

# The challenges of social integration of offshore wind power in France

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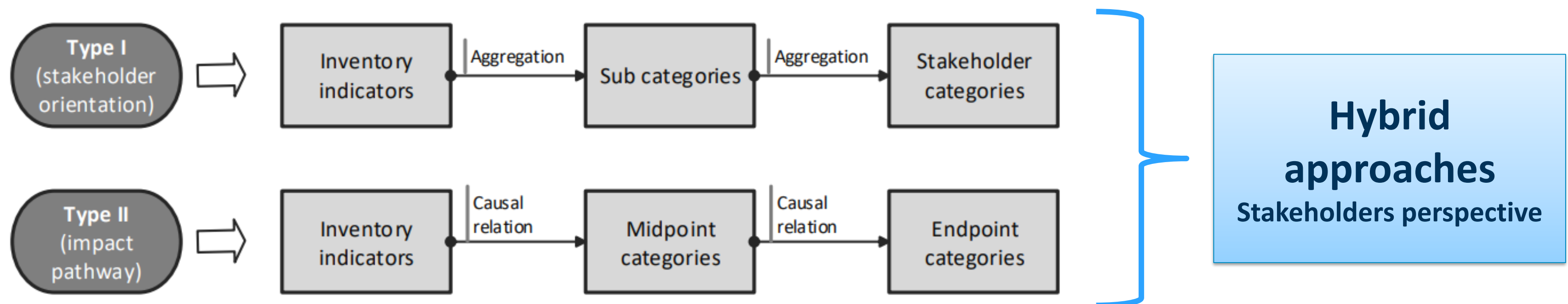
Researcher in sociology, France Energies Marines

[Webinar TTI.5] Wind power: forecasts, environmental impacts and social integration

Mines Paris –PSL

25/09/2025

- Social LCA : a systematic approach for the evaluation of social and socio-economic aspects of a technological project throughout its life-cycle
  - Considering geographical and contextual social risks
  - Understanding impacts of decisions on different stakeholders
  - Supporting decision-makers choosing among options depending on prioritized criteria
  - Linking territorial integration with identified social criteria
- Two types of Social LCA approaches



Russo Garrido et al., 2018

- New ISO 14075 standard on Social LCA framework– October 2024

- UNEP Guidelines (2020)

Defining involved/concerned social groups (e.g. stakeholders)

Who are we talking about ?



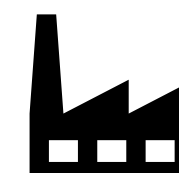
Defining indicators to measure risks and social performance of companies

How to measure it ?



Defining the system and industrial process (common to environmental and social LCA)

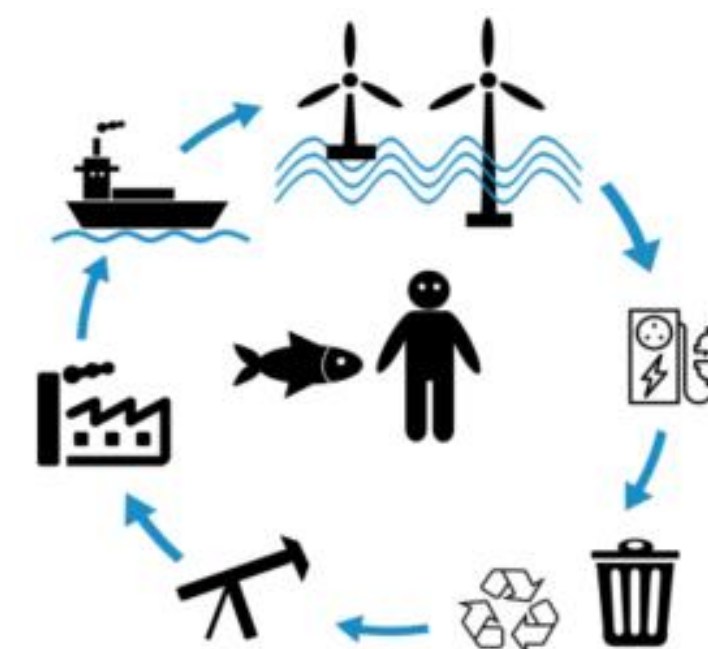
What are we talking about ?



- Necessity for sectoral adaptation of the S-LCA framework

- ANR LIF-OWI (2020-2023): Social LCA in offshore wind energy context
- Adapting tools according to different geographical scopes

LIF - OWI



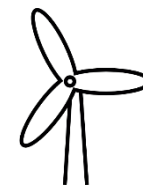


# A multiscope inventory and impact assessment approach (Lehmann, 2023)

## ➤ Application

Global

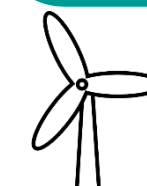
- Technological scenarios for risk estimation in supply chain



10MW x 50



50 km



12MW x 42



80 km

Local

National

- Case studies for site-specific data collection

Lehmann et al., 2021, 2024



- Examples of social impact indicators applied on offshore wind context (based on literature review)

Spatial scope	Stakeholder category	Impact subcategory	Normalised gap score	Indicator
Local	Local community	Sharing of spaces	15%	Percentage of willingness to practice recreational fish near OWF
		Local employment	11%	Indirect local job
	Consumers	Service to consumers	18%	Percentage of local consumption for the administrative department
	Value chain	Wealth distribution	31%	Local content: share of project cost captured by regional companies
	Workers	Equal opportunity	12%	Social clauses

- Need for further site-specific sustainability studies to improve the assessment of these indicators

# Monitoring offshore wind impacts on coastal tourism activities

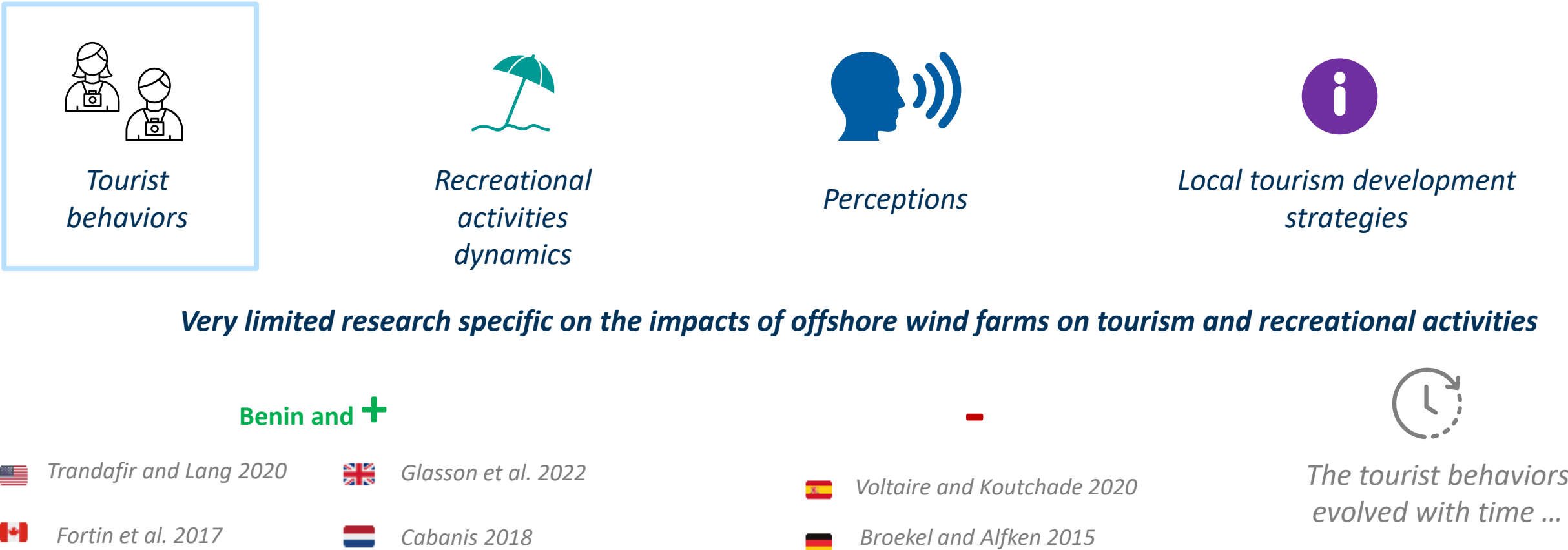


SEM-REV demonstrator ©FEM/Y.Baulaz

Banc de Guérande OWF ©FEM/Y.Baulaz

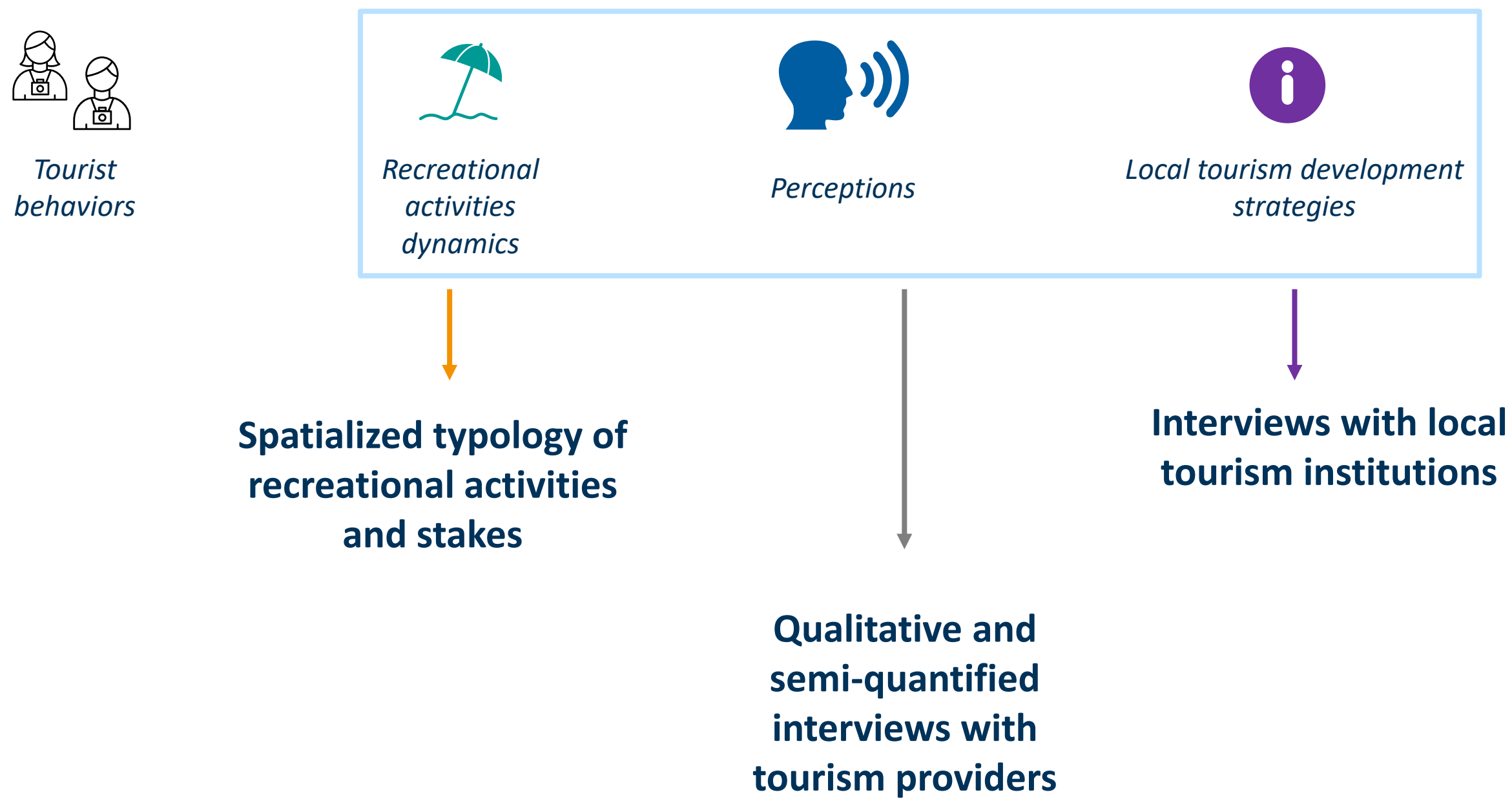


- Approaches to study the impacts of offshore wind farms (OWF) on tourism





## Comparative & Empirical inductive approaches A participatory perspective - from stakeholders providing tourism supply



Baulaz and Fofack-Garcia, 2024



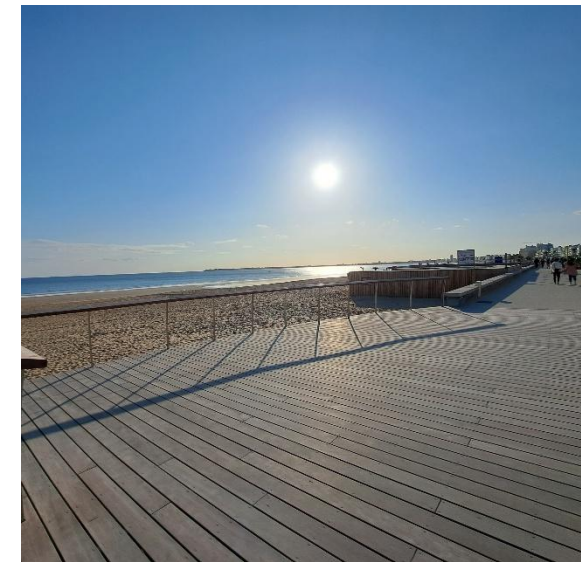
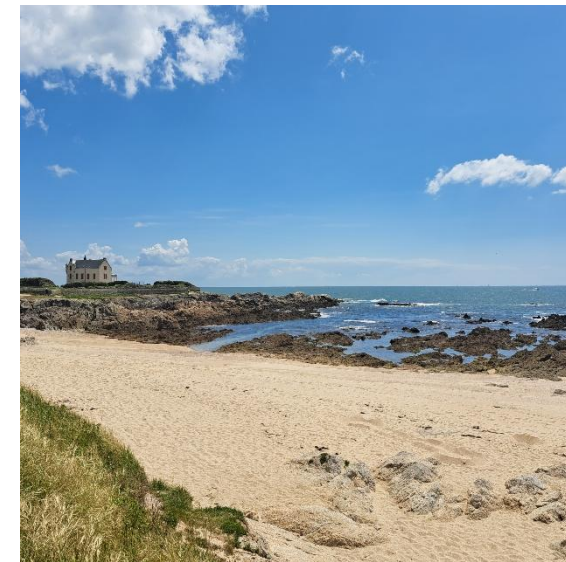
- 3 OWF case studies



Competitive tendering  
In development  
Authorization obtention  
Construction  
End of construction  
In operation



- Saint-Nazaire - Banc de Guérande OWF

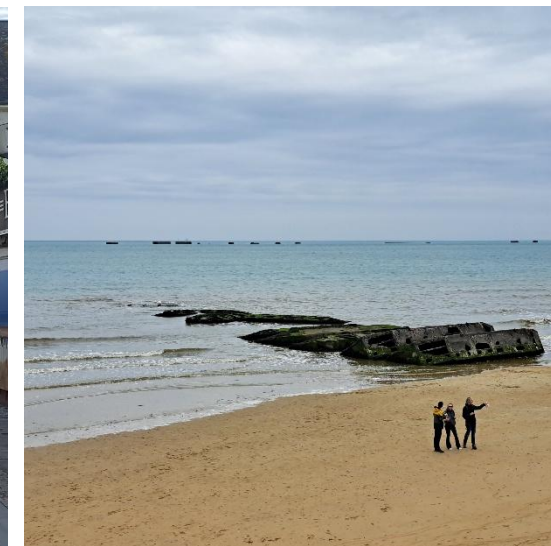
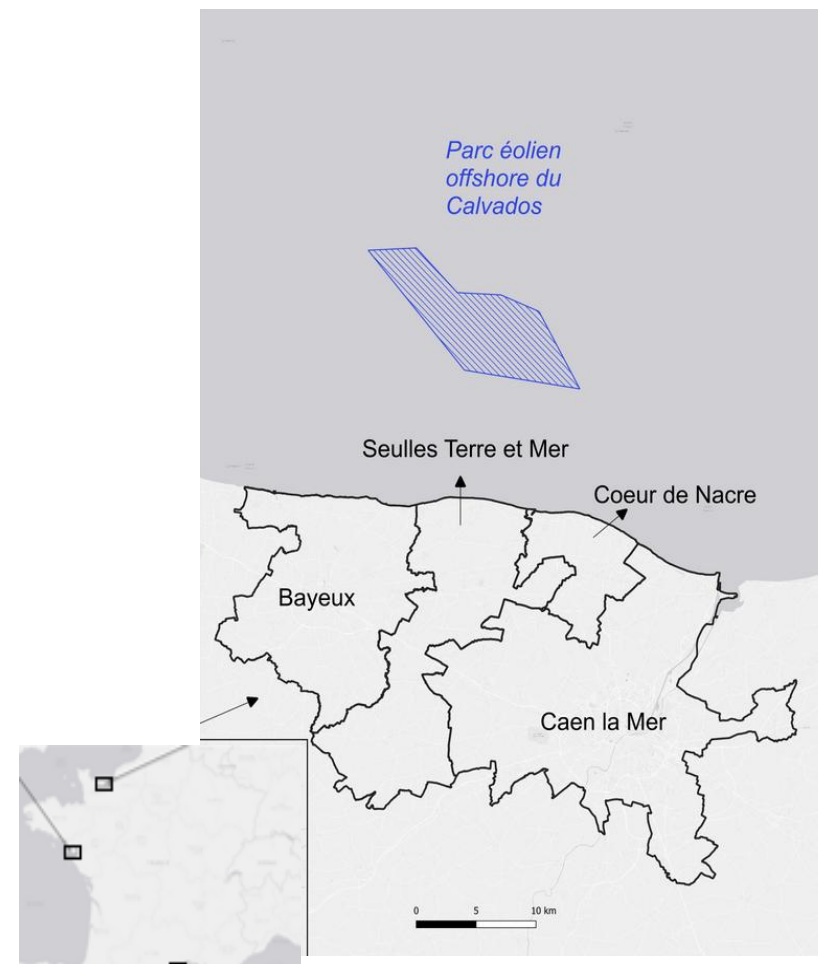


Banc de Guérande





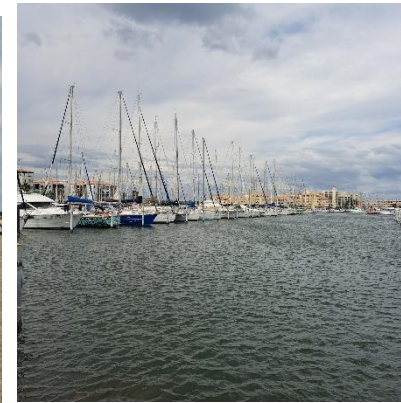
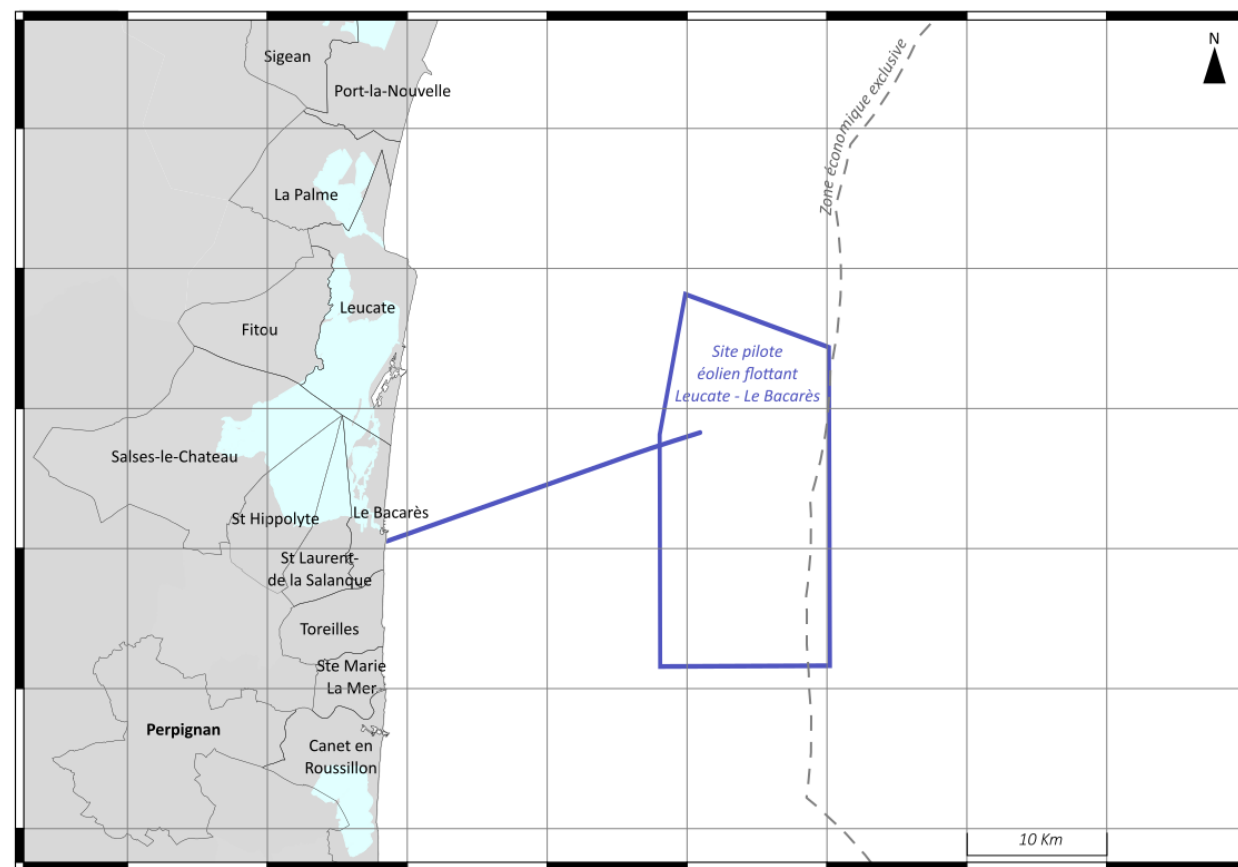
- Courseulles-sur-mer / Calvados OWF



Calvados



- Leucate pilot floating OWF



Leucate



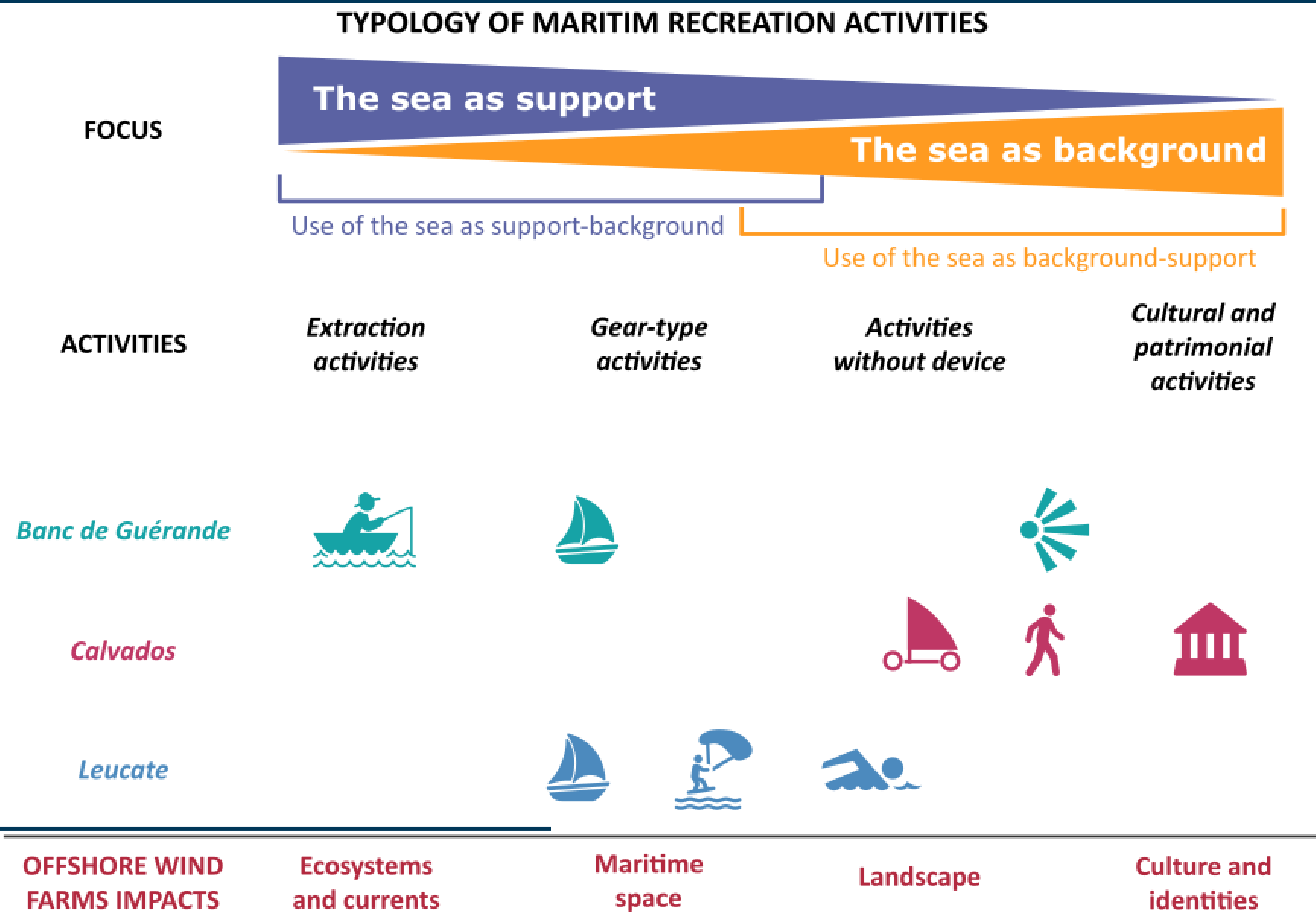


## Interviews

- In 2023
- *Objective: collect empirical informations, define touristic destinations and understand OWF potential impacts*

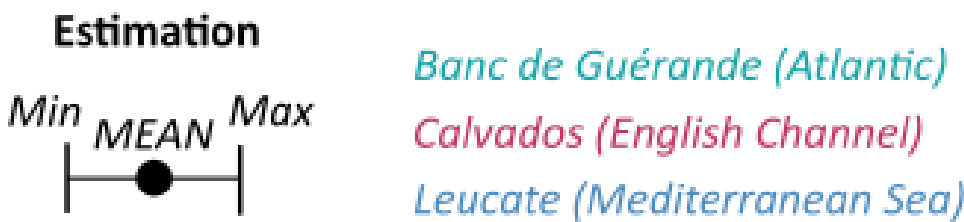
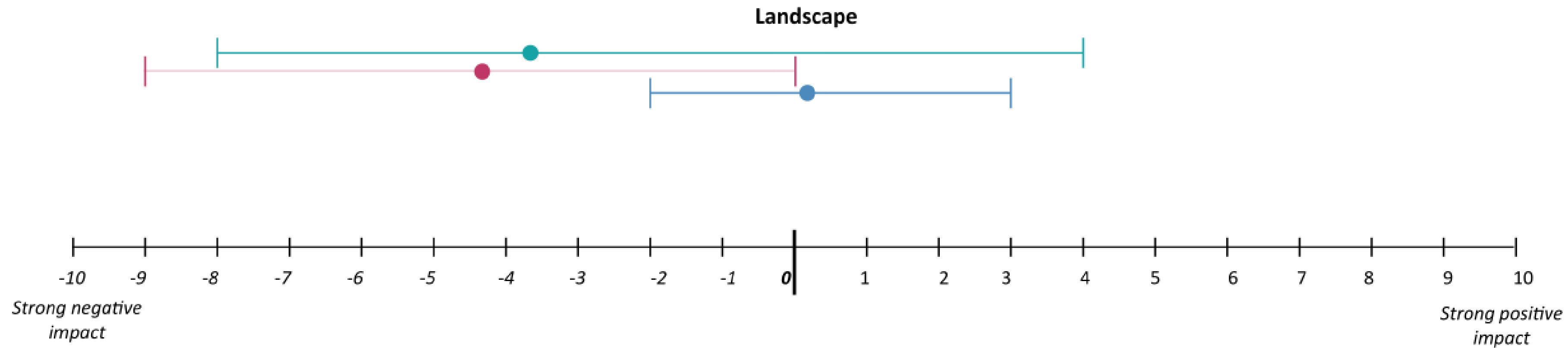
Study site	Banc de Guérande	Calvados	Leucate
<b>Recreation activities representatives</b>			
Angling	2	1	1
Rent & Boat tour	2	1	1
Sailing	2	0	1
Diving	1	1	1
Kitesurf & kayak	2	1	1
Surf	1	0	0
<b>Tourism administrative</b>			
Receptionists	6	5	5
Directors & politics	3	3	2
<b>TOTAL</b>	<b>19</b>	<b>12</b>	<b>12</b>

# Results: a comparison of recreational activities



# Results: Social perceptions of the OWF impacts on tourism

## PERCEPTION OF THE OFFSHORE WIND FARMS IMPACTS



### Quotes/verbatims:

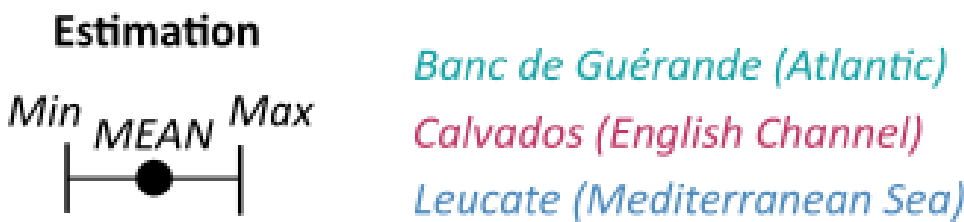
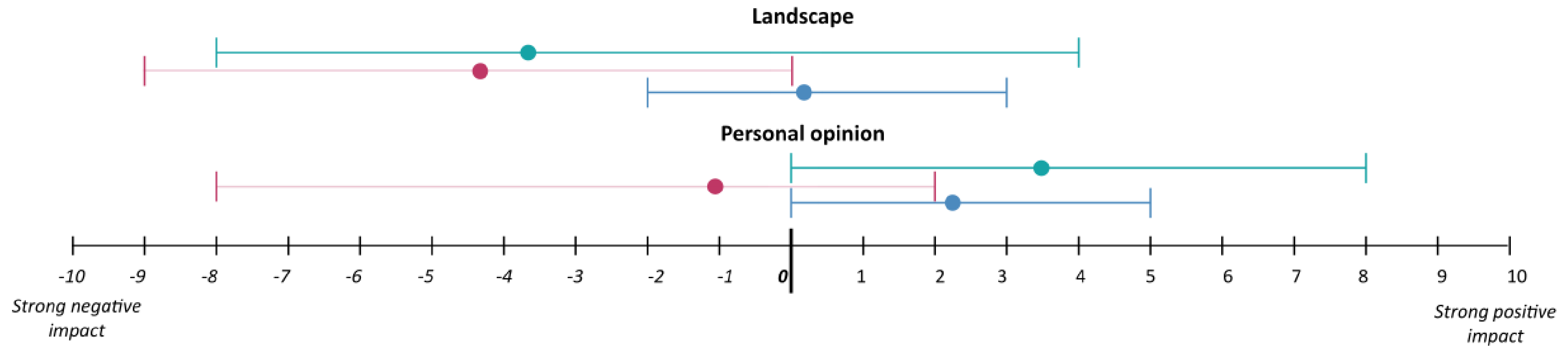
« It's too ugly! »

«It's not pretty... we could have made them transparent!»

«Well, they are here, we're going to use them... I don't mind.»

# Results: Social perceptions of the OWF impacts on tourism

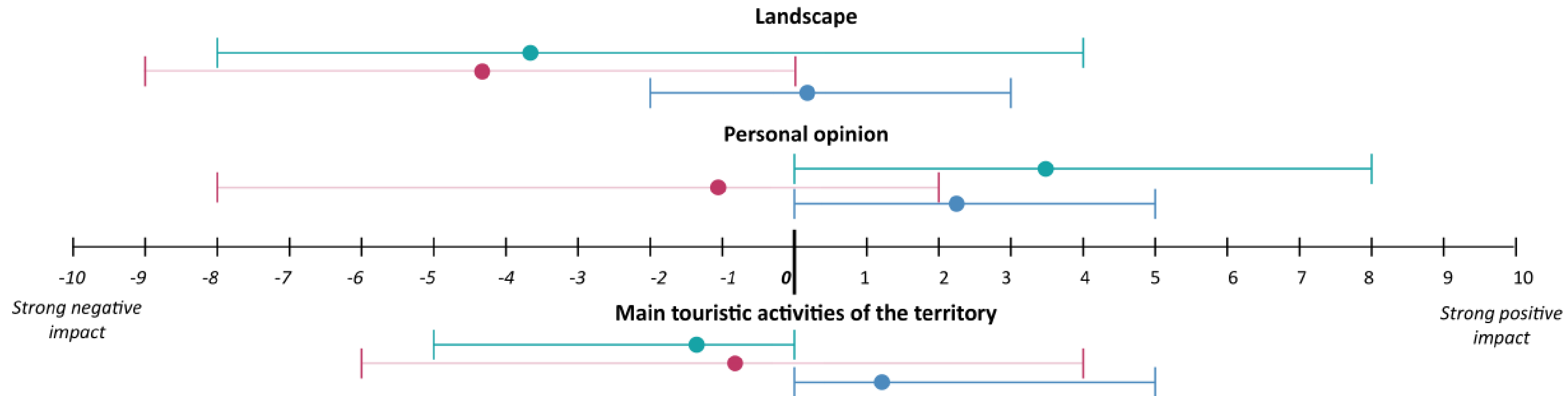
## PERCEPTION OF THE OFFSHORE WIND FARMS IMPACTS





# Results: Social perceptions of the OWF impacts on tourism

## PERCEPTION OF THE OFFSHORE WIND FARMS IMPACTS



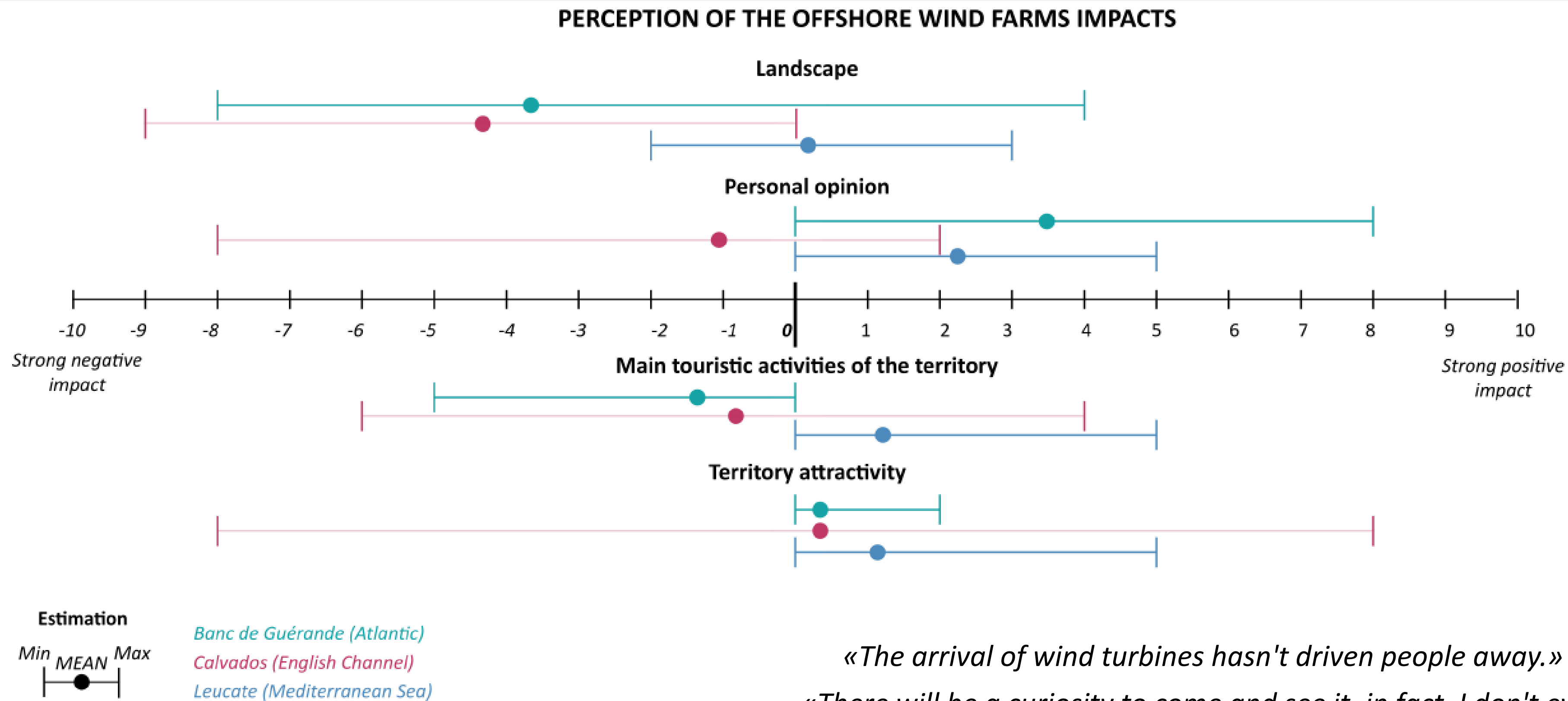
Estimation  
Min MEAN Max  
Banc de Guérande (Atlantic)  
Calvados (English Channel)  
Leucate (Mediterranean Sea)

«I honestly don't think it makes a difference.»

«I feel that these installations have a somewhat repulsive effect.»

«The heritage tourism will be transformed into wind energy tourism»

# Results: Social perceptions of the OWF impacts on tourism



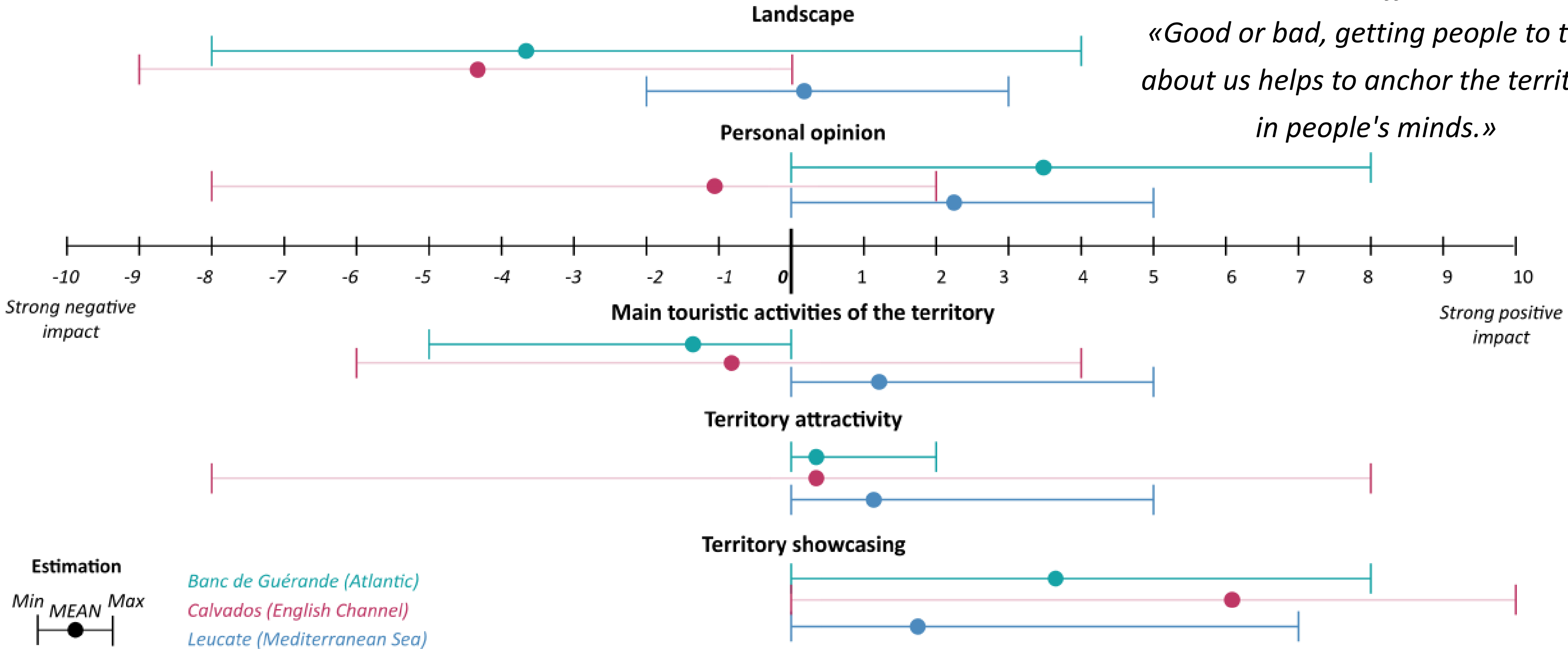
«The arrival of wind turbines hasn't driven people away.»  
«There will be a curiosity to come and see it, in fact, I don't even see any negatives to that... »

# Results: Social perceptions of the OWF impacts on tourism

## PERCEPTION OF THE OFFSHORE WIND FARMS IMPACTS

«Buzz effect»

«Good or bad, getting people to talk about us helps to anchor the territory in people's minds.»



## Banc de Guérande

- No significative change on recreative activities
- The OWF is seen as a new opportunity

## Calvados

- Fears regarding a potential conflict with heritage tourism

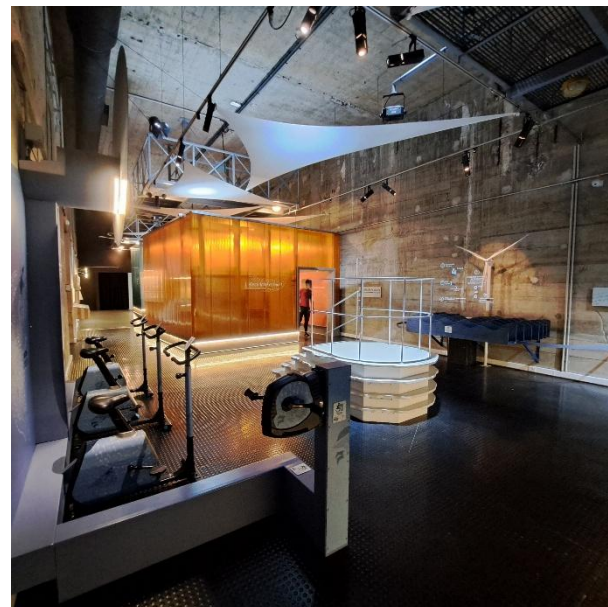
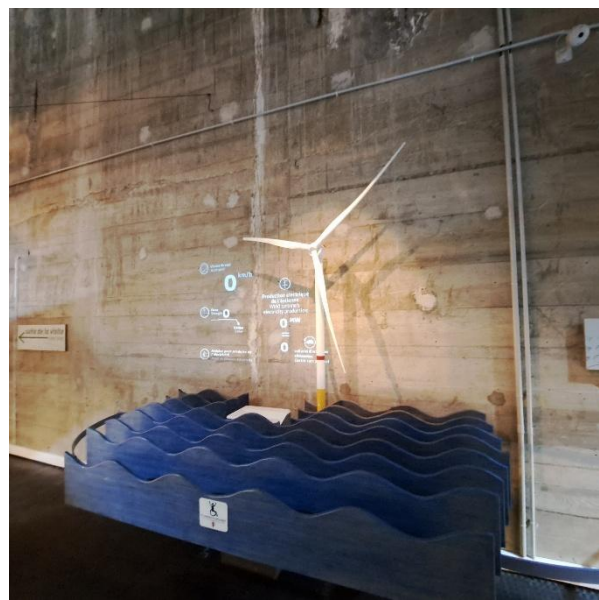
## Leucate

- A territory already well invested by wind energy
- No concerns perceived regarding OWF potential impacts



# Results: An emerging « offshore wind tourism »

## A new touristic offer under development



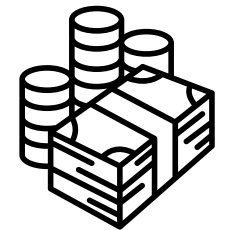
*EOL Center: first French museum dedicated to offshore wind energy*

*25 625 visitors in 2022*



*Boat tour to visit the OWF*

*For one of the two main company:  
1 057 visitors in 2023 - 28 620 € sales*



*« Kitesurf festival » in  
Leucate – april 2024*

- **Contrasting perceptions** between sites and specialization in tourism activities
- **Consolidated method** to monitoring evolutions in impacts and perceptions: **new surveys in 2025**
- Beyond tourism, need to consider **cumulative impacts** at different scales and throughout all life-cycle stages



Horizon Europe project (2025-2029)

- **COMPASS - Comprehensive Offshore Management Platform for Assessing Sustainability**
  - An Open-source tool platform designed to integrate environmental, economic and social (LCA) models
  - A holistic understanding of environmental, social and economic impacts of OWF from global to local scales
  - An adaptive decision-support platform that accounts for the variability of OWF designs (bottom-fixed and floating technologies)



Thank you for your attention.

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