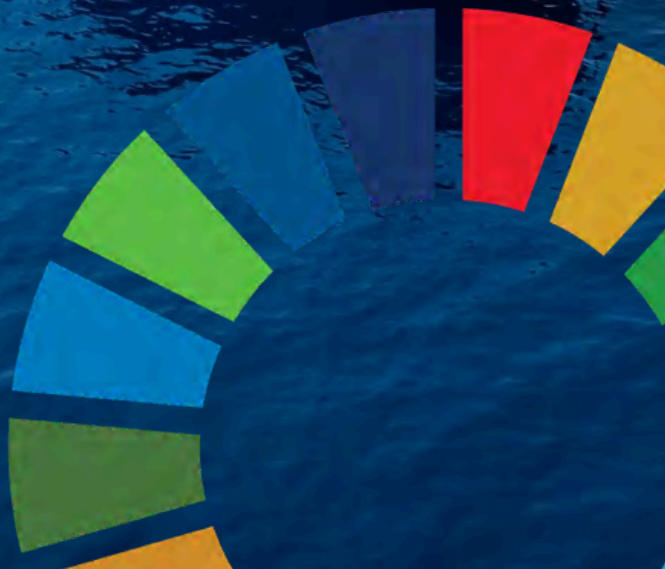


PhD FELLOWSHIP OPPORTUNITIES

MARITIME OBSERVATORY



TERMS OF REFERENCE 2026

About the Maritime Observatory



PhD Fellowship Programme supporting Lloyd's Register Foundation and the Maritime Observatory

The World Maritime University (WMU) and Lloyd's Register Foundation (LRF) entered into a strategic partnership in 2026. One of its pillars is the **Maritime Observatory**, a new strategic initiative to strengthen the availability, analysis and use of high-quality evidence in support of maritime policy and decision making. The Observatory works at the intersection of **data science, maritime research and policy making**, drawing on data analysis and the wider evidence base to produce insights for informed decision making in the maritime sector. It works in connection with LRF's Global Safety Evidence Centre (GSEC) and is geared primarily towards evidence-based policy making at WMU's parent, the International Maritime Organization (IMO) and across the wider maritime sector.

As a result of this partnership the Observatory aims to become the **reference point for independent data and evidence for maritime policy decisions**: an impartial source within the IMO family that member States and industry use and trust, sustained by commissioned analysis and partnerships.

Maritime Observatory's Core Functions

- 1** Data gathering and analysis. Mapping data sets and gaps, analysis and modelling, and recurring surveys of maritime administrations, regional bodies, maritime education and training institutions and other authorities, so that trends can be tracked and published on a rolling basis
 - 2** Data hosting and brokering. A trusted platform for maritime data, evidence and research outputs, documented with proper metadata and in line with the highest standards of data management and data protection.
 - 3** Evidence synthesis. Robust evidence reviews and short, clear evidence summaries for IMO committees and wider dissemination.
 - 4** Policy round tables. Convening maritime stakeholders around the Observatory's data and evidence so that insight leads to road maps and action.
 - 5** Evidence dissemination. Leveraging the Observatory's findings so the right people get the right evidence base for decision-making and guidance.
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PhD Fellowship Requirements



WMU is offering two PhD fellowships under this framework, one quantitative and one qualitative. Each fellowship supports a focused doctoral research project with defined research questions, appropriate methods, and an original academic contribution. The Observatory provides the setting and the opportunities for applying this research. Together with the Observatory's core team, the Fellows will form a complementary team. Each fellowship will contribute research that strengthens a distinct part of the Observatory role as an evidence centre:

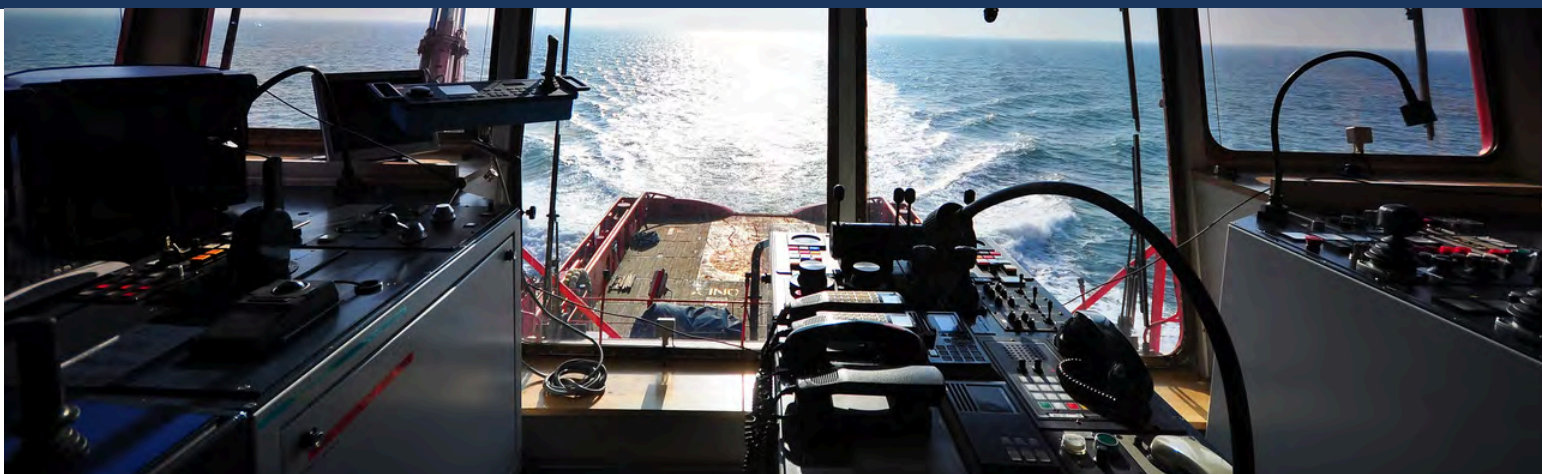
- **Quantitative Fellowship:** Research that advances the data and measurement base that lets the Observatory say what is happening and what works;
- **Qualitative Fellowship:** Research that advances the evidence-use and convening practice that helps to translate knowledge into decisions.

Thematic Areas

PhD research proposals are welcome in the following thematic areas:

- 1 Seafarers' statistics**
Seafarer data is limited and harder to access than data in other industries. Yet seafarer statistics are of vital importance for decisions on training and certification, working and living conditions and welfare at sea, and for planning the workforce the sector will need as fuels and technologies change.
- 2 Digitalization and autonomy**
Digital technologies, automation and autonomous ships are changing operations, ports and regulation faster than the evidence about them accumulates. Experience is spread across trials, simulations, approvals and early operations, and is hard to compare across vessel types and jurisdictions. A current example is the experience-building phase for the IMO code for maritime autonomous surface ships (MASS). The evidence base remains thin and scattered, thus hard to incorporate when shaping policy and taking risk-adjusted decisions.
- 3 Safety outcomes and regulatory effectiveness**
Whether maritime policy outcomes play out as intended is a question the sector rarely answers with evidence. Casualties, incidents, detentions and compliance are recorded unevenly, and the link between an IMO instrument or national measure and what happens at sea is seldom tested. Measuring safety outcomes and examining what makes regulation effective in practice is of key importance for guiding international policy and decision-making.

Thematic Areas



The Fellows will employ either a set of quantitative or qualitative methods applied to the thematic areas of the Maritime Observatory, such as:

1 Quantitative: maritime data, metadata, indicators and analysis

Applied to thematic areas, the PhD Fellow will research and develop methods that strengthen the quantitative maritime evidence base, alongside evidence synthesis methodologies. A doctoral project in this profile could, for example, extend and improve the body of maritime data in its area and analyze it: finding, documenting and linking sources, designing instruments for recurring data collection, developing methods suited to scarce and biased data, and testing what works and what does not work. The aim is a set of indicators that decision makers can rely on and that the Observatory can repeat year after year.

2 Qualitative: policy analysis, evidence use and policy round tables

The PhD Fellow will focus on the evidence base, policy analysis and convening analysis. The Fellow will research how data and research evidence can improve policy effectiveness at IMO, in maritime administrations and in industry, and how the Observatory's convening and synthesis work can make the use of evidence more effective, asking how and why a measure works, for whom, in what conditions and how it is implemented. The work combines policy analysis with evidence synthesis and knowledge mobilization, in close collaboration with GSEC, and may use the includes the design and evaluation of the Observatory's policy round tables, for example, by studying their design and effects. of all stakeholders.

Each candidate is expected to develop a focused and feasible doctoral proposal within one or more of the thematic areas, broadly aligned with either the quantitative or qualitative profiles.

The boundary between the two profiles is deliberately open. Proposals that combine quantitative and qualitative methods, or that sit between the two profiles, are welcome; applicants should indicate the profile closest to their proposal. The areas of work on the following pages are indicative. Candidates are not expected to cover all the activities listed below, but only those that are relevant to their doctoral project. Applicants are encouraged to bring their own research questions that are related to the Observatory core functions or are an extension of those.

Quantitative Fellowship:

Research to strengthen the maritime evidence base: data, metadata and methods for measuring the effectiveness of maritime policy and identifying policy gaps

Indicative research directions, of which a doctoral project would take a subset:

- Mapping and documenting maritime data sources (e.g., IMO GISIS, regional and flag or port State databases, and commercial, industry and insurance data), including metadata standards and a harmonized data model for the Observatory.
- Methods for estimating and correcting under-reporting and reporting bias in maritime data, such as capture-recapture and Bayesian approaches.
- Assessing the causal links between the evidence base and policy outcomes, in order to measure the effectiveness of maritime policy and identify policy gaps.
- Validated and harmonized measures for the maritime sector: instruments and indicator definitions that administrations and organizations can apply in the same way, so that data become comparable over time and across countries.
- Applied evaluation: triangulation, quasi-experimental, and trial designs for testing the effect of policy measures and interventions, together with cost-effectiveness analysis.
- Survey and benchmarking harmonized methodology for recurring data collection from maritime administrations, maritime education and training institutions and other authorities, including questionnaire design and sampling in a small and heterogeneous population.
- Extraction of structured data from unstructured sources and its preparation for analysis using state-of-the-art methods.
- Scenario and trend modelling for policy impact assessment (ex ante and ex post), including socio-economic aspects.

Methods. Data management and metadata, survey methodology, statistical modelling and machine learning, indicator construction, instrument validation, quasi-experimental and trial designs, cost-effectiveness analysis, scenario analysis, and reproducible data science (e.g., R, Python).

Expected outputs. A doctoral thesis and peer-reviewed papers. Depending on the doctoral project, outputs that the Observatory can adopt, such as contribution to evidence synthesis reports (must), a documented inventory of maritime data sources and gaps, with metadata; a new or harmonized data set, survey instrument or validated measure for recurring collection; a validated set of indicators, including measures of policy effectiveness; analyses published as Observatory evidence packages (technical report, briefing and open code) that meet quality criteria and inform the Observatory's analytical outputs, including information papers submitted to IMO committees.

Advantages. Experience with databases, data management, data analytics or metadata standards; knowledge of the maritime sector; and familiarity with evaluation designs or open science practice.

Qualitative Fellowship

Evidence, policy and convening: how data and evidence improve decisions at IMO and beyond

Indicative research directions, of which a doctoral project would take a subset:

- How evidence is sourced and weighed in IMO decision making, what shapes its uptake in committees and working groups, and how this compares with other international regulators.
- Policy and stakeholder analysis of selected maritime topics aligned with the Observatory's priorities.
- Qualitative policy impact assessment (ex ante and ex post), including socio-economic aspects.
- Design and evaluation of policy round tables and other convening formats, including consultation groups and calls for evidence, and the conditions under which they lead to road maps and action.
- Evidence reviews and syntheses on selected maritime topics, including qualitative synthesis and an evidence and gap map for the field.
- Design of the methods, standards and quality assurance frameworks that allow the Observatory to act as an impartial evidence broker within the IMO framework, adapting the evidence centre model (consultation groups, expert advisory input, calls for evidence, protocol registration and layered outputs) to an intergovernmental audience.
- Guidance and learning formats that help maritime administrations and industry use evidence and evaluate their own measures, such as evidence summaries, briefings, training and theories of change.

Methods. Policy and stakeholder analysis; qualitative and mixed methods, including in-depth interviews, document analysis and observation of IMO meetings; ex ante and ex post policy impact assessment; evidence synthesis, theory-based evaluation and realist synthesis, with registered review protocols; and the evaluation of convening formats.

Expected outputs. A doctoral thesis and peer-reviewed papers; Depending on the doctoral project, outputs that the Observatory can adopt, such as, contribution to evidence synthesis reports (must), a documented account of how evidence is used in IMO decision making; a theory of change and impact framework adopted by the Observatory; a qualitative policy impact assessment of a topic from the Observatory's priorities; a tested design and evaluation framework for the Observatory's policy round tables; a quality assurance framework for the Observatory's evidence brokering role, developed with GSEC; an evidence review published through the Observatory and GSEC. The research may also inform the Observatory's evidence summaries and briefings.

Advantages. Experience of IMO or other maritime regulatory processes, of convening or facilitation, or of systematic review methods; and experience of knowledge brokering or of work at the interface of research and policy.

Further Details and Information



- The successful applicants are **required to be resident in Malmö, Sweden, and to work on site at WMU** for the duration of the programme. The fellowships cannot be held remotely.
- The successful applicants will conduct their doctoral research within the **Maritime Observatory** and will be supervised in accordance with WMU's PhD regulations.
- The PhD fellowship covers tuition fees and provides a monthly stipend of approximately SEK 22,000 to cover living and related expenses. The stipend may be increased at subsequent Progression Seminars, subject to the availability of funds and the Fellow's progress and performance. Any increase will be considered based on the Fellow's progress and performance, as well as the Observatory's funding position.
- Support for and research-related travel, conference attendance, open access publication fees and research software may be provided subject to approval.
- The PhD fellowship is awarded for a maximum period of **four years** from the date of registration, subject to satisfactory annual progress.
- Fellows join the Observatory's core team, led by the Head of Data and Insights under the overall guidance and supervision by the WMU's Vice-President (Strategic Initiatives).
- Fellows run their research as **Observatory evidence projects** under a quality assurance approach aligned with GSEC (a registered protocol, a consultation group of practitioners and experts at scoping, interim and validation stages, peer review of the technical report, and a briefing for non-specialist readers), and publish their main results in layered form, with code and data shared where permitted, so that outputs can be considered for GSEC's Global Safety Evidence Library.
- Fellows work with GSEC, including training in evidence methods; present their work to the partnership's steering group and, as appropriate, to IMO and industry audiences; and contribute, as appropriate, to the Observatory's guidance and training for maritime administrations and IMO delegates.

Further information

Further information regarding the Observatory and the fellowships can be obtained through communication with Dr Tiago Fonseca, **Head of Data and Insights, Maritime Observatory**, at: observatory@wmu.se. Applicants are welcome to make informal contact before applying.

Eligibility and Conditions



1. Applicants should have completed a Master's/MSc degree with a dissertation in any of the following fields:

I. For Quantitative Fellowship: statistics, data science, information or data management, applied mathematics, econometrics or economics, engineering, transport or maritime studies, or another quantitative discipline, with strong data analysis and programming skills (e.g., R or Python).

II. For Qualitative Fellowship: public policy, political science, international relations, maritime affairs, or another discipline in which policy analysis and qualitative research skills are developed.

2. Applicants should demonstrate the ability of academic writing and working with stakeholders.

3. Language proficiency in English is required. Applicants must offer one of the following tests as proof of competence in the English language:

I. Test of English as a foreign language (TOEFL): 96+ (internet-based test), 590+ (paper-based test)

II. International English Language Testing System (IELTS): band 7.0 or above

III. Cambridge Examinations: Cambridge Proficiency Examination at grade A or B

IV. GCE O-level or equivalent: a good pass grade

4. Applicants should state in their motivational letter and research proposal which thematic area or areas their proposal addresses and which fellowship profile it is closest to, and submit one application only.

WMU seeks to increase the number of women at all levels and, therefore, qualified female applicants are particularly encouraged to apply. Applicants from developing countries and least developed countries as well as small island developing States are also strongly encouraged to apply.

How to Apply



Applicants must apply online via WMU's portal: <https://wmu.se/programmes/phd-maritime-affairs>. Click **"Apply now"** to the Maritime Affairs (PhD).

Applicants need to submit the following documents in connection with their application:

1. Completed **WMU PhD Application Form**¹
2. Completed **WMU PhD Research Proposal**² (maximum 6 pages)
3. A one-page motivational letter, subject line of Application: *Maritime Observatory PhD Fellowship 2026: Quantitative Fellowship or Qualitative Fellowship*
4. Updated curriculum vitae (CV)
5. Certified copies of degree certificates and transcripts
6. Copy of English language proficiency certification or equivalent proof
7. Copy of passport (data page, only for internal record)

In addition to completing the application, the applicant must:

- Make arrangements for **two academic reference letters** to be sent directly by two referees to the Doctoral Office, email phd@wmu.se with subject line: *Maritime Observatory PhD Fellowship 2026: Quantitative or Qualitative Fellowship*

The application deadline is: **15 November 2026, 23:59 CET***

Applications for admission will be considered by WMU's Doctoral Admissions Board, with the participation of the Observatory and LRF. The Admissions Board will select only the best-qualified candidates taking into account their research proposal as well as all their qualifications and achievements. Only shortlisted candidates will be contacted for next steps, which may include an interview through remote audio-video meetings.

Desired Start Date: **January 2027**

¹ All necessary forms can be downloaded at <https://www.wmu.se/programmes/phd-in-maritime-affairs> and applications should be submitted online.

² All applicants must submit a research proposal that clearly indicates the fellowship profile applied for and the area in which their research will be conducted, including the key issues to be examined in detail. The research proposal should identify an original research question, set out a focused and feasible project within one or more of the thematic areas, or suggest a new one that is close to the Observatory core functions or an extension of those. It should demonstrate that the applicant understands what research at the doctoral level entails. The quality of the research proposal is extremely important. It is a crucial part of the application and will be used to match prospective candidates with research supervisors.

*The panel will review candidates on a rolling basis. The call may be closed when a suitable candidate is found.

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**INTERNATIONAL
MARITIME
ORGANIZATION**

The World Maritime University was established in 1983 within the framework of the International Maritime Organization, a specialized agency of the United Nations.

