



Post-doc position

“Ecological functioning of hydraulic sand dunes, with a focus on macrofauna, in the field of Offshore Renewable Energies”

N/Ref: FEM-2019-229

Company Description

FRANCE ENERGIES MARINES (FEM), the national research institute dedicated to Offshore Renewable Energy (ORE), supports the nascent ORE industrial sector with the means and skills that increase competitiveness by mutualizing R&D costs, reducing risks and accelerating the acquisition of data and knowledge. FEM activities are founded on Research and Development projects based on a broad public-private partnership involving large groups, SMEs, regional authorities, advanced research and training institutions and competitiveness clusters, and with the support of the national *Investing for the Future* program. FEM collaborators are scientifically and technically involved in these projects thanks to their high level of scientific expertise. The headquarters of FEM are located in Plouzané (Brest area), France.

Job Description

A post-doctoral position has been opened within the DUNES project, which is dedicated to highly dynamic hydraulic dunes. Future ORE projects may deploy structures and cables within zones of this specific environment, and for which the associated ecosystem and dynamics require a better understanding.

The successful candidate will work both at the Ifremer LERBN laboratory, under the supervision of Dr. Nicolas Desroy and at France Energies Marines, under the supervision of Dr. Nolwenn Quillien from the Environmental Integration research program.

Both institutes work together on the main objectives of studying potential marine habitat modification linked to the installation of ORE devices and to develop tools and methodologies allowing the study of these potential effects.

The postdoctoral candidate will:

- characterize the macrofauna community structure at these particular habitats and model the influence of environmental variables (such as temperature, salinity, current speed, grain size, turbidity) on these communities;
- analyze trophic links within macrobenthic communities and between macrofauna and fish (a second postdoc will work on characterizing this second faunal group);
- contribute to the theoretical characterization of potential impacts of ORE on hydraulic dunes and to the definition of guidelines for the study of hydraulic dune ecosystems.

To address this program, the candidate will work within the DUNES project multidisciplinary consortium with complementary expertise in ecology (experts of ichthyofauna, macrofauna,



meiofauna), in hydrodynamics, sedimentology, in interactions between ORE systems and the marine environment, and in ORE devices & developments.

Required Qualifications, Skills and Experience

Essential :

- PhD degree in Marine ecology/biology or Numerical ecology
- Knowledge in the functioning of marine ecosystems
- Knowledge in numerical ecology tools
- Knowledge in trophic ecology tools
- Writing reports and publications in scientific journals
- Strict scientific rigor and critical analysis

Desirable :

- Knowledge of ORE systems
- Good communication skills in both French and English (oral, written).

Candidate Profile

The candidate should:

- have scientific curiosity and real taste for research activities;
- be autonomous, organized and like to go beyond what is expected from him/her;
- enjoy teamwork in a multidisciplinary spirit.

Practical Information

Starting date, location: **Mid-august 2019**, for a temporary position of **18 months** (French "CDD") at Ifremer, France:

LERBN, Ifremer
Station Ifremer de Dinard – CRESCO
38 rue du Port Blanc
35800 Dinard

Travel is to be expected to the France Energies Marines headquarters in Brittany (Bâtiment Cap'Océan, 525 Avenue Alexis de Rochon, 29280 Plouzané) and meetings with partners at the biological station of the Muséum National d'Histoire Naturelle (MNHN), located in the same building as LERBN.

Final date for applications: June 15th, 2019

Please send your CV and cover letter to the following electronic addresses: contact@ite-fem.org and Nicolas.Desroy@ifremer.fr .

In case of an expected secondment of the candidate by a member of France Energies Marines, the application should mention the agreement of the present employer.