



**Baltic Sea – North Sea  
Marine Spatial Data Infrastructure  
WG  
(BS-NSMSDIWG)**

**and**

**HELCOM/VASAB  
MSP data expert group**

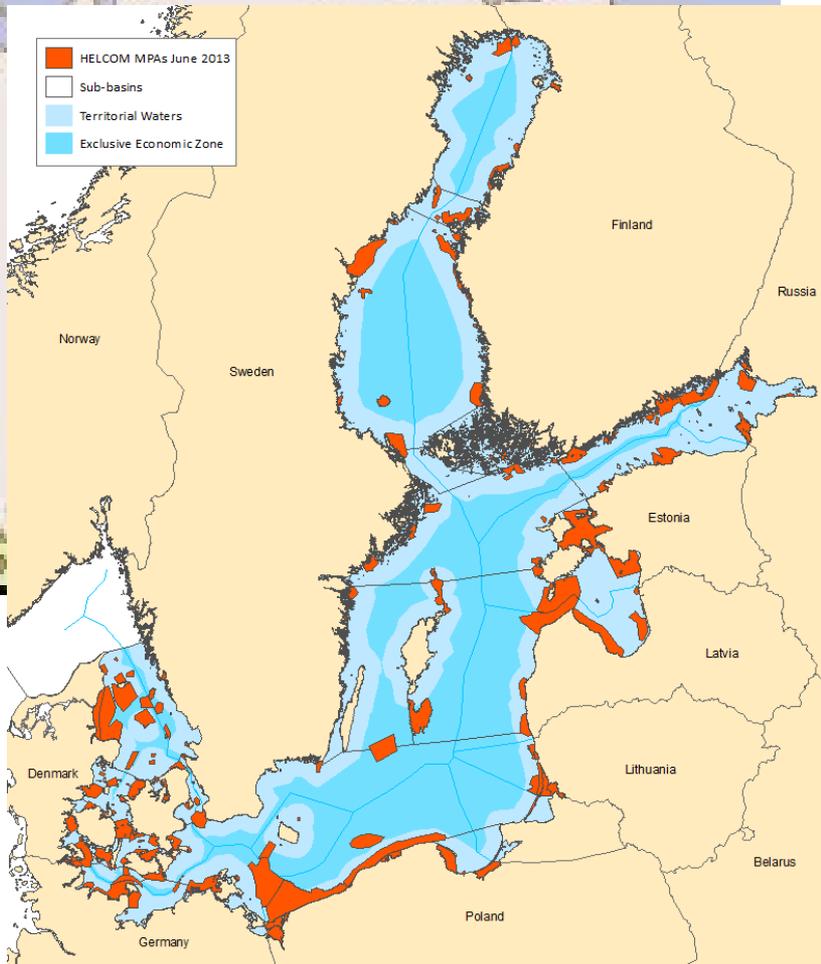
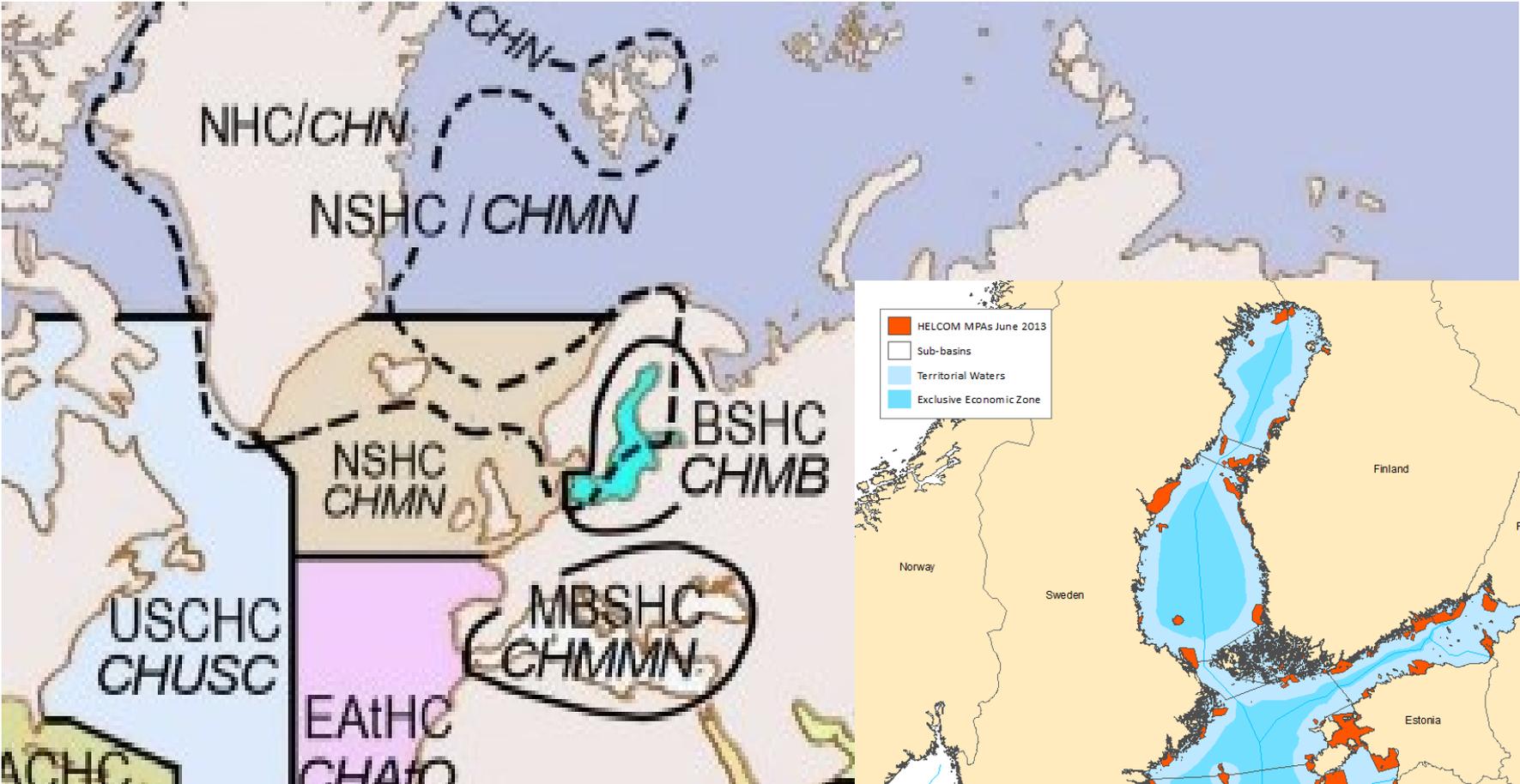


**BALTIC SEA  
HYDROGRAPHIC  
COMMISSION**



**NORTH SEA  
HYDROGRAPHIC  
COMMISSION**

# Baltic Sea – North Sea



# Baltic Sea- North Sea Marine Spatial Data Infrastructures Working Group

## Germany 6 – 8 December 2016

### Action list.

25	1/2016	Use Case “Establishing wind mills” To investigate/analyse: 1) Which data is need and 2) What are the data sets HO MS can provide?	Denmark	MSDIWG6
26	1/2016	Denmark to provide a draft description of a MSP pilot project, (naming of datasets e.g. INSPIRE. E.G. Cables, windfarm) HELCOM and VASAB to be included.	Denmark	MSDIWG6
27	1/2016	Investigate if and how to participate in the INSPIRE work with relation to hydrographic data	Norway	MSDIWG6
28	1/2016	To investigate the different MSP initiatives and stakeholders in the North Sea with relevant to MSDI	Germany	MSDIWG6
29	1/2016	BS-NSMSDIWG and HELCOM VASAB MSP data group to send out a MSP questionnaire about relevant HO dataset and relation to INSPIRE and to evaluate if relevant HO datasets is missing	Chair	MSDIWG6
30	1/2016	Denmark to forward the HO MSP datasheet to all BSHC and NSHC MS	Denmark	MSDIWG6
31	1/2016	All BSHC and NSHC member states to answer and fulfil the HO MSP datasheet and send it to Denmark before the next meeting in BS-NSMSDIWG meeting.	All	MSDIWG6
32	1/2016	To investigate together with HELCOM and VASAB the need to task OGC to establish a conceptual model for MSP in the Baltic and North Sea	Chair	MSDIWG6
33	1/2016	To investigate the different possibilities to get free access to HO data sets e.g. for MSP. => All BS-NSMSDIWGMS to check and report on free HO data sets.	All	MSDIWG7
34	1/2016	Contact the North See in order to investigate the possibilities for cooperation on MSP in the future	Germany	ASAP
35	1/2016	To invite HELCOM and VASAB to the next BS-NSMSDIWG.	Chair	MSDIWG6

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To invite HELCOM and VASAB to the next BS-NSMSDIWG.	Chair

# Maritime spatial planning

## Article 6

### Minimum requirements for maritime spatial planning

Member States shall establish procedural steps to contribute to the objectives listed in Article 5, taking into account relevant activities and uses in marine waters:

- (e) **Organise the use of the best available data** in accordance with **Article 10**.
- (f) **Ensure trans-boundary cooperation** between Member States in accordance with **Article 12**.
- (g) **Promote cooperation with third countries** in accordance with **Article 13**.

## DIRECTIVES

### DIRECTIVE 2014/89/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 July 2014 establishing a framework for maritime spatial planning

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Articles 43(2), 100(2), 192(1), and 194(2) thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee <sup>(1)</sup>,

Having regard to the opinion of the Committee of the Regions <sup>(2)</sup>,

Acting in accordance with the ordinary legislative procedure <sup>(3)</sup>,

Whereas:

- (1) The high and rapidly increasing demand for maritime space for different purposes, such as installations for the production of energy from renewable sources, oil and gas exploration and exploitation, maritime shipping and fishing activities, ecosystem and biodiversity conservation, the extraction of raw materials, tourism, aquaculture installations and underwater cultural heritage, as well as the multiple pressures on coastal resources, require an integrated planning and management approach.
- (2) Such an approach to ocean management and maritime governance has been developed in the Integrated Maritime Policy for the European Union (IMP), including, as its environmental pillar, Directive 2008/56/EC of the European Parliament and of the Council <sup>(4)</sup>. The objective of the IMP is to support the sustainable development of seas and oceans and to develop coordinated, coherent and transparent decision-making in relation to the Union's sectoral policies affecting the oceans, seas, islands, coastal and outermost regions and maritime sectors, including through sea-basin strategies or macro-regional strategies, whilst achieving good environmental status as set out in Directive 2008/56/EC.
- (3) The IMP identifies maritime spatial planning as a cross-cutting policy tool enabling public authorities and stakeholders to apply a coordinated, integrated and trans-boundary approach. The application of an ecosystem-based approach will contribute to promoting the sustainable development and growth of the maritime and coastal economies and the sustainable use of marine and coastal resources.

<sup>(1)</sup> OJ C 341, 21.11.2013, p. 67.

<sup>(2)</sup> OJ C 356, 5.12.2013, p. 124.

<sup>(3)</sup> Position of the European Parliament of 17 April 2014 (not yet published in the Official Journal) and decision of the Council of 23 July 2014.

<sup>(4)</sup> Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for Community action in the field of marine environmental policy (Marine Strategy Framework Directive) (OJ L 164, 25.6.2008, p. 19).

# HELCOM/VASAB MSP Data Expert Group



## VISION AND STRATEGIES AROUND THE BALTIC SEA

Contacts For Registered Users

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News

About VASAB

Events

Ministerial Conferences

Long-Term Perspective

Urban-rural relations

Accessibility

Maritime Spatial Planning

### Maritime Spatial Planning



Baltic Sea has been and remains to be key factor that forms political, cultural, environmental and economic identity of the Baltic Sea Region. The most prominent cities of the region have grown as ports on the coast of the Baltic Sea or on the waterways immediately connected to the Sea. Many of these cities continue to function as important sea ports serving the ever increasing flows of goods through the Baltic Sea Region.

Maritime Spatial Planning (MSP) in the Baltic Sea Region has evolved over many years.

The VASAB Stockholm Ministerial Conference in 1996 introduced "Recommendations for Spatial Planning of the Coastal Zone in the BSR". Since then coastal areas and islands have been one of the pillars of VASAB spatial concepts.

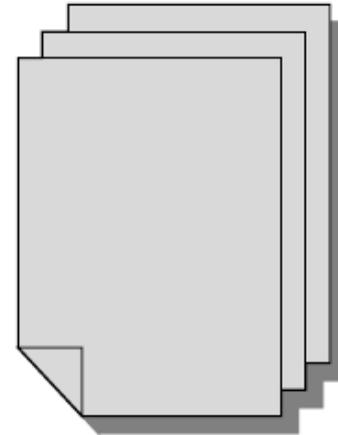
The VASAB Wismar Ministerial Conference in 2001 passed "VASAB 2010 PLUS Spatial Development Action Programme" where the sustainable development of coastal zones and islands is one of the six key themes for transnational spatial planning cooperation extending spatial planning also to off-shore side.

Between 2002 – 2005 the BaltCoast project developed recommendations on the role of spatial planning in ICZM. Based on the recommendations the VASAB Gdansk Ministerial Conference in 2005 suggested "sea use planning as a tool to prevent conflicts in intensively used offshore areas".

Within East West Window project VASAB Working Group on sea use planning and ICZM was established in 2006. The Working Group was chaired by the Polish Ministry of Regional Development. The work of the Working Group in October 2008 resulted with the elaborated concept of sea use planning in the BSR. This required first of all elaboration of the vision for long term development of the Baltic Sea space, a as well as principles and priorities upon which such vision can be implemented. Afterwards, the system of joint sea planning and management can be established using new governance methods and adequate tools. The Working Group also produced Compendium on MSP Systems in the BSR countries.



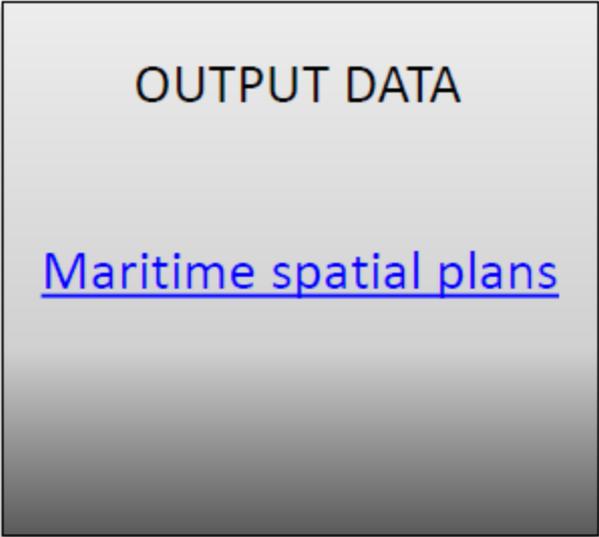
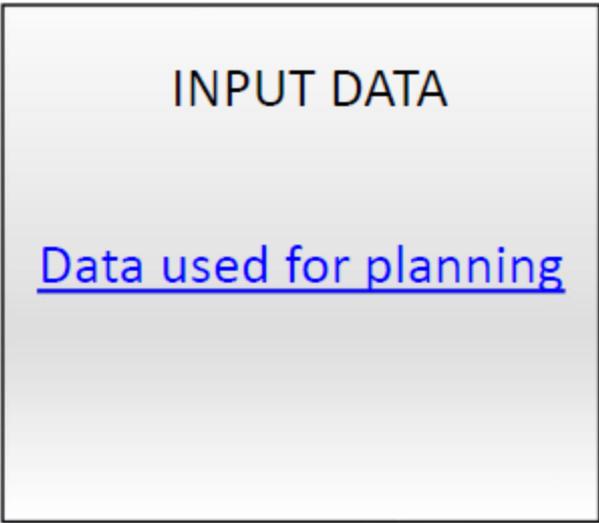
# What are MSP Data



It can be **everything** related to the sea i. e.:

- Environmental (biological, oceanographical, geological, bathymetry, climate change effects etc.)
- Data on human use of the sea (borders, investments, traffic routes etc.)
- Economic and social data etc.
- Maritime spatial plans.

# MSP Data



10 stakeholders

9 BSR countries  
+ Helcom



Administrative borders  
Aquaculture areas  
Fishing areas  
Installations & infrastructures  
Maritime transport routes and traffic flows  
Nature and species conservation sites and protected areas  
Military training areas  
Raw material extraction areas  
Scientific research  
Submarine cable and pipeline routes  
Tourism & recreation  
Underwater cultural heritage  
Other

Article 8

MSP

D  
I  
R  
E  
C  
T  
I  
V  
E

**52 Themes under that scope**



**At least 384 datasets**

(427 interpolated for 10 stakeholders)

**owned by 95 different institutions**

(105 interpolated for 10 stakeholders)



Average **42** datasets  
for one country

Average **10** data owners for one country



Only **11 datasets (3%)** were restricted

For 46% lack of information

Only **35 datasets (9%)** were paid

For 39% lack of information

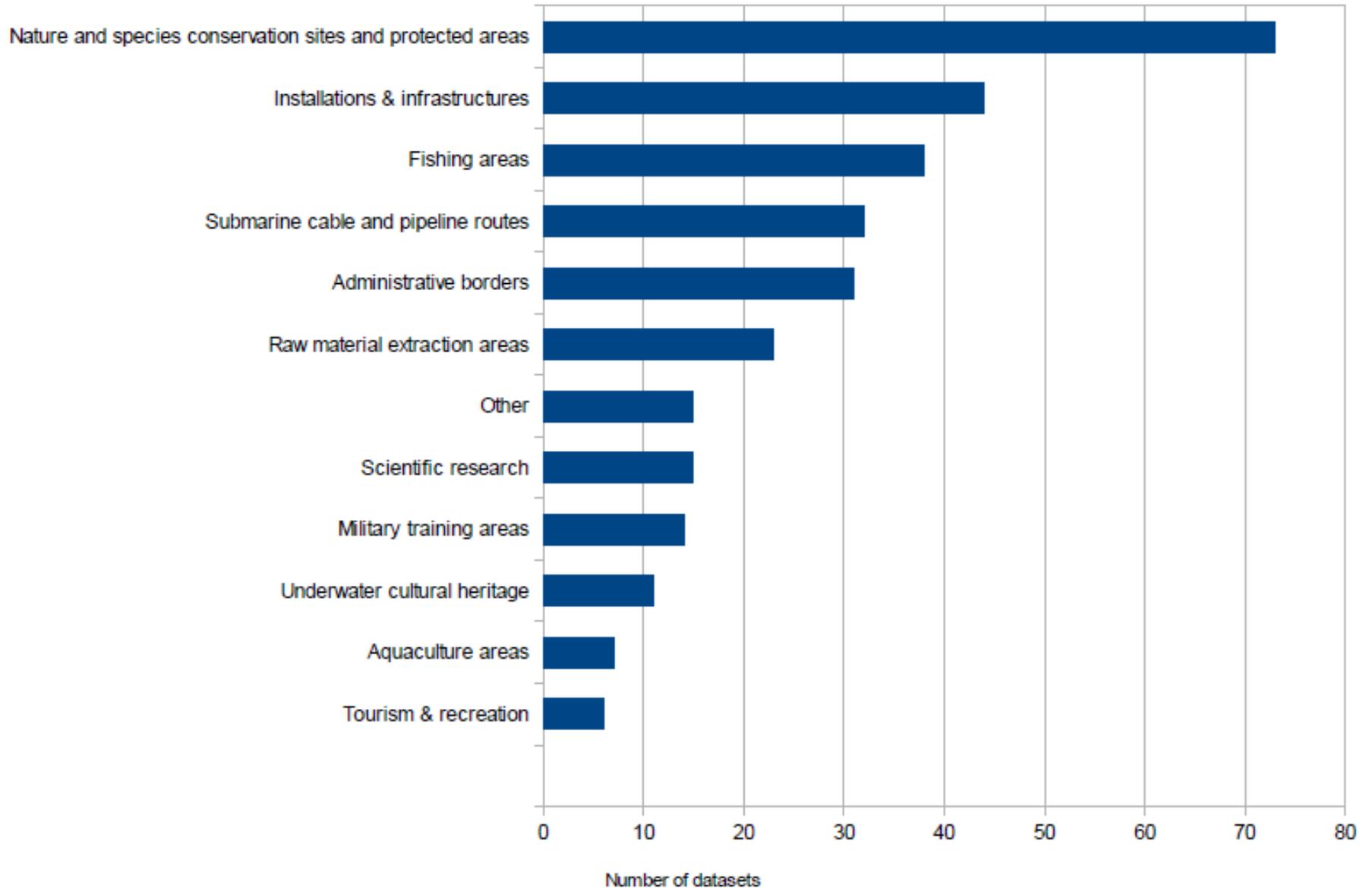


**161 datasets (42%)**  
were accessible via internet

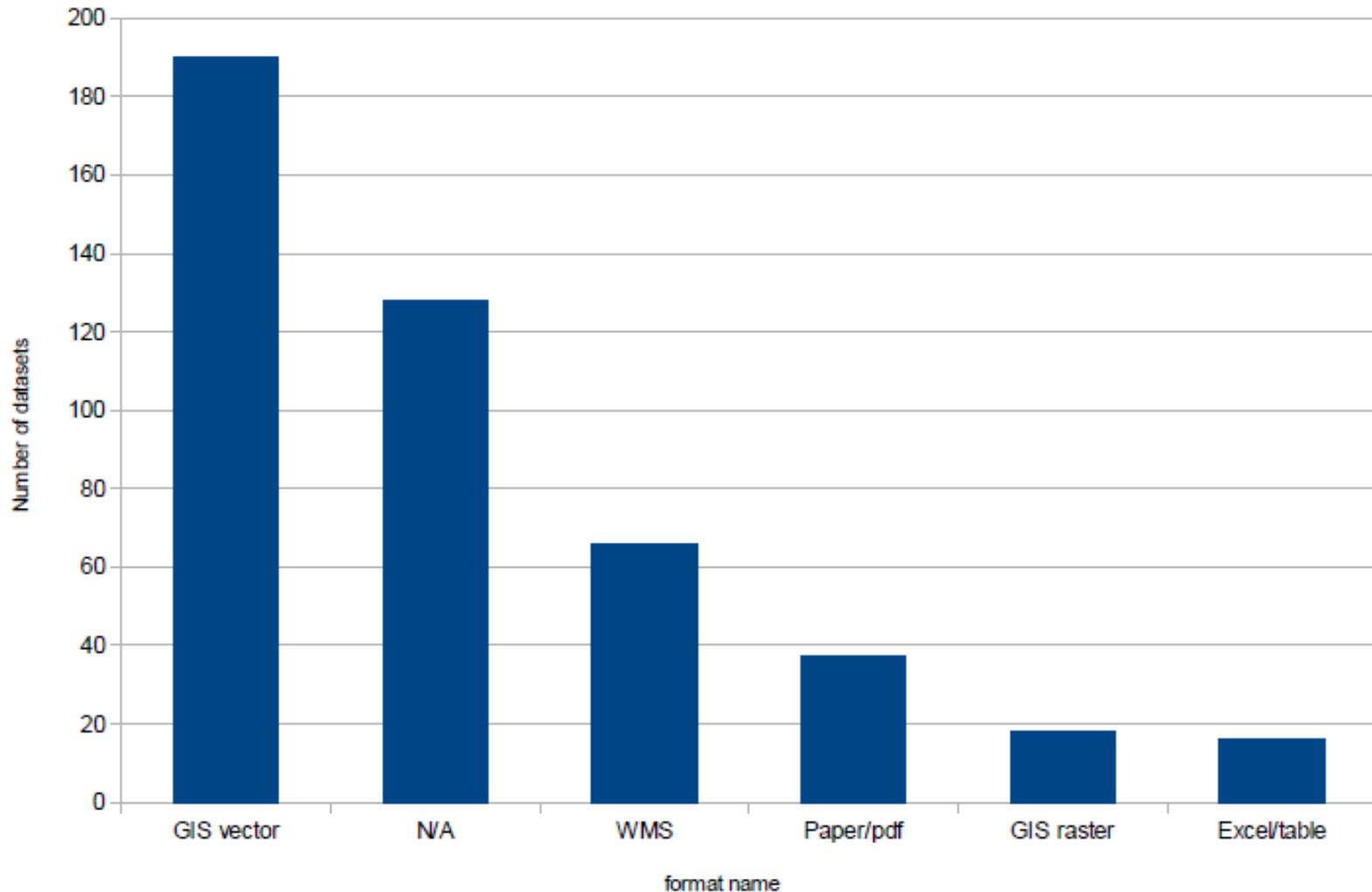
For 47% lack of information



# Graph for datasets categories



# Graph for data formats



## Adding to that:

- Language issues – attributes, columns names, metadata etc.
- Lack of comparability of data (structures, formats)
- Independence of data sources



# Is that even possible to harmonise such amount of data?

The answer could be European Directive 2007/2/EC Infrastructure for Spatial Information in the European Community (INSPIRE), but not all datasets fall into INSPIRE themes.

For MSP purposes more useful can be 'products' than source data



# Terms of Reference for a Baltic Sea Region MSP Data Expert Sub-group

## Tasks

initially prepare a general overview on national state of play of “MSP Data” with regard to trans-boundary / cross-border issues in BSR States (availability), incl. an overview on:

- available (relevant) data (incl. metadata, problems with ownership, legal issues, licenses, cost etc.)
- data services (accessibility etc.)
- compile minimum data/information/evidence requirements for trans-boundary / cross-border MSP: scope, metadata, standards, formats etc. for “Input Data”, and “Sharing” of these data
- prepare an overview on gaps in relevant data / information / evidence, problems e.g. with ownership, licensing, cost, legal aspects in general
- agree on roadmap; the group should consider developing existing infrastructure further for MSP, if possible, before considering new platforms for data infrastructure



compile minimum data/information/evidence requirements for trans-boundary / cross-border MSP: scope, metadata, standards, formats etc. for “Input Data”, and “Sharing” of these data

At least 384 datasets owned by, at least, 95 different institutions

- + Formats issues
- + Structures issues
- + Language issues
- + 'Products for planners' issues

= Great cost to harmonize

**Necessary?**





HELCOM



# MSP OUTPUT DATA

## AND ITS RELATION TO INSPIRE DIRECTIVE

# Terms of Reference

## For a BSR MSP Data Expert Sub-group

### Tasks

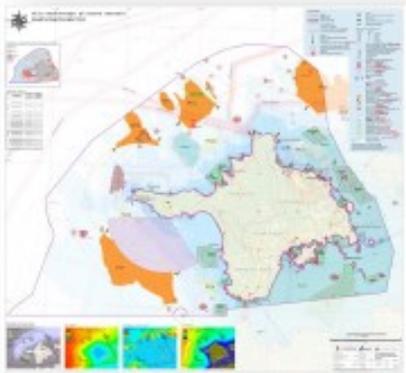
*e. Compile minimum requirements for trans-boundary MSP „Output Data” (Maritime Spatial Plans)*

### Outputs

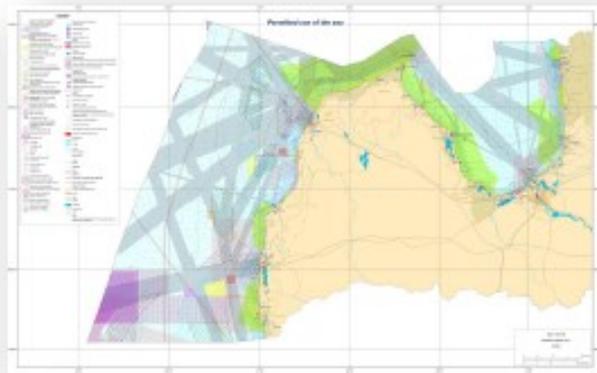
*d. Compilation of minimum requirements for Maritime Spatial Plan Data: „Output Data” and sharing of this data*

# Different styles of planning

- Different future needs
- Different data categories
- Different styles of visualizing how space could be used
- Different OUTPUT spatial plan languages



Estonia



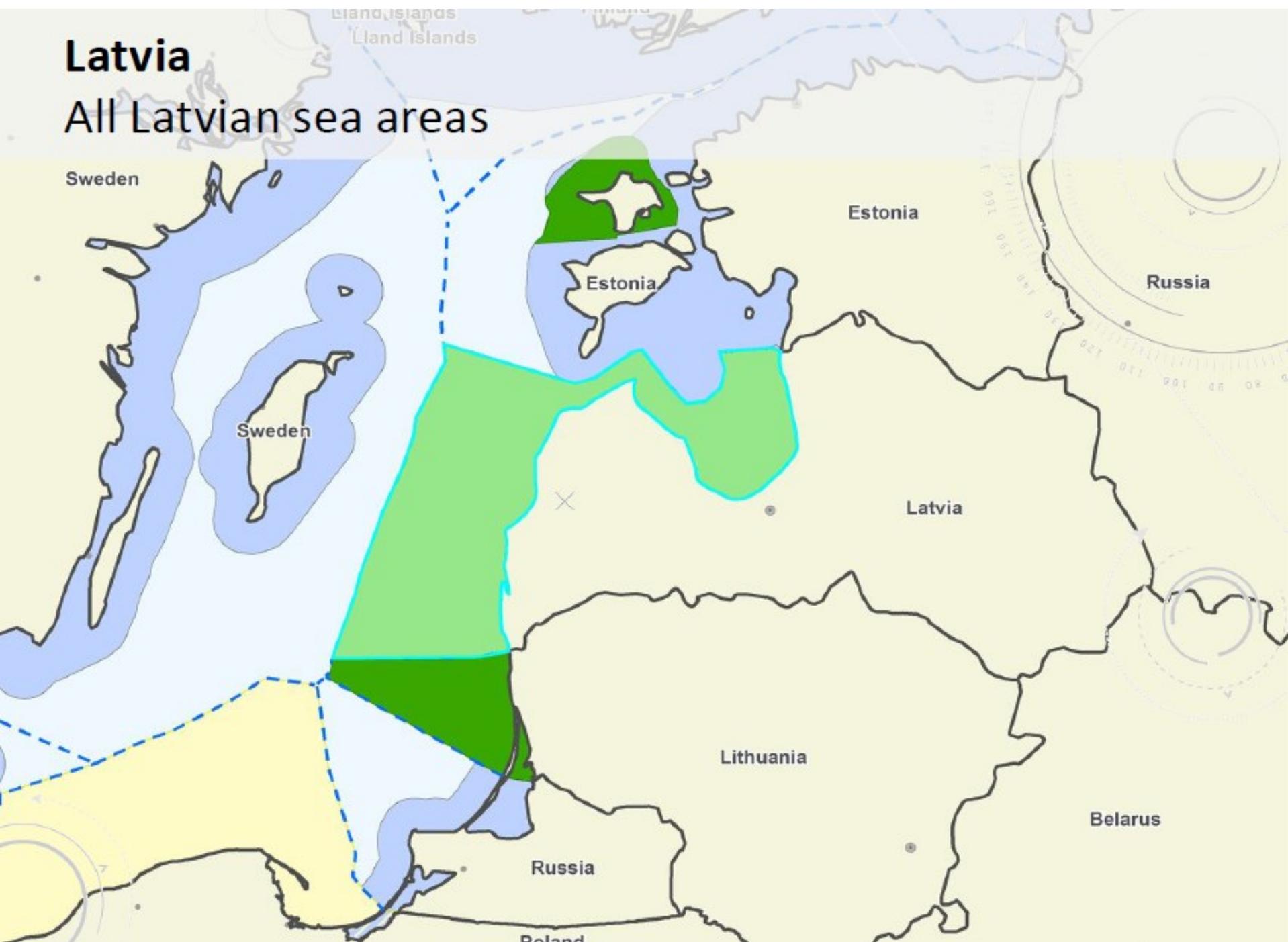
Latvia



Lithuania

# Latvia

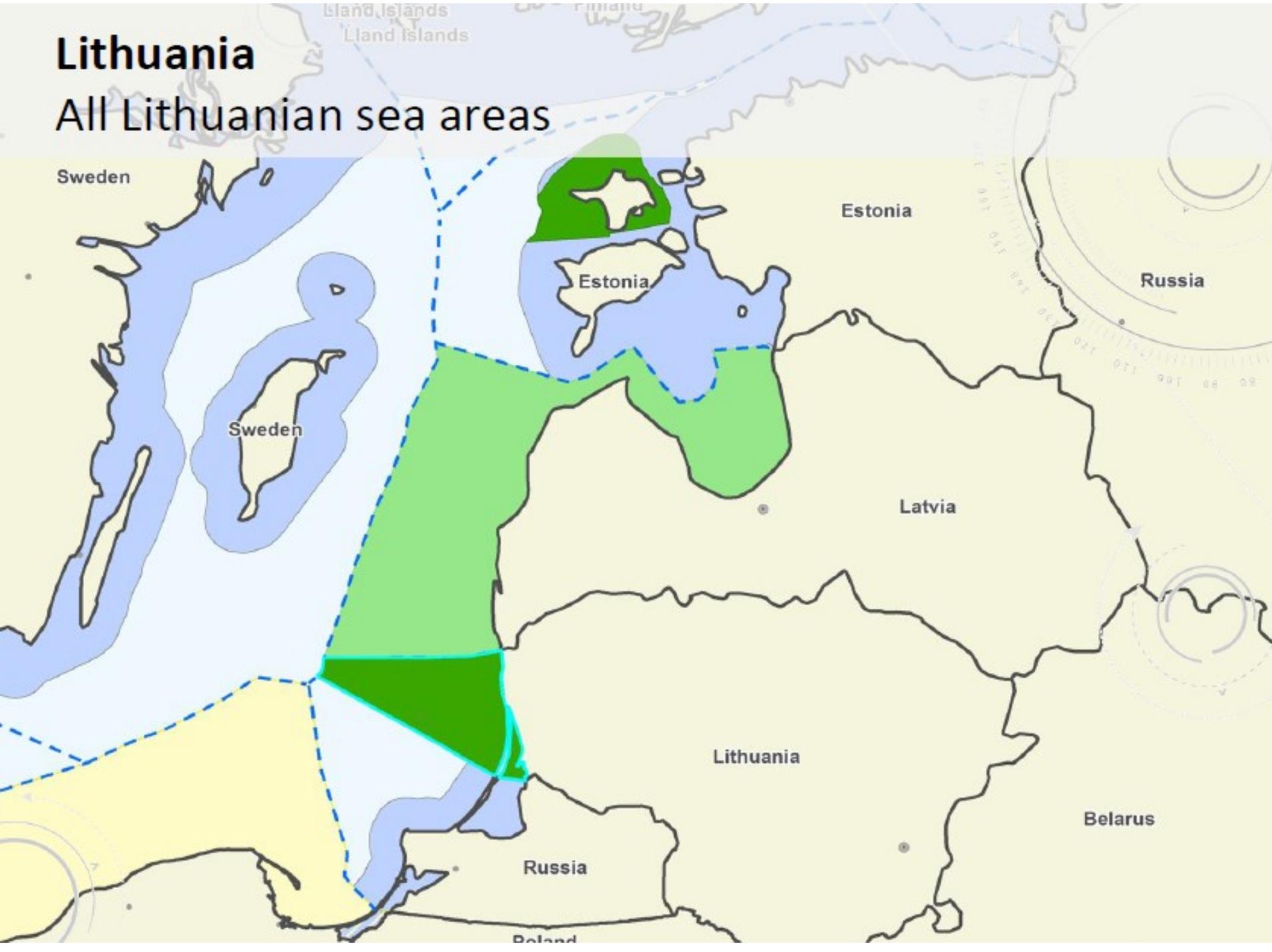
## All Latvian sea areas





# Lithuania

## All Lithuanian sea areas











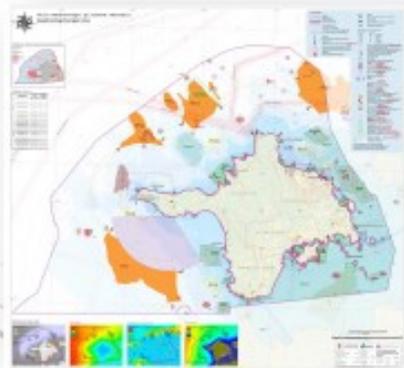


# Terms of Reference

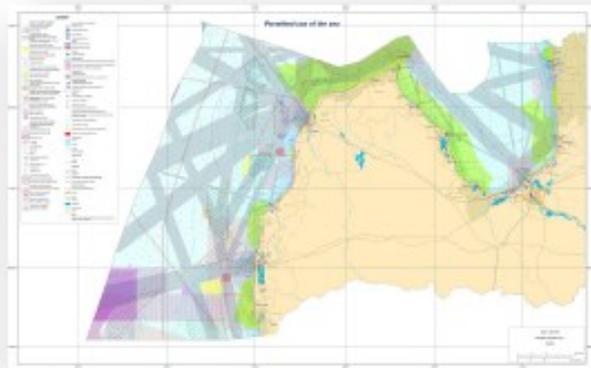
## For a BSR MSP Data Expert Sub-group

### MSP Data Expert sub-group task

- Compile minimum requirements for Maritime Spatial Plan Data: „Output Data” and sharing of this data
- Identifying some minimum set of data requirements that countries have to use
- Proposing one-size solution that fits all cases



Estonia



Latvia



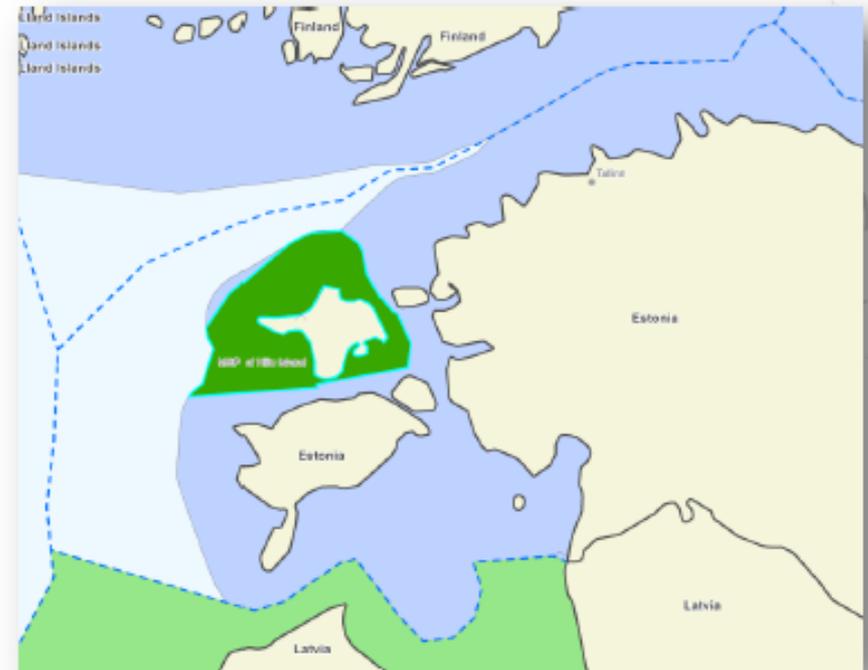
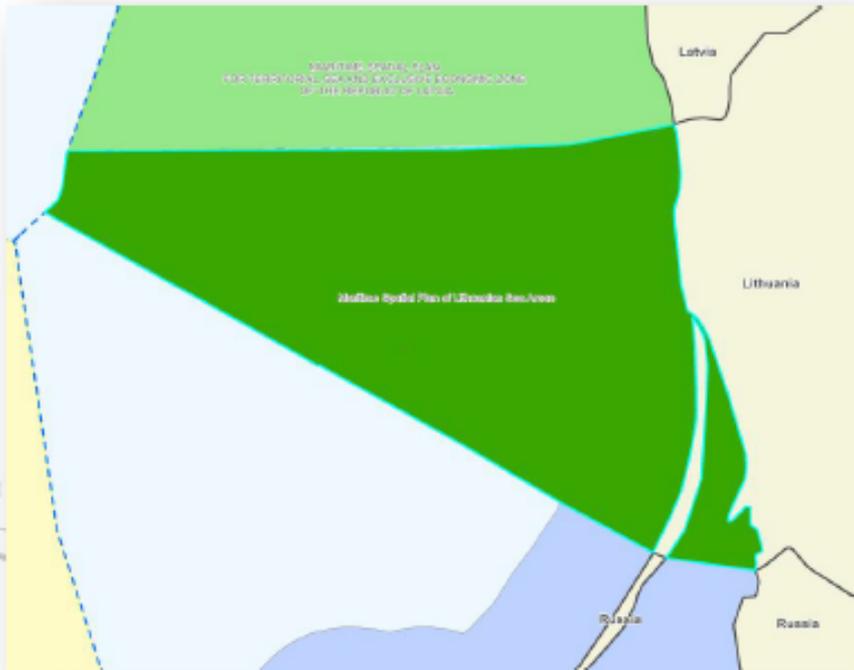
Lithuania

# Minimum Requirements

## Basic level

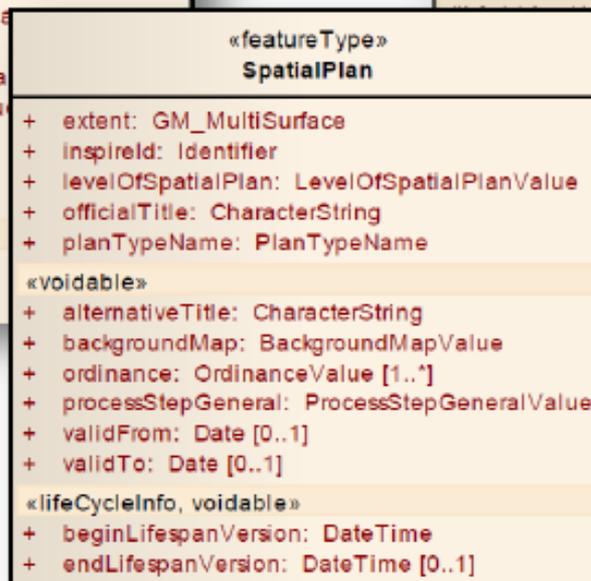
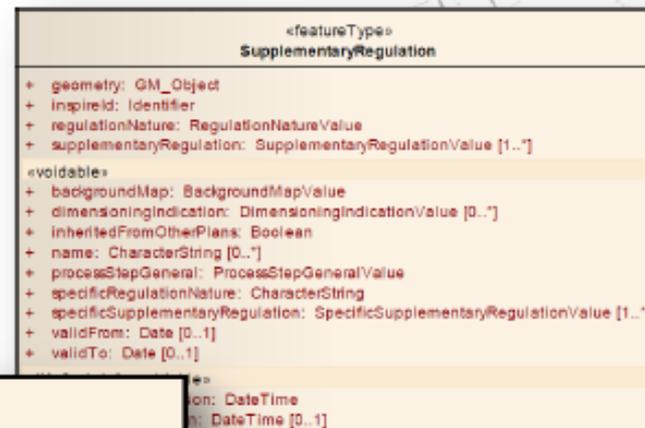
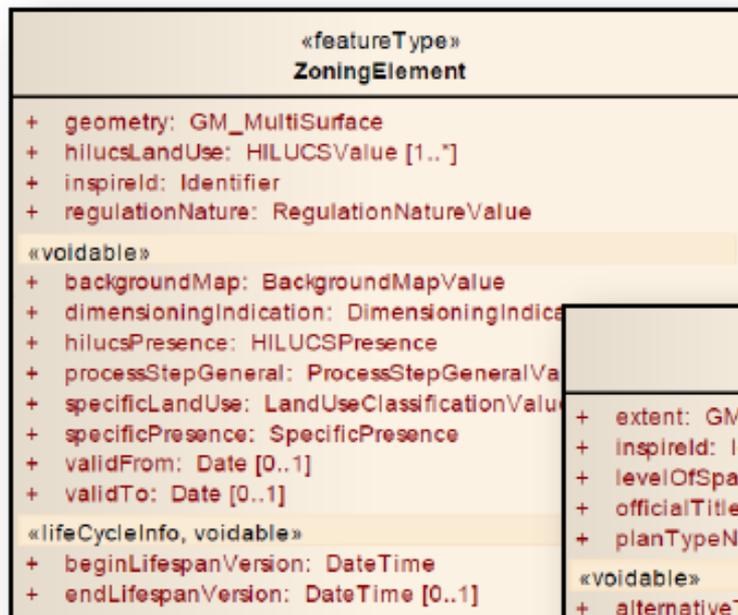
### SpatialPlan dataset

- Polygon geometry with extent of MSP
- Specific attributes such as its name and process step
- Only one dataset (layer) at the *basic level*



# INSPIRE ready

## Land Use data specification theme



# SpatialPlan dataset

## Attributes

Attribute name	Required	INSPIRE related	Comments
officialTitle	✓	✓	Official title of the spatial plan.
alternativeTitle		✓	Alternative (unofficial) title of the spatial plan.
english Title	✓		Title used for transboundary consultations purposes.
planTypeName	✓	✓	Name of the type of plan that the Member State has given to the plan. Values for this attribute are managed at the member state level via a code list.
levelOfSpatialPlan	✓	✓	Territorial hierarchy of plan.
processStep	✓	✓	Superset of INSPIRE <i>ProcessStepGeneralValue</i> . General indication of the step of the planning process that the plan is undergoing.
backgroundMap		✓	Identification of the background map that has been used for constructing this Plan.
validFrom	✓	✓	First date at which the MSP is valid in reality
validTo	✓	✓	The time from which the MSP is no longer valid

# Sea uses

## MSP Directive, Article 8

Possible activities and uses and interests may include:

1. Aquaculture areas,
2. Fishing areas,
3. Installations and infrastructures,
4. Maritime transport routes and traffic flows,
5. Military training areas,
6. Nature and species conservation sites and protected areas,
7. Raw material extraction areas,
8. Scientific research,
9. Submarine cable and pipeline routes,
10. Tourism,
11. Underwater cultural heritage.

# Sea uses

## OUTPUT data table

OUTPUT data table based on MSP Directive list of possible activities, uses and interests.

Attribute code	Description
aquaculture	aquaculture
extraction	raw material extraction areas
fishing	fishing
future	future reservation
heritage	underwater cultural heritage
installations	installations and infrastructures
line	submarine cable and pipeline routes
military	military areas
nature	nature and species conservation
other	other
research	scientific research
tourism	tourism
transport	maritime transport routes and traffic flows

# Sea uses

## OUTPUT data table

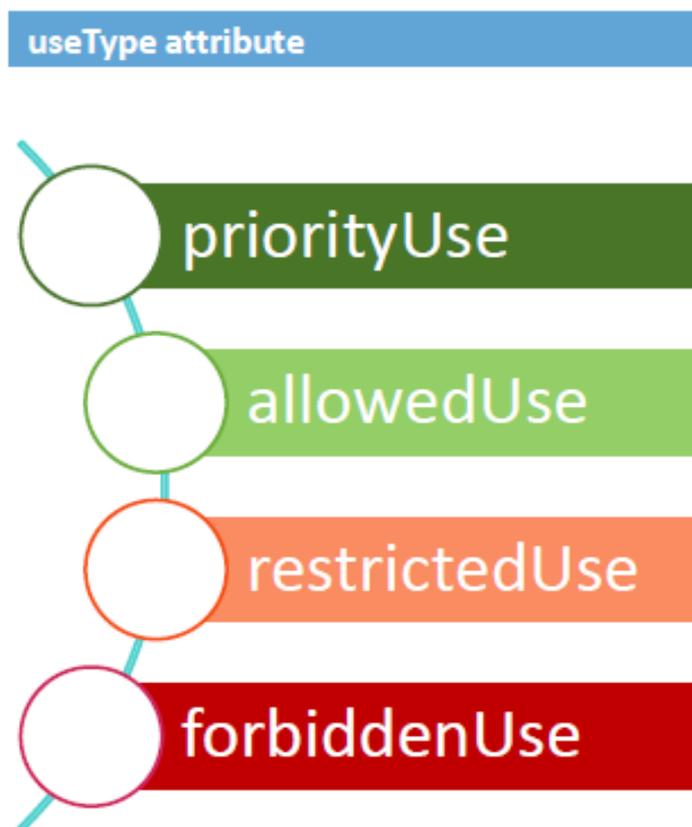
Main sea uses are divided into more detail sub-activities

Attribute code	Description
aquaculture	aquaculture
aquaculture-fish	fish
aquaculture-mussel	mussel
aquaculture-plant	plant
extraction	raw material extraction areas
extraction-co2	CO2
extraction-gas	gas
extraction-oil	oil
extraction-sand	sand and gravel
fishing	fishing
fishing-industrial	industrial fishing
fishing-small-boat	small boat fishing
fishing-recreational	recreational fishing

# Sea uses

## Sea use types

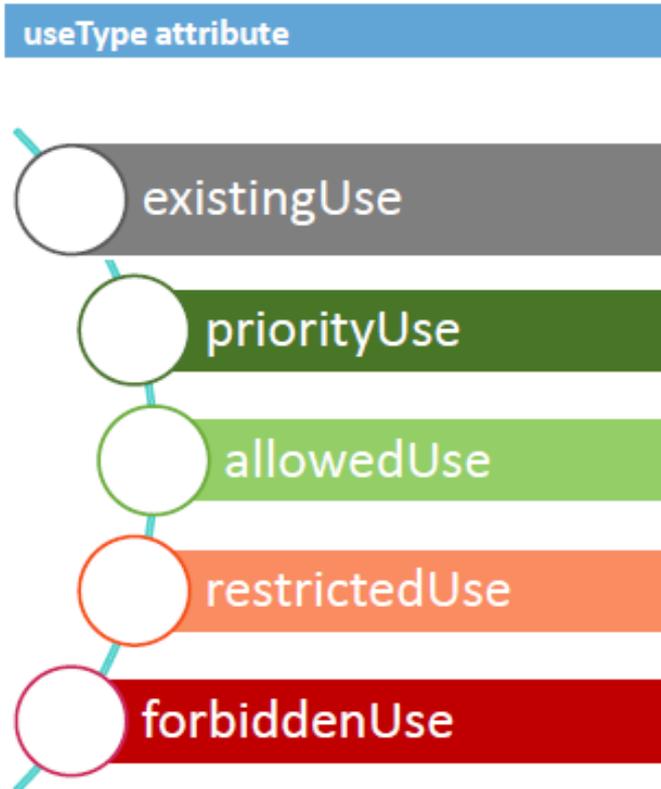
seaUse attribute
aquaculture
extraction
fishing
future
heritage
installations
military
nature
other
line
research
tourism
transport



# Minimum Requirements

## Standard level

seaUse attribute
aquaculture
extraction
fishing
future
heritage
installations
military
nature
other
line
research
tourism
transport



} INPUT Data

} OUTPUT Data

	A	B	C	D	E	F	G	H	I	J
1			Denmark	Estonia	Finland	Germany	Latvia	Lithuania	Poland	Russia
2										
3	Category	Dataset	Data access	Data access	Data access	Data access	Data access	Data access	Data access	Data access
59		Measuring stations / networks	?	?	GIS	WMS, GIS	GIS		WMS, GIS	w
60										
61	submarine cable and pipeline routes	Telecommunication/Data cables	?	WMS; GIS, CAD, ENC	WMS	WMS, GIS	GIS	GIS, written	GIS, written	EP
62		High Voltage Cables	?	WMS; GIS; CAD	WMS	WMS, GIS	-	GIS	GIS, written	EP
63		Pipelines	?	GIS; CAD	WMS	WMS, GIS	-	GIS	GIS, written	EP
64										
65	tourism & recreation	Recreation and tourism areas	?	GIS; CAD	WMS, GIS	?	written	GIS	written	w
66										
67	underwater cultural heritage	Underwater cultural heritage	?	WMS; WFS; GIS	GIS	ENC, written	written	GIS, written	GIS	w
68										
69										
70										
71										