

Flagship or Initiative Title: ArcticGEOSS

Proposers:

Lead Reviewer: SiriJodha S Khalsa

Reviewer 1: Tony Milne

Reviewer 2: Marie-Josée Bourassa

Reviewer 3: Bente Lilja Bye

Background:

The Fifth Ministerial Meeting of the Arctic Council in October, 2006 produced the [Salekhard Declaration](#), urging Member States to “promote the establishment of a circumpolar Arctic observing network of monitoring stations with coordinated data handling and information exchange for scientific data, statistics and traditional knowledge as a lasting legacy of the IPY (and as the evolving Arctic component of the Global Earth Observing System of Systems, GEOSS)”. [Sustaining Arctic Observing Networks](#) (SAON) was created to help realize this goal. This proposal, although coming 11 years later, can be viewed as an aspect of SAON’s raison d’être.

It should be noted that SAON is currently a Participating Organization and a contributor to GEOCRI, which has as a goal the creation of an Information Service for Cold Regions. The question is then, what is GEOCRI not doing that ArcticGEOSS needs? The proposal could make this clearer.

Completeness of Proposal:

Does it include the requisite components: Yes

Comments:

All sections of the proposal template are complete. However, some components are deemed insufficient, such as Monitoring and Evaluation procedures.

Relevance:

The objectives of the Initiative, and the deliverables, are aligned with GEO’s mission and Strategic Objectives.

A clear policy mandate is identified.

It is less clear that the effort adds value over and above what is currently being done within the GEO community. Presumably, SAON and GEOCRI, and their activities, would exist without this initiative.

Users and use cases are not clearly identified.

Feasibility:

Are there measurable, practical deliverables and outcomes?

It would be helpful to know what achievements SAON was instrumental in delivering during the 11 years of its existence. What will ArcticGEOSS be able to achieve that SAON has been unable to do, and how?

Can the work and outcomes/deliverables as described in the Implementation Plan be accomplished in the stated time frame?

Intermediate milestones with dates more specific than 2 year time spans are needed.

Resources:

Are the in-kind resources, expert resources (expertise on the team), or other stated resources sufficient to achieve the stated goals?

The reviewers feel that the list of resources should be detailed and include contact persons. This information should also be included in the Implementation Plan. As written, it will not be easy to monitor and evaluate, nor will it be easy for others with resources to see where they could fit in. Openness to additional resources could be included to encourage more volunteered contributions. The representation of experts on SAON is good. The objectives of ArcticGEOSS include securing funding for the SAON Secretariat and advocating to funding agencies and states "to ensure sustainability of Arctic observing". If these are not successful then it can't be said that the resources are sufficient.

Are there additional organizations or individuals who could be contacted for participation?

None.

Recommendation:

- Proposal Meets Requirements as written.
- Proposal Would Benefit from Revision as noted above and in the Comments below.
- Proposal Would Benefit from time as an Initiative (if proposed as a Flagship) or Community Activity (if proposed as an Initiative), as noted in the Comments below.

Comments:

While the reviewers support the establishment of an Arctic GEOSS, it is disappointing that the Proposal does not fully address the Criteria List for Establishing GEO Initiatives. The lack of precise information makes it difficult to decide if the Proposal is likely to develop into a fully operational GEOSS platform and therefore contribute to GEO's mission to connect the demand and supply of EO data and thereby make a meaningful contribution to environmental sustainability or just be a placeholder. The reviewers would like to see SAON develop better connections with GEO WP and adopt some of GEO priorities in its strategic and implementation plans.

1. The implementation of all three Goals in the Proposal are the respective responsibilities of SAON Sub-Committees. Goal 1 – Committee of Observations and Networks (CON); Goal 2 – Arctic Data Committee (ADC) and Goal 3 – SAON Board. Nowhere in the Proposal are the Initiative team leader(s), research organisations, individual stakeholders or partners identified or listed, nor information on how the responsible committees listed above will activate implementation procedures to ensure Initiative progress, monitoring and operation. Governance and management mechanisms need elaboration as well as the Program Leaders identified. Can one assume that the primary end-users of this Program are the SAON Country

members? To what extent have they been involved in the preparation of this proposal?

In the interest of partnerships and international organisations no mention is made of any contact with the Committee on Earth Observation Satellites (CEOS).

2. Regarding Objective 1.5: Develop a long-term repository for relevant project deliverables – establishment of ArcticGEOSS, the uncertainty evident in the text calls into question the level of commitment to establishing a functioning GEOSS in the short term and suggests more consideration needs to be given to its design and functioning. Also, given “that the implementation of Goal 3 (seeking funding) has a dependency on the two other SAON Goals, especially Goal 1”, does this mean that the Repository (or ArcticGEOSS) has to be established prior to any funding solicitation or organisational structure? The priority, strategy for and timing of establishing an ArcticGEOSS needs to be clearly outlined and described in the Proposal submitted to GEO.
3. (Section 7.1 of the proposal): “A SAON-led ArcticGEOSS will build on existing activities being carried out by the Arctic Data Committee in partnership with the GEO Cold Regions Initiative. Under ArcticGEOSS, this existing, productive partnership between SAON and GEOCRI can be enhanced and further developed through integration as a regional GEOSS node.” “The pan-Arctic Observing System ... being coordinated by SAON includes a comprehensive data system.” There is inadequate discussion of said data system - what its components are, who oversees it, how it will be funded and sustained. It needs to be spelled out more explicitly, so that it can also be easier to evaluate what kind of contribution this is to other GEO activities like GEOCRI and others.
4. Connection of SAON national members to each nation’s GEO representatives?
5. No intermediate milestones (timelines only in terms of years) or success criteria given. Section 6.3 Monitoring and Evaluation Approach only states that the SAON board reviews the activities and that SAON is subject to external reviews.
6. Since SAON is an initiative of the Arctic Council, why isn’t there more discussion of the potential role of the Arctic SDI, which is also an initiative of the Arctic Council?
7. Arctic Council member countries should be expected to support the integration of SAON in GEO at the next plenary. The expectation of national coordination between the Arctic Council and GEO secretariats should be made explicitly.
8. Section 7.3 (GEOSS Data CORE) discussion should show some knowledge of what Arctic datasets are already labeled CORE (such as the mentioned NSIDC sea ice data)

List of Criteria for Establishing Initiatives as given in the GEO Strategic Plan 2016-2025: Implementing GEOSS – Reference Document

1.2 Criteria for establishing GEO Community Activities

- Objective(s) shared by a group of interested partners; ✓
- Multi-national stakeholder group or scope; ✓ and
- Relevance to GEO's Strategic Objectives. ✓

1.8 Criteria for establishing GE Initiatives

GE Initiatives must meet all criteria used for Community Activities (see 1.2). In addition:

- User need or application perspective identified; *somewhat lacking*
- Pilot or prototype information service or product developed or demonstrated; ✓
- Contribution to satisfying user need; ✓
- User institutions identified with plans to solicit their advice; *incomplete*
- Sufficient resources for activities identified and committed; *in question*
- Clear relevance to GEO's Strategic Objectives demonstrated; ✓
- GEOSS Data Sharing and Data Management Principles implemented; ✓
- Implementation Plan (in separate document), detailing:
 - Objective(s), shared by partners; ✓
 - The information service or product provided; *unclear*
 - Schedule for Implementation; ✓ (only in the broadest terms)
 - Perspective(s) for evolution; *somewhat lacking*
 - Quantified, itemized resources, including from Members, Participating Organizations, private sector partners and the GEO Secretariat, enabling substantial progress towards objectives; *somewhat lacking*
 - Partners, including target user groups; *somewhat lacking*
 - Capacity Building activities; ✓
 - User representatives engaged, often in advisory roles; ✓
 - Governance and management mechanisms; ✓ and
 - Monitoring and Evaluation procedures. *inadequate*