GEOBIRD

Development of an innovative geolocation tag for seabirds

DURATION : 50 months (2017-2021) | BUDGET : 858 k€


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CONTEXT

The acquisition of biodiversity data upstream of projects is a key stage in the deployment of marine renewable energies. In this context, the monitoring of marine avifauna is a major component of environmental studies, both for fixed and floating offshore wind turbines and for tidal turbines. One of the approaches recommended for monitoring avifauna is to equip birds with embedded devices. **However, this approach faces major operational difficulties, as the observation technologies available to date do not meet all the needs. This is particularly true for the monitoring of medium-sized seabird species (weighing less than 0.5 kg), such as shearwaters, which require a very high level of performance and miniaturisation of the device carried by the animal.**

OBJECTIVE

To develop a miniature geolocation tag for medium-sized seabirds and test it on birds in real conditions

MAIN ACHIEVEMENTS

- Manufacturing of several prototypes of miniature geolocation tags for the monitoring of medium-sized avifauna (shearwaters, small laridae, diving species, etc.)
- Deployment of a prototype in real conditions on two test species (Scopoli's shearwater and mallard) and data collection
- Feedback on the deployment process and the recorded data recovering
- Recommendations for improving the prototypes

CONCLUSION

The GEOBIRD project resulted in the production of several prototypes of a geolocation tag that would eventually make it possible to monitor the movements and behaviour, including diving, of species about which there is a lack of knowledge. One of the prototypes produced was deployed on two test species and data was collected. These crucial tests in real conditions have enabled the IPHC to further improve the GEOBIRD prototype, which will be tested during future deployments in view of its commercialisation.

TECHNOLOGIES

STAGES OF THE VALUE CHAIN

Preliminary studies

RESOURCES GENERATED

- **GEOBIRD tag :** design of a prototype
- **Industrial development:** initiation of a pre-industrialisation phase

PARTNERS

This project has received € 238K from French State funding managed by the National Research Agency under the Investments for the Future Programme (ANR-10-IEED-0006-15).