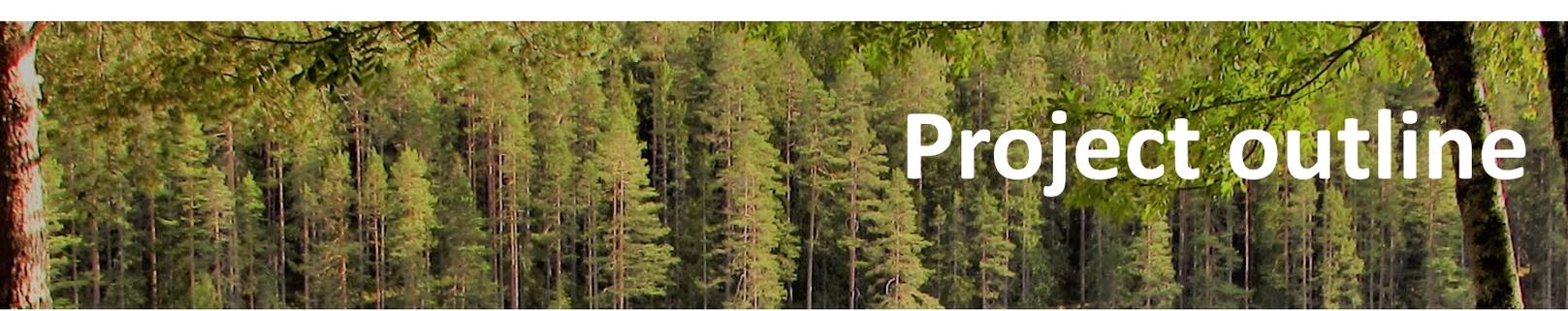


Innovation strategies for a sustainable forest-based bioeconomy

Overview of Catalonian experiences





Project outline

Transitions to a sustainable forest-based bioeconomy. Compared case study: Värmland's Forest-based Bioeconomy (Sweden), Lapland's Arctic Small Rural Cluster and Agro hub (Finland) and Cataluña, a Forest-based Bioeconomy (Spain).

Objective

This project aims to explain the regional transitions to a sustainable bioeconomy by comparing three different regions in the European Union, where innovation strategies labelled as smart specialisation have been applied. We argue that both, the bioeconomy and the innovation strategies designed for its establishment, need to be broadly understood and studied within a larger diversity of scales and actors. Regional transitions to sustainable economies are processes that belong to the public, private and civil sector equally.





Conceptual standpoints

Why innovation and what type of innovation?

Both empirically and theoretically, the link between innovation and sustainable transitions is perceived critical. From the bioeconomy approach, it is understood that without innovation the bioeconomy is unlikely to be established.

Innovation from a holistic approach, this is, where the whole process, and not only the final result/product, is innovation, and where other actors have a role to play. Innovation for sustainable transitions is not always driven by profit, and is not exclusive of research centres and firms (from triple to quadruple helix).

Is the bioeconomy a process of technological and industrial transformation only?

Bioeconomy as a concept has little resonance between private actors, whether firms or civil society, so the first challenge is to conciliate the different concepts given to sustainable economies/circular/bio.

The bioeconomy is not only an obscure area of scientists working in a lab creating fuels from biodegradable biomass, but a process of societal change.





32.113 km²

7.5M inhabitants

234 inhabitants per km²

GDP 223M€ (2018)

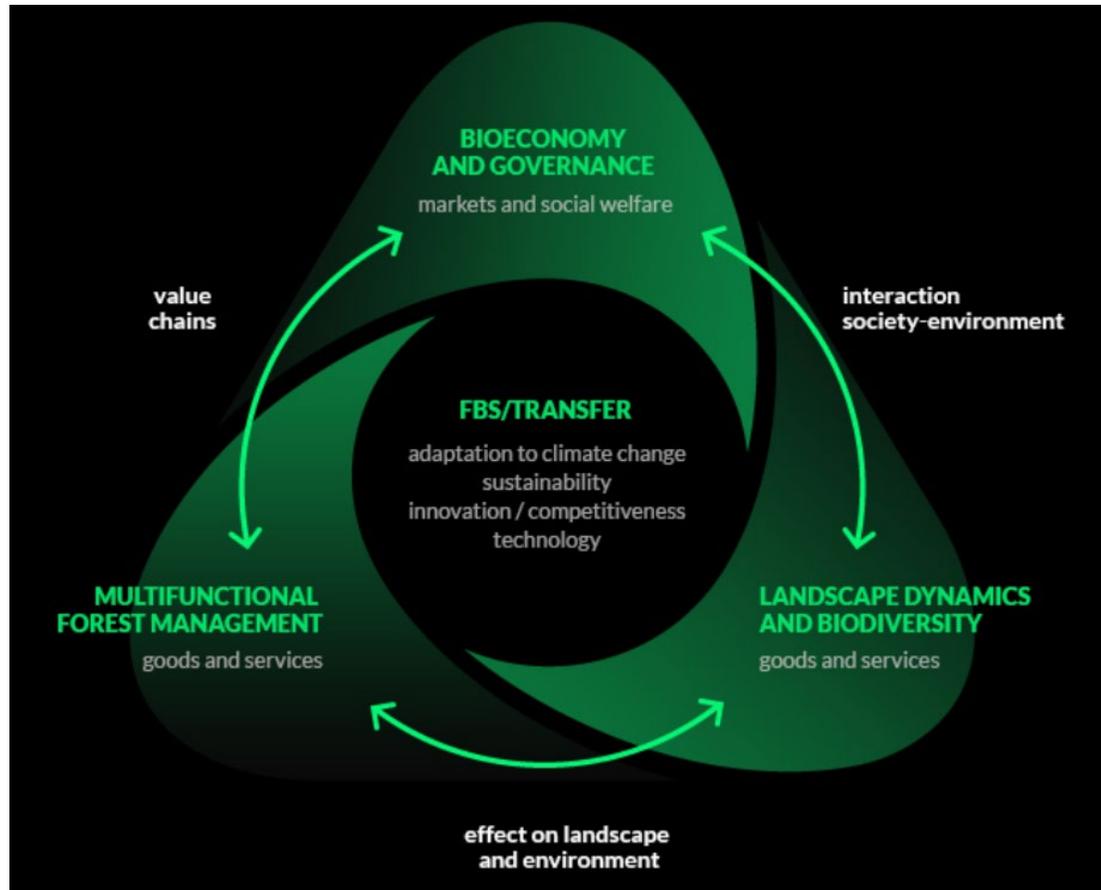
GDP per capita 30.000€

Sectors and their contribution to regional GDP (in Million Euros)	2015	2016	2017	2018
Agriculture	1.850	1.944	2.319	2.196
Industry	41.670	43.101	45.202	45.889
Manufacture	34.768	36.443	38.488	39.150
Construction	9.492	10.283	11.163	11.863
Services	145.377	151.134	156.545	161.755
Commerce, transport and tourism	51.061	54.026	55.774	56.983
Estate and profesional services	65.314	67.344	69.990	73.242
Public adm., health and education	29.002	29.764	30.781	31.530

Data: Eurostat, Instituto de estadística de Cataluña



Example one. The Forest Science and Technology Centre of Catalonia CTFC



“The mission of CTFC is to contribute to the modernization and competitiveness of forest sector, to promote rural development and to foster the sustainable management of the environment through excellence in research and transfer of knowledge and technology to society, with the final aim of becoming a reference center at the national and international level”

Source: CTFC homepage <http://www.ctfc.cat/en/>





- ✓ Bioeconomy and innovation are synonyms
- ✓ Bioeconomy as a key approach to develop and revitalise the rural areas
- ✓ Bioeconomy comes together with governance and land management, there are participatory practices with communities and forest owners
- ✓ Close interaction with the European union, city councils and EFI

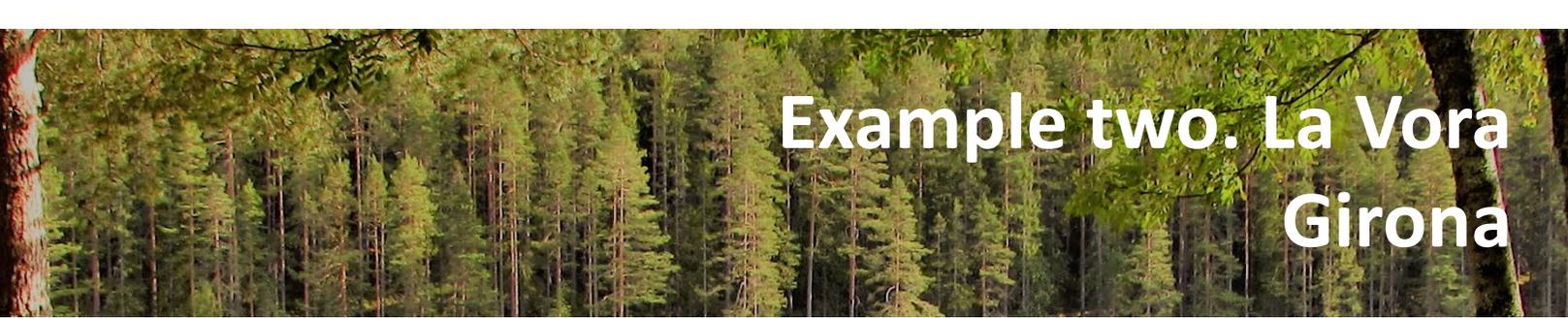
But...

Innovation remains exclusive to the firms and research centres

Civil society has a passive role

The initiatives are disconnected from other bioeconomy strategies





Example two. La Vora Girona

La Vora in Girona is a project for recovering the natural/forestry area within and around Girona. It was designed and carried out by a local firm of landscape architects in collaboration with the city council.

It has reconciled Girona's inhabitants with their natural environment

'La Vora is a complete change, without changing much' (M. Franch)



Photograph: M. Franch, EMF





- ✓ The use of language when referring to the forests/natural environment
- ✓ Innovation as new ways to collaborate between public and private actors
- ✓ The forests as providers of social and cultural value

But...

Complete disconnection with other sustainable economy transitions happening in the city or the region





Reflections and points for debate

- ✓ The term 'bioeconomy' is too technical, it might not sit well in the diversity of actors that are, directly or indirectly, related to it
- ✓ Bioeconomy and innovation are often treated as synonyms, in the sense that without innovation the transition is not feasible. Perhaps this makes actors to take innovation for granted and not reflecting much on how to achieve it.
- ✓ A forest based bioeconomy is not only a process of technological transformation, it involves peoples attitudes toward the forest, how it is used and valued
- ✓ There is a set of actors that are often overlooked, the civil society is not seen as an active part in the innovation strategies for bioeconomy transitions, however, processes of social innovation, and local knowledge are also crucial for a sustainable transition





Thanks
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