



## SIMEO OFFSHORE

### REAL-TIME DATA TRANSMISSION FROM AN OFFSHORE BUOY FOR ENVIRONMENTALLY FRIENDLY MONITORING OF MARINE VERTEBRATES

The SIMEO OFFSHORE project involves developing the SIMEO buoy communication system to integrate biological data preprocessing and to deploy the buoy in the Mediterranean. SIMEO is the first autonomous marine station for multifunction measuring devoted both to airborne and undersea vertebrates and to their environment.

The principle behind the SIMEO buoy is to combine several advanced measuring instruments (radar, acoustics, video, etc.) on the one autonomous buoy. The measurements collected are used to compile biological, meteorological, physical and hydrological undersea data and this pool of information is then transmitted onshore to be used.

Energy independent, the station will supply data in particular on the abundance, movements and behaviour of seabirds, bats, fish and cetaceans and on their environment.

The solution selected for the SIMEO OFFSHORE project involves:

- Integrating a radio data transmission system (digital VHF) based on a direct long-range wireless link over a range of several tens of nautical miles. This radio link will provide a low-cost means of transmitting significant volumes of data and supervising the marine observation station in real time.
- Integrating biological data preprocessing prior to transmission.
- Designing a mooring line that is suited to conditions in the Mediterranean (water height, swell, etc.).

#### Partner

COM\_PROJECTS\_CATEGORIE\_PARTNER\_ENTREPRISES

Nke, Hennebont, porteur de projet

#### Funder

- Ademe

#### Labelisation

17/06/2016

#### Overall budget

395 K€