



Call for proposals to contribute to the SESS report 2022

Call opens: 1 December 2021

Extended proposal Deadline: 14 January 2022, 16:00 CET

Total funds available: 1.5 million NOK

SIOS seeks proposals for new and update chapters that highlight the state of environmental science in Svalbard and contribute to the development of the Earth Observing System in and around Svalbard.

Background for this call

The [Svalbard Integrated Arctic Earth Observing System](#) (SIOS) is a regional observational system for long-term measurements in and around Svalbard, addressing Earth System Science (ESS) questions related to Global Change. The upgraded observing system and research facilities offered by SIOS build on the extensive observation capacity and diverse world class research infrastructure provided by many nations already established in Svalbard. This includes a substantial capability for utilising remote sensing resources to complement ground-based observations. From this foundation, SIOS envisions a significant contribution to the systematic development of new methods and design for the implementation of observational networks in Arctic environments.

SIOS publishes the annual [State of Environmental Science in Svalbard \(SESS\) report](#). The SESS report:

- is established as an authoritative source of information about the state of the environment in and around Svalbard;
- is an important tool to convey knowledge to stakeholders and the public;
- addresses the scientific community, as well as stakeholders and the public. This format ensures that there is synergy between the scientific investigations and the knowledge needed by society to sustainably develop and safeguard the Arctic environment;
- is the main driving force for the science-based development of the observing system and contributing to the report is an opportunity for research groups to actively influence the prioritisation within SIOS.



The report summarises the state of current knowledge of key Earth System Science parameters and analyses how these parameters influence one another. It combines the long-term monitoring data that form the core of the observing system with new, innovative monitoring and research. In addition to evaluating the state of current knowledge, the SESS report highlights questions that remain unanswered and recommends solutions in terms of research infrastructure improvements and research priorities.

It is an arena for open sharing of ideas and discussions on which measures should be taken to enable scientists to provide observations needed to gain a holistic view of the Earth System of Svalbard and the Arctic in general.

Contributions to the SESS report are written by international and, preferably, multidisciplinary teams under the lead of researchers from SIOS member institutions. All chapters are peer-reviewed and subject to final approval by an editorial board. The editorial board consists of two senior researchers, one early career researcher and two representatives of the SIOS Knowledge Centre.

The fifth SESS report will be published in January 2023.

Who can apply?

Researchers from [SIOS member or observer institutions](#) may apply provided they meet the eligibility criteria outlined below.

Purpose of this call

SIOS is looking for new chapters and updates of previous published chapters for the next SESS report. Contributions can be in the form of

- a review of existing knowledge in a specific field of Earth System Science in Svalbard or the connections between several fields,
- an analysis of trends and processes, or
- an update of an earlier SESS chapter.

All contributions will be peer-reviewed before publication and consist of three parts - a science chapter, a popular science summary, and FAQ. For more details, see document '[SESS2022 Instructions for authors.pdf](#)'.



SIOS seeks proposals that utilise available data and describe important parts of and processes in the Svalbard Earth system. Prioritisation is given to proposals that:

- integrate several spheres and/or elaborate a cross-cutting perspective on various disciplines;
- focus on quality and harmonisation of observations;
- describe feedback processes;
- include modelling;
- bring together active research groups within a specific subject in Svalbard;
- address long-term data (SIOS core data candidates);
- develop data series derived from SIOS access projects into core data candidates;
- present and discuss aspects of the Svalbard Earth System in a pan-Arctic perspective.

Applications on all topics within Earth System Science are welcome.

Contributions within the following themes are especially encouraged in this years' call:

- Meteorology over the whole of Svalbard and surroundings (e.g. what observations exist? Are they at the right places?)
- Analysis of data with large horizontal and/or vertical extent
- Metrological harmonisation and intercalibration
- Historic and emerging pollutants
- Glacier dynamics (changes in mass and volume; novel field techniques)
- Geological data (e.g. storing, access)

General eligibility criteria

All chapter proposals must:

- include the application form, an itemised budget, a project description (not exceeding 2 pages; not applicable for update chapters), and a max 2-page CV of the PI;



- have partners from at least **three different nations** and **two SIOS member institutions**;
- have a Principle Investigator (PI) from a member or observer institution;
- be accepted by the institution of the PI.

Other requirements

Authors of the SESS report 2022:

- must submit their contributions by 30 July 2022 and shall follow the timeline for the SESS report published at https://www.sios-svalbard.org/SESS_Issue5;
- must adhere to the [instructions for authors 2022](#);
- must adhere to the [SIOS data policy](#). Relevant data or information about data must be submitted to the SIOS Data Management System through [SIOS partner data repositories](#) or the [metadata collection form](#) (which requires the URL to the dataset) before the release of the report. Note that using the metadata collection form does not exempt you from sharing the data in an open repository. The metadata collection form is used to make the data findable and accessible through the SIOS data access portal if the data are stored in data repositories that are not connected to the SIOS Data Management System;
- are expected to take part in a common SESS report contributors' workshop (at least one per contribution) in March 2022 in Oslo (remote access possible). Travel support for up to two participants will be available;
- are expected to attend, with at least one person per contribution, and deliver a short presentation at the SESS report release during the Polar Night Week in Longyearbyen (January 2023). Travel support for up to two participants will be available.

Evaluation criteria

The evaluation criteria for proposals for contributions to the SESS report 2022 are:

- **Scientific excellence:** Proposals must demonstrate that the proposed SESS contribution will be of a high scientific standard and that the topic(s) addressed are scientifically valid and important.
- **Relevance to SIOS:** SESS contributions must be consistent with the goals of SIOS to optimise the observing system and promote advancement in Arctic Earth system science. Proposals that can clearly demonstrate a benefit to the observing system in line with SIOS goals will be prioritised. Such benefits may include making new observational data available, analysis of existing data, integration of datasets, creating new data products that are made available to other researchers, better utilising existing research infrastructure, enhancing cooperation between research groups within the same field over entire Svalbard, and developing cross-disciplinary cooperation.
Update chapters: Proposals that provide a clear development of knowledge since previous reports will be prioritised. This may include e.g. new observational data, re-analysis of existing data, integration of datasets, re-evaluation and refining of given recommendations. Update chapters should be based on findings in previous SESS chapter(s) and provide additional relevant and substantial new data or insight.
- **Innovation:** Proposals that promote or enhance innovative techniques and methodologies for reducing the environmental impact of research and monitoring are particularly sought after. Innovation with regards to making data useful and available to researchers also from other disciplines is also highly valued.

Details on the evaluation process may be found in the document [‘SESSreport2022 Guidelines for applicants.pdf’](#).

Funding details

Funds totalling at 1.5 million NOK are available through this call (not including in-kind contributions).

Accepted contributions are funded with up to

- 200 000 NOK (reviews and analysis of trends and processes)
- 50 000 NOK (update chapters)



Any exceeding amount spent on the contribution is counted as in-kind contribution to SIOS. The contribution can also be entirely provided by in-kind contribution.

What can be funded?

Applicants may request funding for salary for data analysis and writing, making data used in the contribution FAIR, a workshop between authors, and support for developing procedures, protocols and harmonisation. Note that SIOS does not fund institutional overheads. Institutional overheads will be considered as in-kind contributions.

Application details

- The **extended** deadline for this call is 14 January 2022, 16:00 CET. A decision is expected by mid-February 2022.
- You find more details in the document '[SESSreport2022 Guidelines for applicants.pdf](#)'.
- Proposals must be submitted electronically at https://sios-svalbard.org/SESS_ProposalSubmission.
- Contact: SIOS information officer Christiane Hübner (<https://www.sios-svalbard.org/Staff#InformationOfficer>)

Relevant documents

All relevant information, documents and web forms can be found on the web page for the SESS report 2022: https://sios-svalbard.org/SESS_Issue5.