



**ARCTIC
SDI** Arctic Spatial
Data Infrastructure

Arctic Spatial Data Infrastructure

Enabling Access to
Arctic Location-Based Information

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Why Arctic SDI?

Data is often difficult and costly to find, access and combine

- due to lack of standardized distribution of data and insufficient compliance to international standards

The Arctic SDI was established to **address the need for readily available spatial data** in the northern areas of the globe

Let polar data holders get together and make more use of data

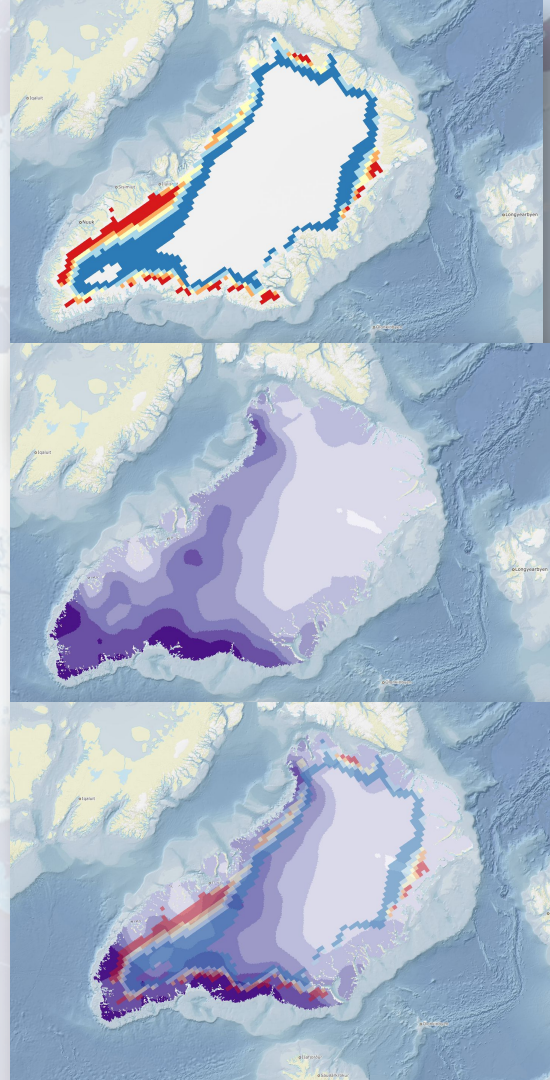
National Mapping Agencies from 8 countries

Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, USA

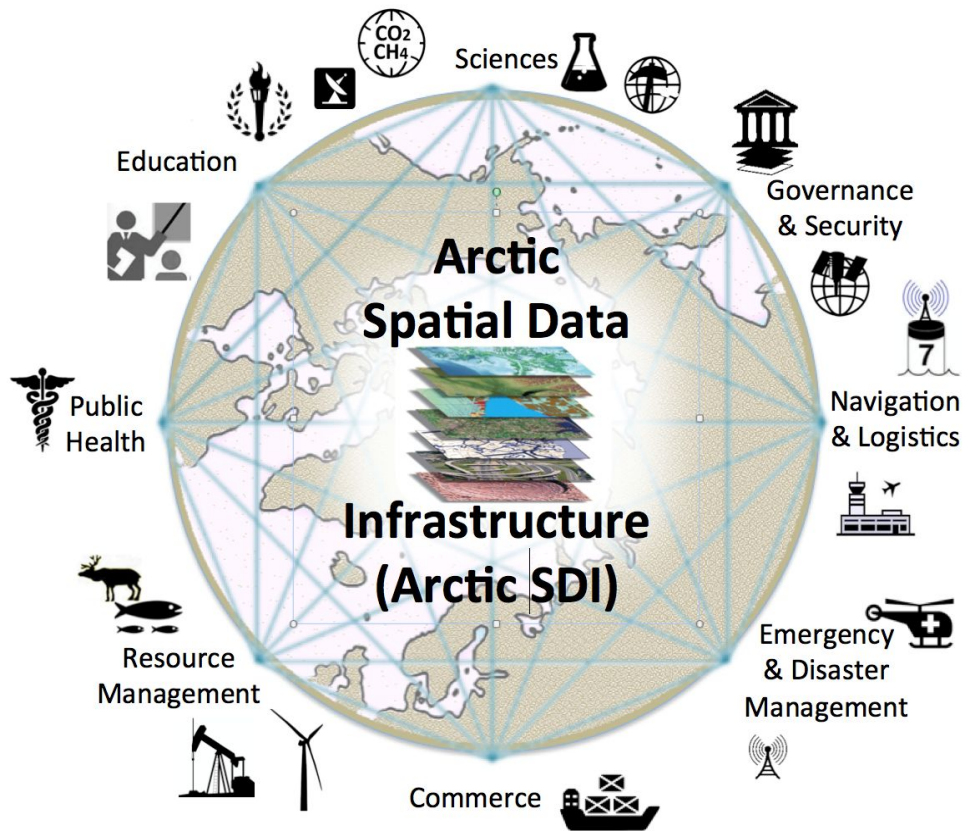
Memorandum of Understanding, Governance, Strategic Plan

The Arctic SDI provides, via a Web portal, easy access to:

- A searchable metadata catalogue of spatial Web services from different providers
- Authoritative Arctic topographic Basemap Service (scale 1:250,000)
- Thematic data (birds, ice cover, ship routes, land cover change, flora etc.)
- Gazetteer Database and Search (3 million place names)
- A geoportal for geospatial data viewing and discovery



A Cooperative Model in the Arctic SDI



The Arctic SDI is focused on:

- Working with organizations to make their data available,
- Understanding the needs and requirements stakeholders
- Information Management best practices (lifecycle of geospatial data),
- Open data standards and provision of authoritative data,
- Helping users and data contributors understand how to participate.

Authoritative Topographic Basemap



Provided Directly from the
**8 Arctic National Mapping
Agencies**

**Southern Svalbard:
Arctic SDI Basemap
vs.
Google Maps**

- **Common Cartographic Specification**
- **A Trusted Source of Detailed Information**



How to benefit from the Arctic SDI?

- Using the same basemap helps to combine data and research results
 - Analysing and comparing the phenomenon at different times
 - Publishing maps – interactive maps
- *Arctic SDI is available to help by giving technical assistance*

Arctic-SDI.org:

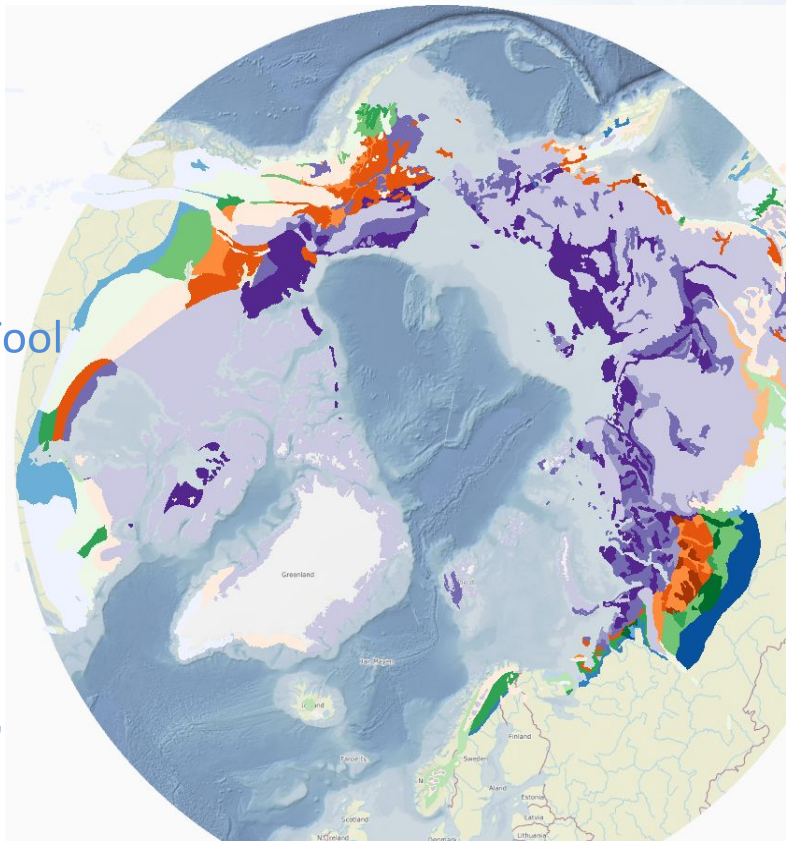
- SDI Manual for the Arctic, Glossary of Terms, Data Sharing Agreements,
- Guidelines for Data Providers (under creation), Geoportal Disclaimer,
- User Needs Assessments, Evaluation, Key Performance Indicators
- Under development: Guide for Data Providers, Data Stewardship Pilot Project with Arctic Council Secretariat

The Geoportal is an access point to the Arctic SDI

- brings all the services and maps together and enables you to very easily reuse them
- openly accessible

Functionalities

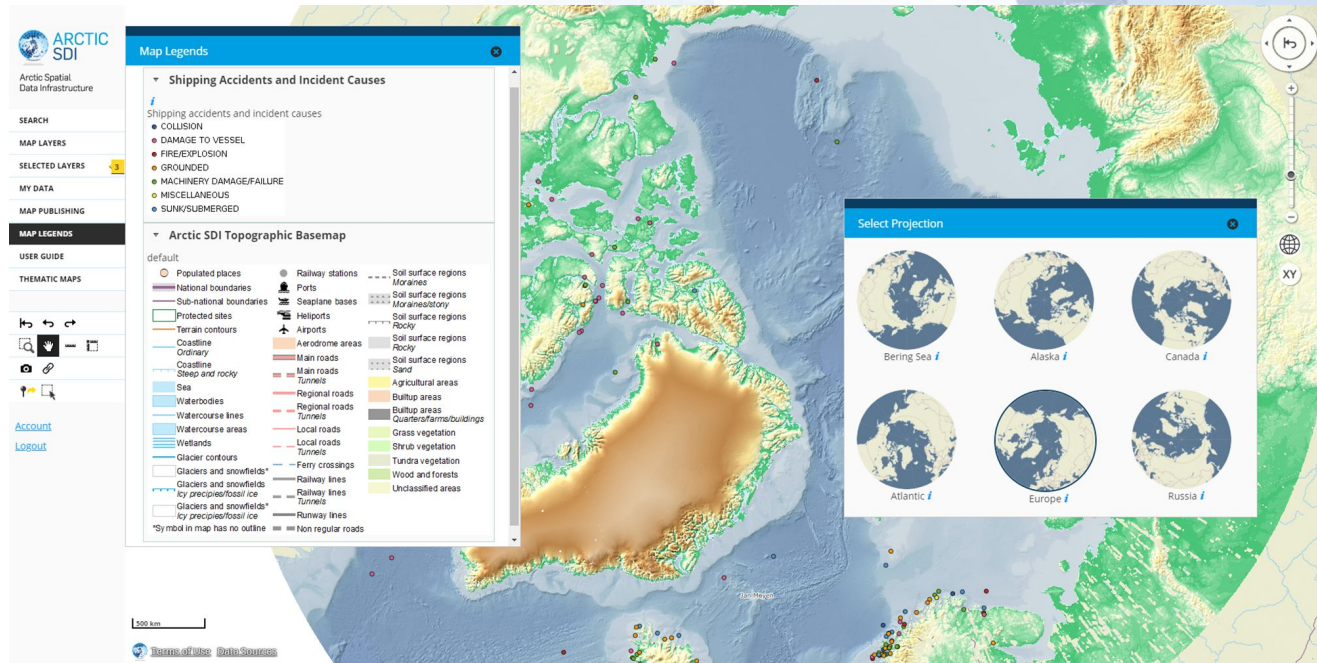
- ✓ Location Search
- ✓ Metadata Search
- ✓ Map Layers & Coordinate Tool
- ✓ Time Series (WMS-T)
- ✓ Dynamic interactive maps (Embedded Maps)
- ✓ Your Own Maps
- ✓ Thematic maps
- ✓ Language support in FI, EN, SV, FR, RU



Map Layers	
Newest	Vector layers
Search map layers.	
Search map layers by map layer name, data producer name or keyword.	
► Biota	8
► Boundaries	8
► Climatology / Meteorology / Atmosphere	30
► Economy	3
► Elevation	20
► Environment	27
► Farming	1
► Geoscientific Information	10
► Health	3
► Imagery / Base Maps / Earth Cover	4
► Location	5
► Oceans	30
► Society	4
► Structure	2
► Transportation	1

Arctic SDI Geoportal – viewpoint to arctic geodata

Video



The screenshot displays the Arctic SDI Geoportal interface. On the left is a sidebar with navigation options: SEARCH, MAP LAYERS, SELECTED LAYERS (3), MY DATA, MAP PUBLISHING, MAP LEGENDS (active), USER GUIDE, and THEMATIC MAPS. Below these are map navigation icons and links for Account and Logout. The main map area shows a topographic basemap of the Arctic region. A 'Map Legends' panel is open, detailing symbols for 'Shipping Accidents and Incident Causes' (COLLISION, DAMAGE TO VESSEL, FIRE/EXPLOSION, GROUNDED, MACHINERY DAMAGE/FAILURE, MISCELLANEOUS, SUNK/SUBMERGED) and the 'Arctic SDI Topographic Basemap' (including populated places, national boundaries, terrain contours, roads, railways, and various land cover types like waterbodies, wetlands, and vegetation). A 'Select Projection' dialog is also open, showing six map projections: Bering Sea, Alaska, Canada, Atlantic, Europe, and Russia.

In Summary

We Are All Stakeholders

- Ecosystem-based analysis requires seamless sharing of data across jurisdictions and organizations.
- Improved access to geospatial data can help us better to predict, understand and react to changes in the Arctic

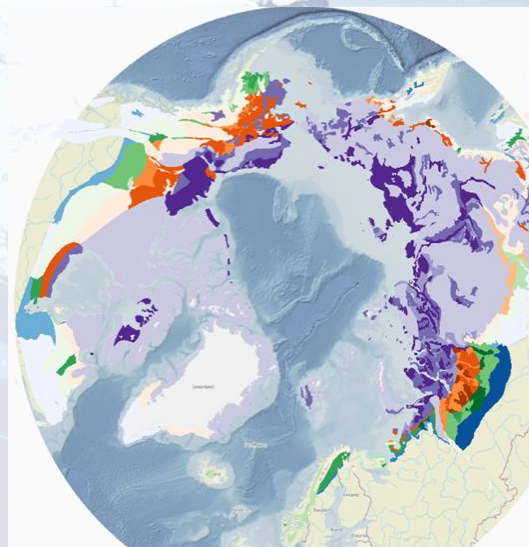


Arctic SDI is providing shared tools and information management practices, to break down silos.



In Summary, the Arctic SDI provides

- ✓ Access to Authoritative data across the Arctic
- ✓ Capacity building materials on how to integrate your own data and leverage from other sources
- ✓ Geoportal with Embedded maps, Time Series visualization and other tools
- ✓ Tools to visualize statistical and spatial data, e.g. SDGs, over the Arctic to demonstrate the changing Arctic



Actic Data Interoperability Workshop

Thursday at 9:00 – 12

The goal is to continue the discussion amongst Arctic data providers on the connection between the Polar Data System (Arctic Data Committee) and the Arctic SDI and identify appropriate tools to ease data sharing and management.

Workshop Outputs

- A common architecture between Polar Data System diverse data pools and Arctic SDI
- Common standards and policy best practices
- Summary of requirements and data pools

***Tervetuloa!
Welcome!***

Arctic-sdi.org

Geoportal <https://geoportal.arctic-sdi.org/>

Geoportal Video: <https://www.youtube.com/watch?v=Ytf3ahdvMms>

