SAON Roadmap Task Force: Organizational strategy and homework assignment

A Roadmap is a planning tool used in science and technology development processes to set the broad conceptual direction for where an [organization, network, widget] needs to go and how the various partners and players are going to work - with specific milestones identified - towards getting it there.

In short, it answers

1. Where do we (or the underlying networks of the Arctic System) need to go?
2. How are we going to get there [implicit in how is "who is going to take these actions"]?

But before this, there should be formulations about

0. An underpinning set of assumptions should also be established to concisely clarify, among other things:

1. Why the [network, widget] etc should be developed.
2. But also the findings/recognitions that are critical to setting the development context, such as the role of indigenous partners in Arctic observing or the need to provide both scientific and operational benefits.

SAON has already done quite a bit of work on the latter, especially well outlined in the guiding principles of the Strategic Plan, but as a stand-alone document, the definition should include or expand upon them.

We need to be careful not to simply rewrite the Strategic Plan for SAON as the Roadmap to Arctic Observing (RAO) is much more focused on the nuts and bolts of assessing the network and developing nuts and bolts requirements.

Homework assignment

For a homework assignment to move towards synthesizing the inputs, everyone should take the materials/inputs (including the national statements) and consider or respond to what they think fits under each header:

0. There are some basic assumptions and rationale that underpin why we are creating a Roadmap and what the Arctic-specific challenges and opportunities of such a proposition entail for how we proceed. List what you think the most critical assumptions are that should be stated in this document:

* (e.g. from Sandven): The SAON Roadmap should acknowledge that Arctic observing (AO) is a complex system with several dimensions. Broadly speaking, AO is driven by the need to support:
* Scientific disciplines: atmosphere, ocean, cryopshere, terrestrial themes
* Societal benefit areas: weather, climate, environment, natural hazards, resources, economic activities, +
* Community-driven requirements: across several scientific and social benefit areas
* (e.g. from discussion) There are already numerous networks (regional, subject-oriented, led by different principles, global networks) that are active and have developed strong strategies. SAON's ROA should not interfere or redefine what these groups are doing, but seek to add value at the "meta-level" to show some unification and system-level integration across these diverse organizational systems.

1. A well-developed Roadmap for Arctic observing should describe "where we are going". Our exercise is not simply to redefine the SAON Strategic Plan but to look specifically at how network requirements should be developed in a way that national funding bodies can understand and react to/fund and that global and regional partners can organize themselves around. What are the types of details and specifics that you think the RAO should include?

* (e.g. from GOOS), Essential Variable frameworks provided a valuable organization system where independent but overlapping expert groups can coordinate existing networks and merge their outputs around specific requirements for spatial and temporal observing scales and point to the specific observing strategies (e.g. ARGO floats) that are needed to get there.
* (e.g. from GOOS), system readiness and technology gaps were explicitly identified along with strategies for promoting their development

2. The inputs provided suggest some strategies for "how to get there". List the examples and ideas from other frameworks that you think provide this strategic framework. How do you think the RAO should adopt, reject or modify these strategies in the Arctic context:

* What role do you think the IAOAF should play in organizing this work?
* (e.g. from GOOS), the community organized into broad subject matter expert panels under specific topics: Physical oceanography, biogeochemical oceanography and used existing partner organizations to lead progress under these expert panels, all following the same expectations for identifying and describing Essential Variables
* What are the specific processes needed in order to bring existing observing networks into an overall framework. What would be requirements to existing networks? How could the framework benefit existing networks?

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1. Critical Assumptions include but are not limited to ensuring that any Roadmap for Sustaining Arctic Observing Networks serve society and be driven to promote human health and wellbeing from environmental conservation to sustainable development of the Arctic, with special care taken in economic growth and resource management; enhances local and regional security from the perspectives of food, water, and energy; and, to the extent possible, inform evidence-based decision-making (e.g., for development, management, policy, services, etc.)
2. Details & Specifics: This should include, at minimum, who implements, who finances, and a timeline with concrete milestones and means for the evaluation of progress and success.
3. From other Frameworks: I am less certain about from which other existing frameworks SAON should adopt its strategy. However, rather than a strict topical approach, I would encourage SAON to explore an integrative systems approach, particularly as we think about different “essential variables” among the diverse data streams. Similarly, as or bringing existing observing systems into an overall frameworks, that’s challenging. I would say improved collaboration, communication, and coordination but I am unsure as to how best to implement. I would potentially welcome the formation of regional Arctic Observing Hubs for defining and prioritizing the design and implementation of data collection and analysis for diverse stakeholder use that takes us from research to operations and other applications.