ARCTIC SDI
Arctic Spatial Data Infrastructure

GEOSPATIAL DATA AND SERVICES – TOOLS FOR INFORMED DECISIONS AND EFFICIENT ADMINISTRATION IN THE ARCTIC

Understanding and responding to the changing Arctic requires accessible and reliable data to facilitate monitoring, research, business development, public management, emergency preparedness and decision making.

Important data sets are produced by many stakeholders. Often though data is difficult and costly to find, access and combine due to lack of digital distribution and insufficient compliance to international standards. A modernized data infrastructure will be much more efficient and cost effective and contribute to create value in the Arctic society.

The Arctic Spatial Data Infrastructure – a cooperation facilitated by the National Mapping Agencies of the eight Arctic Countries – provides tools for data distributors to ensure that geospatial data is easier for users to access, validate and combine with other data.

The Arctic SDI Geoportal and the Arctic Topographic Basemap Service – the basic building blocks of the Arctic Spatial Data Infrastructure

- The Arctic SDI Geoportal allows data visualization, access to a searchable Metadata Catalogue, the Arctic Topographic Basemap, authoritative thematic Arctic map data and standardized services – eg. place name search, embedded maps to use in own web sites – visit: geoportal.arctic-sdi.org
- The Arctic Topographic Web Map Service – one of the cornerstones in the infrastructure – providing access to a coherent and authoritative Arctic reference map brought together from National Mapping Agency data.

Arctic SDI Geoportal in the global context

- Is aligned with the global, regional and national geodata context – eg. UN-GGIM, International Hydrographic Organization, GEOSS, INSPIRE, NSDI and CGDI
- Adheres to Open Data principles, including facilitation of open and interoperable data based on OGC and ISO standards, specifications, architecture and software
- Capitalizes on previous spatial data infrastructure work and the evolution of standards.
- The Arctic SDI may further serve Sustainable Development Indicators by combining authoritative, yet diverse data

Arctic Council stakeholder dialogue and development of the Arctic SDI

- Dialogue with Arctic Council stakeholders identifying needs, requirements and possible contributions
- Develop the Arctic Spatial Data Infrastructure and its map and metadata services providing access to additional reference geodata and thematic data
- Pursue Open Data standards, emerging technologies and industry best practices to remain relevant and interoperable
- Develop governance and guidelines on standards, technical components and services.

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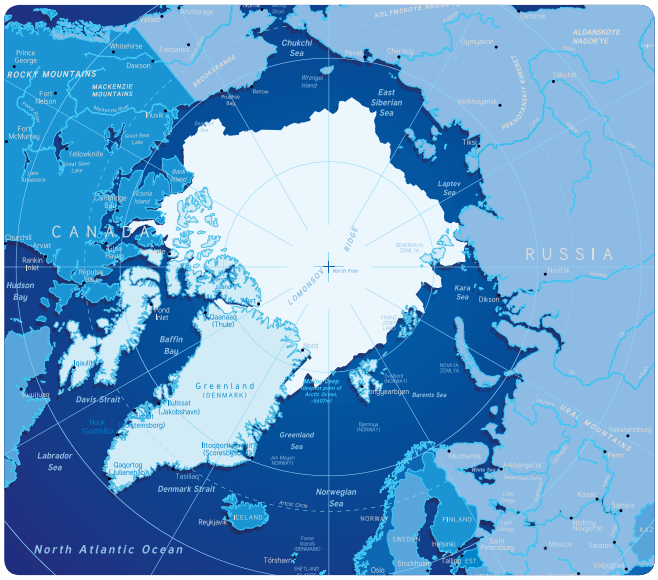
- Committed engagement in the development of an Arctic Digital Elevation Model (Arctic DEM)
- Initiated cooperation with the Arctic Regional Hydrographic Commission's Arctic Marine SDI Working Group to facilitate access to Arctic marine data and integrate sea and land data

The Arctic SDI cooperation

The Arctic SDI governance model is based on cooperation on prioritized activities where, as agreed to in the Arctic SDI Memorandum of Understanding, activities are developed and managed through the voluntary commitment of each agency. You can learn more about the Arctic SDI at the website: arctic-sdi.org/ .

History of the Arctic SDI

The Arctic SDI concept was introduced in 2007 and the Arctic Council Senior Arctic Officials unanimously gave formal support to the Arctic SDI initiative in 2009. The signing of a Memorandum of Understanding (MOU) in 2014 led to demonstrable progress toward building the first elements of the Arctic SDI and approving a new governance model as well as the Strategic Plan 2015-2020.



The role of the 8 National Mapping Agencies of the Arctic countries

- Provide open access to a coherent and authoritative Arctic reference map and thematic Arctic data through the publication of selected data from their respective holdings and from other sources
- Lead and guide the development of an Arctic Spatial Data Infrastructure to further international SDI best practices.

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- Canada Centre for Mapping and Earth Observation, Natural Resources Canada
- Agency for Data Supply and Efficiency, Denmark
- National Land Survey of Finland
- National Land Survey of Iceland
- Norwegian Mapping Authority
- Federal Service for State Registration, Cadastre and Mapping of the Russian Federation
- Swedish Mapping, Cadastral and Land Registration Authority
- United States Geological Survey