



**HAL**  
open science

## **Territorial capability, biomass and energy transition: territorial ecology applied to French Biosphere Reserves**

Juliette Cerceau, Pierre Pech, Laurent Simon, Raphaël Mathevet, Catherine Cibien, Anna Echassoux, Nicolas Buclet

### ► **To cite this version:**

Juliette Cerceau, Pierre Pech, Laurent Simon, Raphaël Mathevet, Catherine Cibien, et al.. Territorial capability, biomass and energy transition: territorial ecology applied to French Biosphere Reserves. EUROMAB 2017, Apr 2017, Sarlat, France. . hal-04710282

**HAL Id: hal-04710282**

**<https://hal.science/hal-04710282v1>**

Submitted on 26 Sep 2024

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

# CAP-BIOTER (2016-2019)

## Territorial capability, biomass and energy transition: territorial ecology applied to French Biosphere Reserves

Juliette Cerceau\*, Pierre Pech, Laurent Simon, Raphaël Mathevet, Catherine Cibien, Anna Echassoux, Nicolas Buclet

\*Corresponding author: juliette.cerceau@gmail.com



### A PROJECT FOR RESEARCH

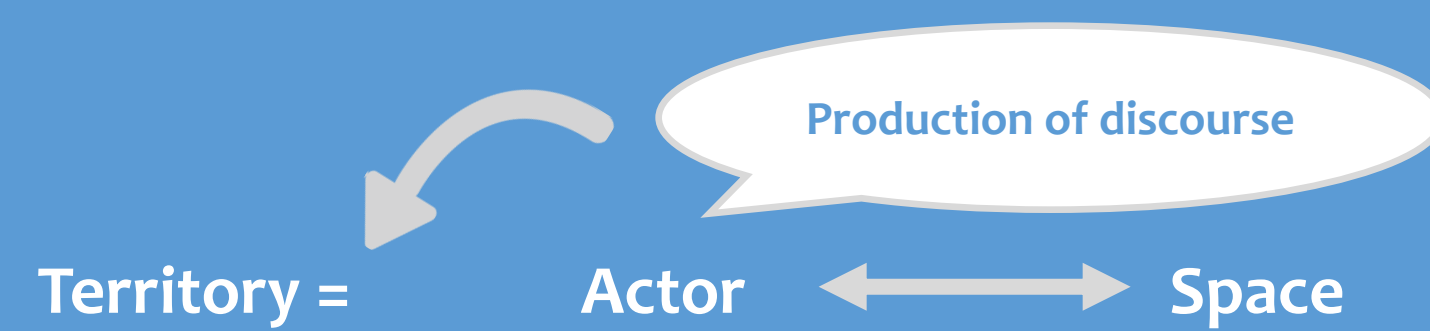
#### Objectives for research:

CAP-BIOTER project aims to analyze the evolution of the territorial system facing an increased mobilization of biomass generated by political choices in terms of energy transition, through a qualitative assessment of:

- **Territorial « resilience »**: the capacity of biosphere reserves to absorb endogenous and exogenous perturbations generated by the energy transition;
- **Territorial « capability »**: the capacity of biosphere reserves to generate innovation and collective actions on the basis of local tangible and intangible resources.

#### Research methodology:

Territory is defined as a matrix composed of representations and practices of the geographical space. To reach these representations, and thus to reach an understanding of the actor-space interaction constitutive of the territory, it appears relevant to **collect discourses** that conditioned and are conditioned by specific interactions to the geographical space.



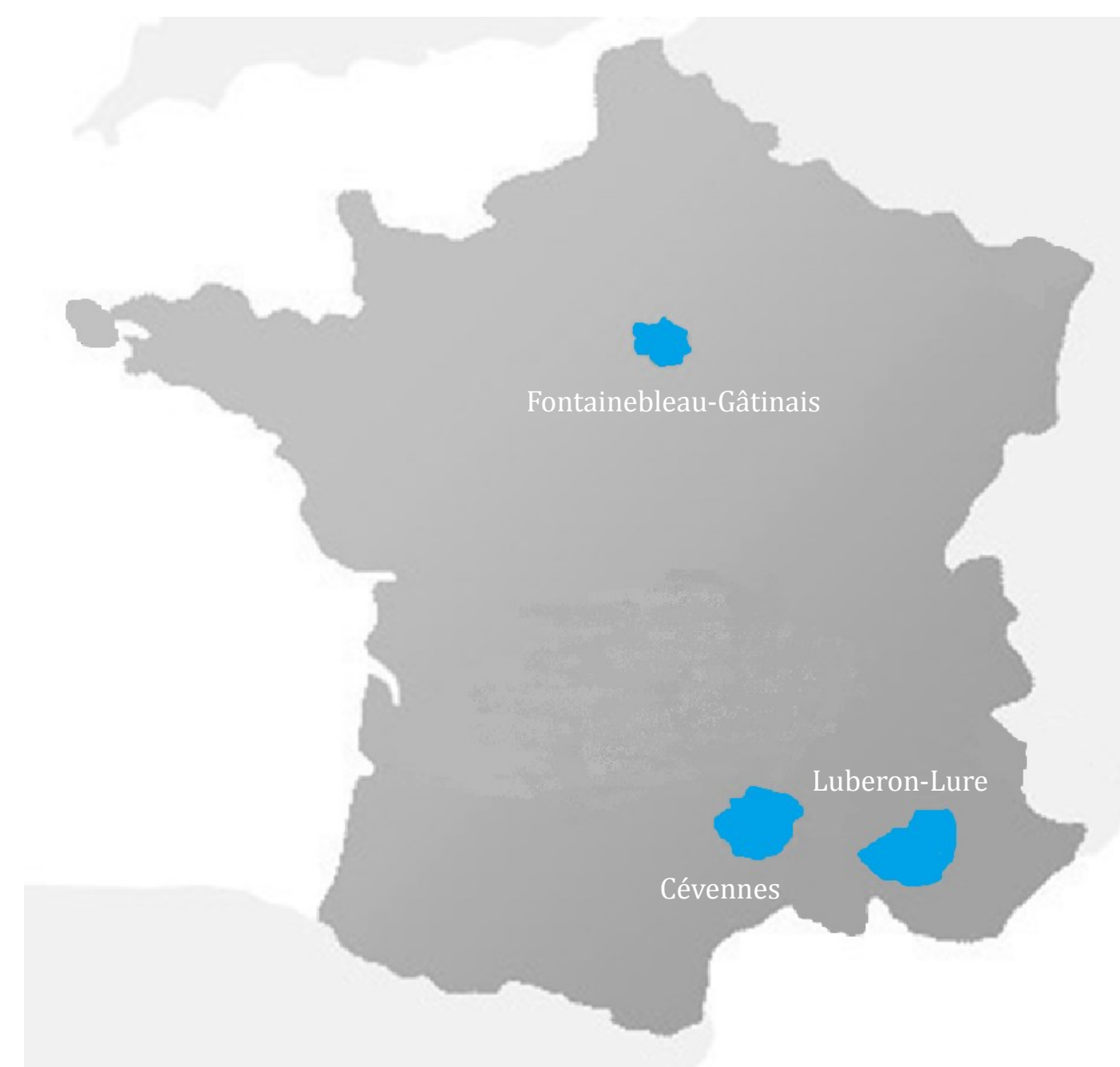
The methodological approach consists in conducting :

- **Semi-directive interviews** among a panel of local actors in order to uncover local individual representations and practices in regard to the use of biomass.
- **Focus groups** gathering local actors in order to foster the confrontation of individual representations and practices, and thus the emergence of a collective definition and project for a territorialized use of biomass.

For each case study, a same protocol is adopted in order to enable a cross-case comparison aiming to produce generic and transferable results for biosphere reserves at an international scale.

### Context

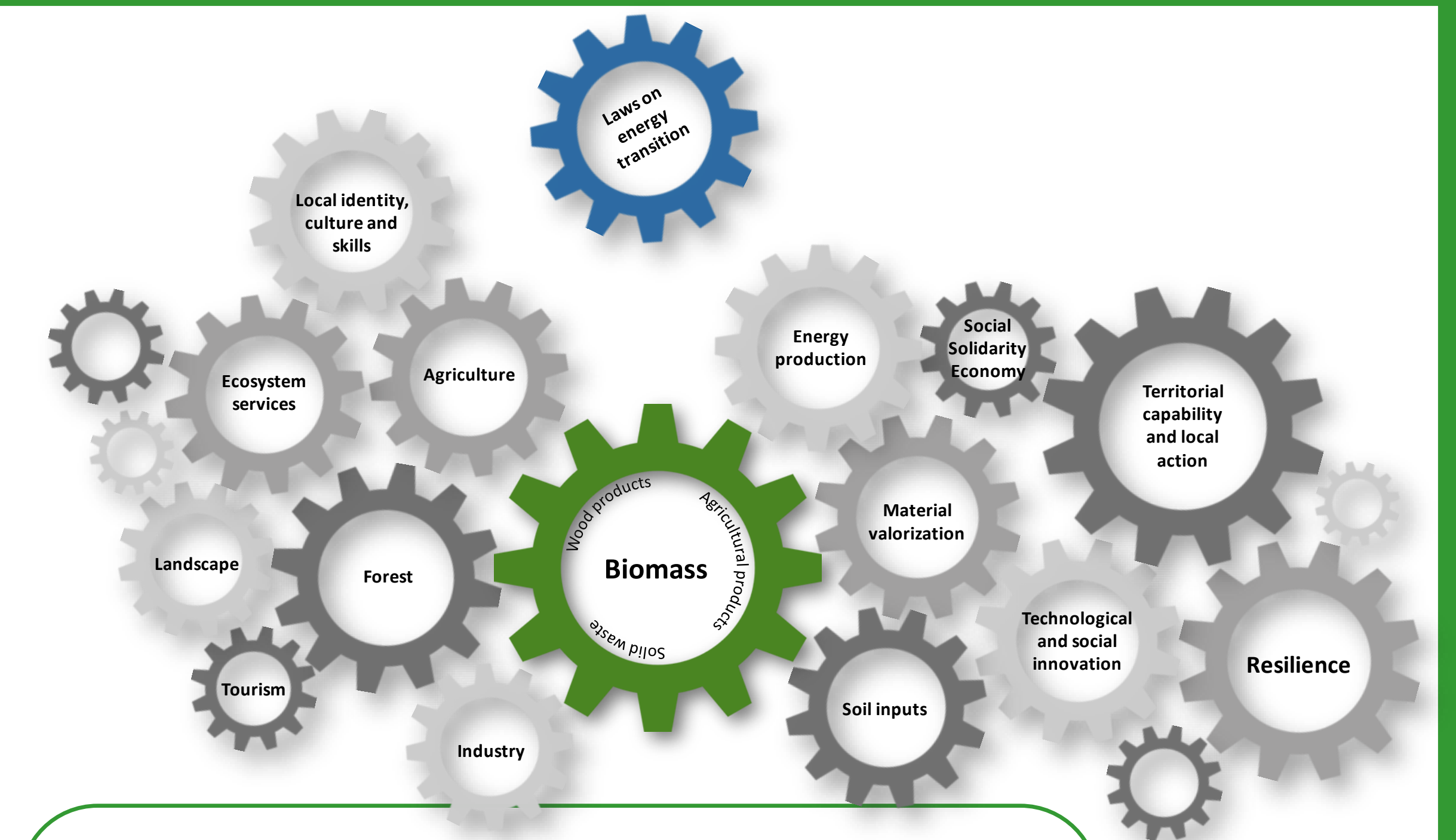
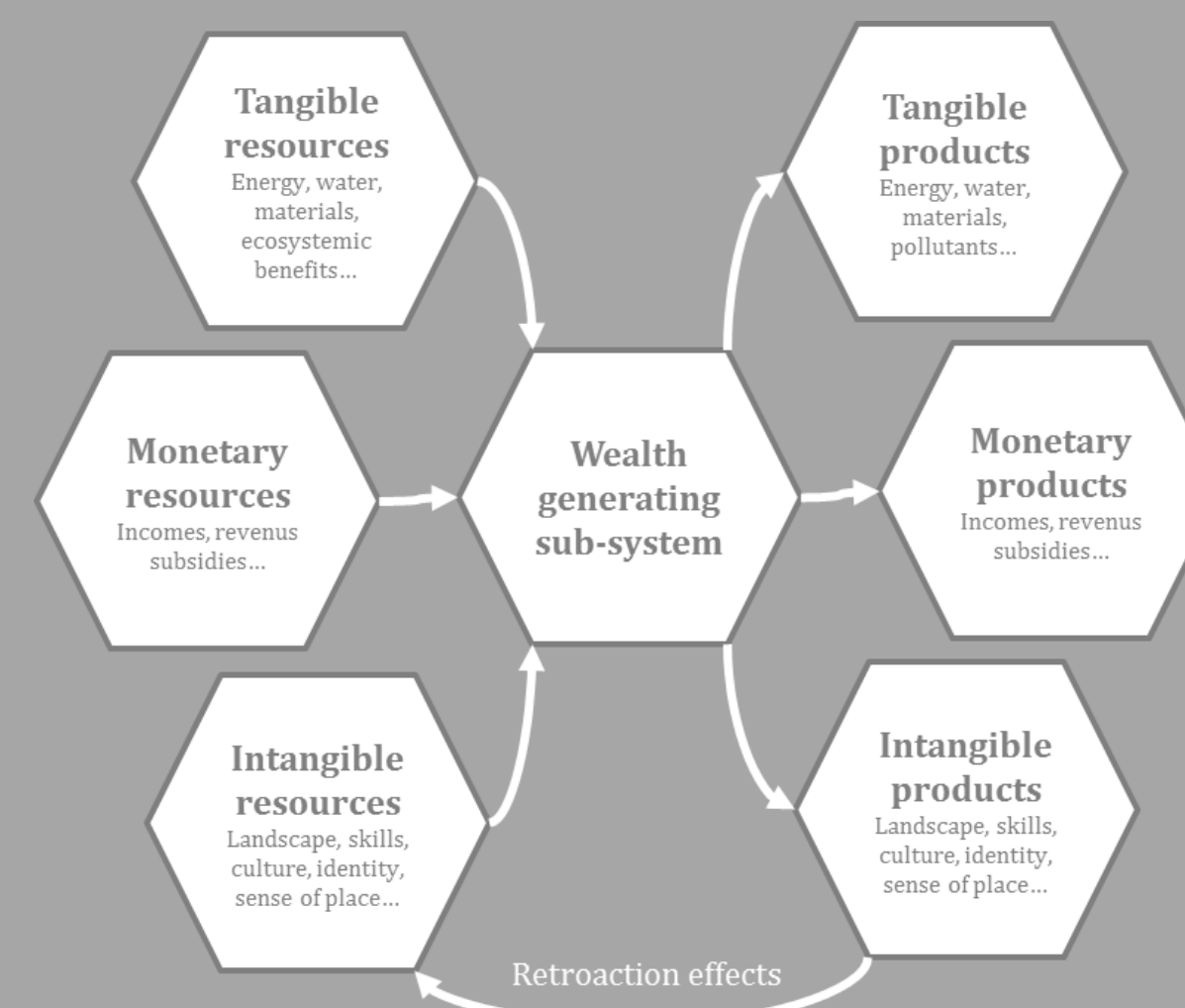
European and national policies place a significant **emphasis on biomass to lead the energy transition**. In France, the National Action Plan for Renewable Energies (2009-2020), following the 2009 European Directive, sets the share of renewable energies in final energy consumption at 23%, half of which would be produced by biomass energy derived from outputs of agriculture, forestry and related industries as well as industrial and municipal waste treatment. In this context, **natural areas tend to be identified as "biomass reservoirs"**, even though the **consequences of this increased mobilization of the resource at the local level are poorly identified**: what impacts of this energy transition on biodiversity and ecological continuity? What are the consequences in terms of soil erosion? What impacts on local biomass chains? What perturbation of the local socioeconomic balance between the different uses of biomass (energy, soil amendment, etc.)? What impacts in terms of landscape? What changes on the network and governance of actors directly or indirectly concerned by biomass issues? Etc.



Case study analysis: 3 French Biosphere reserves where 2 biomass energy recovery strategies coexist: decentralization of supply and multiplication of recovery units, on the one hand, and centralization of supplies around a single recovery unit, on the other hand.

### TERRITORIAL ECOLOGY

Territorial ecology studies socio-ecological interactions, within a contextualized and localized area. Territory is understood as a socio-ecological system resulting from interactions living beings – and among them, human beings – have with their environment. **It questions the nature of interactions occurring between human beings and their environment**. Borrowing ecological principles and concepts, it analyzes the **territorial metabolism, dynamics and trajectories** by focusing on the circulation of tangible and intangible flows between human societies and the biosphere.



### A PROJECT FOR TERRITORIES

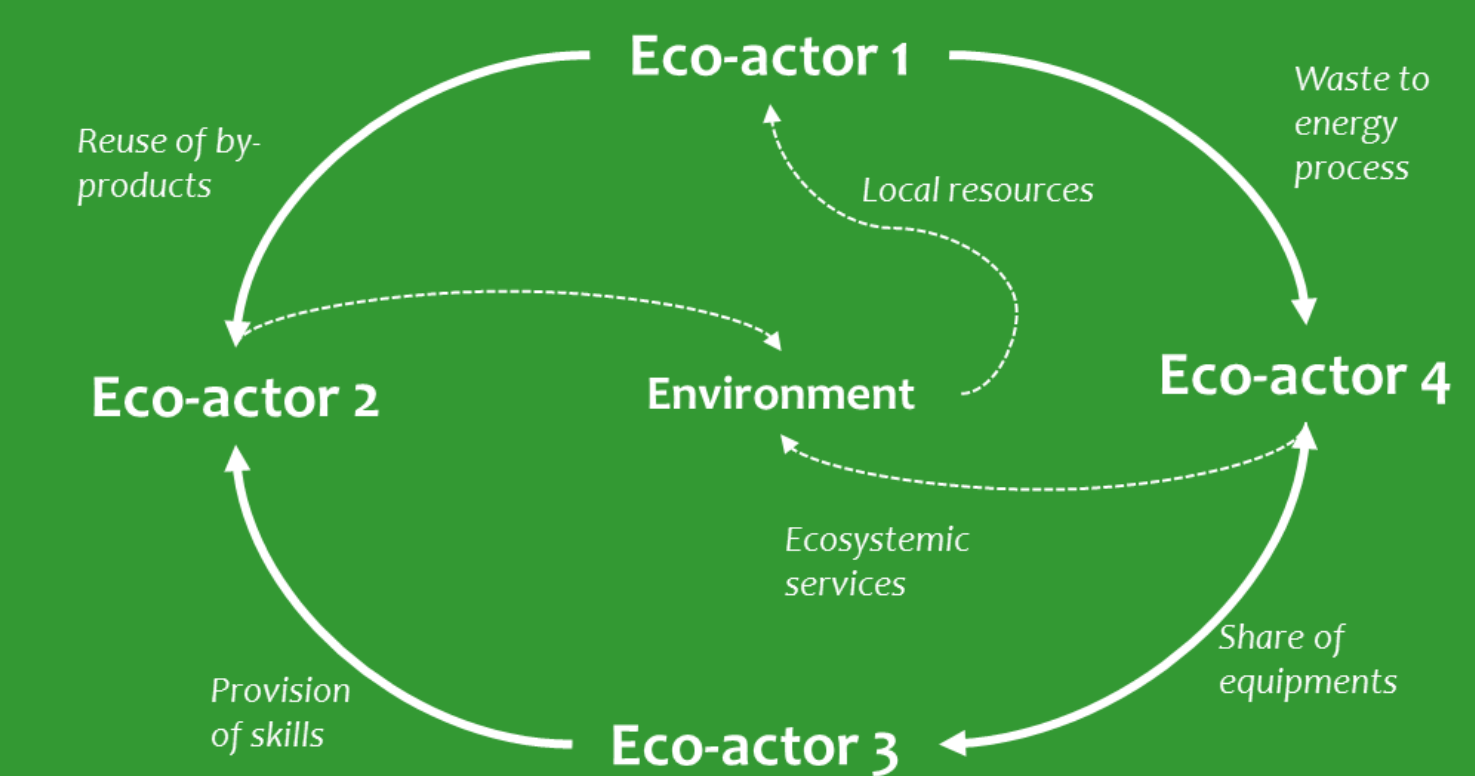
#### Objectives for territories:

CAP-BIOTER project works together with local stakeholders by providing local socio-ecological transition strategies with a systemic approach in order to :

- identify new opportunities of interactions between local stakeholders (synergies) to foster the socio-ecological coherence and resilience of a geographical area,
- assess and increase the collective capacity of local stakeholders to co-construct a project of development in coherence with their immediate environment.

#### Implementation:

Through the mobilization of local stakeholders, especially during focus groups organized in order to foster the emergence of collective actions, the CAP-BIOTER project participates to the co-construction of a territorial symbiosis, by developing synergies (exchanges of tangible resources, provision of skills, sharing of equipments, etc.) between local stakeholders in order to optimize local biomass management.



Expected benefits for Biosphere Reserves	Expected benefits for local stakeholders
Enhance local knowledge on the circulation of tangible and intangible flows	Find new markets for biomass by-products
Switch from an « eco-actor logic » to an « eco-network logic »	Find local resources meeting local needs
Foster wealth generation dynamics	Create opportunities for the development of new activities, especially linked to social entrepreneurship
Foster the socioecological transition by increasing individual and collective resilience	

A PLURIDISCIPLINARY TEAM



The CAP-BIOTER project is co-funded by the French Environmental and Energy Agency - ADEME

