MSDI from a
regional approach

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Organisation Hydrographique Internationale

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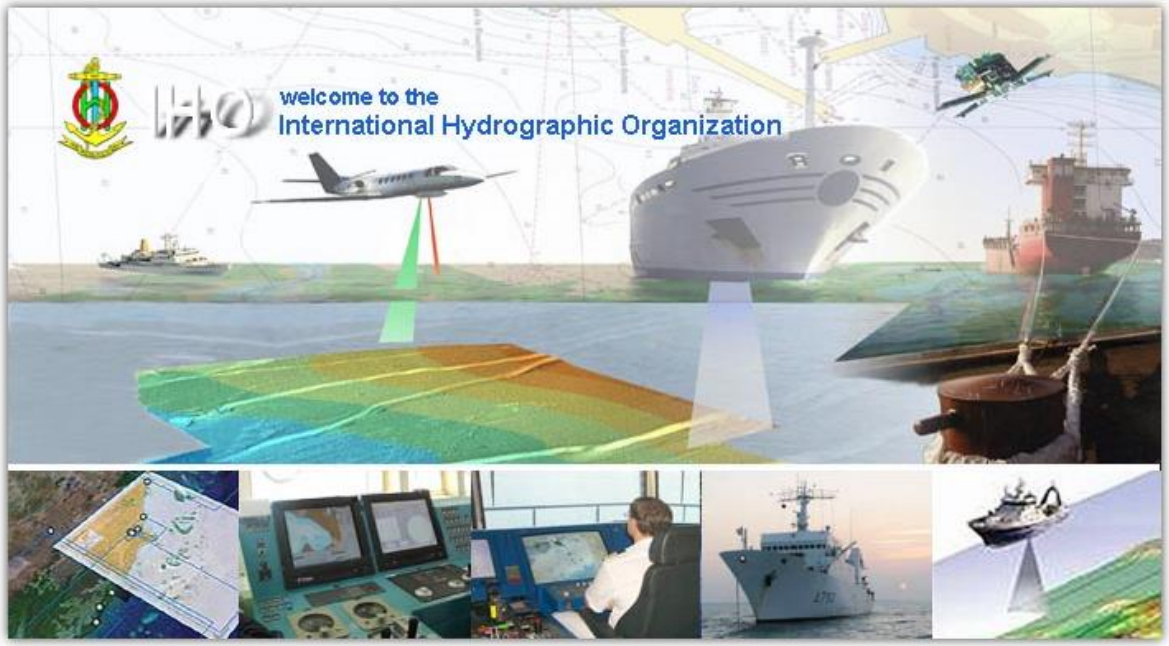

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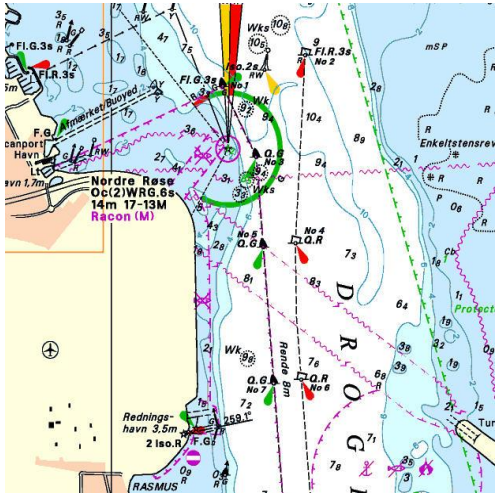
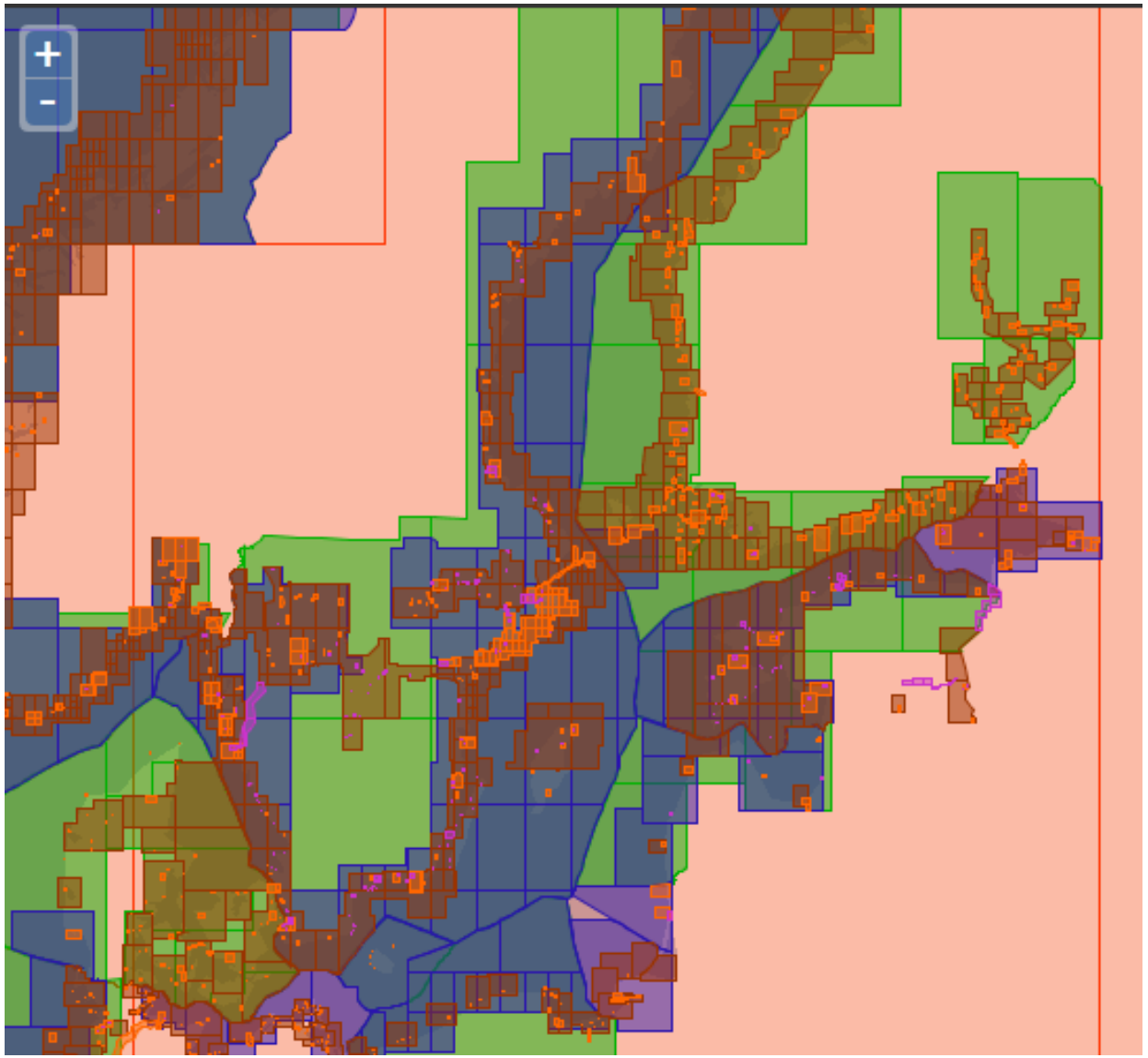
ENC for the Baltic





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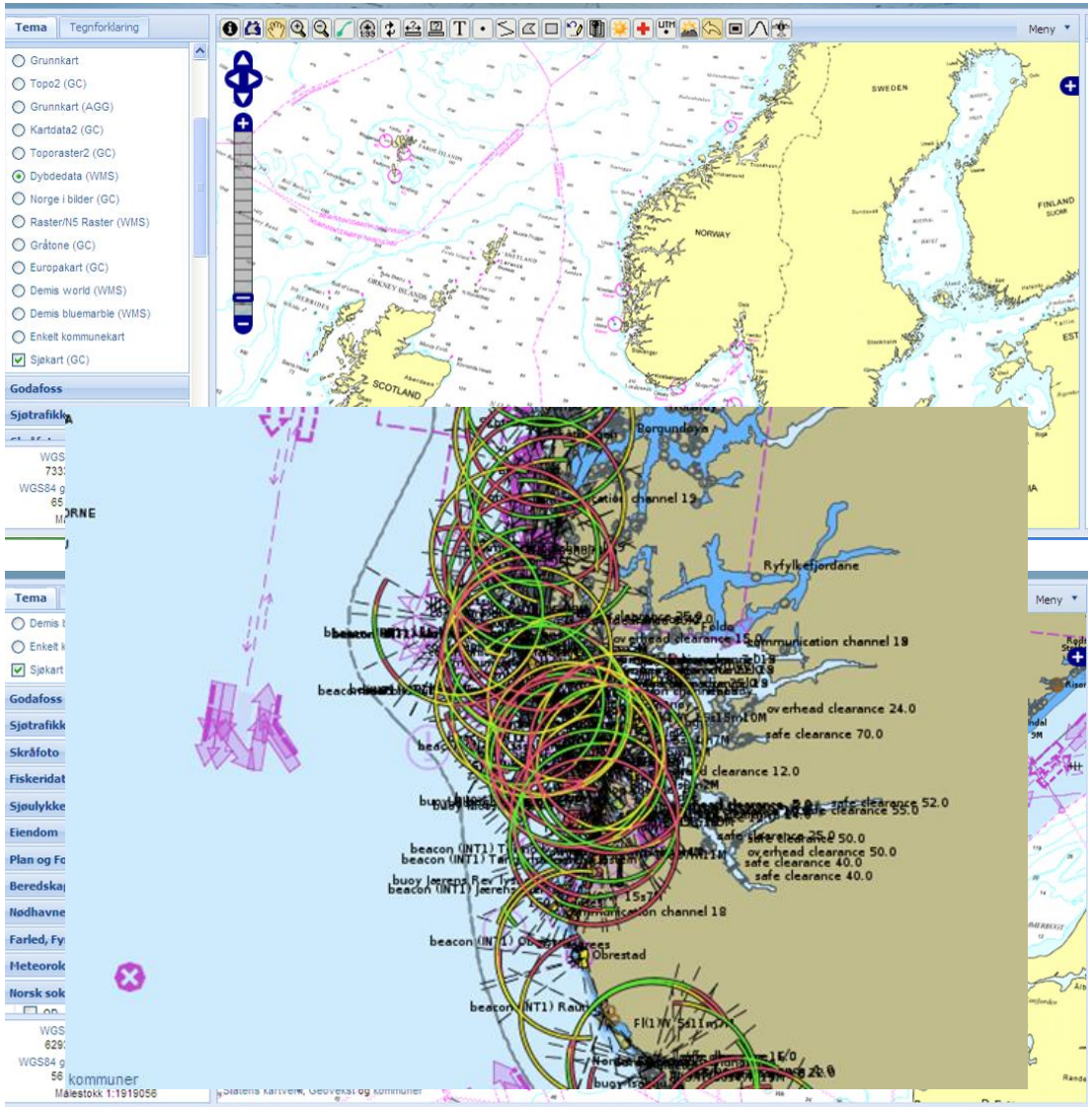
Hydrographic data and its role in MSDI

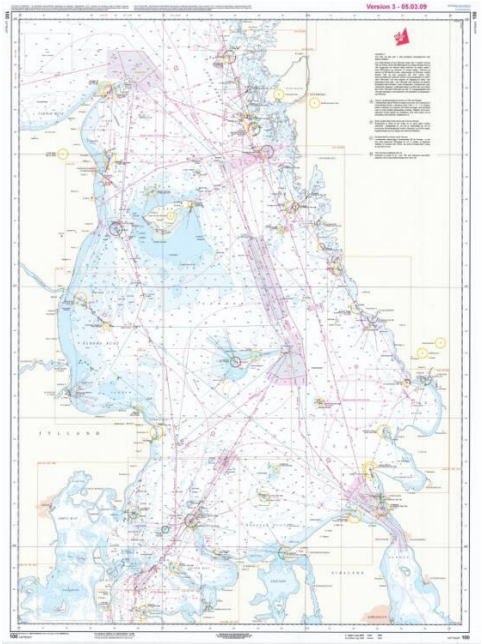
Deliverables I GIS:

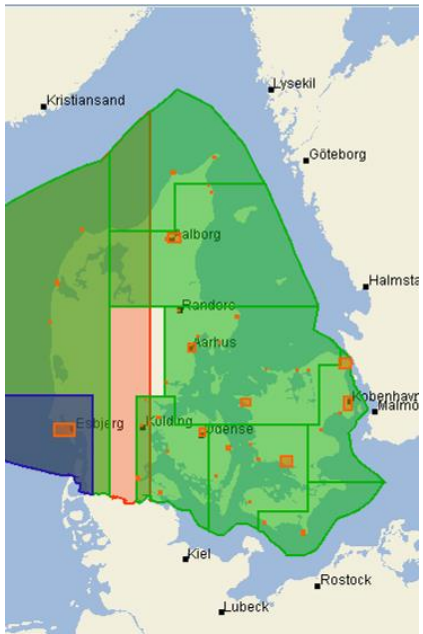
- Raster charts as background map
- ENC - S57 data as additional layer
- Hydrographic data sets



Hydrographic data sets

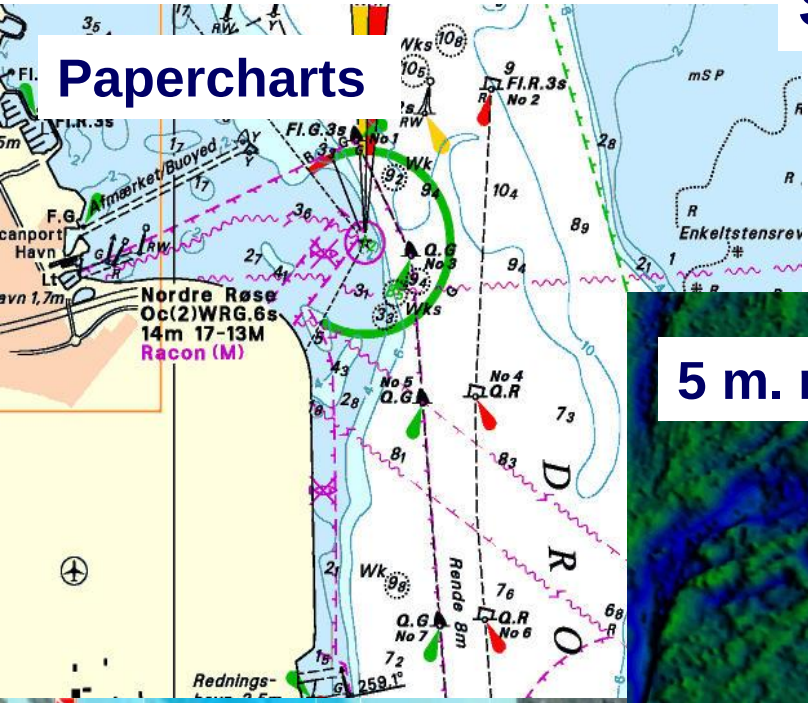
- **The legal rights of the owner of data sets**
- **The need for a national/regional/international governance model**
  - Interoperability can only be ensured through clear agreements between contributors
  - National security issues
  - National constructions differ in terms of rights and responsibilities regarding marine data.
- **A clear definition of hydrographic data sets**
- **Definition of key hydrographic data set**



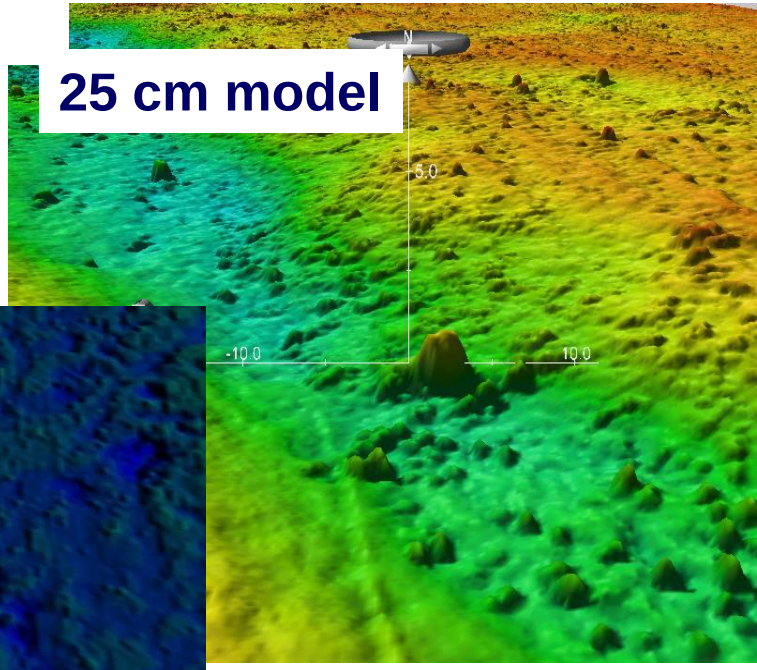


Surveying

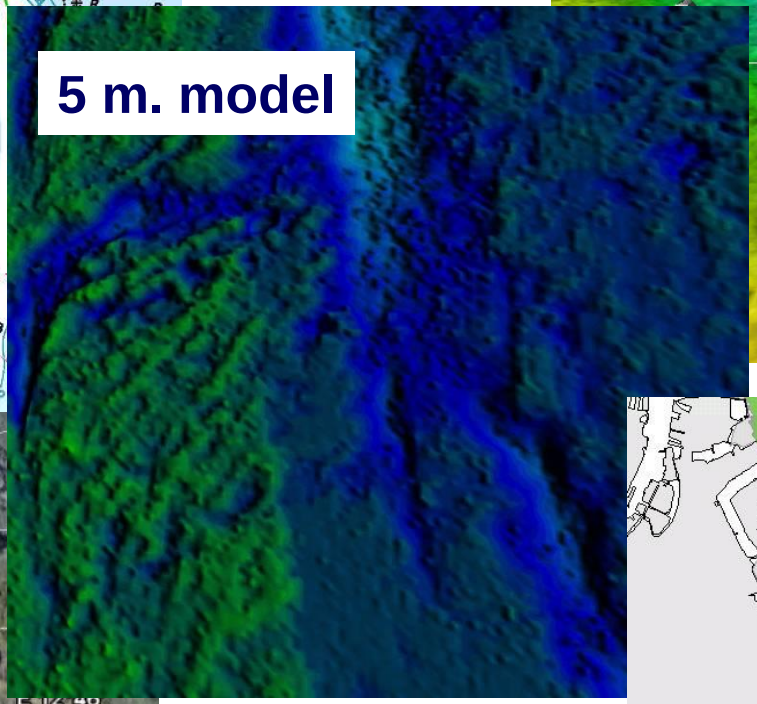
Papercharts



25 cm model



5 m. model

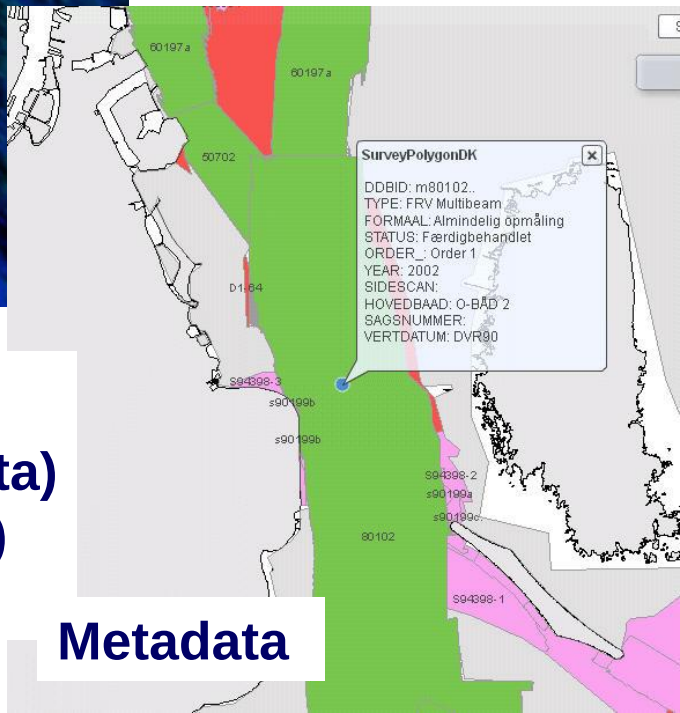


50 m model

Challenges:

- Storages (Raw data)
- Quality (Metadata)
- Harmonisation

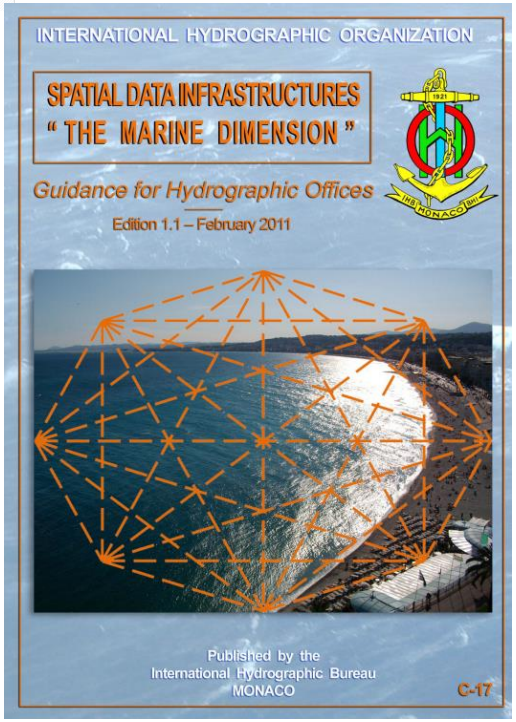
Metadata



IHO - MARINE SPATIAL DATA INFRASTRUCTURE WORKING GROUP (MSDIWG)

Objectives of the IHO MSDIWG:

- Identify the Hydrographic Community inputs to National Spatial Data Infrastructures (NSDI).
- Monitor national and international SDI activities
- Promote the use of IHO standards and member state marine data in SDI activities.
- Liaise, as appropriate, with other relevant technical bodies
- Propose any Technical and/or Administrative Resolutions that may be required to reflect IHO involvement in the support of SDI.
- Identify actions and procedures that the IHO might take to contribute to the development of Spatial Data Infrastructure (SDI) and / or MSDI in support of Member States.



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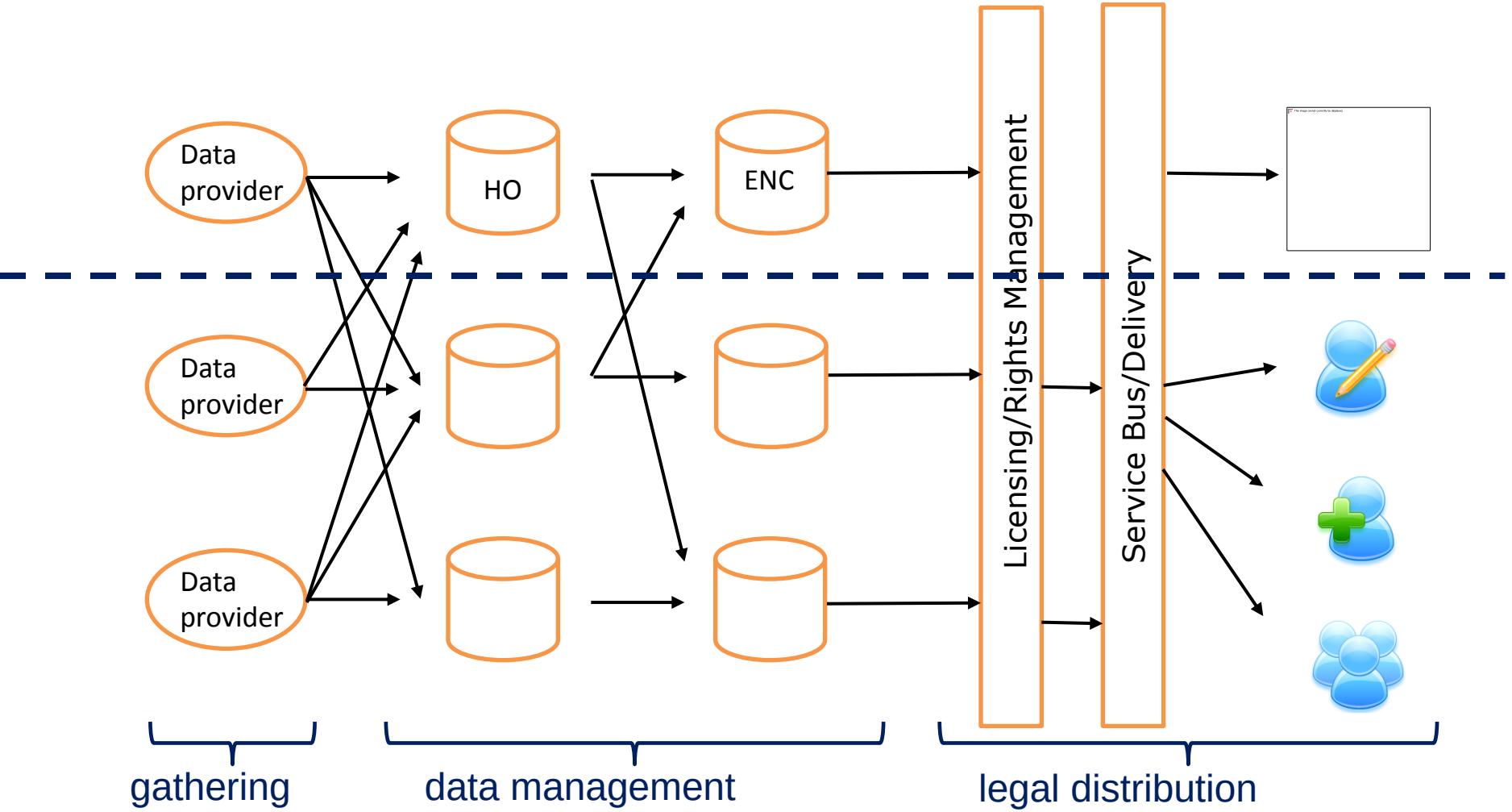
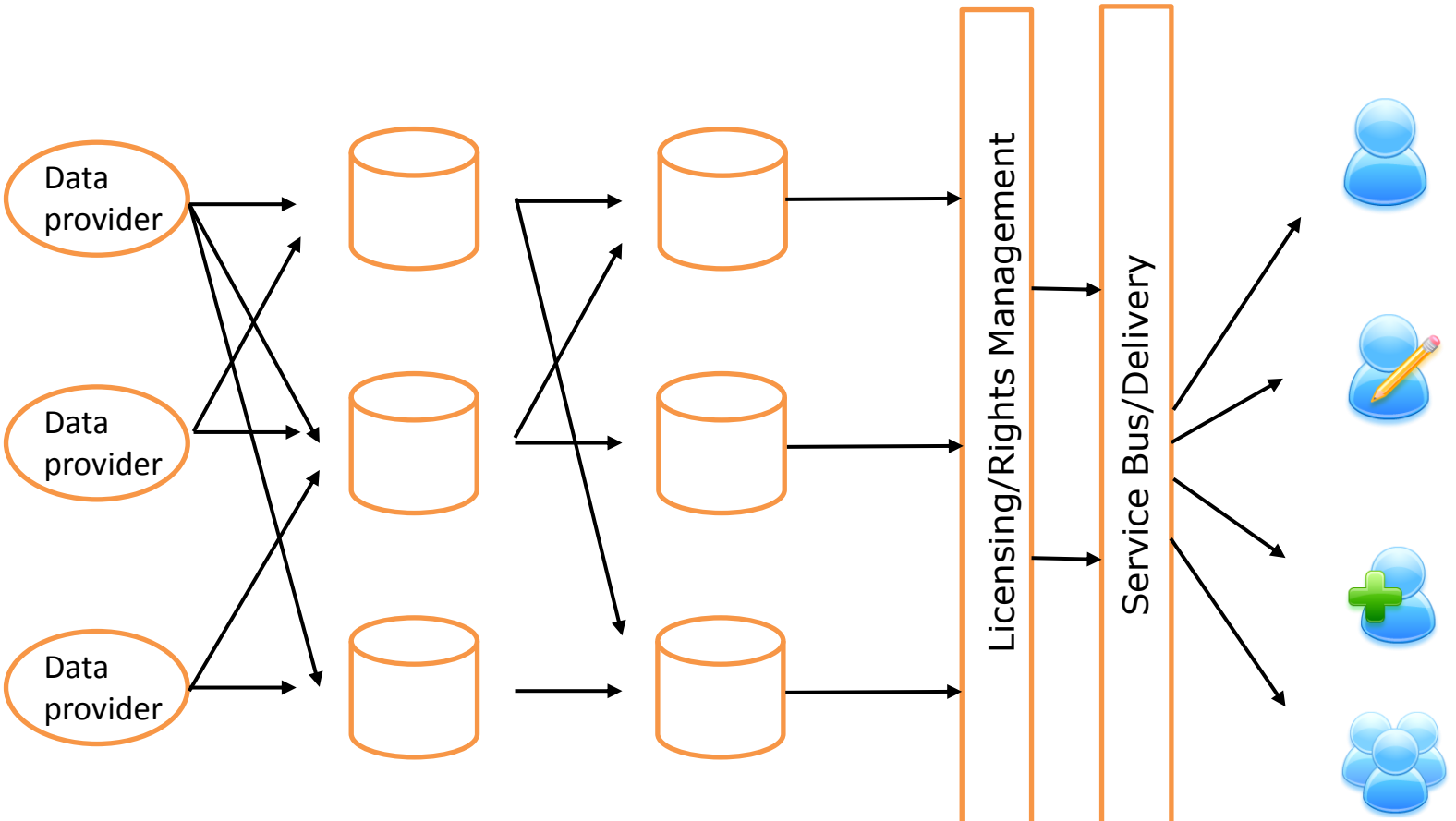
HO today: Safety of Navigation and other use



MSDI – Standards



S-44

ISO 9001
ISO 191xx

S-57
S-101
S-102
S-XXX
INSPIRE

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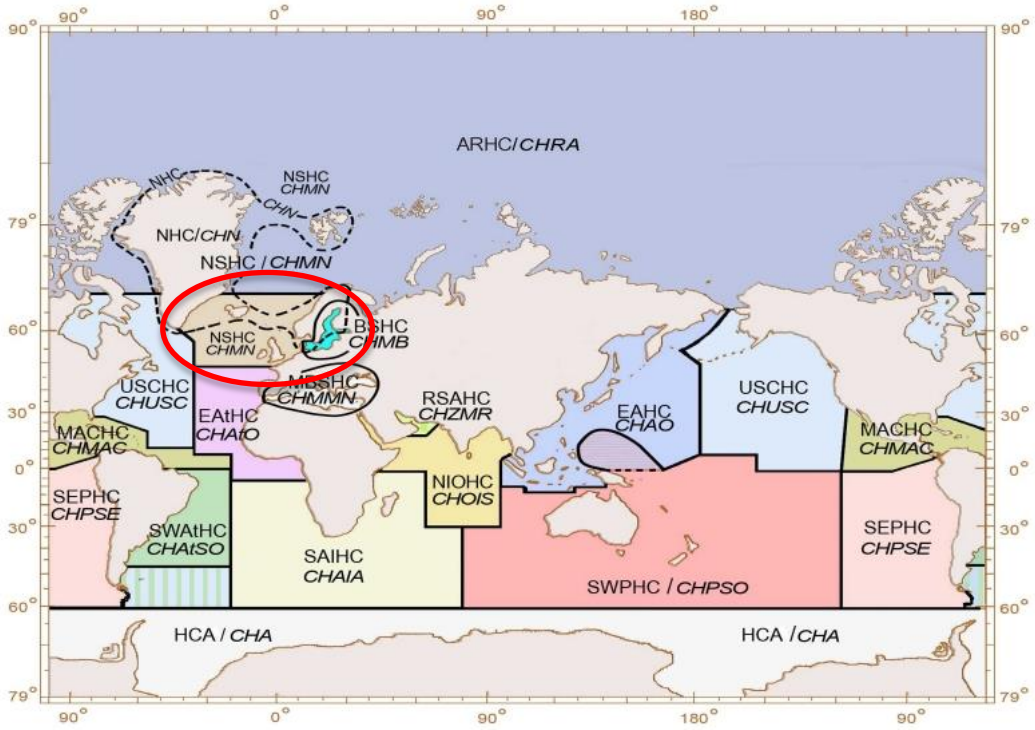
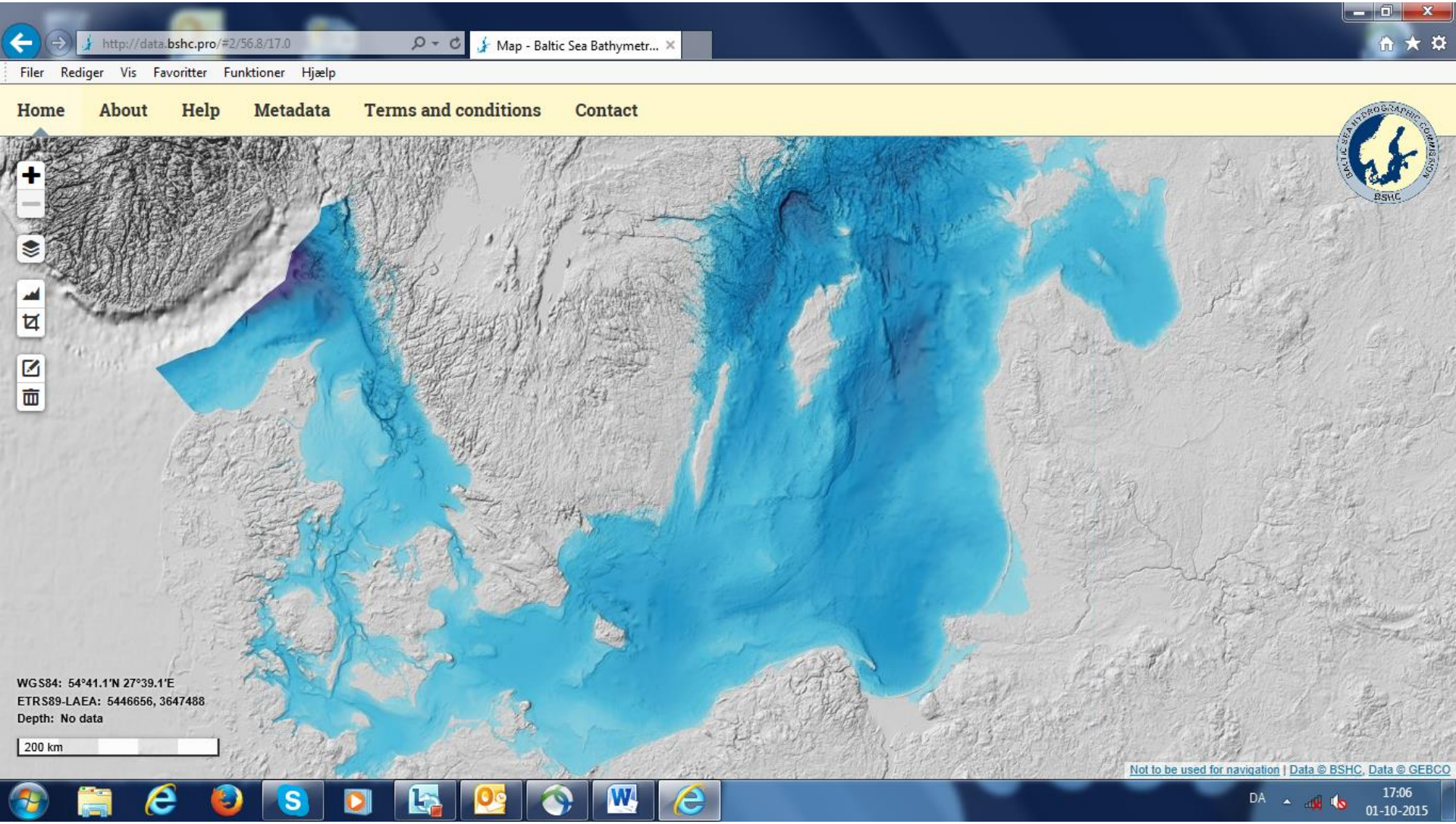
MSDI from a regional approach



Regional Hydrographic Commissions



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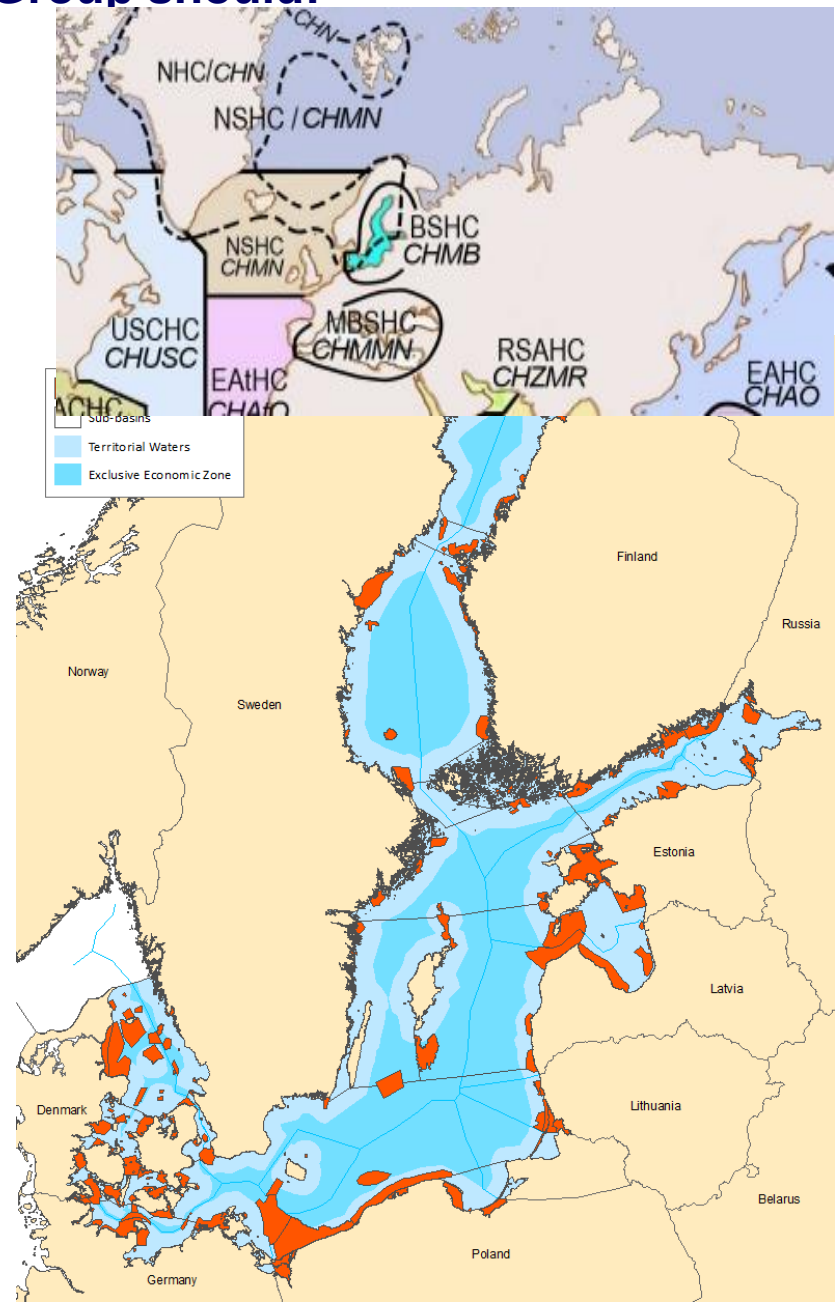
The Baltic Sea and North Sea MSDI Working Group should:

- **Identify and analyse** the current status of individual MS MSDI implementation
- **Consider MSDI policies** within the related international project
- **Analyse how maritime authorities can contribute** their spatial information and the necessary updates, so information can easily be collated with other information to a current overall picture for the region.
- Focus on **how BSHC in the future can benefit from a regional approach**
- Monitoring MSDI and marine- related initiatives, as well as more general geospatial developments with relevance for the Baltic Sea.



BS-NSMSDIWG Work program

Theme	Subject	Responsible
Task 1. Work item: Hydrographic data and legal aspects	- Definition of HO role in MSDI - Study on status on implementation and responsibility with relevance to MSDI in the Baltic countries	Denmark
Task 2. Work item: Liaison with external projects	- Scanning of projects relevant for BSMSDI	Germany
Task 3. Work item: S 100	- Conduct S 100 pilot project - Evaluate on how to promote S 100 in the Baltic	Germany
Task 4. Work item INSPIRE	- Make a matrix of hydrographic datasets versus INSPIRE. - Give input to a survey to get overview of available webservices, including INSPIRE webservices, to facilitate a demonstrator by DEN - Present information about INSPIRE at the next wg meeting.	Netherland/ France
Task 5. Work item: Common understanding	- Establish a framework for common understanding of MSDI	Denmark/ Finland
Task 6. Work item: Pilot projects/demonstration	-Study on the possibility to establish a BSMSDI WEB page - Demonstration project S100 - WEB GIS demonstrator with BS HO datasets	Denmark Germany Denmark

MSDI and MSP – seen from a Regional perspective

Marine Spatial Data Infrastructure (MSDI) - the marine dimension of an SDI

- MSDI is the component of an SDI that encompasses marine geographic and business information in its widest sense.

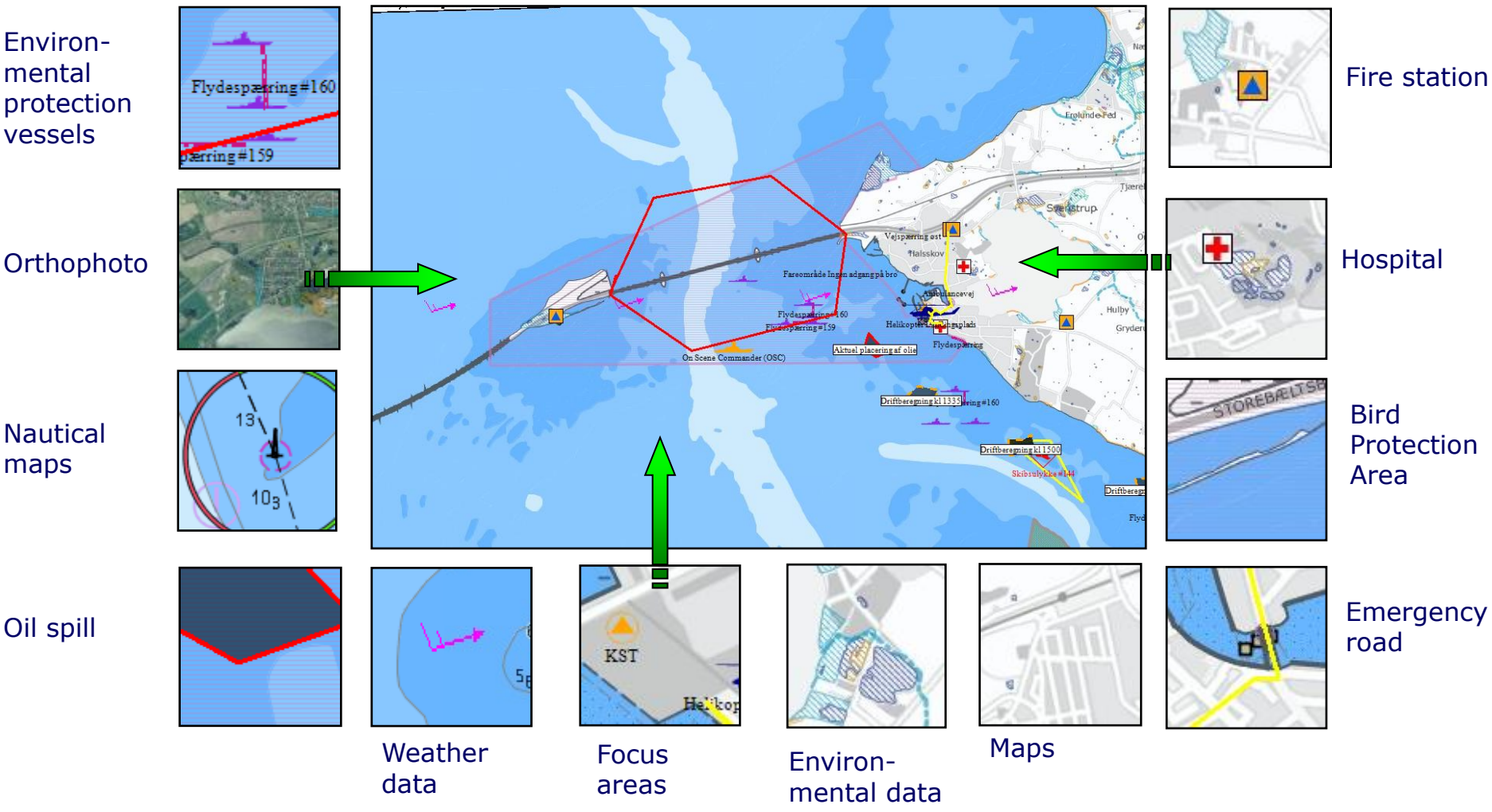
- This would typically include seabed topography (bathymetry), geology, marine infrastructure (e.g. wrecks, offshore installations, pipelines and cables), administrative and legal boundaries, and areas of conservation, marine habitats and oceanography.

The role of a regional MSDI:

- The development of an SDI is a natural extension in the management and dissemination of the underpinning hydrographic information to a wider user community in an integrated manner. All HO‟s should therefore consider how they might engage and play a full role in the development of, or participation in, an SDI.

MSDI - Creating a Common Operational Picture

SAR – MSP - ICM – Environmental protection - Surveillances - VTS - MAS



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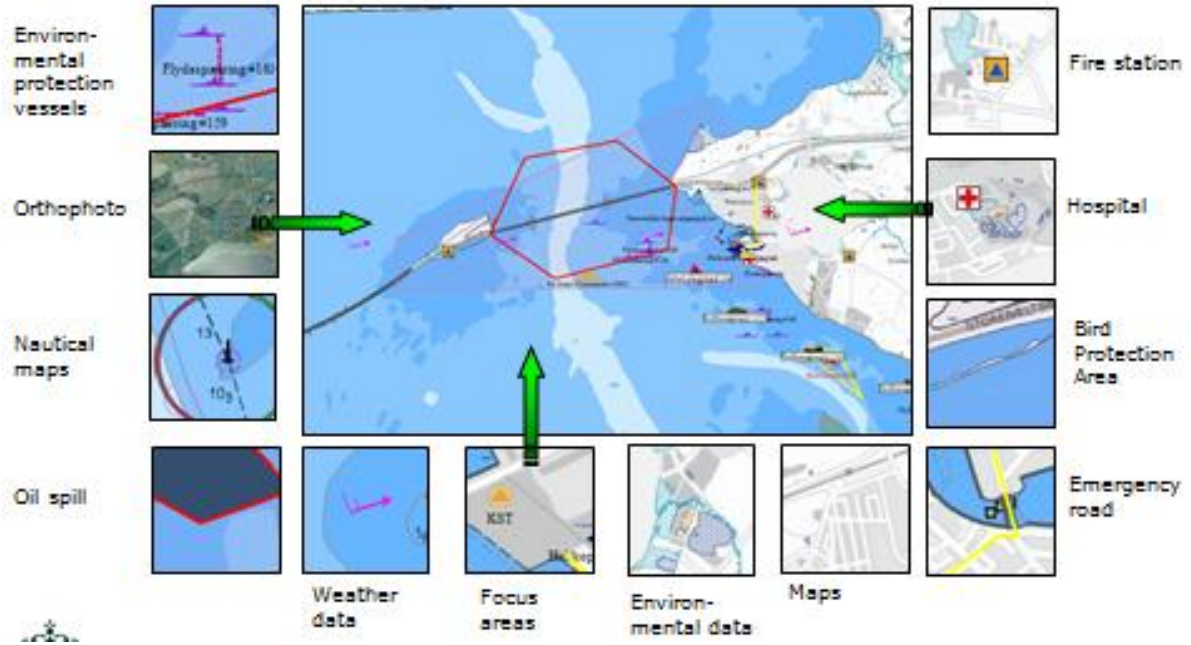
Developing your marine spatial data infrastructure

Creating a MSDI for a Common Operational Picture:

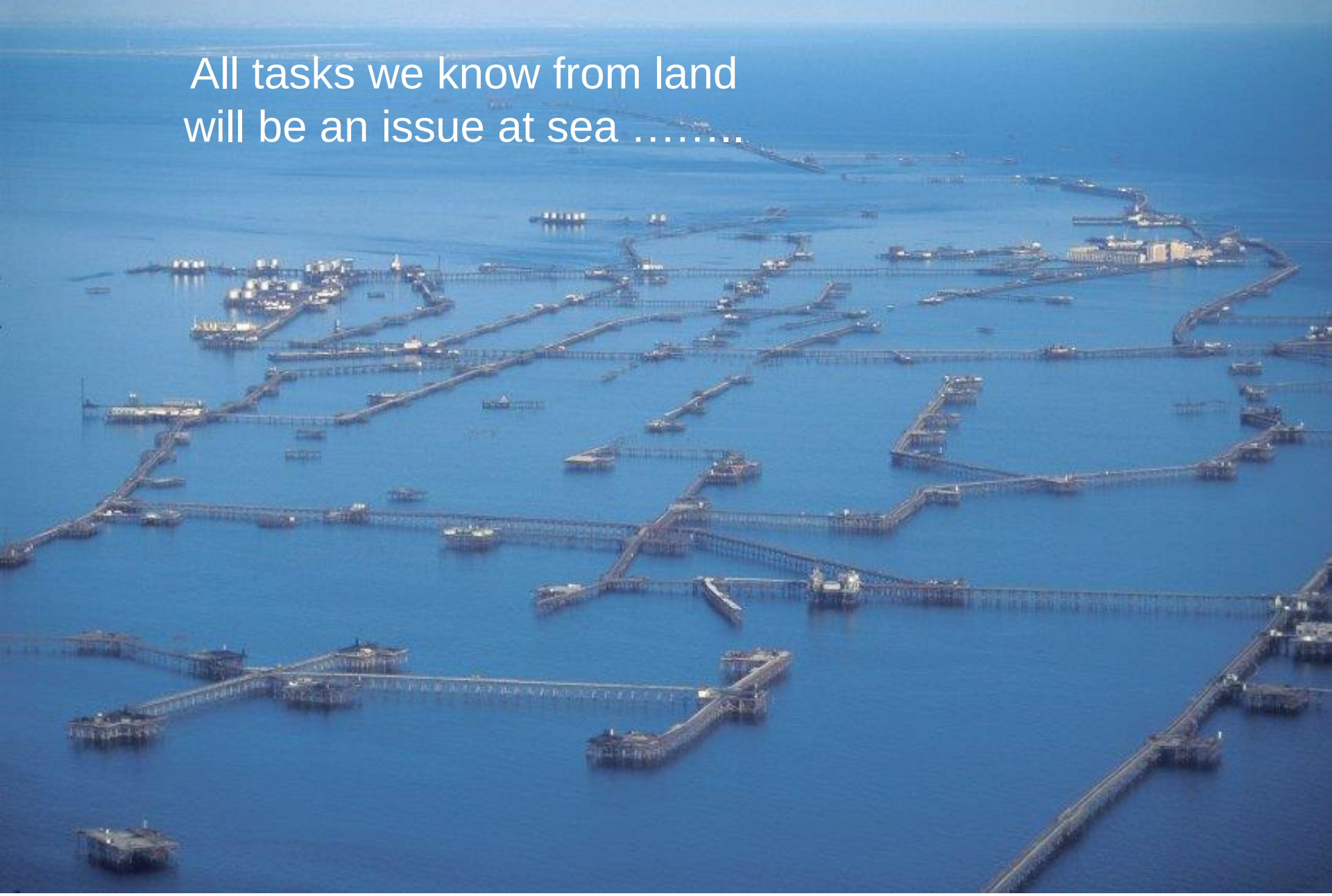
- Definition of different use cases
- Knowledge about data and data providers/owners
- The right Information => dataset
- Knowledge about dataset => metadata
- Access to data when needed
- Quality of data
- Specific datasets should be updated, by the data owner
- Governance



MSDI – seen from a regional perspective

Consideration – the need for:

- Establishing a Baltic MSP Governance model
- Agree on basic/minimum data to be exchanged for MSP (nice/need to have)
- Agree on technical requirements and solutions

- Identify and analyse the current status of individual MS MSP implementation e.g. a best practice approach
- Consider relevant policies within the related international project e.g. INSPIRE, MSP, EU Integrated Maritime Strategy, the Marine Strategy Framework and EU Strategy for the Baltic Sea Region, EMODnet , UN-GGIM, OGC .
- Analyse how Baltic Sea authorities can contribute their spatial information so information can easily be collated with other information to a current overall picture for the region.

All tasks we know from land
will be an issue at sea ……..