



## OSCARABIS

### TOOL FOR ACOUSTIC CHARACTERISATION OF NATURAL RESOURCES AND HABITATS IN MARINE SEDIMENTS

The French littoral possesses mineral and biological natural resources which need to be itemised and mapped for them to be judiciously managed. Considerable efforts have been made over the last decade, particularly as a result of action taken by the Marine Protected Areas agencies in France (Agences des Aires Marines Protégées). No procedure exists, however, for mapping or even detecting natural resources under the seabed, such as shellfish or crustacean tunnels.

The company RTSYS and its partner subcontractor MAREE have developed an acoustic device - INSEA (INvestigation of SEdiment by Acoustic) - which measures in-situ the speed and absorption coefficient for compressional waves in the top decimetres of sediment. Numerous measuring surveys have been carried out in the lab, on beaches and at sea using the device. The proposal is to create a 3D tomography demonstrator for sub-surface sediment based on the skills and data acquired.

The OSCARABIS project will involve developing a particular application from this research to detect the presence and determine the concentration of sedimentary inclusions such as shellfish or subsea tunnels. It is proposed to demonstrate during the course of the project the feasibility of mapping the top 50cm of the seabed.



#### Partners

##### Companies

RTSys, Caudan [Project Developer]  
MAREE, sous-traitant, Ploemeur

#### Funder

- Ademe

#### Labelisation

19/02/2016

#### Overall budget

298 K€

*The OSCARABIS project was submitted in response to the Call for Projects issued by Ademe as part of its biodiversity initiative for SMEs (Initiative Biodiversité PME).*