



## BIOLAB PONENT

### COUNTRY

Spain

### PROJECT PROMOTERS

#### REPRESENTATIVE

User Feedback Program (UFP)

### FUNDING

Currently, projects arising from Biolab Ponent are funded with regional and EU funding (ERDF, EAFRD).

### RDP MEASURE

M16 – Cooperation (EIP-AGRI)

### DURATION

2017 – on-going

### CONTRIBUTION TO

- generating environmental benefits
- mitigating climate change
- increasing efficiency of biomass resource use
- creating value through improved production methods or processing technology

### KEYWORDS

Added value, awareness raising, cooperation, bio-waste, pilot project

### CONTACT

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### WEBSITE

[www.biolabponent.eu](http://www.biolabponent.eu)

## 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.

## RESULTS

- ✓ Awareness raising through participative actions allows to identify opportunities offered by circular bioeconomy model. This sets the ground for local actors to collaborate in order to co-define and co-validate innovations and bio-based business models into a common model of sustainable exploitation of natural capital.
- ✓ The systemic transition from the current agri-food system to a resilient and sustainable system which is based on circular bioeconomy, will allow farmers and rural communities to face their own specific challenges (e.g. increase farmers' incomes, revitalise the local economies and create attractive jobs for young people) and also capture the economic, social and environmental added value of circular bioeconomy.
- ✓ The new rural development model will contribute to a European bio-based economy through a production regime that is based on renewable resources. Such a model would ensure not only the efficient and secure food production, but also bio-based products, renewable energy and bioenergy, and sustainable ecosystem services.



## Context and approach

BIOLAB PONENT is a mission-oriented Rural Open Innovation Living Lab. It was created in order to develop and test place-based innovations and business models that deploy circular bioeconomy at rural community level.

The initiative is promoted by a driving committee composed by farmers, local and regional authorities, experts and research representatives. All of them are aware of the significant opportunities that are offered by the circular bioeconomy in order to face the specific challenges of farmers and rural communities.

BIOLAB PONENT is currently being implemented in a representative Catalan rural area as a pilot experience (Figure 1).

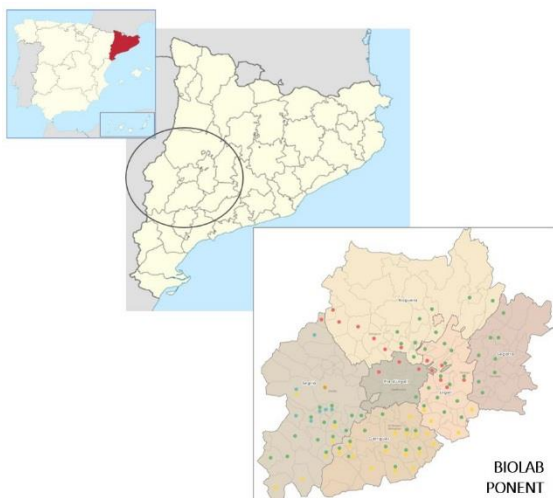


Figure 1. BIOLAB PONENT geographical scope

Linked to the geographical area of the initiative, biowaste from the established agri-food sector and other unexploited resources from the natural capital, are the basis to articulate new bio-based value chains in a circular configuration. From these identified value chains, innovations and business models will be co-defined.

The main conceptual pillars of the initiative are:

- Circular bioeconomy can be understood as a production and consumption regime, which is based on renewable biological resources from the sustainable exploitation of available and potential natural capital. These resources are used to produce not only food and feed, but also materials, energy and ecosystem services in a circular configuration.
- The deployment of a circular bioeconomy model requires a systemic transition approach, which implies being able to develop the social, technological and organizational innovations necessary to transform the current production and consumption regime.

- Systemic transition is not possible without the involvement of rural communities. Awareness raising and open innovation in a quintuple helix approach are crucial to reach the expected transformative impact (Figure 2).

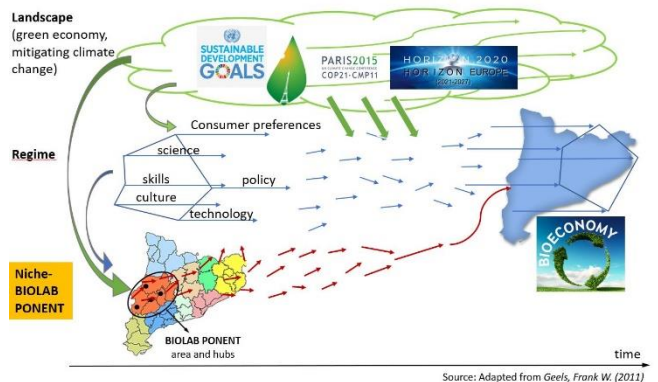


Figure 2. Systemic transition approach

## Objective

BIOLAB PONENT aims to contribute to the circular bioeconomy deployment in a subregion of Catalonia, named "Terres de Ponent". The area is predominately a rural area focused on the agri-food sector.

To reach its main objective, BIOLAB PONENT boosts and supports the entire process of place-based innovations and development of bio-business models, by a specific living lab approach.

## Boundaries

- The target area is a very representative rural area of the European agri-food system. It is characterised by fragmented farm holdings and a large number of small-scale family-based producers who combine diversified farming activities. These small producers coexist with distributors, retailers, food processors and marketers.
- Although these actors are commonly included in the agri-food system, this system is fragmented depending on the type of food product that is produced and/or processed (oil, fruit, cereal, pig, cattle's ...). Each actor has specific needs and challenges within the existing agri-food system.
- The population of the target area is also fragmented. The majority of population in this subregion is spread in municipalities with less than 5000 inhabitants. This fragmentation justifies the necessity to involve local authorities as a driver to boost awareness. This is due to the fact that local authorities are most likely to have an effective "network" at territorial level, and thus, the capacity to access most of the concerned actors.

## Key factors to raise awareness

1. *The translation of the objectives of the Bioeconomy strategy for Europe into solutions for specific sectoral (and sub-sectoral) challenges for the subregion.*

The initiative considers that it is crucial to have an in-depth knowledge and understanding of the local problems, to turn them into opportunities within the framework of the circular bioeconomy model. The result of this approach is setting up collaborative projects, that contribute both to solve local problems and face global challenges, with a strong innovation component.

2. *The involvement of local authorities.*

Local authorities have the capacity to generate trust, and also, act as facilitators engaging all relevant rural actors. As an example, in BIOLAB PONENT, the involved local authorities support the analysis of available and potential biomass and natural resources at local level. This allows to identify new or improved bio-value chains at territorial level. Moreover, their engagement promotes synergies between different EU funding instruments and contributes to reach two of the most important objectives of the Cohesion Policy 2021-2027 (innovation and green economy).

## Activities

Taking into account the specific boundaries and the key factors, a set of activities have been designed and executed:

- **Local Authorities Engagement workshops** - two hours' workshops aiming to raise awareness about the societal challenge to reach and engage local authorities in the BIOLAB PONENT.
- **Awareness and Vision Formulation** - the first innovation lab of the methodology (Figure 3). It lasts eight hours, with 40-50 participants in quadruple helix configuration. The main objective is to visualize opportunities and challenges in the local bioeconomy.



Figure 3. Awareness and Vision Formulation innovation lab

- **Generating ideas** - the second innovation lab of the methodology (Figure 4). Its starting point is the results of the fieldwork and research carried out on the potentials of the natural capital of the involved municipalities, and also the results of the local and regional analysis on the market opportunities for bio-based products and services, currently fossil-based. The main objective is to identify new or improved bio-based value chains.

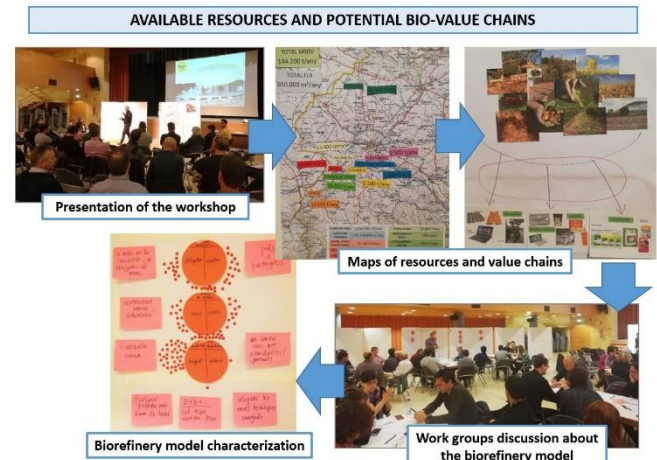


Figure 4. Co-identification of bio-based value chains innovation lab

- **Business Models Generation** - in the third innovation lab, the main objective is to identify opportunities to shape or influence new partnerships, resource flows and protocols that could support such transformations (sustainable and circular bio-business models definition). The starting point is the results of the experimentation in the field of technological feasibility, if it is necessary for product or service development.

## Main results

As a result of the applied methodology, the initiative and their participants have managed to access a whole set of resources to promote bioeconomy in the area. In particular, they have received funding from the European Regional Development Fund (ERDF) and European Agricultural Fund for Rural Development (EAFRD) 2014-2020 for projects focusing on – among others – treatment of livestock manure, nutrients recovery for organic fertilization, and renewable energy implementation.

BIOLAB PONENT continues the work in order to access new resources and to create synergies with other EU instruments, like the Common Agricultural Policy, Horizon 2020, the LIFE programme or Erasmus+.