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### 1 ADDRESS BY THE GENERAL DIRECTOR

Dear users of the Surveying and Mapping Authority's data and services!

Rapid changes that occur daily in the economy and society as a whole, as well as considerable dynamics in climate changes and their consequences for the environment, require competent authorities to take increasingly more rapid and quality decisions, which can only be provided if relevant information regarding the space is available, the majority of it being geodetic data.

Soon after having gained independence, the Republic of Slovenia started to build a modern real-estate registration and space management system. A part of this represented the projects for updating real-estate registration procedures, and activities aimed at establishing an effective infrastructure for spatial information. As had been happening for many years, in 2010 at the Surveying and Mapping Authority of the Republic of Slovenia, we carried out the activities to provide you, our users, with easy access to and use of quality data from geodetic records and services associated with the use of such data.

In 2010, we dealt with more than 65 000 various applications of clients in the field of land cadastre and buildings cadastre and made consequent amendments to data entered in our records. Besides this, in the real-estate field, in 2010 we carried out the procedure of informing the owners of real-estate by a test calculation of the real-estate value. At the same time as having informed the owners of real estates of the value of an individual real estate, we also provided the owners with an overview of recorded data and the possibility of remediation of any eventual irregularities. After addressing the comments received, we will add values to the real estates in the register. We continued with the activities of general real estate valuation with a view to determine the real estate valuation model for individual groups of real estate of the same type.

We concluded the project of implementation of the new coordination system; however, since altitude and gravimetric systems are to be gradually jointed to the horisontal system, we are already looking forward to preparing a new project in this field. We continued to provide topographic and cartographic data, carried out aerial photographing for a part of the Slovenian territory and updated orthophoto. The percentage of objects entered in the Cumulative economic infrastructure cadastre will soon reach 100%. We provided for the regular operation of permanent GNSS stations.

The aim of all these activities is, naturally, to provide up-to-date data for our users: the state administration, companies, and individual citizens. We provide most of the data electronically. The number of users of the geodetic data distribution system is increasing every year; however, an increase is also recorded in the number of accesses to publicly available data services. Informational support to the administration of real estate records is an ongoing assignment that encompasses the provision of smooth operations of programme solutions, their upgrading and corrections, and provision of smooth operations of the Surveying and Mapping Authority of the Republic of Slovenia.

## 1 ADDRESS BY THE GENERAL DIRECTOR

In 2010, the new Land Survey Service Act (ZGeod-1) was adopted. The main reason for amendments to the legislation in this field was harmonisation with the Directive on services in the internal market due to the legal arrangements of establishment of providers of services and free cross-border performance of services in the internal market of the European Union and of the European Economic Area. ZGeoD-1 also covers new provisions on free establishment of providers of services and free cross-border performance of services in relation to Directive on the recognition of professional qualifications. ZGeoD-1 regulates the performance of the land survey service in the Republic of Slovenia in a clear and systemic manner that ensures free establishment and free provision of services or non-discriminatory treatment of domestic and foreign legal and natural entities that wish to perform land survey service in the Republic of Slovenia.

In January 2010 the Infrastructure for Spatial Information Act was adopted that attributed to the Surveying and Mapping Authority of the Republic of Slovenia a new role of the national contact point. We strive for the Surveying and Mapping Authority of the Republic of Slovenia to follow the path from the administrator of land survey records into the coordinator of activities in the space and mediator of spatial and real estate data. We also act as a connecting point between different interest spheres that operate in the space, thus following the example of modern organised land survey services in the European Union.

We participated in international associations in the field of geodesy and geoinformatics and management of real estate within EU institutions, and maintained professional contacts with neighbouring and South-eastern European countries. We regularly perform assignments to maintain the state borders with Italy, Austria and Hungary in compliance with international contracts.

You can read more on everything that has been mentioned, and more, in the Annual Report hereafter. I hope the report will provide you with plenty of useful information and ideas about how to use our knowledge and products.

I hope you enjoy reading this report!

Aleš Seliškar General Director

### 2.1 The Surveying and Mapping Authority in brief

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, Consolidated Cadastre of Public Infrastructure as well as to the topographic and cartographic system.

The land survey service is responsible for the basic data on physical space and real estate in the finalised databases and provides services pertaining to the registration of changes in physical space and on real estate properties, performs the role of coordinator in the field of the real estate system and the spatial data infrastructure. In cooperation with the Ministry of Finance, it introduces mass real estate valuation with the aim to create foundations for successful and efficient real estate administration and the provision of data for objective and comprehensive real estate taxation as well as increased efficiency of the real estate market. It provides for the national coordinate system, its compliance with the European coordinate system and creates conditions for implementing land surveys.



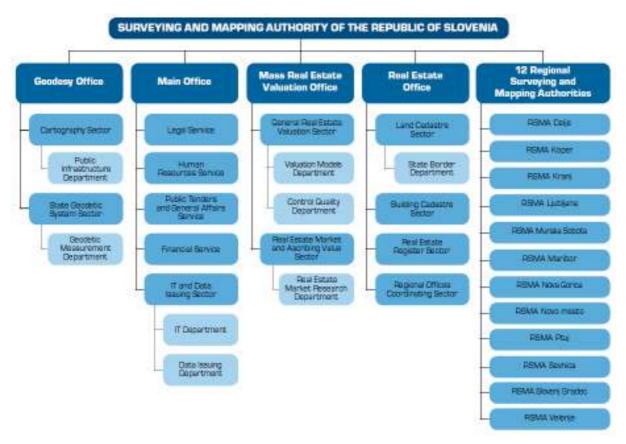
Picture 1: The data of the Surveying and Mapping Authority of the Republic of Slovenia

#### 2.2 Main tasks and activities

The Surveying and Mapping Authority of the Republic of Slovenia comprise: the Main Office, the Real Estate Office, the Mass Real Estate Valuation Office, the Geodesy Office and twelve regional surveying and mapping administration units. These have been set up for streamlined operation and increased accessibility of administrative and professional tasks and services implemented by the Surveying and Mapping Authority of the Republic of Slovenia.

Together with the regional surveying and mapping administration units, the above offices implement the following joint tasks:

- they prepare the national land survey service annual program and the report on its implementation;
- they organise the work of the regional surveying and mapping authorities, monitor their work and ensure the uniform implementation of the national land survey service assignments;
- they direct the implementation of development assignments pertaining to surveying and mapping activities;
- they implement operational, professional and administrative assignments from the offices' fields of work,
- they draft regulations in the field of surveying and mapping activities;
- they implement international obligations in the field of national land survey service.



Picture 2: Organisation chart of Surveying and Mapping Authority of the Republic of Slovenia

### 2.3 Organisation

#### Main Office

The Main office implements administrative, professional, technical and supervisory assignments relative to the linking of spatial databases, the issuing of data and certificates in analogue and digital form, e-commerce with spatial data, spatial data infrastructure and developing electronic land survey service. It administers the information and telecommunication infrastructure, provides systemic, application and user support and IT training and education. Additionally, it implements the assignments pertaining to providing assistance in resolving substantive legal matters of all the offices and regional surveying and mapping authorities, financial operation, public tenders, human resources issues, education, office operation, safety and health in the workplace and other organisational assignments important for the operation of the Surveying and Mapping Authority of the Republic of Slovenia.



**Picture 3:** The headquarters of The Surveying and Mapping Authority of the Republic of Slovenia (photo: Saša Sladič)

#### **Real Estate Office**

The Real estate office implements administrative, professional, technical, coordination and supervisory assignments pertaining to the administration of the Land Cadastre, the Building Cadastre, other records on real estate, administration of state border records, and assignments pertaining to the landmarking, restoration and maintenance of the state border. It implements assignments administering the Register of Spatial Units and the Register of House Numbers. It operates in an interagency capacity in the work of the international committees and other assignments and projects. It is responsible for the training and education of the employees of the Surveying and Mapping Authority and land survey companies licensed to implement geodetic services, it is responsible for implementing special

professional examinations for the implementation of geodetic services, issues licenses for implementing geodetic services, administers the directory of the land survey companies licensed to implement geodetic services and the directory of persons who have passed a special professional state examination for implementing geodetic services, and supervises their work. One of its tasks is also the substantive management and coordination of the work of regional surveying and mapping authorities in the field of real estate.

#### Mass Real Estate Valuation Office

The main results of the activities of the Mass Real Estate Valuation Office are real estate valuation models that provide for the calculation of the market value of real estate, calculated indexes of the value of real estate that enable updating of the market value with regard to price trends in the real estate market during the period in between the general valuations of real estate, recorded data on the real estate market in the real-estate record, and periodic reports on the developments in the real estate market based on the regular monitoring of the real estate market. The Mass Real Estate Valuation Office implements the assignments of general real estate valuation and the tasks of ascribing value to real estate properties. The main tasks of general real estate valuation comprise the preparation of real estate valuation models, determination of real estate value indexes and monitoring of the real estate market. The major products of general valuation are models for individual types of real estate, and value indexes during the periods between general real estate valuations. Offer and demand for various types of real estate are subject to constant changes. On account of the changes in real estate markets, the Office verifies individual real estate valuation models at least every four years. The Office administrates and updates the real estate valuation database, which is a public database on real estate valuation models and data on value indexes. The Office provides for the procedure of ascribing values, where values of all recorded real estate are calculated on the basis of data on real estate entered in the real estate register by using the mass valuation model, and enters the calculated values into the real estate register. The public nature and accessibility of data on the realised prices and rents are essential factors of development and transparency of the real estate market, thus mostly conditioning its effective operation. The Office administers and maintains the record on the real estate market (ETN), which is a multi-purpose, public database on purchases and other legal transactions with real estate.

### **Geodesy Office**

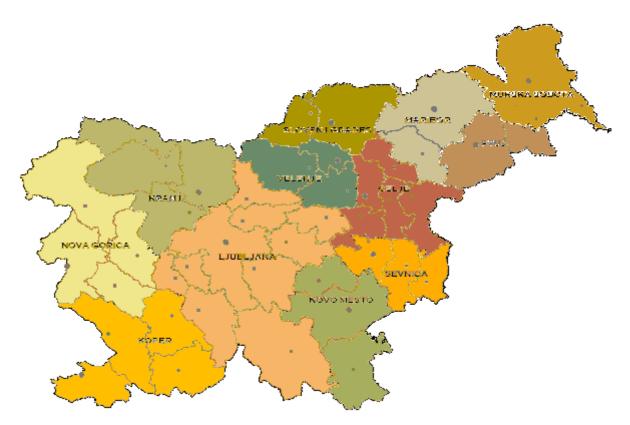
The Geodesy Office is responsible for basic geoinformation infrastructure, represented by the national coordinate system and the national topographic system. In these fields, it implements professional, technical and coordination, implementative and supervisory assignments. It is responsible for the establishment and updating of the national coordinate system and its accessibility through the system of permanent global satellite positioning stations and other geodetic networks. It coordinates the assignments pertaining to the transition to the European coordinate system ESRS (European Spatial Reference System) and is responsible for linking the national coordinate system with the coordinate systems of the neighbouring countries. It carries out field works in the establishment of

horizontal, vertical and gravimetric components of the national coordinate system and for the provision of transformation parameters between the existing national and European coordinate system, and for the control of capturing spatial data of the Surveying and Mapping Authority. The office implements assignments in the field of the acquisition, administration and linking of topographic data, it administers the topographic database and the Consolidated Cadastre of Public Infrastructure, it is responsible for the national cartographic system and ensures the creation of national cartographic and topographic products, especially for the needs of the state, state agencies and local self-government. It ensures the compliance of the basic geoinformation infrastructure with European guidelines and coordinates the linking and compliance of other spatial data with them. It prepares regulations and participates in European and international projects in these fields.

### Regional surveying and mapping authorities

- create, administer and update the Land Cadastre, the Building Cadastre, the Register of Spatial Units and other databases provided by law, provide information from the Land Cadastre, the Building Cadastre and the Register of Spatial Units and other databases;
- implement administrative procedures and make first instance rulings in administrative matters for which they are competent;
- provide professional assistance to customers and information to the users;
- participate in the planning and programming of land survey activities, primarily in cooperation with local communities;
- coordinate activities in the land survey offices;
- implement individual assignments in the areas of financial operation, personnel matters, office operation and other organisational assignments;
- implement other assignments as stipulated by the general director of the Surveying and Mapping Authority.

Regional surveying and mapping authorities implement assignments for receiving applications, informing, issuing data to customers and implementing individual tasks in administrative procedures pertaining to direct contact with a customer at their head offices and all other geodetic offices.



**Picture 4:** Territorial division of the regional surveying and mapping authorities with relevant offices

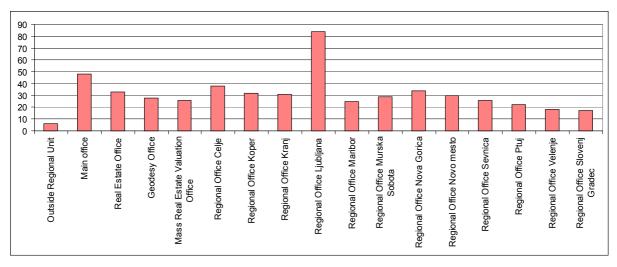
### 2.4 Human Resources

On 31 December 2010, there were 513 permanently employed civil servants at the Surveying and Mapping Authority of the Republic of Slovenia, 14 temporarily employed civil servants, 2 of whom were trainees. 23 employees terminated their employment (permanent or temporary staff), while 3 new employees were employed on a permanent basis. The number of employees decreased by 2.2% in comparison with the end of 2009.

**Table 1:** Number of employees at the offices and regional surveying and mapping authorities on 31 December 2010

Staff structure by their field of expertise in 2010			
Surveyors	280		
Agronomists	10		
IT specialists	16		
Lawyers, financial and administrative staff	221		
Total	527		

Staff structure by education level in 2010			
Academic higher/higher vocational	294		
First level university	47		
Secondary	178		
Elementary	8		
Total	527		



**Graph 1:** Number of all employees at the offices and regional surveying and mapping authorities on 31 December 2010

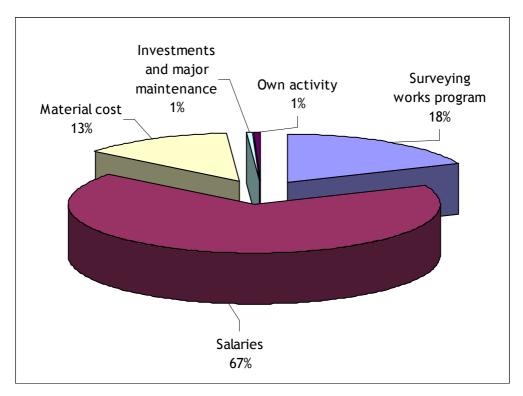
#### 2.5 Finance

The Surveying and Mapping Authority of the Republic of Slovenia is financed mainly from the national budget, and to a lesser extent from income generated through the implementation of its own activities. The surveying works program is prepared for a period of two years and is approved by the Government of the Republic of Slovenia.

During the last two years, the income from the selling of geodetic data and products fell as a consequence of changed regulations. The income derives from its own activities. In compliance with the Budget Implementation Act, the income deriving from its own activities may only be used for covering material costs and the costs of administering and issuing data and products.

Table 2: Budget expenditure in 2010

Budget 2010	in EUR
Surveying works program	3.870.418
Salaries	14.098.625
Material cost	2.753.562
Investments and major maintenance	109.496
Own activity	113.558
Total	20.945.659



**Graph 2:** Shares of expenditure by purpose in 2010

**Table 3:** Implementation of budget appropriations over years (all figures in EUR)

	2006	2007	2008	2009	2010
Surveying works program	6.872.254	12.158.409	2.662.839	3.488.762	3.870.418
Salaries	11.468.995	12.915.929	13.551.555	14.137.920	14.098.625
Material cost	1.991.548	2.714.473	3.072.550	3.004.407	2.753.562
Investments and major maintenance	697.742	495.624	437.209	161.390	109.496
Own activity	520.439	173.759	221.871	110.512	113.558
Total	21.550.978	28.458.194	19.946.024	20.902.991	20.945.659

#### 2.6 International activities

As in past years, the Surveying and Mapping Authority of the Republic of Slovenia actively cooperated in 2010 with similar institutions in the European space and in the South-west Balkan region. It has been actively involved in the European association of surveying and mapping authorities, EuroGeographics, the Permanent Committee on Cadastre in the European Union - PCC, and the Working Party on Land Administration, within the European Commission for Europe, the United Nations Organisation covering the activities of national institutes, in Europe and North America, dealing in Land Cadastre, Land Register, real property valuation, reallocation of land, and land information systems (WPLA).



Picture 5: Eurogeographics General Assembly session, Brussels, Belgium, September 2010

In 2010, the staff of the Surveying and Mapping Authority of the RS actively participated, with their contributions, in various congresses, conferences and sessions of working parties.

In 2010, international cooperation encompassed linking of the work in the area of cadastre within the Permanent Committee on Cadastre in the European Union, where we exchanged questionnaires and prepared common recommendations. Inclusion in the EuroGeographics activities resulted in our participation in certain European projects (European global and regional map, European administrative borders, European digital model of relief, European geographical names, and others). A representative of the Surveying and Mapping Authority of the Republic of Slovenia participated at the annual General Assembly session of Eurogeographics in Brussels where the work programme and 2011 financial plan were adopted.

A representative of the Surveying and Mapping Authority of the Republic of Slovenia participated in the discussion during the round table, regarding: "Exchange of experience on land management in the region (SE Europe - former Yugoslavian territory)", organised by the Administration for Real Estate and Legal Issues of the Republika Srpska in Laktaši near Banja Luka in the Republika Srbska, Bosnia and Herzegovina. The aim of the meeting was to exchange experience and search for an optimal concept of real estate recording in relation to the Draft Land register Act of the Republika Srpska.



Picture 6: Round table in Laktaši

We were included in the expert cooperation and exchange of good practice with other countries in association with the private sector. We continued successful cooperation with land survey services in Austria, Hungary, Croatia, Macedonia, Serbia, Montenegro, Bosnia and Herzegovina and others.

Two representatives of the Survey and Mapping Authority of the Republic of Slovenia took part at the Regional Conference on the Cadastre in Countries in the territory of the former Austro-Hungarian monarchy, held in Vukovar, Croatia. Representatives of survey and mapping authorities from Austria, Croatia, Czech Republic, Hungary, South Tyrol, Trentino, Slovakia and Slovenia participated in the conference.



Picture 7: Conference in Vukovar, May 2010

On 10 and 11 June, the third regional conference was held in Bečiči, Montenegro, organised by the Agency for Real-estate Cadastre of the Republic of Macedonia. In addition to the representatives from Macedonia, representatives from national land

survey services from Bosnia and Herzegovina, the Republic of Serbia, Croatia, Montenegro, Kosovo and Slovenia, as well as representatives of donators from Japan, Norway, the Netherlands, Sweden and the World Bank participated at the conference.



Picture 8: Regional conference on cadastre, Bečiči, June 2010

We carried out activities associated with the establishment of spatial data infrastructure under the INSPIRE directive (Directive 2007/2/EC). A representative of the Survey and Mapping Authority of the Republic of Slovenia, acting as the Slovenian delegate in the INSPIRE Permanent Committee, established by the European Commission on the basis of the INSPIRE directive, participated in 2010 at three meetings of this committee, where he presented Slovenian positions of the documents treated. At the INSPIRE conference in Poland, we participated with a contribution to inform the participants of the situation of transposing the INSPIRE directive into the Slovenian legal order.



Picture 9: Contribution at the INSPIRE conference in Krakow, June 2010

In 2010, the Survey and Mapping Authority of the Republic of Slovenia continued cooperation with the Sweden National Land Survey (hereinafter: NLS) concerning development and introduction of the mass real estate valuation system.

During the working visit of our Swedish colleagues in Ljubljana and Slovenian employees in Sweden, the staff of the Mass Real Estate Valuation Office prepared directions for the development of the mass valuation system and, particularly, the development of mass real estate valuation models by including elements that have not yet been included and could provide for wider use of the mass valuation models.

For a number of years, the Survey and Mapping Authority of the Republic of Slovenia has been participating in the European sub-commission for EUREF reference frame with the International Association of Geodesy - IAG. The principal mission of the EUREF sub-commission is definition, realisation and maintenance of the common European reference system. In 2010, two Slovenia representatives took part in the annual EUREF symposium that was held from 2 to 5 June 2010 in Gävle, Sweden.



Picture 10: Slovenian delegation at the EUREF symposium, June 2010

Within the final activities of the project "Establishment of the European Spatial Reference System in Slovenia", participants in the project visited the Norwegian surveying and mapping authority.



Picture 11: Representatives of the Surveying and Mapping Authority during their visit to Norway

The Surveying and Mapping Authority organised, together with the Ministry of the Environment and Spatial Planning, the final conference of the project "Establishment of the European Spatial Reference System in Slovenia". The project took place from 2007; its implementation was financially supported through the Norwegian financial mechanism. The general objective of the project was the establishment of a modern national geoinformation infrastructure that would enable transition to the European coordinate system.



**Picture 12:** Norway ambassador and the Minister of the Environment with representatives of the Surveying and Mapping Authority of the Republic of Slovenia

The director of the Hungarian Institute of Geodesy and Remote Sensing FOMI visited Slovenia and signed an agreement with the Surveying and Mapping Authority of the Republic of Slovenia on cooperation and exchange of cartographic material.



**Picture 13:** Signing of the agreement on cooperation between the Surveying and Mapping Authority and FOMI

The Surveying and Mapping Authority fulfilled its obligations of maintaining the state border in compliance with international contracts on border maintenance with Italy, Austria, and Hungary, and based on provisions of the State border Control Act. We regularly perform assignments to maintain the state border with Italy, Austria and Hungary in compliance with international contracts.

The staff of the Surveying and Mapping Authority were actively involved in activities of a group of experts on geographical names (UNGEGN - United Nations Group of Experts on Geographical Names), which is a consulting and expert body of the United Nations Organisation.

# 3.1 Overview of the activities of the entire Surveying and Mapping Authority of the Republic of Slovenia in 2010

The majority of tasks set for 2010 have been accomplished in their entirety. In this respect, we must especially emphasise the following results:

The Surveying and Mapping Authority of the Republic of Slovenia prepared proposals for a new law in its regulations preparation process, passed by the National Assembly of the Republic of Slovenia:

• Land Survey Service Act, ZGeoD-1 (Official Gazette of the Republic of Slovenia, No 77/10),

The preparation of the ZGeoD-1 was planned in the Legislative Work Programme of the Government of the Republic of Slovenia for 2010 and the Work Programme of the National land survey service for 2010. The aim of the new ZGeoD-1 is to regulate in a clear and systemic manner the performance of the land survey service in the Republic of Slovenia in such a manner as to ensure free establishment and provision of services to domestic and foreign legal and natural entities that wish to perform land survey service in the Republic of Slovenia. In the new ZGeoD-1, two directives of the European Parliament and of the Council were partly implemented: the new ZGeoD-1 that stipulates conditions for the performance of surveying and mapping activities by providers from European Union Member States, the European Economic Space and Swiss confederation, as well as from third countries, pursuant to Directive 2006/123/EC of the European Parliament and of the Council of 12 December 2006 on services in the internal market, and the Directive of the European Parliament and of the Council 2005/36/EC of 7 September 2005 on the recognition of professional qualifications.

ZGeoD-1 regulates the surveying and mapping activity and stipulates conditions for the performance of this activity, provides for land survey service and organisation, as well as carrying out the assignments of the land survey service, regulates the issue and use of geodetic data, and provides for inspection and other issues in relation to the performance of the land survey service.

We must also emphasise the following rules adopted by the Minister of the Environment and Spatial Planning:

• Rules on general valuation of real estate questionnaire (Official Gazette of the Republic of Slovenia, No 15/10).

In 2010, the Surveying and Mapping Authority of the Republic of Slovenia prepared the text for amendments and supplements to the Mass Valuation of Real Property Act, and submitted this to the Ministry of Finance to prepare a draft act; it also took an active part in the preparation of regulations of other ministries and services.

In the fields of geodesy, topography and cartography, the following assignments were implemented:

- control of configuration of the SIGNAL network of permanent GNSS stations, purchase and upgrade of the necessary technical equipment at several locations of permanent stations;
- operation of the network of permanent GNSS stations was ensured;
- operating of the GPS Office, which monitors network operations and provides users with data, was ensured,
- geodetic measurement was implemented at a 177km levelling line of high accuracy, and gravimetric measurements on the art of levelling network;
- GNSS measurements were carried out at registration points of the levelling line of high accuracy with a view towards geoid control;
- according to the plan, the project "Establishment of the European Spatial Reference System (ESRS) in Slovenia" was concluded and subsided by the Norwegian financial mechanism;
- implementation of the assignment started as a part of the target research programme (CRP) "Competitiveness of Slovenia 2006-2013", entitled "The concept of basic multi-purpose National Geoinformational Infrastructure";
- air photographing was performed of 30% of the Slovenian territory, as well as aerial triangulation and, based on aerial photographs, orthophotos were produced as well as digital relief for the North-eastern part of Slovenia, all in the new European (new national) coordinate system;
- conversion of this data in the existing coordinate system was carried out;
- implementation of the assignment started as a part of the target research programme "Competitiveness of Slovenia 2006-2013", entitled "Combined high-definition procedures of capturing, recognising and maintaining spatial data";
- 8 sheets of the national and military topographic map 1:50,000 (DTK/VTK50) were maintained; pursuant to EuroGeographics standards, hydrography data for the European database, corresponding to the 1:250,000 scale, was updated (EuroRegionalMap-ERM);
- special assignments were carried out for the MD RS in the fields of cartography and topography;
- data conversion in the European coordinate system in accordance with the prepared protocol was not executed;
- in the cumulative cadastre of public infrastructure (GJI), 2,659 total elaborations have already been submitted and more than 4,600,000 (or 90% of the total) GJI objects have already been recorded;
- administrative support was provided in the maintenance of the GJI cumulative cadastre; a system for the protection of GJI was developed during interventions into the environment and a prototype of this system was established in the area of 11 local communities;
- implementation of the assignment started as a part of the target research programme "Competitiveness of Slovenia 2006-2013", entitled "The Value of Economic Infrastructure and the Problem of Ensuring Funds for its Preservation".

In the area of real estate registration, most planned activities for 2010 were successfully carried out. Due to reduced funds, certain assignments were not carried out, or were not carried out in their entirety.

Most of the planned maintenance activities and geodetic surveys at the national borders with Italy, Austria and Hungary were carried out. In the field of operational improvement of real estate records data, adjustments and supplements of data in the Land Cadastre, the Building Cadastre and Land Register were implemented within regular assignments of data maintenance, focusing primarily on the preparation of the Land Register data for carrying out the project "Informing about the trial value assessment", which was carried out in the second half of 2010. Training for geodesists with a geodetic permit, and the Surveying and Mapping Authority staff of the Republic of Slovenia, were carried out.

In the area of real estate valuation, activities in overall real estate valuation were operatively carried out in 2010. The real estate transactions were reviewed and processed for the purpose of making a model of the Slovene real estate market and determining a valuation model of individual types of real estate. The production and distribution environment of the Public Real Estate Market Record was managed and maintained, ensuring a good foundation with regard to improving the transparency of the Slovene real estate market.

A system of overall real estate valuation, in regard to its content and IT, was maintained and upgraded. The models of real property appraisal were established and calibrated on the appraisal date, 1 July 2010, and were the foundation for the trial calculation of value. All real estate entered in the Land register was subject to a trial calculation of value on the basis of data on real estate and the proposal for valuation models. A presentation of real estate valuation models was performed in the usual local manner. Real estate owners were informed about the trial value calculation of their real estate and about data on real estate entered in the Land Register. Information support was elaborated for recording proposals submitted by real estate owners to the real estate valuation models used in the trial calculation of the value of real estate.

In the area of data issuing, the Surveying and Mapping Authority of the Republic of Slovenia provided electronic access to geodetic data to numerous groups of users through the data distribution system, as well as in the usual way of issuing geodetic data certificates at counters of all locations of the Surveying and Mapping Authority and all administrative units. Data was issued in the forms of certificates, maps, plotting, extracts, online browsers, online data distribution and duplicates at counters. In 2010, the distribution system was used by 4,358 registered users from 670 organisational units; 228,289 certificates were issued; in all records, more than 106 million queries were performed. The Data Issuing Department treated 1,178 applications and issued 404 decisions in the re-use of data.

Promotional and other activities for informing the users and the wider community were carried out and various brochures were printed. The Report on the activities of the Surveying and Mapping Authority of the Republic of Slovenia was prepared. A part of funds for the concession of managing the GEOSS area was provided.

In 2010, the Surveying and Mapping Authority of the Republic of Slovenia started with activities to establish common information infrastructure on the basis of the Infrastructure for Spatial Information Act - ZIPI (Official Gazette of the Republic of Slovenia, No 8/10).

### 3.2 Important activities of the Main Office

#### ACCESS TO THE GEODESY OFFICE'S DATA

#### Electronic access to data

The Surveying and Mapping Authority of the Republic of Slovenia established a computer-supported distribution system for the purposes of accessing data online. It is based at the Ministry of Public Administration (MPA) as part of the national information system. It provides access to data in different ways. Practically all the databases are included in the distribution environment: the Land Cadastre, the Building Cadastre, the Register of Spatial Units with Addresses, the Register of Geographical Names, geodetic points, the Real Estate Market Record, the Consolidated Cadastre of Public Infrastructure as well as the vector and raster topographic data. Their regular daily updating is provided. Secure and controlled accesses to personal data are also ensured and individual solutions, developed jointly with e-Administration, are used. The distribution system is separated from the production data, and as such it is as independent as possible of the systems and changes in production, of the organisation of data suppliers and changes in the manner of administration to data updating. Through the creation and use of special interfaces, online services and user applications, it enables a simple, secure, and correct use of geodetic data.

The Surveying and Mapping Authority of the Republic of Slovenia enables its users electronic access to the data online in two ways:

- access to data; and
- distribution of data (data transfer to the user's system).

The Surveying and Mapping Authority of the Republic of Slovenia regularly administers and updates metadata for all the data, which is available to users on its website http://prostor.gov.si.



Picture 14: Online portal "Prostor" (Space)

The online portal is an access point to information, services, and applications related to geodetic and real property information.

### Access to geodetic data

Free access to cartographic data is available to all users, allowing them to search for a location and a display of this location on the selected cartographic basis (orthophoto, a basic topographic map, national topographic maps, etc.) free of charge. It is possible to search a location in two ways - using an address or a geographical name. This, for example, makes it possible to obtain an image and a location of a building on an orthophoto map by supplying its address. This service is available at http://prostor.gov.si/iokno/iokno.jsp.



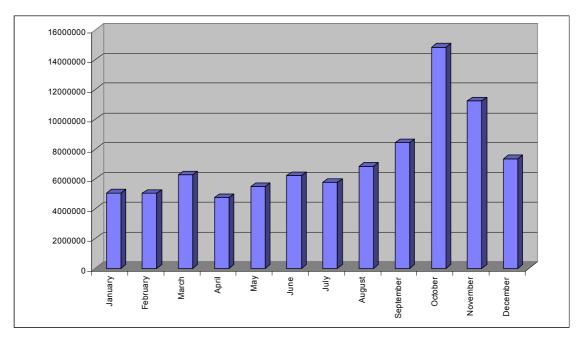
Picture 15: Location search and its display on orthophoto

**Public access** is access to the latest registered data in the Land Cadastre, the Building Cadastre, the Register of Spatial Units, the Consolidated Cadastre of Public Infrastructure, and real estate transactions on the basis of a real estate identifier (land parcel number, a building or part of a building number or an address). The service is free of charge and publicly available at http://e-prostor.gov.si.

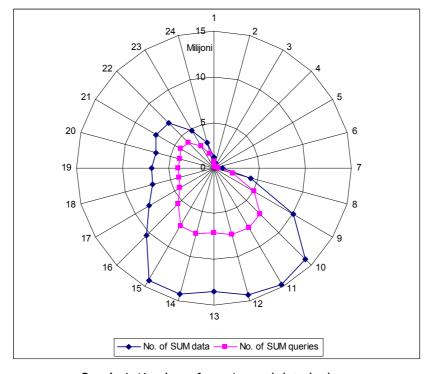
In 2010, Public Access to real estate was upgraded by the following new, extended functionalities:

- larger graphic window;
- the fixed limitation to graphic reviews was abolished, thus unlimited review of graphics is possible for the entire Slovenian territory;
- in the graphic review, the possibility of switching on or switching off of different layers of cartographic basis (Digital Ortophoto Map 1:5,000,

- National General Map 1:50,000 and National General Maps 1:250,000, 1:500,000, 1:750,000 and 1:1,000,000) was added, along with the display of lots or buildings;
- by identifying a lot or building, in the graphic presentation it is possible to move to an attributive display of linked data;
- it is upgraded by a monitor display of the real estate value and its components. Pending the adoption of the Decree on determining models for real estate appraisal, the real estate value will not be published; however, components of individual sections of real estate will be presented.

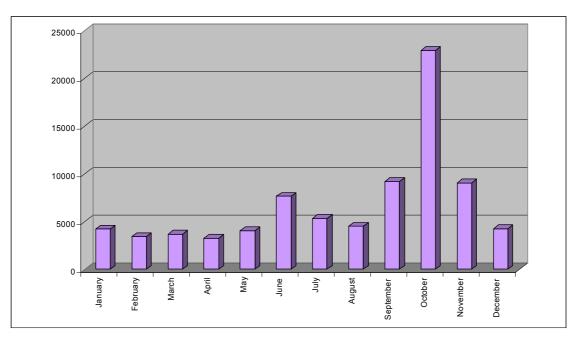


Graph 3: Number of queries by month

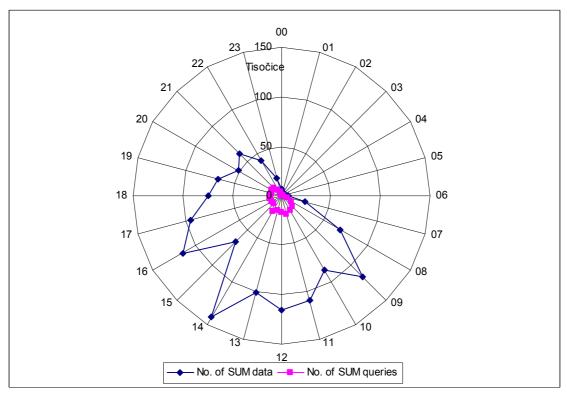


Graph 4: Number of queries and data by hour

**Personal access** allows an individual free-of-charge access to graphic and descriptive data on real estate properties owned by that individual and administered in geodetic records as such. This kind of access allows everyone, after they prove their identity with an appropriate digital certificate, to verify the accuracy of the recorded data in the Land Cadastre, the Building Cadastre and the Register of Spatial Units, and take appropriate action in case of discrepancies (http://e-prostor.gov.si).



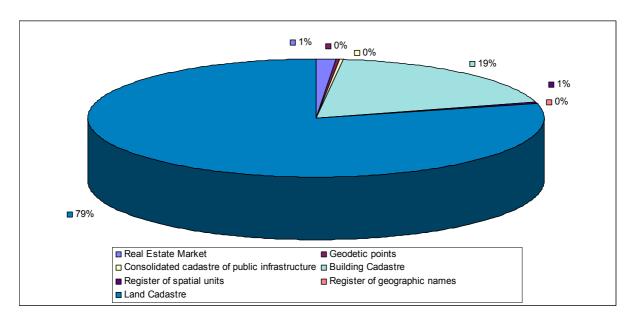
Graph 5: Number of queries by month



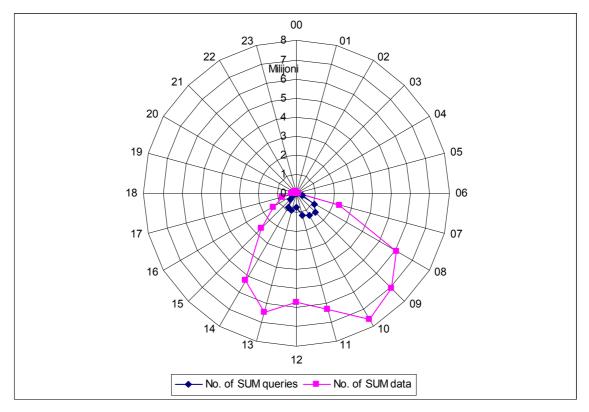
Graph 6: Number of gueries and data by hour

Access for registered users (http://e-prostor.gov.si) enables access to all the geodetic data in the multi-purpose, user-adapted distribution system. This service of access to geodetic data enables browsing by attribute and graphic in all databases that are included in the system. In addition to searching for data, the graphic section of the browser also offers the user all standard spatial functions (navigation, enlargement, reduction, shifting, choice of scale, measurements, choice of image quality, choice of object, etc.). In accordance with the legislation, it is also possible to obtain data on the owner of real estate (land parcel or a building) on the basis of providing a real estate identifier. The browser displays the selected data in the graphic form as well; and depending on the level of detail of the displayed information, it is possible to choose an appropriate cartographic basis (orthophoto, a basic topographic map, a topographic map, etc.) for such a display (e.g. parcel boundaries). This service of access for registered users is intended primarily for users in public administration (national and local level), commercial users (real estate agents, lawyers, insurance agencies, banks, etc.) and land survey service providers.

The number of registered users of the service of accessing geodetic data increases each year. In 2010, 4,294 users from 804 organisations submitted their inquiries for data. 289 new users and 71 organisations were registered. The total number of all registered users is 8.748, and the total number of registered organisations is 1,703.



Graph 7: Number of inquiries by type of data



Graph 8: Number of gueries and data per hour

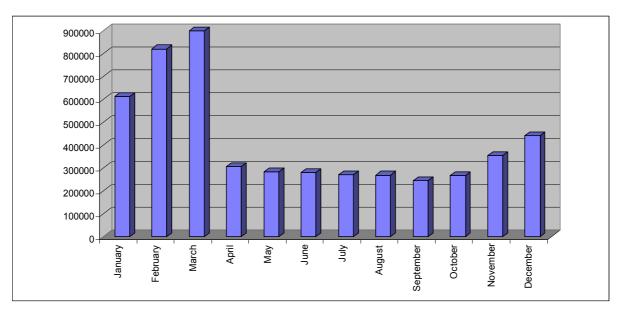
### Distribution of geodetic data

The distribution of geodetic data is intended for "registered users". Special online services, which enable secure and controlled access, enable data transfer from the distribution system to the user's system. Based on the requests made by the user, the distribution system creates standardised files, which the user then copies to their system.

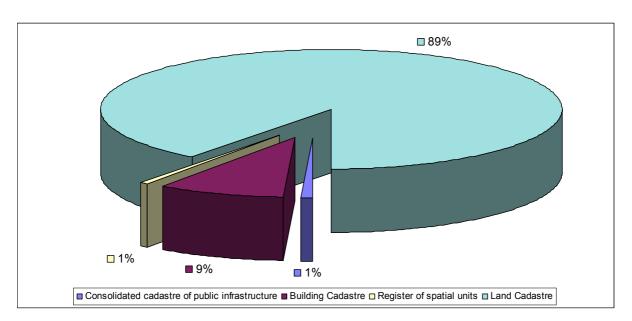
The online services, which the Surveying and Mapping Authority of the Republic of Slovenia began developing in 2006, are in compliance with OGC's recommendations (Open Geospatial Consortium). Online services enable access to digital data in line with standards and recommendations pertaining to the field of geographical information systems and online services, taking into consideration the standards of SIST (the Slovenian Institute for Standardisation), CEN (the European Committee for Standardisation), and ISO (International Organisation for Standardisation) as well as the recommendations made by OGC and W3C (World Wide Web Consortium).

In the initial phase, the Surveying and Mapping Authority of the Republic of Slovenia developed a WFS type (Web Feature Service) online service for the majority of the data provided to users. The basic web services are developed for the Land Cadastre, the Building Cadastre, and the Register of Spatial Units with House Numbers, the Consolidated Cadastre of Public Infrastructure, and the Real Estate Market Register. Simultaneously with the development of web services, the Surveying and Mapping Authority of the Republic of Slovenia also defined the basic interoperability framework based on the XML and GML data exchange format.

A practical use of web services began in the last quarter of 2006, when the larger partners within the public administration (both at the national and local level) started using these services for the purposes of administering and updating the more important national and local registers and records.



Graph 9: Number of gueries by month



Graph 10: Number of inquiries by type of interface

We are also planning to provide these online services to users outside the public administration and to develop WMS web services.

#### Metadata

The Surveying and Mapping Authority of the Republic of Slovenia administers and updates metadata for all geodetic databases. Metadata enables searching by data, providers thereof and areas of preparation; metadata contains descriptions of data

characteristics, data accuracy, the method and frequency of database updating, etc.

Metadata is available at http://prostor.gov.si/CEPP or, when needed in English, at http://prostor.gov.si/cepp\_eng/index.jsp.

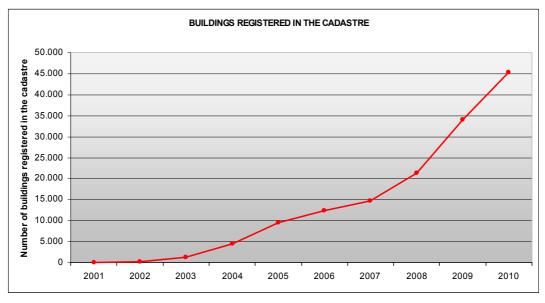
### 3.3 Important activities of the Real Estate Office

### **Building Cadastre**

In 2010, within the preparations for informing real estate owners of the trial real estate value calculation, we paid considerable attention to the improvement of data on buildings and parts of buildings and their connection with data on parcels, data on connection of buildings with house numbers, acquisition of ownership on parts of buildings and arrangement of numbers of apartments in buildings with more apartments, for reporting residences.

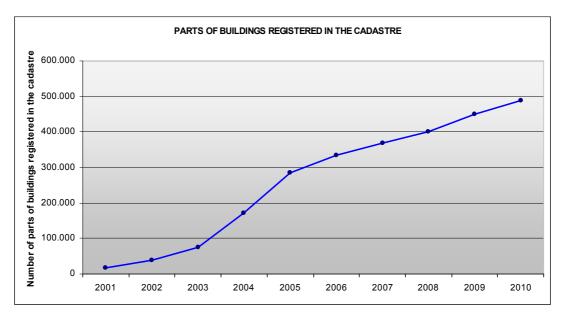
The existing software was upgraded with a view towards more stable operation. With the aim to improve data and simplify the building cadastre procedure, the Format of exchange files of buildings and the format of the files of elaborates for the registration of buildings in the Building Cadastre was changed.

Informing of real estate owners on the trial real estate value calculation included informing such owners of data administered in geodetic records that are also in the Building Cadastre. The real estate inventory in 2006-2007, as well as norification in 2010, triggered an increase in the number of procedures of the registration of buildings and parts of buildings in the Building Cadastre. All elaborations for the registration of a building in the Building Cadastre made in 2010 were not recorded in the Building Cadastre by the end of 2010, since during that period, the Surveying and Mapping Authority of the Republic of Slovenia carried out an intensive informing of real estate owners of the trial real estate value calculation. The delay in registration will have to be made up in 2010.



Graph 11: Number of buildings registered in the cadastre by year

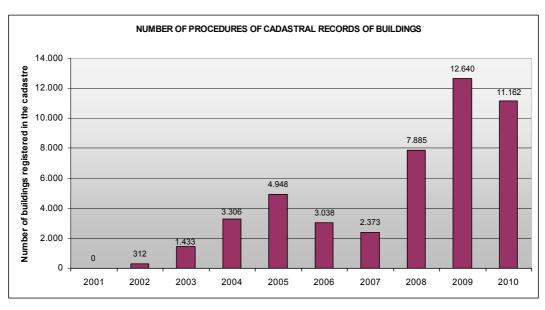
On **31 December 2010, 1,162,062 building** were registered in the Building Cadastre, of which 45,334 were registered according to the Recording of Real Estate, State Border and Spatial Units Act - ZENDMPE (Official Gazette of the Republic of Slovenia, Nos 52/2000, 87/2002 - SPZ and 47/2006 - ZEN) and the Real-Estate Recording Act - ZEN (Official Gazette of the Republic of Slovenia, Nos 47/2006 and 65/2007 - decision by the Constitutional Court and 106/2010-ZDoh-2H).



Graph 12: Number of parts of buildings registered in the cadastre, by year

On 31 December 2010, **1,794,312** parts of building were registered in the Building Cadastre, of which **487,549** or about **27**% were registered according to the ZENDMPE, ZEN and the Act Determining Special Conditions for Registering the Ownership of Individual Parts of Buildings with the Land Register - ZPPLPS (Official Gazette of the Republic of Slovenia, No 47/2003 - u.p.b.).

In 2010, **11,162** procedures of registration of buildings in the Building Cadastre were carried out, of which 125 by official duty by taking over data on the real estate inventory (pursuant to Article 157 of ZEN). For buildings or parts of buildings that are included in the Land Register, about **28,027** procedures of ownership recording were carried out in 2009. In 2012, manual ownership recording on the basis of a resolution of the Land Register or insight into the electronic Land Register is planned to be replaced by electronic data exchange between the Land Register, Building Cadastre and Land Cadastre.



Graph 13: Number of procedures of cadastral records of buildings by year

### The Real Estate Register

In 2010, the Surveying and Mapping Authority of the Republic of Slovenia started with the project "Informing owners on the trial real estate value calculation". For the first time in Slovenia, the collected data on real estate and the mass real estate valuation system enabled the calculation of a trial value for each individual section of real estate stating the probable value that such a section of real estate would gain in the market.

The basic purpose of the project was to inform the owners of real estate of the calculated value of real estate and to collect proposals to such value. The value of real estate is also influenced by real estate data collected in the Real Estate Register. The notification was aimed at notifying owners of data collected in the Real Estate Register and enabling them to use various ways (by post, through web application or by visiting the land survey office) to adjust real estate data with the actual situation and thus provide for the correct real estate value calculation.

For the purposes of this project, the hardware for administering and maintaining the land register was properly upgraded and improved.

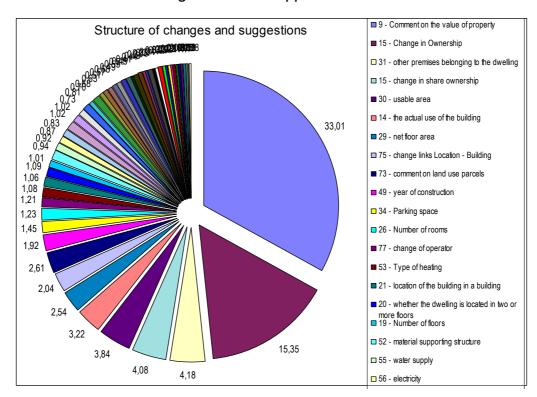
### The project "INFORMATION FOR OWNERS OF THE TRIAL VALUE CALCULATION"

In the first half of 2010, the Surveying and Mapping Authority of the Republic of Slovenia prepared a methodological-technological basis for informing real estate owners of the trial real estate value calculation. Software for data entry, as well as an online application for informing of eventual changes by owners, was designed for the staff of the Surveying and Mapping Authority of the Republic of Slovenia.

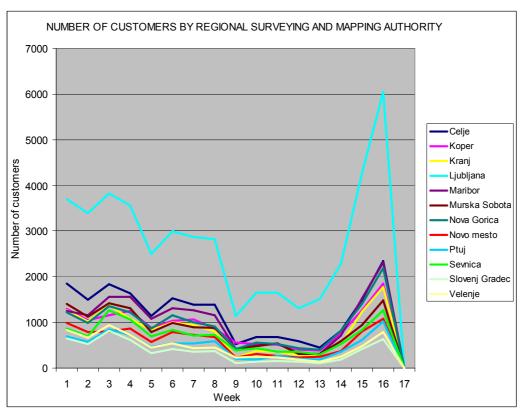
During the period 29 September until 4 October 2010, real estate owners received 1,098,349 notifications of the trial real estate value calculation. A brochure was delivered to Slovenian households on how owners can change and supplement data or submit suggestions to the valuation models. Real estate owners were informed of 84,000,000 real estate data.

From 4 October 2010 until 25 January 2011, real estate owners made changes or suggestions for 1,443,263 data on real estate, which represents 1.71% of all data submitted by the Surveying and Mapping Authority of the Republic of Slovenia by

means of notifications. These changes refer to 545,079 real estate plots, representing 9% of all real estate in Slovenia. During the project, 194,881 real estate owners visited land survey offices in order to arrange data, while 64,252 owners submitted data through the online application.



Graph 14: Structure of changes and suggestions by real estate owners



Graph 15: Number of customers by regional Surveying and Mapping Authority

The owners may submit changes to the real estate data after 25 January by using different methods: by post, at land survey offices' headquarters, or through the online application.

#### Land cadastre

Similar to the building cadastre, in the field of the Land Cadastre, within regular data maintenance and management of administrative procedures, in 2010, we placed a great deal of attention on the improvement of parcel data and its linking with data on buildings or parts of buildings, co-ordination of borders between cadastral municipalities with parcel borders and state borders, and on eliminating unsolved requests in ongoing administrative procedures.

Certain minor upgrades were done to the existing software with a view towards more stable operations.

#### State border

In the area of state border maintenance, we were able to carry out only a part of the activities planned by individual international joint committees.

On the border with Austria, we finished a new assessment for the XX border section (another 30 boundary markers), conducted a new assessment for the XXI border section (265 boundary markers) and carried out the calculation and comparison of coordinates in the XX border sector. We finished periodic control of boundary markers only in the VIII border section (180 boundary markers). Owing to lack of available appropriations, we did not carry out the periodic control in the IX (477 boundary markers), X (393 boundary markers) or XI (300 boundary markers) border sections. We produced new border documentation for the XIX border section.

On the border with Italy, we performed minor maintenance works in border sections 3, 4 and 5. We did not perform the planned vegetation removal in border section 7 due to decreased budgetary resources.

On the border with Hungary, we performed the periodic control in the section from the A199 to the A357 boundary markers (775 of 780 boundary markers), and in the section from A614 to A644, the left bank of Ledava River (775 of 780 boundary markers). Together with the Hungarian party, we prepared final drafts for the new border documentation. We did not perform the planned vegetation removal along the entire border due to decreased budgetary resources.

In 2010, we continued our good co-operation with the Border Police in verifying measures taken on border crossings between Slovenia and Croatia. Since political negotiations related to the determination of the state border with **Croatia** are progressing, we also cooperated with the Ministry of Foreign Affairs and provided them with technical assistance by means of land survey material.

### Coordination of the work of the Regional Surveying and Mapping Authorities

In the field of coordination of the work of the regional surveying and mapping authorities in the real estate area, we provided several operational instructions and clarifications in order to help implementing regular procedures. In cases in which the content of such instructions and clarifications referred to land survey services, the documents were submitted to the Member Sector of the Slovenian Chamber of Engineers, which also provides for the information of land survey companies that carry out such services.

# Training for geodesists with a geodetic permit, and the Surveying and Mapping Authority staff

In 2010, mandatory training was organised and carried out for geodesists with a geodetic permit, employed by land survey companies. To a smaller extent, the training was also attended by Surveying and Mapping Authority staff who conduct administrative procedures related to real estate recording. Considering its content, the training consisted of several sets or topics that were represented at individual training courses in the area of Land Cadastre and Building Cadastre, recording the public infrastructure, transformation of spatial data and use of programme packages (Geos7 and GeoPro 1.0).

### 3.4 Important activities of the Mass Real Estate Valuation Office

The legal basis for the mass real estate valuation is enshrined in the Mass Real Estate Valuation Act, which was adopted in May 2006. This is a new system field pertaining to real estate, real estate prices, values and the real estate market, that consequently affects the operation of and decision-making within all state agencies, municipalities, as well as real estate owners and other citizens.

The real estate market records are regularly kept and maintained. On the basis of verified and improved record data, the Surveying and Mapping Authority of the Republic of Slovenia prepared quarterly, semi-annual, and annual reports on the real estate market performance in Slovenia for 2010. The reports are publicly available on the Internet.



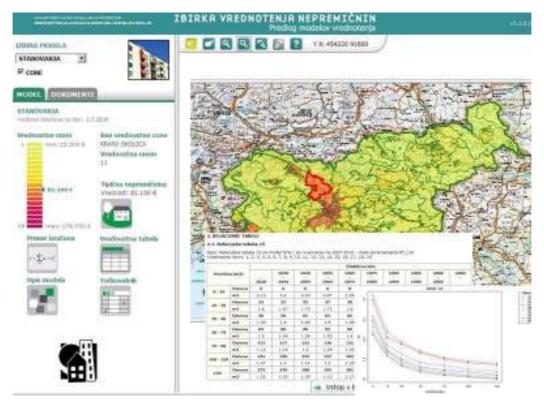
Picture 16: Reports on the real estate market performance in Slovenia

The professional and lay public can access data on the recorded purchases and other transactions in the real estate market records through an online application. This ensures improved transparency in the real estate market in the Republic of Slovenia.



Picture 17: Public access to the real estate property market

Data on purchases and other legal transactions were reviewed and completed in view of drafting model proposals for real estate mass-appraisal, in the process of general real estate valuation, during which several iterations of zoning and calibrating value charts for each real estate valuation model took place separately. In 2010, the real estate valuation models, which were the foundation for the trial calculation of the value of all real estate recorded in the real estate register were established and calibrated on the appraisal date of 1 July 2010. A presentation of real estate valuation models was performed in the usual local manner. Real estate owners were informed about the trial value calculation of their real estate and about data on real estate entered in the Land Register. Information support was elaborated for recording proposals submitted by real estate owners to the real estate valuation models used in the trial calculation of the value of real estate. Their remarks and proposals regarding the real estate valuation models used will be treated according to the mass real estate valuation criteria. After this process is concluded, the Surveying and Mapping Authority of the Republic of Slovenia will prepare a final model proposal for the real estate mass-appraisal to be treated by the Government of the Republic of Slovenia. The first cycle of general real estate valuation will be concluded when the Government of the Republic of Slovenia decides on real estate valuation models. This will enable the calculation of generalised market values of all real estate recorded in the real estate register. Publicly available data on market values of real estate are one of the basic elements of the real estate system in every developed market economy. In Slovenia, this data represents important additional information for all participants in the real estate market, which has economic characteristics and puts real estate management in a new perspective. The mass real estate valuation system is designed as a multitasking system. Data on generalised market value is important in respect of a number of other areas, such as: determining social transfers; monitoring real estate portfolio credit risk; at real estate valuating for buy-offs or expropriation that involves public benefit; at valuating and assessing economic interference into space; and similar. The mass real estate valuation system provides the foundation for methodological upgrades with various needs and uses, and thus represents an important reference frame for values of the procedures and activities related to real estate.



Picture 18: Public access to the real property valuation database

#### 3.5 Important activities of the Geodesy Office

In the field of the national geodetic reference system, activities in 2010 were mostly focused on the transition to the new national coordinate system; in the field of topographic systems, the assignments included acquisition, maintenance and administering of spatial data.

### Transition to the new coordinate system

In 2010, the bulk of activities pertaining to the national geodetic system were marked by the transition to the new European coordinate system, which is gradually being introduced into operative geodetic use. Activities in the following areas were implemented:

#### horizontal system:

- updating of the system software of the national network of permanent SIGNAL GNSS stations (VRS3Net software),
- provision of data of the SIGNAL network to users via mobile GSM service operators;

# 3 WHAT WE ACCOMPLISHED IN 2010...

- establishment of the system for the calculation of daily positions of permanent stations;
- connection of all permanent GNSS stations of the SIGNAL network to the levelling and gravimetric network;
- GNSS observations at points for geoid mounting;
- processing of GNSS observations for determining ellipsoidal heights of levelling points;
- preliminary geo-kinematic model of Slovenia;

# altitude system:

- processing and evaluation of levelling measurement data;
- correction of the Most na Soči Vršič Kranjska gora levelling line of the 1st order;
- correction of the Kranjska gora Radovljica levelling line of the 1st order;
- correction of the Kranjska gora Rateče levelling line of the 1st order;
- stabilisation of registration points on the Postojna Ilirska Bistrica -Kozina levelling line of the 1st order;

### gravimetric system:

- supplementary gravimetric measurements on high-altitude points (registration points).

In 2010, the project "Establishment of the European Spatial Reference System (ESRS) in Slovenia" was concluded that was subsided by the Norwegian financial mechanism. At the final conference with international participation, the Surveying and Mapping Authority of the Republic of Slovenia represented the area of establishment of the modern geo-informational infrastructure as the basis for the sustainable development of Slovenia.



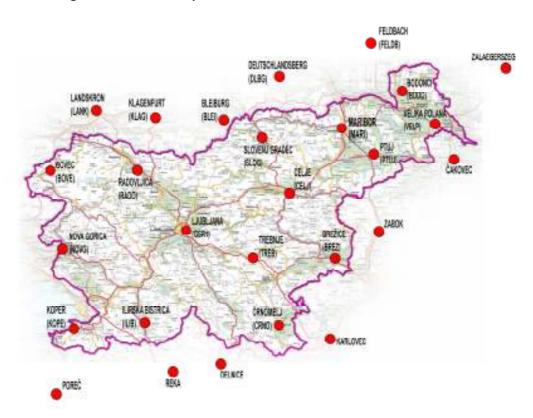
**Picture 19:** The final conference of the project, Ljubljana, November 2010 (Dr. Roko Žarnić, the Minister of the Environment and Spatial Planning)

### Horizontal system

The establishment of the SIGNAL network began in 2000 and finished in 2006 when it was technically established and entered a phase of operative testing.

The SIGNAL network is a fundamental national geo-information infrastructure for determining an accurate position anywhere in the territory of Slovenia by using the modern GNSS satellite technology. It comprises of a network of 15 permanent GNSS stations (receiver and GNSS aerial) and the monitoring and distribution centre, the GPS Service at the Geodetic Institute of Slovenia in Ljubljana. The Ljubljana GNSS station is included in the European network of permanent GPS stations - EPN (European Permanent Network). The GPS service provides for real time data exchanges with five other networks of the Austrian APOS network, six stations of the Croatian CROPOS national network and a station in Hungary (ZALA).

In 2010, we began updating the basic configuration of the SIGNAL network with the new VRS3Net software package, which is intended for network management, and we performed regular controls of permanent stations.



Picture 20: The SIGNAL network stations connected the stations in neighbouring countries

In 2010, the SIGNAL network services became payable for real time use, while RINEX data from the network for the subsequent processing of measurements is available free of charge. Hardware for daily calculations of the coordinates of permanent SIGNAL network stations was designed. A preliminary calculation of the geo-kinematic model of Slovenia was performed on the basis of repeated GNSS observations at points. Its determination was based on the speed of changes of coordinate points.

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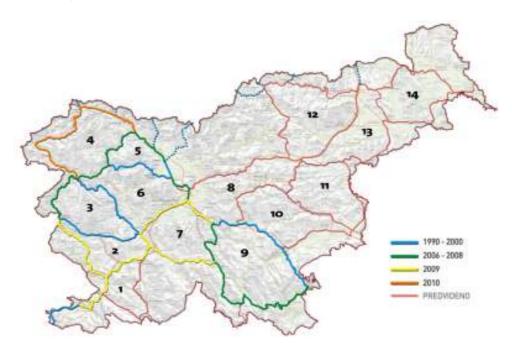
Measurements aimed at connecting horizontal, vertical and gravimetric components of the coordination system were performed at selected geoid mounting points.



Picture 21: GNSS measurements

# Altitude system

In line with the transition to the new coordinate system, the Surveying and Mapping Authority of the Republic of Slovenia will continue to carry out corrections to the levelling network. In 2010, several levelling lines of the 1st order, with the total length of 132km, were measured.



Picture 22: New levelling network with measured lines in recent years (orange for 2010)

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GNSS measurements were performed at certain registration points of the levelling network, with a view towards determining ellipsoidal heights and to control the existing geoid.



Picture 23: Levelling measurement of the 1st order

# **Gravimetric system**

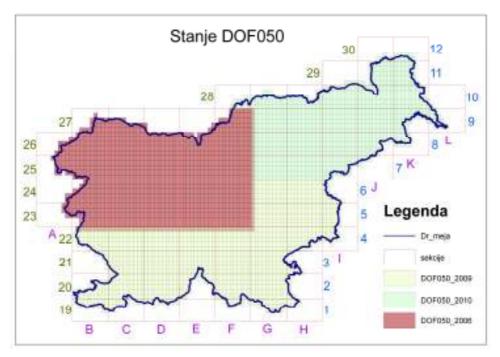
In 2010, gravimetric measurements on high-altitude points were made by means of the Scintrex CG-3 gravimeter, in view of introducing the new altitude system and determining the new geoid of the Republic of Slovenia. We purchased the new relative Scintrex CG-5 gravimeter.



Picture 24: Gravimetric measurement on repers

# Aerial photographing and producing orthophotos

In 2010, aerial photographing of the North-eastern part of Slovenia was carried out (40% of the Slovenian territory). This was done by using the Vexel UltraCam Xdigitalni digital air-camera that produces colour air photos (panchromatic + three colour channels - RGB), with the ground sampling distance (DTI) of 0.25m. The digital relief model and orthophoto were also made for this area by means of DTI 0.5m (DOF050). In cooperation with the Land Survey Institute of Slovenia, all products were subjected to quality control.

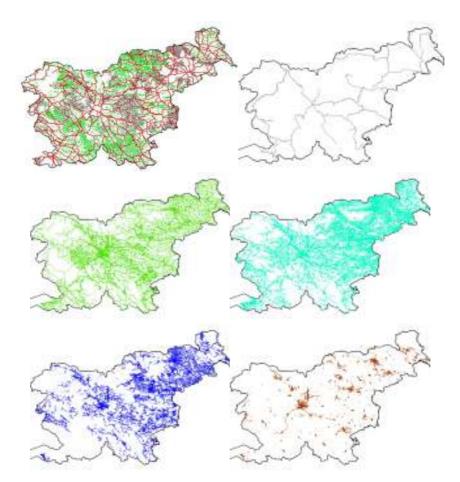


Picture 25: Orthophoto situation with DTI 0.5m, at the end of 2010

### Recording the public infrastructure

With the adoption of spatial legislation in 2002 (Construction Act, 2002; Spatial Management Act, 2002) and 2007 (Spatial Planning Act, 2007) the legal framework for the establishment of systematic recording of the public infrastructure was installed. The Surveying and Mapping Authority of the Republic of Slovenia was assigned the task to ensure technical and organisational conditions for the operation of the system at the national level. In co-operation with competent ministries, local communities, and contractors of public companies, the Surveying and Mapping Authority of the Republic of Slovenia:

- ensured conditions for recording the public infrastructure (data and procedural models for the system of recording the infrastructure were prepared; training and advising for the owners of infrastructure was carried out, as well as coordination with line ministries in the field of legislation and interoperability of systems);
- established a cumulative cadastre of public infrastructure, and
- ensured conditions for accessing the cumulative cadastre of public infrastructure data.



**Picture 26:** Cumulative cadastre of public infrastructure - line 1: roads and railways; line 2: electric power and electronic communications; line 3: municipal infrastructure - water distribution system and sewerage system

The owners of the public infrastructure are responsible for administering their own infrastructure data and sharing it with the public infrastructure cumulative

cadastre. According to legislative provisions, public infrastructure owners are responsible for submitting facility data into the cumulative cadastre within three months following any modification at the latest. Therefore, the integrity and quality of data in the cumulative cadastre depends on individual infrastructure owners. By the end of 2010, 4,600,000 facilities, in the total length of line facilities of 162,887km, were registered in the public infrastructure cumulative cadastre.

**Table 4:** Length and number of infrastructure facilities according to types in the public infrastructure cumulative cadastre on 31 December 2010

Туре	Number of facilities	Infrastructure length (km)
Roads	135,112	49,077
Railways	7,526	2,495
Airports	89	10
Ports	405	1
Cable railways	146	11
Electric energy	687,542	25,409
Gas	248,323	4,530
Thermal energy	26,502	562
Water distribution system	766,275	
Sewerage system	495,587	6,970
Waste management	251	32
Water infrastructure	7,341	183
Electronic communications	2,210,357	53,987
Total	4,585,656	162,887

The public infrastructure cumulative cadastre contains most of the public infrastructure of national importance (e.g. state roads, railways, gas transmission pipelines, water infrastructure, transmission and distribution of electric energy), and infrastructure belonging to municipalities or private owners. In the coming years, the database of newly-built facilities will be completed and maintained.



**Picture 27:** Data in the public infrastructure cumulative cadastre with the example of Ljubljana - Prešernov trg

The system of recording the public infrastructure is designed so as to enable:

 to infrastructure owners: greater protection of infrastructure against damages (if their infrastructure is recorded, every person carrying out activities that affect the physical environment may obtain information on the location of such infrastructure in space and protect the infrastructure against damages during carrying out the activities);

to the owners of infrastructure: greater legal security in managing the infrastructure.

# Development project "Call before you dig"

In 2009, a development project for the service "Call before you dig" was performed at the Surveying and Mapping Authority of the Republic of Slovenia. In 2010, the trial service that was established in 2009 in the territory of the Celje municipal community, was extended to the areas of Dobrna, Vojnik, Štore, Slovenske Konjice, Šmarje pri Jelšah, Rogaška Slatina, Rogatec, Podčetrtek, Kozje and Bistrica ob Sotli. Operation of the service is supported by all data from the cumulative economic infrastructure cadastre

The "Call before you dig" service will enable users to obtain basic information on the occupancy of the space with economic infrastructure within the entire Slovenian territory. The main purpose of the service is to provide a safer economic infrastructure, particularly the underground infrastructure.



Picture 28: "Call before you dig" online application

The service is intended for all legal and natural persons who wish to intervene with the space, which encompasses not only bigger construction interventions but also others, such as: construction of less demanding and simple facilities (construction

# 3 WHAT WE ACCOMPLISHED IN 2010...

of a swimming pool, woodshed, etc.); wells for exploitation of geo-thermal energy; planting trees; or raising a fence.



Picture 29: Graphic interface of the "Call before you dig" online application

The user of the service may obtain data on the occupancy of the space with economic infrastructure within the area of interest, and may also submit data on the location of infrastructure that is not registered in official records. The service is free of charge; currently, somewhat more than 1,200 users have been registered.

#### International participation at the congress in Croatia

The IV<sup>th</sup> Croatian congress on cadastre was held from 15 to 17 February 2010 in Zagreb.

The conference was attended by more than 800 people, mostly from Croatia, and by foreign guests, the majority of them coming from neighbouring countries. As a part of presentations of International papers by the Republic of Austria, the Republic of Serbia and the Republic of Bosnia and Herzegovina, the Surveying and Mapping Authority of the Republic of Slovenia gave its presentation, entitled "Recording of Public Infrastructure in Slovenia". The paper presented the establishment of the public infrastructure recording system, its maintenance, and data issue and capturing. The paper met with an outstanding response and the Surveying and Mapping Authority of the Republic of Slovenia was praised for its successful establishment of the public infrastructure recording system in Slovenia.



**Picture 30:** M.Sc. Nikolaj Sarlah (Surveying and Mapping Authority of the Republic of Slovenia) at the international congress in Zagreb

Introduction of the directive establishing the European infrastructure for spatial information (INSPIRE) at the Surveying and Mapping Authority of the Republic of Slovenia

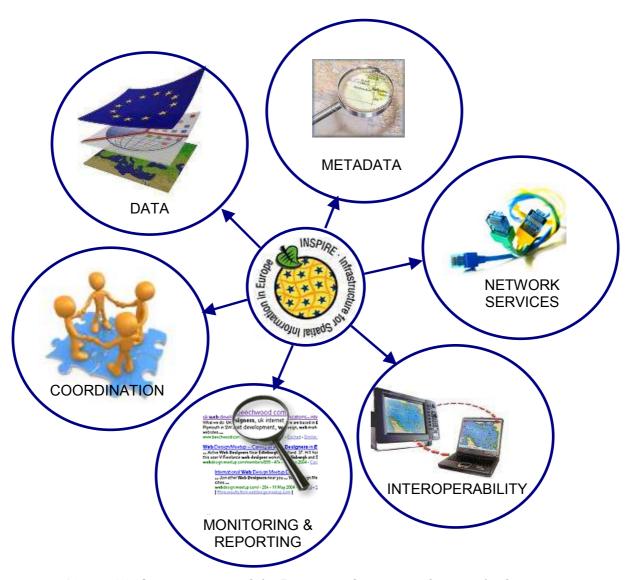


The Surveying and Mapping Authority of the Republic of Slovenia is aware of responsibilities stipulated by the INSPIRE directive. Geodetic data is basic reference data for locating other facilities and phenomena in space and are therefore included mostly in Annexes I and II of the directive. This means that in the process of ensuring access to data and the related services, such data is assigned top priority. The Surveying and Mapping Authority of the Republic of Slovenia also participates in the processes of preparation and adoption of regulations for the implementation of the directive.

In 2010, within the framework of the implementation of the INSPIRE directive, the emphasis was put on the preparation and enforcement of European implementing regulations for the directive. The following two important regulations were adopted: Commission Regulation (EU) No 1089/2010 as regards interoperability of spatial data sets and services, and Commission Regulation (EU) No 1088/2010 amending the valid regulation on network services, providing for download services and services of data transformation.

The Regulation as regards interoperability of spatial data sets and services provides for the detailed structure and content of data sets that refer to subjects in Annex I to Directive, namely to the coordinate system, addresses, parcels, spatial units,

hydrography, traffic and geographical names. The Regulation will have a significant impact on the activities carried out by the Surveying and Mapping Authority of the Republic of Slovenia, by stipulating, in detail, the form, structure and manner for the data to be provided to the European Community. When changing the structure and content of the existing databases, and preparing new ones, data specifications provided for by this regulation will have to be considered, which has already been done by the Surveying and Mapping Authority of the Republic of Slovenia by changing the hydrography catalogue in the topographic database.



Picture 31: Composite parts of the European infrastructure for spatial information

The representative of the Geodesy Office with the Surveying and Mapping Authority of the Republic of Slovenia was appointed a member of the INSPIRE group for data quality. The Surveying and Mapping Authority of the Republic of Slovenia thus participated at the workshop on data quality in INSPIRE, which was organised by the European Commission and held within the regular annual INSPIRE conference in Poland. At the conference, national reports were presented about the situation regarding the quality of databases, and recommendations on the quality of future preparation of data specifications for databases were discussed.

# 3 WHAT WE ACCOMPLISHED IN 2010...

The Geodesy Office continued with activities related to the implementation of the directive regarding linking, single capturing, administering and maintaining data. This includes assignments necessary for the mutual connecting of the Geodesy Office's databases, and linking topographic data with data from other offices and sectors within the Ministry of the Environment and Space. The Office started with introductory activities relating to the linking of data on railways, administered by the company Slovenske železnice d.o.o., and the relevant data administered by the Surveying and Mapping Authority of the Republic of Slovenia in the cumulative economic infrastructure cadastre and topographic database.

The Geodesy Office cooperated in the preparation of the national report on the implementation of the INSPIRE directive in relation to the data of the Surveying and Mapping Authority of the Republic of Slovenia. A list of collections and services that constitute the Slovenian infrastructure for spatial information was elaborated, and data for calculating the indicators for monitoring the introduction and application of the infrastructure for spatial information in Slovenia, was collected.

### 4 STEPS FORWARD IN 2011?

# 4.1 Main and strategic objectives of the Surveying and Mapping Authority of the Republic of Slovenia

The national surveying and mapping authority is responsible for maintaining basic data on the surface of the earth, facilities and real estate (stored in orderly databases), and providing services pertaining to the registration of changes introduced to real estate. Furthermore, it acts as a co-ordinator in the field of the real estate system and spatial data infrastructure, performs real estate massevaluation, and provides data for an objective and comprehensive real estate tax assessment and improvement of real estate market performance. It establishes and administers topographic system data, national maps, establishes and maintains the national spatial coordinate system, ensures compliance of this system with the European coordinate system, and provides for conditions for implementing land-surveys.

Strategic objectives support the development of a comprehensive real estate system and national spatial-data infrastructure in view of providing basic and implemented data and services to all users, and especially to support the implementation of the spatial planning policy, agricultural and land policies, and efficient management of real estate.

In individual fields of operation of the national land survey service, we wish to accomplish the following strategic goals:

#### The Real Estate Office

#### In the field of real estate registration we wish to:

- Improve the quality of data regarding real estate;
- Simplify the procedures, arrange and update data on all real estate in the Land Cadastre, the Building Cadastre, and the Real Estate Register;
- Co-operate in the process of ensuring the conditions for the fulfilment of requirements of the EU INSPIRE Directive in the field of real estate registration;
- Create the core of a comprehensive real estate system, linked to the Land Cadastre, the Building Cadastre, and the Land Register;
- Enable dynamic upgrading of the real estate data in basic databases (hosting data), or entering new data by linking data from other databases to the basic databases (linked data).

By achieving strategic objectives in real estate registration, we will fulfil the requirements for greater legal security of real estate owners, greater security of real estate investments and real estate-related investments; enable more efficient performance of the real estate market and fair and efficient real estate taxation; create the pre-conditions for adopting a more appropriate land and housing policy; plan activities affecting the physical environment; quickly detect and register all

unauthorised activities in the physical environment; and effectively perform activities for the protection and rescue services.

### The Co-ordinator role in the real estate system:

 Coordinates the linking of real estate records and registration of real estate data.

Reaching the strategic objectives in the coordination role in the real estate system will ensure coordinated and sensible real estate data registration without unnecessary duplication, which will enable comprehensive administration and management of real estate.

#### The Mass Real Estate Valuation Office

#### In the field of mass real estate valuation we wish to:

- Establish, administer, maintain and develop a mass real estate valuation system for the purpose of real estate taxation;
- Develop and upgrade the real estate mass appraisal system for other public and business purposes, as the system aims:
  - o to monitor real estate portfolio credit risk, and as a starting point in the mortgage credit value methodology within mortgage banking,
  - o at real estate valuating for buy-offs or expropriation for the public benefit when building public infrastructure and for obtaining other public surfaces, first of all in relation to the placing of spatial arrangements of national importance in the space,
  - o at valuating and assessing economic interference into space,
  - to support all administrative and court procedures related with real estate (taxes, auctions, immovable property, merging or splitting, and land consolidation);
- Develop and upgrade real estate market record with the data on new buildings and the data on the real estate renting market in Slovenia;
- Record quality data on the real estate market situation;
- Establish, administer and maintain data on generalised market values of real estate; Efficiently adjust the mass real estate valuation system to situations on the real estate market.

Reaching the strategic objectives will enable conditions for the transparent operation of the real estate market and the possibilities for the systemic implementation of the market and statistical analysis and trends, provide data on realised prices and rents in the real estate market, and data on generalised market value of all real estate in Slovenia for the purpose of enabling objective real estate taxation, and for other purposes related to real estate, in an extremely effective manner.

# **Geodesy Office**

# In the field of the national coordinate and topographic system, we will:

- prepare new legislation in this field: the Act on the Georeference System that will replace the existing and out-dated Land Survey Service Act of 1974;
- continue to set up the new national coordinate system (horizontal, altitude and gravimetric component) as part of the European coordinate system ESRS (Spatial Reference System);
- ensure the function of the network of permanent GNSS stations and GPS service for the purposes of controlling network functioning, use of the network for carrying out the national geodetic measurement, communication of data for carrying out geodetic surveys, navigation and other geolocation; continue with establishing and maintaining national data about the features of the surface of the earth and objects (topographic data) in topographic databases and data on remote sensing, and provide national maps created in line with international standards;
- carry out the transformation of all georeference data of the surveying and mapping authority and cooperate with users in the transformation of other spatial data;
- further develop and maintain the cartographic system of the Republic of Slovenia for defence purposes in accordance with NATO standards and Slovenian military standards.

Reaching the said objectives will provide more efficient data capturing necessary to maintain and update real estate and spatial records, as well as to geo-locate data and phenomena in ESRS, which will simplify networking, data exchange and co-operation on international projects. National topographic data, cumulative economic infrastructure data and state maps will be expert bases in spatial/environmental planning and management and thus serve as a basis for the production of various topical maps or displays for navigation.

#### In the field of recording economic infrastructure, we will:

- regulate the recording of economic infrastructure;
- ensure conditions for the functioning of the system for recording economic infrastructure;
- record and maintain quality data about the economic infrastructure in the cumulative economic infrastructure cadastre;
- ensure conditions for recording real estate rights over economic infrastructure and for setting up a system for economic infrastructure protection throughout the entire Slovenian territory.

Reaching these objectives in the field of recording economic infrastructure will enable better planning, safer interventions into the environment, and a more economical treatment of economic infrastructure. Recording real estate rights over the economic infrastructure will increase the legal safety of economic infrastructure owners.

# When introducing the INSPIRE Directive, the Survey and Mapping Authority of the Republic of Slovenia will:

- Provide conditions for meeting the requirements of the EU INSPIRE Directive in the field of geodetic databases;
- Ensure access to geodetic data and metadata in accordance with the requirements of the INSPIRE Directive;
- Co-operate with the European Commission in the process of enforcing implementation rules of the INSPIRE Directive, as an authorised organisation
- Co-operate in establishing a national spatial planning data infrastructure harmonised with the provisions of the EU INSPIRE Directive;
- perform activities in the field of connecting geodetic data with data that
  refers to the same facilities and phenomena and are managed by other
  bodies of general public services and private sectors, with a view towards
  ensuring single capturing and joint keeping and management of data.

Reaching these objectives will ensure geodetic data infrastructure, which represents a geo-referential frame for linking all other spatial databases. This will lay the foundations for a comprehensive spatial data infrastructure at the national level. The data infrastructure for geodetic data will be compliant with the provisions of the EU INSPIRE Directive.

#### Main Office

### In the field of issuing geodetic data, we wish to:

- Include the set of all real estate and spatial data in a uniform distribution environment for all users (public and private sector, citizens);
- Ensure all users simple and quick access to data at one place (portal place) through applying e-commerce;
- Inform the expert and general public about geodetic and other spatial data, data-related services, possibilities of using them, and activities of the national land-survey service;
- Preserve cultural and technical heritage in the field of geodesy;
- Gradually enforce guidelines provided for by the INSPIRE directive into the distribution environment;
- gradually set up the Slovenian spatial data infrastructure in compliance with the INSPIRE Directive.

By reaching the strategic objectives, all users of spatial data and geodetic products will be informed of their availability, and effective, safe, quick, and uncomplicated access to such data and services will be ensured.

#### In the field of international cooperation, we wish to:

- Implement European guidelines in the field of recording real estate, mapping, and geoinformatics;
- Cooperate in operative European and multinational projects;
- Cooperate in establishing European and cross-border data sets, taking into account the interoperability of spatial and real estate data and services;
- participate in Slovenian e-government projects;

- In cooperation with the Ministry of Defence, apply the NATO guidelines, taking into account the interoperability in the preparation of topographic and cartographic products;
- Professionally help other countries both in cooperation with the private sector and independently;
- Encourage and support the private sector entities in penetrating and establishing themselves in foreign markets.

Applying European and other international guidelines and actively contributing to their development will enable comparable and coordinated development and performance of the land-survey service in Slovenia.

#### In the field of informatics, we wish to:

- Ensure an information environment for implementing legally prescribed tasks;
- Increase productivity by applying modern technologies and IT resources;
- Introduce standardised interoperable solutions;
- Introduce integrated management of information infrastructure as well as of services and process in informatics.

Reaching strategic objectives will enable an efficient, stable and user-friendly information environment geared towards supporting legally prescribed activities, the business policy of the national land-survey department, and enabling quality management of real estate and spatial databases.

# In the field of organisational structure of the national land survey service, we wish to:

- Develop an optimal organisation of the national land-survey service as part
  of public administration, in connection with other institutions in the field of
  real estate and spatial data recording;
- Establish regional technical and operative centres enabling local performance of the land-survey service;
- Establish an organisational structure that will allow efficient communication of data, performance of services, and provision of information to users.

Reaching the strategic objectives in the organisation of operations will streamline the task performance of the national land-survey service and improve the quality of services offered to users.

#### In the field of education and training, we wish to:

- Ensure the appropriate level of education and competence acquisition of experts in view of effective and efficient task performance of the landsurvey service;
- Develop and upgrade required staff competences in the area of interpersonal relations and leadership;
- Extend users' knowledge in the possibilities of using real estate and spatial data.

Reaching the strategic objectives in education and training will ensure the appropriate level of education and competence of our employees, authorised contractors and users, required to implement assignments.

# 4.2 Projects planned for the coming years

In the field of establishment of the new national coordination system, operation of the permanent SIGNAL GNSS stations network will be ensured, along with its use by the public and private sectors. The transformation model between the existing and the new, European coordinate system for the transformation of spatial data will be supplemented. Time analysis of data of the new national coordinate system horizontal dimension will be implemented with a view towards making the geokinematic model of the Republic of Slovenia. Basic geodetic surveys will be carried out, particularly on the altitudinal section of the coordination system and on the gravimetric network. The project of the concept and the implementation of the materialisation of the coordination system will be elaborated in the form of a combined geodetic network of the zero order that will encompass the horizontal, altitude and gravimetric systems. Due to the importance of the system, we will be striving towards acquiring co-financing from foreign sources intended for financing international projects. The legislative basis for the new national coordination system will be prepared as well.

Considering the management and maintenance of the most detailed topographic data at the national level, the content will be upgraded and a computer system will be established. By capturing and linking records, we will acquire topographic data for a part of the Slovenian territory that is not yet administered. We will continue to harmonise the contents of the topographic database to the most detailed level by means of the INSPIRE Directive implementing rules and organisations that capture and use individual types of data (for example, buildings, hydrography, public infrastructure). Together with the Ministry of Defence, we will maintain the existing national cartographic products. We will subject the topographic system to the new regulations, along with the national coordinate system. We will provide for an integral regulation of recording economic public and private infrastructure in such a manner as to enable recording of ownership right and other real estate rights over such right. We will continue promoting and setting up the system for the protection of economic infrastructure and will provide for an integrated regulation of this field in a separate law. We will carry out the transformation of georeference data of the Surveying and Mapping Authority of the Republic of Slovenia in the new national coordination system, adjusting the dynamic of introduction of this system to users.

We will take part in European processes of introducing principles and fulfilling requirements of the INSPIRE Directive. We will follow and participate in the adoption procedure of the INSPIRE Directive's implementing rules, compare existing solutions in the field of the Slovenian spatial database infrastructure with the adopted implementing rules, and prepare measures and projects for ensuring compliance of data and related services. We will continue our cooperation with other sectors in relation to linking contents that are administered in more

databases in accordance with the INSPIRE principles regarding the management and refreshing of data on the same object groups in one place.

After the conclusion of the first general real estate valuation, the mass real estate valuation system will be enforced and introduced. All real estate in the real estate register will be attributed the generalised market value of real estate, which represents important additional information for all users in the public and private sectors, which is essential in the sense of successful and efficient management of real estate and preparation of appropriate housing, land, spatial and environmental strategies or policies. The mass real estate valuation system is a multi-purpose system; therefore, we plan to produce various online services and applications adapted to various types of users, for example, municipalities, system state users, banks, insurance companies. We plan to carry out real estate market analysis for various purposes. Furthermore, we are planning an upgrade of the existing and development of new real estate mass valuation models for certain types of real estate, for example, hotels and restaurants. All development tasks will be included in the new cycle of procedures of the general real estate valuation, and implemented in future.

### Improvement of land-cadastre display

Within treating the condition in the field of real estate valuation, the Government instructed the Ministry of the Environment and Spatial Planning to provide for the preparation of methodological and technological solutions in planning the improvement of the Land Cadastre. Owing to its method of setting up and maintenance, the graphical part of the Land Cadastre no longer satisfies the needs of all users, particularly in cases when comparisons and cross-sections with databases that were designed on other graphical bases (digital orthophoto) are carried out.

In 2011, methodological and technological solutions will be prepared for the implementation of improvements to be made to the Land Cadastre. New informational solutions will be developed or existing solutions will be supplemented, and will provide for the adjustment of the land cadastre display with the actual field situation or with databases captured on other graphical bases (orthophoto).

Prior to its introduction for regular use, the improvement procedure and information solutions developed will be tested in several trial areas (several cadastral communities).

In the following years, operative improvement of the land-cadastre display will be carried out by priority fields, first in the area of agricultural land where permanent crops (vineyards, hop fields, olive plantations, orchards) are located, by more detailed actual use.

The assignment involves certain risks that may threaten or delay the project's implementation. These risks are associated with deadlines for the preparation and implementation of public calls for tender, and consequently with the possibility of information solutions that are not developed and tested on time, unsatisfactory test results for all purposes of users, lack of financial resources in the following years, and limitations in personnel.

### 4.3 Projects of preparing regulations

# 4.3.1 Regulations and acts to be adopted by the National Assembly of the Republic of Slovenia

# • The Act on the State Land Survey Reference System

In the field of national coordination systems, national land survey services of the European area and the European discipline (EUREF association - European Reference Frame) have been directing activities in the complete renovation of national coordinate systems for several years. A uniform European Spatial Reference System - ESRS is being set up, based on the use of satellite technology, which provides a common basis in the European space for performing land surveys, georeference and linking and exchange of spatial data. In Slovenia, the georeference system is applied that was set up in the last century and no longer performs its task from a technical as well as a methodological point of view. Besides this, the growing importance of private property and real estate rights require new determination of rights and obligations of the state and owners of real estate on which objects and facilities are located and are important for the establishment of the European coordinate system, land survey infrastructure and performance of land surveys. Also the national topographic system will have to be updated, since the existing regulatory basis does not correspond to the condition of technology for capturing, administering and displaying topographic data; public administration obligations related to ensuring topographic data and maps will have to be re-determined.

The new act will replace the Land Survey Service Act of 1974 and provide for the compliance of the Land Survey Reference System with the EU INSPIRE Directive and its implementing rules.

### Act on Recording Economic Infrastructure

The act will regulate the recording of economic infrastructure in a comprehensive manner, will provide for recording public and private economic infrastructure, and set up a cumulative cadastre as the record that will, besides administering technical data, enable the recording of real estate rights over economic infrastructure. The act will also regulate the obligation of data communication and issuing from the cumulative economic infrastructure cadastre.

# • Real Estate Recording Act

The new real Estate recording Act will re-define procedural rules of recording land subdivision - mergers or splits of real estate, harmonise all administrative acts produced for recording cadastral data, as well as eliminate drawbacks and simplify the present setup of recording real estate and the procedures for defining and changing data and entering real estate data in public records.

# • Amendments to the Real Estate Mass-Appraisal Act

Amendments to the Real Estate Mass-Appraisal Act provide for a clearer determination of the elements of real estate valuation models that are more appropriate with regard to extent and structure of real estate data and users' requirements. An extremely important novelty is the introduction of systematic recording of tenancy relations for housing and business real estate, which will

enable better transparency over real estate market operation, analytical basis for conducting of efficient housing and social policy, and improved appraisal of the value of such types of real estate. Moreover, systematic data capturing relating to purchases and legal transactions that are subject to value added tax is being introduced. The act must be adopted within the time limit that will enable determination of real estate valuation models in November 2011, and thus the first official attribution of generalised market values to all real estate recorded in the real estate register in such a manner that the data could start to be used on 1 January 2012. This time limit for beginning to use the data is relevant for provisions of the proposed amendments of two acts from the social field that are in the phase of adoption by the national Assembly, namely the Act amending the Exercise of Rights to Public Funds Act and the Act amending the Financial Social Assistance Act. In view of their implementation, both acts need data on the generalised market value of housing real estate. Data on the generalised market value of real estate should also be officially enforced as soon as possible for the needs of the Spatial Arrangements of National Importance Siting Act (Official Gazette of the Republic of Slovenia, Nos 80/10 and 106/10 corr.), where such data is necessary for simplifying the appraisal procedures for expropriations.

# 4.3.2 Regulations and acts to be adopted by the Government of the Republic of Slovenia

• Decree on determining models for real estate appraisal

Based on the Real Estate Mass-Appraisal Act ZMVN (Official Gazette of the Republic of Slovenia, No 50/06), the Government of the Republic of Slovenia adopted the Decree on determining models for real estate appraisal after the information procedure and harmonisation of comments were concluded.

 Decree on the criteria and conditions for determining costs for the use of network services and for determining charges for spatial data sets and services sharing

The Infrastructure for Spatial Information Act - ZIPI (Official Gazette of the Republic of Slovenia, No 8/10) stipulates that spatial database operators may, with a view towards using certain network services referred to in the first paragraph of Article 13 of ZIPI, charge costs for the use of such services, whereby the income derived therefrom may be used for maintaining spatial databases and services related to spatial data. The ZIPI states that the Government of the Republic of Slovenia must specify the criteria and conditions for determining costs for the use of network services.

Spatial database operators may ensure that public authorities of other countries or European Union institutions may also share in use of the data, and may charge them for such services. The ZIPI states that the Government of the Republic of Slovenia must specify the criteria and conditions for fees for shared use of data services.

# 4.3.3 Regulations and acts to be adopted by the Minister of the Environment and Spatial Planning

• Rules on the program and method of taking an exam in land surveying
The Land Survey Service Act- ZGeoD-1 (Official Gazette of the Republic of Slovenia,
No 77/10) stipulates that the minister must lay down the programme and method
of taking an exam in land surveying, which is the condition for registration of
responsible land surveyors in the directory of authorised engineers with the
Slovenian Chamber of Engineers.

 Rules on the programme and method of taking the proficiency examination for the performance of land surveying services

The Land Survey Service Act - ZGeoD-1 (Official Gazette of the Republic of Slovenia, No 77/10) stipulates that the minister must lay down the programme and method of taking the proficiency examination for the performance of land surveying services, which is the condition for obtaining a geodetic permit.

 Rules on the content, form and issuing procedure for the land survey licence

The Land Survey Service Act - ZGeoD-1 (Official Gazette of the Republic of Slovenia, No 77/10) stipulates that the minister must lay down the content, form and issuing procedure for the land survey licence that land surveyors use for identification.

 Rules on terms and procedures for scoring, monitoring, certification and registration of mandatory proficiency education of certified land surveyors

The Land Survey Service Act - ZGeoD-1 (Official Gazette of the Republic of Slovenia, No 77/10) stipulates that the minister must lay down the terms and procedures for scoring, monitoring, certification and registration of mandatory proficiency education of certified land surveyors. Participation in the mandatory education results in the continuation of holding the geodetic permit or may entail legal consequences, i.e. temporary withdrawal of the geodetic permit.

• Rules amending the Rules on the terms and methods of computer access to data from geodetic data records and databases

Since the tasks in relation to direct computer access that have, under the Rules on the terms and methods of computer access to data from geodetic data records and databases (Official Gazette of the Republic of Slovenia, No 25/08), been previously carried out by the Geodetic Institute of Slovenia, are now performed by the Surveying and Mapping Authority of the Republic of Slovenia, these Rules have to be amended.

• Rules amending the Rules on Types and Contents of Certificates from Geodetic Databases and on the Manner of Data Designation

The Rules amending the Rules on Types and Contents of Certificates from Geodetic Databases and on the Manner of Data Designation issued on the basis of the Recording of Real Estate (Official Gazette of the Republic of Slovenia, No 47/06, 65/07 - Decision of the Constitutional Court and 106/2010-ZDoh-2H) regulates

open-ended questions in relation to issuing certificates from the land survey databases.

• Rules amending the Rules on Building Cadastre Registration
The Rules amending the Rules on Building Cadastre Registration issued on the basis of the Recording of Real Estate (Official Gazette of the Republic of Slovenia, No 47/06, 65/07 - Decision of the Constitutional Court and 106/2010-ZDoh-2H) regulate the method of amendments to building cadastre registration when no study on amendments to building cadastre data is necessary.

# 5 REGULATIONS IN THE FIELD OF SURVEYING AND MAPPING ACTIVITIES

# 5.1 Valid regulations currently applied in performing land survey activity

### ACTS

Land Cadastre Act (Official Gazette of SRS, No, 16/1974, 42/1986; Official Gazette of the Republic of Slovenia, No 17/1991, 52/2000 and 47/2006)

Basic Geodetic Measurements Act (Official Gazette of SRS, No 16/1974, 23/1976 - ZGS, 42/1986; Official Gazette of the Republic of Slovenia, No 17/1991)

Land Survey Service Act (Official Gazette of the Republic of Slovenia, No 8/2000, 110/2002, 47/2006 and 45/2008)

Law of Property Code (Official Gazette of the Republic of Slovenia, No 87/2002)

Spatial Planning Act (Official Gazette of the Republic of Slovenia, No 110/2002, 8/2003-corrig., 58/2003 and 33/2007)

Agricultural Land Act (Official Gazette of the Republic of Slovenia, No 55/2003 - u.p.b.)

Land Registry Act (Official Gazette of the Republic of Slovenia, No 58/2003, 37/2008 and 28/2009)

Housing Act (Official Gazette of the Republic of Slovenia, No 69/2003, 18/2004, 47/2006, 9/2007-decision of the Constitutional Court of the Republic of Slovenia, 45/2008 and 57/2008)

Construction Act (Official Gazette of the Republic of Slovenia, No 102/2004 - u.p.b., 92/2005, 93/2005, 111/2005 - decision of the Constitutional Court of the Republic of Slovenia, and 120/2006 - decision of the Constitutional Court of the Republic of Slovenia, and -126/2007)

General Administrative Procedure Act (Official Gazette of the Republic of Slovenia, No. 24/2006 - u.p.b. and 105/2006 and 126/2007 and 65/2008)

Real Property Recording Act - (Official Gazette of the Republic of Slovenia, No 47/2006 and 65/2007 - decision of the Constitutional Court of the Republic of Slovenia)

Real Property Mass-Appraisal Act (Official Gazette of the Republic of Slovenia, No 50/2006)

Access to Public Information Act (Official Gazette of the Republic of Slovenia, No 51/2006 - u.p.b. and 117/2006)

Electronic Communications Act - (Official Gazette of the Republic of Slovenia, No 13/2007 - u.p.b. in 102/2007)

Spatial Planning Act - (Official Gazette of the Republic of Slovenia, No 33/2007 and 70/2008) Administrative Fees Act - (Official Gazette of the Republic of Slovenia, No 42/2007 - u.p.b. and 126/2007)

Civil Servants Act (Official Gazette of the Republic of Slovenia, No 63/2007 - u.p.b., 65/2008, 69/2008 and 69/2008)

Act on Designating Areas and Naming and Marking Settlements, Streets and Buildings (Official Gazette of the Republic of Slovenia, No 25/2008)

#### **IMPLEMENTING REGULATIONS**

### REGULATIONS ISSUED ON THE BASIS OF LAND CADASTRE ACT

Manual of Instructions Concerning Location and Marking-Out of Land Property Boundaries (Official Gazette of SRS, No 2/1976 and 6/1987; Official Gazette of the Republic of Slovenia, No 52/2000 and 47/2006)

Rules for Cadastral Classification of Land Properties (Official Gazette of SRS, No 28/1979 and 35/1983; Official Gazette of the Republic of Slovenia, No 52/2000 and 47/2006)

Rules on Maintaining the Types of Use of Land Properties in the Land Cadastre (Official Gazette of SRS, No 41/1982; Official Gazette of the Republic of Slovenia, No 52/2000 and 47/2006)

Rules for Evaluation of Soil in Identifying the Production Capability of Pilot Land Parcels (Official Gazette of SRS, No 36/1984; Official Gazette of the Republic of Slovenia, No 52/2000 and 47/2006)

Instruction on the Beginning of the Official Use of the Digital Cadastral Register (Official Gazette of the Republic of Slovenia, No 57/1999, 52/2000 and 47/2006)

#### REGULATIONS ISSUED ON THE BASIS OF THE BASIC GEODETIC MEASUREMENT ACT

Manual of Instructions Concerning the Archiving and Copying of Reduced Format Data of the Basic Geodetic Measurement (Official Gazette of SRS, No 3/1976)

Decree on the Use of Geographical Names on Maps in Multinational Areas in the SR of Slovenia (Official Gazette of SRS, No 11/1980)

Rules on the Technical Standards for Networks of Basic Geodetic Points (Official Gazette of SRS, No 18/1981)

Rules on the Designations Used on Basic Topographic Maps (Official Gazette of SRS, No 29/1982; Official Gazette of the Republic of Slovenia, No 40/2004 - Rules on Land Survey Plan)

Manual of Instructions Concerning the Current Harmonisation of Basic Topographic Maps at scales of 1:5000 and 1:10000 (Official Gazette of SRS, No 30/1983)

Rules on the Use of the Gauss-Krueger Projection in Producing the National Topographic Maps at 1:25000 Scale and Dividing it into Sheets (Official Gazette of the Republic of Slovenia, No 36/1998)

# REGULATIONS ISSUED ON THE BASIS OF THE LAND SURVEY SERVICE ACT

Rules on the Conditions Regarding the Premises and Technical Equipment of a Land Surveying Firm (Official Gazette of the Republic of Slovenia, No 67/2000)

Decision on the Change of the Status of the Land Survey and Photogrametry Institute of the Faculty of Civil Engineering and Geodesy into the Public Institution the Land Survey Institute of Slovenia (Official Gazette of the Republic of Slovenia, No 84/2000 and 26/2003)

Rules on the Programme for Special Proficiency Examination for the Performance of Land Surveying Services and on the Manner of Assessing the Knowledge of Slovene (Official Gazette of the Republic of Slovenia, No 105/2000, 108/2000-corrig. and 65/2007)

Rules on the Land Survey Licence, the Issuing Procedure and the Manner of its Use (Official Gazette of the Republic of Slovenia, No 113/2000)

List of Works the Implementation of Which Affects or Might Affect the Safety and Health of People (Official Gazette of the Republic of Slovenia, No 23/2004)

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#### REGULATIONS ISSUED ON THE BASIS OF THE SPATIAL PLANNING ACT

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Rules on Land Survey Plan (Official Gazette of the Republic of Slovenia, No 40/2004 and 33/2007) Topographic key for creating and displaying land survey plans was passed on its basis

Rules on the Land Register of the Public Communications Network and Associated Facilities (Official Gazette of the Republic of Slovenia, No 56/2005, 64/2005 - corrig. and 33/2007)

Rules on Drinking Water Supply (Official Gazette of the Republic of Slovenia, No 35/2006, 33/2007 and 41/2008)

#### REGULATIONS ISSUED ON THE BASIS OF THE LAND REGISTRY ACT

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Rules on Electronic Access to the Main Electronic Register (Official Gazette of the Republic of Slovenia, No 16/2004, 91/2005 and 115/2008)

#### REGULATIONS ISSUED ON THE BASIS OF THE HOUSING ACT

Decree on the Marking of Apartments and Business Premises (Official Gazette of the Republic of Slovenia, No 63/2006)

#### REGULATIONS ISSUED ON THE BASIS OF THE CONSTRUCTION ACT

Regulation on Classification of Construction with Regard to their Complexity (Official Gazette of the Republic of Slovenia, Nos 37/2008 and 99/2008)

Rules on Land Survey Plan (Official Gazette of the Republic of Slovenia, No 40/2004 and 33/2007) Topographic key for creating and displaying land survey plans was passed on its basis Rules on the Form and Content of Identity Card and Uniform Stamp of Certified Engineers (Official Gazette of the Republic of Slovenia, No 51/2004, 60/2005 and 73/2005)

Rules on the Form and Content of the Identity Card and Uniform Stamp of Certified Architects, Certified Landscape Architects and Certified Spatial Planners (Official Gazette of the Republic of Slovenia, No 114/2004 and 53/2005)

#### REGULATIONS ISSUED ON THE BASIS OF THE GENERAL ADMINISTRATIVE PROCEDURE ACT

Decree on Administrative Operations (Official Gazette of the Republic of Slovenia, Nos 20/2005, 106/2005, 30/2006, 86/2006, 32/2007, 63/2007, 115/2007, 122/2007 - corrig. and 31/2008)

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#### REGULATIONS ISSUED ON THE BASIS OF THE RECORDING OF REAL ESTATE ACT

Decree on the Marking of Apartments and Business Premises (Official Gazette of the Republic of Slovenia, No 63/2006)

Decree on Cadastral Area Territories and Names (Official Gazette of the Republic of Slovenia, No 100/2006)

Rules on the Register of the State Border (Official Gazette of the Republic of Slovenia, No 118/2006)

Rules on the Contents and Method of Administration of the Register of Spatial Units (Official Gazette of the Republic of Slovenia, No 118/2006)

Decree on the Method of Registration of Administrators of Real Estate into the Land Cadastre and Building Cadastre (Official Gazette of the Republic of Slovenia, No 121/2006)

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Rules on the Types and Contents of Certificates from Geodetic Databases and on the Manner of Data Designation (Official Gazette of the Republic of Slovenia, Nos 22/2007 and 33/2009)

Rules on the Land Rating Exam and the Power to Implement Land Rating (Official Gazette of the Republic of Slovenia, No 29/2007)

Decree on the Designation of Subgroups within Individual Groups of Cognate Real Property and on Data for the Attribution of Values by Real Property Subgroups (Official Gazette of the Republic of Slovenia, No 59/2007)

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Rules on Establishing Land Rating (Official Gazette of the Republic of Slovenia, No 35/2008)

Rules on Determining and Administering Land Rating (Official Gazette of the Republic of Slovenia, No 47/2008)

#### REGULATIONS ISSUED ON THE BASIS OF REAL PROPERTY MASS-APPRAISAL ACT

Rules on Managing and Updating the Real Estate Market Register and on the Method and Deadlines for Sending Data (Official Gazette of the Republic of Slovenia, No 134/2006)

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Rules on Mays of Calculating Annual Indexes of Real Estate Prices and Determining Indexes of Real Estate Value (Official Gazette of the Republic of Slovenia, No 79/2008)

Rules on Criteria of Real Property Mass Valuation (Official Gazette of the Republic of Slovenia, No 94/2008)

# REGULATIONS ISSUED ON THE BASIS OF THE ACT ON DESIGNATING AREAS AND NAMING AND MARKING SETTLEMENTS, STREETS AND BUILDINGS

Regulation on Settling Issues of Determining Areas of Settlements, Determining of House Numbers and Street Layouts and House and Street Markings (Official Gazette of the Republic of Slovenia, No 76/2008)

Regulation on Terms and Ways to Determinate an Official Short Name of Settlement and Official

Short Name of Street (Official Gazette of the Republic of Slovenia, No 78/2008)

# REGULATIONS ISSUED ON THE BASIS ACT ON THE ACCESS TO INFORMATION OF PUBLIC CHARACTER

Decree on Communication and Re-use of Information of Public Character (Official Gazette of the Republic of Slovenia, No 76/2005 and 119/2007)

#### REGULATIONS ISSUED ON THE BASIS OF SPATIAL PLANNING ACT

Decree on the Content and Management of Spatial Data System (Official Gazette of the Republic of Slovenia, No 119/2007)

#### REGULATIONS ISSUED ON THE BASIS OF CIVIL SERVANTS ACT

Rules on a Particular Part of Exam for Inspectors in the Fields of Environment and Nature, Construction, Mining, Land Survey and Housing (Official Gazette of the Republic of Slovenia, Nos 125/2004 in 62/2006)

#### **REGULATIONS ISSUED ON THE BASIS OF OTHER LEGAL GROUNDS**

#### REGULATIONS ISSUED ON THE BASIS OF WATER ACT

Rules Laying Down Water Infrastructure (Official Gazette of the Republic of Slovenia, No 46/2005)

# REGULATIONS ISSUED ON THE BASIS OF RECORDING OF REAL ESTATE, STATE BORDER AND SPATIAL UNITS ACT

Rules on the Content and Method of Keeping a Database on Actual Land Use (Official Gazette of the Republic of Slovenia, No 9/2004 and 33/2007)

#### REGULATIONS ISSUED ON THE BASIS OF LAND REGISTRY ACT

Decree on Loading and Keeping of Land-register by Application of Computer Technology and on Harmonisation of Data with the Land Cadastre Data (Official Gazette of the Republic of Slovenia, No 42/2001)

### 6 CONTACTS

### 6.1 Addresses of surveying and mapping administrative bodies

# **REPUBLIC OF SLOVENIA**

# MINISTRY OF THE ENVIRONMENT AND SPATIAL PLANNING SURVEYING AND MAPPING AUTHORITY OF THE REPUBLIC OF SLOVENIA

- **2** 01 478 48 00
- **1** 01 478 48 34
- @ pisarna.gu@gov.si

#### REGIONAL GEODETIC ADMINISTRATIONS

#### CELJE REGIONAL SURVEYING AND MAPPING AUTHORITY

- Mariborska cesta 88, 3000 Celje
- **2** 03 428 13 50
- 03 428 13 60
- @ ogu.guce@gov.si

# KOPER REGIONAL SURVEYING AND MAPPING AUTHORITY

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- **2** 05 663 59 50
- **05 663 59 52**
- @ ogu.gukp@gov.si

# KRANJ REGIONAL SURVEYING AND MAPPING AUTHORITY

- Slovenski trg 2, 4000 Kranj
- **2** 04 201 80 58
- **1** 04 201 80 71
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# LJUBLJANA REGIONAL SURVEYING AND MAPPING AUTHORITY

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- 01 241 78 20
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# MARIBOR REGIONAL SURVEYING AND MAPPING AUTHORITY

- ⊠ Ulica heroja Tomšiča 2, 2000 Maribor
- **2** 02 220 16 03
- **02 252 64 57**
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# MURSKA SOBOTA REGIONAL SURVEYING AND MAPPING AUTHORITY

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- **2** 02 535 15 70
- 02 532 10 63
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# **NOVA GORICA REGIONAL SURVEYING AND MAPPING AUTHORITY**

- ⊠ Rejčeva ulica 7, 5000 Nova Gorica
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- **1** 05 330 45 71
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# NOVO MESTO REGIONAL SURVEYING AND MAPPING AUTHORITY

- ☑ Ljubljanska cesta 26, 8000 Novo mesto
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- 07 393 10 20
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# PTUJ REGIONAL SURVEYING AND MAPPING AUTHORITY

- ⊠ Krempljeva ulica 2, 2250 Ptuj
- **2** 02 748 26 20
- **1** 02 748 26 39
- @ ogu.gupt@gov.si

#### SEVNICA REGIONAL SURVEYING AND MAPPING AUTHORITY

- **2** 07 816 35 70
- **1** 07 816 35 88
- @ ogu.gusevn@gov.si

# SLOVENJ GRADEC REGIONAL SURVEYING AND MAPPING AUTHORITY

- □ Francetova cesta 7, 2380 Slovenj Gradec
- **2** 02 881 23 60
- 02 881 23 73
- @ ogu.guslgr@gov.si

# VELENJE REGIONAL SURVEYING AND MAPPING AUTHORITY

- ⊠ Rudarska cesta 3, 3320 Velenje
- **2** 03 898 27 00
- **03 587 14 04**
- @ ogu.guve@gov.si

Phone number

Fax number

@ E-mail address

# 7 STATISTICAL DATA ABOUT SLOVENIA

# 7.1 Slovenia 2010 in numbers

Surface area of the Republic of Slovenia	20.273 km <sup>2</sup>
Population*	2.050.189

<sup>\*</sup> Population on 1 January 2011. Source: Statistical Office of the Republic of Slovenia.

# **Geographical Coordinates of Extreme Points**

	Latitude	Longitude
North	46°53´	16°14´
South	45°25´	15°10´
East	46°28′	16°36′
West	46°17′	13°23´
GEOSS	46°07′	14°49´

GEOSS — Geometrical Centre of the Republic of Slovenia

# Length of the State border

Austria	318km
Croatia*	670km
Italy	280km
Hungary	102km
TOTAL	1,370km
Sea coast length **	46.6km

<sup>\*</sup> Border not marked on land; the border length was calculated on the basis of the borders of cadastral communities.

<sup>\*\*</sup> The length of the sea border has not been determined yet.

Highest peak	Triglav (2,864m)
The longest Karst cave (together with Pivka and Črna Jama)	Postojna cave (20,570m)
Largest Karst intermittent lake	Lake Cerknica (24km²)
Largest natural lake	Lake Bohinj (3.28km²)
Longest river	The Sava (947km, of which 221km in Slovenia)
House numbers	532.546
Buildings	1.162.062
Municipalities	210
Settlements	6.030
Streets	10.197
Cadastral communities	2.698
parcels	5.358.622

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