FISHOWF

Effective monitoring strategies to identify and evaluate effects of offshore wind farms and their export cables on fish communities

DURATION: 36 mois | **LAUNCH:** 2021 | **TOTAL BUDGET:** €2,363K

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CONTEXT

In France, the rapid development of offshore wind energy requires in-depth monitoring of fish communities to detect and quantify the potential effects of wind farms on fish. The traditional experimental fishing methods used in regulatory impact studies on fish are not sufficient to meet this objective and to address societal concerns. **It is therefore necessary to develop effective and appropriate methodological strategies. State-of-the-art indirect approaches, such as passive acoustic telemetry, with a robust sampling plan, offer alternatives to traditional monitoring for offshore wind projects.**

OBJECTIVE

Develop a long-term monitoring approach to detect the effects of fixed and floating offshore wind farms and their export cables on fish populations

MAIN ACHIEVEMENTS

- Deployment of acoustic telemetry networks in four wind farms at different stages of development
- Monitoring movements of more than 300 individuals of 12 species of fish and crustaceans and their use of offshore wind farms
- Recommendations on the implementation of acoustic telemetry monitoring within a wind farm at different spatial scales
- Demonstration of the relevance of a combined approach for assessing the reef effect of wind farms on fish populations

CONCLUSION

FISHOWF has demonstrated the relevance of acoustic telemetry for monitoring the effects of offshore wind farms on fish and fill important gaps on ecological knowledge of studied species. The project also highlighted the value of using complementary methods to monitor the reef effect of offshore wind farms on fish populations.

TECHNOLOGIES

STAGES OF THE VALUE CHAIN

Etudes préliminaires

MAIN OUTPUTS

- Database of indivduals' detections in four offshore wind farms
- Compilation of regulatory fisheries monitoring for offshore wind farms
- Scripts and algorithms for managing, processing and visualising acoustic telemetry data
- Recommendations for implementing acoustic telemetry monitoring at different spatial scales
- Summary of existing methods for monitoring fish populations and recommendations on the implementation of complementary methods

PARTNERS

With the financial support of Université de Bretagne Occidentale, Provence-Alpes-Côte d'Azur region and Bretagne region.

This project receives French government funding of €946K managed by the National Research Agency under the France 2030 investment plan.