

## Marine Institute Job Description

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| <b>Position</b>             | <b>Post-Doctoral Research (PDR): Stakeholders in the Ocean Carbon Socio-ecological System</b>  |
| <b>Grade &amp; Contract</b> | <b>4 year temporary specified purpose contract – OceanICU Project Funded Via Horizon Europe</b>  |
| <b>Service Group</b>        | <b>Fisheries Ecosystems Advisory Services (FEAS)</b>   |
| <b>Location</b>             | <b>Marine Institute, Oranmore, Co. Galway, Ireland<br/>(noting that we have recently introduced our blended working policy which may apply to this role)</b> |

### Who will you Work With and What Will The Role Involve?

The Post-Doctoral Research (PDR) will work in the Ecosystem Approach to Fisheries Management Team delivering research for the [OceanICU](#) project. This will involve establishing current understanding, perceptions, and needs among relevant industrial (e.g. mining, trawling, drilling, dredging and fishing), environmental NGO, and management/policy-making stakeholder groups. From these, the role will be to define future scenarios of interest and societal relevance, and provide this knowledge to inform development of decision-support tools. A multi-sectoral, multi-pressure oceanic carbon risk assessment using an adapted ODEMM approach coupled with mental modelling will be carried out to enable identification, and importantly, prioritization of societally-relevant carbon-related impacts and threats, and their impacts on associated ecosystem services. This will be done in collaboration with other experts in the field in the Marine Institute, and with project partner institutions in, *inter alia*, Belgium, Denmark, Germany, Portugal, Sweden, Norway, France and the UK, along with the established stakeholder panels. They will also collaborate closely with a second PDRA in the Marine Institute who will be working on Impacts of Fishing and Industrial Extraction processes on the Oceanic Carbon cycle to inform models and improved estimates relating to the biological carbon pump.

### What Will You Be Doing Every Day?

#### Principal Tasks:

The main tasks will be linked to the overall project work as described above, and the research relevant to industrial and eNGOs, along with that in Irish waters in particular. This will include:

- Identify and establish relevant stakeholder panels, to include regional and global perspectives, and a diversity of views (e.g. industrial, conservation, management, policy-making, etc.)
- Carry out a risk assessment analysis to identify the key sectors and anthropogenic pressures (beyond emissions) that may interact with or directly influence oceanic carbon (e.g. via the biological carbon pump)

- Elicit stakeholder understanding of oceanic carbon and the interactions with society (e.g. via conceptual modelling)
- Identification of the trajectory of human activities (e.g. via investment plans, business models, regulatory frameworks, decision-making methods in the fishing and other resource extraction industries) that affect and/or could be affected by the Ocean Carbon cycle.
- Use the identified knowledge to inform scenario development, and relevant output formats to increase uptake (e.g. of the decision-support tool) and ensure integration with key climate knowledge producers (e.g. IPCC).
- Collaborate with project colleagues to identify expectations and barriers to utilisation of policy advice developed around ocean carbon management, and develop solutions and strategies to overcome the identified barriers to uptake of advice.
- Document key knowledge gaps and useful Carbon-cycle metrics across sector stakeholders (Fishing, Mining, Trawling, Dredging, Drilling, Conservation sectors) that support carbon neutral activities.
- Ensure effective communication of stakeholder views across project work packages and integration of findings into ongoing work
- Work with project colleagues to engage and educate youth groups to strengthen awareness of ocean climate & ocean carbon beyond project lifetime
- Work closely with the other MI PDR on integrating fishing and fisheries knowledge into models and estimates relating to the biological carbon pump
- Maintain an overview of the published and grey literature related to the project.
- Help work on the project where the MI is involved, and collaborate on other project work as appropriate.
- Present the work at local, national and international meetings, including project meetings.
- Publish regular articles in peer reviewed journals. Carry out any other duties assigned from time to time, appropriate to the position.
- Other outputs to ensure delivery of the project, appropriate to the grade and role as required from time to time.

### **What do You Need to Have Done to Apply for This role?** (Education, Professional or Technical Qualifications, Knowledge, Skills, Aptitudes, Experience and Training)

#### **Essential / Important:**

- A relevant PhD in marine social-ecological analysis, or a related field.
- Demonstrated experience of working in fisheries and/or marine ecosystem science or similar.
- Demonstrated experience of working in an interdisciplinary and/or transdisciplinary science and in eliciting the perspectives of stakeholders
- Demonstrated skills in qualitative and semi-quantitative data analysis

- Demonstrated excellent interpersonal skills and an ability to work with, organise and effectively communicate with people ranging from scientists and policy advisors to users of the sea (e.g. fishers) and the wider public.
- Good statistical analysis skills (ideally implemented in R).
- Proven Scientific Report and peer reviewed paper writing skills.
- Strong and effective organisation and administration skills.
- Good time management and the ability to prioritise and meet deadlines.
- The ability to work unsupervised and as part of a team.
- Good written and verbal communication skills in addition to effective numeracy skills.
- Full, clean driving license.

### **Ideally Nice to Have / Desirable:**

- Experience with working with one or more key specific issues such as: socio-ecological systems, marine ecosystem modelling, marine carbon budgets, fisheries societal engagement, or related fields.
- Experience in conceptual modelling, Bayesian Belief Networks, ODEMM analysis, DAPSIR-type frameworks
- Experience with hosting, running and facilitating a range of stakeholder meetings (in person and online) with a diverse range of stakeholders
- Good data handling and data manipulation skills (e.g. experience of relational databases and/or GIS systems).
- Understanding of the issues surrounding Ecosystem Based Fisheries Management, Ecosystem Based Management, and socio-ecological systems more widely.
- A good theoretical and practical knowledge of climate change, marine ecosystems, the blue economy, coastal community dependence, and the challenges faced in a changing world.
- Understanding of the issues surrounding marine spatial planning, conflicting objectives and trade-offs
- Experience in teaching and transferring skills in a range of environments, including on-line and in person

### **What else do you need to know?**

#### **(Special personal attributes required for the role)**

- This is an exciting opportunity to work in a major new international project which aims to develop an understanding of the links between marine ecosystems (e.g. via nutrient transfer and food webs), industrial use (e.g. fishing and mining), and carbon sequestration, and to combine that with the wishes and interests of a wide range of stakeholders to inform management and advice.
- There will be many opportunities to work with leading scientists in this field from 23 institutes in 14 European countries.
- It would suit an adaptable, enthusiastic, fast learner who is interested in widening their skills and experience, particularly in the human dimensions' aspect of Ecosystem Based Management.
- Within the project, there will be opportunities to make use of cutting edge methods of information elicitation and analysis, and to work in areas of high public and policy interest

including fisheries management, understanding and maintaining the role of the oceans in mitigating CO2 and hence climate change, and providing evidence-based advice.

- This research is of immediate and potentially critical importance over the coming years, and you will be working in a trans-disciplinary international team to help achieve that.
- You should be:
  - Dynamic, innovative and reliable.
  - Able to work in an organised manner and progress work independently.
  - Self-sufficient while being a good team player.
  - Experienced in collaborating with scientists and members of a technical team.
  - Approachable and capable of managing power dynamics

### Description of Service Group: Fisheries Advisory Ecosystems Services (FEAS) – The Wider Team

The position will be based within the FEAS Service Group.

#### **Fisheries Advisory Ecosystems Services (FEAS)**

The FEAS's mission is "to assess, research and advise on the sustainable exploitation of marine fisheries resources". Currently, FEAS consists of over 70 scientists, technical, post graduate and administrative staff under the directorship of Dr. Ciaran Kelly. The Service group operates a significant part of their services from the headquarters in Oranmore, Co Galway with additional port based facilities and a major research facility at Newport, Co Mayo. FEAS staff spend a considerable amount of time at sea on commercial fishing vessels and on research vessel surveys carried out on the RV Celtic Explorer and RV Celtic Voyager. A key output of FEAS is the annual Stock Book and the annual Shellfisheries Stock Book. These provide the latest assessment and scientific advice for the resources exploited by Irish vessels and is a key reference for the Governments sustainability assessment presented annually to the Oireachtas. A key element of FEAS work is the provision of scientific support for the Irish government (principally the Department of Agriculture, Food and the Marine – DAFM) on marine fisheries ecosystems related issues. FEAS also publish much of its work in peer reviewed scientific journals.

The 9 goals of FEAS are:

- 1) To maximise the benefits of the new EU Data Collection Framework (DCF);
- 2) To build a strong working relationship with the fishing industry and the environmental NGO's;
- 3) To build an effective working relationship with key Government Departments (principally DAFM) and other partner agencies;
- 4) To use ICES, NASCO, ICCAT, OSPAR and the EU system to support the delivery of excellence in our fisheries and ecosystems science and advisory services;
- 5) To engage in a suite of research activity that supports the evolution of scientific advice and that is in line with MI/FEAS mission, HOOW, FH2020, Horizon 2020, the new RTDI strategy and the objectives of the CFP;
- 6) To progress and incorporate the ecosystem approach to Fisheries Management (EAFM) into all aspects of our work;
- 7) To increase public awareness of the importance of the Ocean;
- 8) To Ensure a common understanding of the "value chain" within the FEAS team and the MI;

9) To ensure FEAS is a rewarding place to work;

### **The Work of FEAS**

FEAS work programmes are focused on;

- (1) Data Collection and Data Management;
- (2) Fisheries Resources Assessment and Advice;
- (3) Modelling, Simulations and Management Plans;
- (4) Fisheries - Ecosystems Interactions;
- (5) Stakeholder Engagement;
- (6) Research that supports ecosystem understanding;

FEAS staff actively participate at many meetings of the International Council for the Exploration of the Seas (ICES). ICES organises many Expert Groups, Study Groups and co-ordination Groups related to provision of scientific advice on marine ecosystems. The ICES Strategic Plan (2014 to 2018) is focused on advancing scientific understanding of marine ecosystems, providing information, knowledge and advice on the sustainable management of human activities affecting and affected by marine ecosystems. ICES is a key forum for scientific co-ordination of data collection and the provision of independent scientific advice.

FEAS also participate at other international fora including STECF (Scientific, Technical and Economic Committee for Fisheries), NEAFC (North East Atlantic Fisheries Commission) and NASCO (North Atlantic Salmon Commission). FEAS provide scientific support for the DCMNR at various EU meetings (e.g. the EU Norway Agreements and the EU Council of Fisheries Ministers). FEAS produce the annual Stock Book which provides the latest scientific advice on those stocks of interest to Ireland. In addition, FEAS is responsible for the salmon National Coded Wire Tagging and Tag Recovery programme and work closely with IFI (Inland Fisheries Ireland) on the Standing Scientific Committees for salmon and eel.

<http://www.marine.ie/Home/site-area/about-us/fisheries-ecosystems-advisory-services>

<http://www.facebook.com/#!/marineinstituteireland?fref=ts>

### **Who Will You Report to / Who will Manage and Support You?:**

The successful candidate will be based at MI Oranmore and will report to the Senior Post-Doctoral Researcher in the Ecosystem Approach to Fisheries Management Team.

### **What we offer**

We value our staff, and we value their contribution to the work of the Marine Institute. In return for this, we provide benefits that promote a healthy work-life balance and which we hope will help them to develop professionally. These include personal and career development, work/life balance

policies, an employee assistance programme, “Bike to Work” Scheme, staff medicals and annual flu vaccination.

### **Training**

A full range of training will be provided as required, on the job and through appropriate courses. Training needs will be identified through the MI Performance Management Development System (PMDS).

### **Contacts:**

#### **Within the Marine Institute**

FEAS Senior Post-Doctoral Researcher in the Ecosystem Approach to Fisheries Management Team.

#### **Outside the Marine Institute**

DAFM, DHLGH, Project Partners, The European Commission, the Media, BIM, SFPA, Fishing Industry (National and International), Environmental NGO's, Third Level Higher Education sector.

### **Salary:**

Remuneration is in accordance with the Public Sector, Department of Finance approved Salary Scale for a Post-Doctoral Researcher (as per HEI University appointments), a scale that starts at €42,033-€48,427 per annum pro-rated with time worked. You will become a member of the Single Public Service Pension Scheme unless you are currently or have worked in the Public Sector in the past 6 months or are a member of another Public Sector Scheme

### **Annual Leave:**

Annual leave entitlement for a Post-Doctoral Researcher is 24 working days per annum pro-rated to reflect time worked. Annual leave entitlements are exclusive of Public Holidays. All leave must be approved in advance in line with Marine Institute leave policies, by your manager or their authorised representative.

### **Duration of Contract:**

The maximum duration of this temporary specified purpose contract of employment will be up to four years. The successful candidate will be on probation for the first six months of this contract.

### **Who is the Marine Institute?**

The Marine Institute is a non-commercial semi-state body, which was formally established by statute (Marine Institute Act, 1991) in October 1992.

Under the Act, the Marine Institute was given the responsibility:

*“to undertake, to co-ordinate, to promote and to assist in marine research and development and to provide such services related to marine research and development, that in the opinion of the Institute will promote economic development and create employment and protect the marine environment”.*

The Marine Institute is the national agency responsible for marine research, technology, development and innovation (RTDI). The Marine Institute seeks to assess and realise the economic potential of Ireland’s 220-million-acre marine resource; promote the sustainable development of marine industry through strategic funding programmes and scientific services; and safeguard the marine environment through research and environmental monitoring. The Institute works in conjunction with the Department of Agriculture, Food and Marine (DAFM) and a network of other Government Departments, semi-state agencies, national and international marine partners.

***Our vision - The Marine Institute, as a global leader in ocean knowledge, empowering Ireland and its people to safeguard and harness ocean wealth.***

***Our Mission - The Marine Institute, provides government, public agencies and the maritime industry with a range of scientific, advisory and economic development services that inform policy-making, regulation and the sustainable management and growth of Ireland’s marine resources. The Institute undertakes, coordinates and promotes marine research and development, which is essential to achieving a sustainable ocean economy, protecting ecosystems and inspiring a shared understanding of the ocean.***

In order to achieve this vision, the MI have six service areas; (1) Ocean, Climate and Information Services, (2) Marine Environment & Food Safety Services, (3) Fisheries Ecosystems Advisory Services, (4) Irish Maritime Development Office, (5) *Policy, Innovation and Research Services* and (6) Corporate Services.

The Marine Institute 5 Year Strategic Plan (2018 to 2022) is available [here](#)

#### How to Apply:

A C.V. and letter of application, summarising experience and skill set applicable to the position should be emailed to [recruitment@marine.ie](mailto:recruitment@marine.ie) or posted to Human Resources at the Marine Institute, Rinville, Oranmore, Galway. All correspondence for this post should quote reference **FEAS/PDRA1/OeanICU-1/MAR2023**

#### **Closing date for Applications:**

All applications for this post should be received by the Marine Institute in advance of **12 noon on the 19th of May 2023**. Unfortunately, late applications cannot be accepted.

**Use of Data** - all personal data and the information submitted for this application will be used solely for the purpose of this campaign, after which it will be deleted in line with our General Data Protection

Regulation Policy and data retention schedule. All information will be treated with the strictest confidence and accessed only by those involved directly in the campaign.

**The Marine Institute is an organisation that champions Diversity, Inclusion & Equality for all. We encourage and welcome applications from anyone interested in this role.**

**Please do advise if there are any special accommodations required for the recruitment process.**

**We are here to help you access opportunities with us.**