

Marine Institute Job Description

Position	Scientific & Technical Officer (STO) GIS and Spatial Services Developer - INFOMAR
Grade & Contract	Temporary specified purpose contract for a maximum duration of up to the 31st of December 2026 – INFOMAR funded - DECC
Service Group	Ocean, Climate & Information Services (OCIS)
Location	Marine Institute, Rinville, Co. Galway (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 successful Scientific Technical Officer (STO) will work with the Information Services and Development (IS&D) and Advanced Mapping Services (AMS) teams, providing technical GIS & spatial data inputs into the INFOMAR national seabed mapping programme, and associated value added activities. INFOMAR is jointly managed by Marine Institute and Geological Survey Ireland, and is funded by Department of Environment, Climate and Communications (DECC). Strategic areas supported by the role include Marine Spatial Planning (MSP), Marine Protected Area (MPA) designation, Offshore Renewable Energy (ORE) development, Marine Strategy Framework Directive (MSFD) & Habitats Directive reporting, and sustainable fisheries management.

As the National Marine 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. INFOMAR is an integrated programme incorporating data acquisition, analytics, and dissemination for hydrographic & geophysical surveying, oceanography, seabed sampling, ROV Operations, and habitat mapping.

Work with both AMS and IS&D teams will focus on the management, spatial analysis and publication of hydrographic, geophysical, seabed habitat and other environmental data collected by the AMS team during INFOMAR and other supported programmes. It will ensure that associated products, data services and tools are aligned with Marine Institute's strategy, and support other key strategic programmes.

What Will You Be Doing Every Day?

Principal Tasks:

The GIS Spatial Services Developer STO will be primarily responsible for the management and dissemination of INFOMAR and related seabed and habitat mapping data, and development of tools, services and products that will contribute to the INFOMAR programme final deliverables. The role will provide support as required to AMS on relevant INFOMAR activity, research & innovation projects, and Marine Institute programmes.

The role will develop, support and ensure the availability of underlying data services, infrastructure and data management processes. This will include database maintenance, data cataloguing and maintenance of data access and analysis services. The role will also support the governance and maintenance of relevant data, to ensure compliance with data legislation and licensing terms, and to ensure the currency, availability and appropriate use of third party data.

The successful candidate will need to closely collaborate with a variety of external partners to define requirements and acquire relevant content.

The role requires the applicant to have a good knowledge of data management best practices, data analysis, advanced GIS and familiarity with development of web based services and data delivery tools. The applicant will be expected to have an excellent work ethic and strong inter-personal skills. The opportunity to participate in limited offshore work may be facilitated, to develop an understanding of the full data cycle and to help to improve data integrity, security, and management.

Key tasks will include;

- Development and maintenance of Marine Institute's data services and WebGIS portals, with a particular focus on spatial & time-series data, in line with the evolving requirements of the INFOMAR, MSP and MSFD programmes and supporting activities, detailed in the Marine Institute's Strategic Plan and Data Strategy.
- Ensure spatial data services are maintained to meet programme needs, including online maps, WebGIS services, GIS viewers and mapping APIs.
- Ensure the entire pathway to publication is robust from data publishing to viewer deployment.
- Liaise closely with Geological Survey Ireland (INFOMAR program partner) to ensure the timely delivery of quality data to programme portals.
- Write documentation on data management practices within the Marine Institute, and assist capacity build in external partners with evolving similar documentation.
- Develop and encourage the adoption of data management best practices, including through the Institute's data management quality management [framework](#).
- Participation in multidisciplinary research and data analysis activities supporting integrated research and integrated programme delivery.
- Attend relevant meetings or working groups.
- Liaise with partners and staff involved in delivering programme objectives.
- Any other duties as relevant to the position and grade.

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 degree or higher qualification in IT / Computer Science, GIS or Geoinformatics.
- Experience in the management and analysis of scientific and spatial data.
- Experience in developing custom web mapping applications.
- Experience with GIS tools such as ArcMap, ArcGIS Pro, Python, JavaScript, Model Builder and publishing geospatial services to ArcGIS Online and Enterprise.
- Strong foundational knowledge of GIS concepts: Projections, Geometric Operations, Geospatial Analysis, and GIS database design.

- Database development skills, preferably in MS SQL Server or similar enterprise scale DBMS.
- Experience of documenting technical specifications and workflows / processes.

Ideally Nice to Have / Desirable:

- An undergraduate or postgraduate qualification in earth and ocean science or related discipline.
- Experience with development processes such as Agile and code / script management tools such as GitHub.
- Experience with data visualisation and reporting tools.
- Experience with other commercial GIS packages such as Global Mapper.
- Experience with Open Source GIS Software like GeoServer, MapServer, OpenLayers, Leaflet, NetTopologySuite.
- An understanding of quality management processes, particularly with regards to data or information systems.
- Experience with Microsoft .NET technologies including, ASP.NET, WCF, Web API Languages: C#, HTML5, CSS3, XML, JSON.
- Experience with machine learning for data processing and analysis.
- Familiarity with INFOMAR Quality Management Framework and data management procedures.

What else do you need to know?

(Special personal attributes required for the role)

- An analytical approach to problem solving.
- An ability to work in an organised manner and progress work independently.
- Dynamic and reliable.
- Self-sufficiency, while being a good team player.
- Good interpersonal written and verbal communication skills.
- Effective organisation, time management and administration skills.
- Experience in collaborating with scientists and members of multi-disciplinary technical teams.

Description of Service Group: OCIS and INFOMAR – The Wider Team

The mission of **Ocean, Climate and Information Services (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 “*

Ocean, Climate and Information Services incorporates:

- Information Services & Development
- Advanced Mapping Services
- Research Vessel Operations
- Oceanographic and Climate Services
- Research Infrastructures
- Operational elements of Discovery R&D Programmes including;
 - Advanced Technology

– Renewable Ocean Energy

INFOMAR (Integrated Mapping for the Sustainable Development of Ireland's Marine Resource) is Ireland's national seabed mapping programme. INFOMAR is funded by the Department of Environment, Climate and Communications (DECC). It is delivered by joint management partners Geological Survey Ireland (GSI) and the Marine Institute (MI). INFOMAR aims to provide comprehensive and accessible marine datasets for Irish waters that underpin and add value to marine research, SOLAS Convention obligations and government policy. These products will foster growth within the national blue economy, maintain the health and integrity of our natural marine environment while facilitating international collaboration and best practice in the sustainable development of Ireland's marine resource.

The first phase (2006-2016) is complete and the outputs are underpinning a diverse range of navigational, environmental, cultural and international legislative requirements. During Phase 2 (2016-2026), mapping Ireland's remaining inshore and offshore waters will augment and enhance the value of Ireland's marine resource, through to programme completion end 2026.

The program delivers a wide range of benefits to multi-sectoral end-users across the national blue economy, with an emphasis on enabling MI and GSI stakeholders.

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

The successful candidate will be based at the Marine Institute HQ in Oranmore and will report directly to the IS&D Data Management Team Leader(s), Section Manager or designated alternative. They will indirectly be supported by the Advanced Mapping Services Team Leader(s) in guiding INFOMAR work priorities,

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 a series of 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, Employee Assistance Programme, Bike to Work Scheme, Staff Medicals and Annual flu vaccination.

Contacts:

Within the Marine Institute:

Advanced Mapping Section Manager, Advanced Mapping Section Team Leader(s), IS&D Data Management, AMS survey team will be the primary contacts.

Other contacts will include collaborations with the wider OCIS Division, as well as other groups such as those delivering FEAS, MEFSS, MSP & EMFAF programmes for DHLGH & DAFM, and RV Operations.

External:

Programme partners Geological Survey Ireland. Regular liaison with supported project partners and collaborators from across Ireland and the rest of Europe.

Salary:

Remuneration is in accordance with the Public Sector, Department of Finance approved Salary Scale for Scientific & Technical Officer, with a full time salary scale running from €35,336-€72,999 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 Scientific & Technical Officer is 25 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 and using time and leave management system in place, by your manager or their authorised representative.

Duration of Contract:

This temporary specified purpose contract of employment will be for the period up to the 31st of December 2026. 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 or posted to Human Resources at the Marine Institute, Rinville, Oranmore, Galway. All correspondence for this post should quote reference **OCIS/STO/GIS/INFORMAR/May23**

Closing date for Applications:

All applications for this post should be received by the Marine Institute in advance of **12 noon 6th of June 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.**