

Digital **Innovation Hubs** & Smart **Specialisation** EIT House (Brussels) 28 Nov 2017

NORTE REGION PORTUGAL

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## • Region / Digital Innovation Hub

#### • Portugal | PRODUTECH Digital Innovation Hub Platform

- Scope: National (and gathering regional initiatives)
- Host: PRODUTECH
- **Contact:** dih@produtech.org
- Link to S3 DIHs Portal: <u>https://goo.gl/mVxFEU</u>

 http://s3platform.jrc.ec.europa.eu/digital-innovation-hubstool?p\_p\_id=digitalinnovationhub\_WAR\_digitalinnovationhubportlet&p\_p\_lifecycle=0&\_digitalinnovationhub\_WAR\_digitalinnovationhubportlet\_mvcPath=%2Fhtml%2Fprofile.jsp&\_digitalinnovationhub\_WAR\_digitalinnovationhubportlet\_h ubResourceId=1345

- Norte | Digital Innovation Hub for Customer-Driven Manufacturing @ Norte (iMan Norte Hub)
  - Scope: Regional
  - Host: PRODUTECH
  - **Contact:** dih@produtech.org
  - Link to S3 DIHs Portal: <a href="https://goo.gl/Lvpkhx">https://goo.gl/Lvpkhx</a>
  - http://s3platform.jrc.ec.europa.eu/digital-innovation-hubstool?p\_p\_id=digitalinnovationhub\_WAR\_digitalinnovationhubportlet&p\_p\_lifecycle=0&\_digitalinnovationhub\_WAR\_digitalinnovationhubportlet\_h italinnovationhubportlet\_mvcPath=%2Fhtml%2Fprofile.jsp&\_digitalinnovationhub\_WAR\_digitalinnovationhubportlet\_h ubResourceId=1535





# Present briefly your regions Smart Specialisation (S3) or regional innovation support system

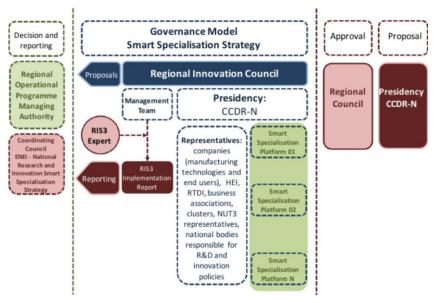
• Norte S3 principles, vision and priority areas

	Key Principles				
Choices and Critical Mass	Identify a limited set of priorities on the basis of own strengths and international specialisation to which allocate financial resources ensuring more effective budgetary management				
Competitive Advantage	Taking advantage of the R&DT capabilities and the export-led industrial DNA, to promote interlinkages and develop a technology market that can boost innovation, through an entrepreneurial discovery process		HEALTH AND LIFE SCIENCES	CULTURE,	MARINE AND MARITIME TECHNOLOGIES
Connectivity and Clusters	Stimulate a higher density of connections both internally and internationally and exploiting inter-sectorial synergies, combining knowledge and productive bases, as well as horizontal and vertical perspectives	SYMBOLIC CAPITAL, TECHNOLOGY AND TOURISM	$\rightarrow \rightarrow$	CRIATIVITY AND FASHION INDUSTRIES	HUMAN CAPITAL AND SPECIALIZED SERVICES
Collaborative Leadership	Adopting a collaborative understanding of innovation, involving firms, universities, institutions and users (Quadruple Helix)		FOOD AND ENVIRONMENTAL SYSTEMS		MOBILITY AND ENVIRONMENTAL INDUSTRIES
				MANUFACTURING	
By 2020, Norte Region will be a reference of industrial competitiveness				TECHNOLOGIES	
founded on continuous innovation and on dynamic capabilities and					
drawing	a new trajectory of fast growth and job creation.				





- Present briefly your regions Smart Specialisation (S3) or regional innovation support system [II]
  - CCDR-N regional authority for Norte Region, being responsible for the strategy development and implementation;
  - Governance Model



- Linking with other S3 of European Regions, e.g.:
  - Joint Cross- Border Smart Specialization Strategy [Norte Galicia]
  - Member of Vanguard Initiative

# Introduction



# Socio economic fabric

#### Norte

- Land Area: 21.286 km<sup>2</sup> (slightly bigger than Slovenia)
- Population: 3,6 million inhabitants (more than in Lithuania; less than in Croatia)
- 170 inhabitants/km<sup>2</sup> (population density higher than in the Czech Republic; lower than in Italy)
- GDP: 50.347 M€ in 2014 (bigger than the GDP of Malta, Cyprus, Estonia, Latvia, Lithuania, Slovenia, Bulgaria, Croatia or Luxembourg)





#### **PRODUTECH Digital Innovation Hub Platform**

# • How is it organised | Host & Partners | Services [I]

- **Mission:** To foster the digital transformation of the manufacturing industry via the gathering of a critical mass of capacities, the networking of stakeholders and the nurturing of the ecosystem, towards the deployment of added value support services that enables, potentiates and furthers industry modernization.
- **Coverage:** <u>National coverage</u> encompassing the <u>regional dimensions and the</u> <u>pertinent regional initiatives</u> and the <u>relevant stakeholders</u> (e.g. CCs and Labs, R&D Organizations, Sectoral Tech Centers, Production Technology Suppliers (companies) and leading user companies from several sectors of the manufacturing industry, Industrial Associations, Education/Training Centers, Science Parks/Incubators and articulation with National and Regional Authorities, Venture Capital organizations and public agencies.
- Host Organization: PRODUTECH Cluster | Partners: PRODUTECH Cluster Members (as above)
- **Services:** from visioning, strategy development and roadmaping to the deployment of large scale initiatives in R&D and Innovation; from awareness actions to matchmaking (e.g. for maturity assessment, access to specialist expertise and infrastructures, solution deployment, advanced training, mentoring...); from visibility actions (national and international) to priority definition, exploitation of opportunities (innovation, integrated offers, solutions take-up, deployment and diffusion, cross-fertilization and business) and access to funding and financing



# DIH for Customer-Driven Manufacturing @ Norte (iMan Norte Hub)

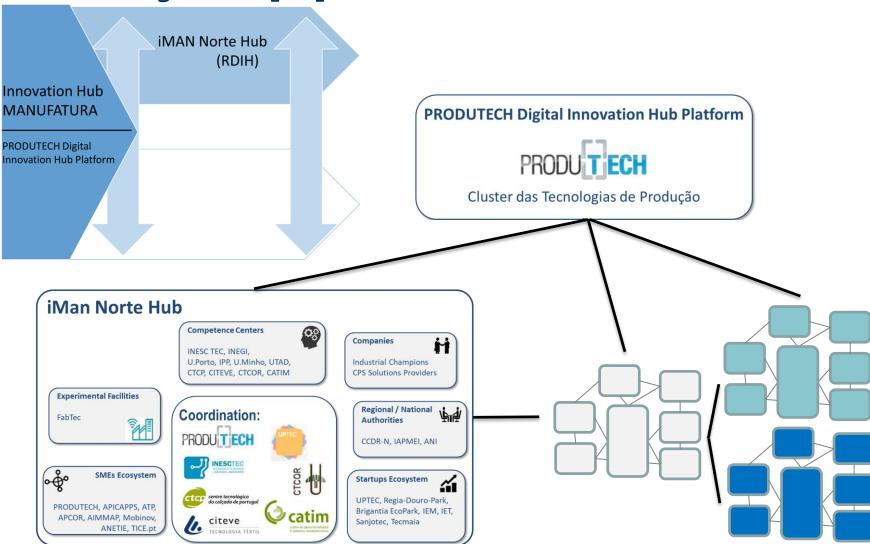
#### How is it organised | Host & Partners | Services [II]

- **Mission:** Foster the digital transformation of manufacturing companies of the Northern Region of Portugal (Norte) and to nurture the respective innovation ecosystem. The <u>main objectives</u> of the iMan Norte Hub are: (i) To facilitate and foster manufacturing technology adoption and diffusion in the areas of cyberphysical production systems (CPPS) and robotics, and (ii) To 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
- **Coverage:** Regional Coverage (Portugal's Norte region); iMan Norte Hub is part of the PRODUTECH Digital Innovation Hub Platform.
- Host Organization: PRODUTECH Cluster | Managing/Coordination Team: PRODUTECH, INESC TEC, UPTEC, CATIM, CITEVE, CTCP, CTCOR | Partners: Research institutions, industrial technological centers, industrial associations, science and technology parks, incubators, and technology companies compose the hub's service providers group
- Services: Dissemination and matchmaking activities (workshops, open days, ...), coaching and connection to funding sources, and promotes the services offered by its service providers group, such as R&D, feasibility studies, technology roadmaps, consultancy on technology selection and implementation, training, ...



European Commission

#### How is it organised [III]





## Participation in (Norte region) S3 development and implementation

- Comprehensive participation of the DIH and associated organizations (both individual organizations and via cluster) in surveys, thematic workshops and meetings that led to the definition of the Norte S3;
- Continuous feedback via meetings, interviews (including with EC representatives);
- Implementation: promotion of capacitation, networks dynamization and other cross-cutting initiatives (within thematic domains and cross thematic), in the promotion of R&D and Innovation projects and support services.

## • Participation in other S3

- National S3, under themes "Production Technologies and Product Industries" and "Production Technologies and Process Industries", among others.
- Other Regional S3, e.g. Centro Region participation in the definition, implementation and feedback in the setting up of the priorities under the thematic platform "Sustainable Industrial Solutions"





### • What are the main challenges and good practices:

#### • Good Pratices:

- A consistent and coherent approach towards S3 definition and implementation (which includes the interaction between DIH-Stakeholders-Programme Authorities);
- A comprehensive and consistent strategy in the DIH development, leveraging existent capacities, competencies and relational capital of the eco-system, further exploring the regions' endowed and/or to be fostered potential, while supported in a cluster-based approach, strategy and intervention, that aims to leverage cooperation and outreach at European scale (e.g. networking of pilots and initiatives under Vanguard Initiative); (see next slide)

#### • Challenges:

- Furthering policy articulation and mutual learning (e.g. National, Inter-Regional at European level and EC)
- Overcoming gaps and limitations within the framework of current instruments (considering all levels), in order to further leverage synergies





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# What are the main challenges and good practices:

Good Practices (example):

#### **Cluster Intervention Vectors**

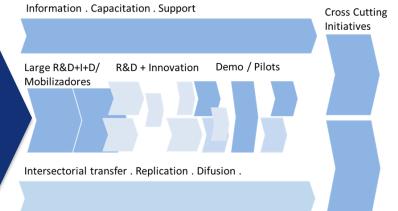
Growth, Qualification and Strategic Cooperation

Visibility and Internationalization

Promotion of R&D and Innovation Strategic Information and Intelligence

#### R&D +I(nnovation) + D(emonstration and difusion) Axes

Axis 1 Adaptative and Intelligent Production Systems	In
Axis 2 Organizational Strategies and Tecnologies for Continuous Improvement	
Axis 3 Networked Production Systems	
Axis 4 Operations Management and Logistics	La Mo
chnology velopment Axis 5 Production Systems for Customization	
ther KETS] Axis 6 New Production Systems, Advanced Processes and Technologies	
Axis 7 Sustainability and Resource Efficiency	
Axis 8 Innovative Tools for Product-Service-System Development	Int
Axis 9 Simulation and Optimization of Production Systems	
Axis 10 Advanced Robotic Systems	

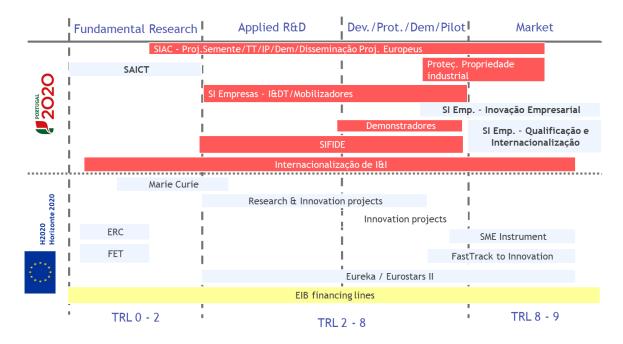






### • DIH financing, synergies, linking to services:

- Articulated resort to financing sources from Membership fees, own resources, private, regional, national and ERDF funding, among others.
- The case example in R&D

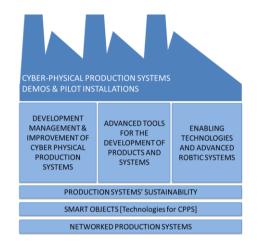






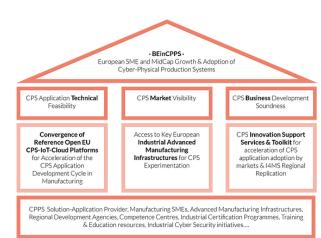
- Other collaborations with other regions and hubs
  - Examples [I]:
    - R&D and Innovation
      - National Scale





- European Scale









- Other collaborations with other regions and hubs
  - Examples [II]:
    - Piloting and Demonstration, support to Innovation
      - Vanguard Initiative High Performance Production through 3D-Printing





**Objective:** to accelerate market uptake of 3DP applications in the EU through development of industry-led, transregional demonstration platforms.

#### Efficient and Sustainable Manufacturing (ESM)

**Objective:** to create a network of demo sites and pilot lines at regional level that will enable manufacturing companies in different sectors, including SMEs, to develop and introduce highly efficient and sustainable processes, technologies, systems and methods.

- Other Initiatives: EIT KICs, Partnership Portugal Clusters
- Cooperation with other regions:
  - Establishment of a pan-European DIH Network; Share of experiences and best practices; foster the launch of joint initiatives and projects that support the transformation of the Industry