

Diputació  
Barcelona

Àrea de Territori  
i Sostenibilitat



Generalitat de Catalunya  
Departament de Governació,  
Administracions Públiques  
i Habitatge



Unió Europea  
Fons europeu  
de desenvolupament regional

# «BCN *SMART RURAL*»

Valorisation and innovation of the agro-silvo-pastoral systems management  
at the Non Metropolitan Region of Barcelona

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**European City Regions facing today's challenges**

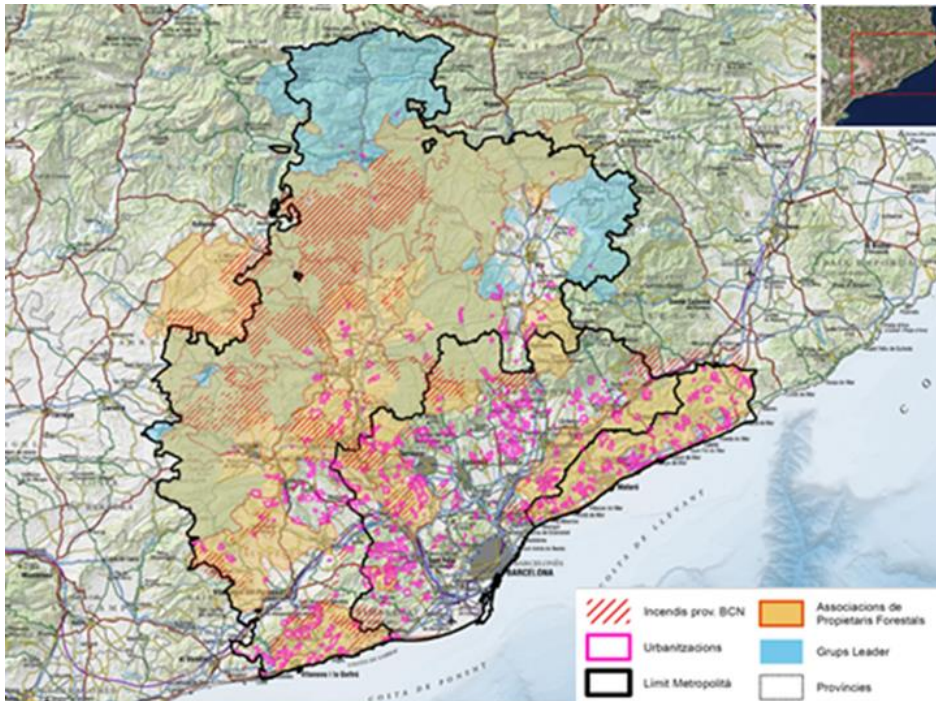
Committee of Regions

27 November 2017

# Which is the scope of action?



In Catalonia 2/3 of the territory are forest land. This means 66% of the total area, which represents serious difficulties to ensure its economic viability



## Non Metropolitan Region of Barcelona

### POPULATION

Barcelona 's region  
5.523.922 inhab.

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PECT's area  
1.191.161 inhab.  
(16 % of the total population)

### DENSITY

Population density in Barcelona's region  
715 inhab./km<sup>2</sup>

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PECT's area  
210 inhab./m<sup>2</sup>  
(30 % of the total average)

### SURFACE

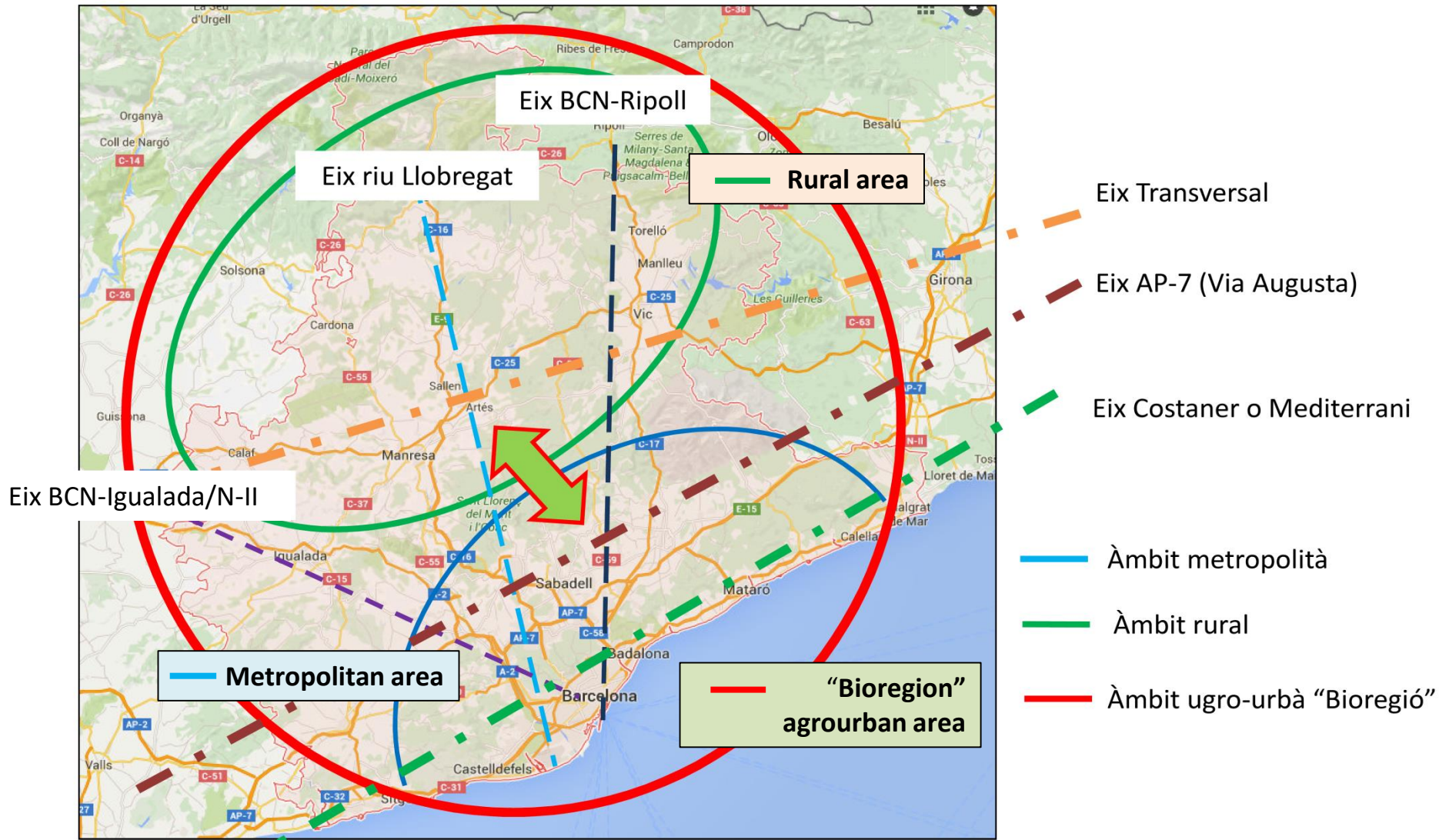
Barcelona 's region  
7.728,17 km<sup>2</sup>

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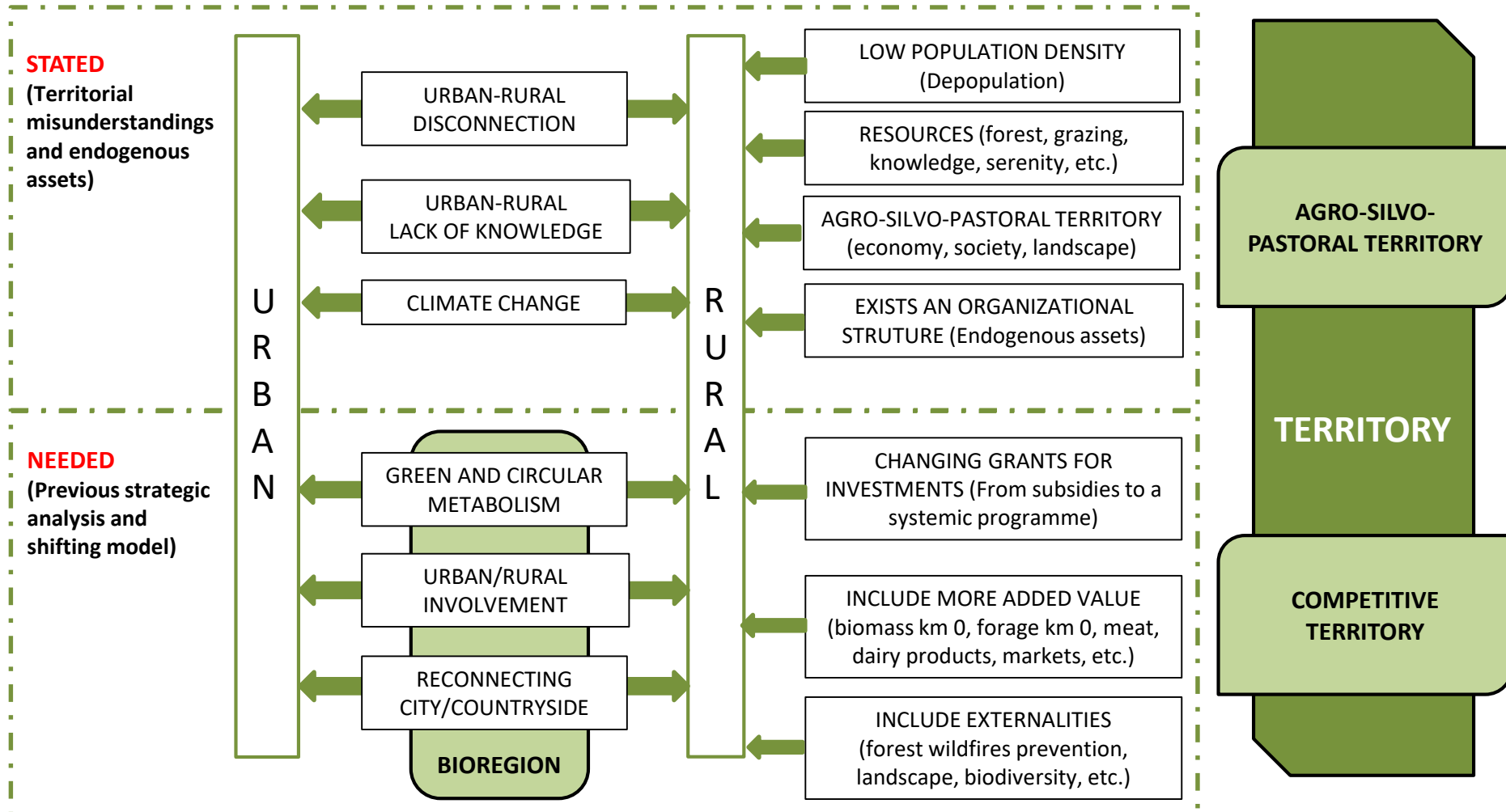
PECT's area  
5.661,66 km<sup>2</sup>  
(73,26 % of the total area)



# Which is the scope of action?



# Where does the project come from?

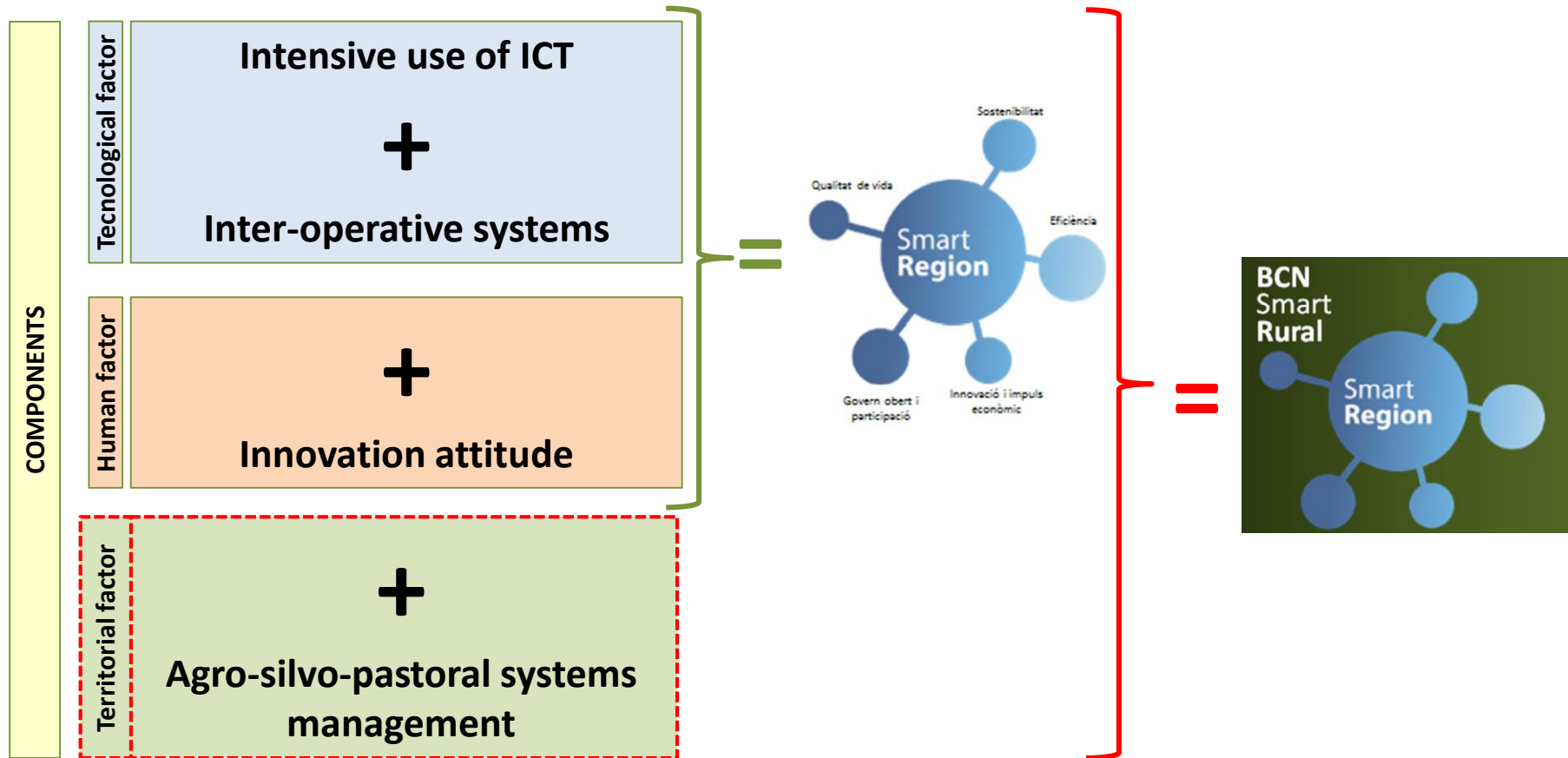


**We wonder...?**

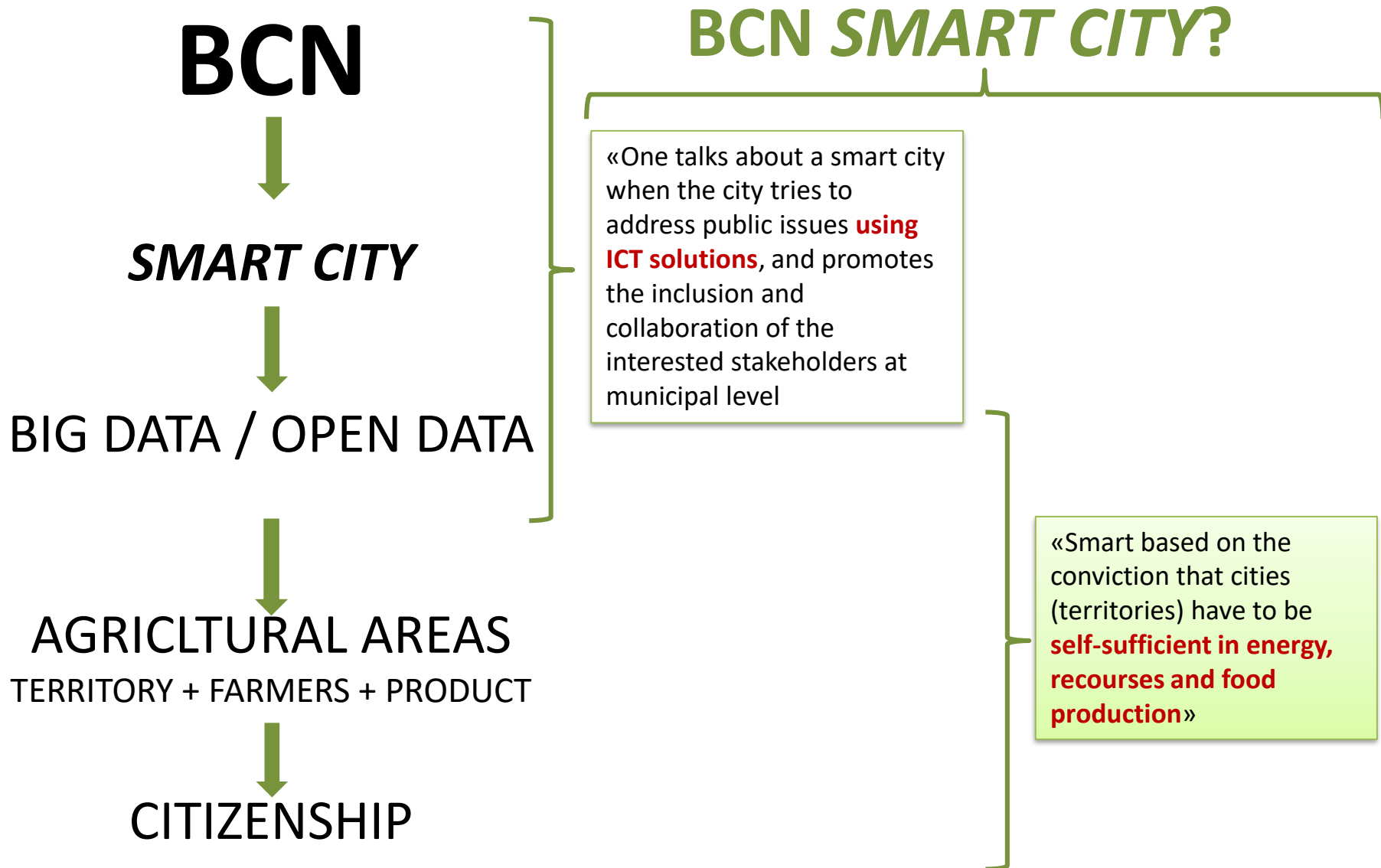
# **BARCELONA, CAN BECOME A SMART CITY? IS IT A SMART CITY?**

- Smart Cities are cities which use **mecanisms based on Information and Communication Technologies (ICT)**, oriented to improve the management on differents services as well as the quality of life of its inhabitants.
- **Without rural areas is not possible to develop *smart cities*** and their purpose on sustainability and energy, water, food efficiency
- A city, a territory, a country who wants to be **resilient needs to address the relation and interaction between rural and urban worlds**. Two different but complementary spheres.

# What do we understand by *Smart rural*?



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*We will never achieve smart cities if we doesn't understand the territory as an **agro-urban system**, a unique area with own and complementary specificities.*

*Without rural areas it is not possible to develop smart cities and their purposes on sustainability, green and circular economy, increase on resilience, and energy, water and food efficiency, etc.*

*For this reason it is essential an holistic vision:  
**of the smart city  
and the smart territory***



# Who are the partners and the participants?

## 3 PARTNERS

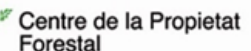
- **Public Administration:**  
Diputació de Barcelona
- **Innovation agent:**  
Centre Tecnològic Forestal de Catalunya (CTFC)
- **Private Sector:**  
Associació d'Iniciatives Rurals de Catalunya (ARCA)



## 9 PARTICIPANTS

- Consell Comarcal del Moianès
- Consorci del Lluçanès
- Federació Catalana d'Associacions de Propietaris Forestals (BOSCAT)
- Local Action Groups:
  - \* Associació pel desenvolupament rural de la Catalunya Central,
  - \* Associació per a la gestió del programa Leader Ripollès Ges Bisaura,
  - \* Associació per al Desenvolupament Rural integral de la zona Nord-Oriental de Catalunya (ADRINOC),
  - \* Consorci pel desenvolupament de la Catalunya
- Centre de la Propietat Forestal de Catalunya
- Clúster de Biomassa de Catalunya

- ✓ **Area: 565.975 ha (84,94 % of the total PECT's territory)**
- ✓ **Other: 85.236 ha (15,06 % of the total PECT's territory)**



# Which are the objectives of “BCN *SMART RURAL*”?

1.- Encourage and develop a smart strategy for the **territorial-rural development, based on innovation and knowledge**, which promotes new products, services and solutions linked to the valorisation and improvement of the agro-silvo-pastoral sector.

It will be based on the principles of the **green and circular economy, at local ‘level’ (linking the economic activity with local needs)**, that will increase the benefits at economic level (technologic and knowledge transfer, improvement on commercialisation, and economic diversification), social level (employment, decreases on forest wildfires’ risk), environmental level (sustainable resources management, conservation of landscapes and biodiversity), and territorial re-balance.

2.- **Articulate a ‘smart rural in cities’**, by improving the interaction between urban areas and their surroundings (urban region).

*Smart* means intelligent, but also clever, ingenious... According to Richard T.T. Forman, professor of Harvard and father of the urban ecology, the **region is the area that the city has to take into account to generate and use its resources with more or less sufficiency**. For this reason it is essential to respect the areas of the region related to water, food and biodiversity and interconnected with the city.

# «BCN SMART RURAL»

**STATED**  
(Territorial  
misunderstandings)

URBAN-RURAL  
DISCONNECTION

LOW POPULATION DENSITY  
(Depopulation)

## How does these objectives will be implemented?

**NEEDED**  
(Previous strategic  
analysis and  
shifting model)

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B  
À

GREEN AND CIRCULAR  
METABOLISM

URBAN/RURAL  
INVOLVEMENT

RECONNECTING  
CITY/COUNTRYSIDE

**BIOREGION**

R  
U  
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A  
L

AGRO-SILVO-PASTORAL TERRITORY  
(economy, society, landscape)

EXISTS AN ORGANIZATIONAL  
STRUTURE (Endogenous assets)

CHANGING GRANTS FOR  
INVESTMENTS (From subsidies to a  
systemic programme)

INCLUDE MORE ADDED VALUE  
(biomass km 0, forage km 0, meat,  
dairy products, markets, etc.)

INCLUDE EXTERNALITIES  
(forest wildfires prevention,  
landscape, biodiversity, etc.)

PASTORAL TERRITORY

**TERRITORY**

COMPETITIVE  
TERRITORY

**SMART  
RURAL**

**PROJECTED**  
(including  
participation, ICT  
tools and a  
economic shifting  
model)

Project 1  
“BCN Smart Rural”

Project 2  
GREEN FOREST- ALVIE FOREST

Project 3  
AGRO-SILVO-PASTURE

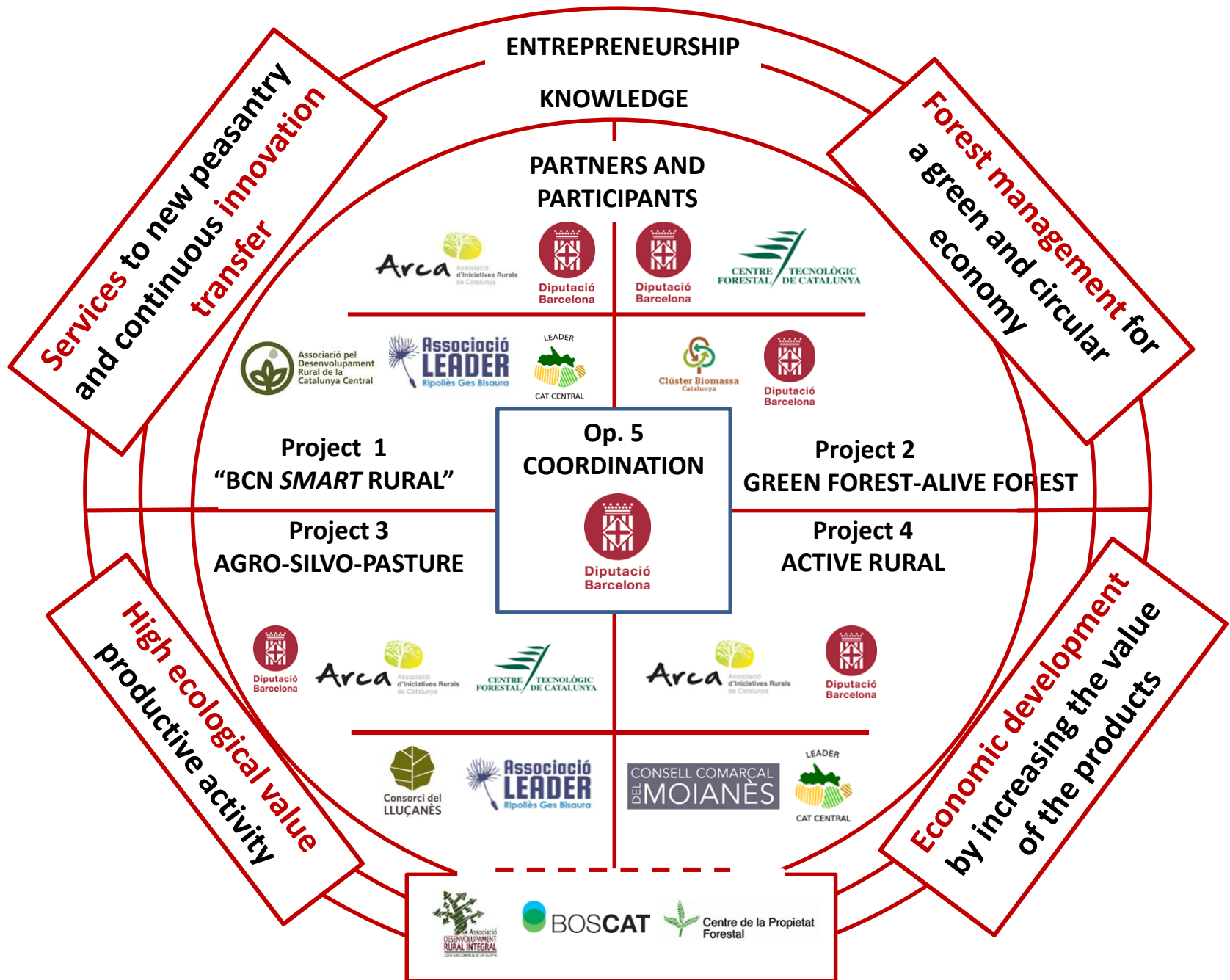
Project 4  
ACTIVE RURAL

**INNOVATE**  
(Introduce  
continuous and  
disruptive  
improvements)

TERRITORY  
AGROURBAN

# How are these objectives implemented?

«BCN SMART RURAL»





# How do we include ICT?

**Technology at the service of society and its territory, in order to valorise and innovate the agro-silvo-pastoral management, promoting employment, improving the quality of life and the environment, while reconnecting urban and rural, city and countryside, farmers and citizens.**



Geolocalisation, Augmented Reality, Apps, Sensors, beacons, websites, etc.

## ACTIVITIES

- 1.1. Creation of Farm incubators
- 1.2. Creation of Technological and Knowledge Bank Services
- 1.3. Governance Hub

- Creation of a virtual platform of young farm entrepreneurs.
- Creation of an Observatory of analysis and planning using a virtual Open Data platform, related to the rural and forest areas data as well as its economic activities.

- 2.1. Strategic Forest Planning
- 2.2. Km0 Biomass Plan

- Inclusion of forest inventory new techniques using LIDAR technologies, remote sensing and development of an ICT platform with geographic information systems to delimitate the Priority Action Zones for the prevention of forest fires and the minimization of the effects of the disturbances caused by climate change.

- 3.1. Structuring the Agroforest mosaic
- 3.2. Rural Equipments
- 3.3. Network of Bancter (Farm land bank)

- Creation of a digital Open Data platform to support the “Land bank” (available farm land, potentially available farmland, demanding farmers, etc.), and impact monitoring systems of the project in the agrouban territory.

- 4.1. Innova Km0 competitiveness projects
- 4.2. Ruralisation Programme

- Creation of Apps and Augmented Reality devices that support agrotourism, routes and itineraries, as well as local products and their selling points.

# Which is the budget?

«BCN SMART RURAL» TOTAL BUDGET (part eligible): 4.738.955,50 €

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PRIORITY ERDFAXIS

**Priority axis 1**  
Research, knowledge  
and Innovation

**Priority axis 4**  
Promoting low carbon  
economies

**Priority axis 6**  
Conservation of the  
environment and  
resource efficiency

## Project 1 (1,2 M€)

Provide support to improve agro-silvo-pastoral enterprises and activities  
«BCN SMART RURAL»: Services to new peasantry and continuous innovation transfer  
(3 operations / 7 actions)

## Project 2 (1,2 M€)

Promote forest management and the  
use of energy resources

**GREEN FORSET- ALIVE FOREST:**  
Forest management for a green and  
circular economy  
(2 operations/ 3 actions)

## Project 3 (1,3 M€)

Boost and consolidate the agro-  
silvopastoral activities by recovering  
grassland and abandoned land

**AGRO-SILVO-PASTURE:**  
High ecological value productive  
activity  
(3 operations / 4 actions)

## Project 4 (0,7 M€)

Promote a network of awareness and  
commercialisation of agro-silvo-  
pastoral products

**ACTIVE RURAL:**  
Economic development by increasing  
the value of the products  
(2 operations / 5 actions)

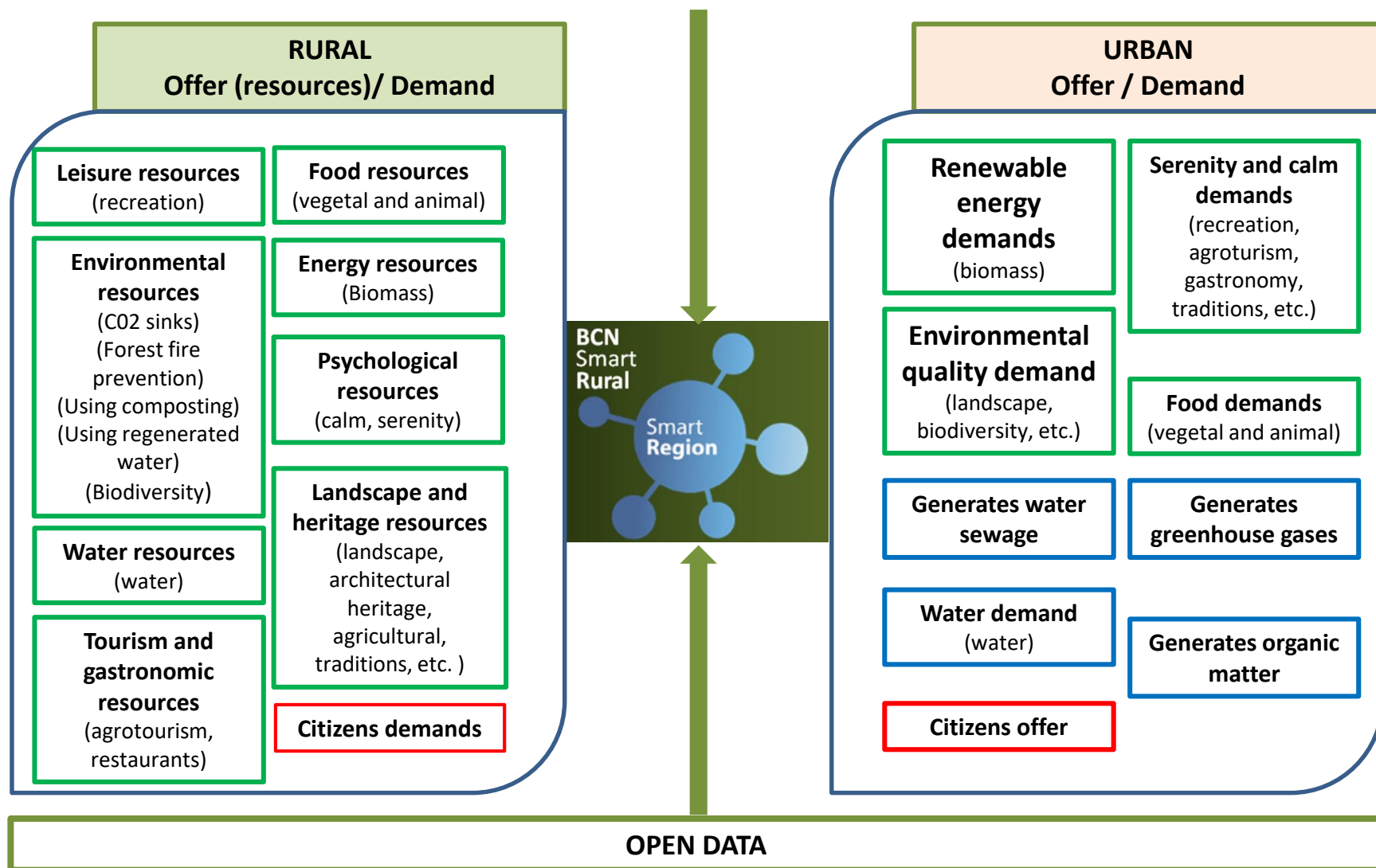
**COORDINATION PECT «BCN SMART RURAL» (0,26 M€)**

(1 operation/ 2 actions)

European Conference on Rural Development. **Declaration of Cork 2.0 "A Better Life in Rural Areas"** (6.9.2016)

Political orientation 1:

Greater recognition of the **potential of rural areas to offer innovative, inclusive and sustainable solutions** to address current and future social challenges, such as the economic prosperity, food security, climate change, resource management, social inclusion and integration of migrants.



## Territorial Specialisation and Competitiveness Project (PECT)

# «BCN *SMART RURAL*»

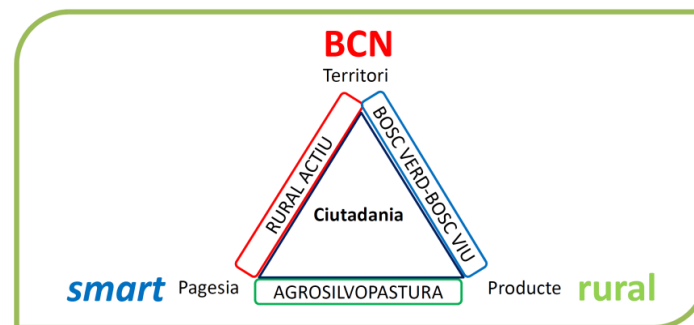
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### Coordination:

Sustainability and Territory Area  
Diputació de Barcelona

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RIS3CAT