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<b>Document title</b>	Gulf of Finland Year 2014 - spatial data inventory in the Gulf of Finland
<b>Code</b>	3-3
<b>Category</b>	INF
<b>Agenda Item</b>	3 - Implementation of the Regional Baltic Roadmap 2013-2020
<b>Submission date</b>	16.1.2015
<b>Submitted by</b>	HELCOM Secretariat
<b>Reference</b>	

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## Background

The Gulf of Finland Year 2014 brought together experts, decision-makers and citizens from Finland, Estonia and the Russian Federation to work together for the creation of a healthier and safer gulf. Extensive collaboration among the three countries is crucial to ensure the sustainable use of the Gulf of Finland. The celebratory year comprised of research, public events and influential decision-making. A general Gulf of Finland Year 2014 brochure can be found [here](#).

The main aim of the Gulf of Finland Year 2014 was to advance trilateral cooperation (Estonia, Finland and the Russian Federation) in the Gulf of Finland, foremost regarding research, in five themes. One of the themes was Maritime Spatial Planning (MSP).

Within the MSP theme a spatial data inventory was conducted in the Gulf of Finland. The outcome of the inventory is presented in a leaflet produced for the VASAB Ministerial Conference in September 2014 and found attached to this document. Hard copies of the leaflet will be distributed at meeting. Please especially note the recommendations for MSP data needs on the last page of the attachment.

For more information please contact Ms. Anita Mäkinen, Finnish Transport Safety Agency (TraFi) and Co – Chair of HELCOM-VASAB MSP WG.

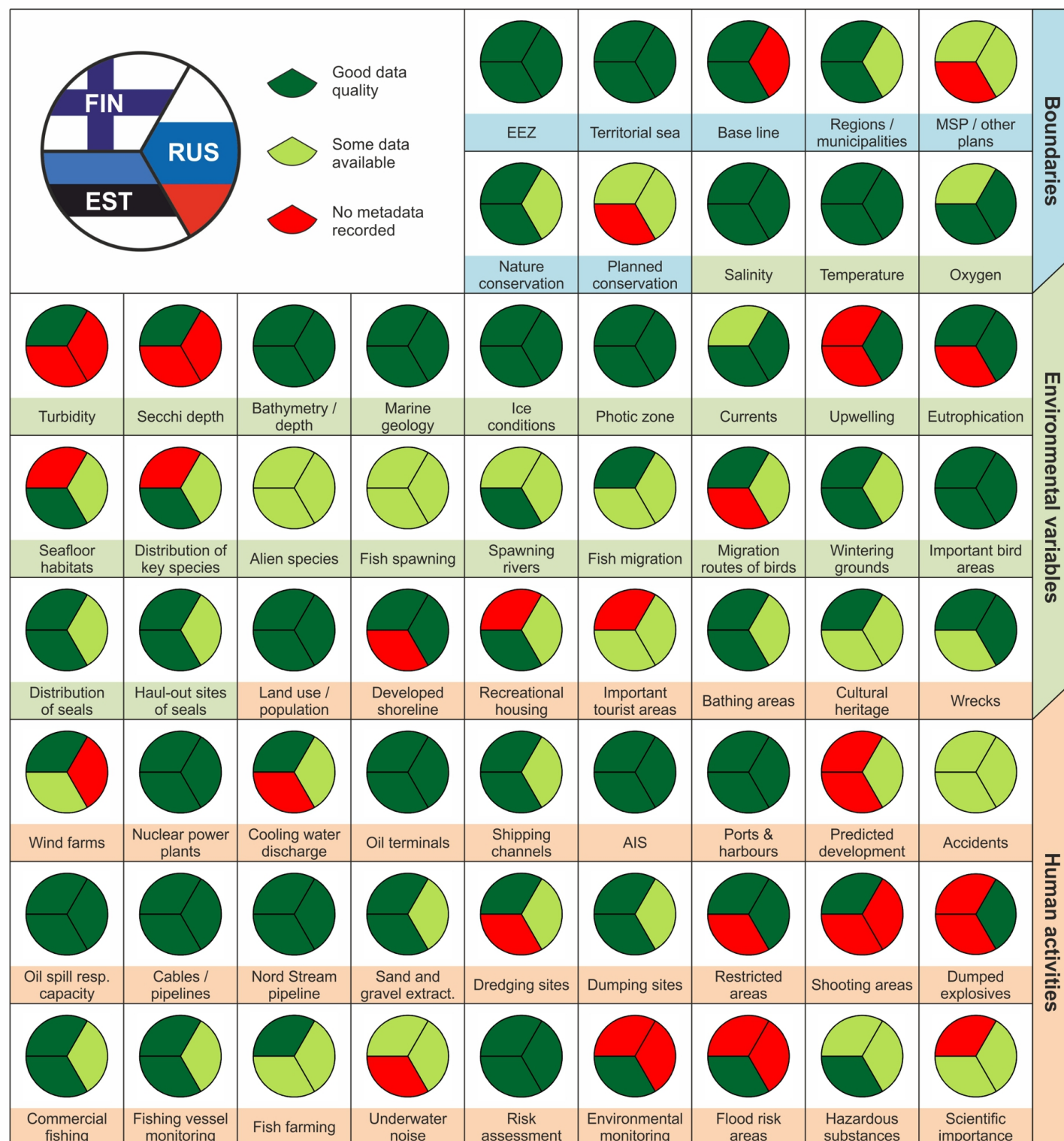
## Action required

The Meeting is invited to take note of the information and make use of it as seen relevant when discussing MSP data.



**Gulf of Finland  
Year 2014**





Summary of the metadata inventory. Each pie diagram illustrates the data availability and quality within the 64 thematic classes. The three slices of the pie represent the waters of the three countries involved. PLEASE NOTE: This presentation reflects only the metadata descriptions collected in this study. Very likely some existing data are missing from this list, due to various reasons. It should also be noted that the metadata entries were not filled comprehensively in all cases, which affects the classification to a degree.

The metadata inventory, analysis and the production of this leaflet were carried out as a collaboration between Finnish Transport Safety Agency Trafi and the University of Turku.

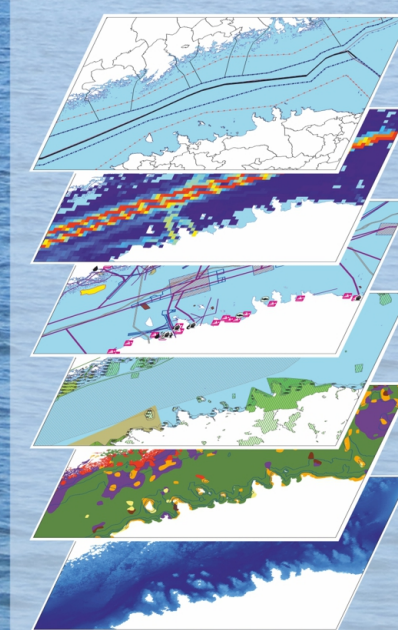


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# MARITIME SPATIAL PLANNING FOR BLUE GROWTH IN THE GULF OF FINLAND

## Spatial data inventory 2014



### Blue Growth

European Union's long term strategy for sustainable growth in the marine and maritime sectors.

### Maritime Spatial Planning (MSP)

Participatory planning of human activities on sea, aiming at sustainable and economically viable marine use.

### Spatial Data

Location-based information about geographical objects or areas, commonly understood as map layers.

### Gulf of Finland

The easternmost part of the Baltic Sea, comprising of the national and international waters between Estonia, Finland and the Russian Federation.





## Blue Growth calls for Maritime Spatial Planning

European Commission's Blue Growth initiative promotes efforts to develop the use of seas and coastal areas sustainably to create value, including jobs. The Marine Strategy Framework Directive aims to protect marine biodiversity and achieve a good environmental status in European sea areas. These, with many other directives, as well as international and national legislation, govern the use of the sea.

The multitude of controlling measures requires a holistic methodology to master the complexity of sea area planning. A directive establishing a framework for Maritime Spatial Planning (MSP) was adopted in July 2014. The directive emphasizes transparency in the maritime planning, aiming at efficient and sustainable organization of human activities at sea.

In the Gulf of Finland, also the Russian Federation's national MSP legislation, currently under preparation, affects the international planning. Thus, the development of MSP for the area poses great challenges, but also indicates advancing cross-border harmonization of planning practices.

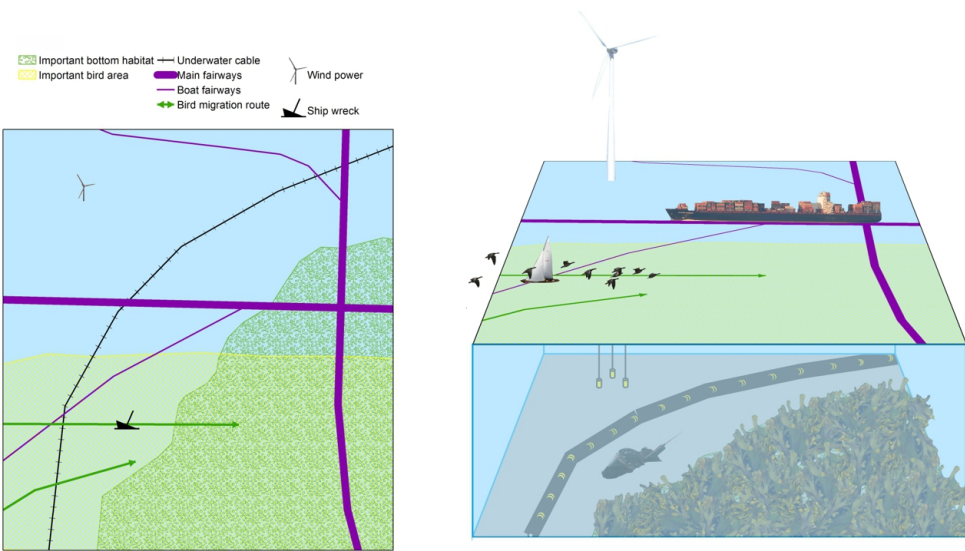
## Spatial data for Maritime Spatial Planning

Spatial data can be used to describe a large variety of phenomena relevant to maritime spatial planning (MSP), and they play at least three roles in the MSP process:

- 1) **Input:** information about the existing situation of different phenomena in the planning area
- 2) **Process:** primary information in the analysis of spatial relationships of the background information and planning objects
- 3) **Output:** as map data when the planning results are communicated visually

Spatial datasets, commonly understood as "map layers", seemingly represent two-dimensional (2D) surfaces. In the marine environment, it is essential to include two other dimensions: the vertical dimension and the temporal dimension. Thus, the compilation of the 2D surfaces in geographical analyses offers a methodological toolbox to handle the complexity of the 4D system.

It is important to understand that spatial data are essentially numbers: values describing the occurrence and properties of different phenomena at different locations. It is the task of planners to extract information and knowledge from the data – such knowledge, which is needed to gain sufficient understanding of the 4D marine system, and to make informed management decisions.



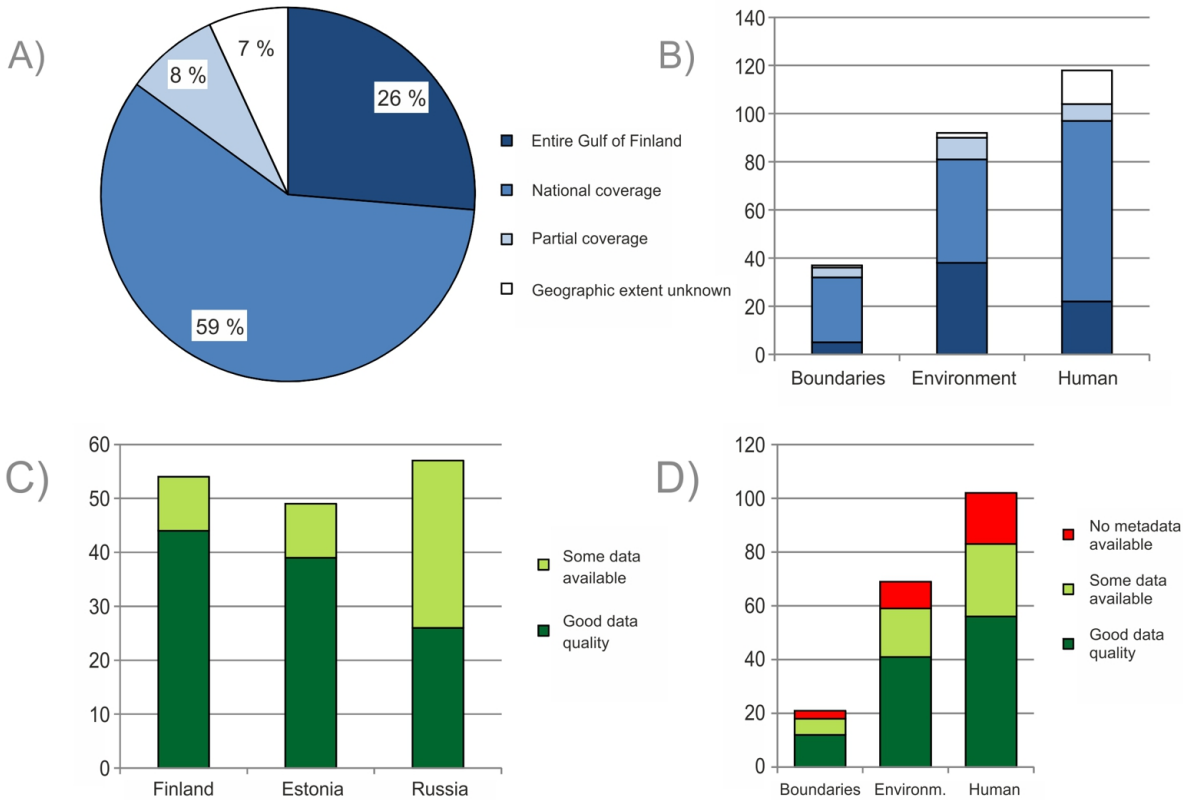
In spatial analysis, a compilation of 2D data is used to portray the four-dimensionality of the marine environment. In addition to the layers representing the different vertical levels of the sea, such as bathymetry and seafloor ecosystems, it should be remembered that the seasonality and long-term changes of the sea need to be covered.

## Spatial data inventory in the Gulf of Finland

The analysis of the spatial relationships of the planning areas and units depends on the availability of spatial data (digital maps). A metadata inventory was conducted in Estonia, Finland and the Russian Federation in spring 2014. The data coverage was assessed and reported with emphasis on the thematic variety of the existing data, as well as the challenges of the international data exchange.

The main findings of the inventory:

- 247 datasets were identified, covering around 60 themes
- Only about one fourth of the datasets cover the entire GoF area.
- Most of the datasets cover the sea area of one country.
- The data were classified into three main thematic categories: 'Boundaries', 'Environment' and 'Human activities'. Out of these, 'Human activities' was best covered by spatial data.



A) About one fourth of the identified datasets had uniform coverage of the whole Gulf of Finland. B) The proportion of full coverage was highest in the environmental data category. C) The proportion of 'good data quality' varied between the countries based on the metadata. D) Data quality assessment for the main thematic categories based on metadata

## Recommendations

- The data gaps identified in this study should be acknowledged and verified, and new data collection and production should be focused on the high-priority themes with missing information
- Data for Maritime Spatial Planning should be collected in harmonised manner to ensure technical and semantic interoperability in international cooperation
- Communication between planners from different countries is encouraged to establish a common understanding of the planning practices and data management principles

