

# FISHOWF – Monitoring the habitat use and movements of fish in a OWF context

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## Context

What are the potential effects of offshore wind farms (OWF) on fish communities?

Detecting and assessing the effects of OWF on these communities is essential.

It requires improved ecological knowledge and the use of appropriate monitoring methods.

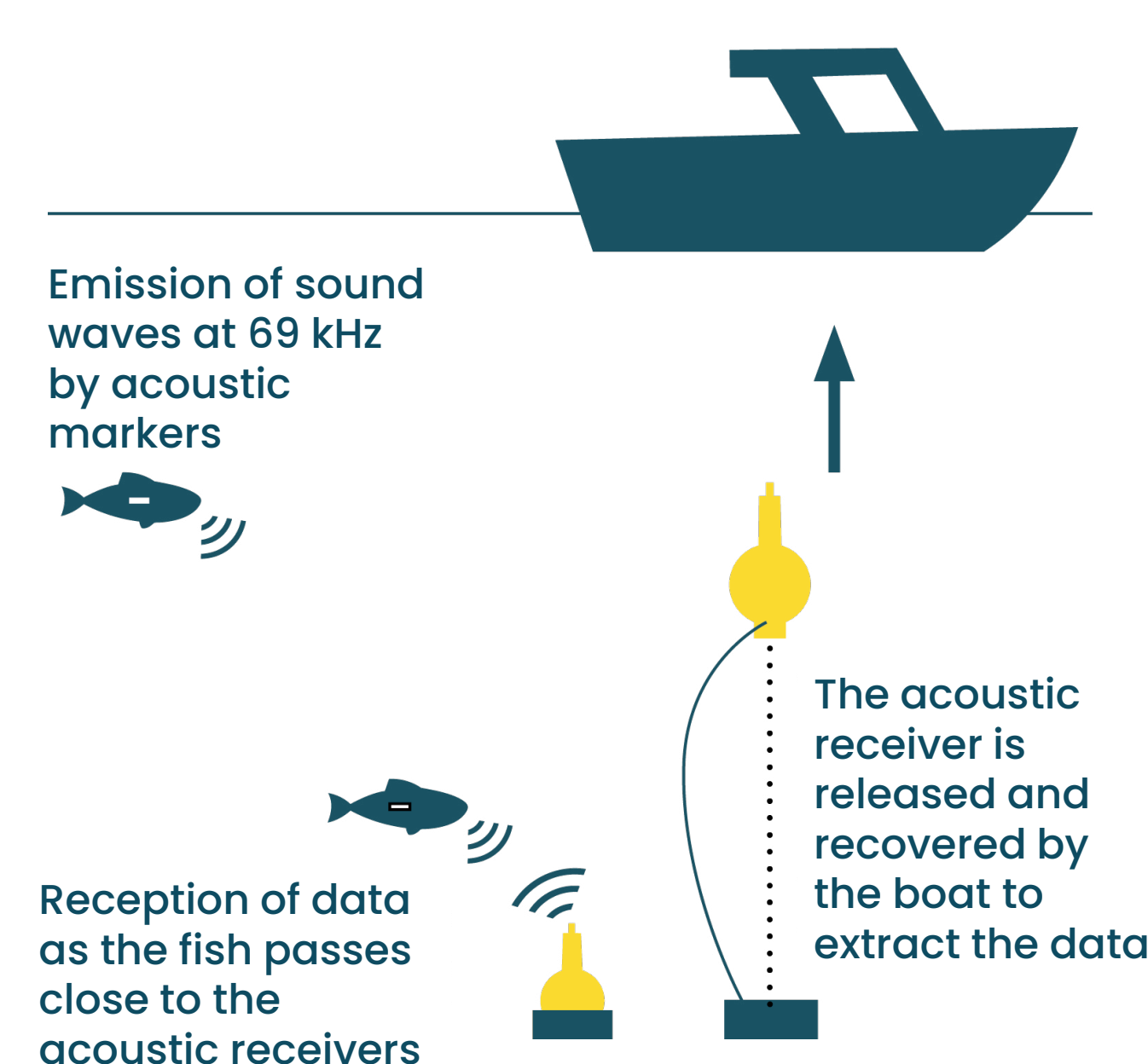
## Objectives

Implement a long-term monitoring strategy and acquire basic ecological data needed to assess the effects of offshore wind farms:

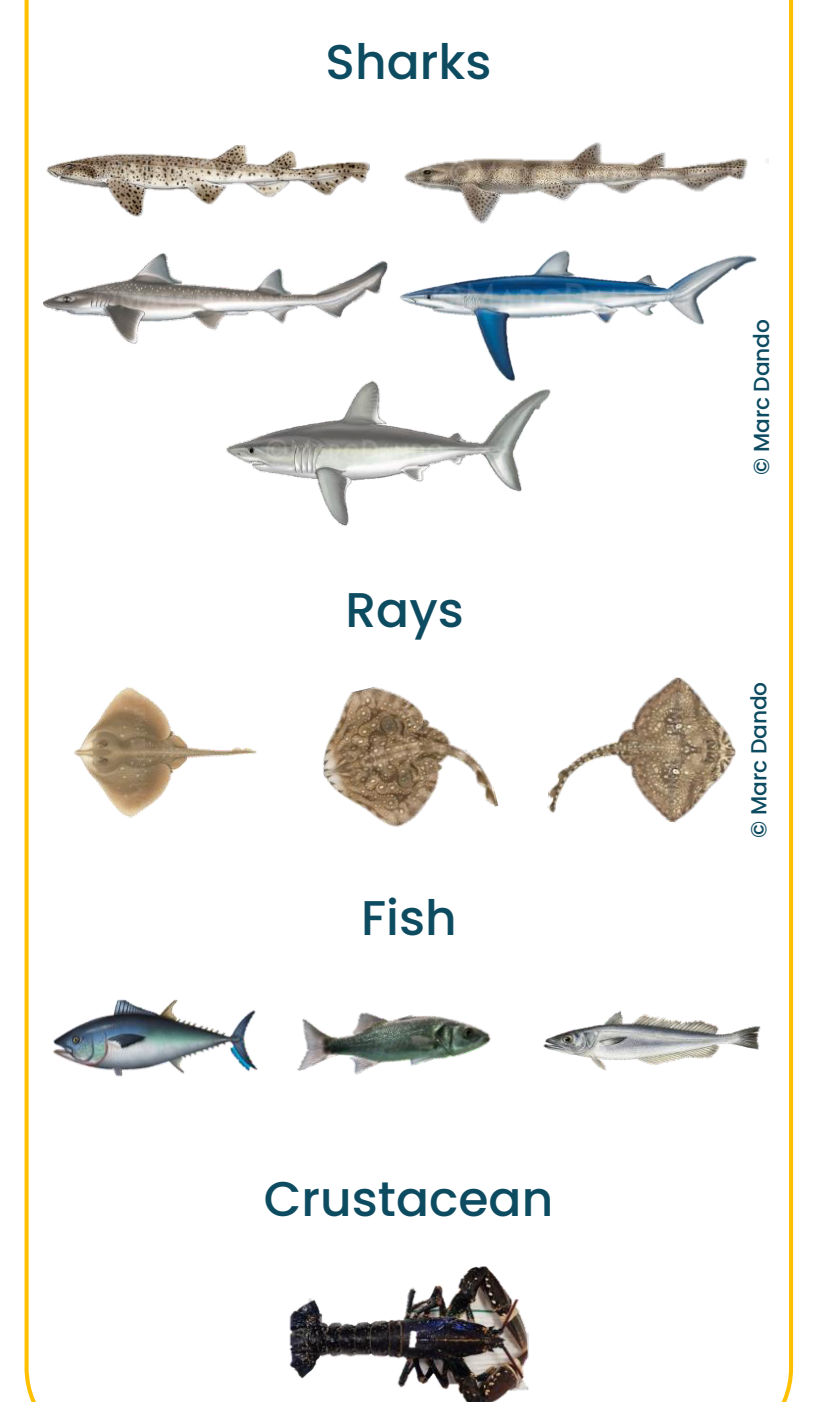
- By monitoring fish occupancy patterns, habitat use and movements using acoustic telemetry at different spatial scales
- By recommending methodological strategies based on acoustic telemetry to improve monitoring methods for environmental assessments
- By identifying an effective combined approach using innovative and complementary methods to assess the effects of offshore wind farms on fish assemblages

## Methodology

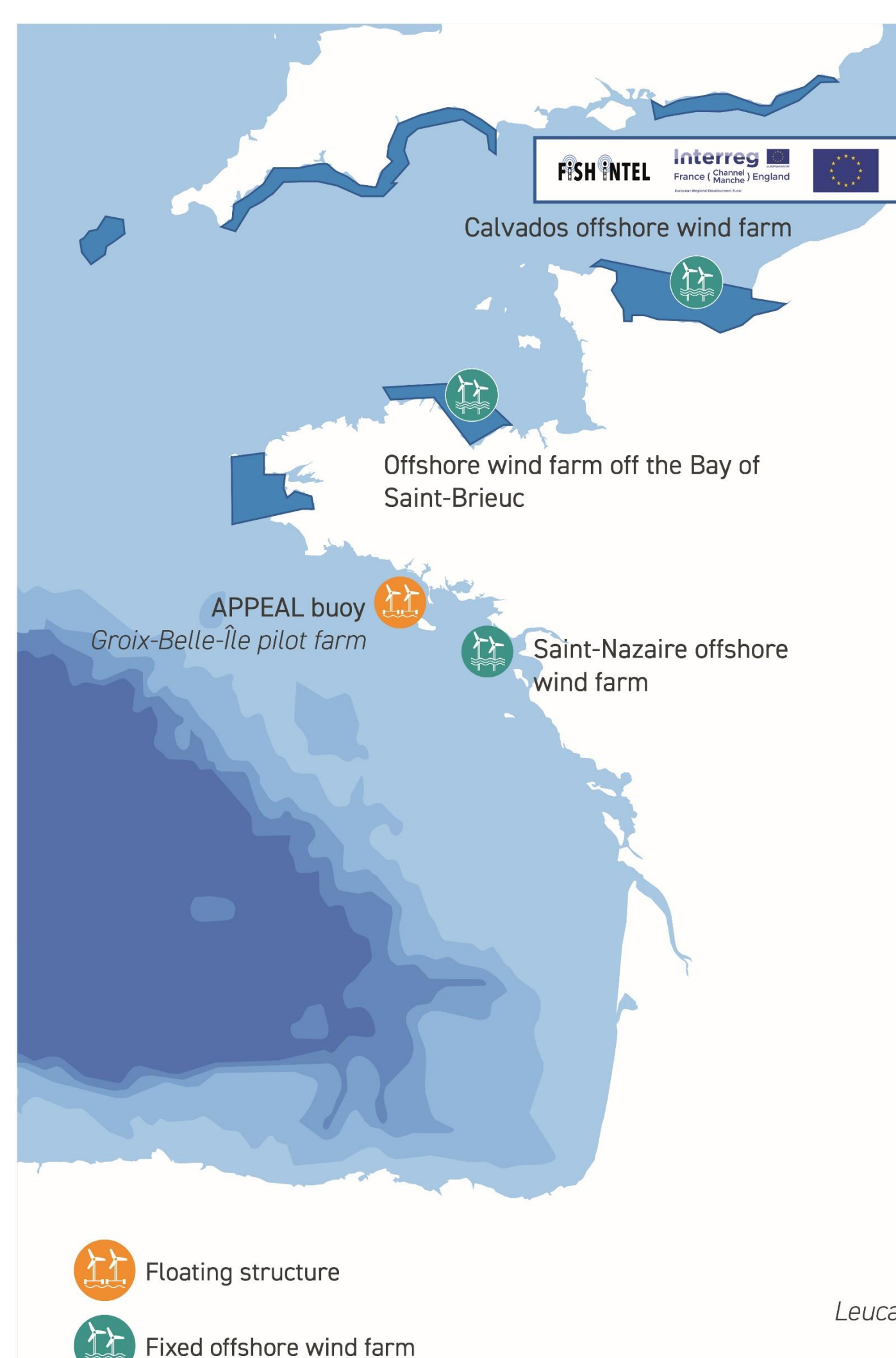
### Acoustic telemetry



### Targeted species



## Project structure



### FINE SCALE: AROUND AN EXPORT CABLE

Develop an *in naturo* monitoring strategy to detect potential effects of electromagnetic fields on the behavior of electrosensitive species

### LOCAL SCALE: OFFSHORE WIND FARM

Identify: Essential fish habitats within OWF, ecological role of installed structures, potential role of refuges for species with conservation and/or commercial values

### REGIONAL SCALE: BETWEEN HABITATS

Detect large-scale fish movements between wind farm development sites

Use of regional receiver networks: FISH INTEL, CONNECTMED and RESMED

### TOWARDS A COMBINED APPROACH

- Evaluate the complementarity of existing monitoring methods to examine fish population dynamics
- Test a combined approach to examining the spatio-temporal dynamics of fish assemblages.
- Propose a multimodal monitoring strategy to inform on the effects of offshore wind farms on fish assemblage