Greenland MSDI:
A Holistic, Citizen oriented, sustainable approach to marine geospatial information use in the greenlandic society

Virtuel presentation at the IHO Lab, the 27th of October 2021

Ministry of Finance and Domestic Affairs, Head of Department of National Planning, Thomas Gaarde Madsen.
Agenda

- Introduction and background
- National Strategy of Geodata 2018-2021
- NunaGIS
- UN 2030 Agenda for sustainable development
- Future marine geodata potentials in Greenland?
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- NunaGIS
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Introduction

Minister of Finance and Domestic Affairs Asii Chemnitz Narup
Greenland is 2,166,086 km² (the 12th largest country in the world)
- Ice-free area is 410,449 km² (4/5 is covered with ice)
- Total length of coast line is 44,087 km
- The population lives primarily along the west coast and very spread.
- 15 % of the population lives in small settlements.
- 85 % of the population lives in (small) cities with more than 500 people
- Approx. 20,000 sled dogs
- 5 municipalities and 1 national park in the northeast
- Nuuk is the Capital of Greenland with app. 17,000 inhabitants
- Fishing is the primary industry
- Cruiseship tourism in growth
- Self-government was established on 21 June 2009, 30 years after the introduction of the home rule.
- Greenland is part of the Kingdom of Denmark which consists of Denmark, the Faroe Islands, and Greenland.
Introduction
Introduction
1 new strategy of geodata

The report "Geodata in Greenland" published in 2015
Based on involvement of users, stakeholders and experts
The foundation of the new National Strategy of Geodata 2018-2021
1 new strategy of geodata

From geodata potentials to strategy

COHERENCE
We will create coherence in geodata through clear management of tasks and responsibility

Coherence is about ensuring that data and technical systems are updated, current and contain high quality data.

Coherence is achieved through coordination between people and systems, and through the development of common standards.

Coherence is experienced, when relevant data is of high quality and is easily accessible at the right time and in the right place.

Coherence presupposes that tasks, roles and responsibilities are defined and correctly allocated, and that only one entity is responsible for coordinating.

The opposite of coherence is atomization. Without management and coherence, we will experience low quality communication, low efficiency and insecurity about the authority and usefulness of geodata.
1 new strategy of geodata

From geodata potentials to strategy

**USER-CENTERED APPROACH**
We will make geodata relevant by focusing on the end-user and on intuitive solutions

<table>
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<tr>
<th>A user-centered approach focuses on people when developing geodata by actively involving the end-users</th>
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<tr>
<td>A user-centered approach promotes the development of easy and intuitive solutions that make data, knowledge and information more easily accessible</td>
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<td>A user-centered approach is characterized by flexible systems that are continuously adapted to the needs of the end-users</td>
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<td>A user-centered approach require, that users are involved in development and that their competences are strengthened through learning and anchoring</td>
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The opposite of a user-centered approach is when geodata is developed on purely technical premises with scant regard for user-friendliness and everyday usability for individuals and society as a whole.
1 new strategy of geodata

From geodata potentials to strategy

OPENNESS
Democracy, knowledge and innovation is strengthened by free and easily accessible data

- **Openness** is about creating a society that makes decisions on a common, enlightened and informed basis.
- **Openness** is furthered by free and easily accessible data that contributes to public processes being transparent and open for debate.
- **Openness** is experienced when knowledge and understanding of geodata is widespread in society and is used to influence development.
- **Openness** leads to geodata being used for information sharing, increased efficiency of processes and the development of innovative solutions.

The opposite of openness is when data is not shared and is not used as the foundation for innovation and common decisions in and for the greenlandic society.
1 new strategy of geodata

Vision + 3 development principles + 5 strategic goals + 25 initiatives

Vision: Greenland has a modern infrastructure for geodata, that supports a citizen-oriented sustainable development by digitally connecting people and land – geographically, culturally and socially.

3 Common principles: a) Coherence, b) A-user-centered approach, and c) Openness

5 Strategic goals where geodata is seen as a tool for the creation of 1) better decision-making, 2) growth (private sector), 3) digitization (public sector), 4) learning and 5) sustainable development and future independence

The strategy is published in Greenlandic, English and Danish.
Funding in place in 2017. Due to the complexity and scope of the task it is all ready clear that the development of NunaGIS will continue in 2018 and that more funding is necessary.

- A one-door portal to all geodata and GIS in Greenland
- Six basic elements of key-information: Maps, Plans(National interest and municipality planning), Sectorplans and statistical data (demography, employment etc.), Climatedata (models), Learning and development (3D, experiments etc.) and finally GIS tool platform.
- Possible new platforms: Emergency/response platform + Maritime planning portal (MSDI)
NunaGIS – one door solution to geodata

NunaGIS hub er Grønlands nye nationale platform for geodata. Her finder du udviklingsplaner om den tværorentlige fysiske planlægning, sektorplaner og statistiske nøgletal for alle bosteder i Grønland, information om beredskab og kan udforske kort og finde fri geodata. På NunaGIS kan du også finde vejledninger og ansøge om arealtildeling.

Ny National Strategi for Geodata 2018 - 2021

I takt med den stigende digitalisering af samfundet opstår også nye måder at håndtere
Portaler på NunaGIS Hub

- Søg og download kort og fotos over bosteder og det åbne land
- Få overblik over restriktive zoner og kommunernes planlægning
- Find sektورplaner og nøgletal for bosteder. Kommer i 2019
- Udforsk DMI's nye klimadata om Grønland frem mod år 2100
- Lær af andre og se nye muligheder for brug af geodata
- Her kan du ansege om arealtildeling og finde vejledning
- Data og information om beredskab. Kommer i 2019
- Data om den maritime fysiske planlægning. Kommer i 2020

Læs mere om NunaGIS Hub
NunaGIS

NunaGIS – one door solution to geodata
Datakatalog

Her på siden kan du downloade alle tilgængelige geodata og webapplikationer eller læse mere om de forskellige datasæt. Du kan også fordybe dig i forskellige temaer fortalt som storymaps.
Download af addressedata

Visuel formidling og indgang til data

"Grunndata-snip"

NunaGIS logo med betegnelse på datasæt

Beskrivelse af indhold

Genvej til WFS webservices
Genvej til WMS webservices
Genvej til API
Genvej til FTP download

Læs mere og uddybende forklaring om datasæt, metadata etc.

Mulighed for at se data på kort
NunaGIS

Geodata is an important tool for decision making in the future greenlandic society.
2 Kortlægning af SDG 2030

Helhedsløsninger på tværs
Future geodata potentials in Greenland?

Supporting a sustainable development

- The Department of National Planning is responsible for the mapping of greenlandic initiatives in the light of the UN 2030 agenda for sustainable development.
- Could geodata supports the implementation of the sustainable development goals (SDG’s)?
- The follow up on the goals through indicators etc. could become an integrated part of NunaGIS on the sectorportal - providing common goals and direction for the national planning in all sectors?
Hvor mange indikatorer kan vi måle på i dag?

Vurdering af SDG “parathed” – ift. data, mål og handling

Målet – hvad handler det om?

Indledning

3 barrierer/udfordringer

Datagrundlag

Beskrivelse af politiske initiativer og evt. sektorplan

Tekstboks om nationale og globale tiltag

Evt. kobling til andre verdensmål

Citat fra Strategi eller Naal

Logo FN mål
4 Konkrete projekter

#1: **Formidling** af verdensmålene
3 Udviklingspotentialer

#3: Datagrundlag: angunakkavut.gl understøtter arbejdet med verdensmålene
Udviklingspotentialer

#3: Datagrundlag

7.1 Inden 2030 skal der sikres universel adgang til pålidelig og moderne energiforsyning til en overkommelig pris

7.1.1 Andel af befolkningen med adgang til elektricitet

7.1.2 Andel af befolkningen, som primært anvender rene brændstoffer og ren teknologi

7.1.3 National indikator

Strategisk nationalt sektormål

Sektorplan indikator a:

Sektorplan indikator b:

Sektorplan indikator c:

Datainfrastruktur/flow

stat.gl → anguniakkavut.gl → nunagis.gl

Geografisk visualisering af indikatorer på kort, så det bliver muligt, at handle på eks. regionale forskelle i indikatorerne
A MODERN, GLOBAL SOCIETY WITH A STRONG CULTURAL IDENTITY

MODERN LIVING AND A BALANCED REGIONAL DEVELOPMENT

CLIMATE CHANGE

A WELL-FUNCTIONING INFRASTRUCTURE CONNECTED TO THE REST OF THE WORLD

LIVING CLOSE-UP WITH NATURE

NETWORK AND NEW FRIENDS…

PROTECTING OF NATURE AND THE ENVIRONMENT

Future geodata potentials in Greenland?
Future marine geodata potentials?

#1: Marine geodata supports tourism, growth and development?
Future marine geodata potentials?

#2: Marine geodata provides a (data-driven) framework for policy and dialogue?
Future marine geodata potentials?

#3: Marine geodata bridges the "planning" gab between sea- and land?
Future marine geodata potentials?

#4: Marine geodata supports a higher safety for the citizens?
#5: Marine geodata provides a base for learning about the cultural identity as a people living of and by the sea?
Qujanaq! Thank you!