Hub de la Bioeconomia de Catalunya

DIHAFcat

Digital Innovation Hub Agroalimentari i Forestal de Catalunya

From 8 small villages to the entire region:
The growth of a strategic need

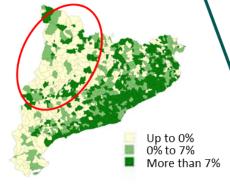
The Shared Agenda of Terres de Lleida, Pirineu i Aran

LOCAL CHALLENGE

The territory needs a change in the economic

model

The current economic model is not attractive to retain and capture population. The 95% of municipalities have less than 5,000 inhabitants



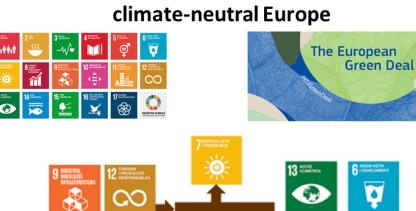
Predicted population growth (%) 2018-2033. Source: Idescat

Demographic, activity and occupation indicators confirm the loss of human capital coupled with low added value economic production with little capacity to generate attractive jobs

| Indicator | Lleida | Catalunya |
|--|--------|-----------|
| Cumulative GVA 2007-2018 (crisis/recovery balance) | -4,2% | +6,2% |
| Affiliation contraction 2007-2018 | -5,5% | +1,3% |
| Population variation (2011-2020) | -1% | +3% |

GLOBAL OPPORTUNITY

Rural territories are rich in natural capital and they are key actors to achieving a green and climate-neutral Europe





The Multilevel Perspective

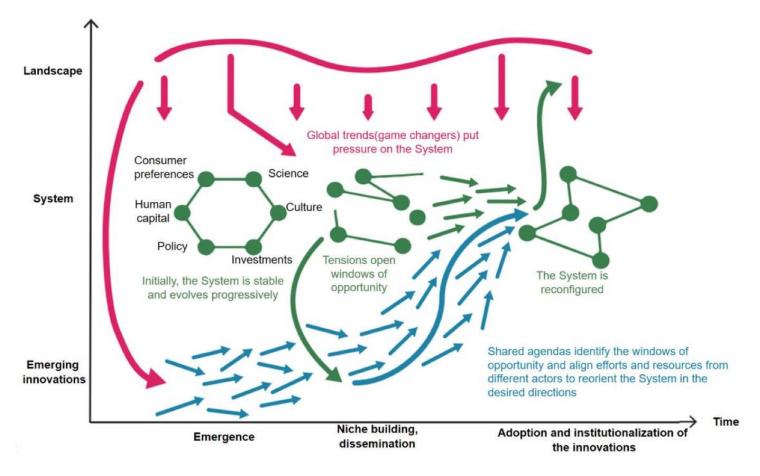
Global trends (landscape) that actors cannot influence: aging of the population, climate change, digitalization, geopolitical tensions... generate pressure on the dominant systems, destabilising them and opening windows of opportunity for alternative practices.

Current regime: "business as usual" in policies, technologies, markets, social values, infrastructures...) is not adapted to global trends and become dysfunctional (it is not in balance and it is not delivering the expected results).

Challenge-led and place-based experimental spaces to develop alternative practices: stakeholders experiment and develop alternative practices that allow progress in the desired directions (niches).

2. Preparing the foundations of collective action: vision, context and mindset

Figure 1. The Shared Agendas in the multilevel framework.



Fernández & Romagosa (2020), based on Geels & Schot (2007).

From 8 small villages to the entire region: the growth of a strategic need.

Municipal level Territorial level Territorial level (NUTS3) Regional level (NUTS2)

2017 2022

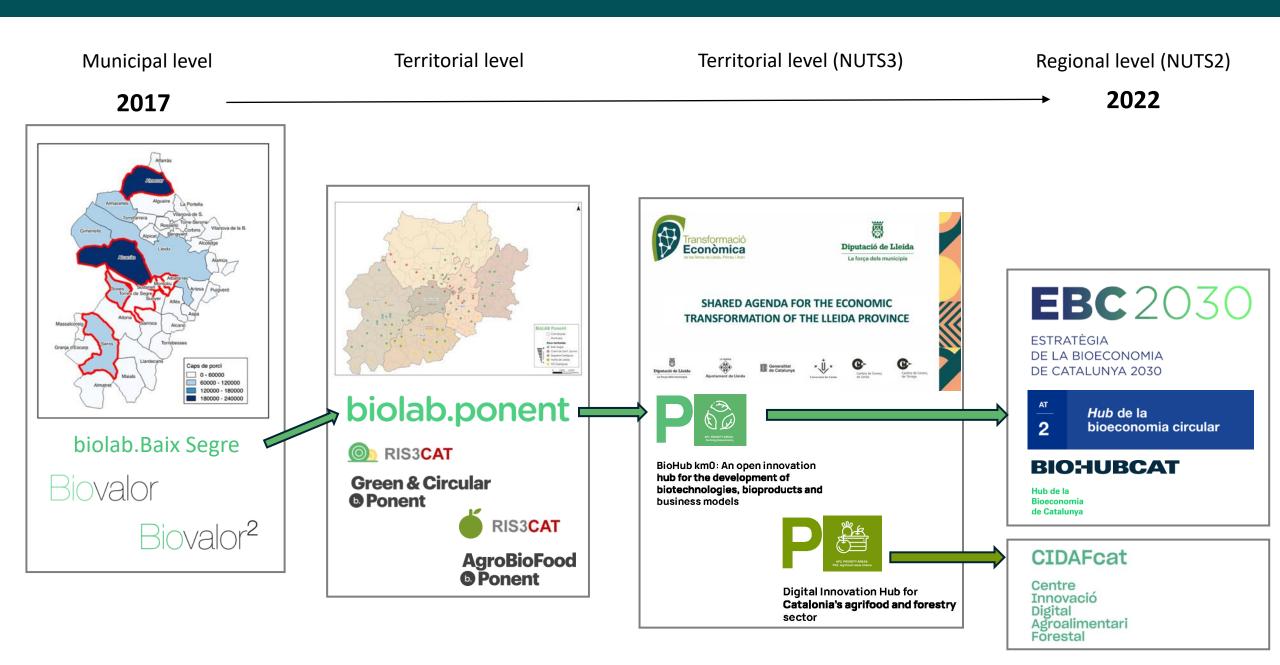








From 8 small villages to the entire region: the growth of a strategic need.





Bioeconomy Case Study

The initiative

The BIOLAB PONENT is a mission-oriented Rural Open Innovation Living Lab. It aims to facilitate innovation and the co-creation, co-development and testing of local-based bio business models able to materialise the systemic transition towards the circular bioeconomy, as a model of sustainable development for rural areas. The initiative is a pilot bottom-up approach based on awareness raising and open innovation.

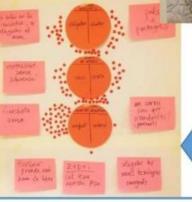




AVAILABLE RESOURCES AND POTENTIAL BIO-VALUE CHAINS









Biorefinery model characterization



Maps of resources and value chains



the biorefinery model

RIS3CAT 2030, Catalonia's smart specialisation strategy

RIS3CAT 2030 promotes transformative, responsible research and innovation with impact on the quality of life of people and the territory



Enabling technologies

- Artificial intelligence
- Cybersecurity, connectivity and blockchain
- Microelectronics and nanoelectronics, photonics and quantum technologies
- · Advanced and sustainable materials
- Biotechnology
- Advanced digital manufacturing



New digital- and technology-based industry



RIS3CAT 2030 shared agendas

- A sustainable, fair, equitable and healthy food system
- An environmentally-friendly, emissions-neutral energy and resource system
- · A sustainable mobility and logistics system
- A universal, sustainable, resilient social and health care system
- A reflective, proactive, inclusive and responsive education and knowledge-generation system
- A sustainable, competitive industrial system
- A cultural system that integrates people, territory and history



Greener, more digital, more resilient and fairer socioeconomic model

From place-specific needs and challenges

Towards EU goals (Green Deal, SDGs)





RIS3CAT 2030 main instruments

| Moving from traditional S3 towards transformative innovation S3 | RIS3CAT instruments | |
|---|---|--|
| Creation of "new structures" for transformative innovation | Shared agendas Opportunities Discovery Mechanism (MDO) Transformative social innovation labs (LIST) | |
| Development of skills and capacities for transformative innovation | RIS3CAT co-creation and learning space RIS3CAT MEL frameworks New structures (shared agendas, MDO, LIST) | |
| Mobilisation and reorientation of existing innovation structures towards regional challenges and SDGs | Public procurement of innovation Singular projects Support to technology's transfer Support to SMEs innovation | |

The implementation requires:

- Abilities to develop, test and ensure the wider acceptance and uptake of innovation, novel practices and solutions
- Abilities to identify and frame placebased problems and regional vulnerabilities
- Strong orchestration capacities to coordinate multi-actor processes; mediate between different interests and minimise trade-offs and conflicts between regional innovation and path development, activities and scales; formulate shared visions and set collective priorities.



Hub de la Bioeconomia de Catalunya

DIHAFcat

Digital Innovation Hub Agroalimentari i Forestal de Catalunya



June 2023

Hub de la Bioeconomia de Catalunya



The one-stop-shop for promoting bioeconomy in Catalonia

MISSION

RESOURCE VALORIZATION

To promote the valorization of biological local resources to produce goods and services with high added value. **VISION**

BIO-INDUSTRIES DEVELOPMENT

Through new value chains that favor the sustainability of the agrifood sector and the retention and attraction of talent.

AMBITION

PROMOTING CIRCULAR BIOECONOMY

Through innovation, entrepreneurship and international collaboration to improve the competitiveness of companies.



Hub de la Bioeconomia de Catalunya



SO1

Promoting specific services to reduce the risks associated with the development of business models.

OE2

Creating the ideal environmental conditions for attracting bio-industries and improving the competitiveness of existing ones.

SO3

Bringing together the actors of the RDI system and promote their orientation towards the resolution of business challenges.

SO4

Encouraging public and private demand for products and services linked to the circular bioeconomy.

SO**5**

Contributing to the definition, implementation and validation of policies and public support instruments.

S06

Building alliances with the main European actors.



Hub de la Bioeconomia de Catalunya



How?

- 1. Connecting and promoting existing capacities.
- 2. Identifying service gaps and promoting initiatives to fill in such gaps.





BIOHUB CAT Tech

Open access preindustrial plants for validation of biotechnologies and bioproducts.



BIOHUB CAT Industrial Areas

Promotion of specialized industrial areas.



BIOHUB CAT Business services

Portfolio of specific services for companies and business models.



BIOHUB CAT Accelerator Lab

Spaces & programs to encourage and accelerate entrepreneurship.



BIOHUB CAT Feedstock push

Platform for locating and characterizing local renewable biological resources.



BIOHUB CAT Arena

Territorial investment planning, and enhancement of existing capacities.



BIOHUB CAT Sustainability constrains

Assessment parameters for decision making.



BIOHUB CAT Skills

Identification of professional profiles and needed training.



BIOHUB CAT RDI Nodes

Exploitation of the existing capacities in the RDI ecosystem.



BIOHUB CAT Market Pull

Replacement of fossil consumables by bioproducts.



BIOHUB CAT EU links

Missions and contacts with leading European regions.



BIOHUB CAT Policy Instruments

Measures and regulation to support the development of the bioeconomy.



BIOHUB CAT Awareness

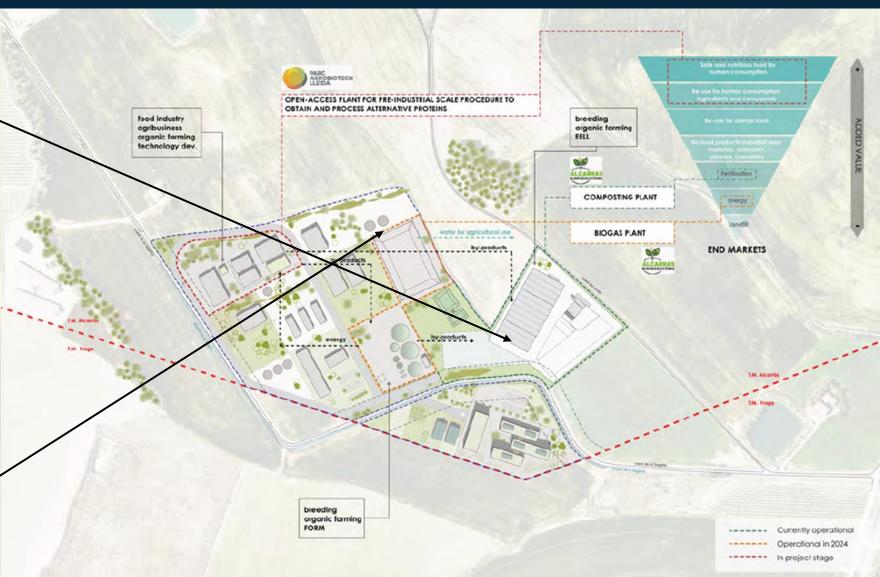
Awareness, communication and dissemination





BIOHUB CAT Industrial Areas







BIOHUB CAT EU Links









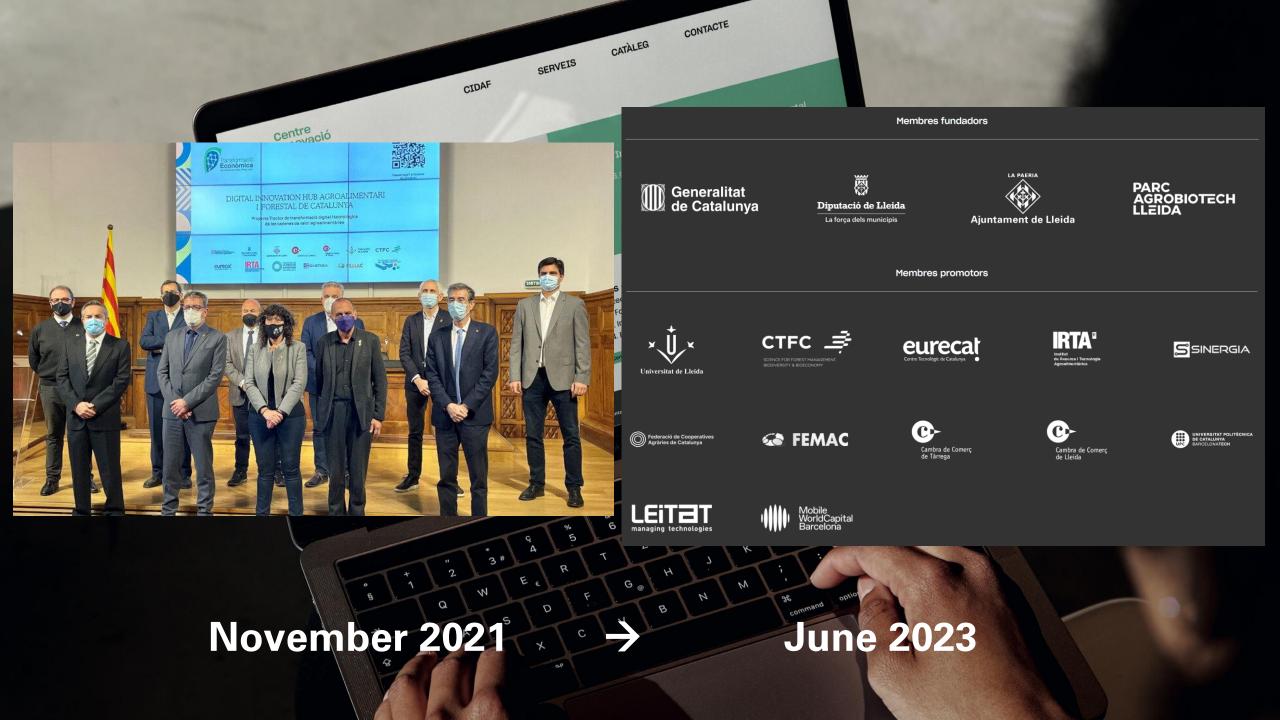
→ We share

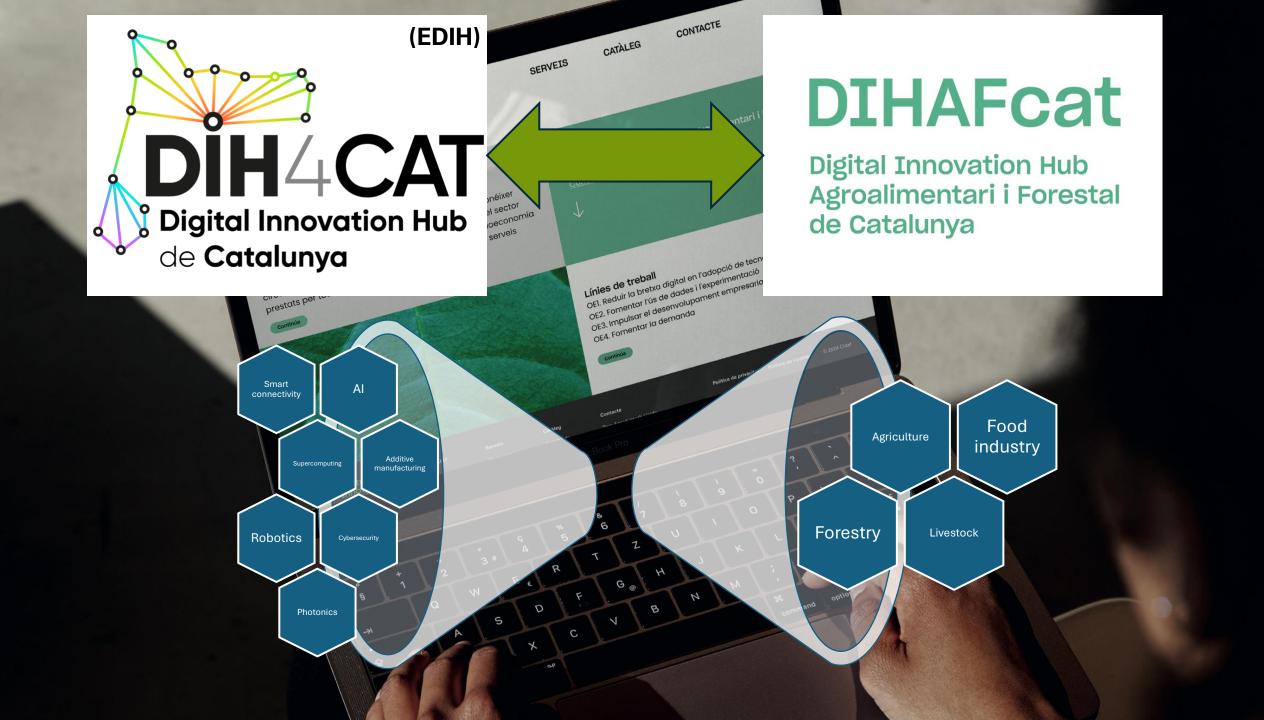
We learn

 \rightarrow

We practice

внс







| Specific Objective | Lines of activity | | Examples | |
|---|--------------------------------------|--------|---|--|
| SO1 Reducing digital gaps prestute per ten | Success cases showcase | | Shared newsletter with the associated partners | |
| | Training | | Agriculture 4.0 course (FEMAC) | |
| | Digital diagnose and planning | | Digital roadmap service (Eurecat) | |
| | Partner search | | Catalogue of forest sector digital tools (WoodMarkets-CTFC) | |
| | Data | | Catalan Forest Observatory (CTFC) | |
| SO2 | Experimentation infrastructure | | agrifoodTEF.eu | |
| Boosting data use and experimenting | Digital solutions | | Promotion of associated partners services | |
| SO3 Boosting new business models | Innovation ecosystems | | X-Agritech network (IRTA) | |
| | Funding | | APTEnisa Investors Network | |
| | Business development suport services | | Market studies, strategic planning, PoC | |
| SO4 | Challenges, needs and opportur | nities | Collaboration network, innovation camps | |
| Boosting demand of digital services | Digitization services promotion | | Service access incentives | |
| SO5 | CIDAFcat promotion | | Participation in events. workshops and conferences | |
| CIDAFcat promotion and positioning | CIDAFcat positioning | | Participation in EU projects and high-level discussion forums | |

Hub de la Bioeconomia de Catalunya

DIHAFcat

Digital Innovation Hub Agroalimentari i Forestal de Catalunya

Feel free to ask!