



# **iMan Norte Hub**

Digital Innovation Hub for  
Customer-Driven Manufacturing @ NORTE

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Workshop: Building Innovation Hubs 4.0

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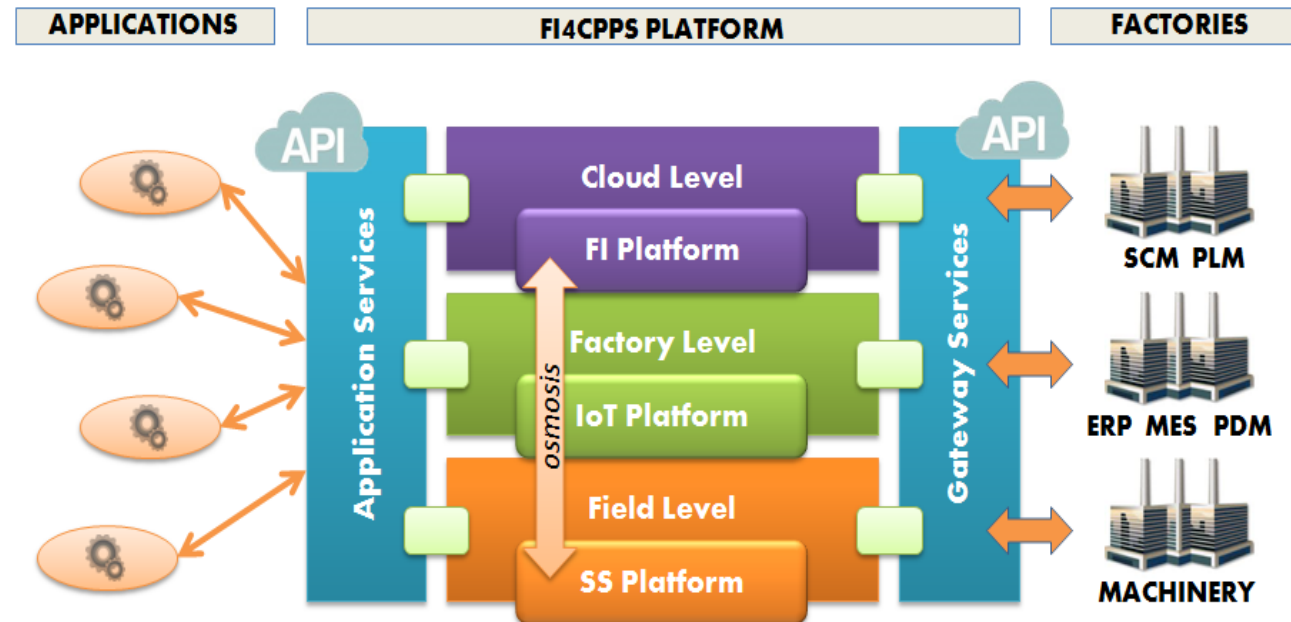
## Agenda

- iMAN North HUB background and first steps
- Mission, objectives and activities
- Structure

# BE<sup>in</sup>CPPS Business Experiments in Cyber-Physical Production Systems

## BEinCPPS Project Objectives:

- Integrate and demonstrate Cyber-Physical Production Systems (**Machine-Factory-Cloud**), using Future Internet platforms
- Implement demonstrators in five regions: North (PT), Lombardi (IT), Basque Country (ES), Baden Wuerttemberg (DE) and Rhone Alpes (FR)
- Launch Digital Innovation HUBs in the five regions



# BE CPPS Application in the Norte

The BEinCPPS in the Norte will cover five industrial sectors: Footwear, Textile & Clothing, Cork, Metal Working and Machinery, and Automotive parts.

Applications to be demonstrated:

- 1. Internal logistic systems** for the stitching, assembly and finishing of footwear products, implemented by robotic manipulators, automatic conveyors, and production management software.
- 2. Predictive Maintenance applications for internal logistic systems**, able to detect real time anomalies and predict possible future failures, by analysing through analytical algorithms the streams of real time data events generated inside the logistic system.
- 3. Production monitoring applications**, providing real time views on the current status of the production system through elaborate user interfaces fulfilling the needs both of the production manager and of the responsible of the production lines.

Portuguese partners: INESC TEC, CTCP, KYAIA; Project Coordinator: Politecnico de Milano



# Digital Innovation Hub Concept

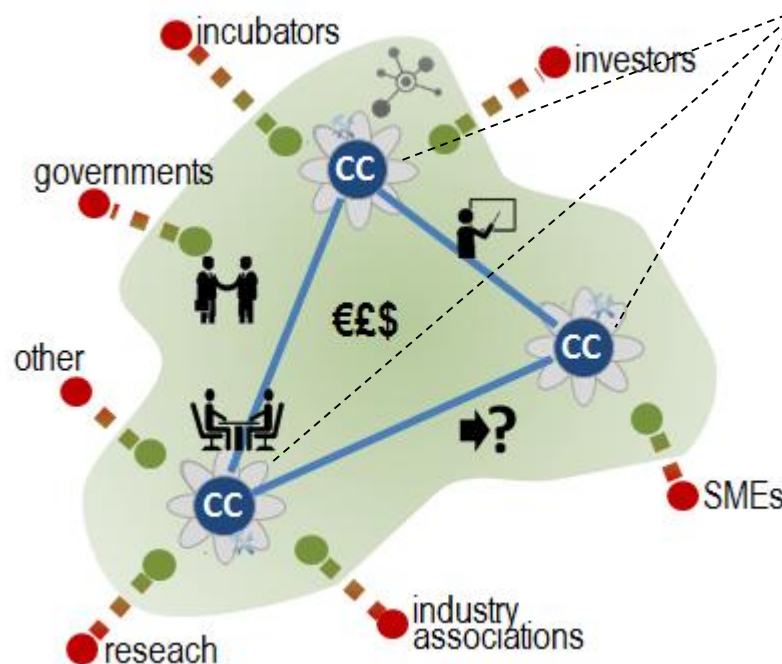


## Competence Centres are the core of Digital Innovation Hubs

### DIGITAL INNOVATION HUB

#### Business Incubators for Demand-Offer matchmaking

- Networking of Regional complementary Comp Centers
- Secure One-stop shop for digital assets (search, orchestration, matchmaking, SaaS)
- Access to Private Finance, Brokerage, Matchmaking
- Access to Public Funding, Proposal preparation services
- Business services (market competition branding portal e-commerce marketplace)

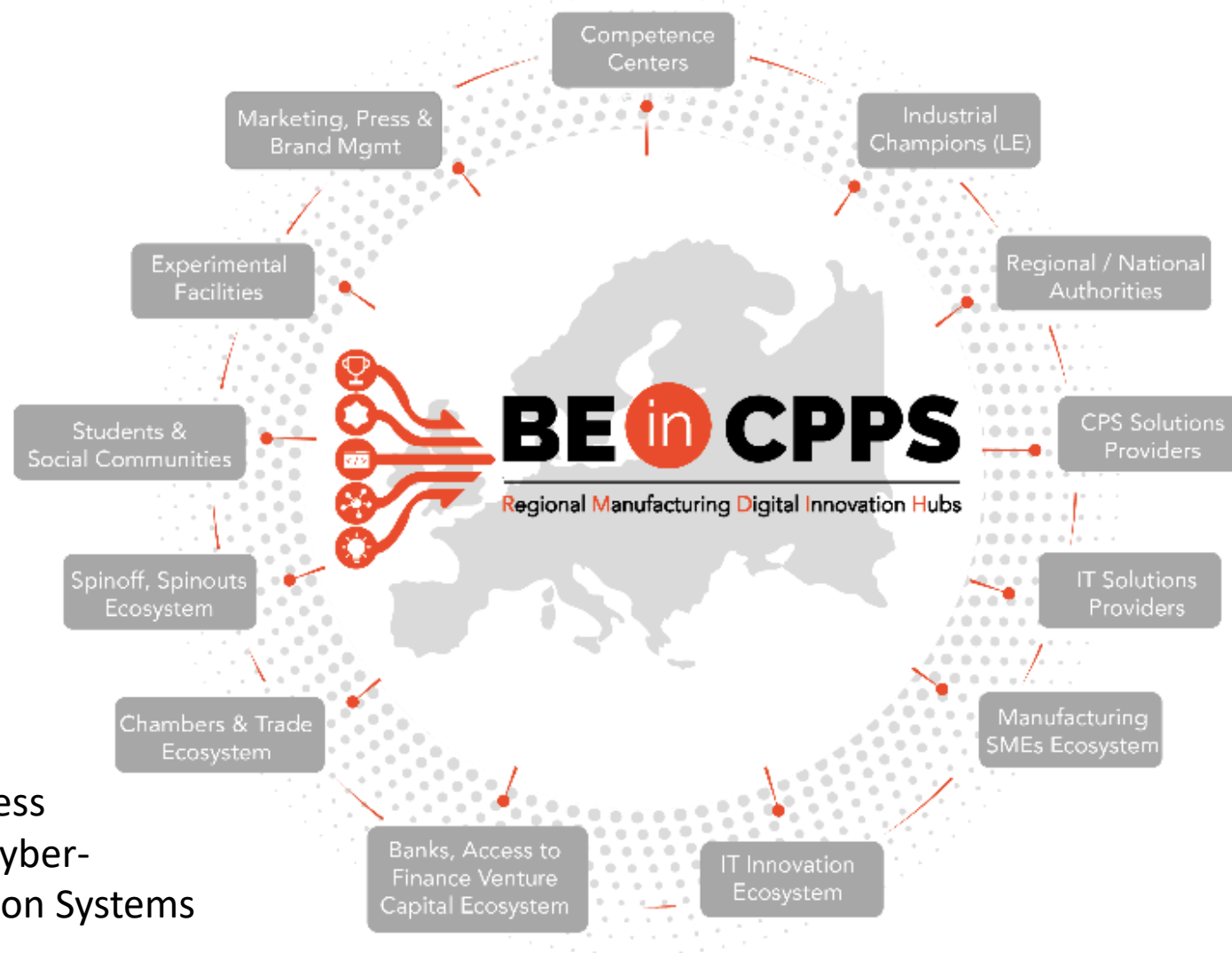


### COMPETENCE CENTRE

#### Competences in Digital Technologies applied to Industry

- Provide access to knowledge and technology platforms
- Provide digitisation and application expertise
- Support experimentation in real-life manufacturing environments
- Support fabrication of new products
- Demonstrate best practices
- Showcase technologies in pilot factories, Learning Factories
- Awareness Training Education

# Digital Innovation Hub Concept



**BEinCPPS:** Business Experiments in Cyber-Physical Production Systems

**Hub Characteristics:**  
 Regional  
 SME Target  
 Manufacturing  
 Internet of Things  
 Experimental Facilities

# iMan Norte Hub - Digital Innovation Hub for Customer-Driven Manufacturing @ Norte

## iMan Norte Hub Mission:

**To foster the digital transformation of manufacturing companies of the Northern Region of Portugal (Norte) and to nurture the respective innovation ecosystem**

## Objectives:

- **Nurture the innovation ecosystem, including research institutions, companies, industrial associations and government agencies**
- **Improve the collaboration in the ecosystem by linking** research institutions, industrial technological centers, industrial associations, incubators, science and technology parks, industrial companies, technology companies, training institutions, and government agencies
- **Focus on the main industrial sectors of the region:** footwear, textile and clothing, agro-food, forestry, metal working and machinery, and automotive parts.

## iMan Norte Hub activities

- **Matchmaking:** Support companies in suppliers and partners search, as well as formation of consortia (**one-stop shop**)
  - Including: access to infrastructures, competencies, education, training, mentoring and access to financing sources
- **Promote dissemination actions**, thematic workshops, open-days, demonstration, information about financing sources
- Promote the realisation of **demonstration projects**
- Promote the **development of innovative solutions**
- **Participate in international events** related with Digital Innovation Hubs and the digitalisation of the manufacturing industry
- **Promote** de development of **studies and roadmaps**



# iMan Norte Hub structure

- **Host organisation:** PRODUTECH Cluster (Portuguese Production Technology Cluster)
- **HUB Coordination body:** PRODUTECH, INESC TEC, UPTEC, CTCP, CITEVE, CATIM, CTCOR
- **HUB Access points (one-stop shop):** PRODUTECH, INESC TEC, UPTEC, CTCP, CITEVE, CATIM, CTCOR and others to be selected
- **Competency centres:** INESC TEC, CTCP, CITEVE, CATIM, CTCOR
- **Service and solution providers:** including companies supplying manufacturing equipment, software solutions, automation, robotics, ...

# iMan Norte Hub cooperation map

## iMan Norte Hub

### Competence Centers



INESC TEC, CTCP,  
CITEVE, CTCOR, CATIM

### Companies



Industrial Champions  
CPS Solutions Providers

### Experimental Facilities

FabTec



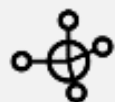
### Coordination:



### Regional / National Authorities



CCDR-N, IAPMEI, ANI



### SMEs Ecosystem

PRODUTECH, APICAPPS,  
ATP, APCOR, AIMMAP,  
Mobinov, ANETIE, TICE.pt

### Startups Ecosystem



UPTEC, Regia-Douro-Park,  
Brigantia EcoPark, IEM,  
IET, Sanjotec, Tecmaia

# PRODUTECH Digital Innovation HUB Platform

- Platform open to the participation of the stakeholders in the scope of the PRODUTECH Cluster (relevant for Production Technologies) and integrated with relevant regional initiatives

