ARCTIC SDI
Arctic Spatial Data Infrastructure

Enabling Access to Arctic Location-Based Information

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Finnish Arctic Council Chairmanship Priorities and Arctic SDI

Facilitated by the national mapping agencies of the Arctic States, the Arctic Spatial Data Infrastructure (Arctic SDI) provides **tools for data distributors and end users**, ensuring that geospatial data is easy to access, validate and combine with other data.

Finland will strive for wider use of the Arctic SDI among the Working Groups.

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

How to build up the capacity to store, handle and distribute standardized Arctic data to secure easy and free access to all the data

ARCTIC SDI
Arctic Spatial Data Infrastructure

Arctic SDI provides an

Authoritative Reference Basemap

Provided Directly from the

8 Arctic National Mapping Agencies

Using the same base map helps to combine the research results

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Data Resources

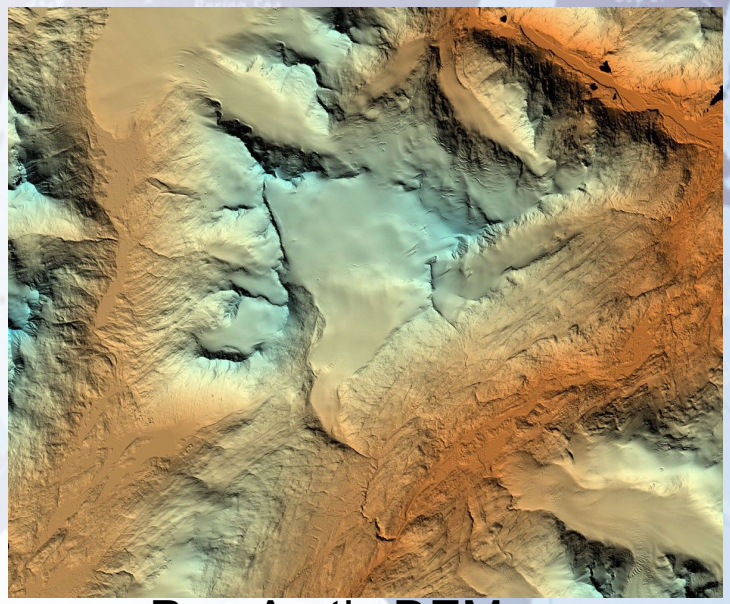
- Arctic Reference Basemap

- Pan-Arctic Digital Elevation Map
  University of Minnesota Polar Geospatial Center
  supported by the US National Science Foundation and the National Geospatial-Intelligence Agency

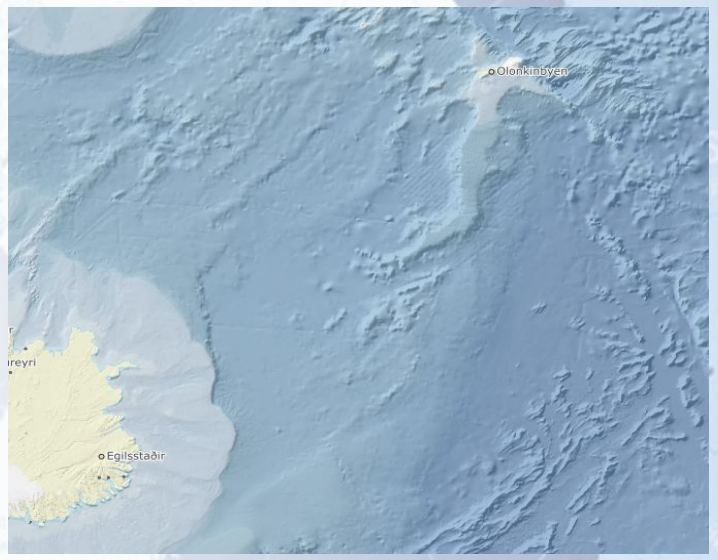
- Marine Data

  Cooperation with International Hydrographic Organization's Arctic Regional SDI Working Group

- Gazetteer Database and Search



Pan-Arctic DEM



Bathymetry

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The Arctic SDI has been expanding its international cooperation

Conservation of Arctic Flora and Fauna's Arctic Biodiversity Data Service

International Hydrographic Organization's Arctic Regional Marine SDI Working Group (ARMSDIWG)

Sustaining Arctic Observing Networks

Arctic Data Committee

Open Geospatial Consortium

International Organization for Standardization

United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM)

University of Minnesota Polar Geospatial Center

Regular dialog with Arctic Council

Reporting on Arctic SDI activities through CAFF

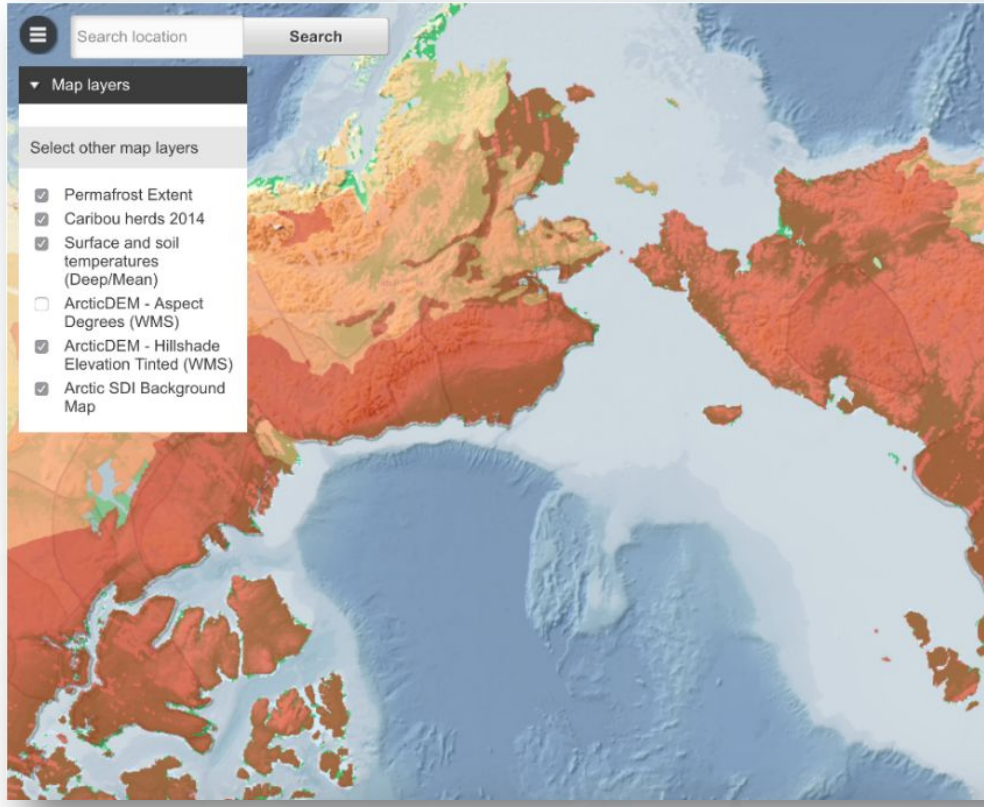
Dialogue and cooperation with the Arctic Council working groups

- to offer data and services

New pilot project with Arctic Council Secretariat

to modernize the map gallery at the Arctic Council Website

- including providing interactive maps that can exhibit statistical data within the administrative boundaries of the Arctic
- to serve as tools for communication of reports and scientific results



CAFF is using Arctic SDI Geoportal to enable customized embedded maps

Joint Session Arctic SDI and CAFF at The Arctic Biodiversity Congress: October 9-12, 2018, Rovaniemi, Finland

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How can Arctic Council Working Groups benefit from Arctic SDI?

- *Using the same base map helps to combine the research results*
- *And compare the situation at different times and of different phenomena*
- *Publishing data easily with maps – interactive maps*

- Arctic SDI is willing to help also through technical assistance

Login

Search CAFF

Search ... Go

Protected Areas Indicator data and graphics

Protected Areas Indicator Report
Get the graphics and the data

Protected Areas Indicator Report 2017

Protected Areas Index 2017

Protected areas have long been viewed as a key element for maintaining and conserving Arctic biodiversity and the functioning landscapes upon which species depend. Arctic protected areas have been established in strategically important and representative areas, helping to maintain crucial ecological features, e.g., caribou migration and calving areas, shorebird and waterfowl staging and nesting sites, seabird colonies, and critical components of marine mammal habitats.

CAFF and the Protection of the Arctic Marine Environment (PAME) working groups have created an indicator report that provides an overview of the status and trends of Arctic protected areas.

Key facts:

The extent of protected areas within the CAFF boundary has almost doubled since 1980. While progress has been made, it has not been even across ecosystems and the report does not analyse how well the suite of protected areas meet the test of being an "ecologically connected, representative, and effectivelymanaged network of protected and specially managed areas that protects and promotes the resilience of the biological diversity, ecological processes and cultural heritage" (PAME 2015) of the Arctic.

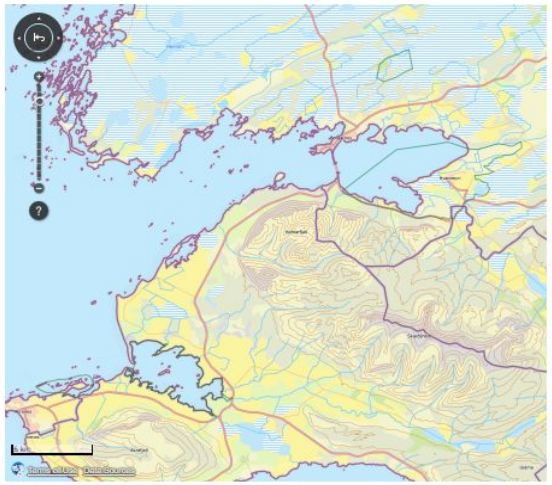

Figure 3: Distribution of protected areas (marine and terrestrial) across each of the six IUCN Management Categories, 2016.

Marine Protected Areas according to IUCN categories

Terrestrial Protected Areas according to IUCN categories

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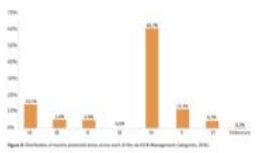
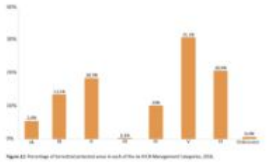
Marine Protected Areas according to IUCN categories



Terrestrial Protected Areas according to IUCN categories



Currently, in 2016, 20.2% of the Arctic's terrestrial area and 4.7% of the Arctic's marine areas are protected. Protected area coverage of the Arctic's terrestrial ecosystems exceeds Aichi Biodiversity Target 11 which aims for at least 17% of terrestrial and inland water to be protected by 2020. The protected area coverage of marine areas currently falls short of the Aichi Target goal for 10% of coastal and marine areas to be protected by 2020.

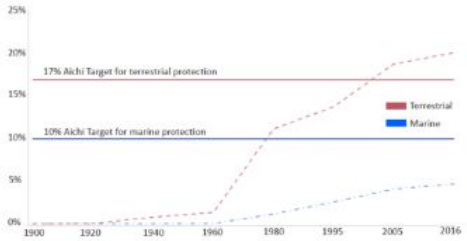
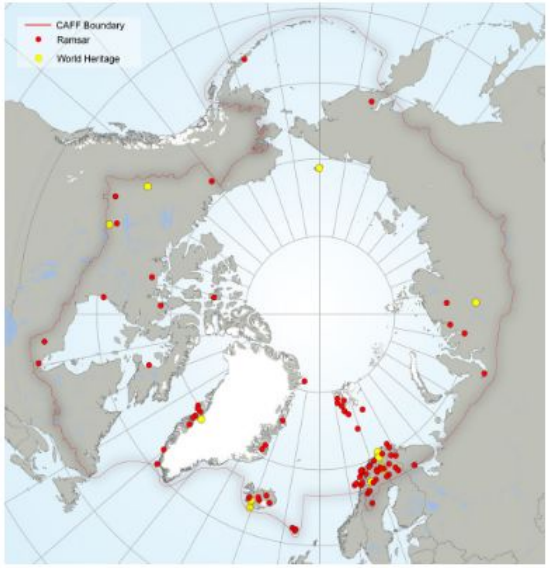


Figure 2: Trends in terrestrial and marine protected area coverage within the CAFF boundary, 1900-2016.

Within the CAFF boundary there are 92 areas recognised under global international conventions. These include 12 World Heritage sites (three of which have a marine component) and 80 Ramsar sites, which together cover 0.9% (289,931 km²) of the CAFF area. Between 1985 and 2015, the total area covered by Ramsar sites almost doubled, while the total area designated as World Heritage sites increased by about 50% in the same time period.



Display Sort By: Ordering ASC

Circumpolar Biodiversity Monitoring Program Coastal Expert Monitoring Group and Nordic Workshop Report Tromsø, Norway, January 9-10, 2018

This is the workshop report for the Circumpolar Biodiversity Monitoring Program Coastal Expert Monitoring Group and Nordic Workshop, Tromsø, Norway, January 9-10, 2018.

Download Details

Circumpolar Biodiversity Monitoring Program Strategic Plan: 2018-2021

The Circumpolar Biodiversity Monitoring Program's (CBMP) Strategic Plan is intended to explain the overarching goals of the CBMP for the period 2018-2021, and to outline actions to deliver on those goals. It will guide the management of the program and help ensure the program□s continued relevance to the needs of the Arctic States, Permanent Participants, scientific and Arctic communities, and other partners.

Download Details

Circumpolar Biodiversity Monitoring Program (CBMP) Coastal Expert Workshop Meeting Report, Anchorage, Alaska, U.S.A., October 11-13, 2017

Proceedings report of the Coastal Expert Monitoring Group's expert workshop in Anchorage, Alaska, U.S.A., October 11-13, 2017.

Download Details

Arctic Freshwater Biodiversity Monitoring Plan Annual Report 2017 and Work Plan 2018

This report describes the progress over the past year to implement the CBMP Arctic Freshwater Biodiversity Monitoring Plan and the workplan for the year ahead.

Download Details

Marine Fishes of the Arctic Region Volume 1

Marine Fishes of the Arctic Region is intended for all who do research in and monitoring of marine ecosystems in the Arctic. It presents accounts for 205 species with maps of global distribution and descriptions of morphology and habitat, as well as a photographic identification guide. Information on 24 other species present only in the fringes of the Arctic Region or taxonomically problematic is given in the introductions to the fish families. As the Arctic continues to warm, more cold-temperate species are expected to enter the region and the distribution of true Arctic species will likely retract as the area of ice-covered cold water shrinks. The maps in this atlas can be used to compare future changes in distributions. The identification guide will be particularly helpful for identifying cold-water species, since fewer identification tools are available for this group of fishes.

Download Details

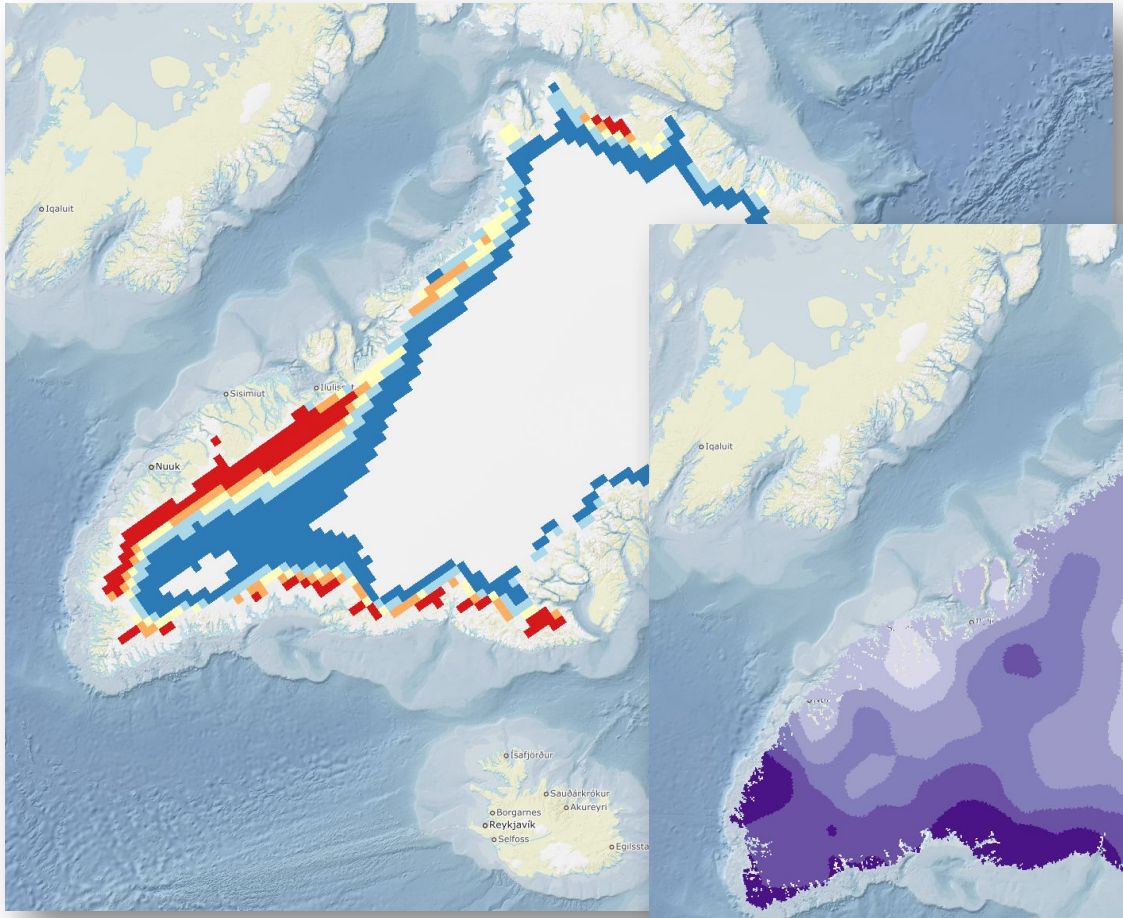
Arctic Marine Biodiversity Monitoring Plan Implementation: Greenland, 2017

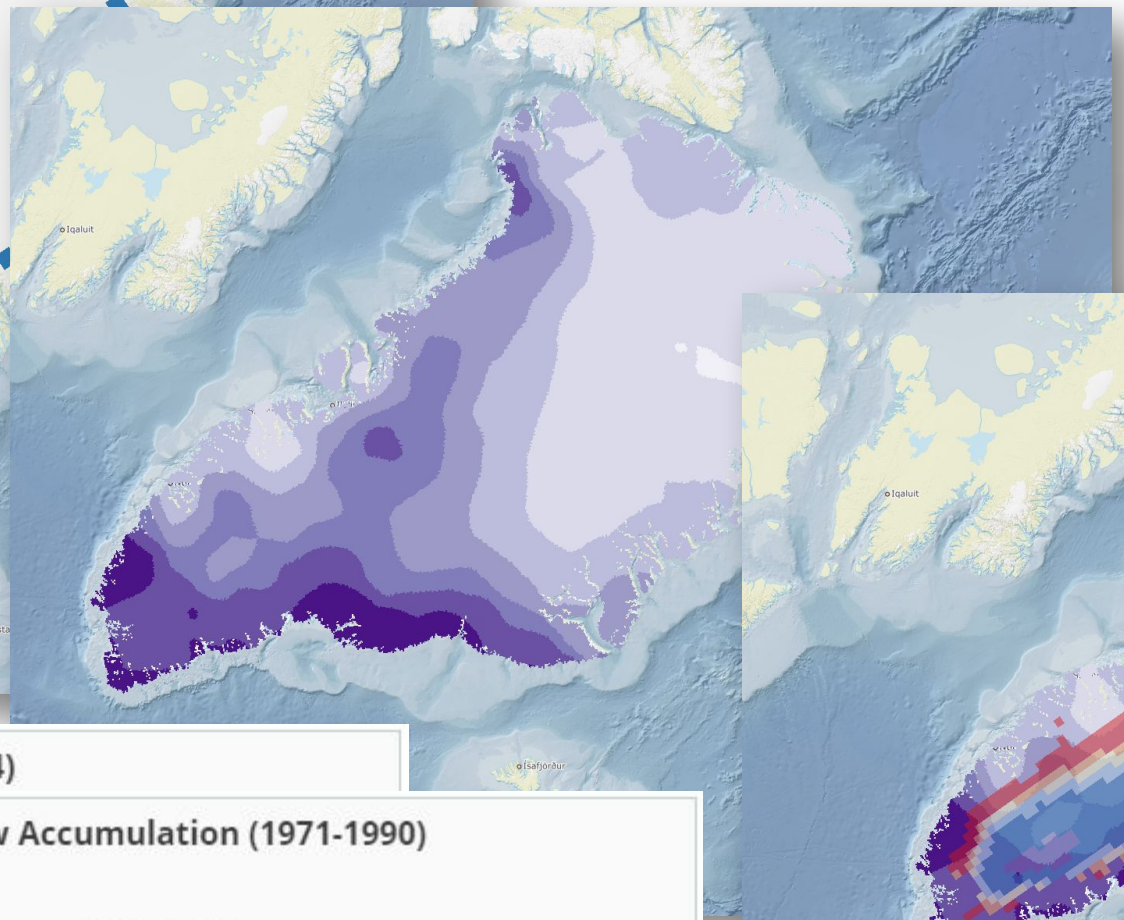
A 2017 update on the implementation of the Arctic Marine Biodiversity Monitoring Plan in Greenland.

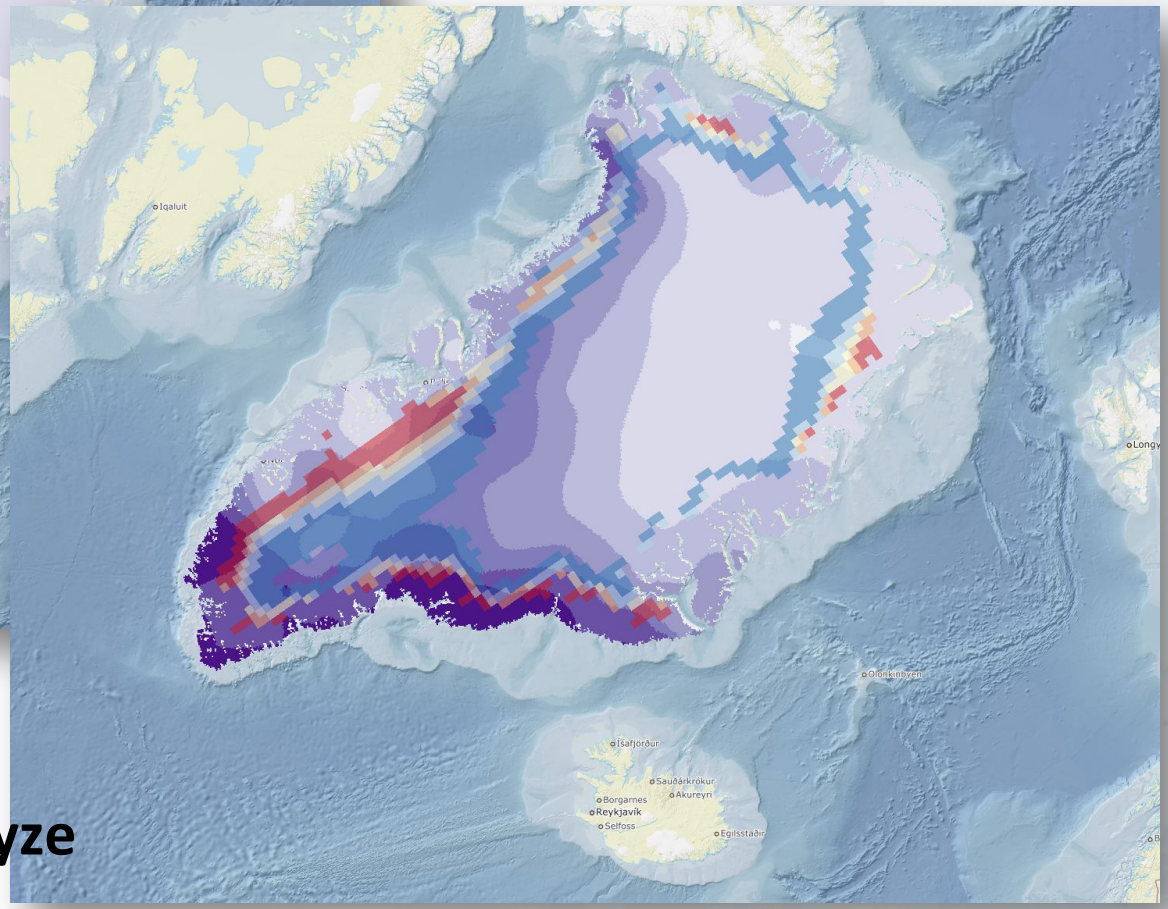
Download Details

Greenland Surface melting (1979 – 2004)

Snow accumulation (1971 – 1990)







Compare & Analyze

ARCTIC SDI

Arctic Spatial Data Infrastructure

SEARCH

MAP LAYERS

SELECTED LAYERS 3

MY DATA

MAP PUBLISHING

MAP LEGENDS

USER GUIDE

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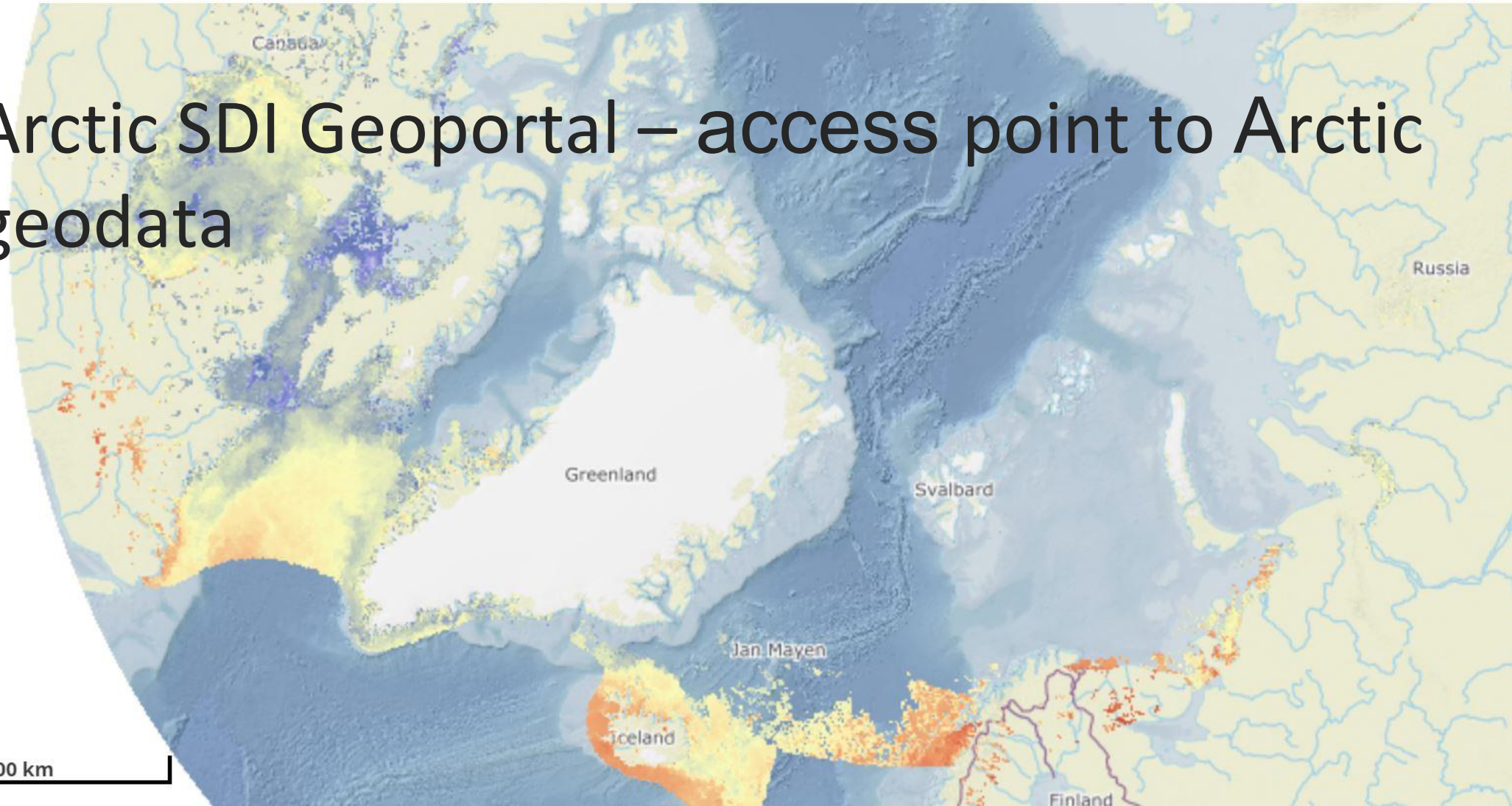
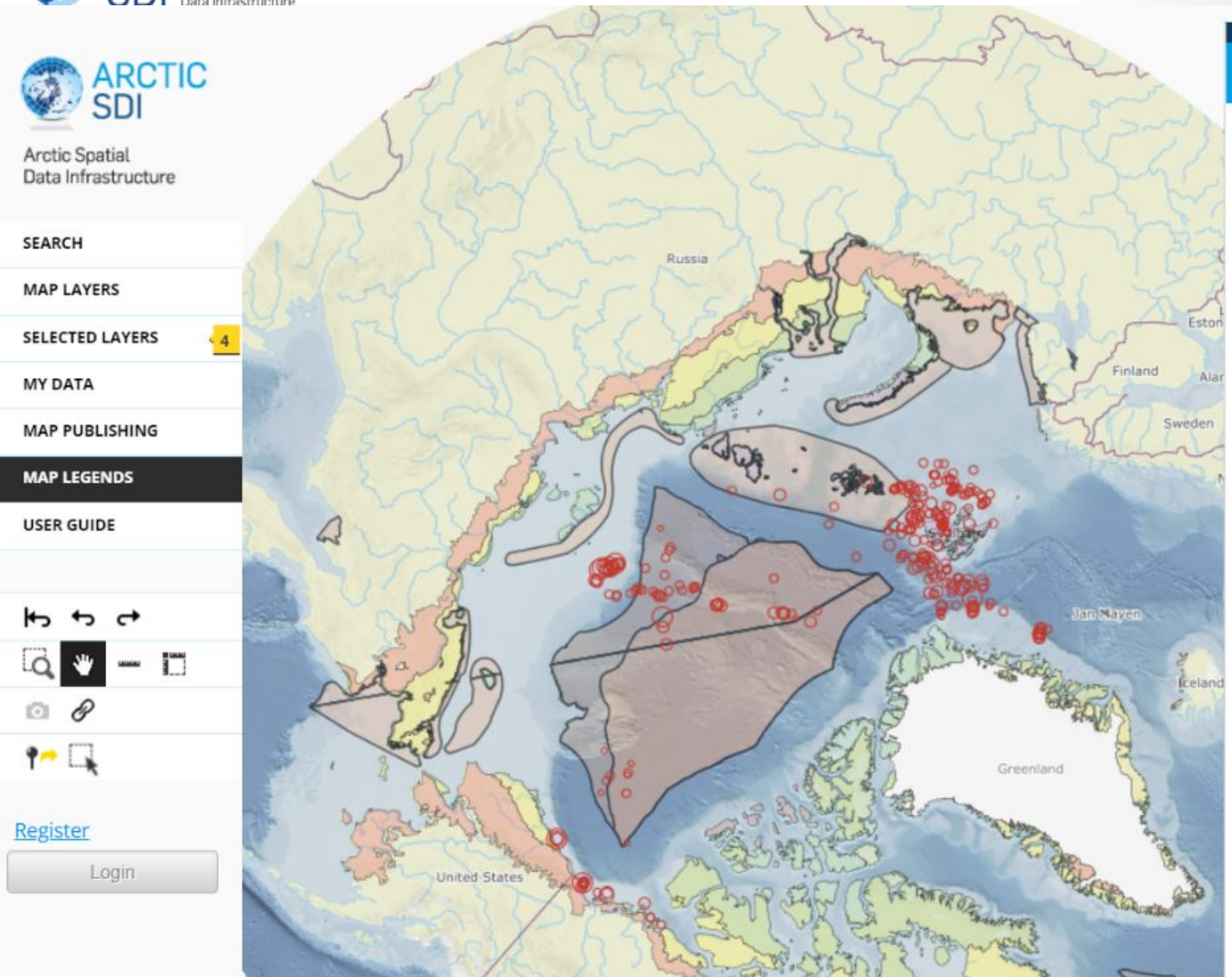
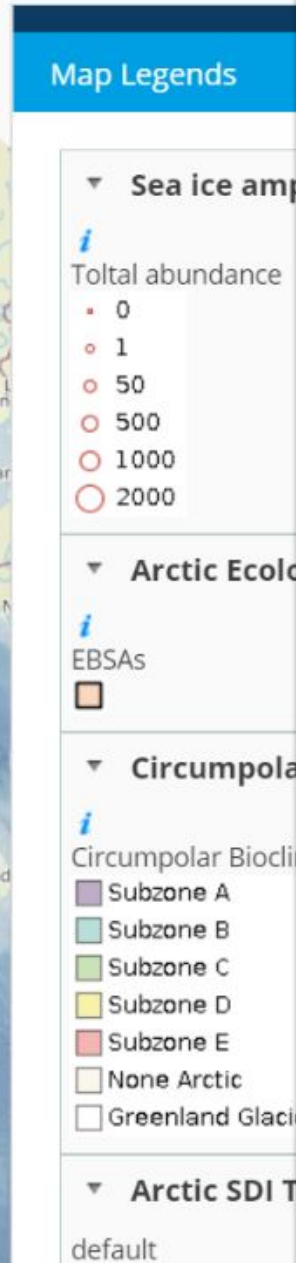
Arctic SDI Geoportal – access point to Arctic geodata



Arctic SDI Geoportal



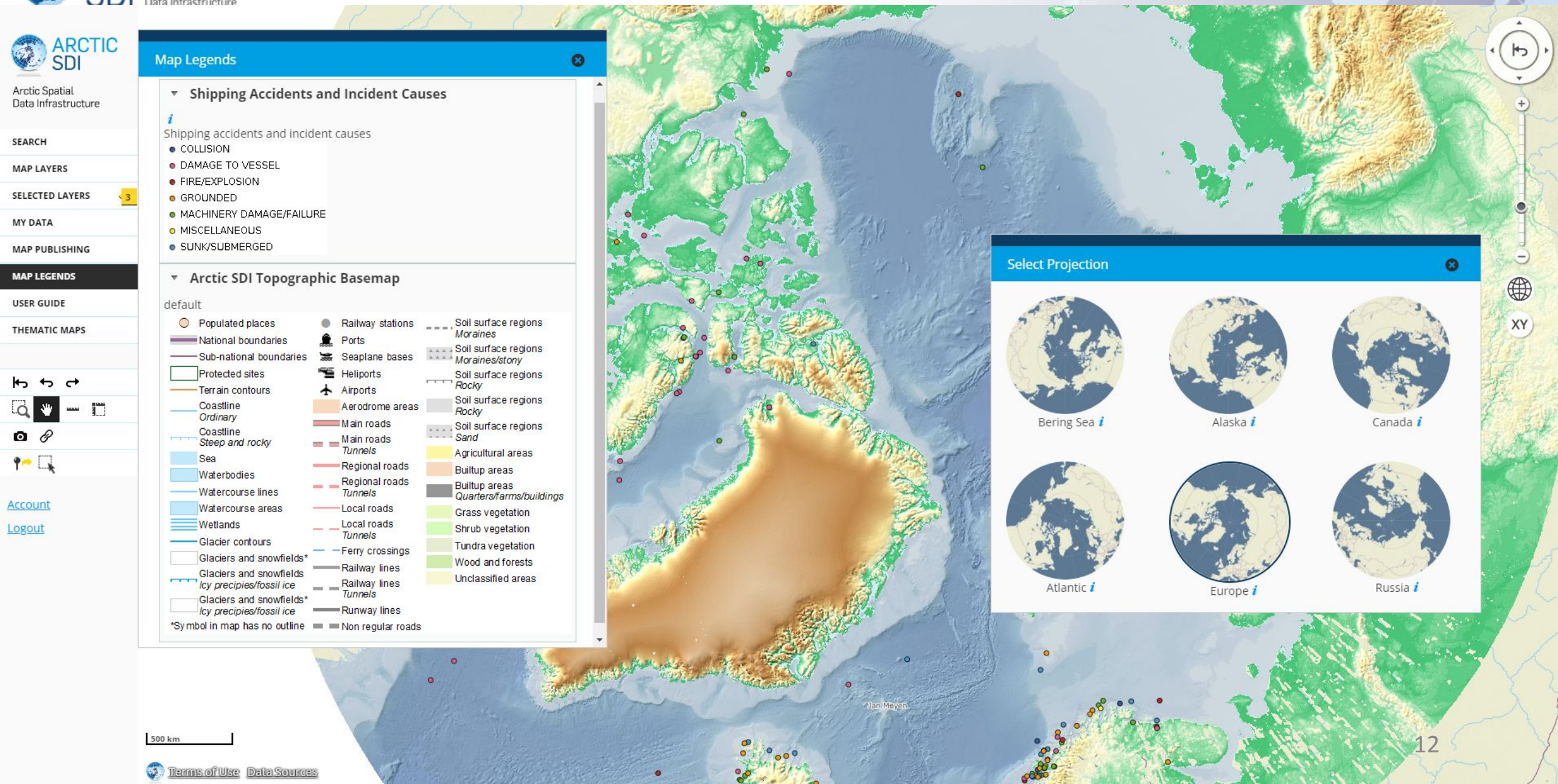


Built for browsing, visualizing, analyzing and sharing spatial information

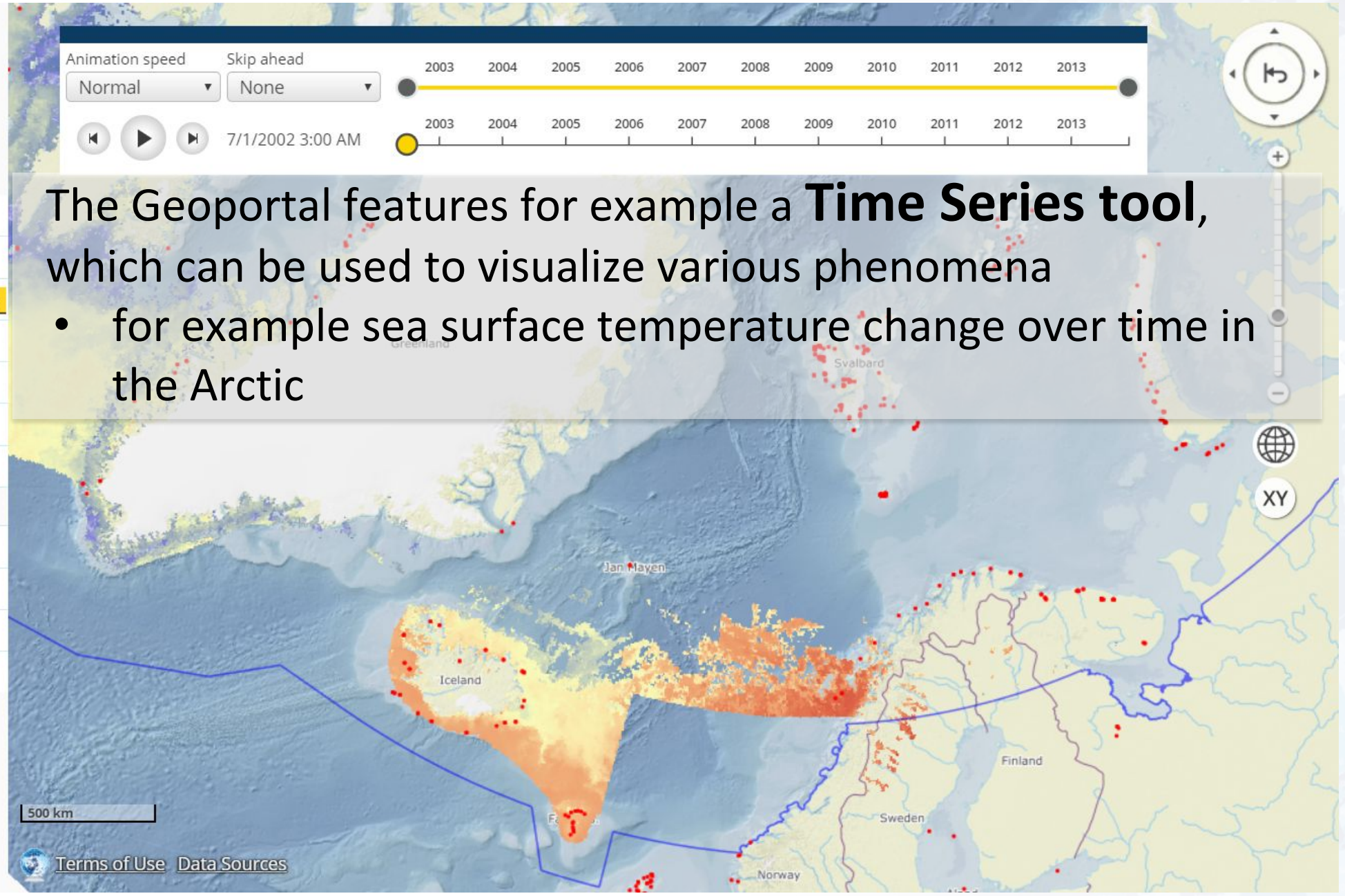
Geoportal users can **combine data and map layers** to visualize the phenomena of their choice

Can be used free of charge by anyone

Arctic SDI Geoportal



Time Series


ARCTIC SDI
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SEARCH
MAP LAYERS
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MY DATA
MAP PUBLISHING
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USER GUIDE
Register
Login
Animation speed
Normal
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2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013
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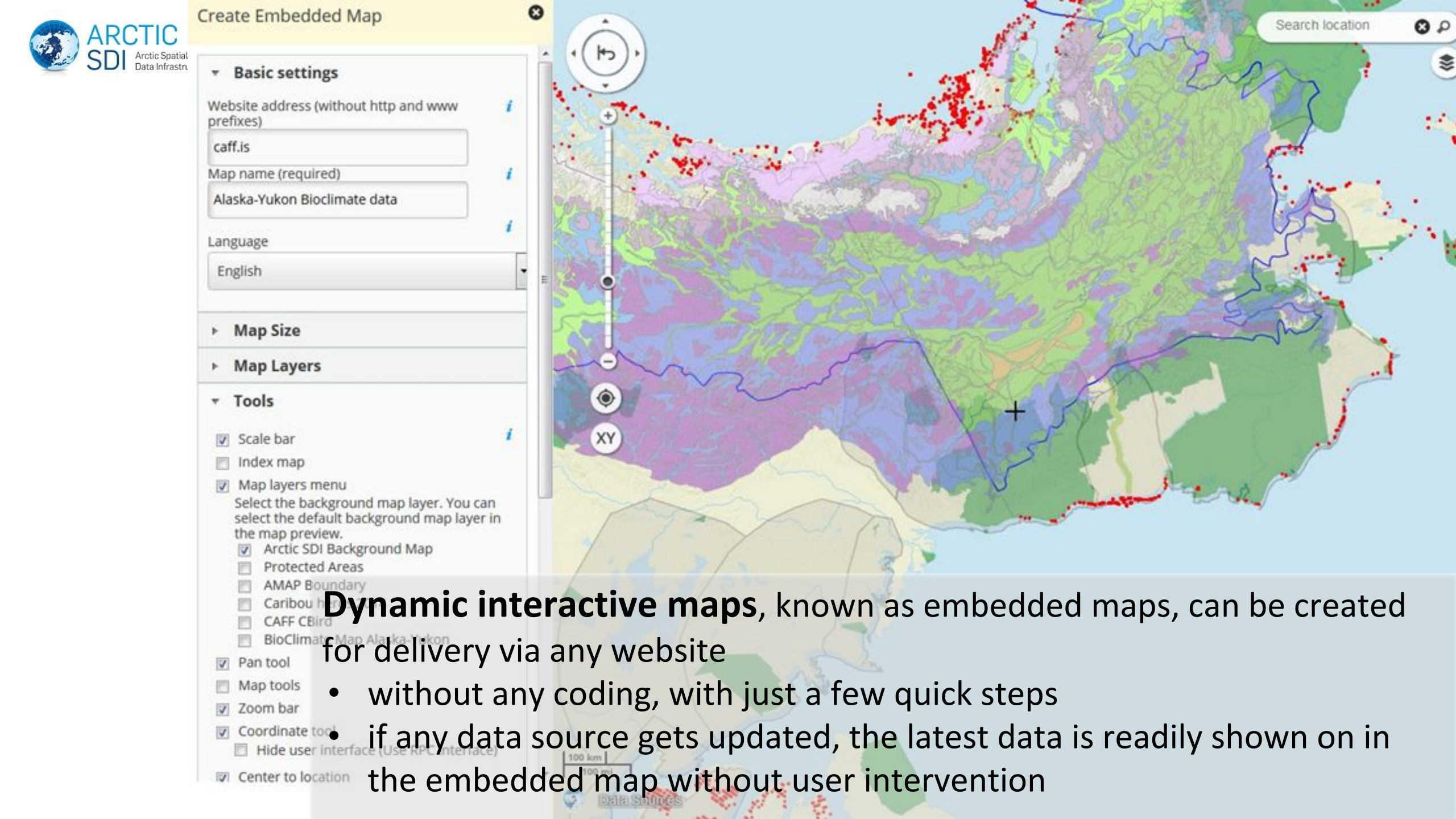
The Geoportal features for example a Time Series tool, which can be used to visualize various phenomena
• for example sea surface temperature change over time in the Arctic
Svalbard
Jan Mayen
Iceland
Finland
Sweden
Norway
XY
500 km
Terms of Use
Data Sources



Dynamic interactive maps, known as embedded maps, can be created for delivery via any website

- without any coding, with just a few quick steps
- if any data source gets updated, the latest data is readily shown on in the embedded map without user intervention

In Summary, the Arctic SDI provides

- Access to Authoritative data across the Arctic
- Capacity building materials on how to bring your own data in and leverage from it
- Geoportal
  - Embedded maps
  - Time Series visualization and other tools to help Arctic stakeholders deliver and visualize their data to decisionmakers and other audiences

  - **Coming up:** Tools to visualize statistical and spatial data, e.g. SDGs, over the Arctic to demonstrate the changing Arctic

Need for assistance for using the Geoportal? Info@arctic-sdi.org

Future