

## **MapBSR - Digital Map of the Baltic Sea Region**

Heli Ursin, National Land Survey, Finland

MapBSR can be considered as the first database project with such a large amount of data themes and participating organizations. The participants in the MapBSR project are the 13 National Mapping Agencies (NMAs) of the countries around the Baltic Sea. The elements included in the database are administrative boundaries, hydrography, transport, settlements, geographical names, elevation and nature. The MapBSR 2000 CD-ROM was released in end of 2000.

Geographic information provides new opportunities for regions like the Baltic Sea Region and will be advantageous for all activities that require different kinds of information to be put together. A sustainable development requires a basis of mutual knowledge and understanding between the people. The mission of the MapBSR is to bridge the gap between areas or regions, which are shared or affected by several countries, yet must be managed as a whole. For these trans-national areas and situations it is essential to build shared spatial databases of known quality.

The political changes that took place in the 1990's in the Baltic Sea Region created new possibilities and opportunities for co-operation in the area. The National Mapping Agencies also found it important to start working together and so benefit from the experiences of other similar organizations. But naturally the basic reason for starting to create a digital map for the Baltic Sea Region was that there was a need for seamless transboundary data in the region. The obstacles in the project were not lack of data material, lack of knowledge, nor lack of willingness to co-operate, as one could expect in beginning of such a project. But scarcity of financial assets naturally is a factor that slows down a project like MapBSR: even if the European Union funded the project (50% of expenses in EU member states; four partners in MapBSR), nine of project partners used only their own money to finance the work, since no outside funding was available. And there was no guarantee of getting those contributions back from the market as sales of the database. So one can say that most important for the success of the project was the willingness of the NMAs to cooperate and commit themselves into creating this new database.

The project's coordinator is the National Land Survey of Finland. The participants in the MapBSR project are the National Mapping Agencies of the countries around the Baltic Sea (The Russian Federation, Estonia, Latvia, Lithuania, Belarus, Ukraine, Poland, the Czech Republic, the Slovak Republic, Germany, Denmark, Norway, Sweden and Finland).

The MapBSR provides digital map database for the Baltic Sea drainage area and the countries in its sphere of influence in the nominal scale of 1:1 million. The elements included in the database are administrative boundaries, hydrography, transport, settlements, geographical names, elevation, nature and land use. The uses for the database include natural resource management, environmental impact assessment, administration, spatial and transnational planning and research.

The National Mapping Agency of each of the participating country produced the map elements for the area of the respective country. Data was then compiled into one seamless database by National Land Survey of Finland. Finland is also the co-ordinator of the project. The project has received funding from the European Union (Interreg II C -program).

### Project area and data content

The potential users of the database have indicated that the drainage area of the Baltic Sea is important to be included in the database completely. That is why some countries are included in the database as whole countries and from some only the administrative units that intersect the Baltic Seas drainage area.

- Countries as whole:  
Finland, Sweden, Norway, Denmark, Poland, Latvia,  
Lithuania, Estonia, Belarus and Ukraine.
- The administrative units that intersect the Baltic Sea drainage area in:  
The Russian Federation:  
Murmansk, Karelia, Leningrad, Arkhangelsk, Pskov, Novgorod,  
Tver, Smolensk, Kaliningrad and Vologda oblasts  
Germany : Schleswig-Holstein, Mecklenburg-Vorpommern, Hamburg, Berlin,  
Brandenburg and Regierungsbezirk Dresden in Sachsen  
The Czech Republic:  
North-bohemian, East-bohemian and North-moravian regions  
The Slovak Republic (northern parts)

Digital Map of the Baltic Sea Region (MapBSR)  
Main roads



Digital Map of the Baltic Sea Region (MapBSR)  
Administration

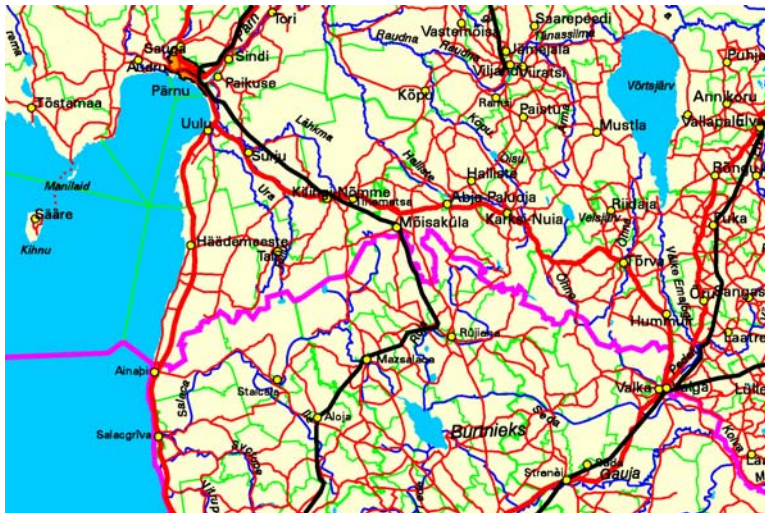


**Data content**

Groups	<i>Primary</i>	<i>Secondary</i>
A. Boundaries	<ol style="list-style-type: none"><li>1. State boundary</li><li>2. County boundary</li><li>3. Municipality boundary</li><li>4. Boundary of territorial waters</li></ol>	
B. Hydrography	<ol style="list-style-type: none"><li>1. Coast line (sea)</li><li>2. Lake</li><li>3. River</li><li>4. Canal</li><li>5. Glacier</li></ol>	<ol style="list-style-type: none"><li>1. Drainage areas and subareas</li></ol>
C. Transport	<ol style="list-style-type: none"><li>1. Road</li><li>2. Railway</li><li>3. Airport</li><li>4. Port</li></ol>	
D. Settlement	<ol style="list-style-type: none"><li>1. Population centre</li></ol>	
E. Geographical names	<ol style="list-style-type: none"><li>1. Names</li></ol>	
F. Elevation	<ol style="list-style-type: none"><li>1. Contour line</li><li>2. Altitude points</li><li>3. Depth contour line</li></ol>	
G. Nature	<ol style="list-style-type: none"><li>1. National parks / restricted areas</li></ol>	

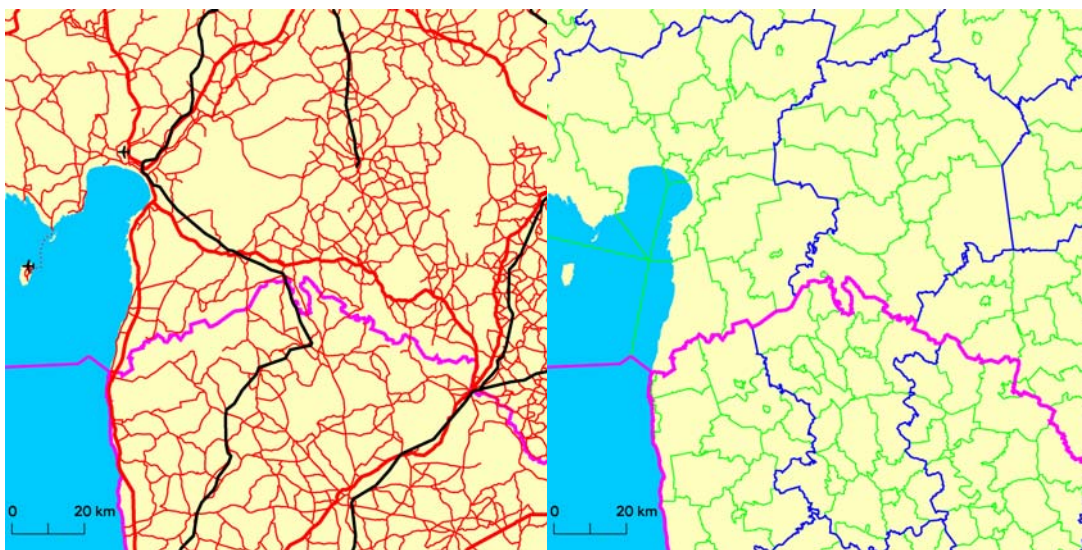
Data samples from the border between Estonia and Latvia:

All data



Roads

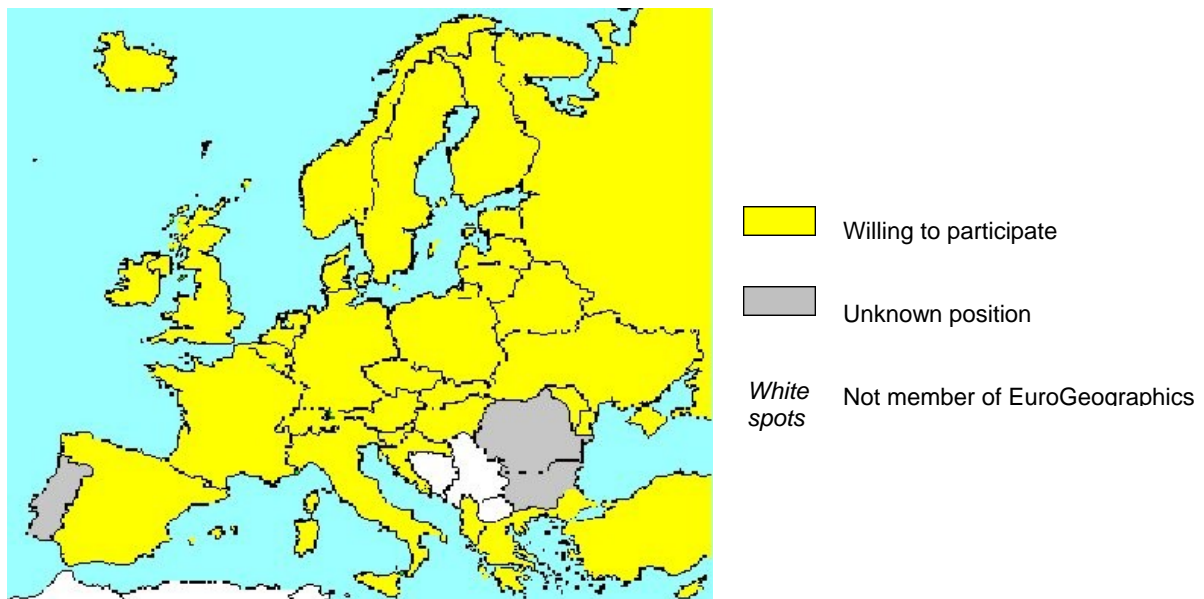
Administrative boundaries



## EuroGlobalMap

The success of the MapBSR project and the actual increasing demand for such a seamless European dataset naturally led to considering the extension of the concept to the whole of Europe. The feasibility of this extension was addressed during year 2000 in a Feasibility Study for the EuroGlobalMap (EGM) under the umbrella of the EuroGeographics (the association of the European National Mapping Agencies, formerly CERCO). The National Land Survey of Finland was chosen to be responsible for the Project Management, i.e. to be the Project Coordinator.

### Participants of the EuroGlobalMap Project (status April 2001)



The Feasibility Study assessed the data availability, the technical issues involved, as well as the economical and financial implications of creating such a product. In the study the GlobalMap and MapBSR specifications were reviewed and compared. In addition, the Geographical Survey Institute of Japan were sent a sample dataset of the MapBSR for comparison. Their studies found no major differences between the GlobalMap and MapBSR data content. In April 2001 the EuroGlobalMap specifications are ready and the project shall seek funding from the European Union.

More information on can be found at:

MapBSR: <http://www.mapbsr.nls.fi>

EuroGlobalMap: <http://www.eurogeographics.org>