

# Digital Innovation Hubs & Smart Specialisation

EIT House (Brussels)  
28 Nov 2017

**Catalonia**



European  
Commission

# Identification

## Catalonia: 21 DIH included in the EU Catalogue



*Under construction*

D-LIGHT  
Digital Urban Development

Impulsed by:



Sustainable  
Construction Hub

eHealth  
Catalonia

Catalonia  
Industry 4.0

EFFIRENP – Efficient  
Renewal Power Hub

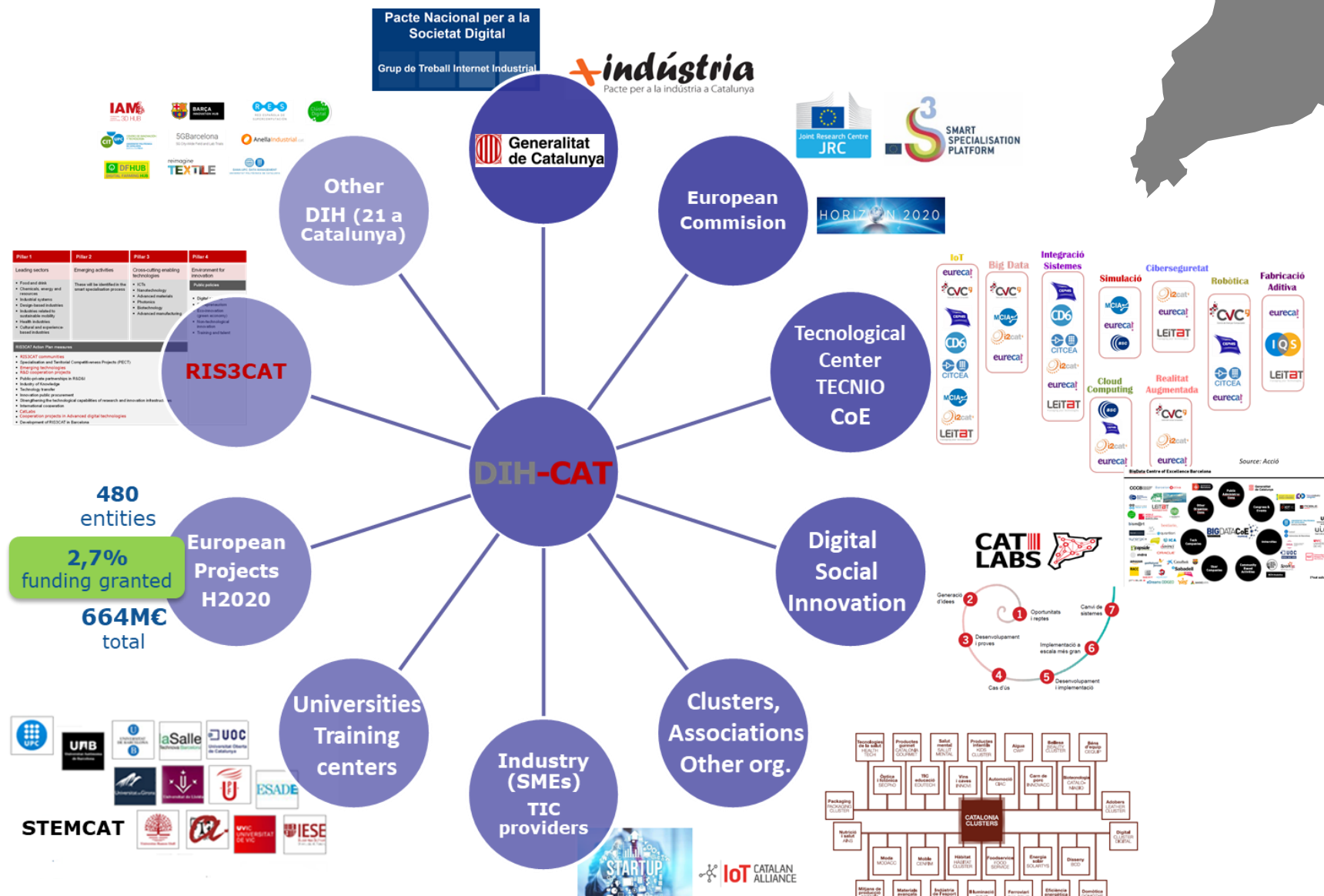
USIRP – Unmanned Systems  
Industrial Robotic Platform

Experience-  
based industries  
Hub

AgriTech BigData

Digital Water  
Innovation Hub

# Catalonia digital innovation hub ecosystem –draft-

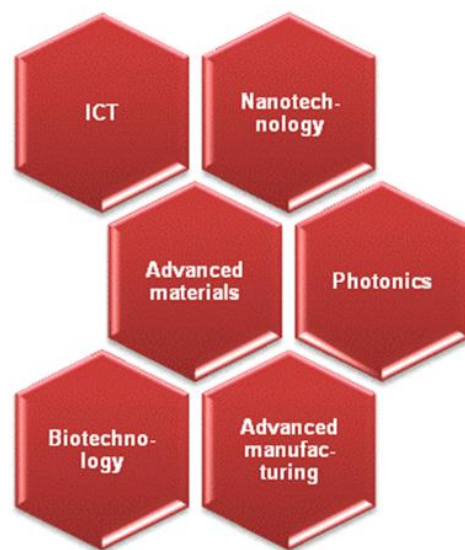


## Catalonia's socio economic fabric and R&I system

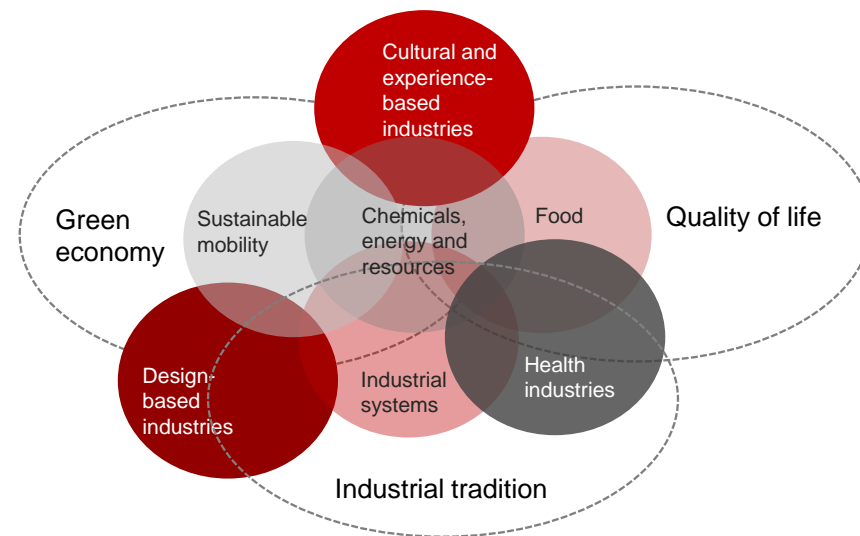
- A strong R&D system of excellence highly internationalised
- A strong industrial tradition and industrial base, highly diversified and internationalised, with a strong cluster tradition.
- Commitment to quality of life (as a Mediterranean country) and to green economy (as the only path to sustainable growth).
- A very open economy. Cross-sectorial economy, with very different added value chains.
- A research system with financial difficulties.
- Many companies (SMEs) with difficulties to compete in the global market.
- High unemployment rate.
- There is low tradition of cooperation between the R&D system and the business fabric.

**Main challenge for RIS3CAT:** Transforming knowledge and technology into economic and social value

## RIS3CAT Action Plan: more than 400 MEUR from ERDF to support Catalonia's smart specialisation



- improving the efficiency of production processes,
- reorienting companies towards segments of greater added value
- promoting new economic activities.

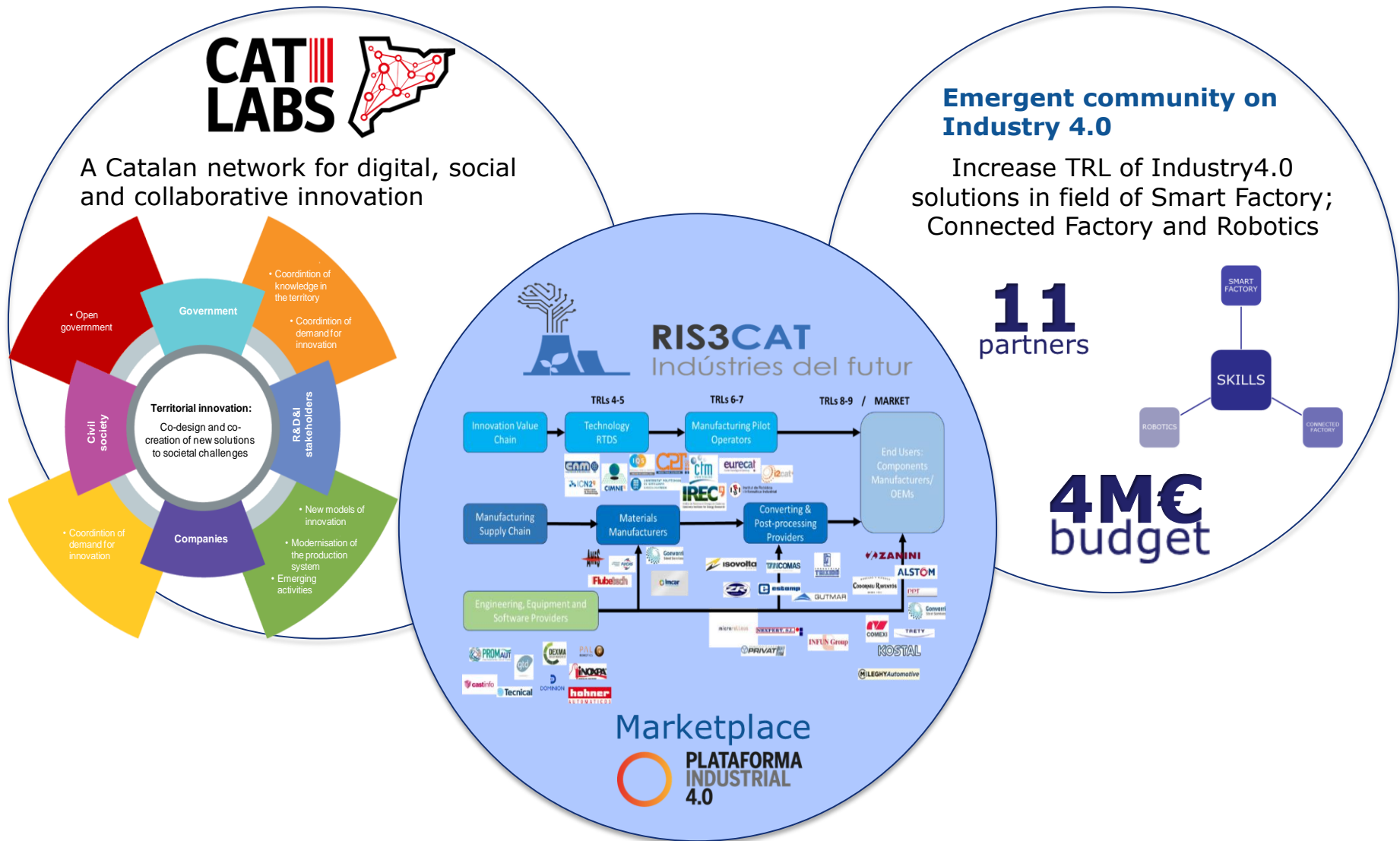


RIS3CAT Steering Committee			
Directorate General for Economic Promotion	Directorate General for Research	Secretariat for Business and Competitiveness	Other Ministries responsible for RIS3CAT instruments
Technical Committee			

## RIS3CAT instruments directly related to DIH

Pillar 1	Pillar 2	Pillar 3	Pillar 4
<p>Leading sectors</p> <ul style="list-style-type: none"> <li>▪ Food and drink</li> <li>▪ Chemicals, energy and resources</li> <li>▪ Industrial systems</li> <li>▪ Design-based industries</li> <li>▪ Industries related to sustainable mobility</li> <li>▪ Health industries</li> <li>▪ Cultural and experience-based industries</li> </ul>	<p>Emerging activities</p> <p>These will be identified in the smart specialisation process</p>	<p>Cross-cutting enabling technologies</p> <ul style="list-style-type: none"> <li>▪ ICTs</li> <li>▪ Nanotechnology</li> <li>▪ Advanced materials</li> <li>▪ Photonics</li> <li>▪ Biotechnology</li> <li>▪ Advanced manufacturing</li> </ul>	<p>Environment for innovation</p> <p>Public policies</p> <ul style="list-style-type: none"> <li>▪ Digital agenda</li> <li>▪ Entrepreneurism</li> <li>▪ Eco-innovation (green economy)</li> <li>▪ Non-technological innovation</li> <li>▪ Training and talent</li> </ul>
<p>RIS3CAT Action Plan measures</p> <ul style="list-style-type: none"> <li>▪ <b>RIS3CAT communities</b></li> <li>▪ Specialisation and Territorial Competitiveness Projects (PECT)</li> <li>▪ <b>Emerging technologies</b></li> <li>▪ <b>R&amp;D cooperation projects</b></li> <li>▪ Public-private partnerships in R&amp;D&amp;I</li> <li>▪ Industry of Knowledge</li> <li>▪ Technology transfer</li> <li>▪ Innovation public procurement</li> <li>▪ Strengthening the technological capabilities of research and innovation infrastructures</li> <li>▪ International cooperation</li> <li>▪ <b>CatLabs</b></li> <li>▪ <b>Cooperation projects in Advanced digital technologies</b></li> <li>▪ Development of RIS3CAT in Barcelona</li> </ul>			

## Examples of RIS3CAT initiatives related to DIH



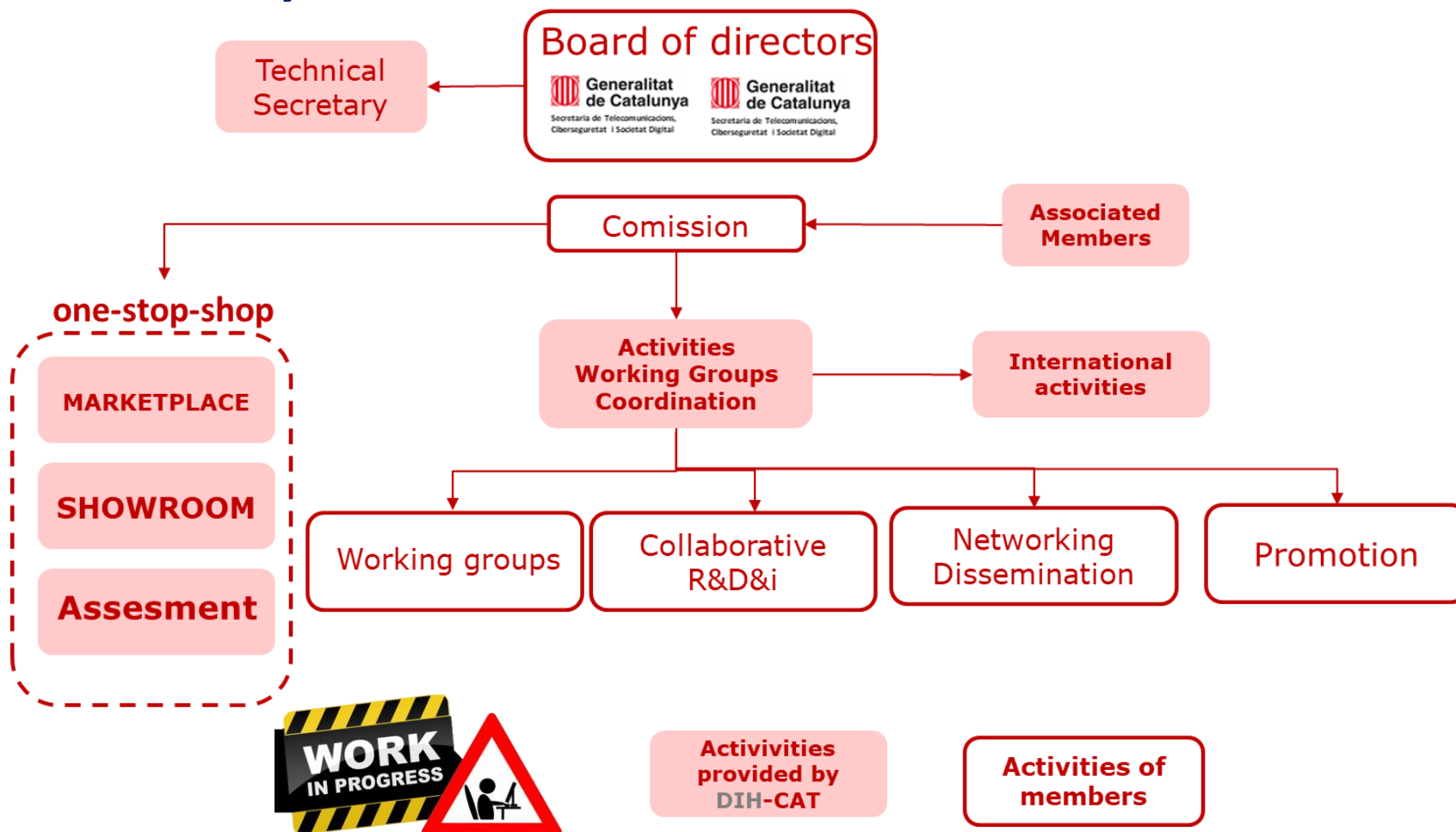


## Preliminary questions

- In Catalonia we have had (and are still having) a debate about what is a DIH: Is it an ecosystem of diverse and multiple stakeholders or is it an articulated structure with a mission and providing a catalogue of digital services?
- We now understand the DIH as an ecosystem with multiple stakeholders contributing to improve the competitiveness of the Catalan economy through digital technologies.
- Many of these stakeholders participate actively in the RIS3CAT (in the definition, the implementation through the different instruments, the monitoring, the revision through public consultations...), which is being implemented through an EDP.
- Many stakeholders participate also in European DIH (21 DIH in the EU Catalogue) actively collaborating with European partners.

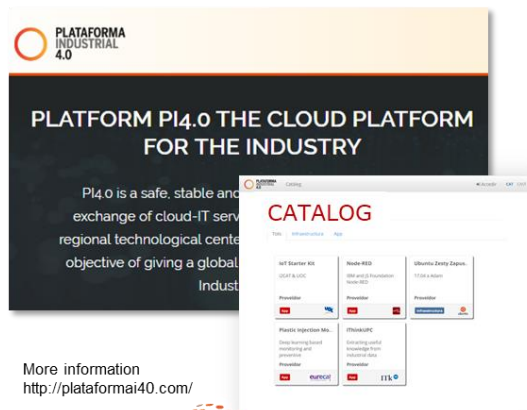


## Proposal (currently under discussion through a public consultation under RIS3CAT)



## Services (examples):

### Marketplace



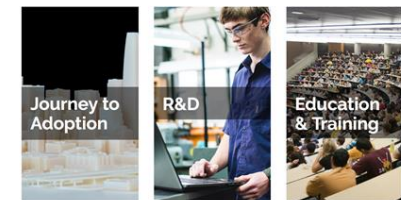
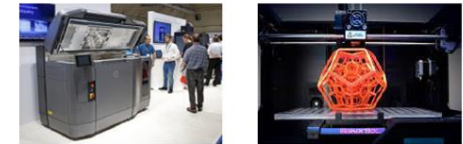
### Assesment



More information <https://eurecat.org/es/mespipe/>



### Showroom



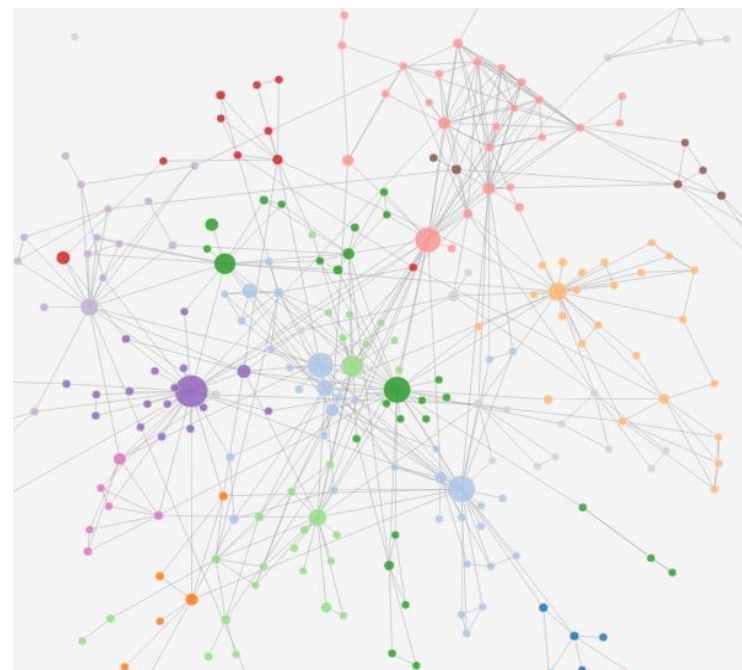
More information [www.iam3dhub.org](http://www.iam3dhub.org)



## The challenge of mapping DIH

- Because of the multiple initiatives and stakeholders it is necessary to have a comprehensive mapping of the regional DIH ecosystems. On the basis of this mapping it will be possible to define a complete catalogue of capacities and services and to promote synergies (in the region and with other regions). The EU Catalogue is a first step...

It is necessary to analyse the possibilities that open data analytics and visualisation tools can offer in order to elaborate dynamic DIH maps, showing networks of collaboration among the multiple stakeholders, catalogues of services, funding opportunities, best practices, etc.



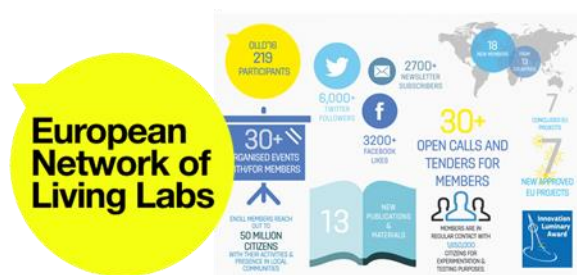
- The multiple initiatives existing in Catalonia around DIH are financed by own funds, by ERDF (under the RIS3CAT) and by Horizon2020.
- The challenge in Catalonia is not about how to finance the services, which are already being provided by many diverse entities.
- The challenge is how to visualise the multiple initiatives and services provided as a first step to promote synergies and easy access to all kind of companies.
- We are currently having a debate (through a public consultation) about creating a common coordination structure, to facilitate that stakeholders work in network, to provide a *one-stop-shop* for industry and also to provide a showroom for technologies developed in Catalonia. This structure would be financed by ERDF (50 %) and by own funds of the entities participating.



European  
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# Collaboration

## collaboration map with other regions and Hubs



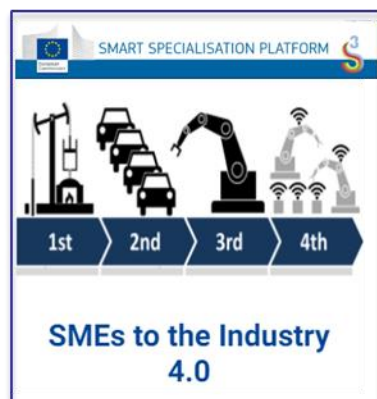
Dr. Artur Serra (i2CAT)  
Vice-presidency



Participation  
working group



## COLLABORATION INDUSTRY DIGITALIZATION



## COLLABORATION BIG DATA FOR INDUSTRY



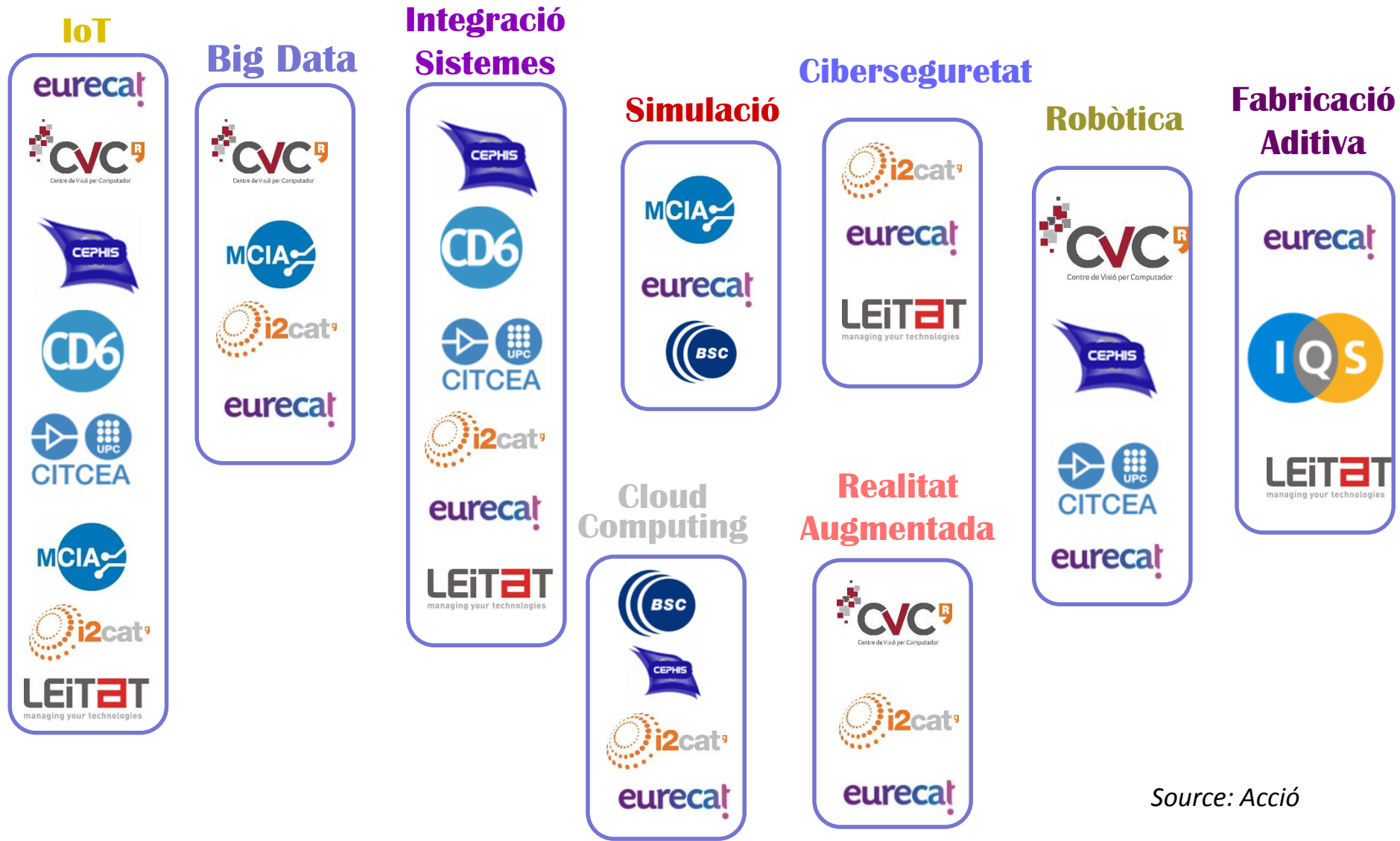
Standardization activities:





## Catalonia digital innovation hub ecosystem –draft–

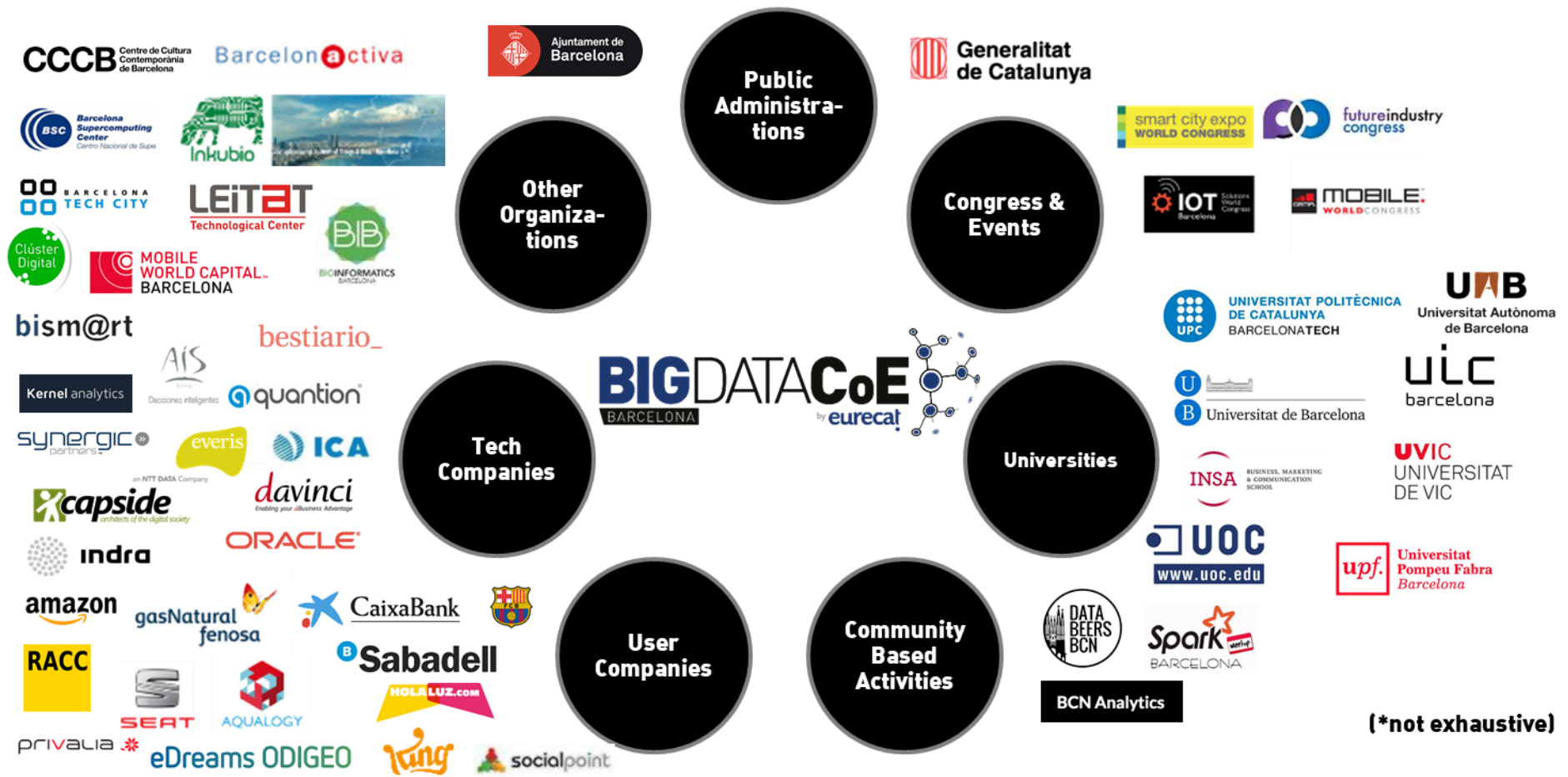
Example of mapping agents and competences in Industry4.0 technologies.



## Catalonia digital innovation hub ecosystem –draft-

### Example of ecosystem of Big Data Centre of Excellence

#### BigData Centre of Excellence Barcelona





## Catalonia digital innovation hub ecosistem –draft-

### Example of ecosistem of Clusters

