

2019 GreenLAnd Circumnavigation Expedition (GLACE)

Call for proposals

Deadline: 10 September 2018, 12:00
(Swiss time)

1) Summary

The GreenLAnd Circumnavigation Expedition (GLACE) will offer an unprecedented complete circumnavigation of Greenland in a single expedition over a 2-month period in August and September 2019 (see Annex 1 - travel plan and timing). The expedition will provide access to the remote and as yet critically understudied Northern Greenland area and provide a unique opportunity to investigate the marine, terrestrial, atmospheric, and cryospheric environments of the Arctic.

The R/V *Akademic Tryoshnikov* (AARI, St Petersburg) will be available for the expedition after a partial refit, offering a range of equipment and infrastructures (see Annex 2 - Vessel description). During the Northern Greenland section of the expedition the AT will be escorted by the nuclear icebreaker *50 Let Pobedy*.

As the ship will be steaming for around 20 hours each day, scientific sampling should be focused on continuous oceanographic and atmospheric (underway) sampling approaches, combined with terrestrial and cryospheric studies at several super-sites, with emphasis on Northern Greenland.

Proposals should be directed specifically to one of the subjects highlighted in the science plan (see Annex 3 – proposed research areas). A combination of different subject areas into multi-disciplinary projects is also possible. Projects should include multiple sites and are encouraged to address broad and relevant scientific questions taking advantage of the entire journey.

Access to the vessel and its facilities (incl. helicopter time) will be free of charge for all teams selected by the scientific review panel, from the embarkation port onwards. International teams are invited to apply, provided they can cover their own logistics and science-related costs. Swiss-led projects will be eligible for additional funding of up to CHF 150'000 per project.

The scientific review panel will select up to 10 research projects from the submitted proposals.

Deadline for submission is 10 September 2018 (12:00, Swiss time). Successful projects will be notified by early November 2018.

The GLACE project is a unique opportunity, offered to the Swiss Polar Institute (SPI) at short notice. This explains the tight schedule for the scientific and logistic preparations. Furthermore, as all the funding is being provided by third parties, including the project management costs, the expedition will not affect the SPI's core activities nor its budget.

2) Research Topics

The science framework of GLACE will entail four topics: Ocean, Atmosphere, Cryosphere, and Terrestrial. Collaboration between these topics, and interdisciplinary research towards a holistic view of the region, are particularly encouraged.

Within the four overarching topics, up to 10 scientific projects covering the following broad subject areas will be selected (see Annex 3 – Proposed research areas):

- Hydrography (physical oceanography and bathymetry)
- Acoustics (zooplankton / fish stocks / water masses & mixing)
- Marine primary productivity & bio-optics (biological oceanography)
- Chemical oceanography
- Atmospheric composition, ocean – atmosphere interactions, ice – atmosphere interactions, cloud formation, meteorology
- Microbiology / Genomics
- Pollution/Micro-Plastics
- Sea birds and mammals
- Cryospheric science / ice coring / glaciology (terrestrial & sea ice) / permafrost
- Paleoclimate and archaeology, lake sediment coring
- Terrestrial ecology

More detailed descriptions of scientific equipment and infrastructure available on the R/V *Akademik Tryochnikov* are provided in annex 3. Comprehensive maintenance will be undertaken in 2018/2019 to improve the existing infrastructure.

3) Eligibility

Eligibility for application is limited to researchers based at established public research institutions. Principal Investigators (PIs) based outside Switzerland are eligible but cannot request additional funding.

Only projects with a PI based at a Swiss public research institution will be eligible for funding of up to CHF 150'000 per project (see below).

Project teams can be composed of multiple international partners, whereas, the PI will be the only administrative and contractual point of contact for the Swiss Polar Institute.

4) Finance

Projects led by a PI based at a Swiss public research institution are eligible to apply for funding of up to CHF 150'000.

Eligible costs include:

- Consumables and supplies
- Small equipment (upon justification, max. CHF 15'000)
- Analytical costs
- Publications and conferences
- Logistics costs for shipping of material and equipment
- Salaries
- Travel costs

Please note that overhead and taxes cannot be considered eligible costs.

Access to the vessel and its facilities (incl. helicopter time) will be free of charge for all scientific teams whose projects are selected. International teams are invited to apply, provided they can support their own travel, logistics and science costs.

All projects (including teams led by international PIs) are requested to provide a budget overview for the realisation of their projects. Swiss-led projects should clearly indicate their funding request in the table provided in the application form.

The maximum project duration will be two years following the signature of the grant agreement.

5) Data management

A common data management policy will be applied to all projects. This will include the definition of shared data-sets, general guidelines for the management and sharing of data as well as the definition of open-data and embargo policies. All selected projects will be asked to outline a data management plan. A dedicated data-manager will support the PIs in the preparation of the management plan, on-board and following the expedition with regard to data management issues.

All projects will be required to back their data up to the expedition data storage on a regular basis on board the ship and deposit their final, quality-checked and processed data sets with the Swiss Polar Institute at the end of the project.

6) Permits

While preliminary contact with the authorities has been established, final permits for the expedition have not been granted at this point. Selected participants should be aware that final permits are still pending. Furthermore, applicants must understand that the operations are sea-ice and weather dependent, and consequently the SPI cannot guarantee that the circumnavigation will be completed.

7) Proposal submission

The application will consist of:

- 1) An on-line contact form
- 2) A completed application form in pdf (using the predefined format provided by the SPI)
- 3) Relevant annexes (CV, references)

The completed application should be submitted on-line by 10 September 2018 (12:00 Swiss time). The link for the submission can be found on the SPI website and on the application form.

8) Evaluation and results

Eligible proposals submitted before the deadline will be evaluated by an external scientific and management evaluation panel appointed by the SPI.

The proposals will be evaluated based on the following criteria:

- Scientific merit and topicality of the proposed project
- Originality of the project
- Feasibility (methodology, requirements from the expedition/vessel, time plan of the expedition and logistics)
- Experience and expertise of the PI and partners for the proposed project
- Complementarity of the proposed research consortium

Evaluation results will be transmitted to applicants November 2018. A short feedback will be provided for all applications.

Selected projects will be invited to attend a planning workshop to be held in Switzerland in mid-January 2019.

A grant agreement will be concluded with all selected PIs. The grant agreement will include a description of the project and deliverables, budget/financial contribution by the SPI, reporting requirements and clauses related to data, publications and responsibility.

It should be noted that participation in the expedition (on board) will be subject to final approval by a medical doctor following a medical check procedure defined by the SPI.

Lausanne, 3 July 2018