



Danish Geodata
Agency



National report Denmark

DET MARINE DANMARKSKORT

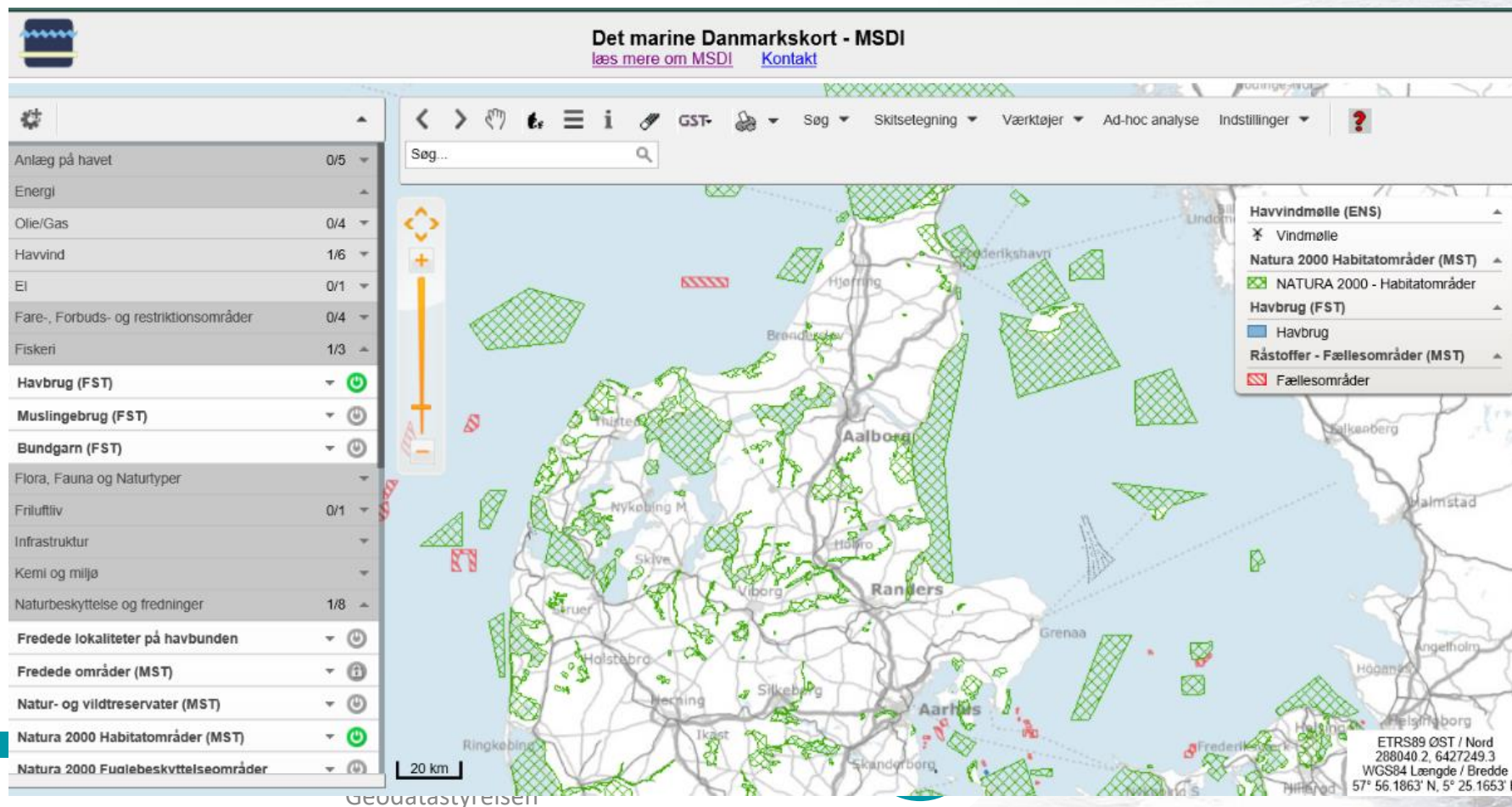
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IHO MSDIWG
17-18. marts. 2021



Danish Basic MSDI

- Allows users to visualize and use marine data from Danish marine authorities
- So far 84 Danish marine datasets are available





Obligations for participating authorities

The participating authorities that contribute their data commit to:

- Provide **Webservices** (WMS), **Downloadservice** and **Metadata** as agreed upon within the technical description of the MSDI
- Identify a "single point of contact", which the MSDI secretariat can refer to in case of technical problems for an authority
- Participate in the MSDI-forum

Financing

From 2020 DGA has taken the full financial responsibility.

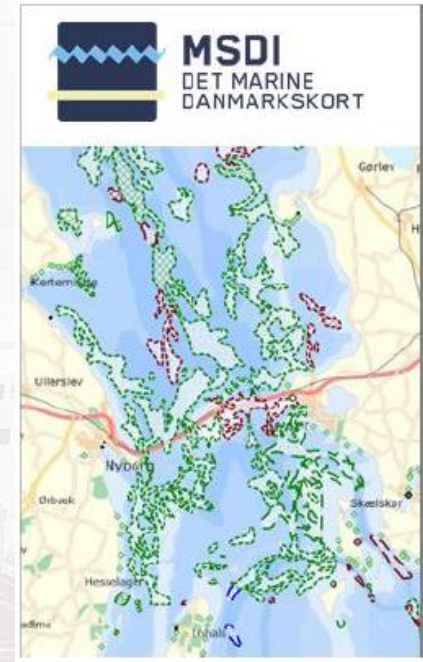
Priced data

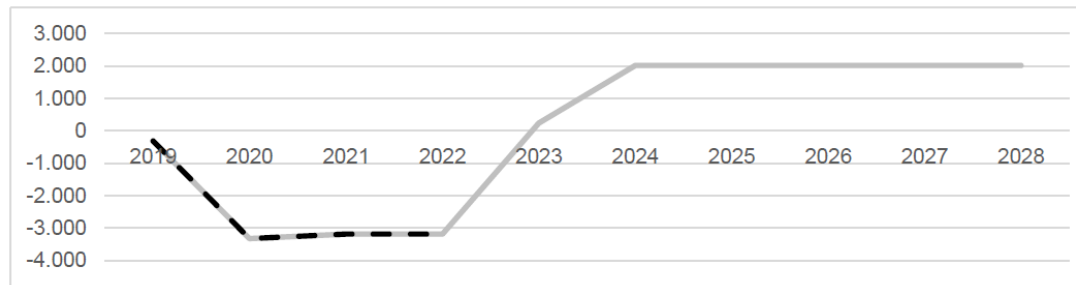
For some dataset, which are included in the MSDI, applies that they are priced, such as nautical chart data. It is the individual data owners that set the guidelines for use of their data including access criteria, payment models and international exchange.

Danish MSDI – Business case

The analysis has identified four main interest groups that will benefit from MSDI 2.0.

1. The 11 authorities that use and developed the current version of the MSDI and other authorities with an interest in the ocean.
2. Private companies; both existing marine companies which can improve existing offerings and/or products and potential start-ups that can build their business models based on the opportunities provided in MSDI 2.0.
3. Researchers, teachers and students who can use marine data from the MSDI in their research, work or studies.
4. Associations and individuals with an interest in the ocean, e.g. an interest in sailing, canoeing, kayaking, bird watching, etc.





Danish MSDI – Business case

An **important step** towards realising the Danish Government's growth plan for 'The Blue Denmark'

Indicated a **strong demand** for a further development of the Danish MSDI as a free and open data infrastructure for marine data

Showed an **annual net benefit of DKK 2 million** after implementation of the three-step development plan and a positive net value over an 8 year period.

Several **qualitative benefits**, e.g.

- improving authorities communication of decisions, rules and guidelines
- new business opportunities for entrepreneurs
- improved data accessibility for research
- improvement of recreational apps and maps aimed at citizens.

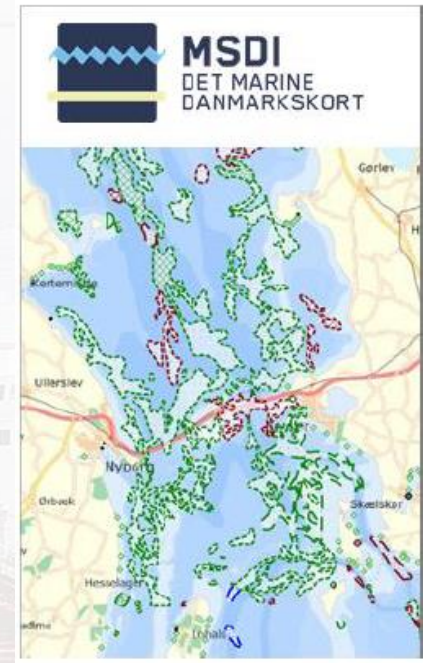


Danish MSDI – next step

Today the Danish MSDI are only accessible for the 11 marine authorities that participated in development of the MSDI.

Business case: *Benefits of and costs associated with the further development of the MSDI*

- Three-step development plan
 1. Open MSDI solution for all, e.g. authorities, businesses and citizens – **Danish version opens april 2021**
 2. Introduce more marine data
 3. Enhanced technical solution with tools and time-series data.

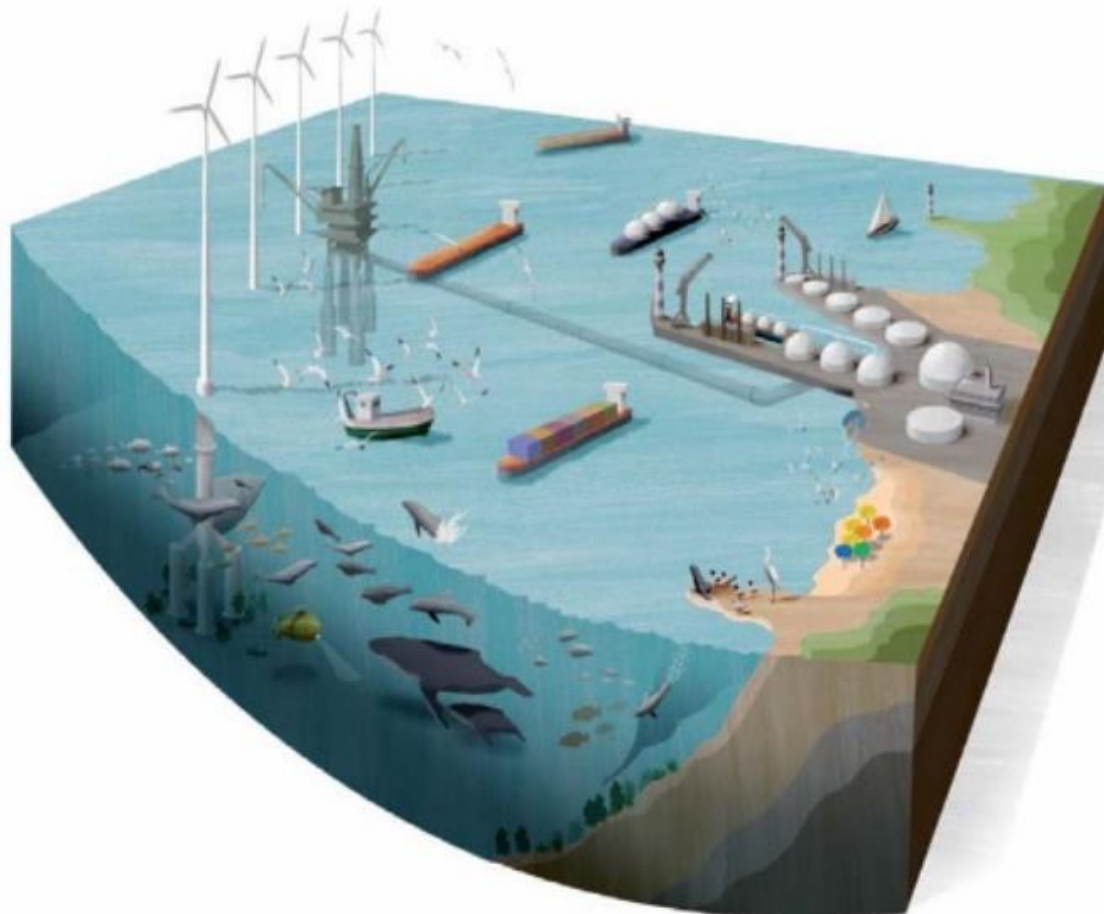


	Step 1. Open basic MSDI solution for authorities, businesses and citizens	Step 2. Introduce marine data – new data for multiple users and multi-use purposes	Step 3. Enhanced technical solution with new data and tools for authorities
Description	<ul style="list-style-type: none"> • Open basic MSDI solution that is accessible to authorities, businesses and citizens • Portal containing information and geographic maps as well as links to data sources and descriptions • Full access to current themes which are available to the general public • Still possible to include sensitive data which are not accessible to the general public - only to authorities 	<ul style="list-style-type: none"> • More data in an open basic MSDI solution that will be displayed by authorities • Data can be downloaded directly from the data owner (from the different authorities) • New data themes targeted at businesses and authorities, including agreements with new data providers • Improved description of themes and their applicability • Initiate procurement of an extended technical solution 	<ul style="list-style-type: none"> • Enhanced technical solution for the portal, GIS, application and database entailing improved security and reliability of data supply • Several new themes and agreements with new data providers, including time-series data and data targeted at citizens and associations • Will allow for the use of themes by additional users, e.g. local authorities, for the purposes of climate-change adaption and combined physical planning (land-sea)
Benefits	<ul style="list-style-type: none"> • The authorities can use MSDI to communicate new guidelines and decisions. • Other users will benefit from improved access to data. The technical specifications put limits on the benefits at this point. 	<ul style="list-style-type: none"> • Improved downloading services increase the benefits for all potential users and allow for the development of services based on the MSDI solution and the integration of these into the potential users' own systems • The improvement from additional data and analyses increases the potential benefits • Increase in the number of potential users – all new data imply new potential users/benefits 	<ul style="list-style-type: none"> • Increased focus on extending the use of the MSDI solution will result in the identification of new users and increase the potential benefits • Time-series data have been in great demand



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Danish MSP



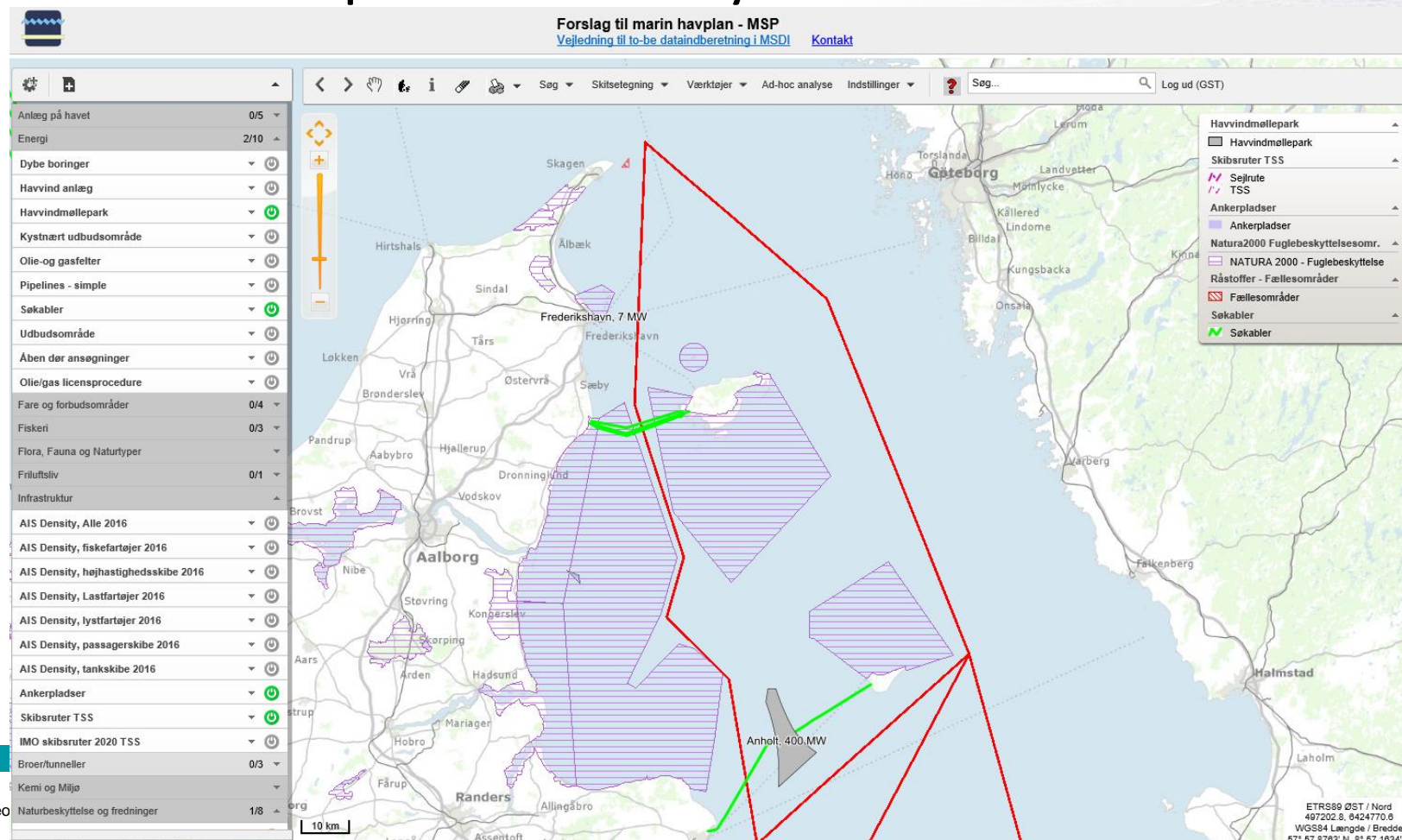
A Digital Danish MSP

- Danish Maritime Authority (DMA) are currently developing a prototype in order for the first Danish MSP to be born as digitization-ready legislation via a digital map of Denmark and the Danish waters.
- The new Maritime Spatial Plan will be the first legally binding digital plan in the country and data and map in relation to the MSP will have a legal status.
- DMA are focused on developing a user-friendly MSP-platform. Meetings and interacting with the public sector should be transparent and easy. This, for example, means ensuring a more user-friendly and coherent user journey when several public authorities at different levels are involved.
- First version of the platform will be ready for national consultation in april 2021.
- DGA are participating in the project as advisory consultant.
- The Danish MSP is scheduled to enter into force in end of 2021.



MSDI MSP platform for preliminary MSP

- Only access for ministerial working group participants
- Possible for agencies to share relevant draft data, which is not open for the public
- Feedback from working group: simple and easy to use. Very useful for members to get a full overview of the many information which are used in drafting an MSP

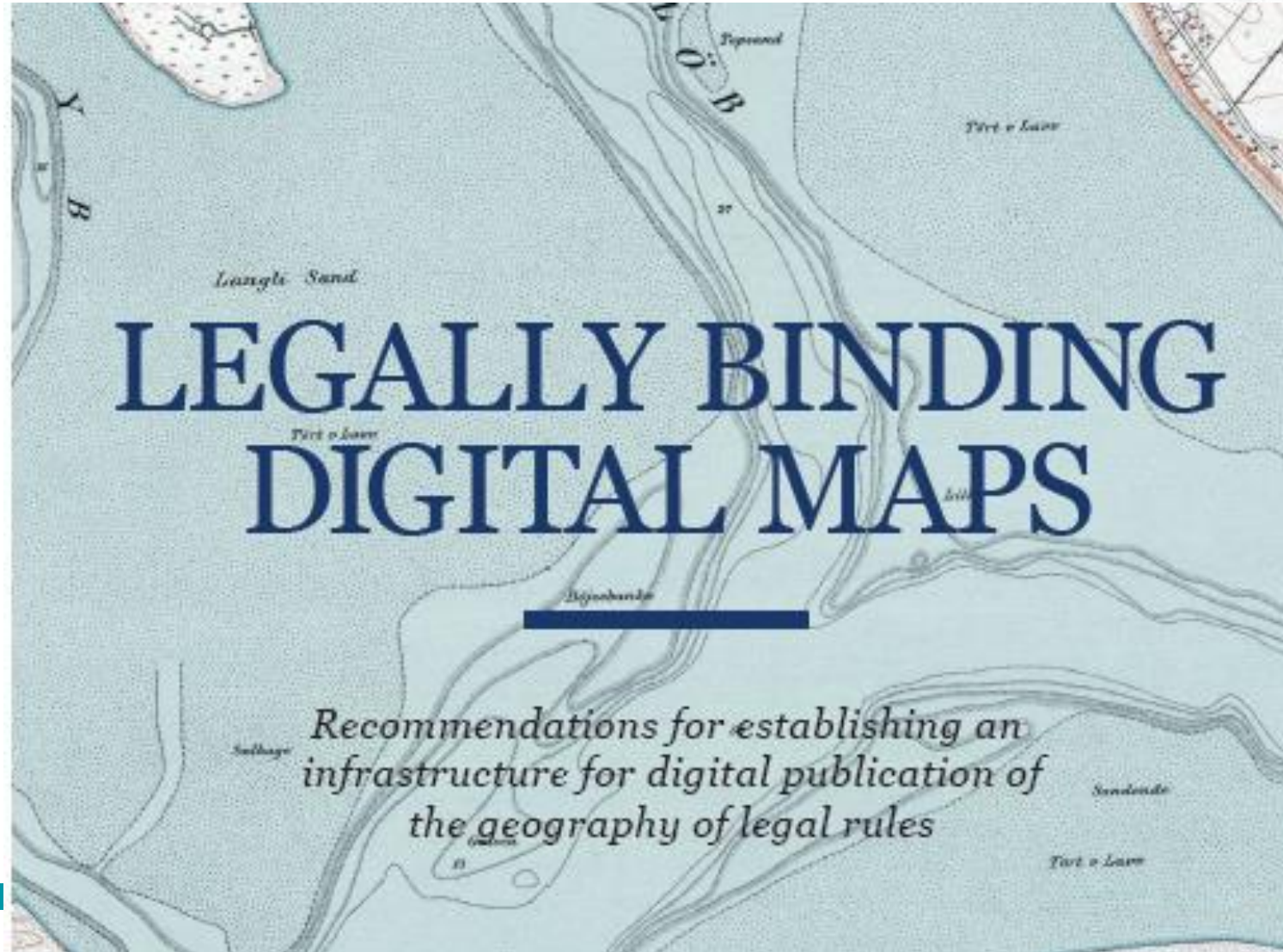




Danish Geodata Agency



Co-funded by the European Maritime and Fisheries Fund of the European Union





Legally binding digital maps

- Denmark is working towards publishing all spatial data digitally in the future. The new Maritime Spatial Plan will be the first legally binding digital plan in the country.
- In recent years, the Danish authorities have frequently discussed how maps appended to laws and regulations are designed, so that there is no doubt regarding which physical area a given legal rule applies to.
- In beginning of 2020, DGA together with Agency for Data Supply and Efficiency and Danish Maritime Authority published a leaflet, where a number of issues, which should be further investigated as part of the process of establishing an infrastructure for digital publication of the geography of legal rules. [Link](#)
- In June 2020 national guidelines for use of geography in Danish legislation was published. [Link to Danish version](#)

Background map

- The background map must be based on the applicable standards
- The map must also cover the entire country - including the sea and coast

History

- There must be a full history for reference data, metadata and data models
- Consideration should be given to how history is displayed in services

LEGALLY BINDING MAP

Interoperability

- Metadata must be described based on ISO standards
- The data basis must be evident from the metadata
- It must be possible to compare data with other basic data

Data storage

- A new central function must be established for data storage
- The central function must be integrated with other state legal information systems