MSP OUTPUT DATA

AND ITS RELATION TO INSPIRE DIRECTIVE

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Maritime Office Gdynia

MSP Data Expert Sub-Group 5th meeting
Warsaw, 15.12.2016

Terms of Reference

For a BSR MSP Data Expert Sub-group

Tasks

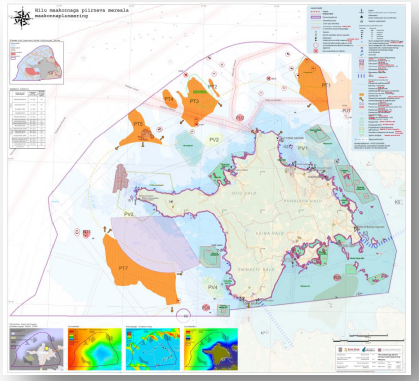
e. Compile minimum requirements for trans-boundary MSP „Output Data" (Maritime Spatial Plans)

Outputs

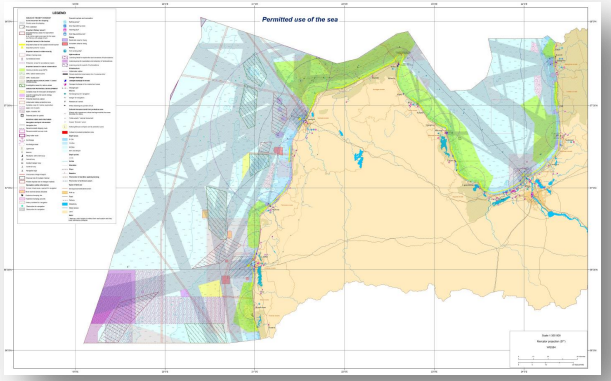
d. Compilation of minimum requirements for Maritime Spatial Plan Data: „Output Data" and sharing of this data

Different styles of planning

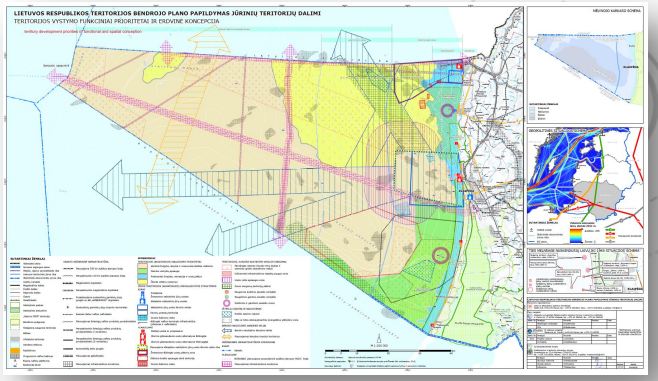
- Different future needs
- Different data categories
- Different styles of visualizing how space could be used
- Different OUTPUT spatial plan languages



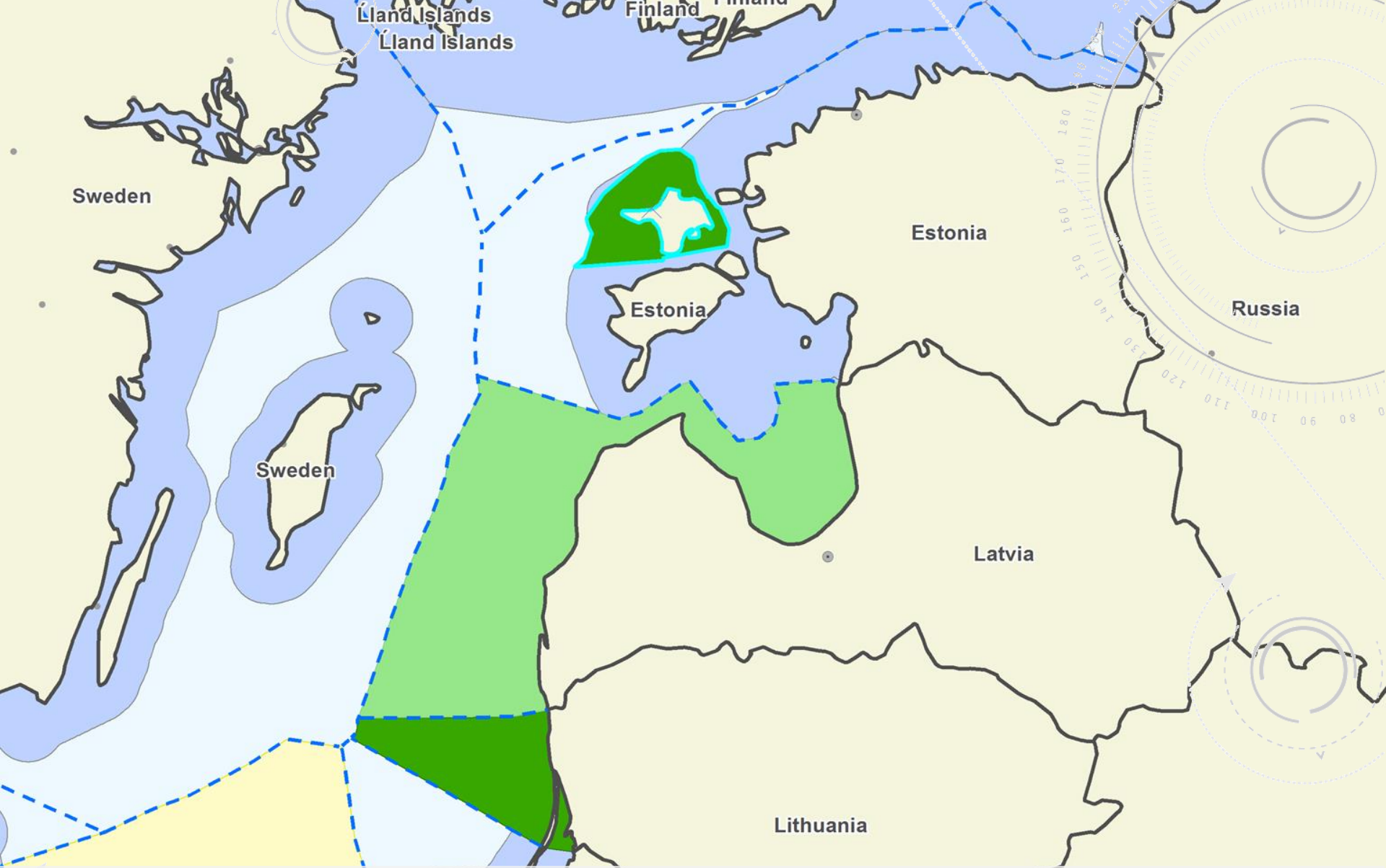
Estonia



Latvia



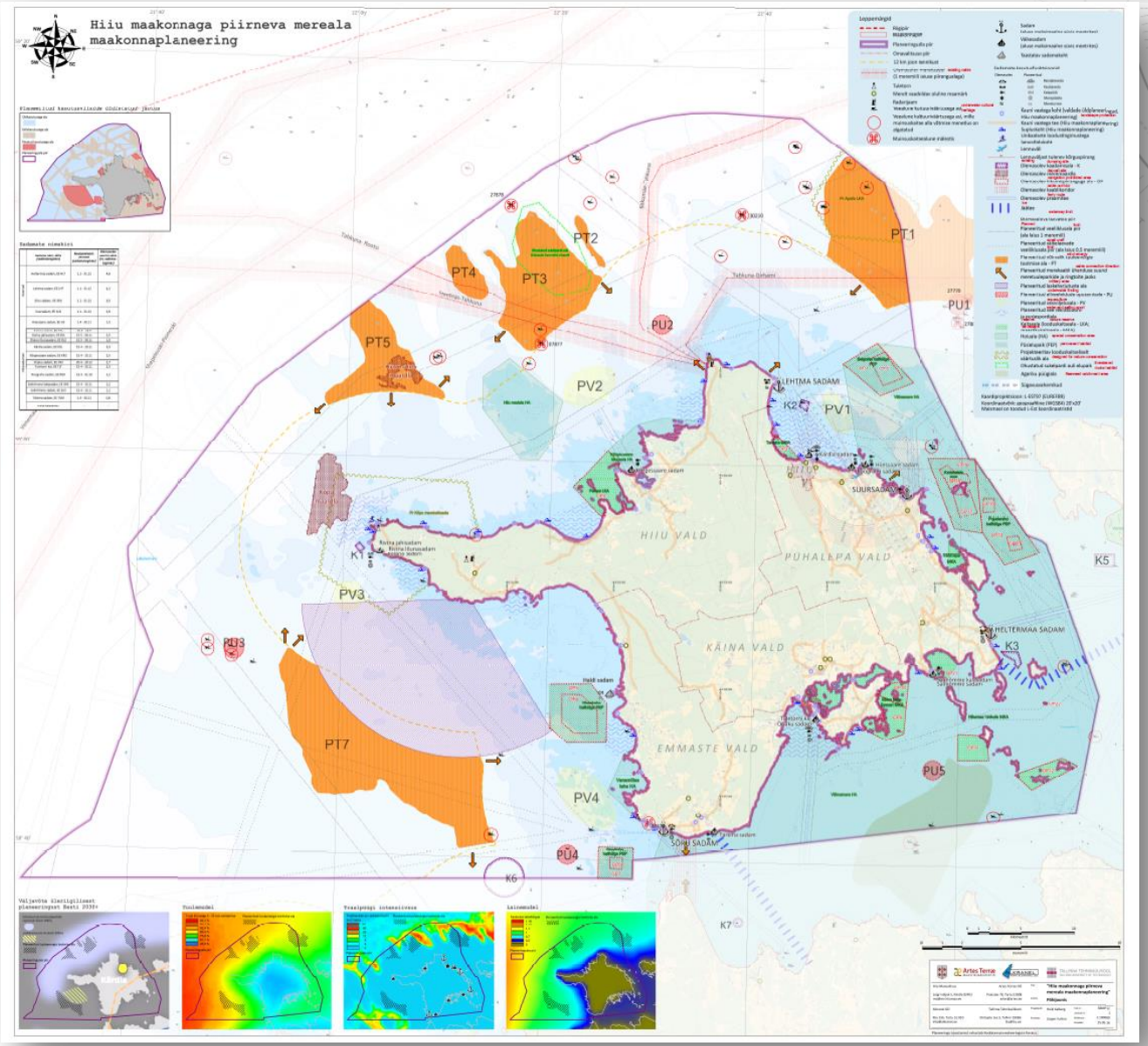
Lithuania



Estonia

Part of Estonian sea areas

Estonia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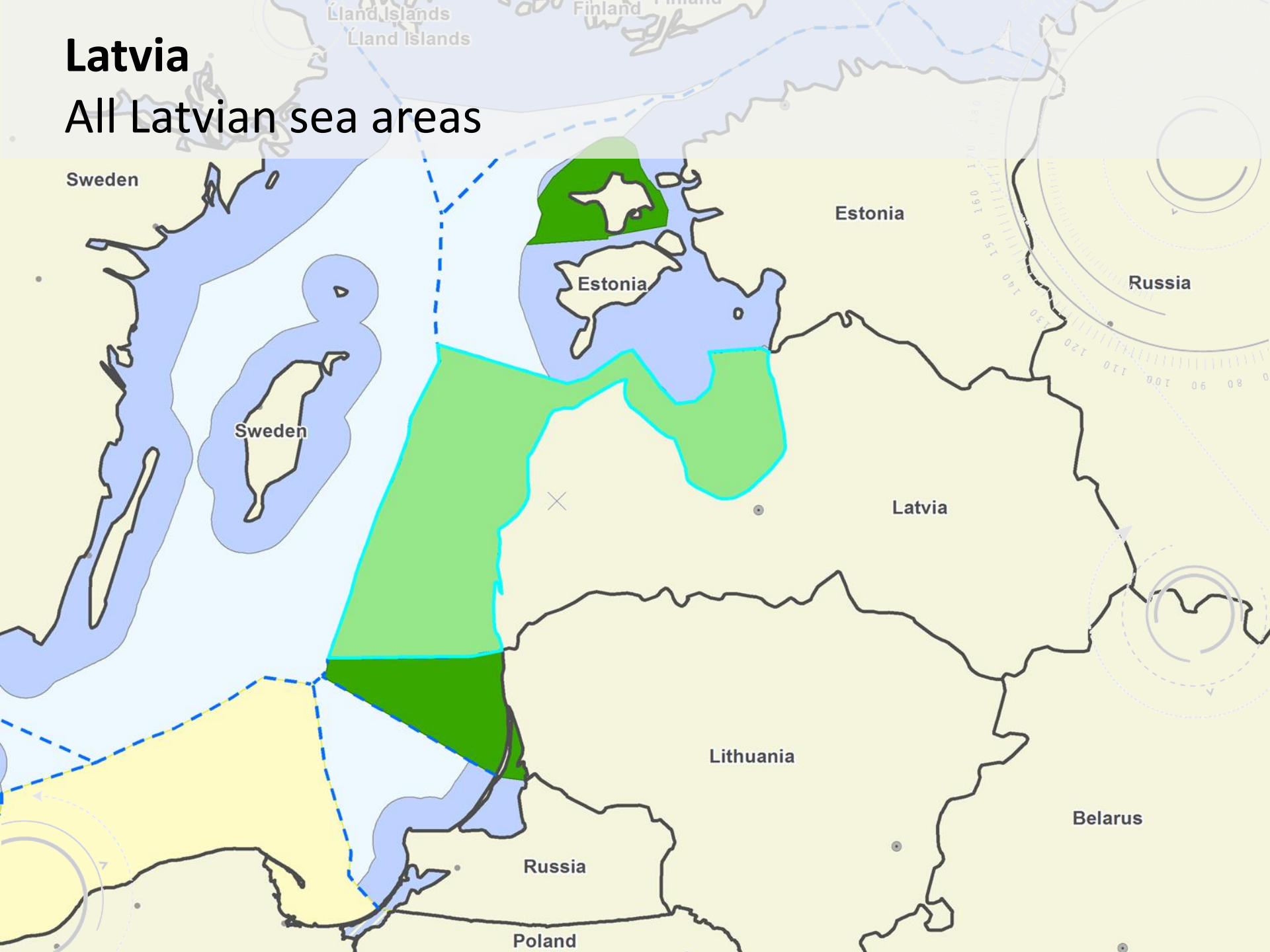
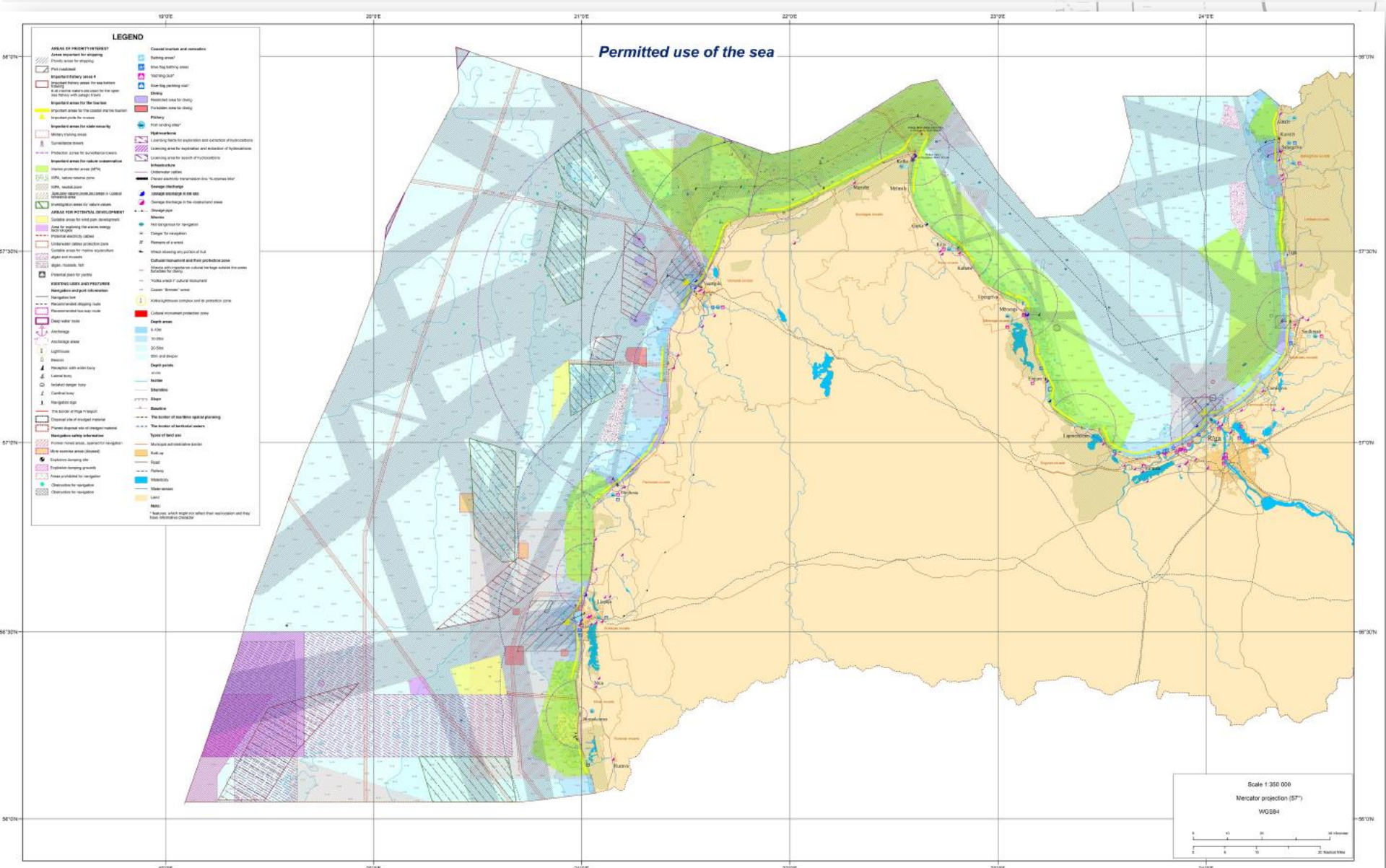
SÜURSAADAM
HELTERMAA SADAM
SÕRU SADAM
HIIU VALD
PÜHALEPA VALD
KÄINA VALD
EMMASTE VALD

Latvia

All Latvian sea areas

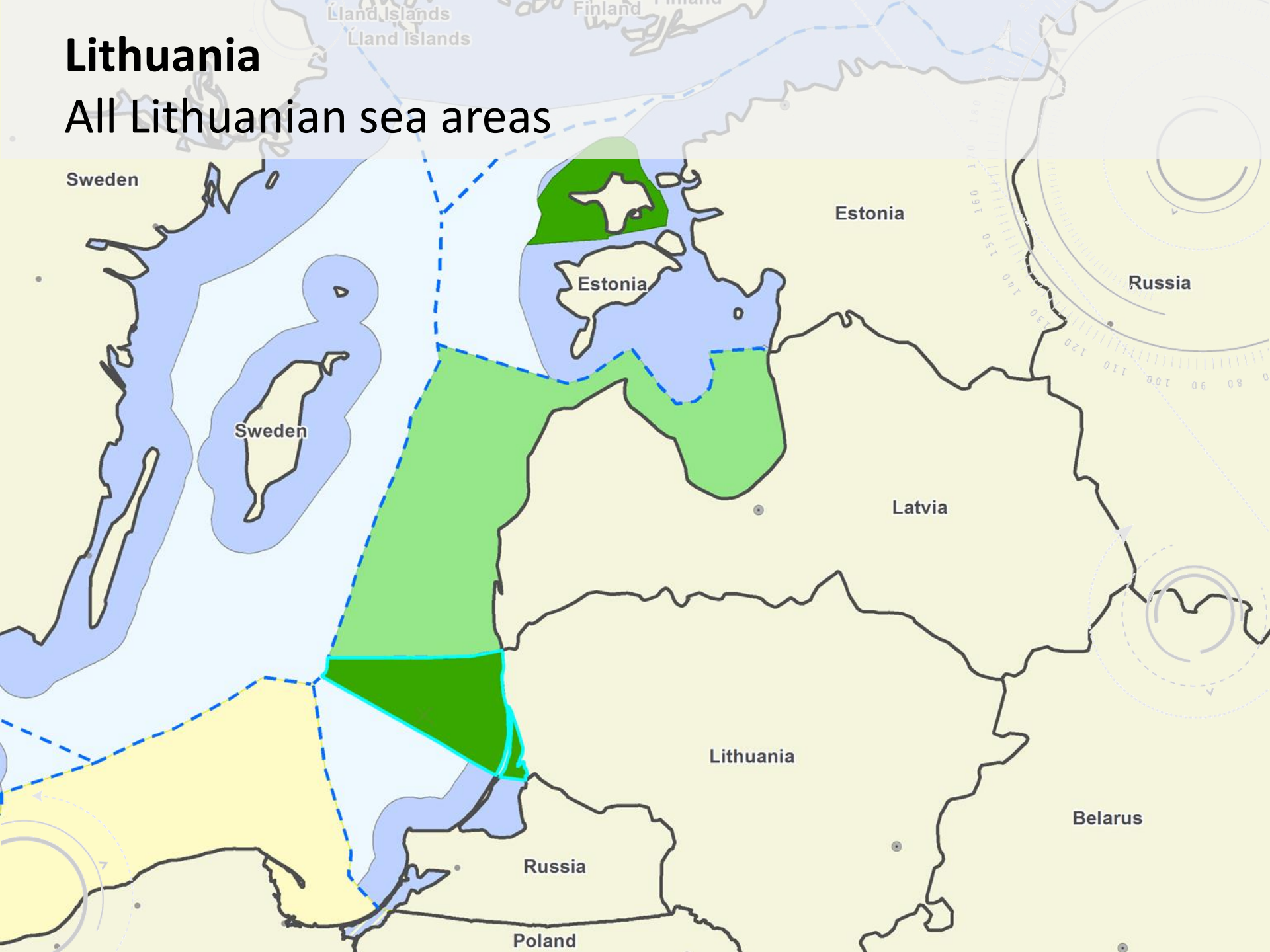


Latvia


Permitted use of the sea
LEGEND
Scale 1:350 000
Mercator projection (57°)
WGS84

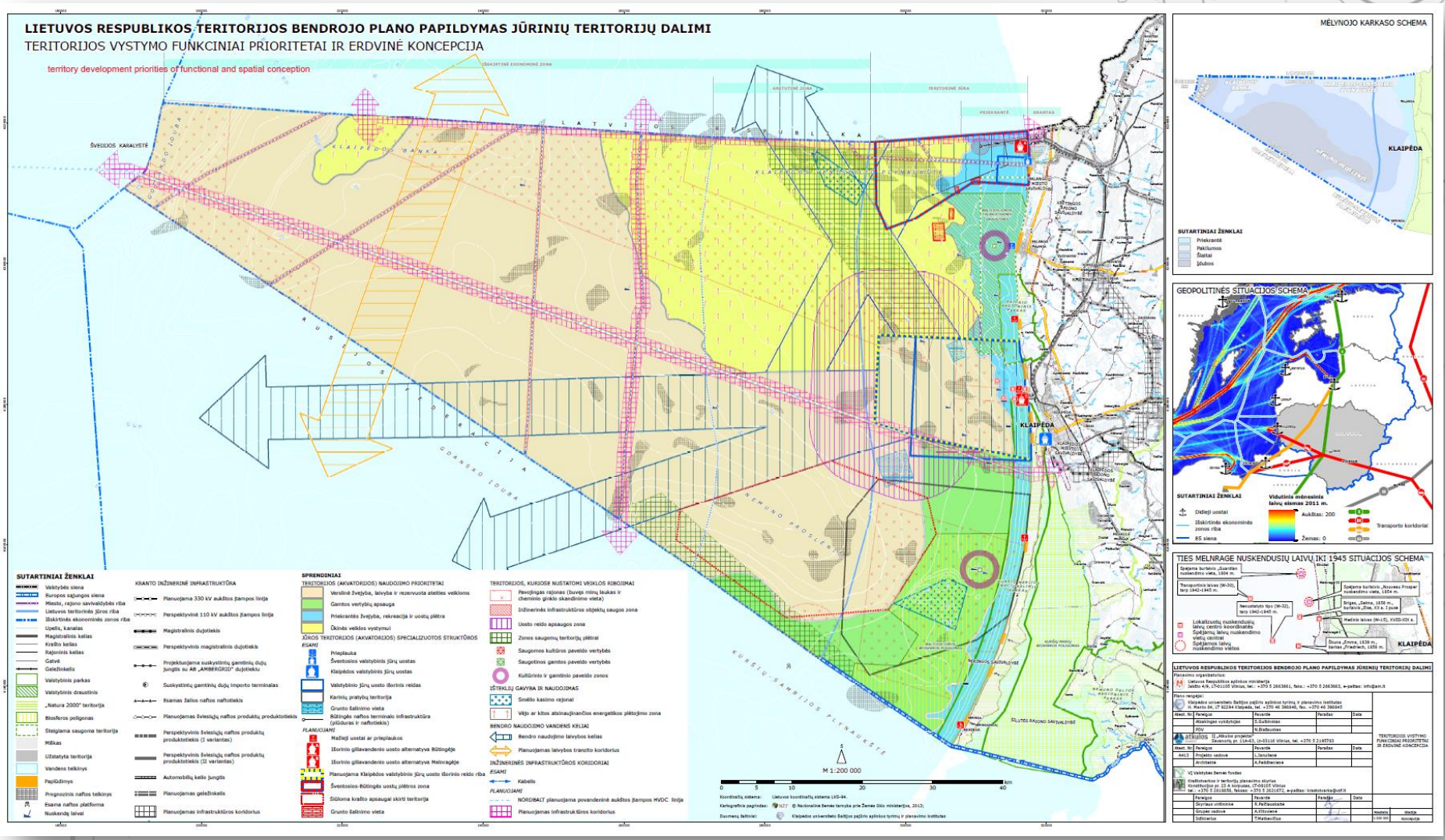
Lithuania

All Lithuanian sea areas



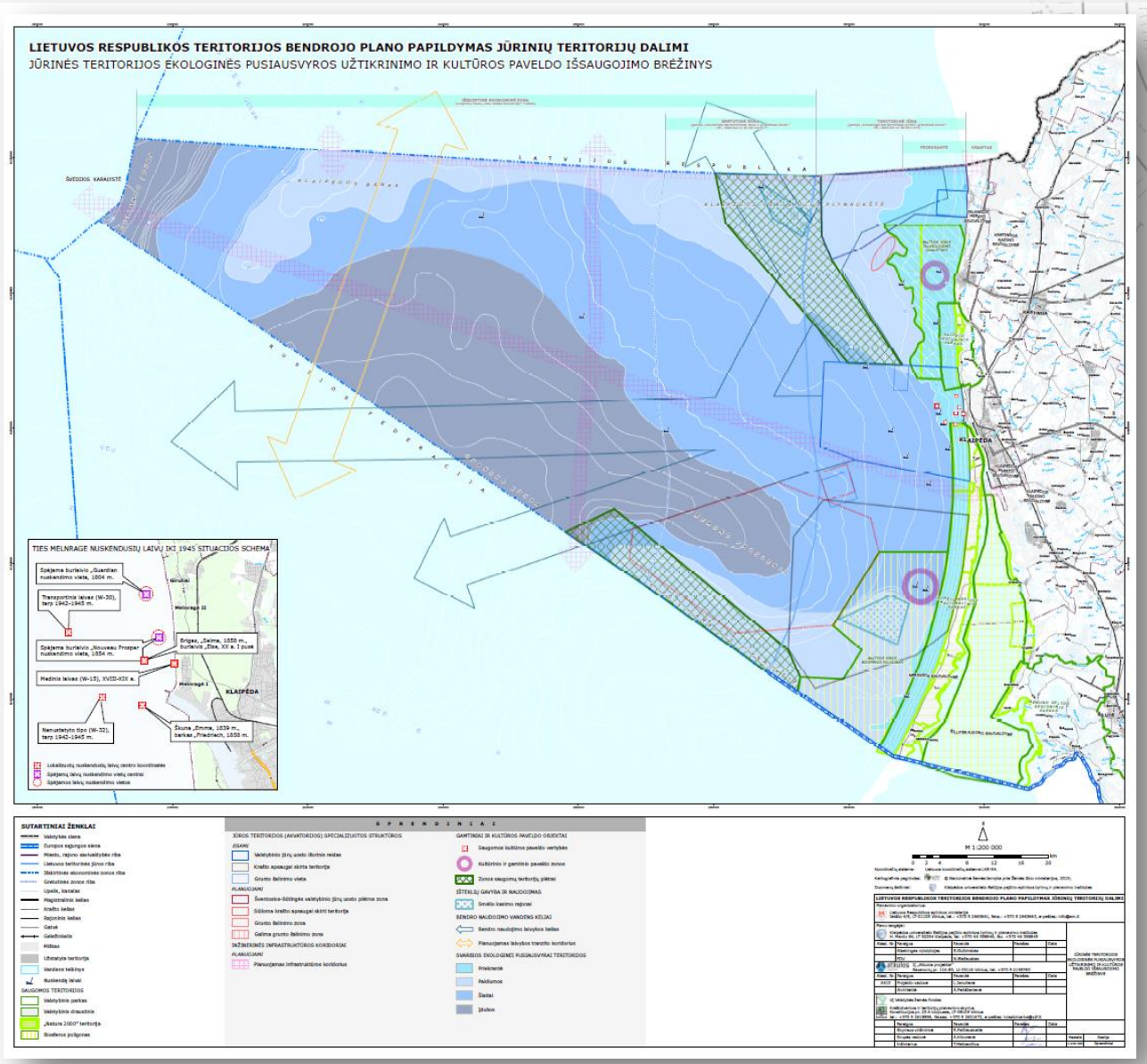
Lithuania

Map sheet 1 - Development priorities



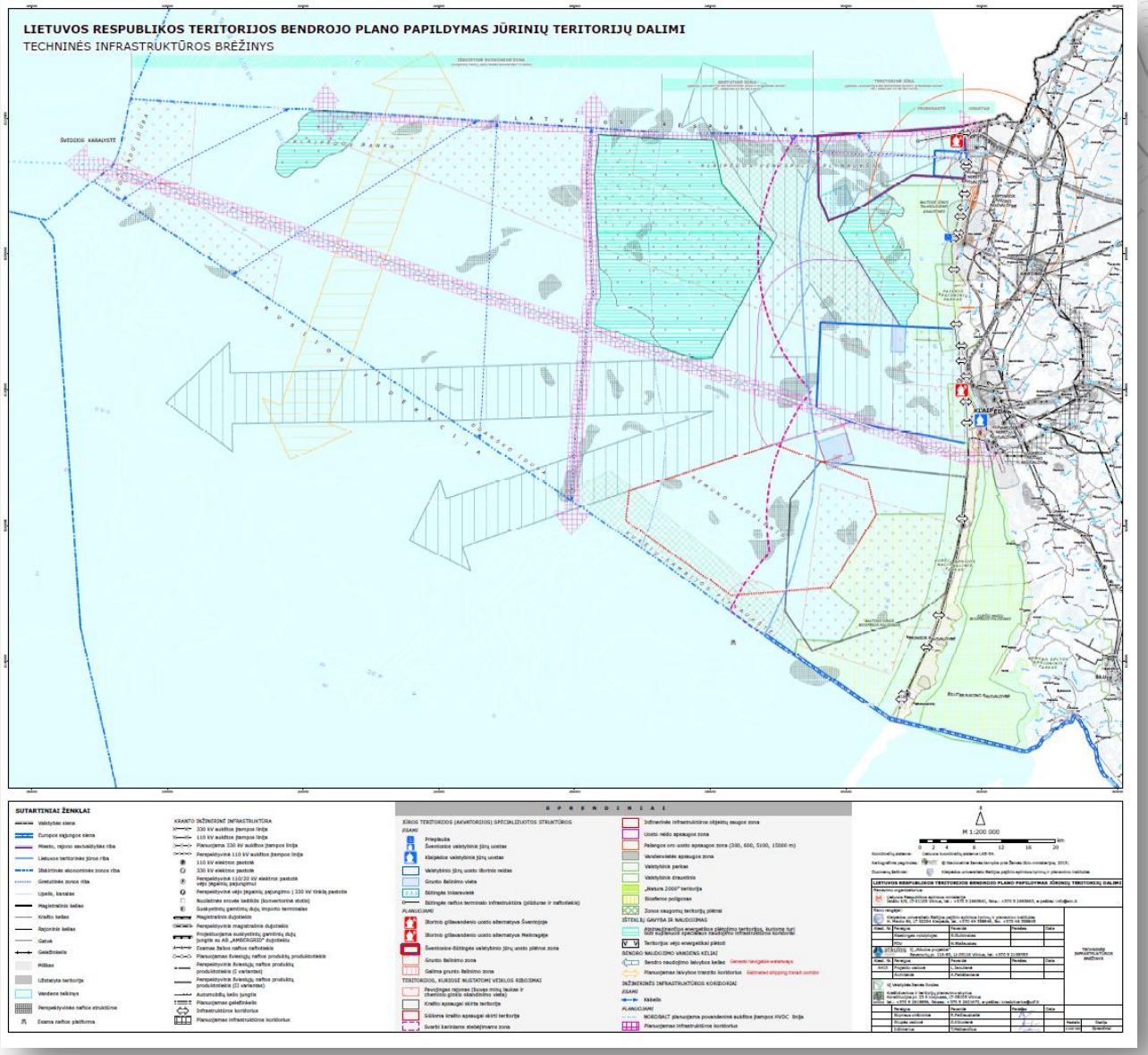
Lithuania

Map sheet 2 - Ecological balance, cultural heritage



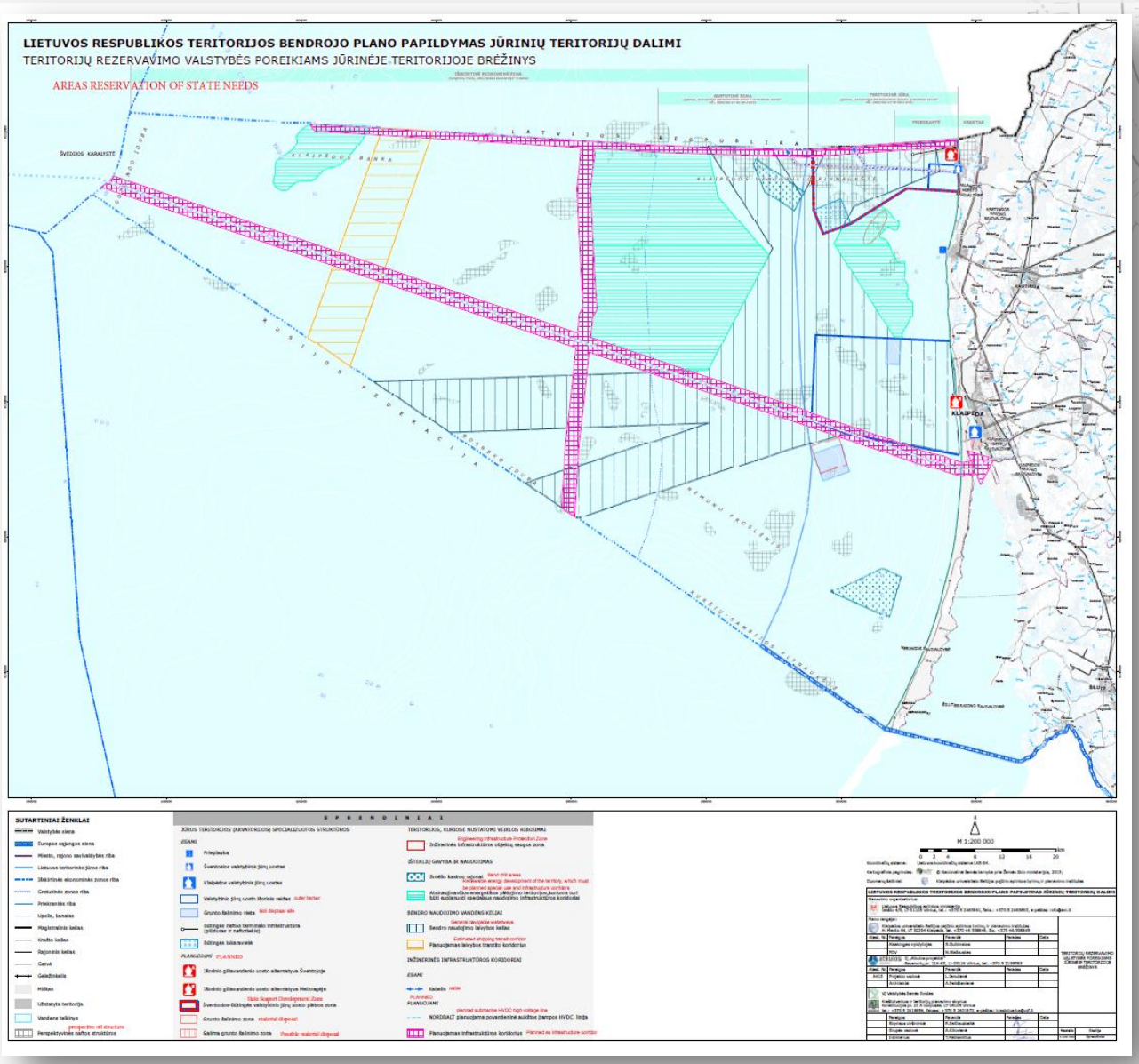
Lithuania

Map sheet 3 - TECHNICAL INFRASTRUCTURE



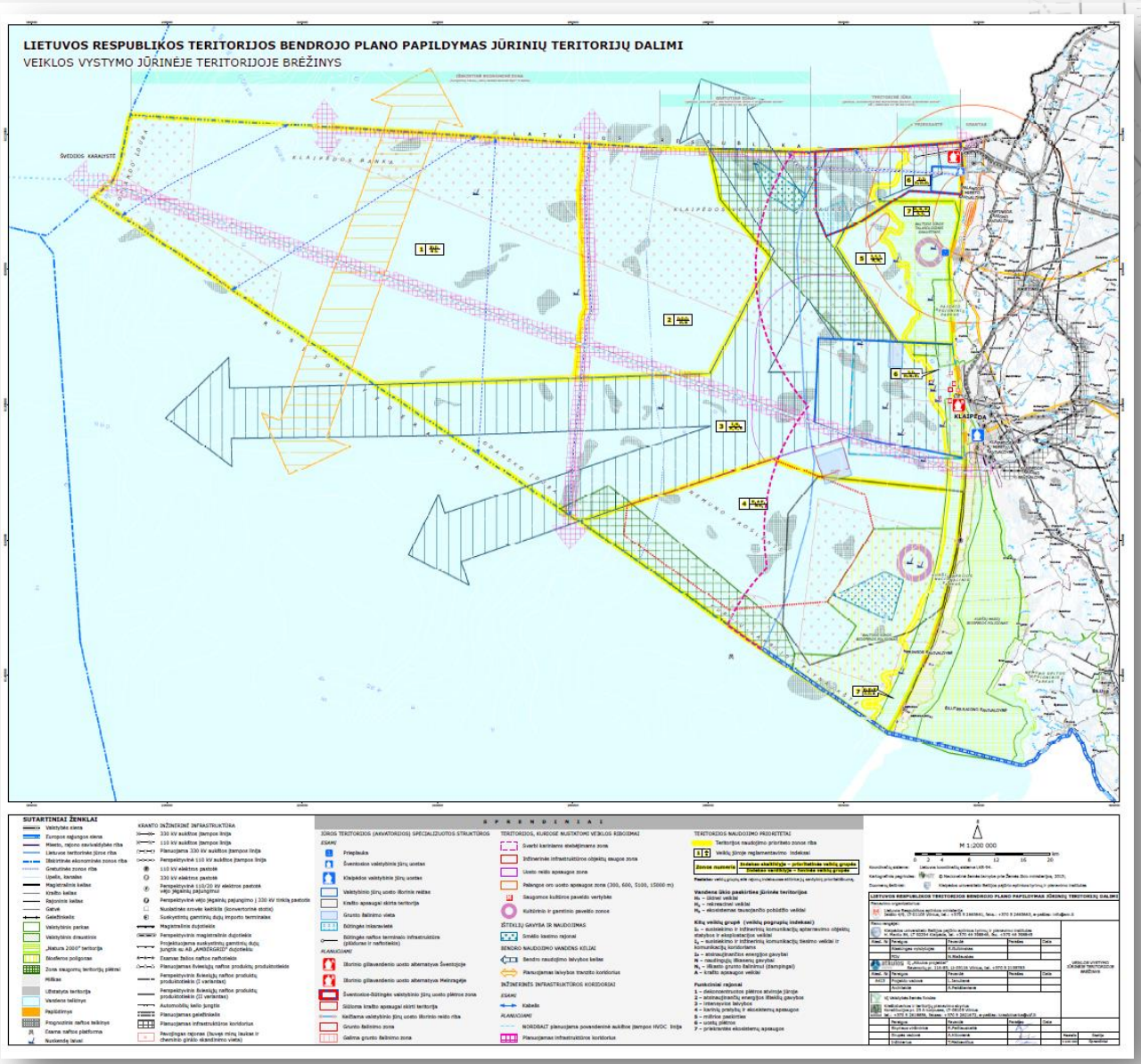
Lithuania

Map sheet 4 - AREA RESERVATION OF STATE NEEDS



Lithuania

Map sheet 5 - ACTIVITY DEVELOPMENT

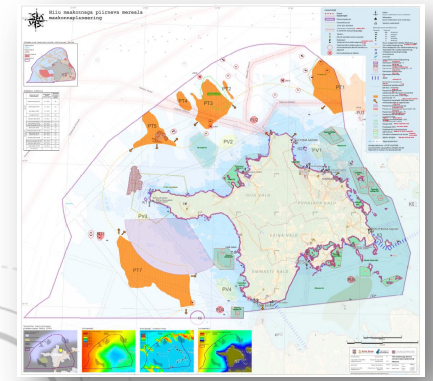


Terms of Reference

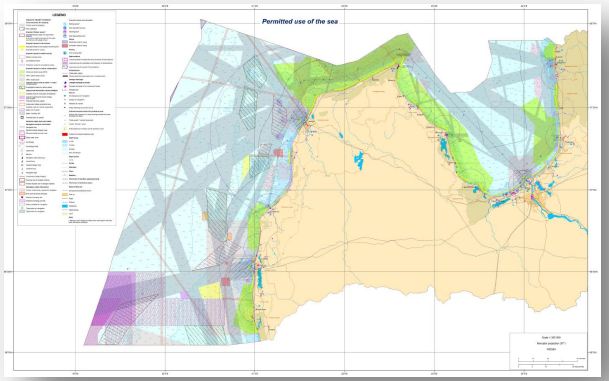
For a BSR MSP Data Expert Sub-group

MSP Data Expert sub-group task

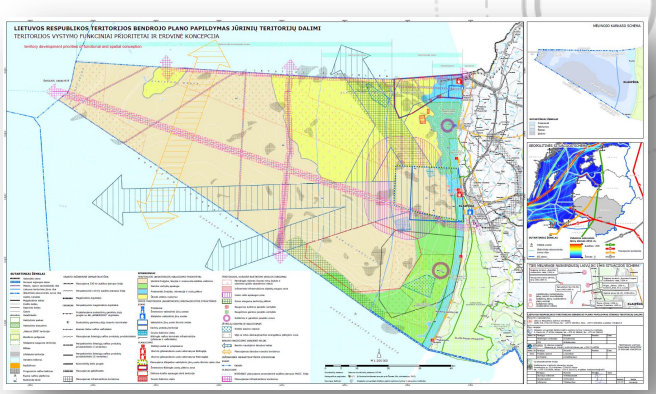
- Compile minimum requirements for Maritime Spatial Plan Data: „Output Data” and sharing of this data
- Identifying some minimum set of data requirements that countries have to use
- Proposing one-size solution that fits all cases



Estonia



Latvia



Lithuania

MINIMUM REQUIREMENTS

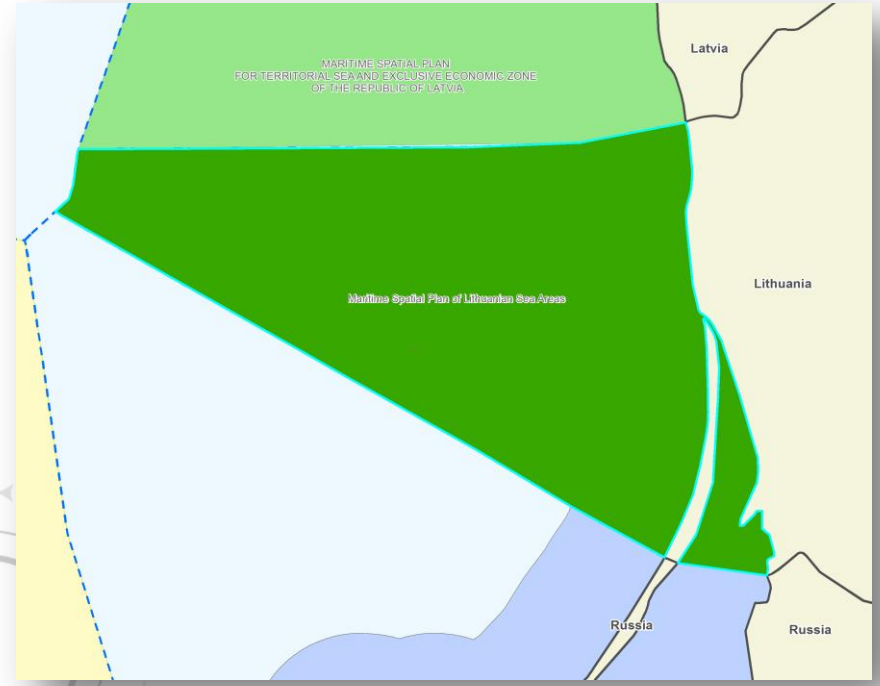
BASIC LEVEL

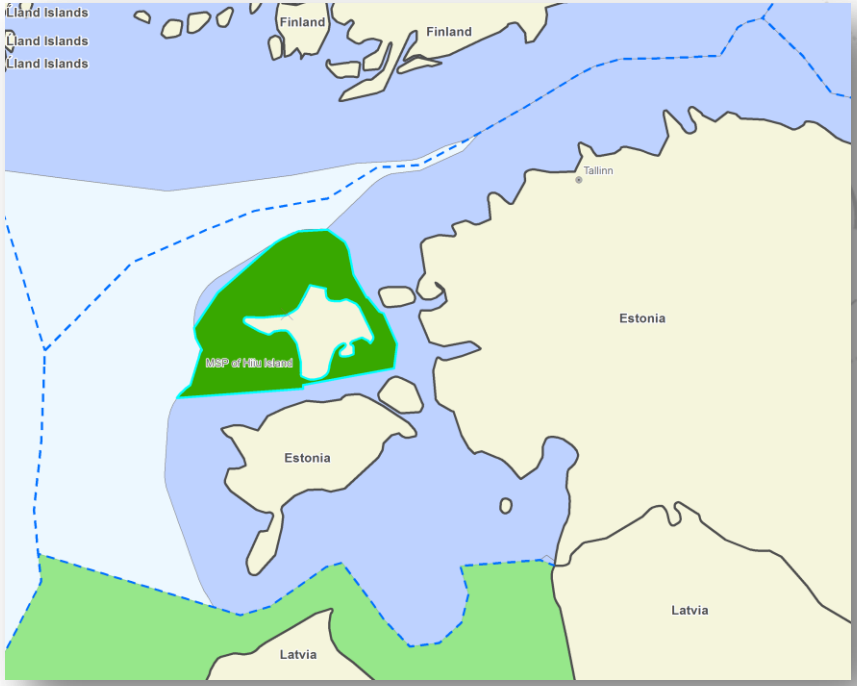
Minimum Requirements

Basic level

SpatialPlan dataset

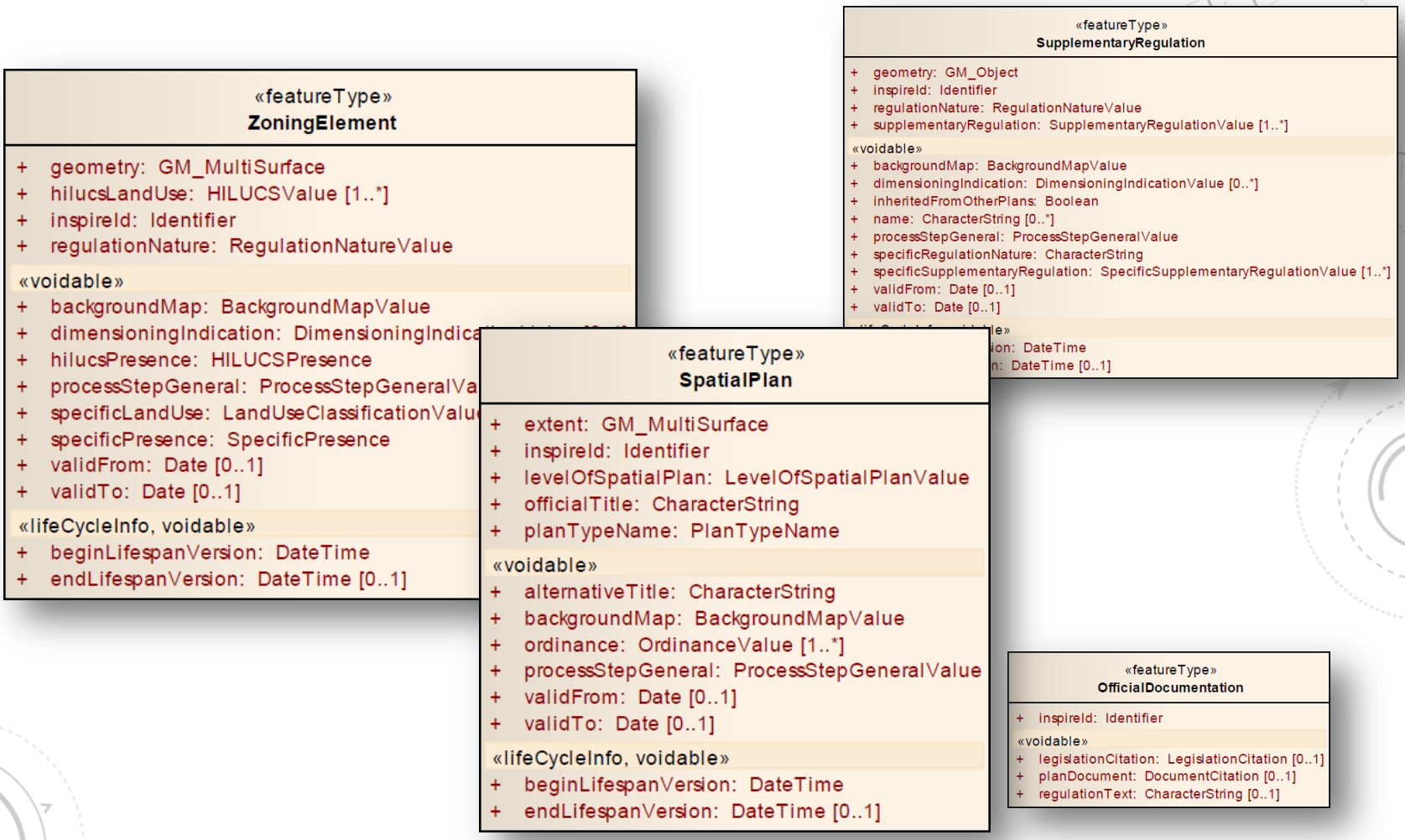
- Polygon geometry with extent of MSP
- Specific attributes such as its name and process step
- Only one dataset (layer) at the *basic level*





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 *ProcessStepGeneralValue*. 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

SpatialPlan dataset

Level of spatial plan attribute

Attribute name	Required	INSPIRE related	Comments
officialTitle	✓	✓	Official title of the spatial plan.
alternativeTitle		✓	Alternative (unofficial) title of the spatial plan.
englishTitle	✓		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 processStepGeneral. 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

SpatialPlan dataset

Level of spatial plan attribute

Attribute value	Definition
national	Plan at Member State level.
supraRegional	A plan that overlaps several administrative regions.
regional	Plan at regional level (equivalent to NUTS2 of EUROSTAT nomenclature of statistical units as established in Regulation (EC) No 1059/2003).
infraRegional	A plan that overlaps several infra-administrative units in one administrative region.
supraLocal	A plan that overlaps several municipalities (entirely or partially).
local	Plan at municipal level, corresponding to the lower level of administration equivalent to LAU2 as laid down in Annex III to Regulation (EC) No 1059/2003 of the European Parliament and of the Council (OJ L 154, 21.6.2003, p. 1.)
other	Other level of spatial plan.

SpatialPlan dataset
Process step attribute

Attribute name	Required	INSPIRE related	Comments
officialTitle	✓	✓	Official title of the spatial plan.
alternativeTitle		✓	Alternative (unofficial) title of the spatial plan.
englishTitle	✓		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 *ProcessStepGeneralValue*. 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

SpatialPlan dataset
Process step attribute

Attribute value	Definition
preparation	Plan in the process of preparation
elaboration	Plan under elaboration.
adoption	Plan in the process of being legally adopted.
legalForce	Plan already adopted and being legally binding or active.
obsolete	Plan having been substituted by another plan, or not being any longer in force.

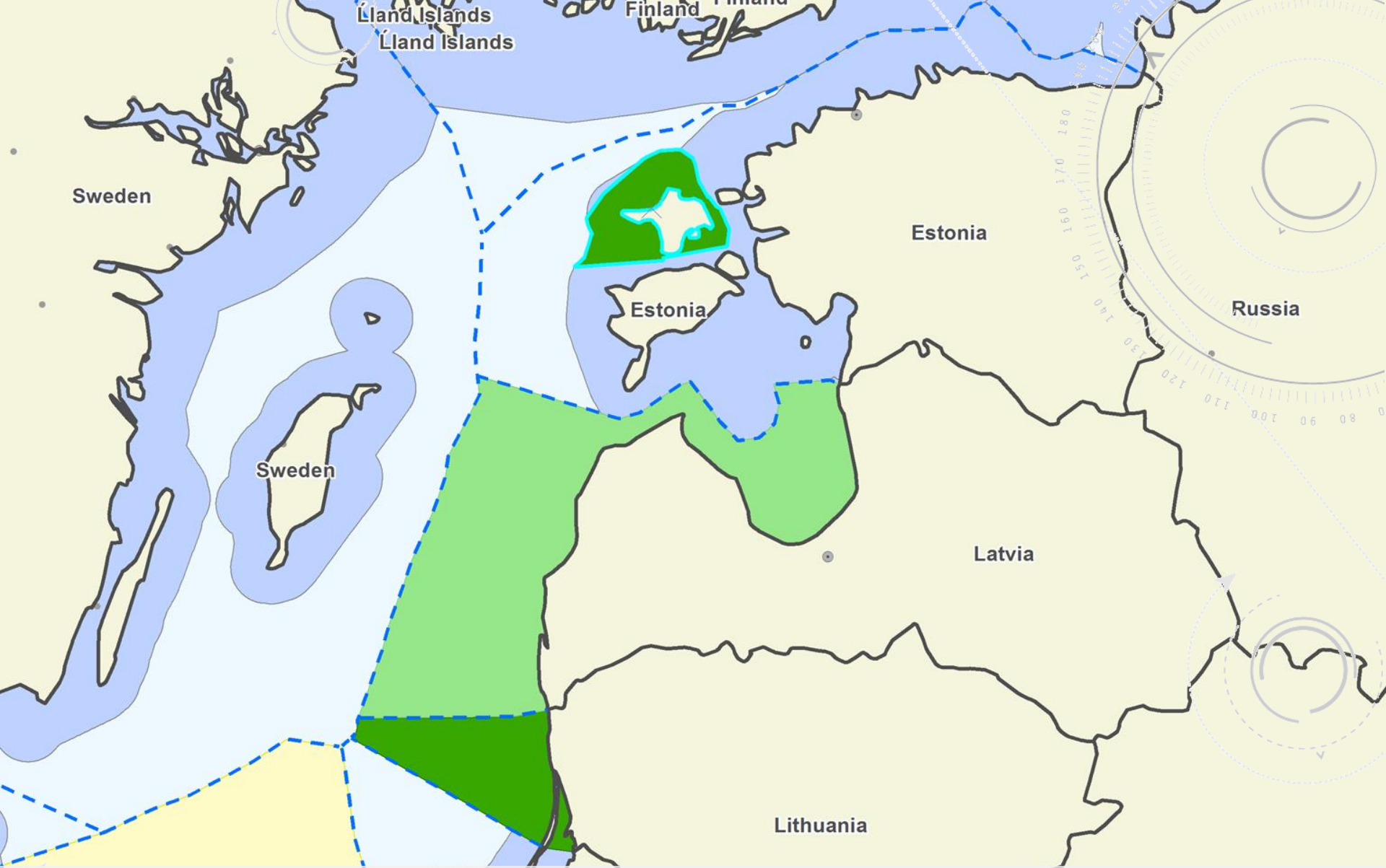
Superset of INSPIRE ProcessStepGeneralValue.

validFrom and *validTo* attributes does not fulfill all MSP process steps, especially those before date of legal force (validFrom = «void»).

Based on INSPIRE code list *ProcessStepGeneralValue*
General indication of the step of the planning process that the plan is undergoing.

SpatialPlan dataset
Related datasets

Relation name	Required	INSPIRE related	Comments
ordinance [1..*]	✓	✓	Independently from the current legal status of the plan, there can be references to more than one ordinance, in relation to the different steps that the planning process has already undergone (e.g. ordinance for the preparation of a new plan, ordinance of adoption, ordinance of approval, etc.)
officialDocumentation [1..*]	✓	✓	Correspond to legal documents containing the regulations. The scanned version of any **maps** included in spatial planning documents may also be associated to the spatial plan: • allow the provision of where no vector data exists • in many member states only the paper based version is the official one
zoningElement [0..1]		✓	A spatial object which is homogeneous regarding the permitted uses of land based on zoning which separate one set of land uses from another. Zoning elements refer to the regulation of the kinds of activities which will be acceptable on particular sea areas (such as fishery, transport).
upplementaryRegulation [0..*]		✓	Information and/or limitations on the use of sea areas which is described in external regulations.

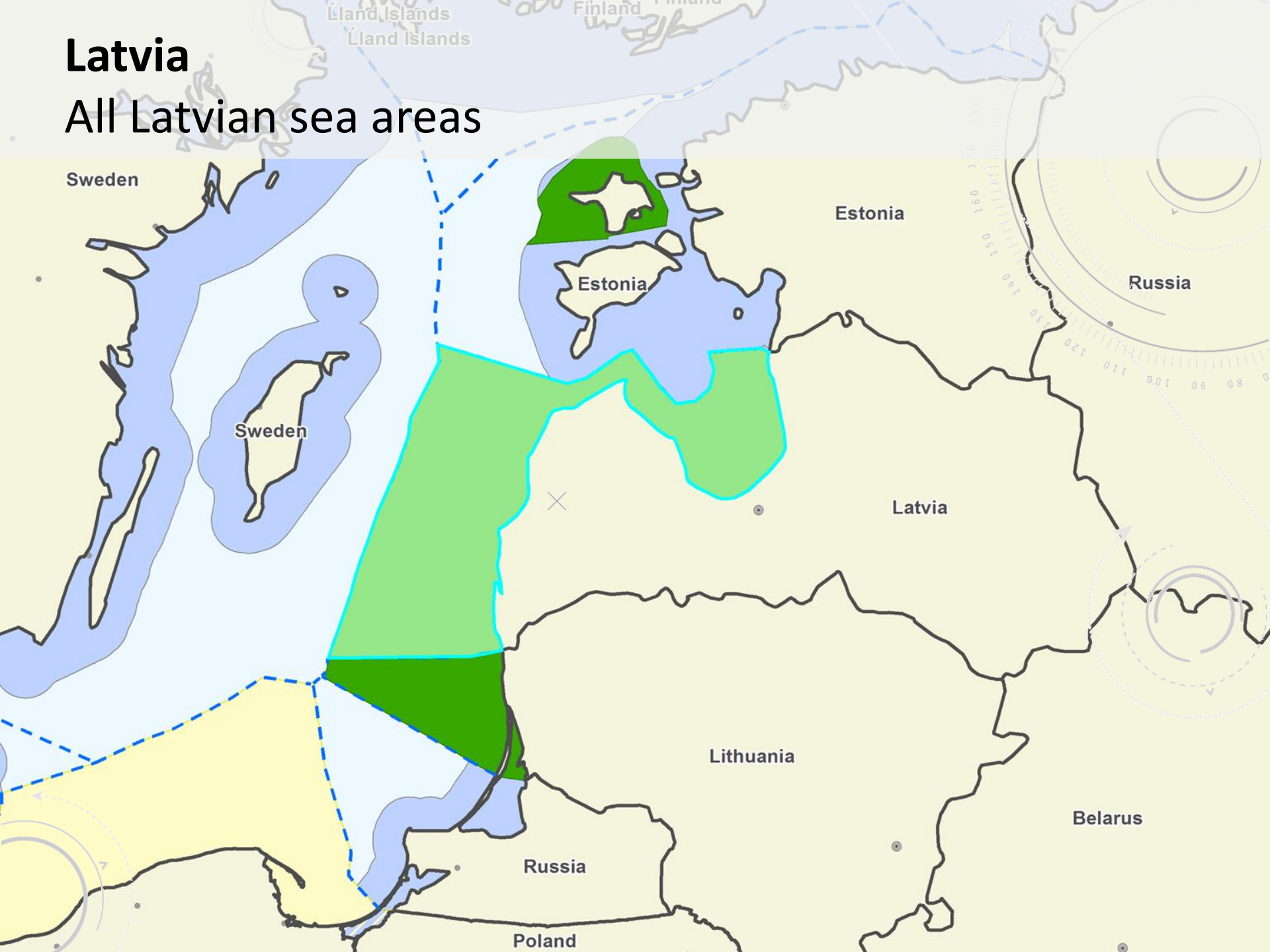


Estonia

Part of Estonian sea areas

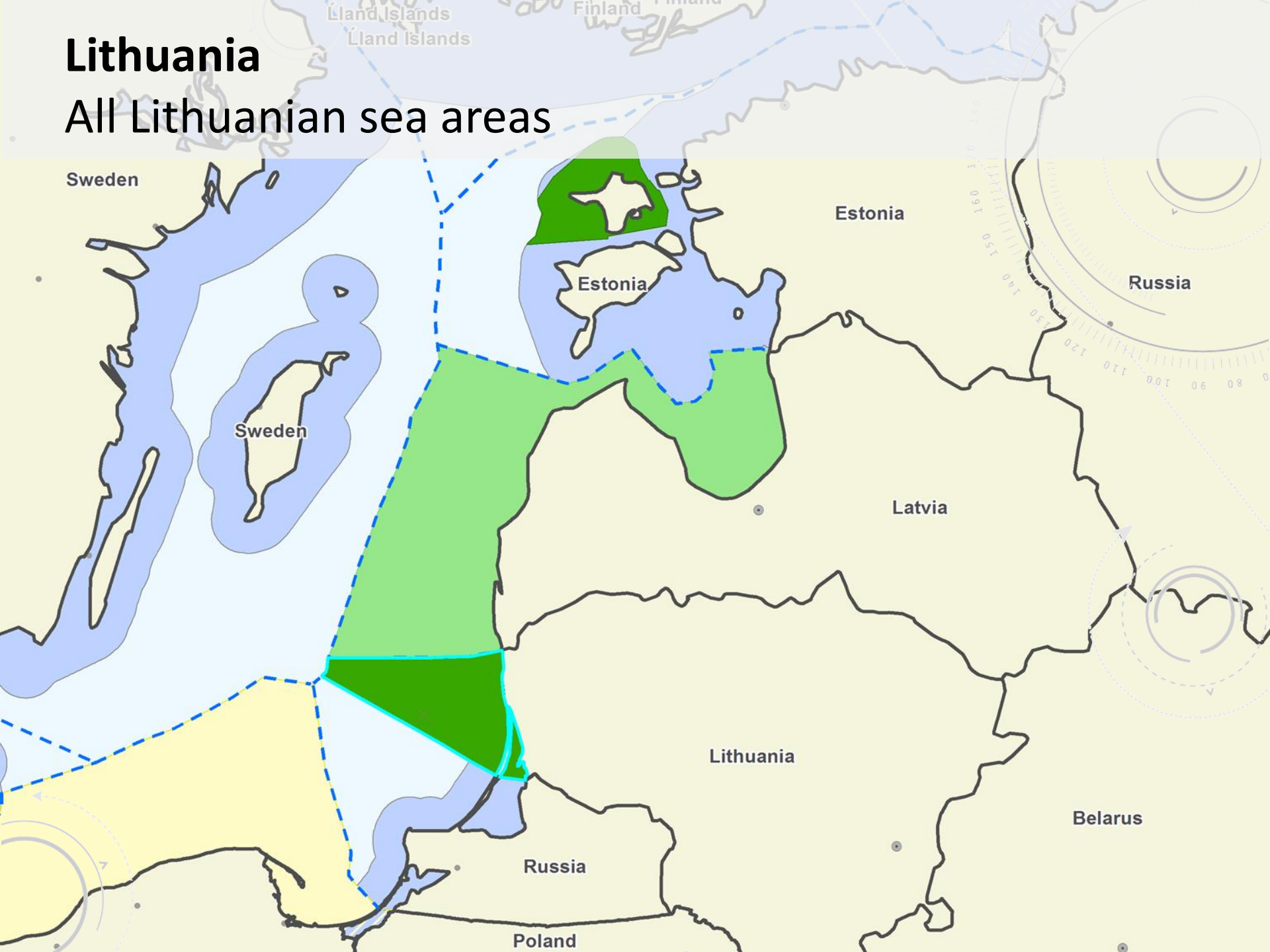
Latvia

All Latvian sea areas



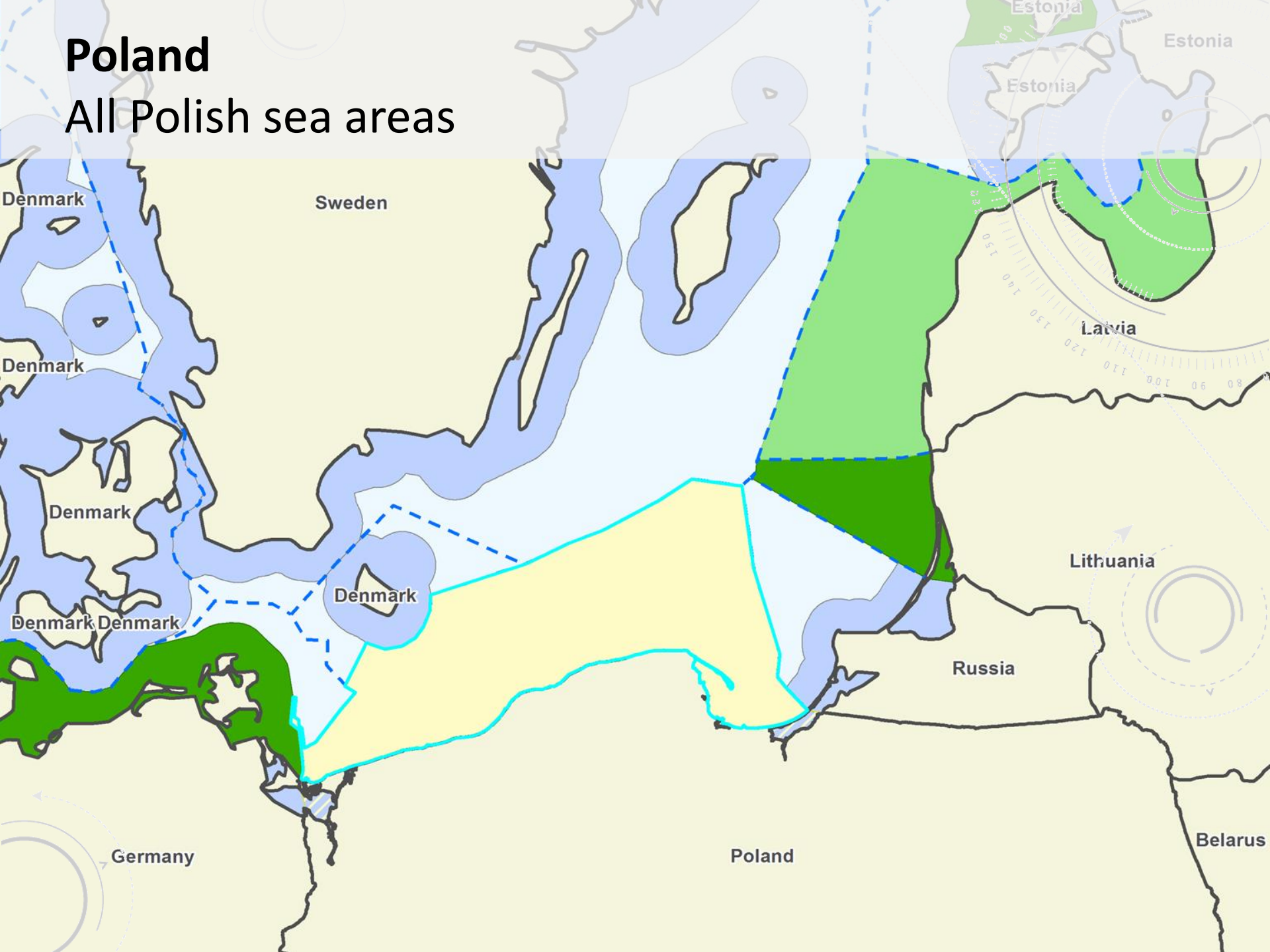
Lithuania

All Lithuanian sea areas



Poland

All Polish sea areas

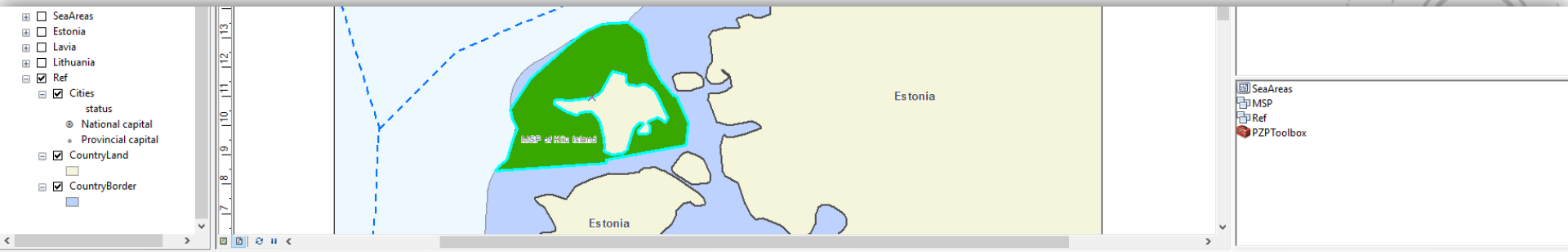


Minimum Requirements

Basic level

SpatialPlan dataset

- This should be must-have option for every member state
- Data specification could be developed and agreed by MSP Data Experts SG
- Data specification INSPIRE ready (not INSPIRE-compliant)
- Data could be also provided by MSP Data Experts SG
- Online *SptatialPlan* repository could be everywhere



Table

SpatialPlans

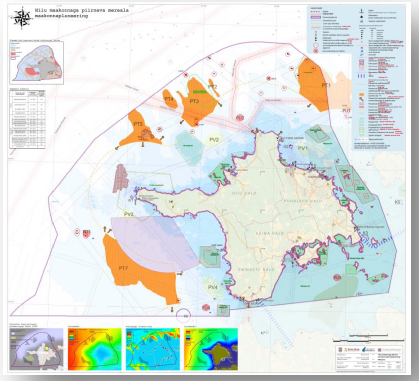
levelOfSpatialPlan	officialTitle	alternativeTitle	englishTitle	processStep	validFrom	validTo	regulationNature	author	documentationUrl	planId	code
Plan at Member State level	Plan zagospodarowania przestrzennego polskich obszarów	PZP polskich obszarów morskich	Maritime Spatial Plan of Polish Sea Areas in scale	under elaboration	<Null>	<Null>	generally binding	Maritime Office in Gdy	http://www.umgdy.gov.pl/?	MSP.PL.2016.200	PL
Plan at regional level	Plan zagospodarowania przestrzennego Zalewu Wiślanego	PZP Zalewu Wiślanego	Maritime Spatial Plan of Vistula Lagoon	in the process of preparation	<Null>	<Null>	generally binding	Maritime Office in Gdy	<Null>	MSP.PL.2016.ZW	PL
Plan at regional level	Plan zagospodarowania przestrzennego Zalewu Szczecińsk	PZP Zalewu Szczecińskiego	Maritime Spatial Plan of Szczecin Lagoon	in the process of preparation	<Null>	<Null>	generally binding	Maritime Office in Szc	<Null>	MSP.PL.2015.ZSZ	PL
Plan at Member State level	LIETUVOS RESPUBLIKOS TERITORIJOS BENDROJO PLANO P	LIETUVOS RESPUBLIKOS TERITORIJOS BEND	Maritime Spatial Plan of Lithuanian Sea Areas	legally binding or active	2013-01-01	<Null>	not binding	Ministry of the Environ	<Null>	MSP.LT.2013	LT
Plan at Member State level	Jūras teritorijas plānojums	Jūras teritorijas plānojums	MARITIME SPATIAL PLAN	in the process of adoption	<Null>	<Null>	not binding	Ministry of Environmen	http://www.varam.gov.lv/e	MSP.LV.2015	LV
Plan at regional level	Hiiu maakonnaga piirneva mereala maakonnaplaneering	Põhijoonis	MSP of Hiiu Island	legally binding or active	2016-05-25	<Null>	not binding	Estonian Ministry of th	<Null>	MSP.EE.2016.HIIU	EE
Plan at Member State level	Maritimer Raumplan für das Territorische Meer	Maritimer Raumplan für das Territorische Meer	Maritime Spatial Plan for the Territorial Sea	legally binding or active	2015-01-01	<Null>	generally binding	Federal Maritime and H	<Null>	MSP.DE.2015	DE

MINIMUM REQUIREMENTS

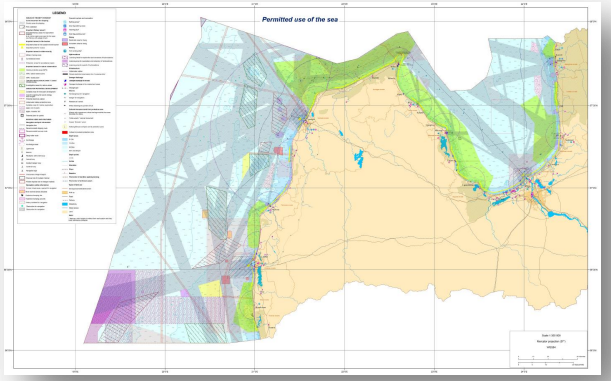
STANDARD LEVEL

Different styles of planning

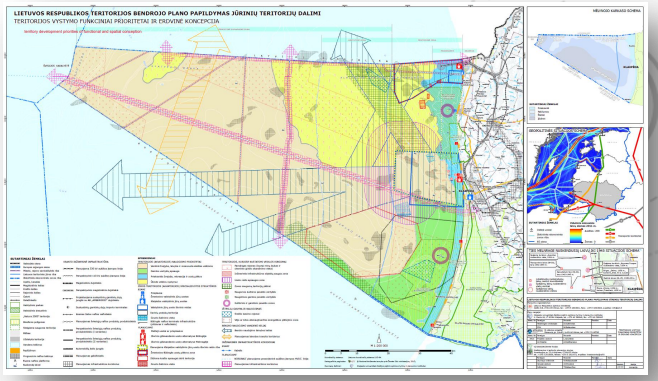
- Different future needs
- Different data categories
- Different styles of visualizing how space could be used
- Different OUTPUT spatial plan languages



Estonia



Latvia



Lithuania

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

OUTPUT data table

Main sea uses are divided into more detail sub-activities

Attribute code	Description
future	future reservation
heritage	underwater cultural heritage
heritage-landscape	landscape protection
heritage-wreck	wreck
installations	installations and infrastructures
installations-bridge	bridge
installations-owf	offshore wind farm
installations-platform	platform
installations-tunnel	tunnel
installations-wave	wave energy
installations-coast	coast protection structure
installations-harbour	harbour installations

Sea uses
OUTPUT data table

Main sea uses are divided into more detail sub-activities

Attribute code	Description
military	military areas
military-training	military training areas
nature	nature and species conservation
nature-biodiversity	biodiversity
nature-infrastructure	green infrastructure
nature-ncs	nature conservation sites
nature-pa	protected areas
nature-scs	species conservation sites
nature-spawning	spawning area
other	other
other-dredging	dredging
other-dumping	dumping
other-port	port

?

Sea uses

OUTPUT data table

Main sea uses are divided into more detail sub-activities

Attribute code	Description
line	submarine cable and pipeline routes
line-electricity	electricity cable
line-telecom	telecom cable
line-pipeline	pipeline
research	scientific research
tourism	tourism
tourism-boating	leisure boating
tourism-recreation	recreation areas
tourism-diving	diving areas
tourism-seascape	Seascape (sea-land landscape)

Sea uses

OUTPUT data table

Main sea uses are divided into more detail sub-activities

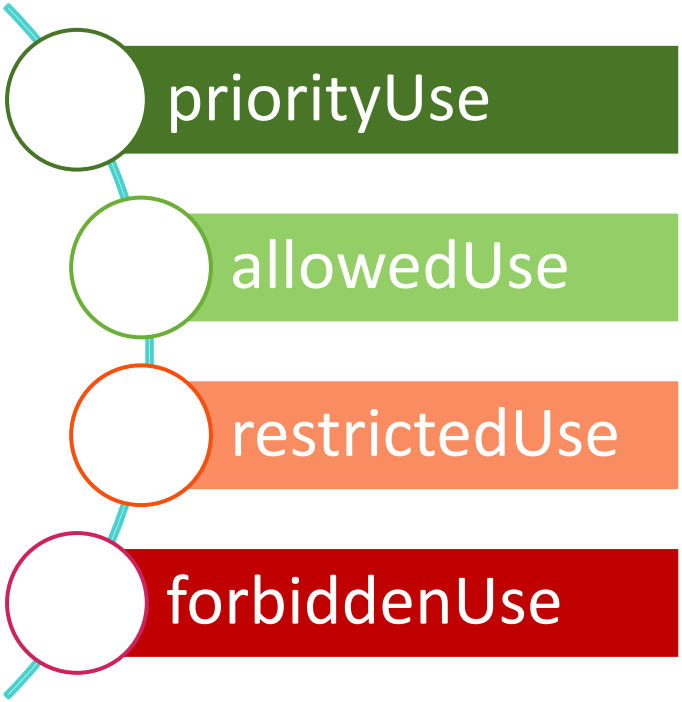
Attribute code	Description
transport	maritime transport routes and traffic flows
transport-anchorage	anchorage
transport-deep	deep water route
transport-flow	traffic flow
transport-recommended	recommended route
transport-safety	safety zone
transport-tss	traffic separation scheme

Sea uses

Sea use types

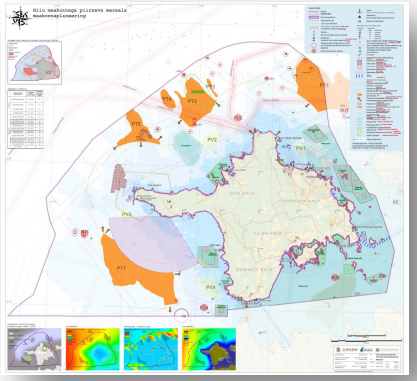
seaUse attribute
aquaculture
extraction
fishing
future
heritage
installations
military
nature
other
line
research
tourism
transport

useType attribute

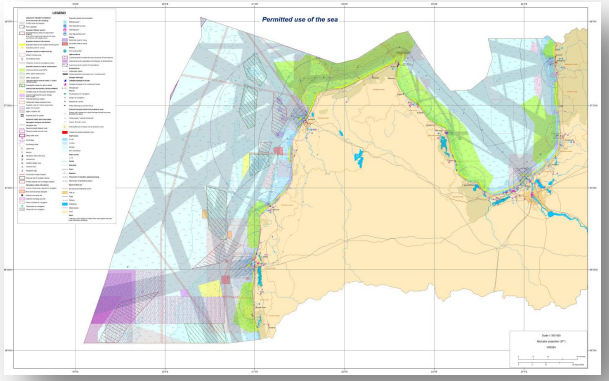


Different styles of planning

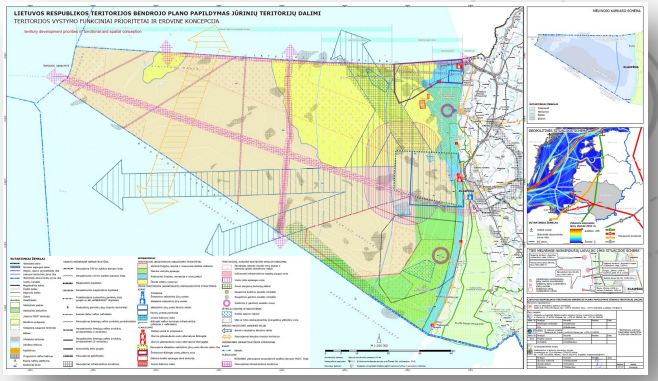
- Different future needs
- Different data categories
- Different styles of visualizing how space could be used



Estonia



Latvia



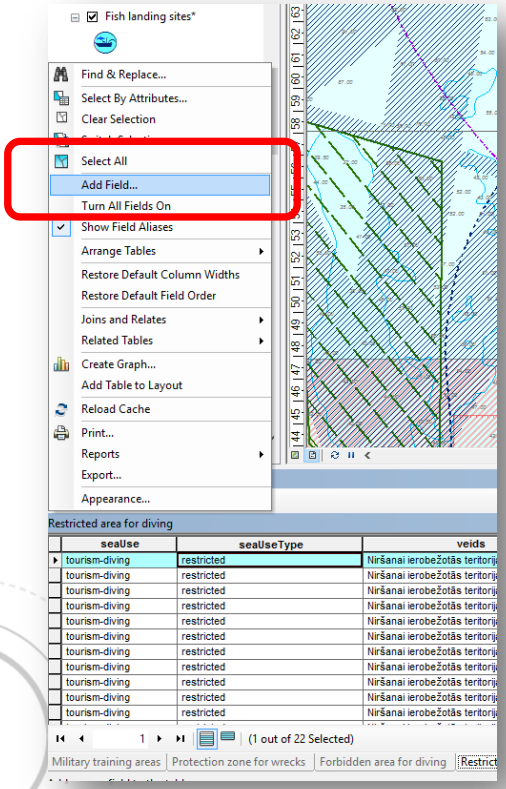
Lithuania

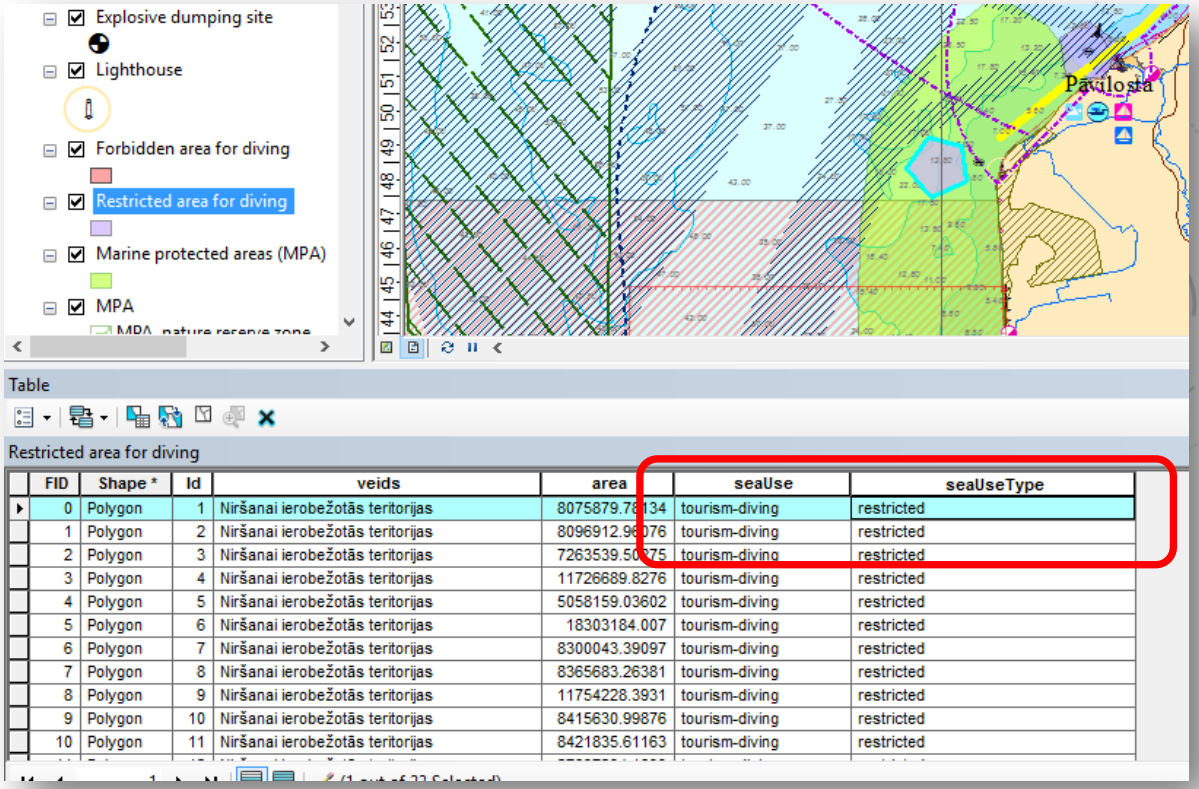
Minimum Requirements

Standard level

Extending existing MSP data

- SeaUse attribute (related to *OUTPUT data table*)
- SeaUseType attribute (primary, allowed, restricted, forbidden)





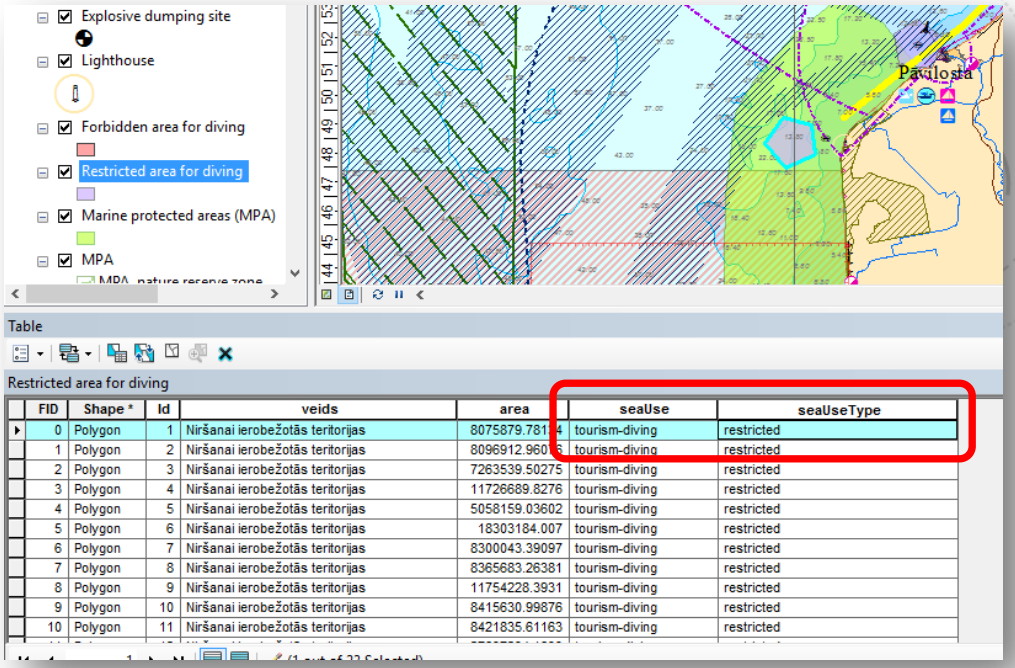
Minimum Requirements

Standard level

Extending existing MSP data

- Do your MSP in the way you are doing it already
- Add two columns to every dataset you create for MSP (use it for any geometry type: polygon, line, point, …)
- Fill valid attribute values
- That's it – all done!

- Standardised data format
- Trans-border comparability
- Every member state can translate dictionaries into their native language
- Easier trans-boundary consultations
- Easier use by trans-border investors



FID	Shape *	Id	veids	area	seaUse	seaUseType
0	Polygon	1	Ničanai ierobežotās teritorijas	8075879.781	tourism-diving	restricted
1	Polygon	2	Ničanai ierobežotās teritorijas	8096912.960	tourism-diving	restricted
2	Polygon	3	Ničanai ierobežotās teritorijas	7263539.50275	tourism-diving	restricted
3	Polygon	4	Ničanai ierobežotās teritorijas	11726689.8276	tourism-diving	restricted
4	Polygon	5	Ničanai ierobežotās teritorijas	5058159.03602	tourism-diving	restricted
5	Polygon	6	Ničanai ierobežotās teritorijas	18303184.007	tourism-diving	restricted
6	Polygon	7	Ničanai ierobežotās teritorijas	8300043.39097	tourism-diving	restricted
7	Polygon	8	Ničanai ierobežotās teritorijas	8365683.26381	tourism-diving	restricted
8	Polygon	9	Ničanai ierobežotās teritorijas	11754228.3931	tourism-diving	restricted
9	Polygon	10	Ničanai ierobežotās teritorijas	8415630.99876	tourism-diving	restricted
10	Polygon	11	Ničanai ierobežotās teritorijas	8421835.61163	tourism-diving	restricted

MINIMUM REQUIREMENTS

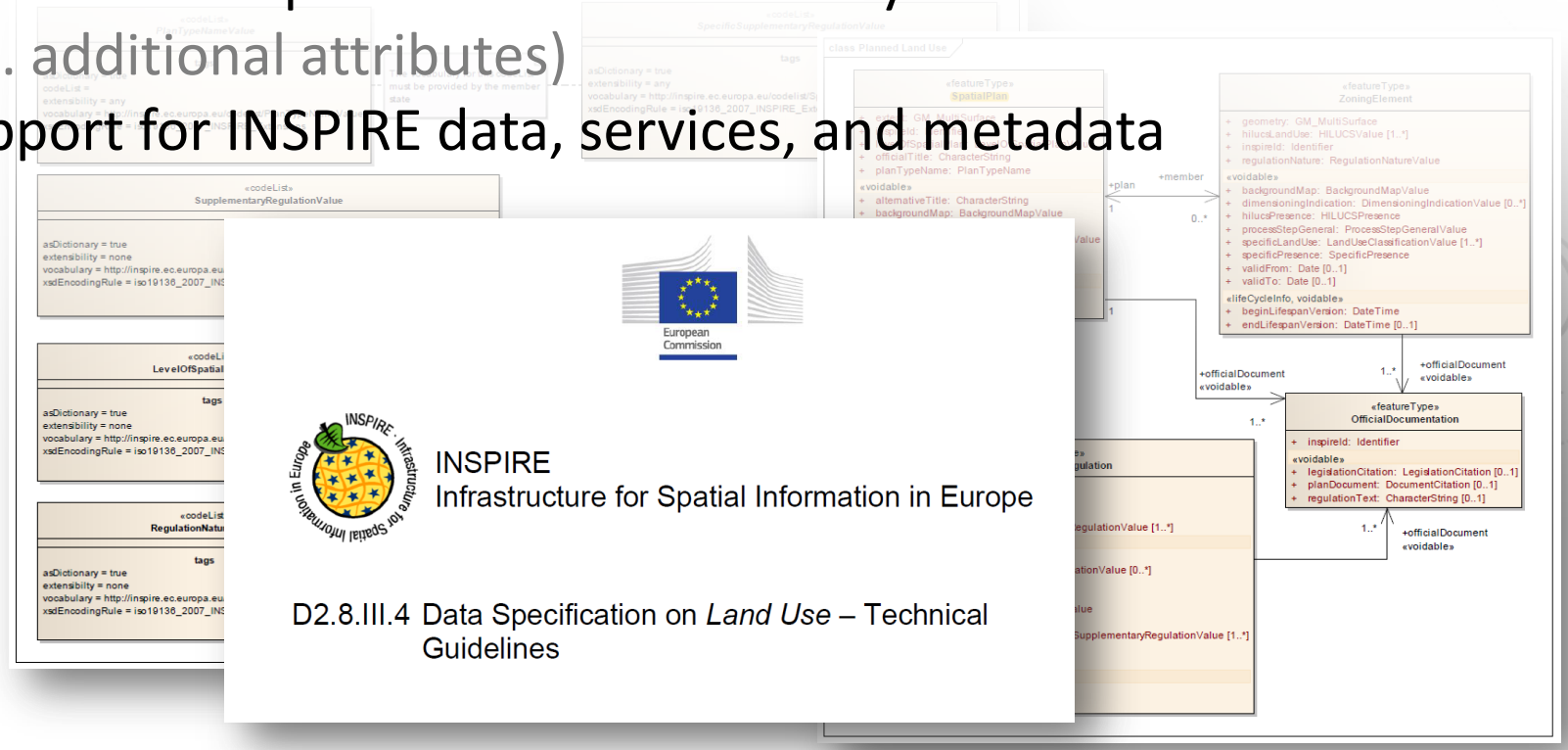
ADVANCED LEVEL

Minimum Requirements

Advanced level

Full INSPIRE compliance

- *Land use* data specification theme
- Dedicated INSPIRE-compliant geodatabase
- INSPIRE data specification extended by MSP needs (eg. additional attributes)
- Support for INSPIRE data, services, and metadata



MINIMUM REQUIREMENTS SUMMARY

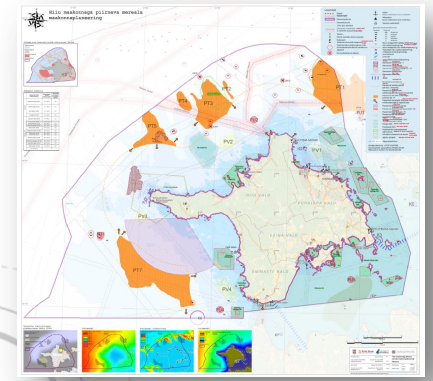
BASIC LEVEL
STANDARD LEVEL
ADVANCED LEVEL

Terms of Reference

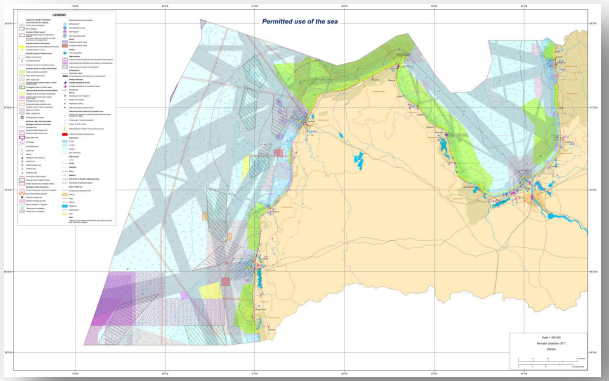
For a BSR MSP Data Expert Sub-group

MSP Data Expert sub-group task

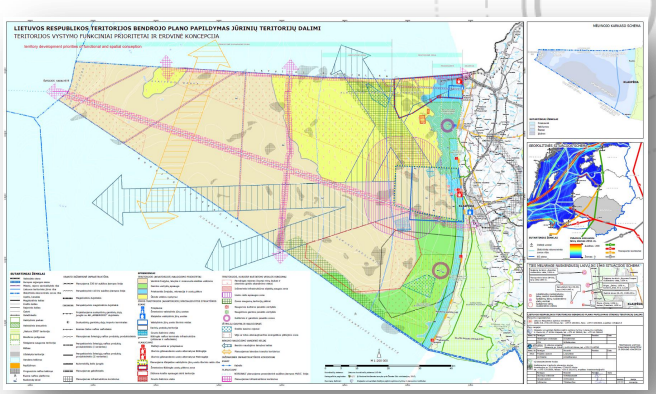
- Compile minimum requirements for Maritime Spatial Plan Data: „Output Data” and sharing of this data
- Identifying some minimum set of data requirements that countries have to use
- Proposing one-size solution that fits all cases



Estonia



Latvia



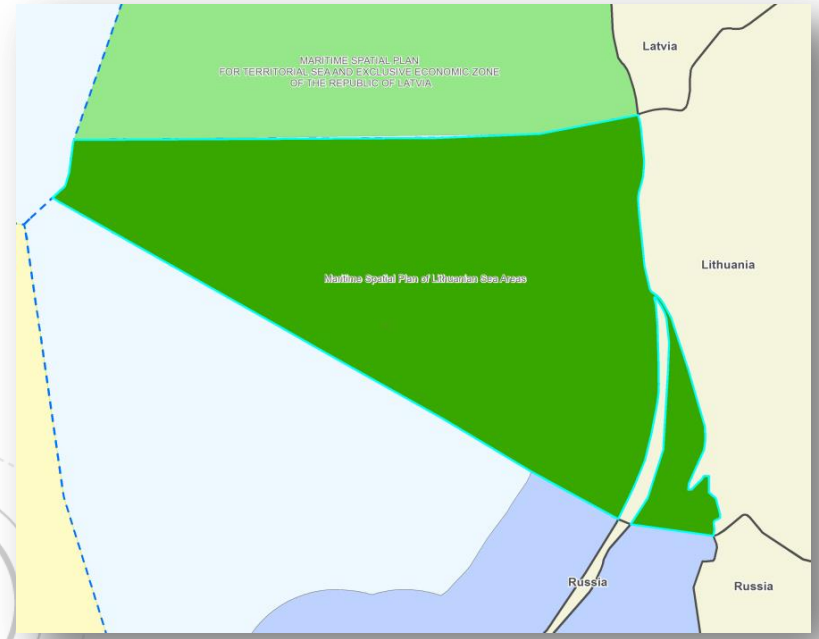
Lithuania

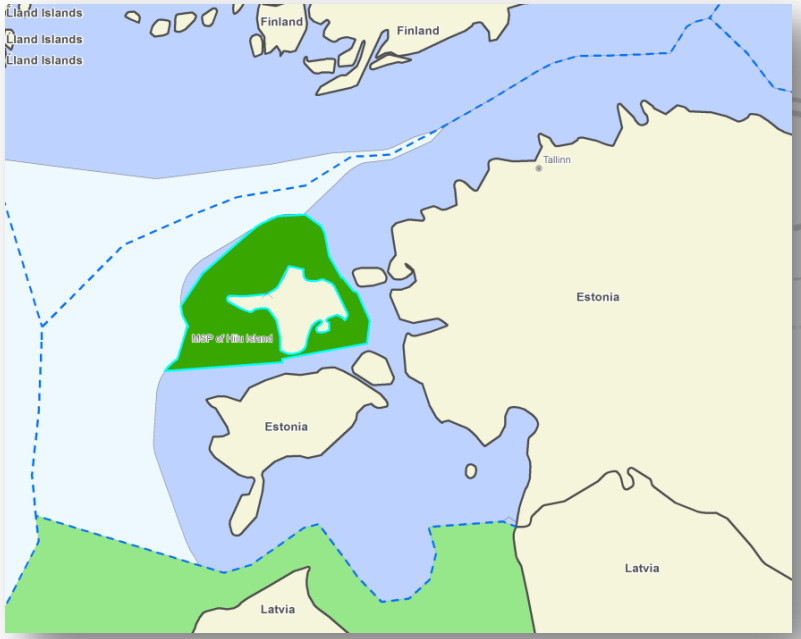
Minimum Requirements

Basic level

SpatialPlan dataset

- Polygon geometry with extent of MSP
- Specific attributes such as its name and process step
- Only one dataset at the *basic level*
- Linked spatial plan in digital form (not vector)



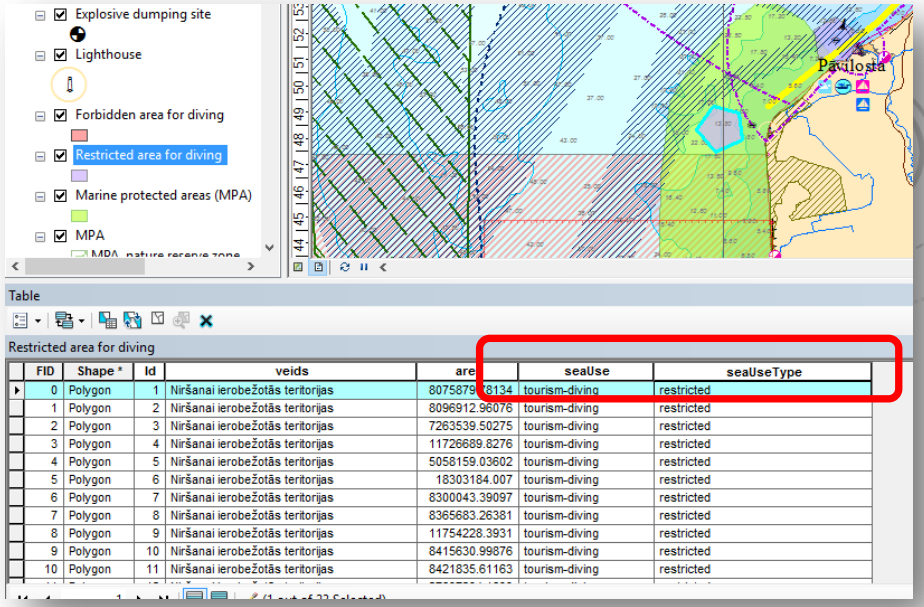


Minimum Requirements
Standard level

Extending existing MSP data

- Two columns added to every dataset created for MSP
  - SeaUse attribute (related to OUTPUT data table)
  - SeaUseType attribute (primary, allowed, restricted, forbidden)
- No change for current MSP Data workflow
- Standardised data format
- Trans-border comparability

ESRI File Geodatabase template with code lists (domains) available for testing.

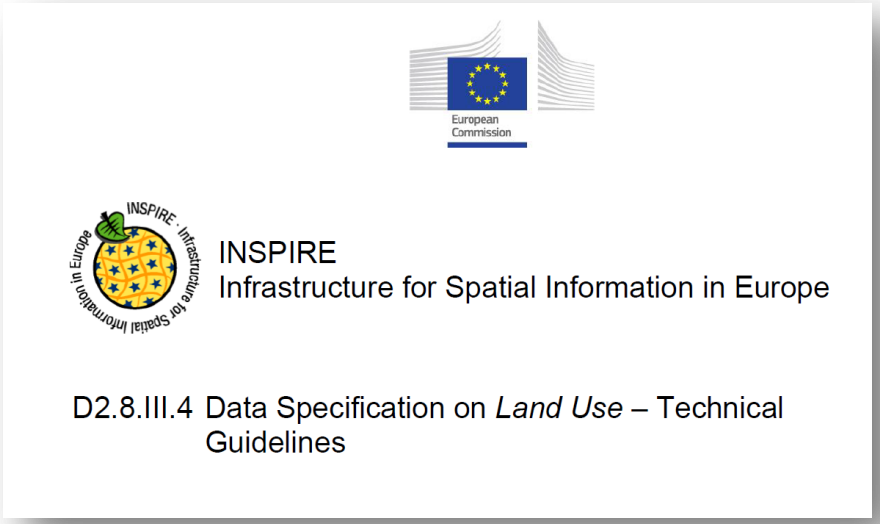


FID	Shape *	Id	veids	are	seaUse	seaUseType
0	Polygon	1	Niršanai ierobežotās teritorijas	8075879.18134	tourism-diving	restricted
1	Polygon	2	Niršanai ierobežotās teritorijas	8096912.96076	tourism-diving	restricted
2	Polygon	3	Niršanai ierobežotās teritorijas	7263539.50275	tourism-diving	restricted
3	Polygon	4	Niršanai ierobežotās teritorijas	11726689.8276	tourism-diving	restricted
4	Polygon	5	Niršanai ierobežotās teritorijas	5058159.03602	tourism-diving	restricted
5	Polygon	6	Niršanai ierobežotās teritorijas	18303184.007	tourism-diving	restricted
6	Polygon	7	Niršanai ierobežotās teritorijas	8300043.39097	tourism-diving	restricted
7	Polygon	8	Niršanai ierobežotās teritorijas	8365683.26381	tourism-diving	restricted
8	Polygon	9	Niršanai ierobežotās teritorijas	11754228.3931	tourism-diving	restricted
9	Polygon	10	Niršanai ierobežotās teritorijas	8415630.99876	tourism-diving	restricted
10	Polygon	11	Niršanai ierobežotās teritorijas	8421835.61163	tourism-diving	restricted

Minimum Requirements
Advanced level

Full INSPIRE compliance

- Need for adopting new data specification by every member state
- Requires changes for current MSP Data workflow

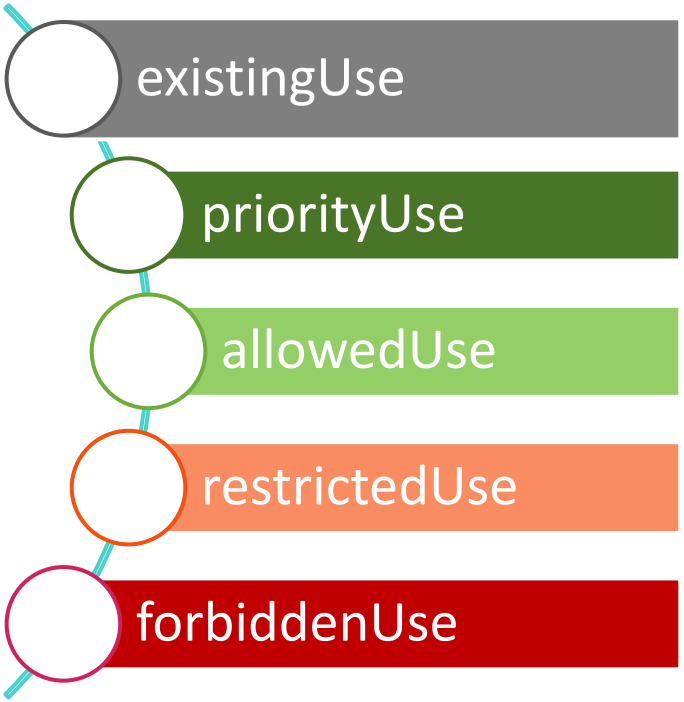


Minimum Requirements

Standard level

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

useType attribute



THANK YOU

MSP OUTPUT DATA

AND ITS RELATION TO INSPIRE DIRECTIVE

Jakub Szostak

Maritime Office Gdynia

MSP Data Expert Sub-Group 5th meeting
Warsaw, 15.12.2016