SAON Implementation

## Introduction

This document provides detailed information about the objectives of SAON. This includes description of timelines, cooperation with external organisation and resource/funding requirements. It is a living document that will be regularly updated.

The document *SAON Strategy* describes SAON’s vision, mission, guiding principle and goals.

[Introduction 1](#_Toc501125529)

[Goal 1: Creating a roadmap to well-integrated Arctic observing system 3](#_Toc501125530)

[1) Conducting an inventory of national observational capacities. 3](#_Toc501125531)

[2) Assessment of the Arctic observational capacity. 3](#_Toc501125532)

[Objective 1.1: Conducting an inventory of national observational capacities 4](#_Toc501125533)

[Objective 1.2: Assessment of the Arctic observational capacity 5](#_Toc501125534)

[Objective 1.3: Providing recommendations for future Arctic observational capacities 6](#_Toc501125535)

[Objective 1.4: Creating opportunities to develop and implement Arctic Societal Benefit Areas (SBAs) 7](#_Toc501125536)

[Objective 1.5: Provision of a long-term repository for relevant project deliverables 9](#_Toc501125537)

[Goal 2: Free and ethically open access to Arctic observational data 10](#_Toc501125538)

[1) Create a road map outlining steps towards achieving a system that will facilitate access to Arctic observational data. 11](#_Toc501125539)

[2) Advance a system to facilitate access to Arctic observational data. 11](#_Toc501125540)

[3) Establish a persistent consortium of organizations to oversee the development of a sustainable, world-wide system for access to all Arctic data. 11](#_Toc501125541)

[Objective 2.1: Create a road map outlining steps towards achieving a system that will facilitate access to Arctic observational data 12](#_Toc501125542)

[Objective 2.2: Advance a system to facilitate access to Arctic observational data 14](#_Toc501125543)

[Objective 2.3: Establish a Persistent Consortium of Organisations to Oversee the Development of a sustainable, world-wide system for access to all Arctic data 17](#_Toc501125544)

[Goal 3: Ensuring sustainability of Arctic Observing 19](#_Toc501125545)

[1) Develop a strategy for long-term financial commitment in Arctic observations 19](#_Toc501125546)

[2) Apply the strategy developed in 3.1 to lobby funding agencies and states to ensure sustainability of Arctic observing 19](#_Toc501125547)

[3) Secure funding for international SAON secretariat and operational costs 19](#_Toc501125548)

[Objective 3.1: Develop a strategy for long-term financial commitment in Arctic observations 20](#_Toc501125549)

[Objective 3.2: Apply the strategy developed in 3.1 to lobby funding agencies and states to ensure sustainability of Arctic observing 22](#_Toc501125550)

[Objective 3.3: Secure funding for international SAON secretariat and operational costs 23](#_Toc501125551)

## Goal 1: Creating a roadmap to well-integrated Arctic observing system

The rapid on-going changes in the Arctic present an urgent need to better observe, characterize and quantify processes and properties in all subsystems of the Arctic.

SAON will engage and facilitate connections among the producers and end-users of Arctic observations to create and maintain a sustained Arctic Observing System. A consistently adopted, community-endorsed framework will be essential to fulfilling this goal. The International Arctic Observations Assessment Framework[[1]](#footnote-2), developed in partnership with SAON, provides such a starting point. SAON will help to flesh out the observations, products, and services that complete the Arctic Observations value tree[[2]](#footnote-3). A holistic benefit analysis will assess the current observing system sustainability and its potential expansions and can be used to create a roadmap to well-integrated Arctic observing capacity. The case will be strengthened by identifying funding possibilities to support infrastructures required for observations and facilitating technological innovations to improve observation capacity.

SAON will work closely with other prominent Arctic and international organisations as well as with the Arctic Council Permanent Participants in finding synergies and joint activities, and avoiding overlaps in the efforts in reaching Goal 1. The collaboration will include, but is not limited to: AMAP, ARCS (Japan), CAFF (CBMP), EU-PolarNet, GEO, GEOCRI, IASOA, ICC, INTAROS, INTERACT, PRIC, Saami Council, SIOS, and WMO.

This Goal has five objectives:

### Conducting an inventory of national observational capacities.

### Performing an assessment of the Arctic observational capacity.

1. Providing recommendations for future Arctic observational capacities.
2. Creating opportunities to develop and implement Arctic Societal Benefit Areas (SBAs).
3. Provision of a long-term repository for relevant project deliverables.

### Objective 1.1: Conducting an inventory of national observational capacities

Description: Develop an ongoing inventory of national capacities in terms of both long- and short-term observations and monitoring, science/implementation plans, and investment strategies. The purpose of the inventory is to give the countries an overview of the current observational capacities to identify gaps and overlaps to be addressed at regional, national or international level. The information will be gathered through national focal points and observing networks and maintained in an open database of - and gateway to - all Arctic observing activities.

Urgency: High

Timelines: 2018-2020. Requirements and prototypes to be finalised in 2018.

Lead: SAON CON

Tasks:

* SAON CON will lead the coordination of the inventory, together with the national organisations/offices.
* Each country will establish a national SAON organisation/office to gather information and report on capacity and monitoring efforts. SAON will facilitate the establishment of national organisations/offices by providing suggestions for ToR and relevant membership, and by providing examples on different organizational models.
* Observing networks will provide input and information on the observations.
* The Atlas of Community Based Monitoring (CBM Atlas) will be utilized and recognised in the inventory. Other appropriate tools such as, e.g., the Arctic Adaptation Exchange Portal can also be utilized.
* The inventory will be compiled and maintained by the SAON Secretariat.
* Board will monitor the development of this objective and give feedback.

Outreach: Inventory will be open for utilization on the SAON web site.

Resources and funding: In-kind contributions from nations, networks, and organisations. In the early phases. EU-PolarNet inventory work is a contribution to this activity.

### Objective 1.2: Performing an assessment of the Arctic observational capacity

Description: The assessment will, building upon the inventory (Objective 1.1), to identify infrastructure/technology gaps where the observational needs are not yet covered by the existing systems.

Urgency: High

Timelines: 2018-2021.

Lead: SAON CON

Tasks:

* SAON CON will lead the coordination of this activity.
* A task force or committee is needed to retrieve information from the inventory for analysis and produces the resulting assessment report together with the SAON Secretariat.
* The observing networks will participate in reaching these objectives by providing input and information for the assessment work and feedback on the resulting report.
* EU-PolarNet will provide the first gap analysis in 2017 as a part of their project outcomes that can be utilized in the assessment for further analysis and updates.
* The Board will monitor the development of this activity and provide feedback.

Outreach: Assessment report. Workshop(s) for SAON national offices and SAON networks during the assessment process. Meeting/event presenting the assessment results and launching the report.

Resources and funding: Funding for 1-2 years will be seeked from relevant international funding body.

### Objective 1.3: Providing recommendations for future Arctic observational capacities

Description: The purpose of this objective is to identify and provide recommendations on future needs for networks, observing activities, technology and infrastructures by:

1. Providing recommendations for closing gaps or extensions to the integrated Arctic-observing system
2. Engaging potential operators and funding agencies to respond to the gaps and to sustain a well-integrated long-term observing capacity

Urgency: 1) high, 2) medium.

Timelines: 2020-2022

* Recommendation work in 2020- 2022. INTAROS will provide its gap analysis in 2022; this will be utilized to fine-tune and complete the recommendations.
* The potential operators and funding agencies should be engaged throughout the process to raise awareness and obtain feedback.

Board: Lead

Committees: Provide input. Respond/react/advocate.

Networks: Provide input. Respond/react/advocate.

National SAON organisations: Advocate and create awareness about the recommendations work on the national level (national observing entities, infrastructures, national funding bodies) and provide information back to the international SAON level.

Outreach: Recommendations report. Workshops and meetings to engage potential operators and funding agencies.

Resources and funding: Seek funding for 1-2 years in 2020-2022 to develop the recommendations, arrange associated workshops and meetings, and prepare the report.

### Objective 1.4: Creating opportunities to develop and implement Arctic Societal Benefit Areas (SBAs)

Description: SAON will engage in global, regional and local initiatives, networks and organisations aiming to utilise arctic observations to gain societal benefits and aid sustainable observing technology development.

SAON will be facilitating the development of Arctic Societal Benefit Areas (SBAs), and creating awareness on how to utilise arctic observations and derived information to create societal benefits in the arctic regions and beyond, e.g. in the fields of Environmental Issues, Societal Issues, Economic issues, and Cultural Issues.

Secondly, SAON will reach towards the objective by organising technology fora in suitable events to support sustainable and innovative solutions and observation technology development in the Arctic. In the technology fora, the atmospheric, ocean, terrestrial and other domains can share knowhow and best practises on the Arctic observation technology and its implications, and innovate towards future developments. The gap analysis and recommendations obtained in Objectives 1.2 and 1.3. can be used to identify areas where the technology push is most needed for closing gaps or create extensions to reach the integrated Arctic-observing system.

Thirdly, SAON will organise a forum for bringing together the arctic observing community (organisations, networks, projects) and potential funding bodies to discuss how to secure sustained arctic observing networks and ensure future developments, and how to channel funding to leverage societal benefits from the arctic observations and infrastructures.

Urgency: Medium

Timeline: 2018-2022

Tasks:

* SAON CON will provide observation source information to the physical atmosphere and ocean related value tree analysis, starting in 2017 under the Finland AC chairmanship and delivered by 2019.
* SAON CON will arrange, with support from the SAON Secretariat, the technology and funding fora during suitable events, e.g. Arctic Observing Summit.

Board: Will monitor the development and provide feedback. Attendance to technology and funding for events.

Networks: Provide observation source information when needed. Participate in the technology and funding fora events.

National SAON organisations: Provide observation source information. Participate in technology and funding fora events.

Outreach: Technology and funding forum events to be marketed, news on results, reports. Arctic Observing Summit to arrange the events and to communicate the results.

Resources and funding: Resources from volunteering participants, national support for participation.

### Objective 1.5: Provision of a long-term repository for relevant project deliverables

Description: SAON offers to host a long-term repository for relevant project deliverables (e.g. inventories, workshop results, reports). The SAON web site will include element called ‘Arctic Archive’ for such outputs.

Urgency: Low

Timelines: 2018-2019

Board: None.

Committees: None. Should be informed about the opportunity to store deliverables.

Networks: None. Should be informed about the opportunity to store deliverables.

National SAON organisations: None. Should be informed about the opportunity to store deliverables.

Relationship with international/other organisations: None.

Outreach: Inform relevant projects.

Resources and funding: SAON Secretariat.

## [Goal](file:///C:\SAON%20Strategy%20Framework\Updating%2008NOV%20version\02_30NOV_WA_11_SAON_Strategic_Framework_08NOV_PLP_WGA.docx#_djrrklsokyrs) 2: Free and ethically open access to Arctic observational data

One of SAON’s guiding principles is to promote ethically free and open access[[3]](#footnote-4) to ethically-collected data.

A review of literature and the results of a series of different meetings, workshops and conference sessions focused on Arctic data management have identified myriad requirements, characteristics, and visions for an open, interconnected, international system for sharing data across disciplines, domains, and cultures. These include but are not limited to:

* A distributed design that connects different data repositories and other resources. This implies and requires interoperability that supports sharing data among various information systems in a useful and meaningful manner;
* “Common access, Single Window” to discuss and access data through information technology;
* High quality, ethically open data preserved over time (implies sustainability);
* Data as a responsive, “live” service rather than simple download approach;
* Inclusive of Indigenous and local perspectives and information;
* Access to “big data” and powerful analytical tools (e.g. cloud platforms);
* Cost effective, maximizing the investments made to develop and maintaining the system.

The approximately sixty international participants at the 2016 Polar Connections Interoperability Workshop and Assessment Process agreed that the key current challenges impeding the development of a globally connected, interoperable system are social and organizational rather than technical: supporting human networks, promoting standards, and aligning policy with implementation.

In recognizing the elements of the envisioned system and the key challenges identified by the community, SAON will first focus on working with the global Arctic data community, including data providers, technologist, funders, direct users, and beneficiaries within society, to improve connections, collaboration, and cooperation between and among actors. This effort will provide the necessary collaborative foundation needed to achieve the desired system.

This Goal has three interdependent objectives:

### Create a road map outlining steps towards achieving a system that will facilitate access to Arctic observational data.

### Advance a system to facilitate access to Arctic observational data.

### Establish a persistent consortium of organizations to oversee the development of a sustainable, world-wide system for access to all Arctic data.

### Objective 2.1: Create a road map outlining steps towards achieving a system that will facilitate access to Arctic observational data

Description: Facilitating the emergence of a world-wide system requires an understanding of the existing and emerging technical and human “nodes” in the system. This enhanced understanding will underpin the activities necessary to enhance cooperation and the establishment of the global network.

Urgency: High

Activitities: 2017 - 2019

* Historical: In late 2014, the ADC established the ”Mapping the Arctic Data Ecosystem” initiative. In late 2016, the ADC collaborated with the Belmont Forum funded Pan-Arctic Options Project to establish resources for this effort. In the middle of 2017, a postdoctoral fellow (Dr. Katia Kontar) was hired to dedicate time to this effort. The Pan-Arctic Options component has been rebranded as the Arctic Data E-CoSystem initiative. Results will contribute to the ADC effort. Initial focus of this effort will be on analysing the corpus of the Arctic Council working groups and the connected data resources and infrastructures.
* Additional activities through ADC, project outputs, national efforts will complement the Arctic Data E-CoSystem results.
* Ongoing – in addition to ADC and related Arctic Data E-CoSystem efforts, there are a number of projects/programs producing or discussing the production of relevant materials. Most notable are the EU-PolarNet and the INTAROS projects. Additionally, IARPC in the U.S. and the Canadian Consortium on Arctic Data Interoperability are proposing to do work focused on their national systems.
* Last quarter of 2017, propose initial technical model for collecting and disseminating data about systems at different scales so that they can be used together.
* Quarter 1 and Quarter 2 of 2018. Perform initial publication and analysis of system data combining various sources (e.g. Arctic Data E-CoSystem, EU-PolarNet, and other interested partners). Present results at POLAR 2018 conference.
* Quarter 3 of 2018. Iterate through analysis process; work with global community to establish model to sustain the (eco)system mapping efforts over time.
* Quarter 4 of 2018. If possible, present results at Second ASM as part of broader SAON and partner submission.
* 2019. Continue to populate and grow system capabilities. Provide analytical results to global efforts to enhance collaboration, cooperation etc.

Board: *(To be completed)*

Committees:

* ADC: Convening role
* CON: Contributing role as connection to the observing systems

Networks: Leadership, as central partners

National SAON organisations: Leadership, as central partners (Note: This could be challenging in short term, but may improve with effectiveness of initiative)

Involvement of Permanent Participants/Indigenous organisations; Indigenous/Local knowledge: Leadership, as central partners (Note: Follows also from Permanent Participants’ representation on ADC).

Relationship with international/other organisations: Currently there are many initiatives that are funded or conceptualized which are or should be engaging at a global level. To achieve the initial goals, the following iniatives should engage at minimum global efforts: Global Cryosphere Watch/YOPP, GOOS, ICES, RDA; Regional initiatives such as: Arctic Portal, University of the Arctic, SCADM, SOOS , EU-PolarNet, INTAROS as part of the new EU Arctic Cluster, CAFFs Arctic Biodiversity Data Service (ABDS), ESA Arctic, SIOS Data Management System; GEO Cold Regions Initiative, Polar View, Arctic Spatial Data Infrastructure; National institutions such as IARPC, Canadian Consortium for Arctic Data Interoperability; Asian partners (e.g Polar Research Institute of China, National Institute for Polar Research in Japan, KOPRI Korea, Russian partners etc.), ; Private industry (Google, World Ocean Council (WOC), Association of Arctic Oil Producer, Publishers?); Academia including University of the Arctic

Outreach: SAON, IASC, Arctic Council, Arctic Portal, ARCUS, European Polar Board, EU Arctic Cluster, Arctic Observing Summit.

Resources and funding: i) Leverage existing funding (e.g. Arctic Data E-CoSystem, ADC member contributions etc.)

### Objective 2.2: Advance a system to facilitate access to Arctic observational data

Description: Advancing a system to facilitate access to Arctic observational data will require global cooperation. There are many projects and programs across a range of scales that are active in polar data management and stewardship. Many of those initiatives now have resources available and are making progress towards an envisioned connected, interoperable polar data system. The international polar data community is eager to improve cooperation and coordination of their efforts. SAON can play a central role in bringing together the actors who will build the system.

Urgency: High

Activites: 2017-2019

* In the spring of 2018, representatives from a wide range of different active programs and projects will meet to focus on coordination of efforts to facilitate data access. This meeting will complement past workshops and fora (e.g. IPY, Polar Data Forums etc.) that have been effective in defining important community challenges and technical issues. The focus of the planned meeting will be to generate detailed plans on how best to mobilize activities to develop a particular international data sharing case study.   A decision on the nature of the case study will be made during the fall of 2017.
* July 2017:proposal submitted to NSF by ADC Chair Peter Pulsifer, Dr. Colleen Strawhacker, and Prof. Maribeth Murray. Grant awarded. Project start date 1 October 2017.
* September 16-18, 2017: ADC-SCADM meeting: Set foundation of concept and consulted with members of the community on value of the workshop and planning details.
* Q4 2017.
  + Confirm preliminary co-organizers of the spring 2018 workshop. For example, Global Cryosphere Watch, EU Arctic Cluster, Polar View GEOCRI, Arctic Spatial Data Infrastructure have all confirmed intention to co-organize.
  + Establish clear model for continued engagement of Permanent Participants.
  + Confirm process to: i) confirm the focus of the “case study” and the initial contributing partners;this will consider societal relevance, appropriateness of scope, existing capacity etc. ; ii) establish a model that will allow for sufficient representation at the workshop while maintaining a group size that is small enough to remain productive ; iii) confirm the schedule, location and other logistical details of the workshop.
  + Start the process of obtaining work plans and relevant resource levels (funds, human resources, infrastructure) from each project. These will be analysed by the organizing team to establish opportunities for synergy, overlap, gaps etc. across projects/programs.
  + Start initial technical discussions to establish high level architecture (e.g. foundational protocols, services etc.)
  + December 2017: present on workshop goals, plans etc. at Arctic Change conference; community engagement, outreach.
* Q1 2018.
  + Iterate through process started in Q4 2017
  + January 2018: present at ISAR-5 Conference, Tokyo, Japan; community engagement and outreach (particularly valuable for engaging the Asian community).
* Q2 2018 -
  + May 2018 (estimated, dates TBD): Main Workshop.
  + Detailed work planning and project “sign off” - associated with specific issues identified by community through previous activities
  + Confirmation of system architecture
  + Confirmation of key overacting priorities based on other activities (EU-PolarNet, Interoperability workshop, INTAROS, etc.)
* POLAR 2018, Arctic Observing Summit, June 2018, Davos, Switzerland:
  + Hold ½ - 1 day meeting to share results of the the May workshop. Room has been reserved.
  + Reporting results of workshop at POLAR conference and AOS; consultation, feedback, visibility
  + Community engagement, outreach.

2018 Berlin Arctic Science Ministerial;

* Present a collectively-developed road map and architecture outlining a world-wide system that will provide researchers and others with access to a significant set of Arctic data related to a particular case study.
  + A coordinated, integrated work plan identifying goals and objectives.
  + Will include hard infrastructure as well as “soft” models establishing societal value, a related viable business model, and value to researchers and others.
* Present a representation of the Arctic data system (Results of Objective 2.1)

Board: Provide support in planning efforts. Review of proposed process, outreach and community engagement, review of outcomes.

Committees:

* ADC: Convening role
* CON: Contributing role as connection to the observing systems

Networks: Leadership, as central partners

National SAON organisations: Leadership, as central partners (Note: This could be challenging in short term, but may improve with effectiveness of initiative)

Relationship with international/other organisations: As for 2.1. The meeting will be co-led and co-organized by key polar data projects and programs. Currently, organizers include: IASC/SAON Arctic data Committee; SCAR Standing Committee on Antarctic Data Management; Southern Ocean Observing System; Global Cryosphere Watch and related WMO activities; Polar View; Arctic Spatial Data Infrastructure; EU Arctic Cluster including 8 current EU funded projects; SIOS Data Mangement System; GEO Cold Regions Initiative; Canadian Polar Data Workshop Network; Canadian Consortium on Arctic Data Interoperability; representatives from the Arctic Social Science Community; Research Data Alliance. One International Indigenous organization, Inuit Circumpolar Council, was part of the initial conceptualization of project in June of 2017 and more input is needed and is actively being sought from Indigenous organizations.

Involvement of Permanent Participants/Indigenous organisations; Indigenous/Local knowledge: Leadership, as central partners (Note: Follows also from Permanent Participants’ representation on ADC)

Outreach: ARCUS, IASC, European Polar Board, EU Initiatives

Resources and funding: i) Leverage existing funding; ii) Leverage existing NSF workshop grant; iii) ESA; iv) Others.

### Objective 2.3: Establish a Persistent Consortium of Organisations to Oversee the Development of a sustainable, world-wide system for access to all Arctic data

Description: The initial results of the Arctic Data Committee’s Mapping the Arctic Data Ecosystem initiative and a series of other related meetings and activities confirm there are many stakeholders who will be part of developing a world-wide system for access to all Arctic data (cf. Pulsifer talk on 4 October at <https://www.arcus.org/research-seminar-series/archive)>. Additionally, developing such a system will requiring ongoing effort of many years. Thus, it is critical for SAON to work cooperatively to establish a persistent consortium of organisations to oversee this development. In recent years, the Arctic Data Committee has consistently taken a leadership role in coordinating community activities. Moving forward, this must continue and expand to ensure that all stakeholders are represented in the process.

A primary goal under Objective 2.1 will be to identify the stakeholders who need to be part of the process. A primary goal under Objective 2.3 will be to establish a persistent global consortium of organizations and a process to oversee the development of a world-wide system for access to all Arctic data.

Urgency: High

Timelines:

* The process has already started through the activities of the Arctic Data Committee and a number of other organizations.
* Foundational work will continue through fall 2018 as part of Objective 2.2
* Ongoing

Board: Extensive guidance and engagement in establishing persistent body.

Committees:

* ADC: Convening role
* CON: Contributing role as connection to the observing systems

Networks: Leadership, as central partners

National SAON organisations: Leadership, as central partners (Note: This could be challenging in short term, but may improve with effectiveness of initiative)

Relationship with international/other organisations: As for 2.1. The establishment of a persistent consortium will be co-led and co-organized by key polar data projects and programs and ideally the Permanent Participants of the Arctic Council. Currently,, organizers include: IASC/SAON Arctic data Committee; Arctic Portal; University of the Arctic; SCAR Standing Committee on Antarctic Data Management; Southern Ocean Observing System; Global Cryosphere Watch and related WMO activities; Polar View; Arctic Spatial Data Infrastructure; EU Arctic Cluster including 8 current EU funded projects; SIOS Data Management System; GEO Cold Regions Initiative; Canadian Polar Data Workshop Network; Canadian Consortium on Arctic Data Interoperability; representatives from the Arctic Social Science Community; Research Data Alliance. One International Indigenous organization, Inuit Circumpolar Council, was part of the initial conceptualization of project in June of 2017 and more input is needed and is actively being sought from Indigenous organizations.

Involvement of Permanent Participants/Indigenous organisations; Indigenous/Local knowledge: Leadership, as central partners (Note: Follows also from Permanent Participants’ representation on ADC)

Outreach: IASC, SAON, ARCUS, IARPC, European Polar Board, EU Initiatives, many others.

Resources and funding: i) Leverage existing funding; ii) Leverage existing NSF workshop grant; iii) ESA; iv) Others.

## Goal3: Ensuring sustainability of Arctic Observing

Goals 1 and 2 can only be successful if the need for improved coordinated Arctic Observation and sharing of data and resources, as well as need for additional resources are understood, accepted and supported by all relevant stakeholders over the long term. Several steps are needed to achieve sustained Arctic observing, which should be realized through these three objectives:

### Develop a strategy for long-term financial commitment in Arctic observations.

### Apply the strategy developed in 3.1 to lobby funding agencies and states to ensure sustainability of Arctic observing.

### Secure funding for international SAON secretariat and operational costs.

### Objective 3.1: Develop a strategy for long-term financial commitment in Arctic observations

Description:

SAON has the mandate to mobilize new/additional resources to meet observing needs as well as promote cooperation and coordination among existing initiatives.

SAON shall develop a short and concise engagement strategy to ensure long term support and engagement for Arctic Observations. The strategy will address:

* A short list of key rationales for why long term – sustained – observation is needed (including examples of successful sectors, e.g. – remote sensing, meteorology – and where the advantages are obvious, such as community-based monitoring.)
* A set of arguments why existing observation system benefits from cooperation, infrastructure and data sharing (eg quality of data, necessity of circumpolar coverage, cost saving etc.)
* Study of [science / observation] strategies of existing actors and identify places where cooperation would help
* Study of [science / observation] strategies to identify gaps (topics where one nation study parameter X while the neighbour instead study Y ..)
* A discussion on the challenge of national priorities vs circumpolar coordination priorities (apply to Arctic 8), and assessment of the benefits of Arctic coordination for the respective national observation priorities
* A summary with main society benefits of long term monitoring in the Arctic
* A list of key actors that would benefit from improved observation cooperation – with concrete “what’s in it for me” ideas for each
* A list of organizations/departments that can be approached for support, and a break-down of how much is needed for which activities.

Existing meetings and projects can be used to gather information that support this objective. Examples are the Arctic Science Ministerial in 2018 and the IMOBAR[[4]](#footnote-5) project.

Urgency: High

Timelines: 2017-18. The strategy will be revised according to needs to ensure that the goal of sustained Arctic observing can be achieved.

Board: Lead and appoint a task force for rapid implementation

Committees: Identify and contribute information

Networks: Contribute and identify targets

National SAON organisations: National/regional offices must be established within 2018. Should nominate experts and contribute to the implementation

Relationship with international/other organisations: Important messages to get support from others, multiple outings of the same message. UN agencies …

Involvement of Permanent Participants/Indigenous organisations; Indigenous/Local knowledge: PP’s will have experts in the task force

Outreach: To be determined as part of the strategy

Resources and funding: Board with support from the Secretariat

### Objective 3.2: Apply the strategy developed in 3.1 to lobby funding agencies and states to ensure sustainability of Arctic observing

Description:

SAON has the mandate to mobilize new/additional resources to meet observing needs. SAON will play the liaison/advocate role between the research communities and policy makers.

Develop a prioritized action plan in 2018 – 2019 after Objective 3.1 is finished that targets specific gaps and work with relevant funders to address those.

Urgency: High

Timelines: An ongoing and long-term activity central to the SAON mission with immediate actions to be implemented according to the outcome of Objective 3.1.

Board: The SAON member nations (Board members) will name the individual responsible to provide essential information and provide required resources.

Committees: None

Networks: Provide information of costs of ongoing and projected activities. Provide input to planning

National SAON organisations: The SAON member nations (Board members) will name the individual responsible to provide essential information and provide required resources. Review plans and communicate comments on national support to implement.

Relationship with international/other organisations: Arctic Council Working Groups, ESA, GEO, IASC, ICES, WMO, and others as identified in the outcomes of 3.1.

Involvement of Permanent Participants/Indigenous organisations; Indigenous/Local knowledge: To be part of the activities.

Outreach: Success stories and engagement messages to be contributed for SAON’s outreach activities (see further below)

Resources and funding: To be determined (Objective 3.1)

### Objective 3.3: Secure funding for international SAON secretariat and operational costs

Description:

SAON as a networked organisation will need a minimum core capacity to ensure progress and in particular awareness.

A “membership fee”, and possibly a “inverted fee” structure, where those who contribute less in-kind work pay higher fees may be an option. A task force has been established to work on proposals and options.

Urgency: High

Timelines: Funding for SAON secretariat must be secured during 2017.

Board: Has established task force in 2017 to address the issue.

Committees: None.

Networks: None.

National SAON organisations: The SAON member nations (Board members) will name the individual responsible to provide essential information and provide required resources.

Relationship with international/other organisations: Board members will be in contact with their respective national departments and funding agencies.

Involvement of Permanent Participants/Indigenous organisations; Indigenous/Local knowledgePP organizations to appoint members to the task force.

Outreach: [*To be completed*]

Outreach: [*To be completed*] Funding structures will be proposed by the task force and after agreement of the Board, will be communicated to appropriate national departments and funding agencies.

Resources and funding: [*To be completed*] Board membership, countries, as determined

1. https://www.arcticobserving.org/images/pdf/misc/STPI-SAON-International-Arctic-Observations-Framework-Report-2017.pdf [↑](#footnote-ref-2)
2. At the top level of the value tree are the Societal Benefit Areas (SBAs) that define the environmental, economic, and social domains in which services, operations, and research provide societal benefit. Sub-areas represent natural thematic divisions of each SBA. Each sub-area is composed of key objectives (KOs). KOs are service, operational, or research activities that are clearly supported by and can be linked to Earth-observing systems and their data and information products. The bottom of the value tree consists of identified complementary products, services, and research outcomes that contribute to the achievement of international objectives in the Arctic. [↑](#footnote-ref-3)
3. The source of this concept is *International Arctic Science Committee, 2013. Statement of Principles and Practices for Arctic Data Management*: <https://www.iasc.info/data-observations/iasc-data-statement> [↑](#footnote-ref-4)
4. The Impact Assessment on a Long-Term Investment on Arctic Observations (IMOBAR) is a European Commission initiative: ‘It provides the elements to build the "business case" for sustaining in the long-term Arctic observations (…)’. The work is meant to be finalised in 2018. [↑](#footnote-ref-5)