Spatial Data Infrastructures in Latvia: State of play Spring 2005

Country report on SDI elaborated in the context of a study commissioned by the EC (EUROSTAT & DG ENV) in the framework of the INSPIRE initiative

August 2005
# Report meta-information

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<td>Marco Fritz (SADL) &amp; Peter Beusen (ICRI)</td>
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<td>2.0</td>
<td>2002-12-20</td>
<td>Jos Van Orshoven (SADL)</td>
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| 3.0            | 2003-07-30 | Catharina Bamps (SADL)                           | Consolidation of comments received from Mr. Harijs Baranovs (Latvian Environment Agency, Deputy Head of Information Department) on behalf of the Council of Geodesy and Cartography and from Mr. Janis Kaminskis (State Land Service)  
Addition of:  
- Report meta-information  
- Executive summary  
- Abbreviations/acronyms |
| 4.0            | 2003-08-14 | Jos Van Orshoven (SADL)                          | Harmonisation with 31 other country reports                               |
| 5.0            | 2004-06-13 | Catharina Bamps (SADL)                           | Integration of information from INSPIRE for enlargement                   |
workshop (May 2004; Mr. Harijs Baranovs (Latvian Environment Agency, Deputy Head of Information Department) and from limited review of web sites General review, correction and update Addition of table pointing to changes with regard to Version 4

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Change matrix 2005 versus 2004

Paragraphs in which information is reported which deviates in a significant way from what was reported in the Spring 2004 version of this country report are listed in the below table. They are indicated in red.

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Executive summary

Latvia has no explicit NSDI policy although existing legislation on Geodesy and Cartography may provide a framework.

The Council of Geodesy and Cartography is a body established by the Cabinet of Ministers with the mandate to co-ordinate GI activities within the public sector. The main executive player is the State Land Service of Latvia (SLS). It occupies a central position on the GI-scene in Latvia while its activities have also an international dimension. It has developed a conceptual model of a National Geographic Information System. The SLS and the Council of Geodesy and Cartography are presented in this report as the core of a pre-SDI in Latvia.

There is no multidisciplinary national GI association.

Core data production and management is done with international assistance. Cadastral databases linked to address data are already available. There are several web applications in Latvian language available on the SLS-website that allow to browse address registers and some map databases of specific areas.

The MapBSR (Digital map of the Baltic Sea region) is covering the territory of Latvia. A detailed description is given in the country report for Finland.

The creation of a metadata catalogue is one of the planned activities. Metadata on geographical datasets are now isolated – and not coordinated - in different departments and databases.

A thematic environmental information system is being built by the Latvian Environmental Agency. Issues of standardization of metadata and other access services are planned to be undertaken in close cooperation with SLS.

The law on Freedom of Information was adopted in 1998 and signed. It guarantees public access to all information in “any technically feasible form” not specifically restricted by law. In practice, access restrictions to some of the spatial data remain in place. The environmental information system however will be based on the Aarhus Convention, i.e. on the principle of free access to environment information.

A new copyright act is in force since 2000. The current law corresponds with WIPO\(^1\) Copyright, TRIPS and the European directive on the legal protection of databases.

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\(^1\) WIPO: A specialized Geneva-based agency of the United Nations, created in 1967 that promotes international cooperation in intellectual property protection. WIPO administers various “Unions,” including the Paris Union and the Berne Union, and other treaty organizations founded on multilateral treaties.
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### Abbreviations and acronyms

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<thead>
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<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>BSR</td>
<td>Baltic Sea Region</td>
</tr>
<tr>
<td>CT</td>
<td>Core Thematic Data</td>
</tr>
<tr>
<td>FIR</td>
<td>Further Investigation Required</td>
</tr>
<tr>
<td>GI</td>
<td>Geographical Information</td>
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<tr>
<td>GIS</td>
<td>Geographical Information System</td>
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<tr>
<td>GISIG</td>
<td>Geographical information systems international group</td>
</tr>
<tr>
<td>GPS</td>
<td>Global Positioning System</td>
</tr>
<tr>
<td>INSPIRE</td>
<td>INfrastructure for SPatial InfoRmation in Europe</td>
</tr>
<tr>
<td>MapBSR</td>
<td>Digital map of the Baltic Sea region</td>
</tr>
<tr>
<td>NSDI</td>
<td>National Spatial Data Infrastructures</td>
</tr>
<tr>
<td>PPP</td>
<td>Public-Private Partnerships</td>
</tr>
<tr>
<td>PSI</td>
<td>Policy and legislation on access to public sector information</td>
</tr>
<tr>
<td>REF</td>
<td>Reference data</td>
</tr>
<tr>
<td>SDI</td>
<td>Spatial Data Infrastructures</td>
</tr>
<tr>
<td>SJSC</td>
<td>Latvian Railroad</td>
</tr>
<tr>
<td>SLS</td>
<td>State Land Service</td>
</tr>
<tr>
<td>TRIPS</td>
<td>Trade-Related Aspects of Intellectual Property Rights</td>
</tr>
<tr>
<td>UNGEGN</td>
<td>United Nations Group of Experts on Geographical Names</td>
</tr>
<tr>
<td>WIPO</td>
<td>World Intellectual Property Organization</td>
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1. GENERAL INFORMATION

1.1 Method

This report is summarizing the state of play of SDI in Latvia, and reflects the degree to which the SDI situation in Latvia is similar to the ideas set out in the INSPIRE position papers\(^2\) and the more recent INSPIRE scoping documents.

The first released version of the report (Version 4) was based on the analysis of various documents, project references and web sites readily accessible in English and Latvian (see full list in section 3.2). Although the national mapping bodies have installed bilingual websites (EN and LV), most technical specifications were available in LV version only. The report was completed by integration and consolidation of comments received from a representative of the Latvian Environment Agency and of State Land Service (as representative of the Council of Geodesy and Cartography). The comments were provided in written form (e-mail) and partly refer to conclusions made in the framework of the contract “Conceptual model of the national geographic information system” (contractor SIA “MikroKods”, contracted by Ministry of Transport of the Republic of Latvia).

The same person from the Latvian Environment Agency has provided early 2004 limited additional comments which have contributed to this updated report (Version 7). For the 2005 update no comments or input was received from the Latvian Authorities. Some changes on the legal issues were integrated based on other sources.

1.2 Overview of SDI-related actors and initiatives

LV has no explicit NSDI policy although existing legislation on Geodesy and Cartography may provide a framework. Hence, a NSDI is not in place. GI-activities are coordinated by the Council for Geodesy and Cartography which is a body established by the Cabinet of Ministers. Core data production and management is done with international assistance. Cadastral databases linked to address data are already available. Metadata catalogues are planned. [11]

The main providers of geographic information are:

- Central Statistical Bureau of Latvia [http://www.csb.lv](http://www.csb.lv)
- Spatial Development Planning Centre
- Latvian Environment Data Centre [http://www.vdc.lv](http://www.vdc.lv)

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\(^2\) INSPIRE position papers, final versions: RDM, ETC, DPLI, ASF, IST, IAS (latest version).

Geoinformation Bureau of the National Forces


State Forest Service [http://www.vmd.gov.lv]

State Hydrographical Service of Latvia

Private company “Jana Seta” [http://www.kartes.lv]

Tourism Development Agency

Road Traffic Safety Directorate [http://www.cssd.lv]

The largest municipalities – Riga City Council

The main users of GI in LV comprise:

- Data producers (see above)
- Land book Department
- Spatial Development Planning Center
- National Armed Forces, Geoinformation Bureau
- State Police
- State Border guard
- State Firefighting and Rescue Service [http://www.ugdd.lv]
- Latvian Road Administration [http://www.lad.lv]
- SJSC „Latvijas Dzelzceļš” (Latvian Railway) [http://www.ldz.lv]
- Port administrations
- State Inspection for the Protection of Cultural Heritage
- Schools and universities
- State Real Estate Agency [http://www.vnia.lv]
- Municipalities
- Private companies (gas, energy, telecommunications)
There is no multidisciplinary national GI association.

The Council of Geodesy and Cartography co-ordinates GI activities. The State Land Service is the most important player, the more since its activities have an international dimension. The State Land Service is described in this report as the core of a pre-SDI in Latvia.

The NSDI-activities of the State Land Service of Latvia (SLS) are still in a preparatory phase. Only parts of those SDI-like initiative are documented (homepage (English): http://www.vzd.gov.lv/index.php?s=6

An international initiative, the MapBSR (Digital map of the Baltic Sea region) is covering the territory of Latvia. A detailed description is given in the country report for Finland. The MapBSR dataset can be obtained at the Latvian National Service of Geodesy and Cartography, but information about project, purchasing and prices can be obtained at the MapBSR home page http://www.mapbsr.nls.fi.
2. **Details of the State Land Service in Latvia**

2.1 **General Information**

The SLS is subordinated to the Cabinet of Ministers and works under supervision of the Ministry of Justice.

The Law on State Land Service was adopted in 1992. In accordance with the provisions of the said law and the SLS regulations, the State Land Service has to fulfil the following functions:

- Implementation of the Land Reform and land privatisation process by delegating its representatives to Land Committees of all levels, by performing surveying work, formation of land properties before registration, and maintenance of the National Real Property Cadastre in the course of the Land Reform;

- Processing of real property data for property registration purposes;

- Development, introducing and maintenance of a national cadastre of land and other real property units and registers of real properties (land, buildings and structures);

- Drafting of regulations for land use and surveying and methodological guidance and supervision of the surveying work;

- Performance of surveying work and cadastral surveying of land on behalf of the state;

- Establishment and supervision of the national geodetic network;

- Drafting of regulations for geodesy, photogrammetry, topography and cartography; methodological guidance and supervision of the work;

- Topographic surveying and mapping of the territory of Latvia;

- Development of sea and air navigation charts;

- Surveying of the national borders;

- Drafting of regulations for technical inspection and valuation of real properties; methodological guidance and supervision of the work;

- Collection of technical data of real properties and real property valuation;

- Licensing of sworn surveyors and sworn assessors;
- Co-ordination and supervision of the development of a land cadastre and a geographical information system; provision, in the procedure established by the Government, of official cadastral and GIS data for the needs of central and local governments, legal entities and individuals;

- Co-ordination of subjects of research, research work and procurement of research, participation in international programs in the field;

- Supervision of professional education of SLS staff, organisation of upgrading of their qualifications and attestation;

- Establishment and maintenance of the technical resources of the SLS;

- Responsibility for the maintenance and use of geodetic, gravimetric, photogrammetric and cartographic materials; storage of legal and technical real property ownership documents of individuals and legal entities; maintenance of SLS archives;

- Supervision and control over land use;

- Drafting of legislative and regulatory acts and government decrees related to the SLS sphere of activity; collection of information about application of legislative acts and monitoring of compliance with regulatory acts by businesses in the sphere of competence of the State Land Service;

From this wide scope of tasks set by legislative and regulatory acts, the State Land Service sets the following tasks as priorities as from 2001:

- Further development of the national geodetic networks;

- Further development of the national cartography system; introduction of advanced cartographic technologies; establishment of SLS regional cartography structures;

- Compiling of topographic maps of 1:50,000 scale; geodetic and cartographic work on the national borders;

- Providing of technical support and measures required for the completion of the Land Reform;

- Further development of the national real property cadastre system; development and introduction of new software provision; development of an address register and its integration into the general cadastral system;

- Further development the cadastral valuation system of real property to ensure the application of the law “On Real Property Tax” to buildings and structures; development of a national GIS concept; preparatory work for the development of the system.
Through the SLS, Latvia is involved in a number of international organisations and projects, such as the preparation of the digital map of the Baltic Sea region in cooperation with Finland and the other Baltic States, preparation of EuroGlobalMap and EuroRegionalMap in cooperation with EuroGeographics. The SLS cooperates or is part of different international organisations, e.g. the Working Party on Land Administration of the Human Committee of UN European Economic Commission, the UN Group of Experts on Geographical Names, Eurogeographics and GISIG (Geographical Information Systems International Group).

The State Land Service will be transformed to a Public Agency.

### 2.2 Component 1: Legal framework and funding

#### 2.2.1 Legal framework and organizational issues

Latvia has been working on the establishment of a legal framework for geographic information for a couple of years. Agreements for data exchange have been concluded between Latvia’s most important geographic information provider, the State Land Service (http://www.vzd.gov.lv) and other institutions.

In compliance with the Law on the Land Registers data bases of all 28 Land Registers’ chapters are consolidated in a unified computerised Land Register. It is the central data base from which the information on all properties in the state that are registered in the Land Register is disseminated. The unified computerised State Land Register is the only computerised Land Register containing legally acknowledged information.

The legislation on Geodesy and Cartography is providing a framework for GI activities [1] The law of Geodesy and Cartography is in stage of development since 2000, but it has not been finished yet

The Law on the State Land Service was adopted in 1992.

A Cartography Development concept has been elaborated in 1994. [14]

#### 2.2.2 Public-private partnerships (PPP’s)

There is a strong cooperation of SLS with public and private organizations. [1]

SLS has signed an agreement with “Jana Seta”, the largest private producer of maps in the Baltic States.

A proposal for the investment project ‘Establishing the national geoportal’ is under preparation (2004).
2.2.3 Policy and legislation on access to and re-use of public sector information (PSI)

The law on Freedom of Information was adopted by the Saeima (Parliament) in October 1998 and signed by the State President in November 1998. It guarantees public access to all information in “any technically feasible form” not specifically restricted by law. Information can only be withheld if specifically provided by a statute; e.g. information for internal use of an institution; commercial secrets; information about the private life of an individual, certification, examination, project, tender and similar evaluation procedures. Individuals may use it to obtain their own records.

Latvia has transposed Directive 2003/4 on the access to environmental information. No information has been found about the implementation of Directive 2003/98 on the re-use of PSI.

2.2.4 Legal protection of GI by intellectual property rights

The Latvian Government has joined the Bern Convention\(^3\), and signed the TRIPS Agreement in 1998. Major intellectual property protection legislation is in effect since 1993. A new copyright act dates from 2000 and is in force since 2002. The current law corresponds with WIPO\(^5\) Copyright, TRIPS, the European directive on the legal protection of databases, and the directive on copyright in the information society of 2001 has not yet been included in national law. The term of copyright protection is seventy years after the author’s death, while database protection is granted for fifteen years after the database is formed. Geographical maps, plans, sketches, and moulded works which relate to geography, topography and other sciences, are explicitly mentioned as protected works.

2.2.5 Restricted access to GI further to the legal protection of privacy

Article 96 of the Latvian Constitution explicitly recognizes the right to privacy by stating that everyone has the inviolable right to private life, home and correspondence. Article 17 of the Constitutional Law on Rights and Obligations of a Citizen and a Person secures the privacy of communications subject only to a judge’s order.

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\(^3\) The 1886 multinational treaty on copyright protection signed at Bern, Switzerland; officially titled The International Union for the Protection of Literary and Artistic Works. The convention grants the moral rights of attribution and integrity, and certain exclusive economic rights to a work's translation, reproduction, performance, and adaptation.

\(^4\) TRIPS Agreement: International rules governing the Trade-Related Aspects of Intellectual Property Rights (TRIPS), formulated at the December 1993 Uruguay Round of GATT. All GATT member-countries agreed to rewrite their national laws to conform to internationally agreed norms for protecting patents, trademarks, copyrights, industrial designs, and trade secrets. The TRIPS agreement also extended protection to such technological areas as pharmaceutical products and computer software, which were previously unprotected in many countries.

\(^5\) WIPO: A specialized Geneva-based agency of the United Nations, created in 1967 that promotes international cooperation in intellectual property protection. WIPO administers various "Unions," including the Paris Union and the Berne Union, and other treaty organizations founded on multilateral treaties.
A law on data protection was adopted by the Parliament on 23 March 2000. It is based on the EU directive on the processing of personal data and the Council of Europe Convention nr. 108. Directive 2002/58 on privacy and electronic communications has not yet been introduced in Latvian law.

Latvia is a member of the Council of Europe and signed the Convention for the Protection of Individuals with Regard to Automatic Processing of Personal Data on 11 February 2000. It has signed and ratified the European Convention for the Protection of Human Rights and Fundamental Freedoms.

### 2.2.6 Licensing framework

Legislation of Latvia defines the licensing principles of personal data and confidential data of national importance. Licensing of other datasets provided by SLS are based on individual contracts.

### 2.2.7 Funding model for SDI and pricing policy

Development of SDI initiatives (chapter 1.2) are financed from three different sources:

- State grants (mostly for civil mapping);
- State investments programs (base information and military mapping);
  - Contributions from the SLS revenues;
  - NATO-grants for Ministry of Defence.

With regard to pricing policy, SLS aims at covering costs for the preparation (including copying) and distribution of information but does not pursue any profit from the data distribution.

The law of national information systems accepted in 2002 in connection with electronic systems states that information services must be provided in accordance with laws and regulations, based on the following principle: same price for the same information services.

There was no funding from the state budget for the BSR map. SLS invested own funds.

[1]

Under the Freedom of Information Law, general accessible information which does not require any additional processing has to be provided free of charge. Other information can be charged for, but the charges cannot exceed the expenses of the searching for, additional processing and copying of the documents or information. Charges may be waived or reduced by the institution.

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The SLS and the Statistical Bureau charge a fee for the access to its information, which is determined on a case-by-case basis. On the other hand, the Latvian Environment Agency’s task is to ensure the free access of the citizen to environmental information.

As far as the SLS is concerned, 55% of its income comes from fee services and other revenues, while the remaining 45% is composed by grants from general revenue. In 1997 the SLS was granted a World Bank credit for the development of its material and technical resources, the term of repayment of which is 17 years.
2.3 Component 2: Reference data and core thematic data

2.3.1 Scale and resolution: European, National, Regional, Local, Other

Datasets from SLS are provided at local (1:2,000 for urban zones, 1:10,000 for rural areas), regional (1:50,000) and national (1:250,000) scales. Considering the BSR map also the European scale level is supported. The latter pertains to the territory of Latvia as part of Baltic Sea Region at scale 1:1,000,000.

[1]

Topographic maps 1:50,000 are currently not covering the full national territory. No further information could be found on the SLS-website.

[1]

A Forest register and a Land reclamation register, Geodatasets on field blocks, etc. Are produced by the Ministry of Agriculture.

Datasets on contaminated areas etc. Are produced by local authorities.

2.3.2 Reference data and core thematic data by resolution or scale range

(see table next page)

REF = Reference data, CT = Core Thematic Data
<table>
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<th>Type</th>
<th>Inspire priority</th>
<th>European</th>
<th>National</th>
<th>Regional</th>
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<td>Geodetic reference system</td>
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<td>H</td>
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<td>Blocks and census districts</td>
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<td></td>
<td>Y¹</td>
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<td>Properties</td>
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<td>Buildings</td>
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<td>Ortho-images</td>
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<td>Y (all Latvia area except the Eastern border with Russia – the high resolution satellite images (IKONOS) are available instead of orthophoto images)</td>
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<td>Location of utilities</td>
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<td>Populated places</td>
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</tr>
</tbody>
</table>

[1]

¹= scale 1:2.000 for urban areas, 1:10.000 for rural areas (Real Estate Cadastre Register, Address register)

[14]

²= scale 1:10.000 to 1:50.000 (State Geological Survey of Latvia)

[13]
2.3.3 Geodetic reference systems and projections


The projection system is Transverse Mercator (conformal transverse cylindrical projection), central meridian 24°E, scale factor 0.9998 at 24° – for details see: [http://crs.ifag.de/description_crs.php](http://crs.ifag.de/description_crs.php).

For satellite data the ellipsoid GRS-80 is used.

For mapping on national and regional level the Latvian Geodetic Coordinate System 1992 is used (same as for EE, LT). Major scales are 1:250.000; 1:50.000; 1:25.000 and 1:10.000.

Algorithms for conversion of coordinates to ETRS’89 are available for coordinate systems which are available in Latvia and for calculation of geoid heights in the Latvian area.

Height assessment is done according to the Baltic Normal Heights System of 1977.

2.3.4 Quality of the reference data & core thematic data

The spatial referencing is done based on:

- Planimetric control database (GPS points, triangulation points, polygonometry points);
- Heights control database (benchmarks);
- Gravimetric control database (gravimetric points);
- Mapping areas database;
- Maps database (catalogue of printed maps of different scales and datum);
- Photogrammetry areas database;
- Photo images database (catalogue of aerial and satellite images);
- Archive database (catalogue of documents, kept in the Archive of the State Land Service of Latvia).

2.3.5 Interoperability

The GIS software predominantly used are from ESRI, Intergraph/Bentley, AutoDesk, Smallworld and MapInfo.
NATO standards are used for 1:250,000, 1:50,000, 1:25,000 maps and partly for the 1:10,000 maps.

2.3.6 Language and culture

Metadata, as far as available, is provided in Latvian. Accompanying documents are available in Latvian of which some in English.

2.3.7 Data Content

The text explanation for attributes and for the data dictionary is available.

2.3.8 Geographical names

Geographical names are managed in Latvian with original information on the names of the places. As secondary names Livonian names and dialectal (Latgalian) names may be accepted when standardizing geographical names. State, regional and local toponymic dictionaries are planned. Four unofficial regional dictionaries (containing mainly names of natural features) have been published since 1991. An official gazetteer of Latvia (1:1,000,000) is under construction. Latvia is member of UNGEGN (United Nations Group of Experts on Geographical Names).

2.3.9 Character sets

There are used following national character sets:

For Windows based workstations and graphical files officially cp1257 also widely used unicode cp 775;

For Oracle databases: BLT8CP921;

For ArcInfo databases: ISO8859-13
2.4  **Component 3: Metadata for reference data and core thematic data**

2.4.1  **Availability of metadata for the reference data**

Metadata are produced, but not systematically nor according to a systematic procedure or standard.

[1]

2.4.2  **Metadata catalogues availability + standard**

The creation of a metadata catalogue is one of the planned activities. Metadata of geographical datasets, which are now available are not coordinated and isolated in different departments and databases.

A metadata standard was adopted in 2003. No further information could be found.

[13]

A geological reports catalogue GEOFONDS exists. No standards known.

2.4.3  **Dublin core metadata standards for GI-discovery**

NIA

2.4.4  **Metadata implementation**

NIA
2.5 Component 4: Access and other services for reference data, core thematic data and their metadata

2.5.1 On-line access service for metadata of reference data & core thematic data

Such a service was planned for 2003 but no evidence has been found about its availability in spring 2004.

2.5.2 On-line access service for reference data & core thematic data

Such a service was planned for 2003 but no evidence has been found about its availability in spring 2004.

2.5.3 Inter-linkages of on-line access services for metadata and reference data resp. core thematic data

Such a service was planned for 2003 but no evidence has been found about its availability in spring 2004.

2.5.4 OpenSource software and access services

Not applicable

2.5.5 Availability of web mapping service(s)

Such a service was planned for 2003 but no evidence has been found about its availability in spring 2004.

2.5.6 Availability of catalogue services to regulate access

Not available.

2.5.7 Availability of catalogue services that perform payment operations

Not available.

2.5.8 Availability of catalogue services to extract and send data to a user application

Not available.
2.5.9 SDI user applications

There are several web applications in Latvian language available on the SLS website (http://www.vzd.gov.lv/pakalpojumi/default.asp?id=28). These applications allow the public to browse address registers and the iKarte service (www.ikarte.lv). Applications for consultation of aerial photographs form SLS and of the Real Estate Cadastre is subject to restricted access. These applications (Latvian only) could not be tested during the compilation of this report.

Planned is a browser for the Cadastre register, orthophotos and maps (scale 1:50,000), special web services for ESRI product users, which allow to use orthophotos and maps (1:50,000 scale).

2.5.10 Availability of geo-processing services

Not available on-line. Geo-processing services can be provided on request by SLS.

2.6 Component 5: Standards

A Technical Committee STK-47 on “Geographical Information and Geomatics” has been set up at the Latvian standardization organisation “Latvijas Standarts” interfacing with ISO activities. See: www.lvs.lv (Latvian language only). SLS was the driving force for this initiative.

2.7 Component 6: Thematic environmental data

The Latvian Environment Agency aims to establish an environmental information system. Following projects are the major building blocks:

- Preparation for Latvia’s Compliance with the EMERALD and Nature 2000 Networks of Protected Areas;
- Development of Biodiversity Monitoring System and Establishment of CHM Structures in Latvia;
- Development of lake monitoring program according to EUROWATERNET;
- Designation of water quality monitoring reference stations and reference conditions of rivers and lakes of Latvia;
- Implementation of CORINE Land Cover inventory in Latvia.
2.7.1 Application of the legal framework and funding principles (for reference & core thematic data) to thematic environmental data

NIA

2.7.2 Application of reference data & core thematic data characteristics to thematic environmental data

The environmental information system will be developed in cooperation with SLS. The data quality/scale/resolution will be based on the SLS reference data. The Latvian Environment Agency will participate in the SDI as provider of environmental data and user of reference data & core thematic data.

2.7.3 Application of metadata issues identified for reference data and core thematic data to thematic environmental data

Metadata production and management will be developed in cooperation with SLS. Metadata of environmental data will be free of charge.

2.7.4 Application of access services issues identified for reference data and core thematic data to thematic environmental data

Access services to environmental datasets will be developed in cooperation with SLS. The main principles will be based on the Aarhus Convention – free access to environmental information.

2.7.5 Application of standards issues identified for reference data and core thematic data to thematic environmental data

The environmental information system will adhere to the same standards as the SLS-initiatives.

2.7.6 Application of update procedures issues identified for reference data and core thematic data to thematic environmental data

NIA
## 2.7.7 Data available in the Latvian Environment Agency

<table>
<thead>
<tr>
<th>Geographical location</th>
<th>Type</th>
<th>Inspire priority</th>
<th>European</th>
<th>National</th>
<th>Regional</th>
<th>Local</th>
<th>Other (indicate scale)</th>
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<td></td>
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<tr>
<td>Water catchments</td>
<td>CT</td>
<td>H</td>
<td>Y (103 main basins and sub-basins)</td>
<td>Y</td>
<td></td>
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<tr>
<td>Groundwater bodies</td>
<td>CT</td>
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<tr>
<td>Bedrock geology</td>
<td>CT</td>
<td>L</td>
<td></td>
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<tr>
<td>Climatic regions/data</td>
<td>CT</td>
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<tr>
<td>Bio-ecological regions</td>
<td>CT</td>
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<tr>
<td>Vegetation</td>
<td>CT</td>
<td>L</td>
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</tr>
<tr>
<td>Land Cover</td>
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<td>H</td>
<td>Y (CORINE Land Cover)</td>
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<tr>
<td>Location of facilities</td>
<td>CT</td>
<td>M</td>
<td>Y (pollution sources : stocks, wastewater outlets, environment quality monitoring posts)</td>
<td>Y</td>
<td></td>
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<tr>
<td>Location of utilities</td>
<td>CT</td>
<td>M</td>
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<tr>
<td>Land use regulation</td>
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<tr>
<td>Protected areas</td>
<td>CT</td>
<td>H</td>
<td>Y (Nature protected areas)</td>
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<td>Y</td>
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<tr>
<td>Land regulation/Land use plans</td>
<td>CT</td>
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<tr>
<td>Natural objects</td>
<td>CT</td>
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</tbody>
</table>
2.8 **Use and efficiency of SDI**

A fair evaluation of the use and efficiency of the available (pre-)SDI-components in Latvia is made difficult by the unilinguality of the web sites. It is clear however that important efforts are being taken to create and upgrade reference and core thematic geodatasets. Legal frameworks are being modernised to allow enhanced use of these data. However, the lack of metadata and other access services currently prevents the efficient use and dissemination of and value-adding to the data. Restricted access to geodatasets seems to be rule rather than exception.
3. **Annexes**

### 3.1 List of SDI addresses / contacts for Latvia

<table>
<thead>
<tr>
<th>SDI Name</th>
<th>Web address</th>
<th>Organisational mailing address</th>
<th>Over-all contact person: tel./fax/e-mail</th>
</tr>
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<td>National</td>
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</tr>
<tr>
<td>Preparation for Latvia's Compliance with the EMERALD and Nature 2000 Networks of Protected Areas</td>
<td><a href="http://www.lva.gov.lv/eng/proj/emerald_2000.htm">http://www.lva.gov.lv/eng/proj/emerald_2000.htm</a></td>
<td>(contact person: M. Plotnice) <a href="mailto:Mara.Plotnice@lva.gov.lv">Mara.Plotnice@lva.gov.lv</a></td>
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<tr>
<td>Development of lake monitoring program according to EUROWATERNET</td>
<td><a href="http://www.lva.gov.lv/eng/proj/lake_mon_ewn.htm">http://www.lva.gov.lv/eng/proj/lake_mon_ewn.htm</a></td>
<td>(contact person: Sandra Poikane) <a href="mailto:Sandra.Poikane@lva.gov.lv">Sandra.Poikane@lva.gov.lv</a></td>
<td></td>
</tr>
<tr>
<td>Designation of reference stations and reference conditions of rivers and lakes of Latvia</td>
<td><a href="http://www.lva.gov.lv/eng/proj/ref_stat_cond.htm">http://www.lva.gov.lv/eng/proj/ref_stat_cond.htm</a></td>
<td>(contact person: Sandra Poikane) <a href="mailto:Sandra.Poikane@lva.gov.lv">Sandra.Poikane@lva.gov.lv</a></td>
<td></td>
</tr>
<tr>
<td>Implementation of CORINE Land Cover inventory in Latvia</td>
<td><a href="http://nfp-lv.eionet.eu.int/clc_db/">http://nfp-lv.eionet.eu.int/clc_db/</a></td>
<td>(contact person: Harijs Baranovs) <a href="mailto:Harijs.Baranovs@lva.gov.lv">Harijs.Baranovs@lva.gov.lv</a></td>
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<tr>
<td>State Land Service</td>
<td><a href="http://www.vzd.gov.lv">http://www.vzd.gov.lv</a></td>
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</table>
3.2 List of references for Latvia

Table: list of references used to compile the Country Report

<table>
<thead>
<tr>
<th>Web sites:</th>
</tr>
</thead>
</table>
Publications:

<table>
<thead>
<tr>
<th>Publications</th>
<th>Details</th>
</tr>
</thead>
</table>
4. Additional information on Jana Seta Map Publishers

4.1 Details of Jana Seta Map Publishers

Jana Seta Map Publishers was founded in 1992. Today it is the biggest private map publisher company in the Baltic States.

Field of specialization:

- Town plans (scale 1:5000 to 1:30 000; about 200 editions with towns of Latvia, Lithuania, Estonia and also plan of St. Petersburg)
- Regional maps of Latvia (scale 1:100 000 – 1:200 000)
- Eastern Europe’s and the Baltic States road maps (scale 1:200 000 – 1:2 000 000)
- Several thematic maps and atlases
- GIS databases and programming

4.2 GIS databases of Jana Seta Map Publishers

The geo-information data base of Jana Seta Map Publishers contains data layers of almost all the compiled maps. Information is prepared and stored in ESRI format with ArcInfo® and ArcView® software.

Data are available in all the most often used GIS and CAD software formats in LKS-92 or other coordinate systems. It is possible to add some special attribute information to the existing data layers as well as to develop new, special data layers.

The following data layers are available:

On the territory of Latvia:

- 1: 10 000 scale data base on Riga and other settlements of Latvia (land use, street and road network, railway and public transport network, hydrography, construction sites, addresses, services, other special information etc.
- 1: 100 000 scale district and regional maps (land use, road network, railways, administrative territorial division and borders, farmsteads, hydrography, protected nature territories, farmsteads, services, special information etc.)
- complex data base on scales 1: 200 000 to 1: 400 000 (land use, detailed road network, railways, administrative territorial division and borders, hydrography, protected nature territories, transmission pipelines, special information etc.)

- unified point object data base that correspond to scale 1: 50 000 (populated places, educational establishments, hotels and other accomodation, health care establishments, churches, filling stations, hills and castle mounds, museums, cultural establishments, places of tourist interest, post offices, finance institutions, diplomatic missions, border crossing points, airports and landing fields, railway stations and stop points, seaports, bus stations, beacons, tourist information centres etc.)

- georeferenced raster pictures of all the products of Jana seta Map Publishers - maps and town plans together with grid registration file.

**On other territories:**

- 1 000 000 scale data base on Eastern and Northern Europe (populated places with its original and alternative place names, road network, railways, hydrography, administrative division and borders, hydrography, land use, seaports, airports, national parks and nature reserves, elements of orography, nature and historical areas and other information)

- Europe data base on scale 1: 3 500 000 (populated places, road network, railways, hydrography, administrative division and borders, construction structures etc.)

- World regional data bases on scales 1: 60 000 000 to 1: 60 000 000 (populated places, road network, railways, hydrography, administrative division and borders, antarctic stations, coral reefs, islands, peninsulae, gulfs and straits, capes, distribution and density of population etc.).

Including data layers into the interactive map system JS Latvija it is possible to create a special GIS application to find the necessary solutions for customers.