

Centro de Interface Tecnológico Industrial

Advancing Smart & Collaborative Manufacturing

July 19, 2022 Sérgio Ivan Lopes









## Agenda



- What is CiTin?
- Expected impact in the Alto Minho region
- CiTin Vs. TRL
- Specialization Domains
- Business Model
- Main Activities
- MoUs
- Team
- Recruitment



### What is CiTin?



Non-profit and private, scientific, technological and technical assistance association, that resulted from the joint action of the following founding members:

Public Institutions and Associations (5)	Industrial Companies (12)
<ul> <li>IPVC – Instituto Politécnico de Viana do Castelo</li> <li>Câmara Municipal dos Arcos de Valdevez</li> <li>CIM Alto Minho</li> <li>CEVAL – Confederação Empresarial do Alto Minho</li> <li>In.Cubo – Incubadora de Iniciativas Empresariais Inovadoras</li> </ul>	<ul> <li>Antolin Lusitania</li> <li>BMVIV</li> <li>Coindu</li> <li>DS SMITH</li> <li>EMIR</li> <li>Metaloviana</li> <li>NM3D</li> <li>Portas Arcuense</li> <li>SONORGÁS</li> <li>The Tomorrow Company</li> <li>TINTEX</li> <li>West Sea</li> </ul>



# Expected impact in the Alto Minho region CITIn®



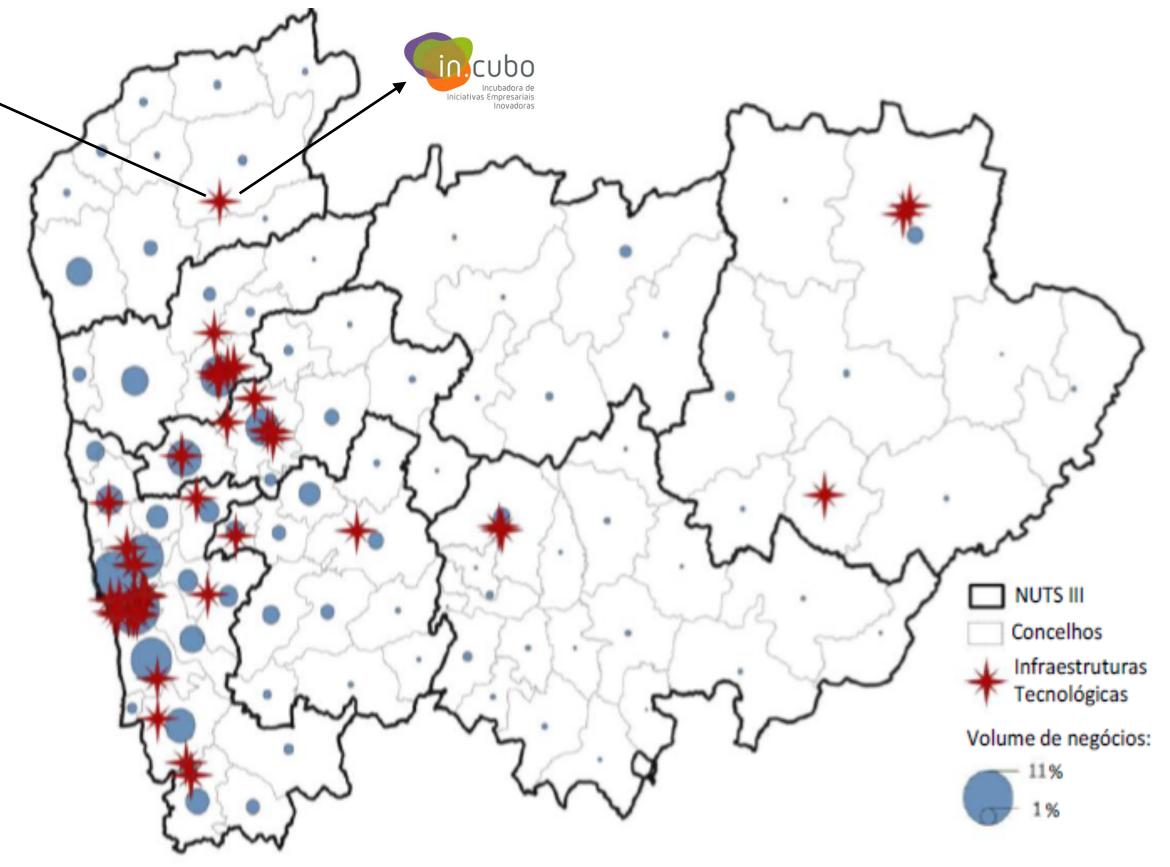


#### Macro

- Generation of added value in the Alto Minho region;
- Creation of highly qualified jobs;
- Increase in the intensity of exports;
- Settlement of the population in the territories;
- Attracting National Investment and Foreign Direct Investment.

#### Micro

- Intensification of cooperation between academia and industry;
- Increase in private investment in R&DT;
- Foster innovation:
- New products;
- New processes;
- New services;
- Technology-based entrepreneurship.



(2017) Mapeamento dos investimentos em infraestruturas tecnológicas. Norte 2020.



## Towards Industry 5.0





#### Mechanization

Time: 18th C. Keywords: Water, Steam

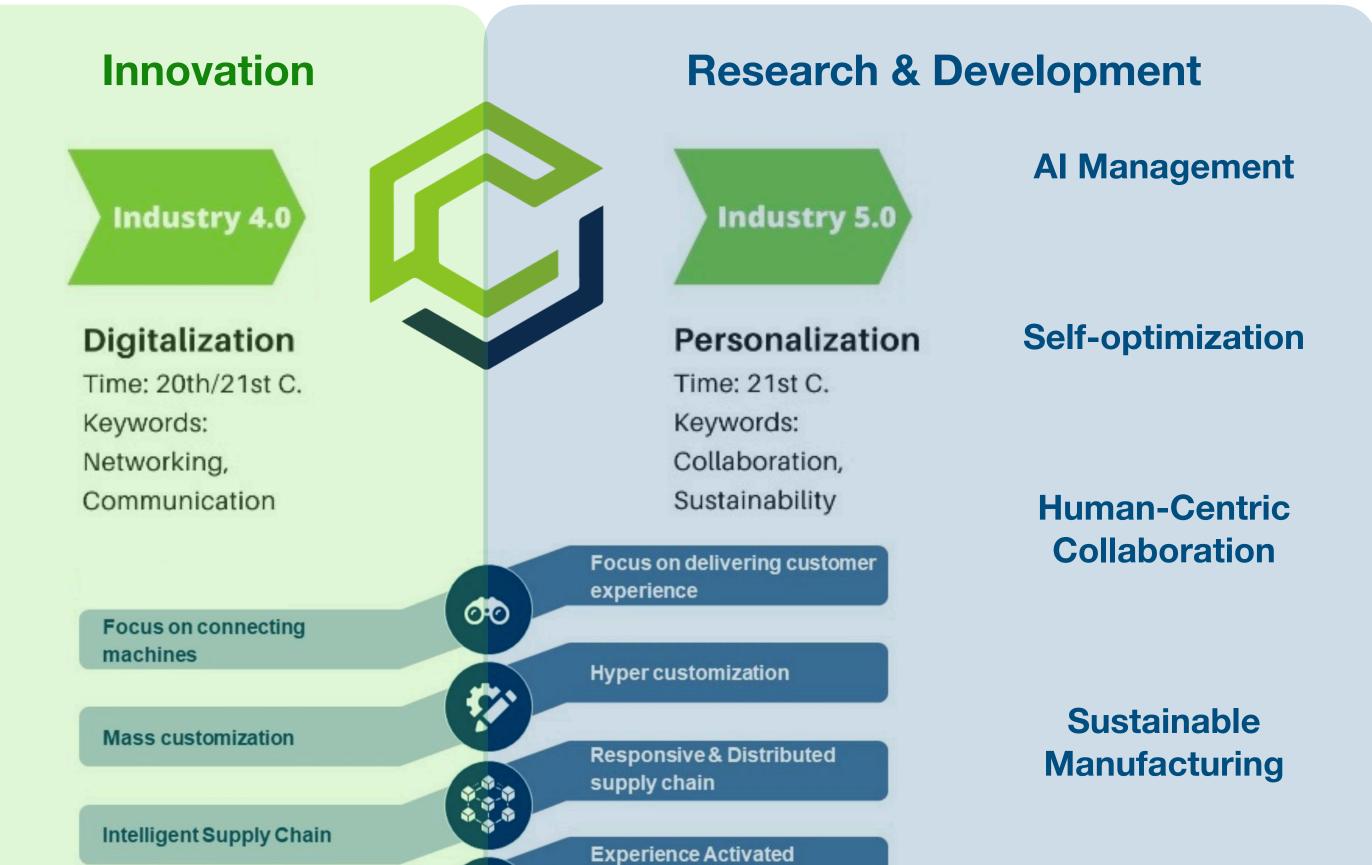
Industry 2.0

#### Electrification

Time: 19th C. Keywords: Electricity, Assembly Line Industry 3.0

#### Automation

Time: 20th C. Keywords: Computers, Automation



(Interactive) Products

**Return of Manpower** 

to factories

**Smart products** 

factories

Manpower distanced from



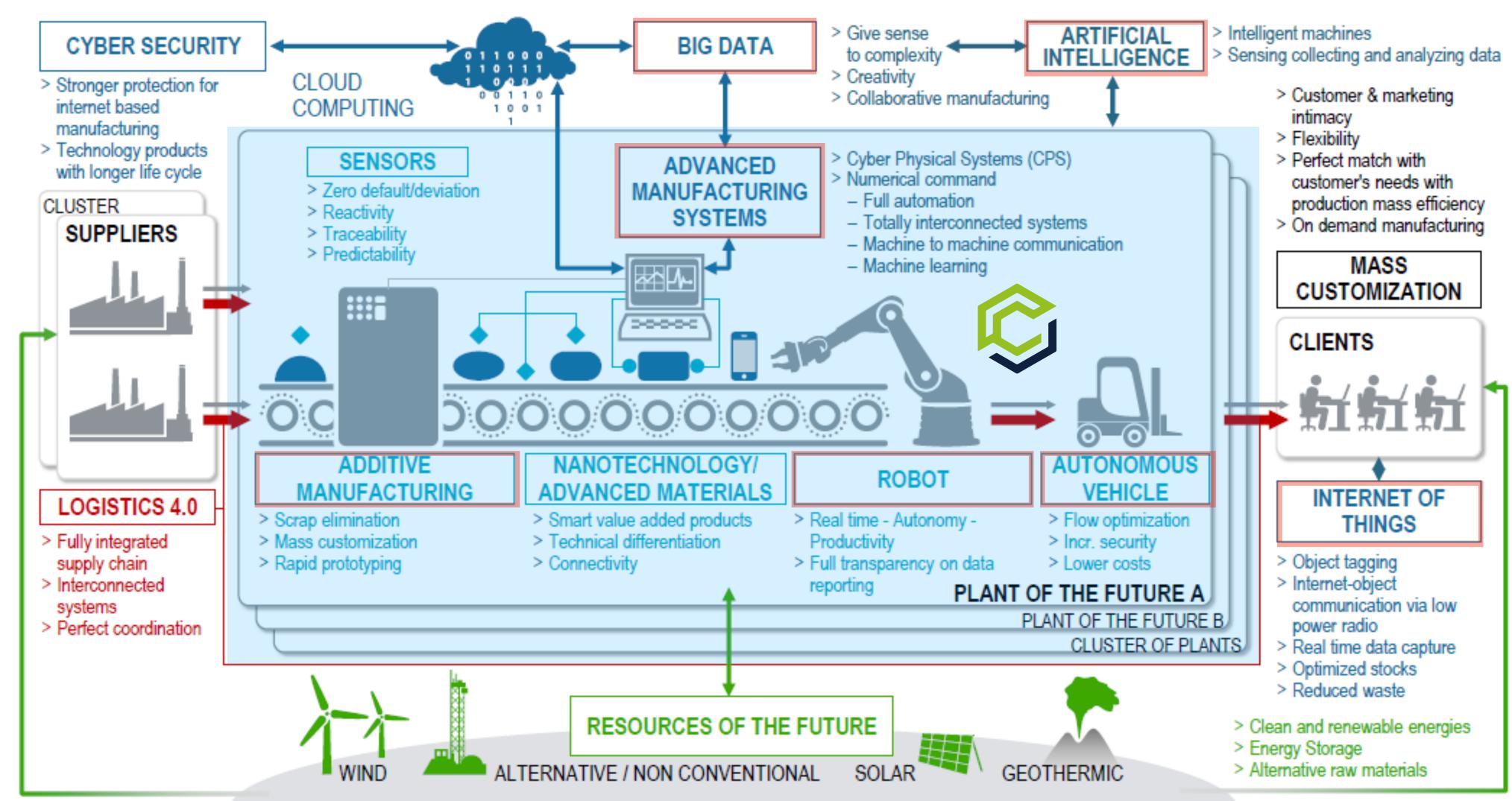


Cognitive

**Manufacturing** 

## Industry 4.0 Ecosystem



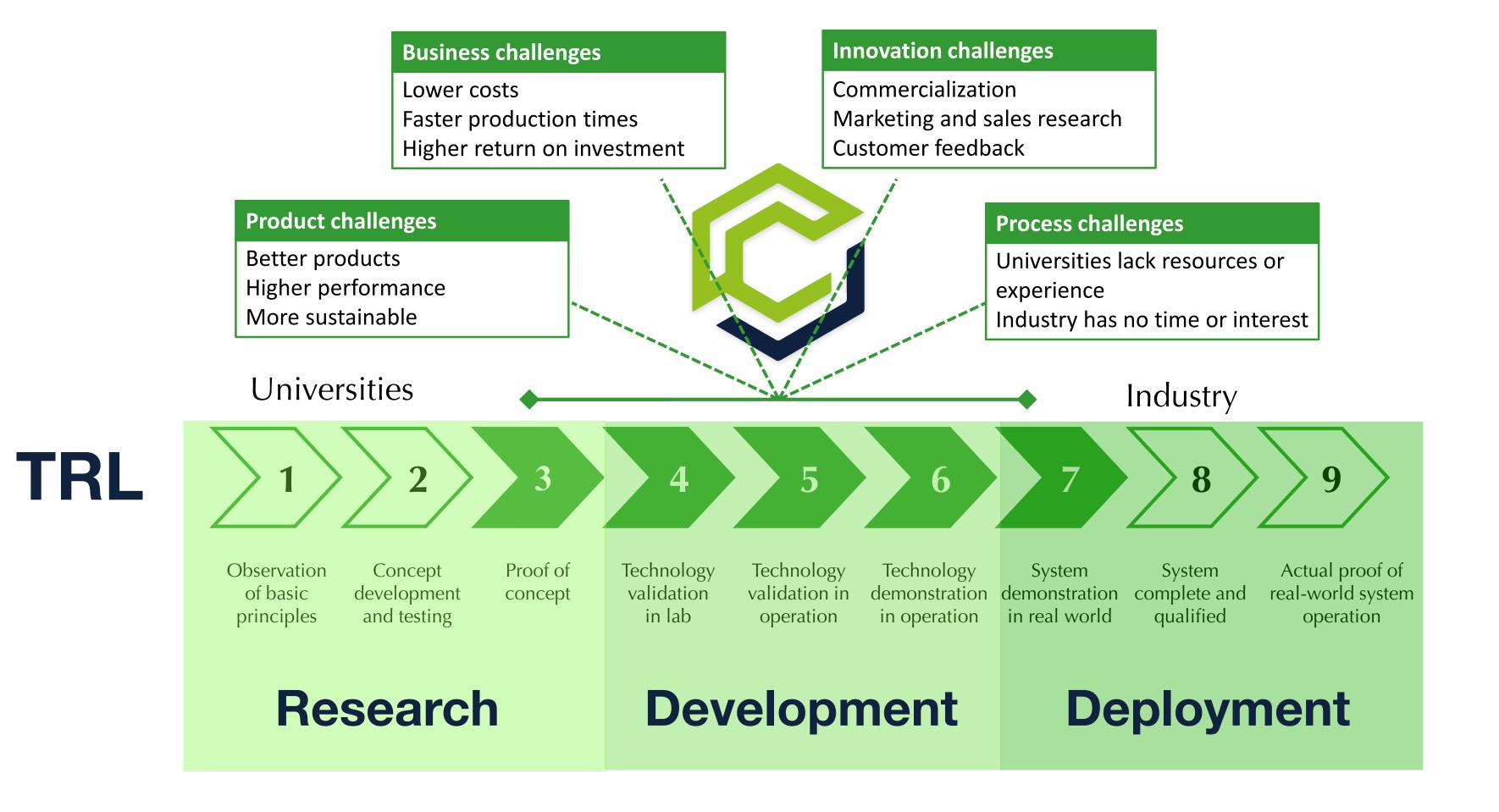


Roland Berger, 2015



## CiTin Vs. TRL

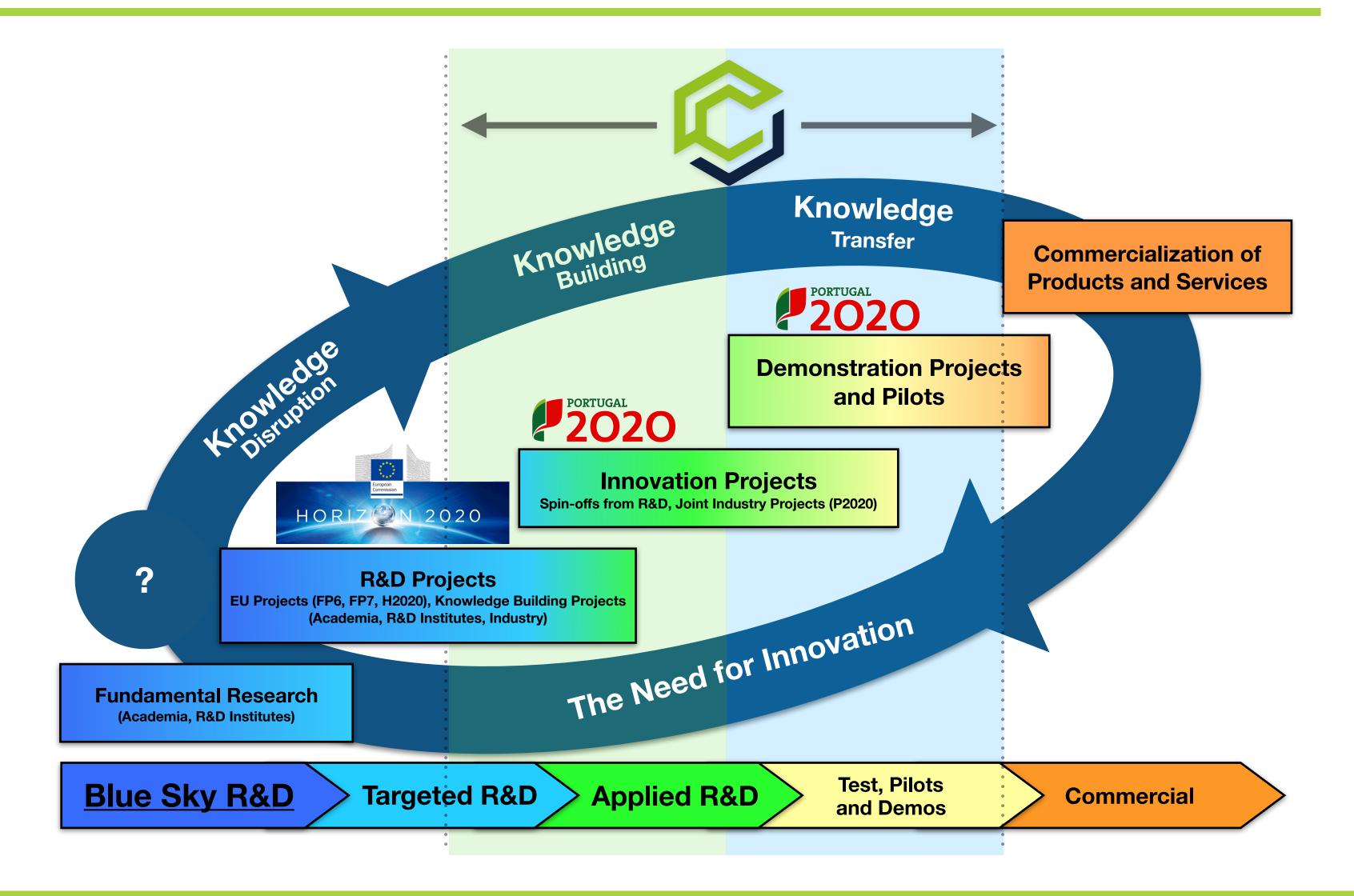






### CiTin and the Innovation Chain







## Specialization Domains



1. Advanced Production Systems	2. Cyber-Physical Systems	3. Mobility and Environment Industry
<ul> <li>1.1. Automation/Mechatronics</li> <li>1.2. Collaborative Robotics</li> <li>1.3. Human-Machine Interaction</li> <li>1.4. Flexible Manufacturing</li> <li>Systems</li> </ul>	<ul><li>2.1. Industrial Information Systems</li><li>2.2. Big Data e IIoT</li><li>2.3. Embedded Systems</li><li>2.4. Artificial Intelligence</li></ul>	<ul> <li>3.1. Automotive component production</li> <li>3.2. Development of new materials</li> <li>3.3. Circular economy</li> <li>3.4. Eco innovation</li> </ul>



### CiTin - Business Model



#### Services-oriented

- Benefits offered to members in order to respond to individual member requests and queries;
  - Economic activities: Consulting and Technical Assistance Services (Services Provision)
  - Non-Economic activity: R&D+Innovation Services (Competitive Projects)

#### Open Innovation

Benefits obtained from public funding must be shared with members in a logic of open innovation;

#### Collectivism

Actions that CiTin takes on behalf of the majority of its members' interests;;





## CiTin - Main Activities





#### **Main Activities**

#### Technological Intelligence

#### **Technical-Scientific**

#### Formação

Information Services (Funding opportunities, etc)

Institutional Cooperation Service (Technological Cooperation)

R&D Services Diagnostic and Consulting Services

**Specialized Technical Training** Services

Intellectual/ Industrial Property **Support Service** 

**Technology** Transfer Service

**Technology** and Innovation Services

Rapid Prototyping Services

Postgraduate and Masters

PhDs





### MoUs











### New Associates



Confirmed:

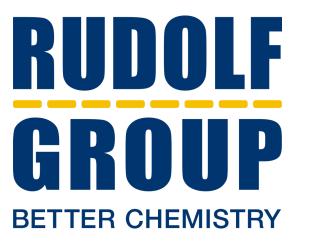






Under Analysis: 38 Borg Warner









### Team





Hugo Silva PhD Eng.<sup>a</sup> Mecânica

**André Pinto** MSc Eng.<sup>a</sup> Mecatrónica

Hugo Jesus MSc Eng.<sup>a</sup> Mecatrónica



Elsa Castro

Cyber-Physical Systems

Lic. Contabilidade

1 Lic

3 Phd

4 MSc

Sérgio Ivan Lopes PhD Eng.<sup>a</sup> Eletrotécnica

Rolando Azevedo MSc Eng.a Informática

**Eduardo Pontes** MSc Eng.<sup>a</sup> Biomédica.





### Recruitment





> www.citin.pt





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