

# Participación de i2CAT



**UNICO I+D**



15 de Junio 2022

**Jesus Alonso-Zarate, PhD, MBA**

Director

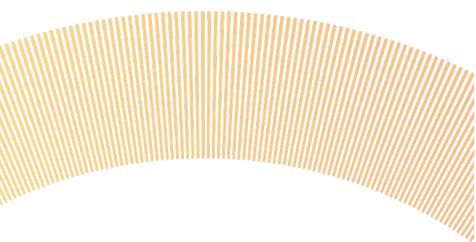
EC Research & Innovation Policy & Strategy

Director Programa 6G



Never stop  
designing the  
digital future

i2CAT.net





## i2CAT in a nutshell

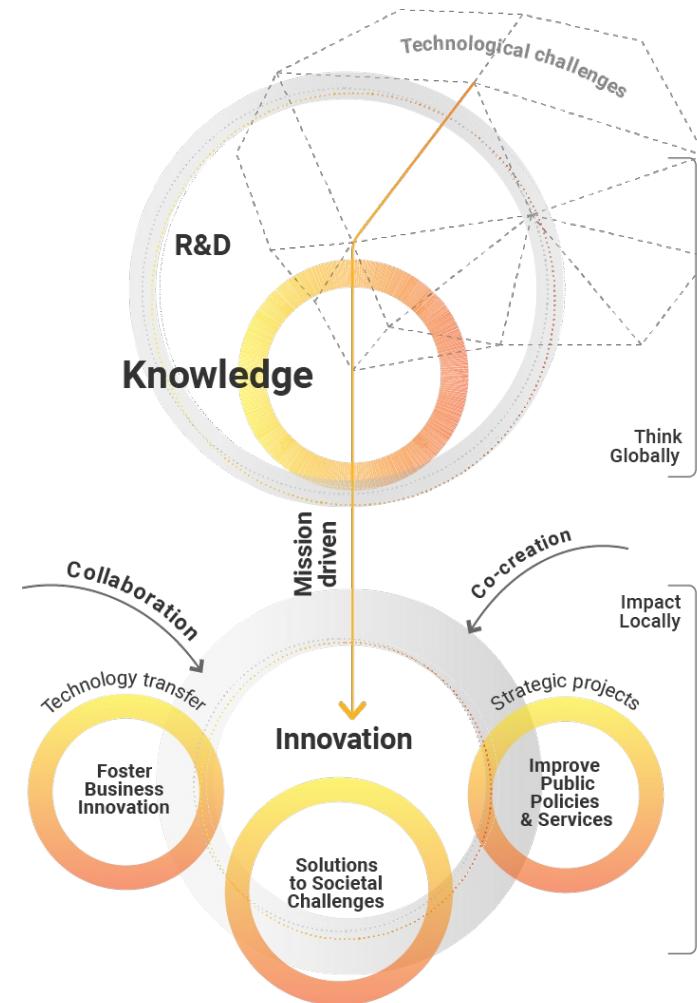


Never stop designing the digital future

## Vision



i2CAT wants to lead the challenge of designing the digital society of the future based on research and innovation in advanced digital technologies.



## Board of Trustees



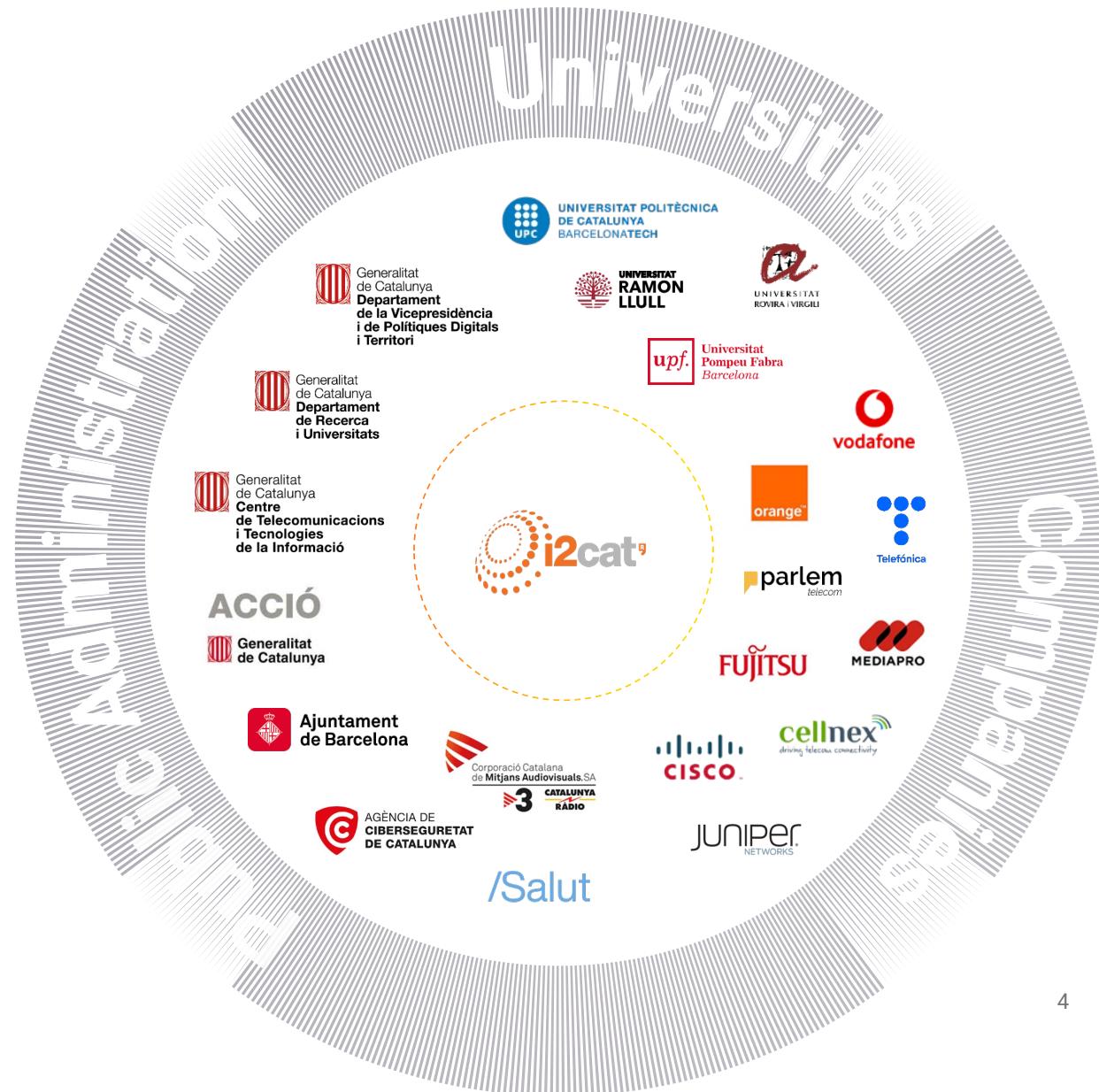
### PRESIDENT OF i2CAT

Vice President of the  
Government of Catalonia  
**H.C. Jordi Puigneró**

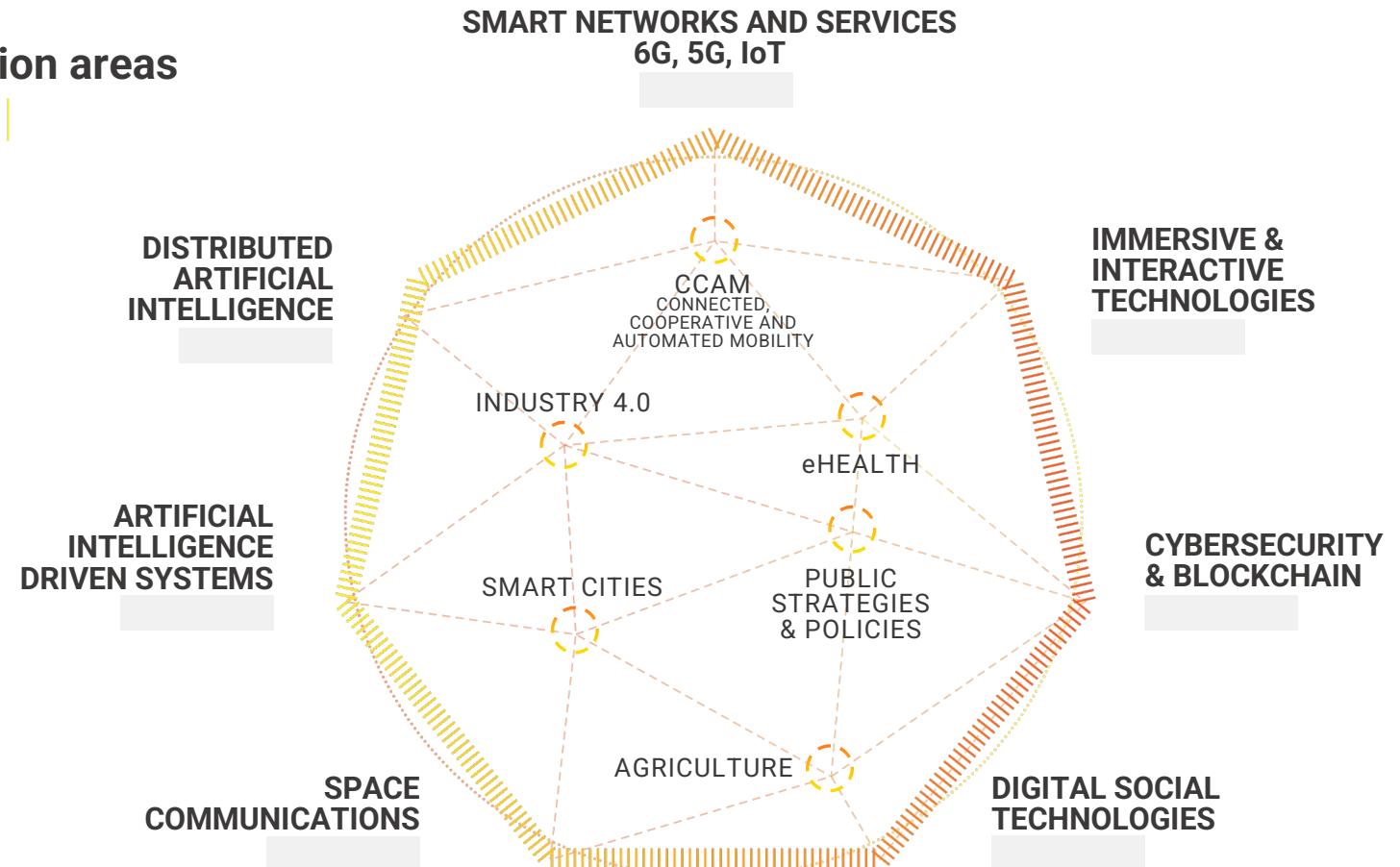


### VICE PRESIDENT OF i2CAT

Rector of the UPC  
**Prof. Daniel Crespo**  
Artiaga



## Research and Innovation areas



## i2CAT in figures



Forecast 2022



Talent / Team



Annual income



Growth vs 2020

**186**

**16 M€**

**125%**

**2nd**

institution in Catalonia that  
has raised more funding from  
ICT Horizon 2020



European  
Commission

Horizon 2020  
European Union funding  
for Research & Innovation

A large, semi-circular building with a grid pattern on its glass facade, set against a cloudy sky. In the foreground, there's a blurred view of trees and a street.

# i2CAT strategic R&D initiatives



## Government of Catalonia



### Digital policies and R&D strategies

Key participation in the definition of the digital strategies of the Government



Leading the Catalan communities of emerging digital technologies



## Public-private partnerships



### Initiatives and strategic projects

Founding members of  
PPP initiatives

**5G Barcelona**

**CIDAI** Centre of Innovation  
for Data tech  
and Artificial Intelligence

Mission-driven R&D  
projects

 TDA Ciberseguretat

 AGÈNCIA DE  
CIBERSEGURETAT  
DE CATALUNYA

**5G RURAL**  
experimental  
deployment  
in South Catalonia

 THE THINX

 Telefónica Tech

 i2cat



## Private sector



### Strategic Alliances and Tech Transfer agreements

#### Strategic Alliances

**simon**   **ALSTOM**

**SATELIOT®**

**NEC**

Ajuntament  
de Barcelona

Fira Barcelona

IoT  
(2018-2021)

V2X/AI  
(2018-2020)

New  
Space  
(2020-2021)

Intelligent  
Networks  
(2020-2022)

Vincles+  
(2017-2022)  
IoT  
(2020-2021)

#### Tech Transfer

**PAYTEC**  
smart payments for vending

**everis**  
an NTT DATA Company

#### Spin-offs

**watchity**

**neutroon**

# European Commission




## R&D projects in Horizon 2020 (2014 - 2020)

# Projects	# Coordinated	€ Funding
<b>39</b>	<b>7</b>	<b>16,7M€</b>

### Phase 1 (2014-2018)



### Phase 2 (2016-2020)



### Phase 3 (2018-2023)

Automotive



Vertical Industries



5G Long Term Evolution



Connected and Automated Mobility



Smart Connectivity beyond 5G



## Las cifras de i2CAT en UNICO5G I+D



- Presupuesto total de 17 Millones de Euros
- 6 proyectos coordinados, distribuidos en 19 proyectos
- Todos los IP → Coordinadores de proyectos 5G-PPP
- **Contribución al plan de atracción de talento nacional**
- 70% a subcontratar mediante licitación pública → 12 MILLONES DE EUROS
- Licitaciones pendientes de abrirse en junio 2022.
- Plan de trabajo con inicio a finales de 2022 / primeros de 2023
- **Vamos a construir el 6G en colaboración con el ecosistema**

## Los 6 Proyectos



### 6G Enablers

- + *Artificial Intelligence*
- + *Cybersecurity*
- + *Trust and Security*
- + *Network automation*
- + *Marketplace: DLT*

+ **Holoportation**

### Open 6G

- + *Open RAN*
- + *Artificial Intelligence*
- + *Network automation*
- + *Wireless Sensing*
- + *Intelligent Surfaces*

### 6GSat

- + *SatComs & Networking*
- + *5G+ networks*
- + *Artificial Intelligence*
- + *SDN*
- + *Cybersecurity*

### 6GTwinRoad

- + *CCAM*
  - + *V2X Comms*
  - + *Network Slicing*
  - + *Artificial Intelligence*
  - + *Positioning*
- + *Digital Twins*

### 6GSmart

- + *Private 5G/6G*
- + *Time Sensitive Networks*
- + *Artificial Intelligence*
- + *Cloud Continuum*

+ *Industry 4.0*

### 6G-Openverso

- + *5G/6G Testbeds*
- + *Intelligent Open Networks*
- + *Integrated Sensing and Communications*
- + *Cloud Continuum*

+ **(SaaS) Multi-party Holographic communications**

Presupuesto concedido de 16,6 Millones de Euros

12 millones de euros para subcontratar empresas, PYMEs y entidades de investigación

Liderazgo	Temas clave	Estrategia	Casos de uso
<p><b>IPs en 5GPPP</b></p> <p><i>Jesus Alonso-Zarate Chairman of 5G for CAM Working Group of 5G-IA</i></p>	<p><i>Artificial Intelligence</i></p> <p><i>Open RAN</i></p> <p><i>Disruptive Wireless</i></p> <p><i>Cybersecurity</i></p> <p><i>NTN</i></p> <p><i>Mobility</i></p> <p><i>Industry 4.0</i></p> <p><i>Meta-Verse</i></p>	<p><i>Beyond 5G</i></p> <p><i>6G</i></p> <p><i>Artificial Intelligence</i></p> <p><i>Cybersecurity</i></p> <p><i>IoT</i></p> <p><i>New Space</i></p>	<p><i>Digital Twins</i></p> <p><i>CCAM</i></p> <p><i>V2X services</i></p> <p><i>IoT</i></p> <p><i>Holograms</i></p>
<p><b>Ecosistema</b></p> <p>+ Universidades / Centros Tecnológicos</p> <p>+ SMEs</p> <p>+ Big Corporations</p>			



## Conclusiones



- i2CAT ha participado en 17 proyectos 5GPPP
- i2CAT tiene una consolidada trayectoría en investigación en 5G
- i2CAT lidera diversas iniciativas de innovación en 5G
- 8 millones de euros en programa 5GPPP
- 17 millones de euros en UNICO5G I+D
- 6 proyectos coordinados en diversas temáticas
- 12 millones para subcontratar
- Apertura de licitaciones inminentes
- **Construyamos un UNICO 6G juntos!**



## **Lo que viene ahora**



- 1) UNICO I+D Infraestructuras**
- 2) UNICO I+D TIC → sector privado**
- 3) UNICO Sectorial → sector privado**



# GRACIAS!

Jesus Alonso-Zarate, PhD, MBA

Director Programa de 6G en i2CAT

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