



**marine**scotland

## **Marine Scotland – Marine acoustics Placement (Based in Aberdeen)**

### **Placement Opportunity at Marine Scotland Science**

Marine Scotland Science invites existing researchers to apply for placements of up to twelve months to work with the MSS Renewables and Energy Programme under the NERC-funded Innovation Placements Directed Call 2017. The placement can spend between 80% and 100% of their time embedded in the organisation and is expected to spend between 80 and 100% of their allocated time in the Marine Scotland Marine Laboratory in Aberdeen. The placement should be completed by 30 April 2019. Expected start date is 1 November 2017

The primary purpose of the placement will be to review current and proposed marine acoustics monitoring activities, transfer best current practice to Marine Scotland Science and explore opportunities for adding value to monitoring programmes. Areas of application are anticipated to include marine licensing, Marine Strategy Framework Directive assessments, protected area monitoring, and new applications in marine mammal monitoring.

The successful applicant will be involved in a range of activities and tasks which may include:

- a) Becoming familiar with current and proposed marine acoustics monitoring activities undertaken by Marine Scotland and others in UK waters.
- b) Review the potential for adding value in core areas of MSS responsibilities.
- c) To critically review the characteristics of the current monitoring framework, including choice of instruments, calibration and monitoring strategy, data capture and storage, data analysis and presentation and advise on the potential for improvements.
- d) Train MSS staff in the handling, manipulation and interpretation of broadband marine acoustic data. The main source of data will be the ECOMMAS project through which several months of data have been collected at each of 10 locations on the east coast of Scotland for the last four years. It is the most intensive and comprehensive data set available for UK waters.
- e) Identify, calculate and present indices of background acoustics for use in Marine Strategy Framework Directive assessments (Descriptor 11).

- f) Integrate background acoustics into the impact assessment methodologies used by MSS in relation to proposals for marine developments.
- g) To advise MSS on the potential for integration of field data and modelling approaches to better define acoustic landscapes in Scottish waters.
- h) Advise MSS on the measurement, interpretation and assessment (in a licensing context) of information on particle motion acoustics.
- i) Draft reports on the review of the monitoring programme, the ECOMMAS data and on approaches to impact assessments for particle motion.

#### Key outputs:

1. Report of a review of marine acoustics monitoring programmes and potential for added value.
2. Transfer of knowledge on providing outputs of acoustic monitoring for MSFD assessments.
3. Report describing potential approaches to impact assessments for particle motion.

#### **About Marine Scotland Science Renewables and Energy Programme.**

Marine Scotland is the lead marine management organisation in Scotland. It was established on 1st April 2009 as a Directorate of the Scottish Government, to integrate core marine functions involving scientific research, compliance monitoring, policy and management of Scotland's seas. Marine Scotland Science (MSS, formerly Fisheries Research Services) is the scientific research and advisory division of Marine Scotland. MSS provides expert scientific, economic and technical advice and services on marine and freshwater fisheries, aquaculture, and the aquatic environment and its flora and fauna, in support of the policies and regulatory activities of the Scottish Government operating through Marine Scotland.

Marine Scotland supports the Scottish Government's vision of having marine and coastal environments which are clean, healthy, safe, productive and biologically diverse. Marine Scotland is the statutory planning authority for marine developments in Scottish marine waters, and, through Ministers, is also marine licensing and regulating authority in Scotland.

The MSS Renewables and Energy Programme gives scientific support to policy development and licensing of energy production from renewable sources in Scottish waters, and to advise on environmental aspects of the offshore oil and gas industries.

Scotland has well established and valuable offshore energy industries. An ambitious target of generating 100% of our electricity requirements from renewable sources by 2020 requires marine renewables to play a strong role. Up to 10 GW of offshore wind projects are currently planned for Scottish waters, together with about 2GW of wave and tidal energy.

A key consideration for MSS in advising the Scottish Government is the role and importance of natural and anthropogenic stressors in influencing the distribution and behaviour of protected species. MSS faces challenges to take best advantage of novel monitoring data being collected on broadband marine acoustics and bioacoustics to better inform advice in relation to marine developments (Blue Growth), to contribute to assessments of Good Environmental Status in relation to the Marine Strategy Framework Directive, and in the identification and monitoring of marine protected areas. Further information can be found at:

<http://www.gov.scot/Topics/marine/marineenergy/mre>

MSS will provide the placement with experience of applying research data and interpretation methods in an applied context, i.e. the placement will work with the in-house scientific advisors to the Scottish licensing authority and to Scottish Government more widely. MSS will provide access to the ECOMMAS data set, covering background acoustics (10 locations) and CPOD data (30 locations) on the east coast of Scotland.

MSS will provide office accommodation, access to library and IT systems, etc. as will be necessary to undertake the work. MSS staff will support the placement during their time in Aberdeen and will facilitate knowledge transfer to support the aims of the project.

### **Training and Development Opportunities**

Marine Scotland will provide the candidate training and development opportunities to expand their knowledge and skills, these opportunities can be tailored to individual ambitions but could include :

- Induction to Marine Scotland and meet and greet with key staff members
- Opportunity to work at the interface between science, policy and regulation and to learn how science is used in those contexts.
- Attendance at industry conferences and events
- Presentation of work as part of the Marine Scotland Seminar Series
- Presentations at relevant stakeholder engagement meetings / steering groups
- Making a Personal Impact training course
- Social Media for Government training
- Introduction to Policy Making – Advances around Policy Theory Course
- Parliamentary Visit and meeting with Special Advisors

### **Application Process**

Please follow the application process outlined in the Announcement of Opportunity call for paid innovation placements and supporting JeS guidance. The outline of the project is provided for this placement so please use the space on the application to provide some ideas of how you could address and add value to this project and the particular skills and experience that you could bring to this work.

**A Letter of Support is required** from Marine Scotland. Applicants who apply for this opportunity can also apply for other placements in this call.

The successful applicant will be required to undergo background checks as part of the Scottish Government's Baseline Personnel Security Standard.

For queries about this call, please contact:

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For technical queries regarding the content of the Placement at Marine Scotland please contact:

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