

Arctic Council Joint Working Group Meeting Plenary Session

Break-Out Session: Arctic SDI – Standardized Geospatial Data Management and Sharing

Session Objective

- To raise awareness about the value of participating in a standards-based Spatial Data Infrastructure, specifically Arctic SDI, and
- To discuss how Arctic Council Working Groups (WGs) can use this platform, to dynamically share and get access to interoperable data on cross-cutting issues increasing the overall value of the data exchanged.
- To discuss how the Arctic SDI and the Arctic Council Working Groups will cooperate to identify prioritized data issues and how to develop a common data policy.

Arctic Spatial Data Infrastructure

The Arctic Spatial Data Infrastructure (Arctic SDI) is a cooperation between the National Mapping Agencies of the eight Arctic states whose Board includes the Mapping Directors. A recently signed Memorandum of Understanding describes objectives for provisioning geospatial information, and the application of international standards. The ultimate goal of this agreement is to facilitate and promote collaboration among key Arctic stakeholders to enhance access to public and private sector geospatial data across International boundaries. Increasing access to geospatial data and tools will enhance the ability of communities and governments to predict, understand, and react to climatic changes, disasters and other issues such as contaminated sites and other types of pollution. This cooperation has already delivered an initial Arctic SDI Geoportal and initial Arctic SDI Reference Map, which are basic building blocks. A strategic plan and a governance structure have recently been developed to facilitate continued progress. As the strategic plan is activated the Arctic SDI looks to the Arctic Council Working Groups as key stakeholders and will work to evaluate and prioritize activities to support the goals of the Arctic Council and the Arctic SDI. Please also see the new [Arctic SDI Fact Sheet](#).

Examples of Arctic Council –Arctic SDI cooperation and future suggestions for work

- Arctic SDI has worked closely with the CAFF WG in developing a means of facilitating access to remotely sensed data developed via the Circumpolar Biodiversity Monitoring Programme (CBMP). The Arctic Biodiversity Data Service (ABDS) now streams CAFF data into the Arctic SDI GeoPortal. This cooperation has proved very productive and allowed for the exchange of both knowledge and skills between the Arctic SDI and an Arctic Council WG.
- Next steps in cooperation include a focus within CAFF and the Arctic SDI on developing a Pan-Arctic Digital Elevation Map (DEM). This tool will help improve access to Arctic topographical information to facilitate monitoring and assessment activities and to inform decisions on development, land management and scientific analyses. The work is led by the U.S. (USGS) and is noted as a priority of the US Chairmanship of the Arctic Council.
- Arctic SDI is a key partner in the Arctic Biodiversity Data Service (ABDS). The Arctic SDI delivers a Memorandum of Understanding, signed by the Arctic national mapping agencies. The purpose of the Memorandum is to ensure cooperation of the sharing of spatial information and applying

international standards with the aim of creating seamless circumpolar mapping.

- Arctic SDI is working to finalize a time-series tool in the Geoportal to accommodate CAFF data.

Examples of Future work with Arctic Council working groups and Arctic SDI

- Arctic SDI and EPPR have begun initial discussions regarding synergies between Arctic SDI and Arctic ERMA. Currently links sharing services between the two platforms is being discussed to ensure that duplication is minimized while also making sure that information is available to multiple users groups when needed. While Arctic ERMA and Arctic SDI have different missions, these are areas of synergy. More information on Arctic ERMA and its use in EPPR can be found in the 2015 Report to Ministers: <https://oaarchive.arctic-council.org/handle/11374/400> .
- Similar discussions could be considered with other web-based portals, for example ArcticWeb, a Danish initiative focused on ship tracking and hazard evaluation.
- Arctic SDI may be an appropriate platform to display project data from ACAP projects and findings on different contaminants in the Arctic. One example is layering information into Arctic SDI from the ACAP Black Carbon Case studies. This information is currently being displayed through Arctic ERMA, but as cooperation between Arctic ERMA and Arctic SDI develops, data from the case studies could become available on both services. A longer term strategy for layering project data on base maps is a discussion item relevant to all Arctic Council working groups.
- Other ACAP projects that could considering mapping project data include:
 - Circumpolar Local Environmental Observer Network – capturing traditional ecological knowledge in Arctic communities
 - Obsolete Pesticide clean-up site and rapid environmental assessment results
 - Black Carbon assessment information from small communities as well as through national reporting

Arctic SDI and Arctic Council Working Groups – Discussion Points and Questions

This Breakout session is meant to enhance common understanding of the benefits of standards and cooperative efforts to improve access to data. Using standards provides a common environment to which multiple tools can be used to view, analyze and update data. Data can be shared widely or locked down to specific users. Enabling the sharing of data through adopted standards within a spatial data infrastructure generally, but Arctic SDI specifically, the WGs will be empowered to visualize data dynamically in ways that are not possible when downloading data to a computer and working static copies.

The Arctic SDI will continue development of the Arctic SDI map and metadata services, as well as pursue of emerging technologies and best practices as well as develop data policy guidelines. Additionally, a project plan is being drafted for an Arctic SDI data open standards interoperability pilot with Open Geospatial Consortium (OGC).

Questions

1. What's your biggest challenge to storing, accessing and updating your geospatial data?
2. What opportunities might exist for a common, long-term geospatial data management strategy within the Arctic Council Working Groups?
3. Successfully building the Arctic SDI is based on adoption of open standards and policies for publishing data. What are the next steps for working more closely with the Arctic SDI?
4. How do we work to best organize Arctic Council Working Group activities so that cross-cutting data integration activities that serve multiple working groups are prioritized?