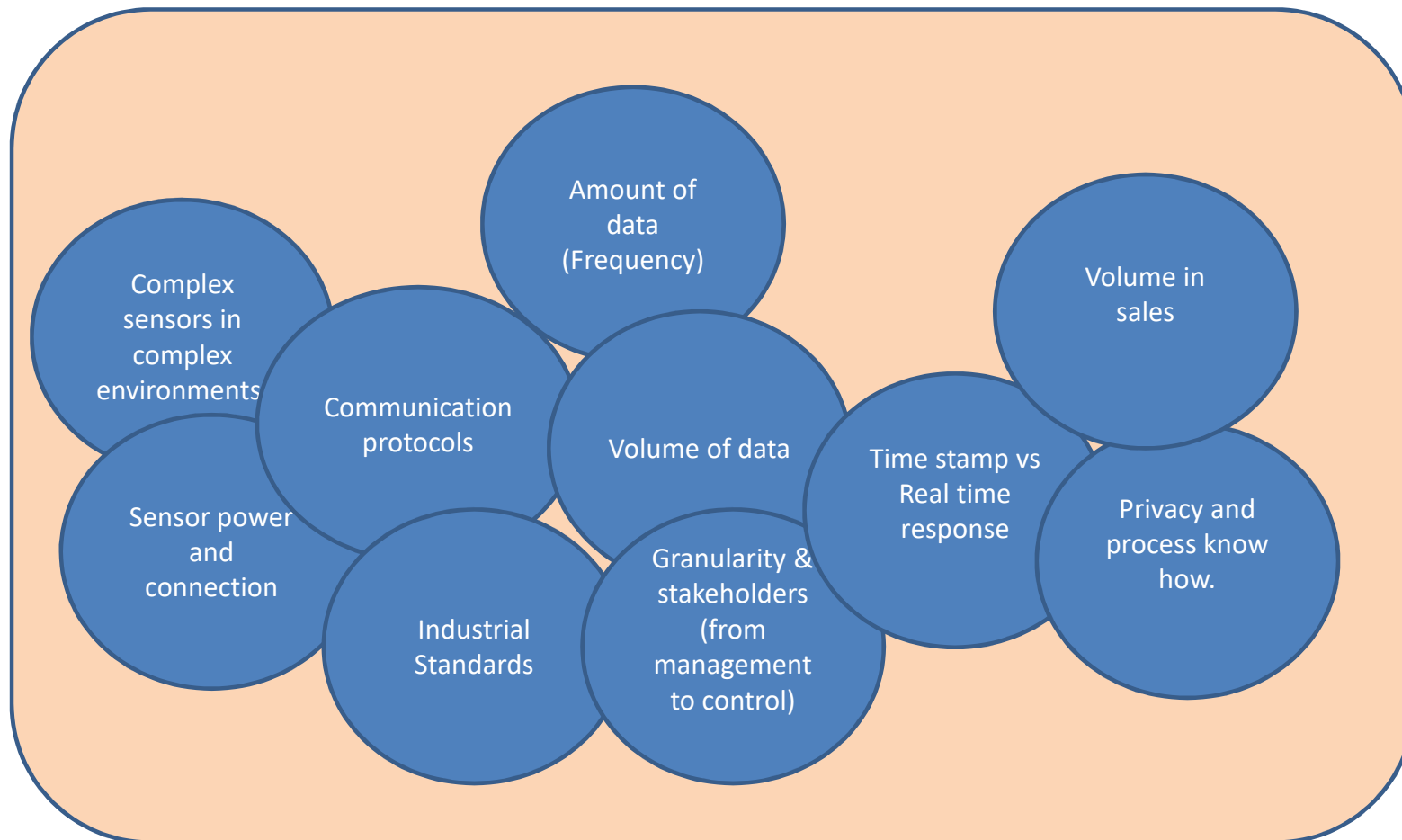
Process Models.
Algorithms (energy
saving, control....)

RAW
MATERIAL
analysis

ERP

Data analytics
and visualization



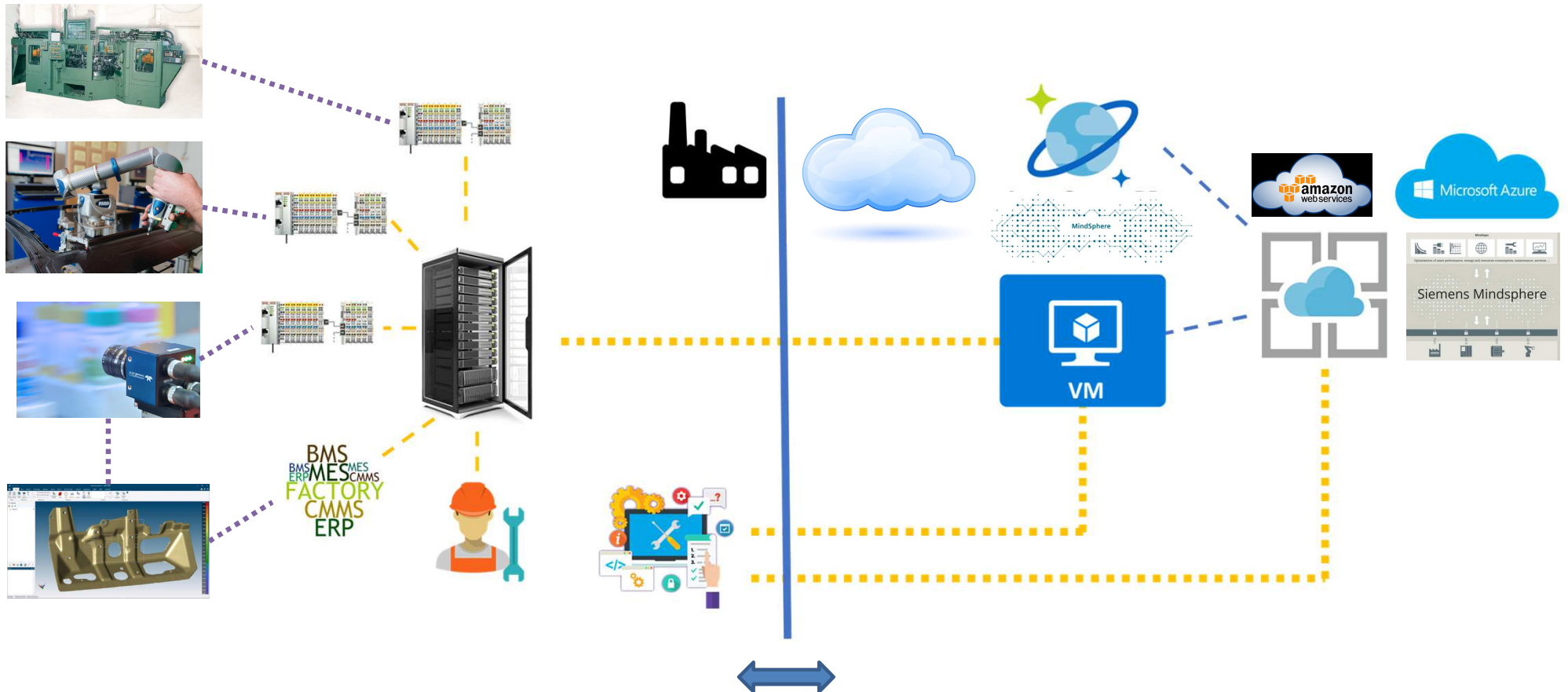


IoT challenges in Manufacturing

“IoT as driver for Digital transformation”

- Approach

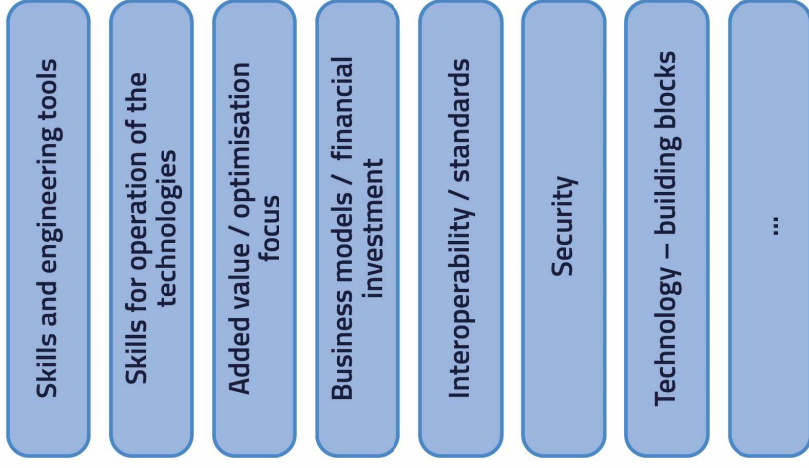
ARCHITECTURE GENERAL OVERVIEW



“IoT as driver for Digital transformation”

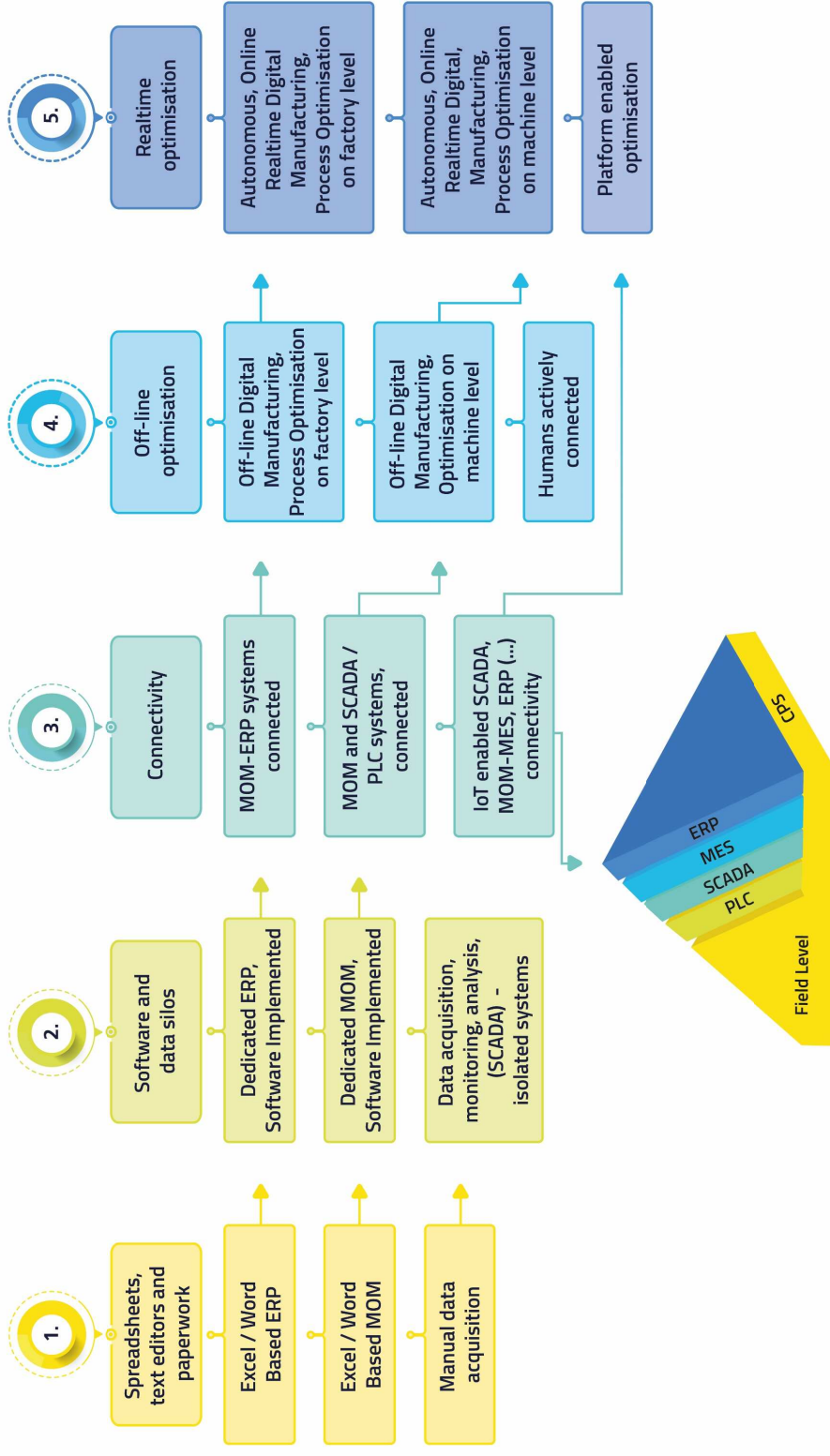
- Pathways

KEY ENABLERS AND CROSS-CUTTING FACTORS



Industrial state of play
in manufacturing

PATHWAYS



Cases that illustrate
advanced state of the art

Approaches & cases from
research & innovation projects

PATHWAY – HYPERCONNECTED FACTORIES

1.

General purpose
software

EXCEL/WORD
Based SCM, CRM

EXCEL/WORD
Based ERP

Administrative
transactions
digitalised

2.

Dedicated
software in silos

Dedicated ERP
Software Implemented

Dedicated SCM
Software Implemented

Data acquisition /
monitoring /
analysis (SCADA)
– isolated systems

Product
information digitalised

3.

Intra-factory
integration

SCM-ERP
Software Connected

ERP-MOM
Software Connected

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

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)

5.

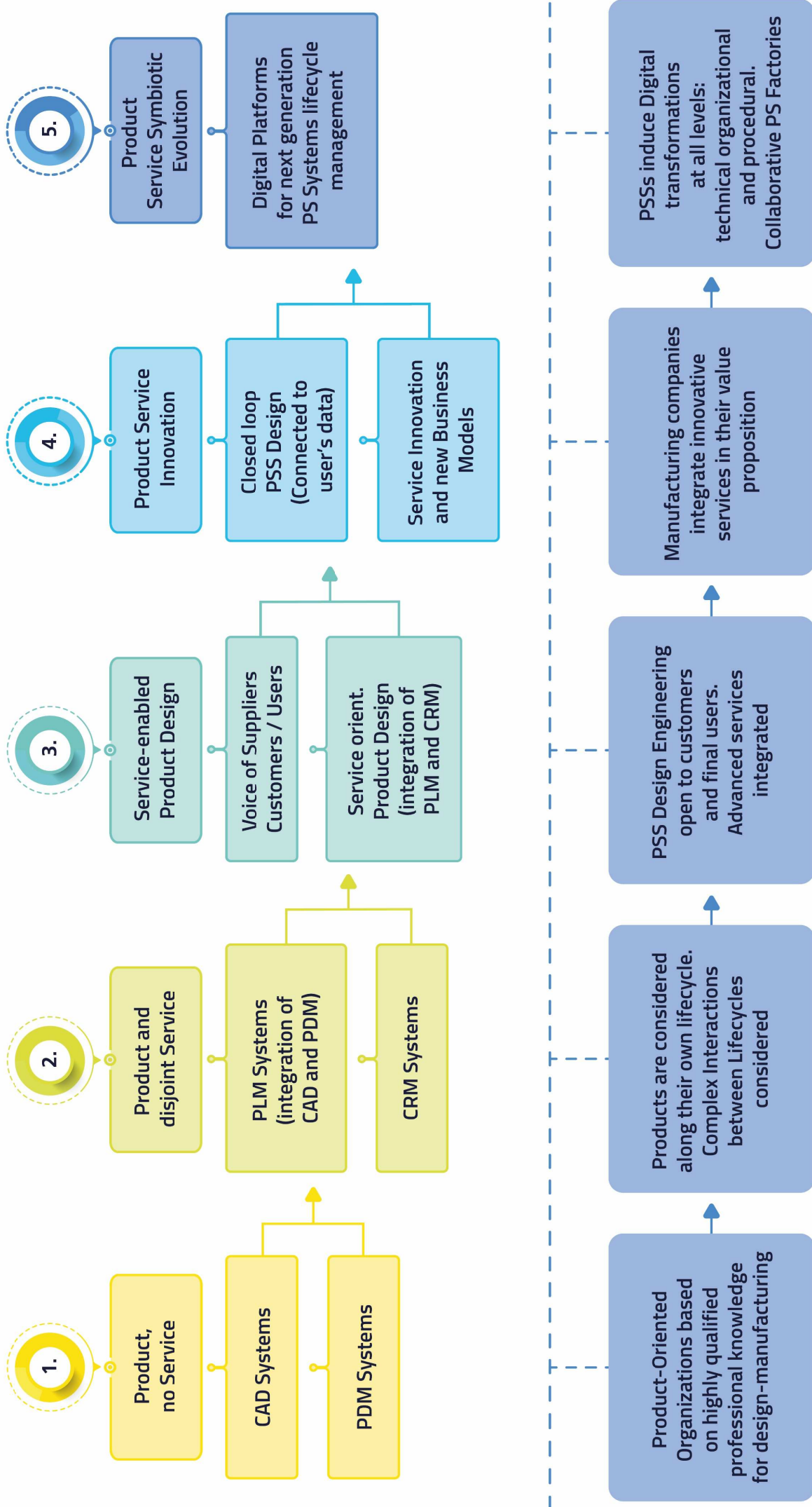
Inter-factory integration with new
value network partners

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

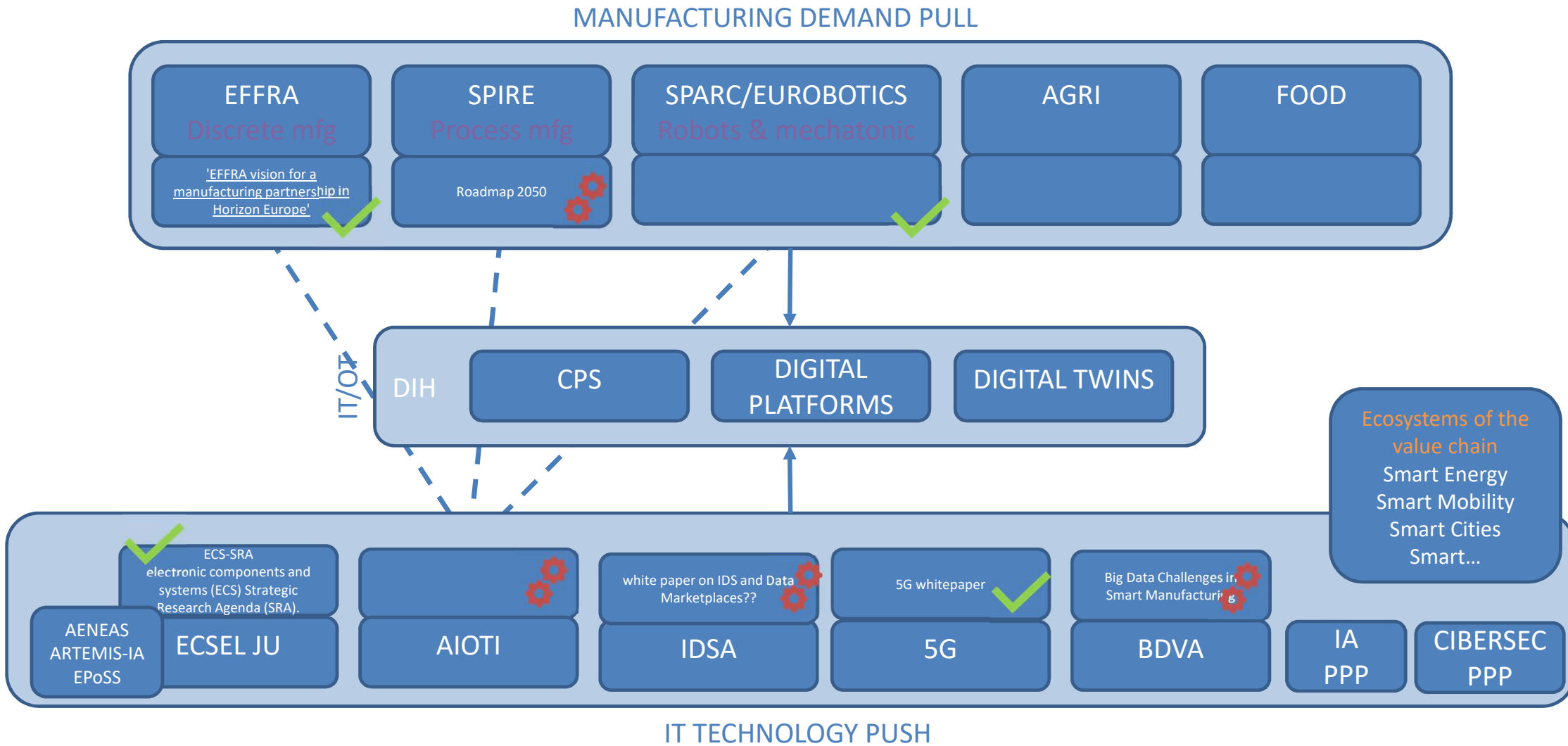
PATHWAY - COLLABORATIVE PRODUCT-SERVICE FACTORIES



“IoT as driver for Digital transformation”

- IoT – AIOTI positioning

ORCHESTRATING the ECOSYSTEM of ASSOCIATIONS on MFG.



Thank you very much

Luis Usatorre – Tecnalía R&I
Luis.Usatorre@tecnalia.com



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 723777.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 822064.



Fandango

