

## Marine Institute Job Description

Position	<b>EMFAF Programme Data Services Engineer</b>
Grade & Contract	<b>Temporary specified purpose contract for a maximum duration of 54 months / up to end December 2027 (Funded via EMFAF) Administrator Grade / HEO – Higher Executive Officer Administrator</b>
Service Group	<b>Ocean, Climate and Information Services (OCIS)</b>
Location	<b>Rinville, Oranmore, Co. Galway.</b> Noting that the Marine Institute has introduced a Blended Working Policy, which you may be able to apply for in due course in line with the Policy.

### Who will you work with and what will the role involve?

The EMFAF Programme Data Services Engineer will work within the Information Systems and Development (IS&D) Section, working to deliver on the EMFAF Programme Objectives with the IS&D Data Management, IT Operations and Applications Development Teams. The role will also interact closely with scientific teams across the Institute and with external partners nationally and internationally.

As the National Oceanographic Data Centre, the Marine Institute collects and manages numerous data sets for a variety of purposes to support sustainable marine resource management on behalf of the public. The Institute provides data and digital services to support a number of sectoral areas, including for marine spatial planning and environmental management, for fisheries, aquaculture and food safety, for renewable ocean energy and maritime development, amongst others.

The EMFAF Data and Digital Services programme will develop the Institute’s capabilities to deliver high quality data and online digital services to its stakeholders, including Government Departments and Agencies and Higher Education Institutions, and to connect Irish marine data to national and international data services such as data.gov.ie, Ireland’s Marine Atlas, EMODNET, etc.

The role will apply new digital technologies and operational capabilities, with advanced data analysis tools, together with data management best practices, to help make marine data and information more accessible and usable for current and future needs.

### What will you be doing every day?

#### Principal Tasks:

- Lead the technical development and support of data systems and digital services required to deliver on the EMFAF Data and Digital Services programme objectives. This will include developing and integrating data catalogue services such as <https://data.marine.ie> and [www.isde.ie](http://www.isde.ie), APIs for historical and real-time data e.g. <https://erddap.marine.ie> and <https://smartbay.marine.ie>, and data processing and storage systems and services, including for point observations, model and video data.

- Facilitate the integration of relevant international standards and practices in Institute systems and services, and the integration of national marine data into international portals and programmes e.g. [www.emodnet.eu](http://www.emodnet.eu).
- Develop cross-team project collaboration to ensure Marine Institute's data services are delivered with relevant operational capabilities.
- Provide technical leadership for the development of a data analysis capabilities include business intelligence and data visualisation capabilities, with tools such as ESRI's ArcGIS, Microsoft's PowerBI, R Studio and Jupyter Hub, and supporting languages such as Python and R.
- Support related service teams to ensure data and related services can be connected to national and international systems as appropriate, and actively input to the development of national marine digital services (e.g. <https://atlas.marine.ie>, [www.digitalocean.ie](http://www.digitalocean.ie) and <https://data.gov.ie/>) and supporting the development of future services such as Digital Twins of the Ocean.
- Oversee the delivery of project outputs to meet EMFAF programme objectives.
- Mentor and actively work to grow the skills and capability of team members. Maximise the contribution any staff assigned, including contracting staff, fostering a positive and dynamic environment.
- Foster the expertise in the IS&D team by engaging in and promoting learning and development opportunities.
- Actively seeks new knowledge in the technical domain and also seek out an understanding of the business of the Marine Institute.
- Lead by example by demonstrating a commitment to public service values.

**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 qualification in data science, computer science, computer engineering or related discipline.
- At least two years' demonstrated relevant professional experience of:
  - working with enterprise databases e.g. SQL Server, with use of query languages such as SQL and / or scripting languages such as Python.
  - working with a structured technical development processes e.g. version management, AGILE delivery, etc., particularly in a data or software services development environment.
- Demonstrated experience and a good understanding of data processing and management e.g. quality control, data transformation, metadata and catalogues, etc.
- Demonstrable experience with the following:
  - Effective communication within a team structure and with other teams and organisations.
  - Documenting project proposals and / or technical specifications
  - Working in a project driven environment.
- Proven collaborative skills including for cross-team service delivery.
- The ability to work unsupervised with demonstrated ability to use initiative.
- The ability to communicate effectively both in writing and verbally at all levels.

### Ideally nice to have / Desirable:

- An understanding of newer technologies, including cloud, data and digital technologies.
- Business analysis and requirements gathering.
- Experience of business intelligence, data analysis and / or data visualisation tools.
- Experience with GIS tools particularly ESRI ArcGIS and ArcGIS Online. Some experience in GIS-related web services e.g. Sensor Observation Services would be very relevant.
- Some familiarity with the marine including through business or a recreational interest.
- A post graduate qualification in science or related, data analytics, GIS, earth science, or oceanography post graduate qualification with data analytics work experience would be beneficial.

### What else do you need to know?

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

- An ability to work in an organised manner and progress work independently.
- An ability to collaborate with members of multi-disciplinary technical teams.
- An ability to use initiative and to drive results.
- Good interpersonal written and verbal communication skills.
- Effective organisation, time management and administration skills.
- An ability to problem solve.

### Description of Service Group: Ocean, Climate and Information Services – The wider team

The mission of OCIS is *“To provide scientific, operational and analytical support and services to strategic RTDI and statutory monitoring programmes (at national and international level) to promote and support the sustainable development of Ireland’s marine resources”*

Oceans, Climate and Information Services incorporates:

- Information Services & Development
- Advanced Mapping Services
- Research Vessel Operations
- Oceanographic Services
- Marine Research Infrastructures

### Information Services & Development (IS&D)

Information Services & Development (IS&D) is responsible for the development and operation of the Institute’s ICT systems and infrastructure, centralised data management services, software development and related digital services. IS&D are made up of four teams:

#### – IT Operations Team

The team focuses on the development and operation of IT systems to meet scientific and technical operational needs as well as corporate requirements, with a focus on systems support, availability, cybersecurity and service adoption through the IT Lead User group.

#### – Data Management

The Data Management team provides guidance and support to promote best-practice management of the Institute’s scientific data assets. This includes managing data storage, data policies and standards, facilitating access to data through catalogues, data analytics and online

access services. The team works with groups throughout the organisation to promote best practice, and actively engages with research programmes at national and international level. A key focus of the team is to support the wider national marine community by making the Institute's data available to as wide an audience as possible.

– **Application Development**

The Application Development team develops and integrates software and related services to support scientific and technical services across the Institute. The team coordinates the development of the Institute's digital platform components to support data workflows, including acquisition, processing, and analytics, online data and information services, and websites. The team is responsible for developing the Institute's software architecture and development processes to provide operational digital capabilities.

– **DHLGH Technical Services Team**

The DHLGH Technical Services Team provides specific technical supports to the MSP, MSFD/OSPAR, and WFD programmes, with a focus on data processes, quality and data and information services and products. The programme includes the acquisition and quality assurance of 3<sup>rd</sup> party data, mapping and visualisations, data management and processing, and delivery of programme outputs and products. The team works as part of the wider cross-services team to deliver on the programme which is managed by MEFSS.

### Who will you report to and who will manage and you?:

The EMFAF Projects Data Engineer will report to the Marine Institute Section Manager for Information Systems and Development or delegate, and will work closely with the Data Management Team, the IT Operations Team and the Applications Development 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.

### Contacts:

**Within the Marine Institute:**

Personnel across Information Systems and Development Section teams, other Ocean, Climate and Information Service teams, and technical personnel, plus managers, data co-ordinators, data stewards, and other personnel across Marine Institute operational teams.

**External:**

EU project partners, national and international data partners.

### Salary:

Remuneration is in accordance with the public sector, Department of Finance approved salary scale for HEO – Higher Executive Officer Administrator which runs from €53,955 - €67,951 on a full time basis per annum pro-rated with time worked. You will commence on the first point of the scale and 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 and are a member of another public sector scheme.

### Annual Leave:

Annual leave entitlement for a HEO – Higher Executive Officer Administrator is 29 days per annum. Annual leave entitlement for this position will be pro-rated in accordance with the duration of the contract awarded. Annual leave entitlements are exclusive of public holidays and are managed using the time and leave management system in place in the MI.

### Duration of Contract:

This temporary specified purpose contract of employment will run for up to 54 months. 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 (2023 to 2027) 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 **OCIS/HEO/DEngineer/Aug23**

**Closing date for Applications:**

All applications for this post should be received by the Marine Institute in advance of **12 noon on the 28<sup>th</sup> of August 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.**