Consiglio Nazionale delle Ricerche

Guidelines for access to R/V Gaia Blu

(Call 2024)

I. Introduction

This document outlines the guidelines for submitting proposals for research expeditions on the R/V Gaia Blu. Following these guidelines will ensure clear and concise proposals, ultimately contributing to successful research cruises.

II. General Rules

A. Initial Requirements

Scientific staff employed at Public Research Institutions and Universities in Italy are eligible to submit proposals for the 2024 call, with cruises planned for 2025 (tentative beginning of research activities March 2025).

Each cruise shall have a PI (Principal Investigator) and a co-PI, in case of proposals submitted from entities other than CNR. Either the PI or the co-PI must be employed by CNR, and only a CNR employee can act as chief scientist on board R/V Gaia Blu during the cruise. If neither the PI nor co-PI can participate in the cruise, the chief scientist must be appointed and identified during the submission of the proposal. It is required that one third of the embarked scientific party personnel belongs to CNR.

The proposal must be written in English using concise and self-explanatory language following the instructions provided in the Template to request ship time.

Good scientific practice must be respected when formulating the cruise proposal, such as professional ethics, quality assurance, clarity in roles and responsibilities, use of scientifically sound and appropriate methods, providing public access to research result (FAIR principles), backing up research (raw) data as indicated in the Template to request ship time (Section 9, Data Policy and Dissemination Plan). Not adhering to these rules will preclude the assignment of future ship time.

Access to genetic resources shall be compliant to regulations of the Nagoya Protocol (Access and Benefit Sharing, ABS https://www.cbd.int/abs) with its country specific implementations. Any work with biological material from the EEZs of other countries might fall under these regulations. Contacting the corresponding appropriate National Focal Point (NFP) or Competent National Authority (CNA) already in the planning phase of your project is advisable.

To ensure timely approval, applications for permission to enter Exclusive Economic Zones (EEZs) of other states should typically be submitted six to eight months prior to the start of the cruise.

To prevent contamination with radiocarbon (^{14}C) and tritium (^{3}H), SWAB tests have been conducted in various laboratories and facilities aboard the R/V Gaia Blu. To keep the vessel ^{14}C and ^{3}H free, the use of ^{14}C or ^{3}H to spike samples is strictly prohibited in all research activities on the vessel.

B. Proposal Evaluation and Scheduling

Submitted proposals will first undergo a formal eligibility check by the CNR internal panel, then proceed to a two-step evaluation process. This includes an initial peer review by two national or international experts, followed by a recommendation from the panel to ensure the feasibility of the proposed activities. When selecting reviewers, the panel will carefully consider potential conflicts of interest to ensure objectivity. The final decision from the panel will consider feasibility constraints, appropriateness of the proposed working days at sea, data management practices declared in the cuirse specific Data Management Plan (DMP) and the overall research priorities in coordination with the CNR (Research Infrastructures) RI Office and the Department of Earth system science and environmental technologies (DSSTTA).

Reviewer will consider the following criteria:

a) Scientific merit of the proposed work: quality of the project, originality, and scientific relevance;
b) Integration with international and national programs: whether and to what extent the proposed work is a contribution to the scientific and/or policy objectives of larger framework programs. Contributions to peer-reviewed and funded coordinated projects should be taken into account, along with contributions to other framework programs;
c) Objectives of the cruise and expected gain of knowledge: cruise short- and long-term objectives and how the research outcomes will address significant challenges and advance knowledge in the field;
d) Quality of the work program: fit for purpose of the cruise with the objectives; clear justification of the areas, including stations, transects, or polygons; the work program must explain which methods and equipment are intended to be used;
e) Adequacy of the requested work days at sea: clear indication and justification of the time and period of the cruise;
f) Institutional and personnel resources: availability of financial resources for conducting the cruise and the related logistic;
g) Qualification and previous work of the applicants: soundness of previous work, quality of publications and qualifications of the applicants, both in general and in relation to the proposed project;

External reviews are not solicited in the following cases:

1) Cruises pre-planned in advance within well-established long-term monitoring programs and/or periodic deployment/recovery/maintenance of equipment at sea;
2) Cruises conducted primarily for the purposes of student training (“floating university”);
3) Cruises conducted for testing and developing seagoing large scientific equipment.

These cruise proposals are assessed exclusively by the panel, specifically focusing on the appropriateness of the proposed working days at sea. Nonetheless, the same standards of quality required for other cruise proposals also apply here.

C. End User Agreement and Data Management Policies

Upon proposal approval, a mandatory End User Agreement will be signed by the PI. This agreement outlines expectations and responsibilities, including data policy and dissemination plan.

D. Diplomatic Clearances

The PI is responsible for obtaining any necessary diplomatic clearances for the planned research activities. If necessary, the CNR will guide the PI in obtaining the permits.

E. Logistical Meeting

Following proposal approval and cruise scheduling, a logistical meeting will be organized before the cruise. The purpose of the meeting is to discuss and finalize practical arrangements, ensure all PI requirements can be fulfilled to ensure the expedition feasibility.

F. Additional PI Duties

In addition to the previously mentioned responsibilities, the PI is expected to:

- Promote a positive and collaborative research environment during the cruise;
- Submit a customer satisfaction report;
- Submit a Cruise Summary Report within 4 weeks of completing the expedition.

III. Principal Investigators (PIs)

A. Role and Responsibilities

The Principal Investigator (PI) serves as the central figure for the research project, leading the scientific team and ensuring the expedition's success. This leadership role encompasses proposal development, overseeing research operations during the cruise, and managing the team's activities. The PI must possess relevant research experience and qualifications. The PI is expected to closely collaborates with the Gaia Blu management team to ensure adherence to established guidelines and foster a productive research environment.

B. Agreements and Duties

The PI agrees to adhere to Gaia Blu's guidelines and collaborate with the ship's management team.

Pre-expedition[1]:

- Secure necessary permits;
- Ensure that all members of the science party complete the course to obtain the STCW (Standards of Training, Certification and Watchkeeping for Seafarers) certification;
- Ensure that all members of the science party obtain a maritime worker's medical certificate;
- Develop a Risk Assessment Plan;
- Complete the Emergency Notification Flowchart;
- Create a Project Execution Plan (PEP);
- Release the actual cruise specific DMP;
- Collect/create an Operation Procedure for each instrument to be used overboard.

During expedition:

- Oversee research operations;
- Ensure adherence to scientific protocols and safety regulations;
- Maintain clear communication with the ship's crew and, if necessary, with the CNR RI Office and Gaia Blu Infrastructure manager;
- Implement the practices described in the Gaia Blu DMP and the Cruise Specific DMP.

Post-expedition:

- Submit a cruise report within 4 weeks of completing the expedition;
- Acknowledge Gaia Blu's support in future publications.

C. PI and Co-PI Definitions

- Principal Investigator (PI): The lead scientist responsible for the entire research project, including proposal development, team leadership, and ensuring the expedition's success;
- Co-Principal Investigator (Co-PI): Collaborates with the PI in planning and execution of the research project. The Co-PI is required in case of proposals submitted from entities other than CNR;
  Either the PI or Co-PI must be affiliated with the National Research Council (CNR);
- Chief Scientist: A CNR employee (can be either the PI, CO-PI or another CNR affiliate appointed during the submission of the proposal). The chief scientist will supervise all research operations at sea.

IV. Proposal Template Guidelines

Proposal's ID

- Proposal Acronym: A brief abbreviation for your project
- Proposal Title: A clear and informative title reflecting your research focus and/or study area

[1] List of duties to be fulfilled if the proposal is approved and not upon submission.

Application category

Specify whether this is a cruise proposal for:

1) Research cruise
2) Ship time opportunity (broaden data collection during pre-scheduled cruises)
3) Cruise with an educational, training, and outreaching focus
4) Long-term monitoring (proposal to support time-series development)
5) Maintenance of marine observatories and infrastructures
6) Other uses

Research field category

Specify the ERC panels to which the proposal adhere.

Keywords

Identify up to five keywords.

Principal investigator and team

Provide details for all project partners, including:

- PI, Co-PI and Chief Scientist information (name, email, phone number)
- Organization name and type
- Website

Abstract

An overview of the scientific context and the proposed work.

Research overview

Briefly summarize the current knowledge pertinent to your research topic, highlighting key publications that directly relate to the cruise proposal. This overview should clarify the context within which you place your research and the specific challenges to which you aim to contribute uniquely, innovatively, and timely.

Provide a concise description of your cruise proposal's research program and scientific objectives. Formulate measurable working hypotheses or questions to be answered.

Specify which current national and international projects and programs the cruise will support and describe how it will contribute. Ensure the connection to the scientific objectives is explicit.

Research methods

Describe your research methodology, including:

- Specific equipment needs
- Sampling procedures
- Data collection plans

Team capabilities and responsibilities

Outline the expertise of your team members and how it aligns with your methodology.

- Include CV for the PI, Co-PI and Chief Scientist (max 1 page each)
- Briefly describe the gender distribution within your scientific team
- If applicable, explain strategies for including early-career scientists and training opportunities

Work plan

Provide a detailed work plan outlining your research activities throughout the expedition. The quality of the work program is of crucial importance to the evaluation of the cruise proposal. The work program must conclusively justify why the individual days-at-sea of the vessel and the large equipment are requested.

Include a high-resolution map of the study area, your planned cruise track and stations/transects.

Specify logistical details and requirements:

- Working areas/EEZs: Identify the locations of the working areas and list all nations from which research permits must be obtained for activities planned within their respective Exclusive Economic Zones (EEZs). In regions known for difficult approval procedures, briefly discuss the feasibility of considering alternative working areas. Additionally, indicate if you have established any special cooperation agreements with researchers from the relevant countries. Indicate the geographic coordinates of the stations and give a short justification for the preferred port of departure and arrival.
- Preferred period (motivated according to the research objectives): Specify the preferred year, season, and/or month(s). Provide reasons for restrictions to specific periods.
- Work days at sea: Enter the number of days required for transit from the preferred port of departure to the working area, the number of work days at sea including the transits between stations (so-called in-transit days), and the number of days required for returning to the preferred port of arrival from the working area, each rounded to the nearest whole number.
- Large equipment to be embarked (e.g. ROV, AUV): List the large equipment required for the cruise.
- Number of berths: Indicate the number of personnel needed for various tasks and the total count. Include a tabulated list of expected cruise participants, detailing names, affiliations, gender, task, early career, highlighting the PI and the co-PI.

Use the template tables to detail your planned sampling locations (water, sediment, seabed) and geophysical survey lines. If the stations can only be determined during the cruise, please specify the coordinates of the perimeters of the working area.

Facilities and Instruments

Indicate the availability and needs for equipment:

- Equipment available onboard the R/V Gaia Blu
- Equipment you need to bring onboard
- Any special equipment requirements
- If the activity involves deployment of moorings, briefly outline how and when the retrieval of the equipment is planned

Feasibility

Financial Support: Explain how you will cover the proposed activities' costs, including pre-expedition, expedition, and post-expedition expenses.

Implementation Risk Management and Mitigation Plan: Identify potential risks associated with your research and outline strategies to mitigate them.

Impact

Describe the potential impact of your research cruise based on the expected outcomes. Specify whether you expect the cruise results to have relevance beyond the scientific community, such as in science policy, technology, economic sectors, or societal impacts, in addition to contributing to scientific knowledge. Discuss potential future international collaborations that could arise from your research findings.

Data Policy and Dissemination Plan

Read carefully the data policy and dissemination plan provided for the R/V Gaia Blu. By checking the box, you agree to comply with these requirements. Failure to adhere to the policy and plan may result in denial future access to the RI.

Produce a preliminary version of the Cruise Specific DMP by exploiting the specific template and include it as part of the proposal.

References

List the publications cited in the previous sections here. Highlight publications by the applicants of the cruise proposal in bold. The full list of authors, the full title, the year of publication, the journal, the volume, and the page numbers must be specified for each publication (if available, also provide the DOI).

Review the “Guidelines for Research” Integrity compiled by the CNR Research Ethics and Integrity Committee at:

https://www.cnr.it/sites/default/files/public/media/doc_istituzionali/ethics/guidelines-for-research-integrity-2019.pdf, and check the appropriate boxes.

Contacts

Should you have any inquires related to the application for a cruise proposal, please contact: navegaiablu@cnr.it