

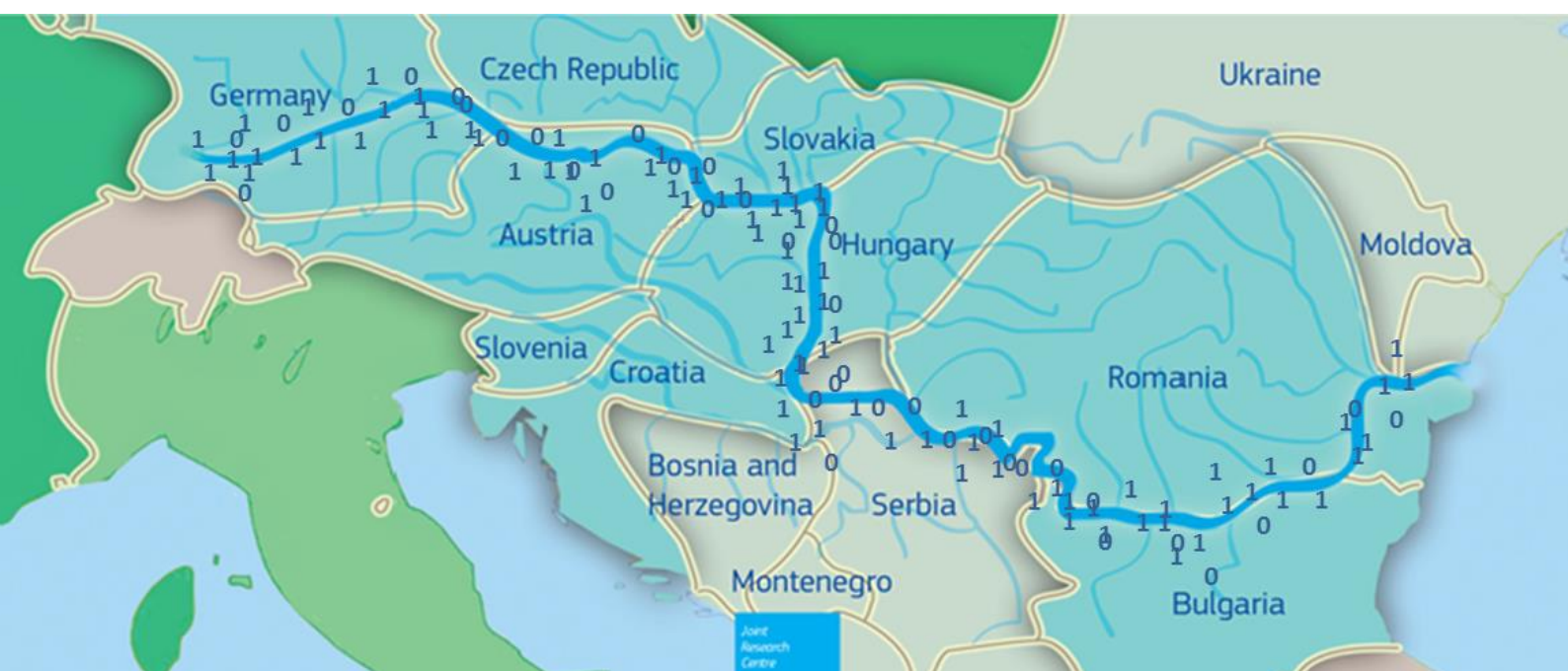
Danube Reference Data and Services Infrastructure

Danube_Net (D1)

State-of-play and organisational context of data infrastructure in ***SLOVENIA***

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(to be updated)

1 Introduction

- Outline of the task

EU Strategy for the Danube Region relies on an integrated approach to encourage better policy development. Policy-makers need access clear and comparable information for the Danube region. The EU Danube strategy aims to boost the development of the Danube Region. Environment protection and other topics such as irrigation and agricultural development, navigability and energy production which are identified as priority areas of the Danube Strategy that the Joint Research Centre (JRC) will support. DRDSI addresses the four vertical priorities: environmental protection, navigability, irrigation and agriculture development, energy production. Better coordination and cooperation between the countries, and between key players, is needed to address these priority areas. Within this document state-of-play and organisational context of data infrastructure in Slovenia is introduced.

- Outline of the document

This document aims to characterise the state of play of the national data infrastructures (NDI) in Slovenia with respect to the DRDSI vertical priorities and include: List of key public and private sector data providers in Slovenia together with list of policy-making organisations, research organisations and organisations who can aid stakeholder engagement working within a Slovenia and in cross-border contexts or at the regional level (such as the ICPDR, the Danube Commission or the Black Sea Commission). In this document is also described current legal context and funding of initiatives aiming at building a national data infrastructure in Slovenia with a list of completed and current projects related to the vertical priorities in Danube Strategy.

- Context of the country and the main players

Slovenia is a southern central European country with population of 2,05 million and area of 20.273 square kilometers. The Slovenian legislation on environmental protection and on water is synchronized with EU legislation and defines the administrative, legislative and economic systems necessary for implementation of an effective management of environment protection and water resources. The policies are based on sustainable development; long term use of water resources and on polluter pays principles. The territory of Slovenia mainly (16,423 square kilometers i.e. 81%) belongs to the *Black Sea* basin, and a smaller part (16,423 square kilometers i.e. 19%) belongs to the *Adriatic Sea* basin. These two parts are divided into smaller units in regard to their central rivers, the *Mura* River basin, the *Drava* River basin, the *Sava* River basin with *Kolpa* River basin, and the basin of the Adriatic rivers. Water management is one of the European Commission's environmental priorities and the water protection has the highest priority. Slovenia has 2,500 km of rivers, 60.8 km² of standing waters, 180 km² of sea and 3,530 million m³ of renewable groundwater.

Different stakeholders cooperate in Slovenia in the implementation of national spatial information infrastructure. These are: the national contact point for INSPIRE, the Intersectoral INSPIRE project group, managers of spatial data sets, individual public institutions and interested users.

2 Data providers

- Overview of key data providers

The main data providers in Slovenia are governmental ministries and agencies. The Slovenian National Assembly adopted the ISI Act (Infrastructure of spatial data information Act) on 26 January 2010. The Act defines the tasks related to the establishment and operation of a metadata system, network services to access the data and their use, coordination in establishing the infrastructure for spatial information (ISI) and the use of this infrastructure. It also defines the tasks of individual public entities responsible for establishing, managing and using spatial data and services, which have to be provided as an integral part of the Slovenian and, thus, also European infrastructure for spatial information. As key data providers mainly the following public authorities and the bodies affiliated to it should be mentioned:

- Ministry of Environment and Spatial Planning, (www.mop.gov.si/) and the bodies affiliated to it:
 - Surveying and Mapping Authority of the Republic of Slovenia, (www.gu.gov.si)
 - Slovenian Environment Agency (www.arso.gov.si)
- Ministry of Infrastructure (www.mzip.gov.si/) and the bodies affiliated to it:
 - Slovenian Road Authority (www.drsc.gov.si)
- Ministry of Agriculture Forestry and Food, (www.mkgp.gov.si/)
- Ministry of Defence (www.mo.gov.si/) the body affiliated to it:
 - Administration of the Republic of Slovenia for Civil Protection and Disaster Relief, (www.sos112.si),
- Ministry of Culture, (www.mk.gov.si)
- Ministry of Economic Development and Technology, (<http://www.mgrt.gov.si/>)
- Ministry of Health, (www.mz.gov.si)
- Ministry of the Interior and Public Administration, (www.mnz.gov.si), (www.mju.gov.si)
- Geological Survey of Slovenia, (www.geo-zs.si)
- Biotechnical Faculty, (www.bf.uni-lj.si)
- Slovenia Forest Service, (www.zgs.gov.si/)
- Fisheries Research Institute of Slovenia, (www.zzrs.si),
- Institute of the Republic of Slovenia for Nature Conservation, (www.zrsvn.si/)
- Statistical Office of the Republic of Slovenia, (www.stat.si)
- other ministries and local communities.

The biggest data provider and also coordinator of spatial data infrastructure is Ministry of environment and spatial planning with two agencies within the Ministry Those two bodies are Surveying and Mapping Authority as national mapping and cadastral agency and Slovenian environmental agency. From those reason those three stakeholders are more detailed describe:

The Ministry of the Environment and Spatial Planning ensures promotes and coordinates efforts toward sustainable development, while striving for social wellbeing based on a wise and efficient use of natural resources. The Ministry directs the spatial development, with the aim of maintaining and developing the quality of architectural and urban heritage and cultural landscape, while at the same time ensuring economic, social and cultural development. It is responsible for adequate water resources, water quality, and sustainable management of surface, underground and seawater, since water is one of the most important natural resources in Slovenia. In pursuing the objectives of sustainable development, the Ministry establishes cooperation with local communities according to the principles of partnership and subsidiarity.

The Surveying and Mapping Authority of the Republic of Slovenia is a body within the Ministry of Environment and Spatial Planning. The competence of the Surveying and Mapping Authority of the Republic of Slovenia comprises the assignments of the national land survey service, which

include the creation, administration and updating of databases pertaining to the basic geodetic system, real estate, state border, spatial units and house numbers, and to the topographic and cartographic system. The land survey service is responsible for the basic data on physical space and real estate in the finalized databases and provides services pertaining to the registration of changes in physical space and on real estate properties, performs the role of a coordinator in the field of the real estate system and the spatial data infrastructure, and, in cooperation with the Ministry of Finance, is introducing mass real estate valuation with the goal of creating foundations for successful and efficient real estate administration and provision of data for objective and comprehensive real estate taxation as well as increased efficiency of the real estate market. It creates conditions for implementing land surveys and ensures the compliance of the national coordinate system with the European coordinate system.

The Environmental Agency is a body of the Ministry of the Environment and Spatial Planning. It performs expert, analytical, regulatory and administrative tasks related to the environment at the national level. Thus the Agency's mission is to monitor, analyze and forecast natural phenomena and processes in the environment, and to reduce natural threats to people and property. These tasks are performed by the national services for meteorology, hydrology and seismology. The Agency's mission is also to monitor environmental contamination and to provide reliable public environmental data; to this end, the Agency has the appropriate measuring network and laboratories in place. Its mission of exceptional importance is, moreover, to meet the requirements regarding environmental protection deriving from the regulations in force, to preserve natural resources and the biotic diversity and to ensure sustainable development of the country.

The Ministry of Agriculture, Forestry and Food of the Republic of Slovenia performs tasks in the following areas: agriculture, rural development, forestry – hunting and fisheries, and food safety and quality. Within the Ministry there are 4 internal bodies which perform tasks relating to the implementation of measures in the areas of agriculture, forestry, foodstuffs and fisheries in accordance with national policy and the EU Common Agricultural Policy; supervise the implementation of laws and other regulations and acts within the operational sphere of the Ministry; carries out the administrative tasks, and inspection and control in the veterinary and phytosanitary sectors. Work of the Ministry is organized within three directorates, which perform tasks in key minister's areas: Directorate for Agriculture, Directorate for Forestry, Hunting and Fisheries and Directorate for Food Safety.

The Ministry of Infrastructure performs tasks in the field of railway transport, air transport, maritime and inland waterway transport and road transport (with the exception of road transport safety control), as well as tasks in the field of transport infrastructure and cableway installations. The Ministry of Infrastructure is structured into offices that perform duties falling within the competencies of the Ministry: Transport Directorate, International Affairs Directorate, Roads Directorate, Railway and Cableway directorate and Civil Aviation Directorate. Within the Ministry of Infrastructure are working also three bodies responsible for operational work on specific areas. These bodies are: The Slovene Roads Authority, The Slovenian Maritime Administration and Road Inspectorate.

The Slovene Roads Authority is a body affiliated to the Ministry of Infrastructure of the Republic of Slovenia. It undertakes technical, developmental, organisational and administrative tasks relating to the construction, maintenance and protection of main and regional roads and some dual carriageway sections, as well as tasks relating to freight and passenger road transport. The tasks of the Slovene Roads Agency also include the preparation of proposals for investment into national roads under its jurisdiction, as well as coordination relating to the designing, construction and reconstruction of roads and its facilities. The Agency collects and processes the various data required in the assessment of road investment decisions and performs tasks adopted by the National Assembly, the Government and the Ministry of Transport.

The Slovenian Maritime Administration was established in January 1995 as a Maritime Administration and is working under the cover of The Ministry of Infrastructure. The Slovenian Maritime Administration is responsible for the economic development of the port infrastructure and safety at sea, inland waters and lakes. Administration carries out a wide range of tasks encompassing all aspects of maritime activity: the safety of navigation, pollution prevention, seaways, ports and harbours, ship surveys, issuing of certificates and documents required to be carried on board ships, port state control, registration of ships, registration of pleasure boats, the issue of seamen books and Certificates of Competence in the Merchant Marine, Boat Leaders Certificates, search and rescue at sea. Primarily in the interest of the safe navigation of ships sailing into the Luka Koper port and additionally for reasons of the fast- growing maritime tourism, the Maritime Directorate, is implementing the role of a national hydrographic administration in cooperation with the Geodetic Institute of Slovenia. The role of the hydrographic administration is to collect and disseminate important information for seafarers and to administer Slovenian nautical maps and other publications important for maritime transport.

• Table 1: List of data providers

Name of organisation	Classified in terms of being public sector, private sector or academic/ NGO	List of typical types of data provided	Willingness / readiness to provide data users new data on request
Ministry of Environment and Spatial Planning (Environmental directorate)	Public sector	- Water, built-up and infertile land use; - Small combustion installations; - Habitats and biotopes: Plant and animal species databases; - Species distributions: Plant and animal species;	YES
Ministry of Environment and Spatial Planning (Spatial Planning directorate)	Public sector	- National spatial planning documents - Public Services and investment directorate	YES
Surveying and Mapping Authority of the Republic of Slovenia	Public sector	- Coordinate reference systems – geodetic points; - Spatial units: Register of Spatial Units, - Addresses Register of Spatial Units; - Real property register - Land Cadastre, - Building Cadastre, - Consolidated Cadastre of Public Infrastructure; - topographic database (DTK 5), - national topographic maps at 1:25,000 (DTK 25) and 1:50,000 (DTK 50), - national general maps (DPK), - generalized cartographic database (GKB), - aerial images and orthophotos, - digital terrain models (DMR, DMV), - Register of Geographical Names (REZI).	YES
Ministry of infrastructure - Slovenian Maritime Administration		- The Bay of Koper map at 1:12,000; - Nautical maps: Piran Bay 02, 1:12,000, 1st edition 2004, Bay of Trieste 03, 1:75,000, 1st edition 2005, Bay of Koper INT 3469, 1:12,000, 1st edition 2005, Slovenian Sea – small maps, 1:15,000, 1:100,000, 1st edition 2005.	YES
Ministry of infrastructure - Slovenian Road Authority	Public sector	Register of public roads	YES
Ministry of Agriculture	Public sector	- Pedological Maps (in cooperation with	YES

		<p>the University of Ljubljana, Biotechnical Faculty – pedological database);</p> <p><u>Data on land use:</u></p> <ul style="list-style-type: none"> - Land use database – RABA; Less-favored areas; <p><u>Data on agricultural and forest land:</u></p> <ul style="list-style-type: none"> - Land identification system – GERK, - Register of farm holdings; - Register of common pastures, - Wine growing units, - Forestry registers and databases; - Cadastre of bee pastures; <p><u>Data on agricultural and aquaculture facilities:</u></p> <ul style="list-style-type: none"> - Register on land consolidation (under construction), agro-melioration and melioration; - Record of irrigation and drainage systems and equipment; 	
Slovenian Environment Agency	Public sector	<p><u>Data on hydrography:</u></p> <ul style="list-style-type: none"> - Water Cadastre, - Water bodies, - Digital base of watersheds, - System for groundwater data storing and processing; <p><u>Data on Protected sites:</u></p> <ul style="list-style-type: none"> - Register of areas of ecological importance, - Register of special protection areas, - Register of natural values, - Register of protected areas; <p><u>Data on land-cover:</u></p> <ul style="list-style-type: none"> - Corine land cover; <p><u>Data on human health and safety:</u></p> <ul style="list-style-type: none"> - Air pollution areas, - Noise charts; - Oceanographic features - data about altitude and temperature of the sea; - Bio-geographical regions; <p><u>Other data:</u></p> <ul style="list-style-type: none"> - Automatic station database for environmental monitoring, - Sampling measuring site for determining water quality, - Water permits for production and industrial facilities; - Hydrographical regulation zones and reporting units; - Natural risk zones - earthquakes, seismic risk; - Climate chart about rain, wind, snow, sun and temperature; 	YES
Ministry of Defence - Administration of the	Public sector	Data of disasters:	N/A

Republic of Slovenia for Civil Protection and Disaster Relief		<ul style="list-style-type: none"> - natural disaster, - fire areas, - traffic accidents, - floods, - landslides, ...) 	
Ministry of Culture	Public sector	Protected sites	YES
Ministry of Economic Development and Technology	Public sector	Energy resources	YES
Ministry of Health	Public sector	Human health and safety data	YES
Ministry of the Interior and Public Administration	Public sector	Population distribution – demography	N/A
Geological Survey of Slovenia	Public sector	<p><i>Hydrology:</i> Water systems, Underground water;</p> <p><i>Geology:</i> Lithological and Tectonical Charts, Hydrogeological and Geothermal Charts;</p> <p><i>Natural risk zones:</i> Landslides database and Gravels database;</p> <p>Mineral Resources: Locations of mineral resources.</p>	YES
Biotechnical Faculty	Academic	Soil at scales 1: 25,000 and 1:250,000	N/A
Slovenian Forest Service	Public sector	Protected forest sites	YES
Fisheries Research Institute of Slovenia	Academic	Protected sites, Agricultural and aquaculture facilities	YES
Institute of the Republic of Slovenia for Nature Conservation	Academic	plant and animal species data	YES
Statistical Office of the Republic of Slovenia	Public sector	Demography and social statistics, economic activity, Environment and natural resources	YES

- Analysis of Table 1 content

At the moment there are a lot of spatial datasets available in Slovenia, but data are not fully compliant with INSPIRE data specifications and there are also no uniform data model or standards for spatial data at national level. The general public in the Republic of Slovenia already uses all the existing elements of infrastructure for spatial information under the conditions defined by the Act on the Access to Information of Public Character (Official Gazette of RS, No. 51/2006 UPB-2) and the Personal Data Protection Act (Official Gazette of RS, No. 94/2007 UPB-1). Thus are mainly the services of data searching, accessing and downloading are available to users.

- Estimate of how ready key actors could be to provide data to DRDSI Platform/Danube Strategy

Data are freely available for all public tasks and purposes and in some cases there are price lists for commercial use of spatial datasets. The right of each person to acquire information held by a public body is laid down by article 39 of the Constitution of the Republic of Slovenia. The main content of the constitutional provision could be described as the right of individuals to get informed about the work of public sector bodies and by this means exercising control over the transparency of their work, thus assuring public control on their decision making processes. To implement the constitutional right to access, the Slovenian Parliament adopted the Access to public sector information Act (PSI). This Act imposes the obligation on public bodies to provide all public sector information, held by a particular public body, on the internet. Each public body is obliged to establish a catalogue of public sector information administered by the public body which is the main framework for the provision of public sector information. Slovenia has adopted a unique pricing and charging policy based on the intended purpose of the re-user. The public body may charge for the PSI reuse for commercial purposes, except in cases of re-use for the purpose of providing information, ensuring the freedom of expression, and re-use of information for purposes of culture and art and media's re-use of information.

At the moment in Slovenia almost all spatial datasets are available to the users by different spatial portals and access points on the internet:

- The Surveying and Mapping Authority has established the national INSPIRE Geoportal (www.geoportal.gov.si), as foreseen by the ISI Act. The portal includes a metadata system, INSPIRE glossary, link to some web applications for data access and key information related to the INSPIRE Directive and its implementation in Slovenia (list of events, data set managers, list of data sets, regulations and materials, and other information). For the majority of data sets in the list of the INSPIRE data sets and for some services related to them the metadata system contains metadata descriptions consistent with the INSPIRE Directive.
- The Surveying and Mapping Authority has established portal Prostor (Space) (<http://e-prostor.gov.si/>), providing access to its data, information on data and the possible methods of access to the data. Users have access to some free data and data samples for all data sets. The portal also allows access to some public services, mainly different types of data accesses.
- The Slovenian Environment Agency as the second largest INSPIRE data set manager in the country has also established its Geoportal (gis.arso.gov.si) for the data sets within its competence, which is compliant with the demands of the INSPIRE Directive. The portal includes a metadata system, a search engine and a browser through data sets, WMS and WFS Internet services (browsing and downloading) and a link to the web data viewer (Environmental Atlas). The portal allows access to more than 150 data sets.

- The Geological Survey of Slovenia has established its metadata portal of geological data compliant with the INSPIRE Directive, available to users at <http://peridot.geo-zs.si/geonetwork/srv/sl/main.home>.
- In addition to the above mentioned institutions there are in Slovenia also several other data set managers, who have established metadata descriptions for their spatial data sets as well as publicly available software solutions that provide search engines through metadata and access to spatial data. They have been developed by the Statistical Office of the Republic of Slovenia, Ministry of Agriculture and the Ministry of Environment, Administration of the Republic of Slovenia for Civil Protection and Disaster Relief, Ministry of Environment and Spatial Planning, Ministry of Culture, the Institute of the Republic of Slovenia for Nature Conservation and some other public authorities.
- Through their data downloading services the Slovenian Environment Agency and the Surveying and Mapping Authority of the Republic of Slovenia allow access to data for their users. A number of Web Feature Services (WFS) have been developed, allowing users standardised downloading of spatial data sets and parts thereof. The services are used by numerous public authorities to access the data of the land cadastre, buildings cadastre, register of spatial units, aggregate economic cadastre of public infrastructure, and others. In this time also the Geological Survey of Slovenia has developed several Web Feature Services (WFS) and Web Map Services (WMS).
- Land Parcel Information System (**LPIS** – www.rkg.gov.si) is a system to identify land use. It provides an overview of data on land use of agricultural holdings, records of actual use of agricultural and forest land, and certain other information: orthophoto and other information. The Surveying and Mapping Authority of the Republic of Slovenia (maps, register of spatial units, cadastral data, digital model of relief), vineyard information, forestry data, control layers for agricultural policy measures, bee pasture, water regulation, the soil map.
- *Nature Conservation Atlas* (www.naravovarstveni-atlas.si) Interactive geographic information system which shows information about the important natural areas in Slovenia.
- SI-Stat Data Portal (www.pxweb.stat.si/pxweb/dialog/statfile1.asp) Provides a modern way of preparing and exporting data for selected categories.
- Portal Emission to waters from Urban Waste Water Treatment Plants (www.vode.arso.gov.si)
- Access services are offered by private sector as well. Some of the largest providers are Geopedia and Bioportal, as well as systems for spatial data access for the needs of municipalities. Some of the largest systems that provide such services to municipalities are the Spatial Information System for Municipalities (PISO) and the Internet system iObčina. Some larger municipalities, such as Ljubljana, Maribor and Koper, have developed their own systems.

- Estimate of what data in support of the EUSDR might possibly be missing

Within discussion with stakeholders it was estimated that a variety of different spatial data are already available in Slovenia (refer to the detailed information above) and that all those data could be used in support of EUSDR. All those data are already used in many different applications on environmental decision making processes on different levels (Ministries, Municipalities, Directorates, Institutes, Agencies etc.). An extensive research based on questionnaires in Slovenia showed very frequent use of orthophoto in different projects and environmental decision making processing in Slovenia. It was reported that orthophoto is used as a layer in GIS applications, in spatial planning, in planning of surveying projects, for complementing topographic data, for transforming digital cadastral maps into the GK projection, for acquiring land cover data, for visualization of spatial data etc. What is orthophoto at national level could be satellite data at regional level. From those reasons we could conclude that earth observation data (satellite and radar data with high accuracy) should be regularly available for entire Danube region in frequent time frame and regular updating period. This will ensure seamless coverage of entire region with homogenous dataset. Benefits of Earth Observation data and systems in environmental monitoring, being even increased by extensive natural disasters in the last years (floods, dryness, fires etc.). So we could conclude that systematic collection of satellite data with high accuracy is missing at the regional level at the moment.

3 Policy-making organisations

- Overview of key organisations related to the Danube Strategy

Ministry of environment with their bodies within Ministry are the most involved organisations and key players related to the Danube Strategy. But there are of course also many other organisations involved.

- Table 2: List of policy-making organisations:

Name of organisation	Classified in terms of central government or regional/local government	List of policy areas they are responsible for (e.g. agriculture, energy etc.)	Completed and current projects creating data or tools to support the EU Strategy for the Danube Region
Ministry of Environment and Spatial Planning	central government	Spatial Planning, Environment, Nature protection, Construction, Investment monitoring and finances	
Surveying and Mapping Authority of the Republic of Slovenia	central government	Space, Land, Real-estate, Buildings, Mass real estate valuation	INSPIRE, ELF
Slovenian Environment Agency	central government	Environment, Nature, Air, Hydrography, Water	EuroWaternet, WISE, SEIS,
Ministry of Infrastructure	central government	Infrastructure, Transport, Energy, Marine	Ten-T
Slovenian Road Agency	central government	Traffic, Roads, Cycle route network	
Ministry of Agriculture	central government	Agriculture, Soil,	LPIS
Ministry of Defence	central government	National and civil defence	
Administration of the Republic of Slovenia for Civil Protection and Disaster Relief	central government	Professional protection and rescue	
Ministry of Culture	central government	Cultural heritage	
Ministry of Economic Development and Technology	central government	Internal market, Tourism, Regional Development	
Ministry of Health	central government	Public care, Healthcare	

Ministry of the Interior and Public Administration	central government	Police and Security service, Internal Administrative Affairs	
Geological Survey of Slovenia	central government	Geological structure	OneGeology
Geodetic Institute of Slovenia	central government	Geodesy, Cartography, Remote sensing, Hydrography, Real-Estate	
Biotechnical Faculty	central government	Education	
Slovenia Forest Service	central government	Preservation and close-to-nature development of forests	
Fisheries Research Institute of Slovenia	central government	Freshwater and marine fisheries	
Institute of the Republic of Slovenia for Nature Conservation	central government	Plant and animal species	
Statistical Office of the Republic of Slovenia	central government	National statistical data	

- Analysis of Table 2 content

The Infrastructure for Spatial Information Act (Official Gazette of RS, No. 8/2010, hereinafter, the ISI Act), which transposed in the Slovenian legal order the Directive 2007/2/ES of the European Parliament and of the Council establishing an Infrastructure for Spatial Information in the European Community (hereinafter the INSPIRE Directive), **determines a national contact point for contacting the European Commission regarding the INSPIRE Directive and for efficient implementation of the infrastructure for spatial information.** The ISI Act specifies that the tasks of the national contact point shall be implemented by the ministry responsible for land survey, which in this case means the Ministry of Environment and Spatial Planning and the Surveying and Mapping Authority of the Republic of Slovenia as its affiliated body.

The Surveying and Mapping Authority was in 2009 nominated as the responsible body for directive INSPIRE implementation process with the following objectives:

- to regulate and co-ordinate Geographical Information policy at a national level, and co-operate with other national and international organizations regarding issues related to geographical information: standardization, legislation, policy, and legal and organizational aspects of data exchange and distribution,
- to develop user services including users requirements analysis, translation of requirements in terms of information processing, technical advice, linking information users and providers and quality support (preparation of quality manual, quality assurance, quality audits),
- to develop metadata services, remote access to metadata catalogues and data provision through a distributed data warehouse systems,
- to raise awareness of the importance of a SDI, including human resources management, research and development, provision of tools, training, and data integration,
- to stimulate the use of Geographical Information and metadata which are available via the geoportal.

The Ministry of Environment and Spatial Planning appointed a Slovenian intersectoral INSPIRE project group, with the responsibility of providing cooperation of all managers of spatial data sets and services, and the users thereof. The group is a strategic body authorised to steer the measures for sharing spatial data sets and services related to spatial data and to implement the INSPIRE Directive in practice. Such coordination group has provided and will continue to provide guidance and assistance to individual public authorities in the preparation of legal acts for the regulation and management of spatial data sets as well as their use. In addition to the Ministry of Environment and Spatial Planning, the coordination group consists also of the following authorities:

- Ministry of Defence – Administration of the Republic of Slovenia for Civil Protection and Disaster Relief
- Ministry of Agriculture
- Ministry of Environment and Spatial Planning – Slovenian Environment Agency
- Statistical Office of the Republic of Slovenia
- Ministry of Culture
- Ministry of the Interior and Public Administration
- Geological Survey of Slovenia

If necessary, the group can also invite to cooperation other representatives from other public authorities, when the subject dealt with relates to their field of work. Administrative support for the work of the coordination group is provided by the national contact point.

Different stakeholders cooperate in Slovenia in the implementation of the INSPIRE Directive. These are: the national contact point, the Intersectoral INSPIRE project group, managers of data sets, individual public institutions and interested users. As key holders mainly the following public authorities should be mentioned:

The intersectoral coordination group performs the tasks of a strategic body authorised to steer the measures for sharing spatial data sets and services related to spatial data and implementing the INSPIRE Directive in practice. The group offers guidance and assistance to individual public authorities managing spatial data and services, so that such data and services comply with the provisions of the ISI Act and the INSPIRE Directive. It steers their work related to the preparation of legal acts in the field of regulating and managing spatial data sets and their use.

• Table 3: Support for the national data infrastructure

Name of policy-making organisation	List of key legal acts responsible for relating to data	List of key initiatives they are involved in	List of key funding sources being used to develop the infrastructure (also classified as regional/national and external funding)
Ministry Public Administration	Strategy of e-business in public administration in Slovenia 2001 – 2004	e-Government, ISA Interoperable Solutions for public Administration	National funding
Ministry Public Administration	Action Plan of e-business in public administration in Slovenia 2010 – 2015	e-Government, ISA Interoperable Solutions for public Administration	National funding
Ministry of Public Administration	Act of electronic commerce and electronic signature	Digital Agenda for Europe	National funding
Surveying and Mapping Authority of the Republic of Slovenia	Geodetic activities Act	Service Directive and Directive of free market and movement of people and goods	National funding
Ministry of Justice	Act of administrative taxes	Public sector Vision	National funding
Surveying and Mapping Authority of the Republic of Slovenia	Recording of Real Estate Act	INSPIRE	National funding
Surveying and Mapping Authority of the Republic of Slovenia	Rules on the terms and conditions and method of computer access to the Land Cadastre, Building	e-Government, PSI	National funding

	Cadastre and Register of Spatial Units		
Surveying and Mapping Authority of the Republic of Slovenia	Act of Spatial Planning	CEMAT	National funding
Surveying and Mapping Authority of the Republic of Slovenia	Infrastructure for Spatial Information Act	INSPIRE, PSI	National funding
Ministry of Public Administration	Decree on communication and re-use of information of public character	PSI	National funding
Ministry of Public Administration	Public Information Access Act	PSI andr e-use of PSI	National funding
Ministry of Environment and Spatial Planing	Waters Act	WISE,	National funding
Ministry of Environment and Spatial Planing	Environmental Protection Act	SEIS	National funding
Ministry of Environment and Spatial Planing	Nature Conservation Act		National funding
Ministry of Environment and Spatial Planing	Council directive of concerning urban waste water treatment	UWWTD	National funding
Ministry of Environment and Spatial Planing	Spatial Development Strategy of Slovenia	CEMAT	National funding

- Analysis of Table 3 content

Although a lot of work has been done in the past period, a large portion of the task of completing the establishment of the spatial data infrastructure still lies ahead of us. The basic coordination structure for the implementation of this task has already been established, but there is still a lot to be done. In accordance with detailed specifications brought by the INSPIRE Directive and the ISI Act adopted on the basis thereof, technical details of spatial data sharing have to be defined, while unifying the rules of accessing the spatial data managed by the public authorities in Slovenia, as well as the pricing policy rules related to these data. The preparation and modification of the data representing the main component part of ISI will also require a lot of effort. The Surveying and Mapping Authority of the Republic of Slovenia and the Slovenian Environment Agency have continuously supported the harmonisation of the spatial data, and have promoted their sharing and accessibility for as many users as possible. Slovenia already meets most of the guidelines and requirements defined by the INSPIRE Directive. Today, there are enough fundamental spatial data

available in Slovenia that are easily available to the users and fairly regularly maintained. The metadata system can also be assessed positively, as it simplifies the search for the users and provides information on the existence of individual data sets, their quality and access terms as well as the pricing policy. The division of the pricing policy to commercial and non-commercial methods of using the spatial data and the financing method of the first establishment of data sets were also in Slovenia resolved in a similar manner as foreseen by the proposal of the change of the Directive related to the access to information of public character. The recent accelerated development of web services has enabled simpler use of data and is paving the path to better and wider use of data. All this gives us a good starting point for further work on the establishment of a quality spatial data infrastructure in Slovenia. A lot of hard work and harmonisation efforts still lie ahead of us, as well as opportunities to open new fields of operations of the Slovenian public administration. Of course, the precondition for this is to provide adequate coordination structure, awareness of all stakeholders of their obligations, as these are actually opportunities for the development, and to assure sufficient financial resources for implementing these tasks.

- Indication of current involvement, or estimate of how engaged they could be, in the Danube Strategy. Indication of how connected they are to data providers. Indication of how mature the policy framework/support is to actively supporting data provision for the Danube Region and any possible barriers, if known.

The established infrastructure for spatial information represents one of the preconditions for sustainable management of natural and built resources. To ensure the appropriate sharing of spatial data sets, it is essential to provide for an efficient cooperation of all participants, and this, we believe, will be one of the most difficult tasks. For this reason, the Ministry of Infrastructure and Spatial Planning and especially the Surveying and Mapping Authority of the Republic of Slovenia have been actively monitoring the process of creating the initiative as well as establishing and adopting the Directive. Namely, they are aware that the recent global progress in switching from paper data and information to digital data and information has been revealing for quite some time yet unknown possibilities for a reversal in data accessing, information forwarding and decision-making based on received information at all levels of society.

Individual spatial data sets are still of unsatisfactory or undefined quality; they are based on commercial geographic information systems and are not available to the public or other users at the local, regional, national and international levels. Therefore, projects that combine data from different sources in order to provide adequate data and tools for the policies are often excessively long and expensive. Slovenia is aware of these barriers and will make its best effort to solve them.

A list of completed and current projects related to the vertical priorities (either for data production or providing tools to support data-sharing) could show how organisations are currently involved or how we estimate their engagement could be, in the Danube Strategy. .

- ELF project (services in cloud platform)
In March 2013 we signed an accession agreement to consortium of project European Local Framework – ELF, which EuroGeographics got on competition, announced by programme ICT/PSP (Competitiveness and Innovation Framework Programme) with European Commission. Goal of project is to ensure common European location framework (ELF), which will be in line with European Interoperability Framework – EIF) and Infrastructure for Spatial Information in Europe – INSPIRE.
- EGP FINANCIAL MECHANISM project (hydro & floods, topo data model...)

The EEA Financial Mechanism Programme for the Republic of Slovenia – in accordance with the Memorandum of Understanding on the implementation of the EEA Financial Mechanism 2009–2014, which was signed by Iceland, the Principality of Liechtenstein, the Kingdom of Norway and the Republic of Slovenia on 21 May 2011 – comprises of 3 programme areas:

1. Biodiversity and Ecosystem Services with the objective “Halt loss of biodiversity”,
2. Conservation and Revitalisation of Cultural and Natural Heritage with the objective “Cultural and natural heritage for future generations safe-guarded and conserved and made publicly accessible”
3. Environmental Monitoring and Integrated Planning and Control with the objective “Improved compliance with environmental legislation” in pre-defined project called “Environmental Monitoring and Integrated Planning and Control”

- UWWTD – SIIF (hydro network & infrastructure)

In the context of the implementation of Directive 91/271 / EEC, the Republic of Slovenia in 2013 joined the pilot project to establish a framework for a structured implementation and information to Directive 91/271 / EEC (UWWTD_SIIF), which takes place at the EU level. In addition, the Republic of Slovenia in the pilot project establishing a national UWWTD_SIIF to be associated with UWWTD_SIIF at EU level, voluntarily cooperate further two Member States, namely Cyprus and Lithuania.

With the planned recast of Information System (IS_UWWTD) is planned better integration of data and information on the requirements of the regulations on the collection and treatment of wastewater, data on the compliance of each of the agglomerations with regulatory requirements, data on the state of the environment and improving the state of the environment due to the implementation of prescribed measures and financing of these measures.

- OneGology (geological data)

OneGeology's aim is to create dynamic digital geological map data for the world. OneGeology is an international initiative of the geological surveys of the world. This ground-breaking project was launched in 2007 and contributed to the 'International Year of Planet Earth', becoming one of their flagship projects. The goal of OneGeology is to bring the three objectives together underpinned by the commonly used geodata standards for the benefit of the society. On one side there are the geo-data providers that need, want or have to share their geoscience data, while on the other side of the chain there are end-users that need and want the reliable access to the geoscience data discoverable in one place and updated in the best possible way. OneGeology makes it possible for these two groups to communicate effectively and promptly.

- E-Spatial (spatial planning data)

Processes in the field of spatial planning, building construction and real estate management it is possible to speed up and improve the compatible (interoperable) spatial databases. The purpose of the project e-space is establishing a common infrastructure for spatial information, establishment of a spatial information system and Implementation of Information renovation and real estate records and Improvement of the positioning accuracy of land cadastral data.

- Atract SEE project

The project is based on real needs expressed by policy and decision makers from different sectors and administrative levels. The project aims to develop tools and approaches, improve the competence and skills needed to monitor and understand interrelated territorial trends, and to incorporate the acquired knowledge into an

integrated policy development process. The project partnership for ATTRACT-SEE includes national and regional stakeholders from the field of spatial planning who will be facilitators of this process. The results of the project will be used by policy/decision makers to improve cooperation and networking on a South East European scale, with a view to reinforcing the role of territorial information in the promotion of cohesion and growth in South East Europe. The Lead Partner is the Geodetic Institute of Slovenia.

- **OBSERVE project**
OBSERVE project has the vision of establishing a new Balkan EO community of multilevel stakeholders that will make use of state of the art technological developments, products and knowhow from the existing European EO community and industry. Our mission is to collect and process all the necessary information for delivering an integrated analysis on the current status of Earth Observation activities and networks in the Balkans regarding environmental monitoring, the potential benefit from the full exploitation of an integrated capacity development strategy and the prospect of creating a relevant permanent Earth Observation Community in the broader region. OBSERVE project has the ultimate goal to raise awareness and establish firm links with the regional decision making bodies on the importance of a mutual and enhanced Earth Observation application network on environmental monitoring according to the principles of the GEO. From Slovenia the Faculty of Civil and Geodetic Engineering has been involved in this programe.

4 Research organisations

- Overview of key organisation related to the Danube Strategy
- Table 3: List of research organisations

Name of organisation	Classified in terms of universities, public research centres and private research firms	Completed and current projects creating data or tools to support the EU Strategy for the Danube Region	Lists of relevant research networks they belong to
The Slovenian Academy of Science and Arts	public research centre	N/A	Section of Historical and Social Sciences, Section of Philological and Literary Sciences, Section of Mathematical, Physical, Chemical and Technical Sciences, Section of Natural Science, Section of Arts, Section of Medical Sciences
The Anton Melik Geographical Institute	public research centre	N/A	
The Jožef Stefan Institute	public research centre	N/A	
The Geological Survey of Slovenia	public research centre	N/A	
The Urban Planning Institute of the Republic of Slovenia	public research centre	N/A	
Geodetic institute of Slovenia	public research centre	N/A	
The Institute for Water of the Republic of Slovenia	public research centre	N/A	
The Slovenian Forestry Institute	public research centre	N/A	Collaborates with Slovenian forestry, timber, and nature conservation organizations, other educational and research organizations both in Slovenia and

			abroad.
National Institute of Chemistry	public research centre	N/A	

- Analysis of Table 3 content

The Slovenian Academy of Science and Arts (SASA) is the supreme national institution of sciences and arts, uniting scientists and artists who were elected to this institution for their particular achievements in the area of science and art. SASA has been also the founder of important research institutes, such as *Jozef Stefan Institute*, *National Institute of Chemistry*, *Turboinstitute* and *Milan Vidmar Electric Power Research Institute*. It should be pointed out that the Academy is the founder of the *Scientific Research center of SASA* which is an autonomous research organization yet closely connected with the Academy. Namely, together with SASA, the Center has been implementing the long-term program Natural and Cultural Heritage of the Slovenian Nation in the following institutes: *Anton Melik Geographical Institute* and *Institute of Anthropological and Spatial Studies*.

Anton Melik Geographical Institute was founded in 1946 by the Slovenian Academy of Sciences and Arts. In 1976 it was named after Slovenia's greatest geographer, academy member dr. *Anton Melik* (1890–1966), who served as the institute's first director. Since 1981, the institute has been one of the members of the Scientific Research Center of the Slovenian Academy of Sciences and Arts. In 2002 the Institute for Geography (established in 1962) and the Geographical Museum of Slovenia (established in 1946) were joined to the institute. From the very beginning, the institute's main task has been to conduct basic and applied geographical research on Slovenia and its landscapes and to prepare basic geographical texts on Slovenia as a country and as a part of the world. Since Slovenia gained independence, in cooperation with other Slovenian geographers the institute's staff has prepared a large variety of basic geographical works on Slovenia as an independent country. These include national, world, school, and census atlases, a dictionary of geographical terminology, a lexicon of Slovenian place names, and a regional and general monograph. The institute participates in numerous projects in Slovenia and abroad, organizes academic conferences, trains junior researchers, and participates in professional exchanges. In the past ten years, the institute's research team has published over 3,000 bibliographic units and made over 500 presentations at conferences in Slovenia and abroad.

The Jožef Stefan Institute : research and development of new technologies (nanotechnology, biotechnology, communication technology, computer technology and knowledge technologies, environmental technologies and reactor technologies).

The Geological Survey of Slovenia : its basic purpose is to ensure the best possible knowledge of the geological structure of the area covered by the Republic of Slovenia. This task is made especially difficult by the fact that Slovenian territory is exceptionally varied geologically, being at the juncture of three great tectonic units: the Alps, the Dinaric Mountains and the Pannonian Basin.

The Urban Planning Institute of the Republic of Slovenia : the central Slovenian scientific research institution for urban and regional planning and related disciplines was established in 1955. Its main activities include the methodology of programming urban development and the shaping of urban geography and sociology, regional economics, applied demography with regard to town-planning forecasting, comprehensive traffic studies, the planning of residential and tourist areas, urban renewal, preservation and landscape design, etc.

Geodetic institute of Slovenia (GIS) has connecting function between the government, science and private sector in the area of geomatics (primarily in the area of geodetic and

hydrographic activity), on the national and international level. Following the Institute's work programme, which is part of the annual programme of the national land survey service, its forty employees perform the following tasks according to the principles of project management: public services, services by public power and services against payment for self-governing local communities and other contracting authorities, e.g. R&D tasks, tasks financed from the European structural funds and tasks for the market.

The Institute for Water of the Republic of Slovenia (IzVRS) is a public research and development institution in charge of expert solutions and development of new knowledge, skills and competencies in water management, planning and implementation. By in-depth and comprehensive research in Slovenia and abroad and by involving diverse types and levels of water planning, the Institute puts forward expert solutions in contemporary management of the Slovenian waters, common European water policy and international strategies and conventions.

The Slovenian Forestry Institute is a public research institute of national importance, which conducts basic and applied research on forests and forest landscapes, forest ecosystems, wildlife ecology, hunting, forest management, and other uses of the resources and services forests provide. The scientific knowledge from these fields helps further the research on forest biodiversity and its management in relation to climate change. The Slovenian Forestry Institute's public environmental service monitors emissions and sinks of greenhouse gases resulting from land use, land use change, and forestry. As a signatory of the United Nations Framework Convention on Climate Change, Slovenia is required to submit an annual report on greenhouse gas emissions and sinks.

National Institute of Chemistry is an internationally recognized research organization for chemistry. Basic and applied research are oriented towards fields which are of long-term importance to both Slovenia and the world: biotechnology, environmental protection, structural and theoretical chemistry, analytical chemistry, materials research, and chemical engineering, through which the institute is in line with the needs of the domestic chemical, pharmaceutical, tire, and food industries. The work of the Institute is also in line with the priority thematic areas of the EU Research and Innovation programme Horizon 2020, which places an emphasis on genomics and biotechnology for health, nanotechnology, quality and safety of food, as well as nutrition, sustainable development, and global change.

- Indication of current involvement, or estimate of how engaged they could be, in the Danube Strategy. Indication of how connected they are to data providers

Many of research institutions are involved in european project related with Danube region at the moment, but there was no comon entry point to those information or even list of project. From this reason we could not detailed describe current involvement of research organisations in Danube Strategy.

5 Stakeholder engagement organisations and networks

- Overview of key organisations who can aid stakeholder engagement to support DRDSI work within the Danube Strategy (including any SME organisations (such as smeSpire¹) or other GI/data-related umbrella organisations (such as EUROGI)
- Table 4: List of stakeholder engagement organisations

Name of organisation	Classified in terms of national, cross-border or whole Danube Region examples	Indication of their main areas of interest	Details of their membership, including number of members, promotional activities, upcoming meetings.
CEKTRA - Centre for Knowledge Transfer – member of EUROGI	whole Danube Region examples	Use of Geospatial data	
Surveying and Mapping Authority of the Republic of Slovenia – UN-GGIM partner	whole Danube Region examples	Policy and strategic documents related with geospatial information management	
Surveying and Mapping Authority of the Republic of Slovenia –member of Permanent Committee on Cadastre in the European Union	whole Danube Region examples	Land Cadastre harmonisation and standardisation in EU	Surveying and Mapping Authority of the Republic of Slovenia participate in work of the Permanent Committee on Cadastre since its inception in October 2002.
Anton Melik Geographical Institute, Research Centre of Slovenian Academy of Sciences and Arts – Chairing of East Central and South-East Europe Division of United Nations Group of Experts on Geographical Names (UNGEGN)	whole Danube Region examples	Geographical names standardisation	Slovenia IS chairing the regional group for Eastern, Central and South-eastern Europe for the second time (first time between 1998-2002); 13 experts is included
The Surveying and	whole Danube Region	Services and policy	The Surveying and

¹ <http://www.smespire.eu>

Mapping Authority of the Republic of Slovenia - a founding member of Eurogeographics	examples	based on topographical and cadastral data	Mapping Authority of the Republic of Slovenia, as a founding member of Eurogeographics is actively involved in the work of its working groups, as well as the maintenance of common data products and services provided by the association Eurogeographics.
The Surveying and Mapping Authority of the Republic of Slovenia – member of UN/ECE Working Party on Land Administration	whole Danube Region examples	Policy and strategic vision related with land administration	In the period between 1999 and 2001 Slovenia chaired the association
Slovenian chamber of engineers – section of surveyors – member of the Council of European Geodetic Surveyors	whole Danube Region examples	Geodetic reference system harmonisation and standardisation	

- Analysis of Table 4 content

Even though a formal coordination structure on the national level (intersectoral working body) has already been established and the cooperation between the managers of spatial data sets has been active for many years, their mutual cooperation still has to be improved. Despite well-defined tasks in the national legislation, it still occurs that the data of particular ministries are not interconnected and are managed in different ways with different software tools. The result is poor interconnectivity of spatial data. Therefore, to provide interoperability, a more formal coordination of data providers and cooperation of all interested parties have to be provided. The basic national registers provide good coordination and a connection to the basic national registers linking addresses, citizens, commercial entities and real estates. For example, a commercial entity cannot register its head office at an address that does not exist in the register of addresses. In addition, a natural person or commercial entity cannot own a real estate if they do not exist in civil registers or business registers, respectively.

- Indication of interest/their views on potential benefits of participating with DRDSI

Examples of cross-border use

In the framework of the project OneGeology-Europe, in 2010 the Geological Survey of Slovenia harmonised the geological data with 20 European geological surveys and established web feature services (WFS). The data specification relies on the GeoSciML standard, which was the base for the INSPIRE data specification for Geology. The data model does not fully comply with the INSPIRE data model, but the harmonisation tasks are planned to start already in 2013.

In 2012 the Geological Survey of Slovenia established web feature services (WFS) for mineral resources within the EuroGeoSource project. The data model is harmonised with 11 European geological surveys and complies with the INSPIRE data specification v2.0, which was available at the time. The differences between the v2.0 and the final version of the INSPIRE data specification for mineral resources are small, thus, the data model is expected to be finally harmonised in 2014.

Since the field of monitoring the advantages and benefits is not systematically regulated in Slovenia at this time, the advantages and benefits can only be assessed on the basis of experiences from our country and from abroad. Due to coordinated updating of the data sets and interoperability implementation, the information solutions will be more rational and the duplication of data and information solutions will be eliminated. In the long-term the enforcement of the Act will reduce the need for financial resources for providing spatial data and the related information. Due to the unification of the data sets and the related services, the future management of all data sets will be more rational.

For the moment it is difficult to give a financial estimate, but the first benefits are already noticeable in the following forms:

- reduced number of requests for data, since users are redirected to web services,
- reduced burden on internal resources,
- eliminated need for each individual data preparation as response to external or internal request,
- accessibility of data to the wider public and professional environment,
- better responsiveness and availability of the system,
- at the time of their establishment the data are more up-to-date and have larger applicable value – more contents,
- beginning of interoperability introduction,
- unified rules for the INSPIRE data are taken into account with each data set renewal.

All those findings and conclusions could be used also for DRSDI.

6 Reports and other documents

- Spatial Data Infrastructures in Slovenia - State of play 2011 (www.stateofplay2011.pdf)

This report presents the status of the NSDI and INSPIRE of Slovenia for 2011. The first part introduces the general NSDI-scene in Slovenia, meanwhile the second part provides details of the Slovenia NSDI. This report presents the coordination and organisational issues, legal framework, key data, metadata, network services, environmental issues, and standards related to the NSDI of Slovenia.

- Overview of the hydrological conditions of surface water in Slovenia - Report on monitoring for 2012 (www.arso.gov.si/PorociloHidroloskemMonitoringuPovrinskihVoda2012.pdf)

This report presents the river stages in 2012. The annual discharges were on average 13 percent smaller than average flow of the comparative period 1971-2000. River discharges were lower than usual since the beginning of the year until September, when the period of above-average discharges began, which was maintained until the end of the year. The total number of occurrences of high water was in 2012 higher than usual, concentrated in October and November. Both hydrological extremes, droughts and floods have caused an enormous damage in that year and Slovenia has requested the European Union for the financial support.

- The 2009 hydrological yearbook of Slovenia (www.arso.gov.si/Yearbook.html)

The purpose of the Hydrological Yearbook is not only to publish data but also to pay greater attention to expert and analytical topics that round off the different areas of work in the various sectors of the national hydrological service. In addition to reviewing hydrological conditions in the observed year, our purpose is also to familiarise readers with the tasks of hydrological development at the agency and with the upgrading and modernisation of gauging sites.

- Assessment of the situation rivers in Slovenia in 2011 (www.arso.gov.si/REKE2011.pdf)

Environmental Agency carries out emission monitoring of river quality. In 2011, on the water bodies took place transparent monitoring. The results of the monitoring were based on an annual assessment of the chemical status of water bodies, rivers, and an annual assessment of the situation in relation to the content of specific pollutants and to assess the biological data, which are published in the report.

- National renewable energy action plan 2010 – 2020 (NREAP) Slovenia (www.energetika-portal.si/NREAP-Slovenia2010-2020.pdf)

Directive 2009/28/EC provides that each Member State must adopt a national renewable energy action plan (hereinafter: NREAP) for the period 2010 - 2020. The objective of the NREAP is to assess and determine the necessary quantitative values of energy consumption from RES by individual sector (heating and cooling, electricity and transport) and to propose measures to facilitate consumption of the desired quantity of energy from RES in future years.

- Environmental indicators in Slovenia (nfp-si.eionet.europa.eu/EnvironmIndicatorsSlovenia.pdf)

The complexity of the environment requires an intricate approach to monitoring. We use environmental indicators to monitor the implementation of objectives under the

environmental legislation in force, providing the reader with an insight into the environment in terms of environmental management that we know today and that we will gradually improve, based on our visions and the implementation of strategic documents and the relevant legislation until we achieve environmental stability. Environmental indicators are presented by means of a five-part assessment framework, which shows the connection between the economy, society and the environment.

7 Conclusions

- Note on how complete the investigation has been and if any particular/recurring problems have been encountered

This state of play report is only part of entire investigation which must be realised if we would like to say that we have comprehensive overview on this topics. During collecting data and informations for this state of play the biggest problem was how to identify all interested stakeholders, because activities regarding with Danube strategy are widely disseminated within many public agencies and institutions in Slovenia.

- Recommendations on how to proceed with key players

By taking into consideration general and specific indicators, it can be determined that, with regard to the use of the spatial data services for the infrastructure, today there are already a number of search and review services in Slovenia, which are not yet in full compliance with the requirements of the INSPIRE Directive. According to the provisions of the INSPIRE Directive and the ISI Act, up to this moment only the review services have been finalised within the Slovenian INSPIRE Geoportal. The use of services relating to the data of the two largest managers of spatial data sets has been growing. The Surveying and Mapping Authority of the Republic of Slovenia provides re-use of its data sets through its website service to almost 30 public authorities and some private associations with the average of almost 100,000,000 requests per year. Monitoring hits at their geoportal, the Slovenian Environment Agency recorded almost 8000 hits per month. Some hits are generated also by service users. During the implementation of their tasks of public character, public authorities in Slovenia need uninterrupted access to appropriate spatial data sets and spatial data services.

- Overall readiness and interest of the region's actors to contribute to
 - the **Danube Strategy, in general**
 - Generally there are great interest of all stakeholders to play as much as possible important role in Danube strategy realisation
 - to the **DRDSI, in detail**
 - At the moment many stakeholders in Slovenia are a little bit confused regarding DRSDI, because they don't know exactly how they could participate in DRSDI more concrete way
 - Examples of where the public, private and academic sectors could be working together for the DRDSI
 - Developing platform for remote sensing data availability
 - Research and development for service platforms of spatial data availability
 - Possible benefits of the platform for key organisations
 - If key organisations will have developed common platform which will be regularly updated and alive, then this will help to clarify many open questions as they occur today
 - we suggest to include education, training, RTD, ICT & innovation areas as enablers
- Key success stories/achievements of organisations (recent or likely to come in next few months)
 - *The European Union's Strategy for the Danube Region (EUSDR) presents challenges in many different ways. Democratization, technology transfer and*

- capacity building, are just some examples. Additionally, we would like to add also spatial data infrastructure and communications.*
- *Since the projects focus is on web 2.0 applications, stable internet - connections and experiences in the IT - sector are favourable.*
 - Key bottlenecks/barriers uncovered
 - *In general in the region and also in particular for any potential key players at the moment are several bottlenecks, but generally this is related with lack of awareness and less of knowledge and informations about possibilities within Danube Strategy and specially DRSDI.*
 - How free and open data is and how likely data may need to be paid for
 - *Many Inter-Municipality Initiative about Cross-border eCollaboration in the Danube eRegion already exists*
 - *<http://esense.eu/> , <http://www.lapsi-project.eu/>, <http://www.esens.eu>, http://joinup.ec.europa.eu/asset/dcat_application_profile/description, <http://open-data.europa.eu/>*
 - How well data is being managed (impacting on infrastructure sustainability)
 - *According to a study carried out by the EC, open (government) data and PSI have an economic potential of 140 billion Euros, by unlocking and facilitating open data an additional benefit of 40 billion Euros might be created. In order to leverage that benefit, organisational undertakings, like the mentioned meta data standardisation or bridging, would have to be performed.*
 - How readily stakeholders could respond to specific requests for new data
 - *In slovenia stakeholders are ready to provide and share datasets because this is obligated related to many legal acts and provisions.*
 - Recommendations on how to proceed with key players
 - Awareness-raising
 - Tools
 - Capacity building/training
 - Networking
 - Funding