

MARINEFF
infrastructures maritimes biomimétiques



Interreg
France (Channel
Manche) England
Fonds européen de développement régional



12 months term contract position as post-doctorate

– Projet MARINEFF–

Closing date for receipt of applications: 15 January 2021

Context

The France Manche-England space is subject to increasing human activities especially with the development of renewable marine energies leading to the increase of port areas and which associated with the extraction of aggregates, fishing, aquaculture, tourism, maritime transport accentuates the level of already very high pressures in the English Channel. This combination of activities is putting increasing pressure on the Channel's marine ecosystem and causing changes in marine habitats that affect the biological diversity, ecological and health quality of marine habitats, which can potentially alter the rendered services to society by the English Channel ecosystem by reducing natural resources. On the other hand, the installation of new infrastructure, such as port infrastructures and wind farms, can provide new marine habitats and alter biodiversity and ecosystem functioning. Reef effects can thus increase the species richness and biomass of structures thus newly established offshore and along the coast, including in port environments.

It is in this context that the European project Interreg Va MARINEFF proposes to enable new marine infrastructures to bring benefits as artificial habitats on ecosystem functioning and biodiversity.

To avoid these negative effects and create Mimetic Infrastructure (MI) that improves the ecological state of the coasts, it is necessary to measure the improvements made by these IMs. It is essential to apply existing indicators, or even to adapt or create new ones, easier to use and thus enable a comprehensive evaluation method (in accordance with the Strategic Framework Directive on the Marine Environment, activities 3.4 and 4.4) of IM. The objective is to provide to the stakeholders useful tools necessary for this biodiversity improvement analysis (species, habitats, systemic functions such as primary and secondary production). In short, the aim is to develop methods and indicators for assessing the impact of IM on ecosystems.

Job description

These are the development of descriptors and indicators to answer the question: what are the descriptors and indicators to measure the positive effects of the implementation of new ecologically positive marine infrastructure?

Development of indicators of colonization of Artificial Reefs or Mimetic Infrastructures that will allow to estimate the state of stability of colonization, the level of maturity of the trophic chain and the indigenous production of the different compartments.

Biodiversity indicator. For the development of this indicator, it is necessary to lean on the indicators already highlighted in the frameworks of the European Directives and to take into account the infrastructure colonization by invasive species.

Indicator of ecosystem health.

These indicators should answer the following questions:

- Do IMs have a significant positive effect on community structure and Aboriginal productivity compared to non-mimic infrastructure?
- How spatially can the effects of MI and RA on communities influence an ecosystem?
- Can IM's and RA's be one of the credible means of combating resource depletion in the English Channel?

The post-doctoral fellow will work in a team (researchers, engineers, technicians) made up of staff from the University of Caen Normandy (UMR BOREA, UMR M2C, CREC-Station Marine) and will have to collaborate strongly with the French and English partners of the MARINEFF project including participation in the project meetings and workshops.

Training required: PhD in marine ecology

Skills and expertise:

- Bilingual English/French required;
- The candidate must show autonomy and skills for synthesis, organisation and communication;
- Rigor;
- Quality of redaction of documents in French and English.

Benefits

- The job (12 months) will be at the University of Caen Normandy, laboratory M2C (Morphodynamique Continentale et Côtière, UMR CNRS, 24 rue des Tilleuls, F-14000 CAEN, with interactions with UMR BOREA and CREC-Station Marine.
- Gross Salary: recruitment at the level corresponding to the level of education and professional experience.
- Travels taken care on the project in addition to the salary.

Date of recruitment: 1st February 2021.

Please send your application (CV, the contact information for two references and a letter of motivation) before the 15th January 2021 to:

Pr Pascal CLAQUIN, Professeur de l'Université de Caen Normandie, Laboratoire BOREA, et Directeur du Centre de Recherches en Environnement Côtier (CREC, Station Marine de l'Université de Caen-Normandie, BP49, 54, rue du Docteur Charcot - 14530 Luc-sur-Mer

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An audition of the successful candidates will take place on 18-22th January 2021, face-to-face or remotely depending on the candidate's availability.