



Surveying and Mapping Authority of the Republic of Slovenia

Activities Report 2011



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1 ADDRESS FROM THE GENERAL DIRECTOR



As for a number of years, in 2011 the Surveying and Mapping Authority of the Republic of Slovenia carried out activities to provide our users with easy access to and use of quality data from geodetic records and services associated with the use of such data. The Surveying and Mapping Authority of the Republic of Slovenia is continuing the updating of the real estate registration and space management system, including the setting up of an efficient infrastructure for spatial information.

Due to the budget rebalance, the realisation of the annual programme in 2011 was rather impaired. After the rebalance, there were 33% less funds available for the realisation of activities than were originally planned and foreseen in the programme. We were therefore compelled to postpone the implementation of some of the activities until required funds are available. Nevertheless, we managed to do a lot in 2011, which is evident from this Activities Report.

In the field of real estate registration, the Surveying and Mapping Authority dealt with and solved 274,167 administrative matters in 2011; of those, 64,876 were special declaratory proceedings or various requests of clients in the field of the Land Cadastre and Building Cadastre. Furthermore, as concerns the real estate field, in 2011 we concluded the procedure of calculating real estate values and ascribing this value to the real estate entered in the Real Estate Register. Due to reduced funds, the information system for management and maintenance of real estate records operated to a minimum extent without any content-based information updates. For the same reason, 2011 allowed for only minimal activities aimed at improving the quality of real estate data, which means that harmonisations of and amendments to data from the Land Cadastre, Building Cadastre and the Real Estate Register were made. Only a part of the foreseen activities from the field of maintenance of data pertaining to the state border and land surveys on the state border with Italy, Austria and Hungary, which were specified by joint committees, were implemented.

In the field of geodesy, topography and cartography, continual function of the permanent GNSS stations network was assured. Operation of the network and the SIGNAL station at the Geodetic Institute of Slovenia, which monitors network operation and transmits data to users, was ensured. The horizontal component of the national coordinate system was established as part of the European Geodetic Reference System. A highly accurate geodetic measurement was implemented on 161 km of levelling line as well as gravimetric measurements on part of the

levelling network, measurements for LIDAR (Light Detection and Ranging) and measurements for geoid determination. For the period 2009-2016, the possibility of further co-financing of works on the national geodetic system from the EEA Financial Mechanism 2009-2014 was obtained. Aerial photographing of 30% of the Slovenian territory was performed, as well as aerial triangulation. Aerial photos, orthophotos and a digital relief model for the north-western part of Slovenia were produced. The Slovenian Governmental Commission for the Standardisation of Geographical Names continued with the implementation of its activities. The existing topographic DTK 5 data have been transformed to the new national spatial coordinate system, but due to the lack of financial funds, maintenance of the 1:50,000 topographic map was not performed and topographic data at 1:5,000 accuracy was not prepared. Light detection and ranging of the territory of Slovenia began with the purpose of implementing flood control measures. A total of 3,065 research reports have already been submitted in the consolidated cadastre of public infrastructure and more than 5,600,000 (or 90% of the total) public infrastructure facilities have already been recorded.

In the field of mass real estate valuation, the Surveying and Mapping Authority of the Republic of Slovenia implemented the first general valuation of real estate in 2011. We prepared real estate valuation models. The information system recorded suggestions submitted by real estate owners to the real estate valuation models used in the trial calculation of the value of real estate. Based on studying the suggestions of real estate owners in regards to the trial calculation of the value of real estate in accordance with the determined measures of mass valuation of real estate, a final proposal of models of mass valuation of real estate was prepared. The models of mass valuation of real estate are managed and publically available online in the updated Real Estate Valuation Database. In 2011, general market values were ascribed to all real estate in Slovenia. All real estate owners in Slovenia were informed about the trial calculation of the value of real estate. With the adoption of the Rules on Criteria of Real Property Mass Valuation (Official Gazette of the Republic of Slovenia, no. 95/11) and the ascribing of the final value, the system of mass valuation of real estate has been set up and implemented.

The aim of all these activities is, naturally, to provide up-to-date data for all 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. Data was issued in the forms of certificates, maps, plottings, extracts, online browsers, online data distribution and duplicates at counters. Promotional and other activities for informing the users and the wider community were carried out. The bilingual Activities Report of the Surveying and Mapping Authority of the Republic of Slovenia was prepared. Funds for the concession of managing the GEOSS area were provided. As regards information technology, appropriate information conditions for continual operation of the distribution system were ensured. Due to reduced funds, further development was substantially impeded.

We participated in the drafting of 2 acts, 2 decrees and 8 rules governing the field of real estate records and spatial planning. We also participated in international associations in the field of geodesy, geoinformatics and management of real estate within EU institutions and maintained professional contacts with neighbouring and South Eastern European countries. In 2011, the Surveying and Mapping Authority of the Republic of Slovenia continued with activities for establishing a common information infrastructure on the basis of the Infrastructure for Spatial Information Act - ZIPI (Official Gazette of the Republic of Slovenia, no. 8/10).

You can read more on everything that has been mentioned in this Activities Report.

I hope you enjoy reading this report!



Aleš Seliškar
General Director

2 ABOUT THE SURVEYING AND MAPPING AUTHORITY OF THE REPUBLIC OF SLOVENIA

2.1 Company ID

The Surveying and Mapping Authority of the Republic of Slovenia is a body within the Ministry of Infrastructure and Spatial Planning. The competence of the Surveying and Mapping Authority of the Republic of Slovenia comprises the tasks of the national land survey service, which include the creation, administration and updating of databases pertaining to the basic geodetic system, real estate, the state border, spatial units and house numbers, the Consolidated Cadastre of Public Infrastructure as well as the topographic and cartographic system.

The Surveying and Mapping Authority of the Republic of Slovenia is responsible for the basic data on physical space and real estate in the finalised databases, provides services pertaining to the registration of changes in physical space and on real estate properties and 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 of creating foundations for successful and efficient real estate administration and the provision of data for objective and comprehensive real estate taxation and sees to the increased efficiency of the real estate market. It provides for the national coordinate system and its compliance with the European coordinate system and creates conditions for implementing land surveys.



Figure 1: Information on 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 comprises: the Main Office, the Real Estate Office, the Mass Real Estate Valuation Office, the Geodesy Office and twelve regional surveying and mapping authorities. The latter 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 authorities, the above offices implement the following joint tasks:

- they prepare the national land survey service annual programme 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.

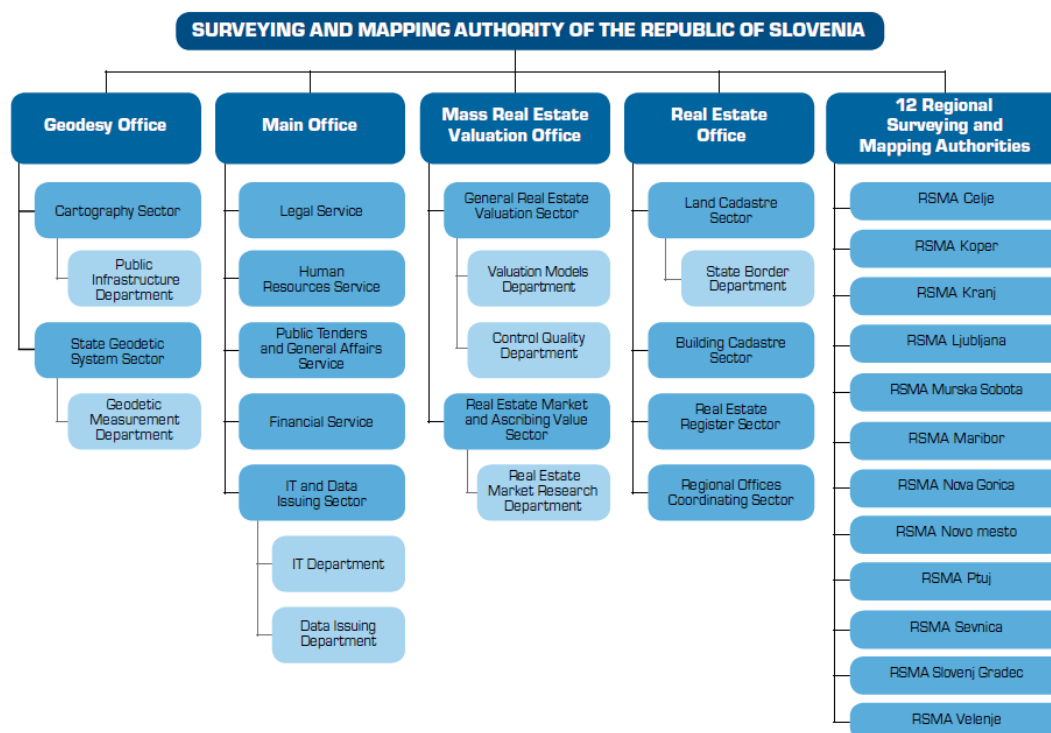


Figure 2: Organisation chart of the Surveying and Mapping Authority of the Republic of Slovenia

2.3 Organisation

The Main Office

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



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

The Real Estate Office

The Real Estate Office implements administrative, professional, technical, coordination and supervisory activities pertaining to the administration of the Land Cadastre, the Building Cadastre, the Real Estate Register and other records on real estate, administration of state border records and activities pertaining to the landmarking, restoration and maintenance of the state border. It implements

activities of managing the Register of Spatial Units and the Register of House Numbers. It operates in an interagency capacity in the work of international committees and in other activities and projects. It is responsible for the training and education of employees of the regional surveying and mapping authorities. It prepares the subject matter and material for mandatory training for geodesists with a geodetic permit in cooperation with the Slovenian Chamber of Engineers. 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.

The Mass Real Estate Valuation Office

The Mass Real Estate Valuation Office implements the tasks of general real estate valuation and the tasks of ascribing value to real estate properties. The main tasks comprise the preparation of real estate valuation models, determination of real estate value indexes and monitoring of the real estate market. The main products are valuation models for individual types of real estate 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 and periodic reports on developments in the real estate market based on systematic monitoring of the real estate market and analysis of this data. The Office manages and maintains the Real Estate Market Record, which is a multi-purpose public database on purchases and rental agreements pertaining to real estate. The Real Estate Market Record is managed in order to provide data on realised prices and rents in the real estate market for the purposes of mass valuation and for taxation and other public purposes determined by law. On account of the changes in real estate markets, the Office verifies individual real estate valuation models at least every four years. The Office manages 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 Geodesy Office

The Geodesy Office is responsible for the basic geoinformation infrastructure, represented by the national coordinate system and the national topographic system. In these fields, it implements professional, technical and coordination, implementation 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 and implements activities 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 neighbouring countries. It carries out field works required for setting up the horizontal, vertical and gravimetric component of the national coordinate system, for providing transformation parameters between the existing national and European coordinate system and for the control of capture of spatial data of the Surveying and Mapping Authority. The office implements tasks in the field of acquisition, management and linking of topographic data. It manages the topographic database and the Consolidated Cadastre of Public Infrastructure. It is responsible for the national cartographic system and ensures the creation of national topographic and cartographic products 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, manage 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 clients and information to 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 activities in the areas of financial operation, personnel matters, office operation and other organisational activities,
- Implement other activities as stipulated by the General Director of the Surveying and Mapping Authority.

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



Figure 4: The territorial division of the regional surveying and mapping authorities with relevant offices

2.4 Human Resources

On 31 December 2011, there were 512 permanently employed civil servants at the Surveying and Mapping Authority of the Republic of Slovenia and 11 temporarily employed civil servants, 1 of whom was a trainee. 16 employees terminated their employment (permanent or temporary staff), while 9 new employees were employed on a permanent basis. The number of employees decreased by 0.75% in comparison to the end of 2010.

Table 1: Number of employees at the offices and regional surveying and mapping authorities on 31 December 2011

Staff structure by their field of expertise in 2011	
Surveyors	278
Agronomists	10
IT specialists	16
Lawyers, financial and administrative staff	219
Total	523

Staff structure by education level in 2011	
University/Bachelor	303
First level university	41
Secondary	171
Primary	8
Total	523

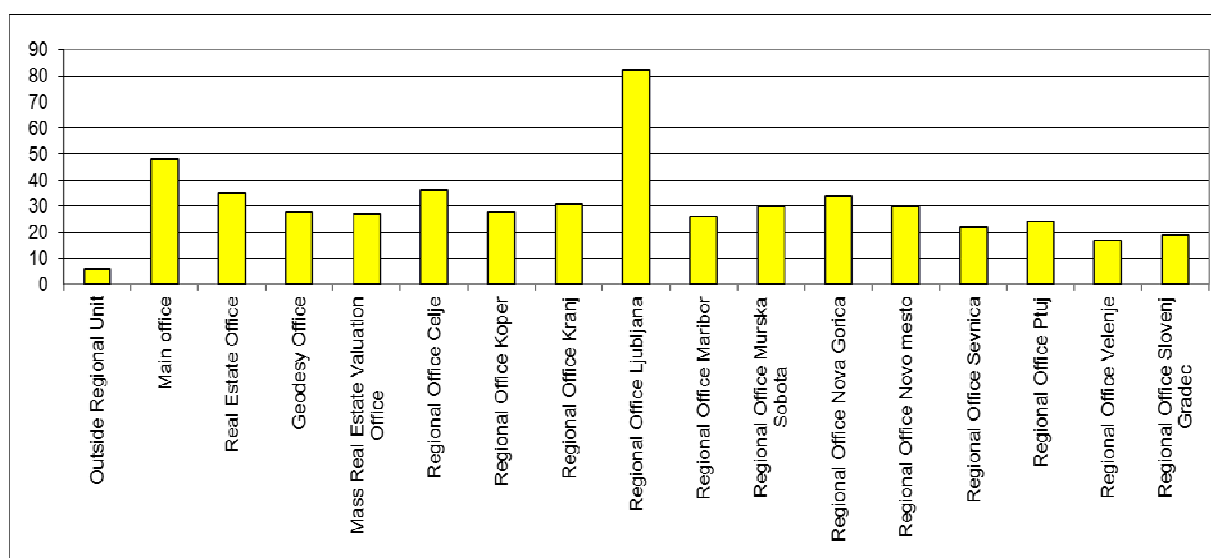


Diagram 1: Number of all employees at the offices and regional surveying and mapping authorities on 31 December 2011

2.5 Finance

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

In the last year, the income from the issuing of geodetic data from the Land Cadastre, Building Cadastre, the Real Estate Register, State Border Records and the Register of Spatial Units compared with payment increased as a consequence of changed regulations. The income derives from its own activities. In compliance with the Budget Implementation Act, the income deriving from an entity's own activities may only be used for covering material costs, the costs of storing and issuing data and investments into items of property, plant and equipment for the needs of the Surveying and Mapping Authority of the Republic of Slovenia in the implementation of its activities.

Table 2: Budget expenditure in 2011

Budget 2011	in EUR
Surveying works programme	2,363,387
Salaries	13,976,793
Material costs	2,697,185
Investments and investment maintenance	101,145
Own activity	230,820
Total	19,369,330

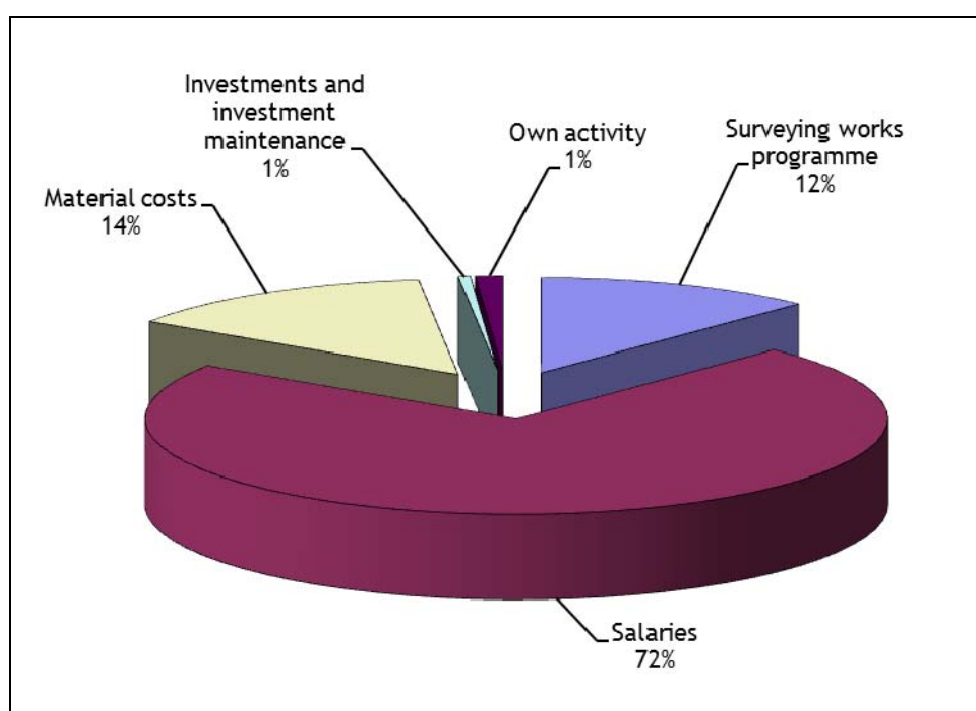


Diagram 2: Shares of expenditure by purpose in 2011

Table 1: Implementation of budget appropriations by years (all figures in EUR)

	2007	2008	2009	2010	2011
Surveying works programme	12,158,409	2,662,839	3,488,762	3,870,418	2,363,387
Salaries	12,915,929	13,551,555	14,137,920	14,098,625	13,976,793
Material costs	2,714,473	3,072,550	3,004,407	2,753,562	2,697,185
Investments and investment maintenance	495,624	437,209	161,390	109,496	101,145
Own activity	173,759	221,871	110,512	113,558	230,820
Total	28,458,194	19,946,024	20,902,991	20,945,659	19,369,330

2.6 International Activities

In 2011, the Surveying and Mapping Authority of the Republic of Slovenia carried out a number of international activities. We cooperated with similar institutions in the European space and in the South-west Balkan region. We have been actively involved in the activities of the European Association of Surveying and Mapping Authorities EuroGeographics; we monitored the work of the Permanent Committee on Cadastre in the European Union (PCC) and the Working Group on Land Administration within the framework of the Economic Commission for Europe of the United Nations Organisation that covers the activities of national institutes in Europe and North America dealing with land cadastres, land registers, real estate valuation, land consolidation and land information systems (WPLA). In 2011, the staff of the Surveying and Mapping Authority of the Republic of Slovenia actively participated with their papers at various congresses, conferences and sessions of working parties.



Figure 5: The participants of the Eurogeographics general assembly session, Belfast, Northern Ireland, October 2011

The central theme of this year's general assembly was Quality Information for the Digital Agenda. The members of the General Assembly adopted the Activities Report and the final balance of the organisation. A notary public was chosen that was entrusted to delete the organisation from the register in France and register

the new organisation in accordance with Belgian legislation, as the headquarters of the association are being moved from Paris to Brussels.

Inclusion in the EuroGeographics activities resulted in our participation in certain European projects (European global and regional map, European administrative borders, European digital relief model, European geographical names and others).

On the occasion of H.M. King Harald V and H.M. Queen Sonja's official visit to Slovenia, the Surveying and Mapping Authority of the Republic of Slovenia cooperated with the Norwegian Mapping Authority in organising a seminar at the Ljubljana Union Hotel on 10 May 2011 regarding the importance of geographic information for the development of the society as one of the accompanying events. The seminar was part of the Slovenian-Norwegian Forum of Competence that featured the signing of the Memorandum of Understanding on the Implementation of the Norwegian Financial Mechanism 2009-2014 between the Republic of Slovenia and the Kingdom of Norway and the Memorandum of Understanding on the Implementation of the EEA Financial Mechanism 2009-2014 between Iceland, the Principality of Liechtenstein, the Kingdom of Norway and the Republic of Slovenia.



Figure 6: Seminar participants

In 2011, we continued with our professional cooperation and exchange of good practices with other countries in connection with the private sector and with land survey services in Austria, Hungary, Croatia, Macedonia, Serbia, Montenegro, Bosnia and Herzegovina and others.

The 28th meeting of the surveying and mapping authorities of Austria, Slovakia, Slovenia, South Tyrol, Trentino, the Czech Republic, Hungary and Croatia took place from 25 to 27 May 2010 in Pecs, Hungary. This year's topic of discussion was «digital archives. At the meeting, representatives of the Surveying and Mapping Authority of the Republic of Slovenia presented a paper dealing with the said subject and presenting the work in the field of digitalisation of cadastre plans, the scanning of archives of the Land Cadastre at the Slovenian Surveying and Mapping Authority and the idea of organising a central archive of digital data in the future.



Figure 7: Participants at the Pecs conference, May 2011

For a number of years, the Surveying and Mapping Authority of the Republic of Slovenia has been participating in the European sub-commission for EUREF reference components with the International Association of Geodesy IAG. This year's EUREF symposium was held from 25 to 28 May 2011 in Chisinau, Moldova. The host of the symposium was Agentia Relatii Funciare si Cadastru a Republicii Moldova (the Agency for Land Relations and Cadastre of the Republic of Moldova). Some 130 representatives from 34 countries attended the symposium. The programme again comprised professional lectures, presentations of national activity reports from 34 countries and the adoption of resolutions. The representative of the Slovenian Surveying and Mapping Authority attended the symposium together with a representative of the Geodetic Institute of Slovenia.



Figure 8: The Slovenian delegation at the EUREF symposium, June 2011

In 2011, the Surveying and Mapping Authority also implemented the project of providing bilateral technical assistance that was financially supported by the Ministry of Foreign Affairs of the Republic of Slovenia. The project was implemented as a three-day workshop in Chisinau, Moldova and a study visit of Moldovan experts to Ljubljana.

As part of the workshop, two employees of the Surveying and Mapping Authority presented the setting up of the Consolidated Cadastre of Public Infrastructure in Slovenia. During their study visit to Slovenia, participants prepared reports for the legal basis for organising and setting up the Consolidated Cadastre of Public Infrastructure in Moldova. A number of recommendations, proposals and starting points were prepared.

From 8 to 10 June 2011, the Surveying and Mapping Authority of Slovenia organised the 4th regional conference on cadastre and spatial data infrastructure in Bled. The conference was a continuation of the regional incentive from 2008, when the first conference was organised in Opatija and followed by conferences in Ohrid and Bečići. 96 representatives from 12 countries attended the conference. They were mostly from national surveying and mapping authorities operating in the Western Balkan region but also representatives of the World Bank, FAO, Eurographics and other international organisations. This year's conference focused on the realisation of objectives and guidelines of Cadastre 2014 and the implementation of the

INSPIRE Directive in national geodetic authorities in the region. The participants were addressed by the State Secretary at the Ministry of the Environment and Spatial Planning, MSc Peter Gašperič, who stressed the importance of national geodetic services adapting to new challenges and tasks in the society.



Figure 9: Participants of the regional conference on cadastre and SDI, Bled, June 2011

The presentations, which were prepared by all participating institutions, have shown immense progress and invested efforts in establishing national spatial data infrastructure in the countries of the region. This progress is fully compliant with the standards and recommendations of the INSPIRE Directive even though the Directive is not yet effective in all countries of the region. In the adopted conclusions, conference participants supported the contents of the 4th study on cadastre and NSDI in the region that was presented at the conference. More information is available at the conference website: <http://www.4rcs-bled.si>.



Figure 10: Participants of the regional conference on cadastre and SDI, Bled, June 2011

In 2011, we continued carrying out activities associated with the establishment of the spatial data infrastructure under the INSPIRE Directive (Directive 2007/2/EC). In 2011, a representative of the Surveying and Mapping Authority of the Republic of Slovenia, acting as the Slovenian delegate in the INSPIRE Permanent Committee, which was established by the European Commission on the basis of the INSPIRE Directive, participated at two meetings of this committee where he presented Slovenian positions on the discussed documents. At the INSPIRE conference in Edinburgh, Scotland, we participated with a paper informing the participants of the situation of transposing the INSPIRE Directive into the Slovenian legal order.



Figure 11: Images from the INSPIRE conference in Edinburgh, June 2011

From 19 to 20 September 2011, the Impact of the NSDI in the Society, Challenges for Establishment Conference was organised in Skopje in the FY Republic of Macedonia. Representatives of the Surveying and Mapping Authority of the Republic of Slovenia attended the conference together with other participants from Slovenia. The conference presented the development of the national spatial data infrastructure in the FY Republic of Macedonia and the broader region. The conference was organised by the Agency for Real Estate Cadastre of the FY Republic of Macedonia as well as the Skopje Faculty of Civil Engineering, FIG (International Federation of Surveyors) and Eurographics (Association of National Mapping Land Registry and Cadastral Agencies in Europe).



Figure 12: Participants at the NSDI conference in Skopje, 2011

On 28 October 2011, participants of the Regional Geodetic Student Meeting, which was held in Ljubljana from 27 to 30 October, visited the Surveying and Mapping Authority. This year's RGSM was organised by the Slovenian Geodetic Students Association, while the first meeting was organised last October in Belgrade. The idea for the meeting arose two years ago at the International Geodetic Students Meeting (IGSM) in Zagreb. The organisers of this year's meeting prepared a diverse programme of lectures and visits, among them also the visit to the headquarters of the Surveying and Mapping Authority of the Republic of Slovenia, where we introduced them to our fields of work, organisation and plans of the national land survey service.



Figure 13: Meeting participants in front of the building of the Surveying and Mapping Authority of the Republic of Slovenia

On 11 November 2011, the Surveying and Mapping Authority hosted a delegation of the Kosovo Cadastral Agency (KCA). The delegation included the CEO of the KCA Prof Dr Murat Meha and Head of the IT Directorate at KCA Ms Aferdita Thaci. During their visit to the Surveying and Mapping Authority, we introduced our guests to the fields of work of the national land survey service and exchanged experiences relating to the setting up of the Register of Spatial Units and Internet portals with spatial data.



Figure 14: Guests from Kosovo during their visit to Ljubljana, November 2011

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From 1 to 3 December 2011, representatives of the Slovenian Surveying and Mapping Authority participated at the 1st Serbian Geodetic Congress. The congress was organised by the Republic of Serbia Geodetic Authority in honour of 175 years of surveying activities in Serbia and the successful conclusion of the project of modernisation of the Land Cadastre and real estate registration.



Figure 16: Participants of the 1st Serbian Geodetic Congress, December 2011, Belgrade

The Surveying and Mapping Authority also fulfilled its obligations of maintaining the state border arising from international contracts on border maintenance with Italy, Austria and Hungary and which are determined by the State border Control Act.



Figure 17: Participants of the meeting at the three-border point and the restoration of the destroyed border point at the Slovenian-Austrian border.

In 2011, the staff of the Surveying and Mapping Authority were actively involved in the 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. We participated at the international Cadastre 2.0 symposium organised at the end of September by the International Federation of Surveyors FIG in cooperation with the Federal Office of Metrology and Surveying (BEV) in Innsbruck. We were invited by the organiser to hold an invited lecture at the EUROGI meeting in November 2011 in Bratislava.

In 2011, the Surveying and Mapping Authority concluded a new agreement on data exchange with the Austrian BEV that replaced the previously valid agreement from 1997.



3 WHAT WE ACCOMPLISHED IN 2011...

3.1 Overview of the Activities of the Entire Surveying and Mapping Authority of the Republic of Slovenia in 2011

The implementation of planned tasks was substantially impaired in 2011 due to the budget rebalance. However, the following results need to be emphasised:

The Surveying and Mapping Authority of the Republic of Slovenia prepared three proposals for new acts in its regulations preparation process, one proposal for a decree and two proposals for rules that were not adopted for various reasons (from 20 September 2011, the Government of the Republic of Slovenia performed only current business, audits of the Court of Auditors, etc.). However, the Surveying and Mapping Authority of the Republic of Slovenia prepared the following rules and acts that were adopted by the Government of the Republic of Slovenia:

- Report on the Implementation of the Work Programme of the National Land Survey Service for the Year 2010 (Decision of the Government of the Republic of Slovenia of 12 April 2011)
- The National Land Survey Service Programme for the Years 2011 and 2012 (Decision adopted at the 138th session of the Government of the Republic of Slovenia on 9 June 2011)
- Decision Amending the Decision on the Transformation of the “Inštitut za geodezijo in fotogrametrijo Fakultete za gradbeništvo in geodezijo” into “Geodetski inštitut Slovenije” (Official Gazette of the Republic of Slovenia, no. 38/2011)
- Decision Granting Consent to the Amendments to the Statute of the Geodetic Institute of Slovenia (Decision of the Government of the Republic of Slovenia of 22 November 2011)
- Real Estate Valuation Models Determination Decree (Official Gazette of the Republic of Slovenia, no. 95/2011)
- Decree on Data about Real Estate Characteristics in the Real Estate Register (Official Gazette of the Republic of Slovenia, nos. 95/2011 and 109/2011)

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

- Rules on the Programme and Method of Taking an Exam in Land Surveying (Official Gazette of the Republic of Slovenia, no. 10/2011)
- Rules on Terms and Procedures for Scoring, Monitoring, Certification and Registration of Mandatory Proficiency Education of Certified Land Surveyors (Official Gazette of the Republic of Slovenia, no. 10/2011)
- Rules Amending 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. 10/2011)



- Rules on the Programme and Method of Taking Proficiency Examinations for the Performance of Land Surveying Services (Official Gazette of the Republic of Slovenia, nos. 11/2011 and 23/2011)
- Rules on the Content, Form and Issuing Procedure of the Land Survey Licence (Official Gazette of the Republic of Slovenia, no. 14/2011).

The Surveying and Mapping Authority also took an active part in the preparation of regulations of other ministries and services.

In the field of geodesy, topography and cartography, control of configuration of the permanent GNSS stations of the SIGNAL network and upgrade of the necessary technical equipment were performed. Operation of the network and the GPS Service at the Geodetic Institute of Slovenia, which monitors the network operation and transmits data to users, was ensured. Regular maintenance and service work on geodetic measuring instruments and equipment were performed. A highly accurate geodetic measurement was implemented on 161 km of levelling line as well as gravimetric measurements on part of the levelling network, measurements for LIDAR (Light Detection and Ranging) - 7,600 control points were measured, and measurements for geoid determination. According to the plan, the Implementation of the New European Spatial Reference System (ESRS) Project (ESRS Implementation) was concluded in Slovenia, a project that was co-financed (40% of the project value) by the Norwegian financial mechanism. For the period 2009-2016, the possibility of further co-financing of works on the national geodetic system from the EEA Financial Mechanism 2009-2014 was obtained (60% of the value of works).

Aerial photographing of 30% of the Slovenian territory was performed, as well as aerial triangulation. Aerial photos, orthophotos and a digital relief model for the north-western part of Slovenia were produced, all within the new European (new national) georeference (coordinate) system. Conversion of this data in the old national D48 coordinate system was carried out. Pursuant to EuroGeographics (Association of National Mapping Land Registry and Cadastral Agencies in Europe) standards, data for the European database, corresponding to the 1:250,000 scale, was partially updated (EuroRegionalMap). Tasks for the Slovenian Governmental Commission for the Standardisation of Geographical Names continued to be implemented. The existing topographic DTK 5 data have been transformed to the new national spatial coordinate system. The methodology and technological solutions for data collection on the actual use of waterside land and restoration of water-related data in the DTK 5 database were prepared. Light detection and ranging of the territory of Slovenia began with the purpose of implementing flood control measures. Special activities were carried out for the Ministry of Defence of the Republic of Slovenia in the fields of cartography and topography. A total of 3,065 research reports have already been submitted in the Consolidated Cadastre of Public Infrastructure and more than 5,600,000 facilities have already been recorded. Minimal technical support was provided for the maintenance of the Consolidated Cadastre of Public Infrastructure.



Due to the budget rebalance and consequently reduced funds, certain activities were not carried out or were not carried out completely in the field of real estate registration.

Only a part of the foreseen activities from the field of maintenance of data pertaining to the state border and land surveys on the state border with Italy, Austria and Hungary that were specified by joint committees were implemented. Vegetation removal was not performed.

In the field of operational improvement of real estate records data, adjustments and supplements of data in the Land Cadastre, the Building Cadastre and Real Estate Register were implemented within regular tasks of data maintenance. Data from real estate records was also harmonised with data from other databases (Register of Permanent Residence, Land Cadastre, Actual Use of Lands).

We initiated activities in the field of improving the position accuracy of land cadastre display. Methodological and technological solutions for the implementation of location improvement of the land cadastre have been prepared, however data improvement on the operative level was not yet started.

In the field of mass real estate valuation, the Mass Real Estate Valuation Office operatively implemented tasks of general real estate valuation under the Real Property Mass Appraisal Act - ZMVN (Official Gazette of the Republic of Slovenia, nos. 50/06 and 87/11). The real estate transactions were reviewed and processed for the purpose of making a model of the Slovenian 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 Slovenian real estate market. A system of overall real estate valuation, in regard to its content and IT, was maintained and upgraded. The information system recorded proposals submitted by real estate owners to the real estate valuation models used in the trial calculation of the value of real estate. Based on studying the suggestions of real estate owners concerning the trial calculation of the value of real estate in accordance with the determined measures of mass valuation of real estate, a final proposal of models of mass valuation of real estate was prepared. The Government of the Republic of Slovenia determined real estate valuation models by adopting the Real Estate Valuation Models Determination Decree (Official Gazette of the Republic of Slovenia, no. 95/11). Pursuant to this Decree, the application for ascribing values to real estate was upgraded. This allowed a generalised market value to be ascribed to all real estate that is entered in the Real Estate Register. The models of mass valuation of real estate are managed and publically available online in the updated Real Estate Valuation Database. This represents the final implementation and setting up of the mass real estate valuation system in the Republic of Slovenia.

In the field of data issuing, the Surveying and Mapping Authority of the Republic of Slovenia provided electronic access to geodetic data to numerous users through the data distribution system as well as in the usual way of issuing geodetic data certificates at counters at all locations of the Surveying and Mapping Authority and



all administrative units that issue certificates from geodetic databases. Data was issued at the counters in the forms of certificates, maps, plottings, extracts, online browsers, online data distributions and duplicates.

Promotional and other activities for informing the users and the wider community were carried out. The bilingual Report on the Activities of the Surveying and Mapping Authority of the Republic of Slovenia was prepared. Funds for the concession of managing the GEOSS area were provided.

In 2011, the Surveying and Mapping Authority of the Republic of Slovenia continued with activities of establishing a common information infrastructure on the basis of the Infrastructure for Spatial Information Act - ZIPI (Official Gazette of the Republic of Slovenia, no. 8/10).

As regards information technology, appropriate information conditions for continual operation of the distribution system were ensured. Due to reduced funds, further development was substantially impeded.

3.2 Important Activities of the Main Office

ACCESS TO THE LAND SURVEY SERVICE 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 as part of the national information system. It provides access to data in various 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 access to personal data is 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,
- distribution of data (data transfer to the user's system).



The Surveying and Mapping Authority regularly manages and updates metadata for all the data. Metadata enables searching by data, their providers 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.

Metadata as well as other information, services and applications relating to geodetic and real estate data are available to users online at the Prostor portal at <http://e-prostor.gov.si>.

Figure 18: Online Prostor (Space) portal



Access to Geodetic Data

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>.

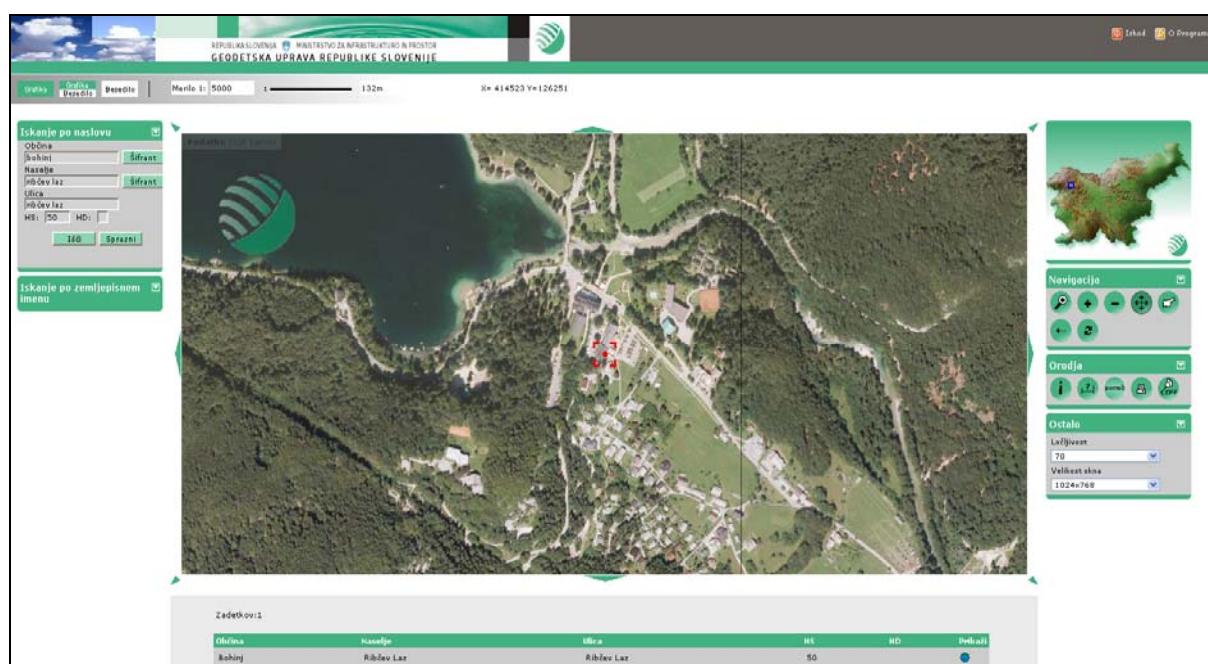


Figure 19: Location search and its display on orthophoto

Public access to real estate data is a free online service that enables users access to descriptive and graphic data from the Land Cadastre, the Building Cadastre, the Real Estate Register, the Register of Spatial Units and the Consolidated Cadastre of Public Infrastructure. It is available at <http://e-prostor.gov.si>.

Since December 2011, public access to real estate data offers generalised market values of real estate that were determined using procedures and methods of mass real estate valuation.

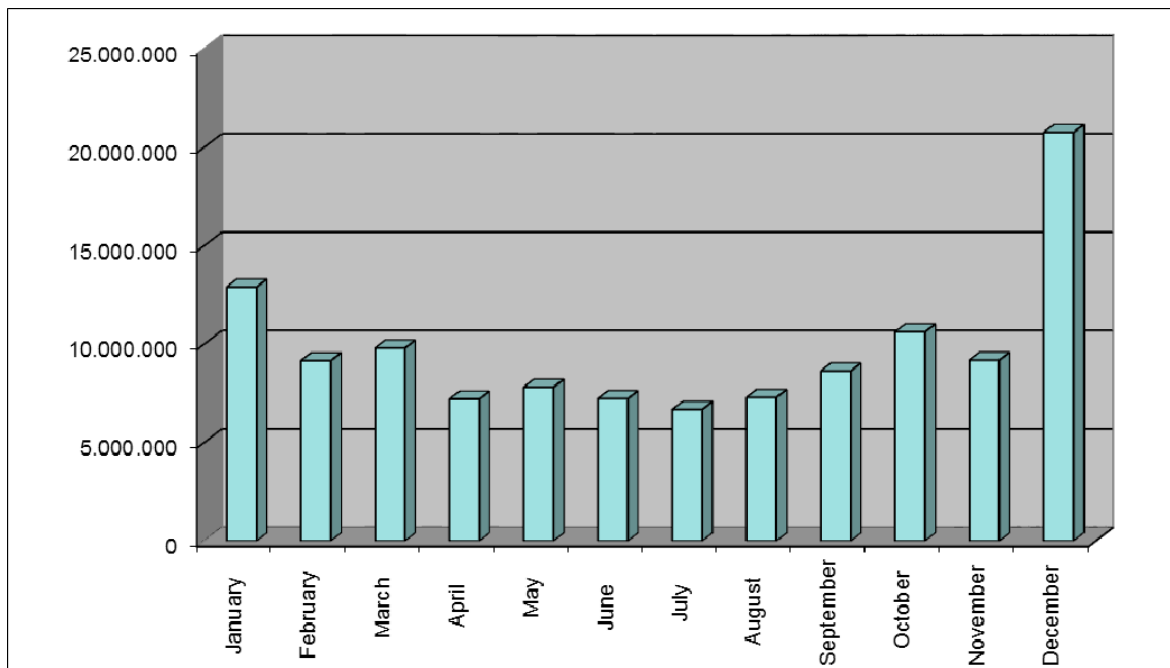


Diagram 3: Number of accesses by month

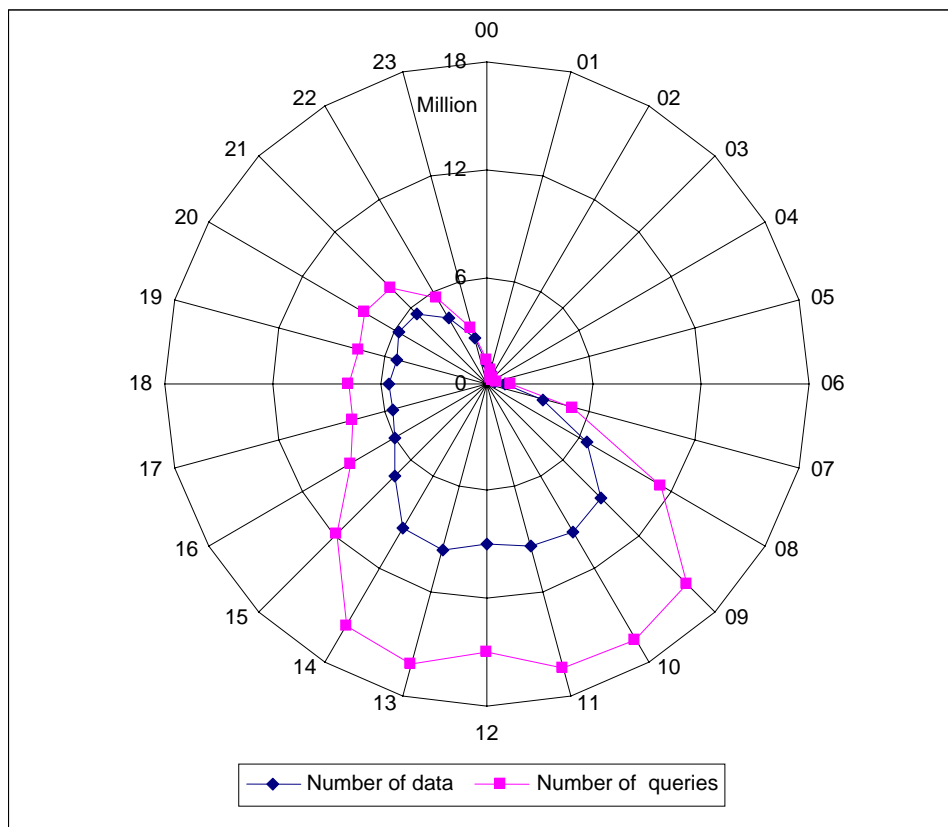


Diagram 4: Number of queries and data per hours of the day

Personal access allows an individual free-of-charge access to graphic and descriptive data on real estate properties owned by that individual and as such managed in geodetic records. 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 to take appropriate action in case of discrepancies (<http://e-prostor.gov.si>).

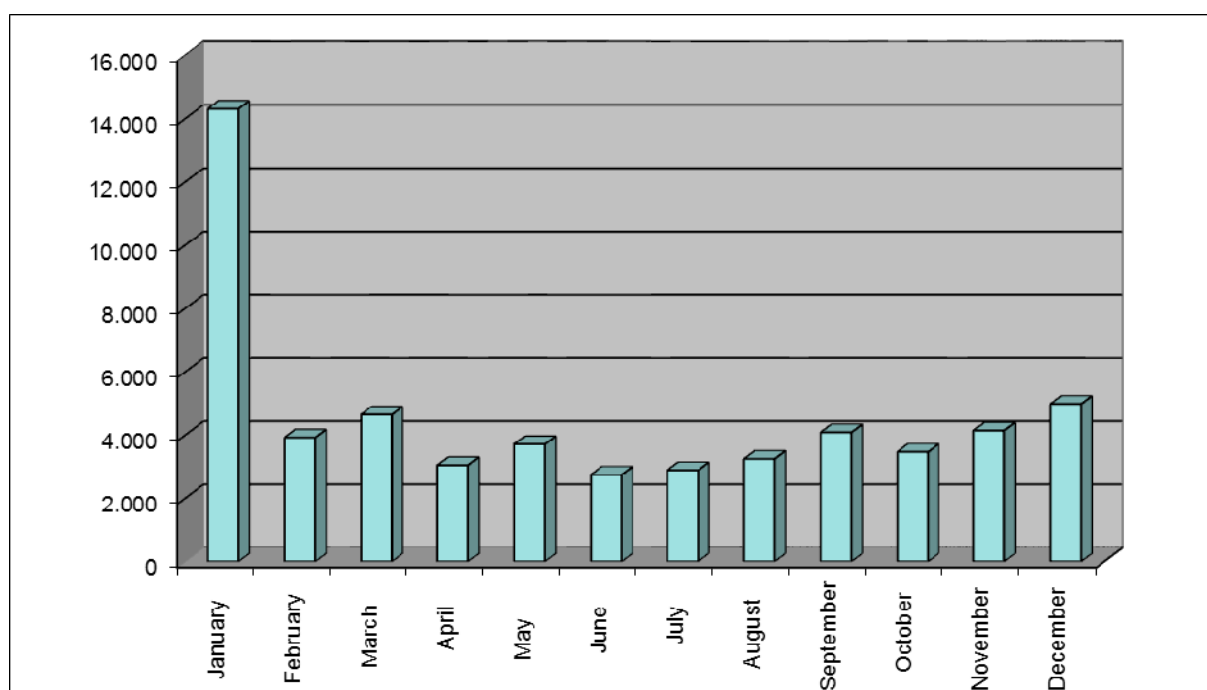


Diagram 5: Number of accesses by month

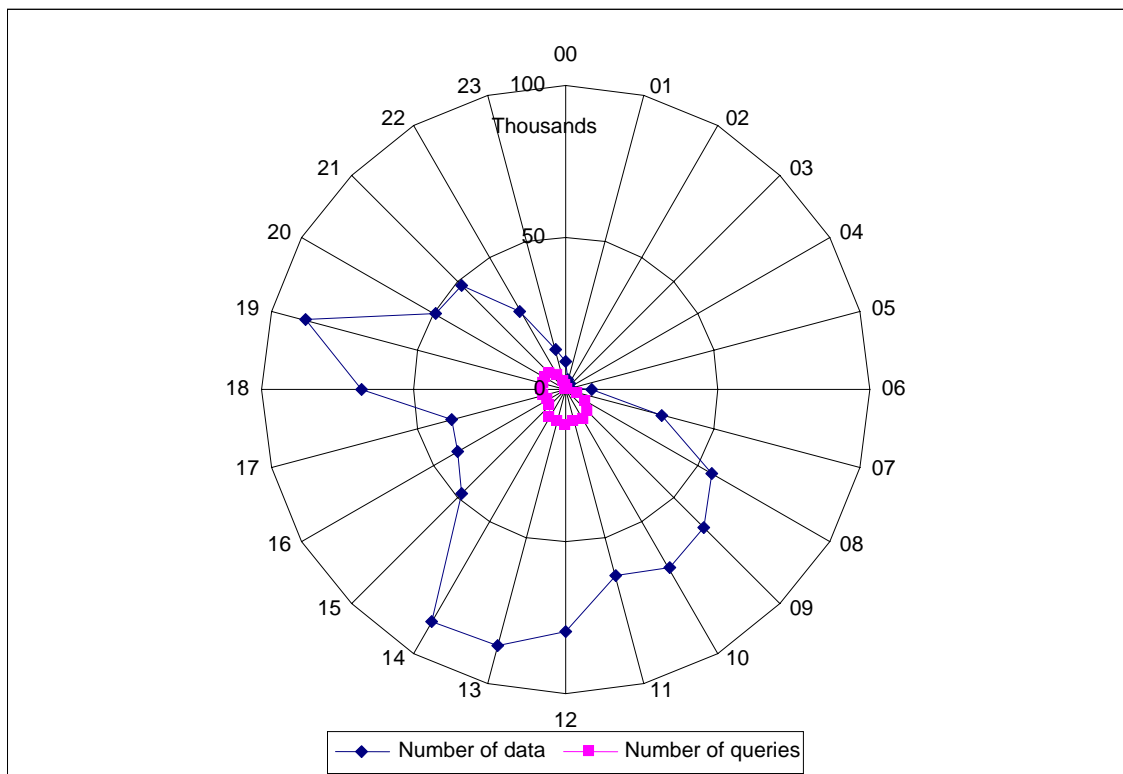


Diagram 6: Number of queries and data per hours of the day

Access to real estate data for registered users (<http://e-prostor.gov.si>) enables access to all geodetic data in the multi-purpose, user-adapted distribution system. This service of access to geodetic data enables browsing by attributes and graphics 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, maximising, minimising, shifting, choice of scale, distance measurements, choice of image quality, facility selection, etc.). In accordance with the legislation, it is also possible to obtain data on the owner of real estate (plots or buildings) on the basis of providing a real estate identifier. The browser also displays the selected data in graphic form 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. plot boundaries). This service of access for registered users is intended primarily for users in public administration (state and local level), commercial users (real estate agents, lawyers, insurance agencies, banks, etc.) and land survey service providers.

In December 2011, a new module was added. The REN Real Estate Register enables various types of queries, detailed displays of data for an individual unit or the entire real estate and display of real estate value.

In 2011, 4,281 registered users from 832 organisations submitted their inquiries for data.

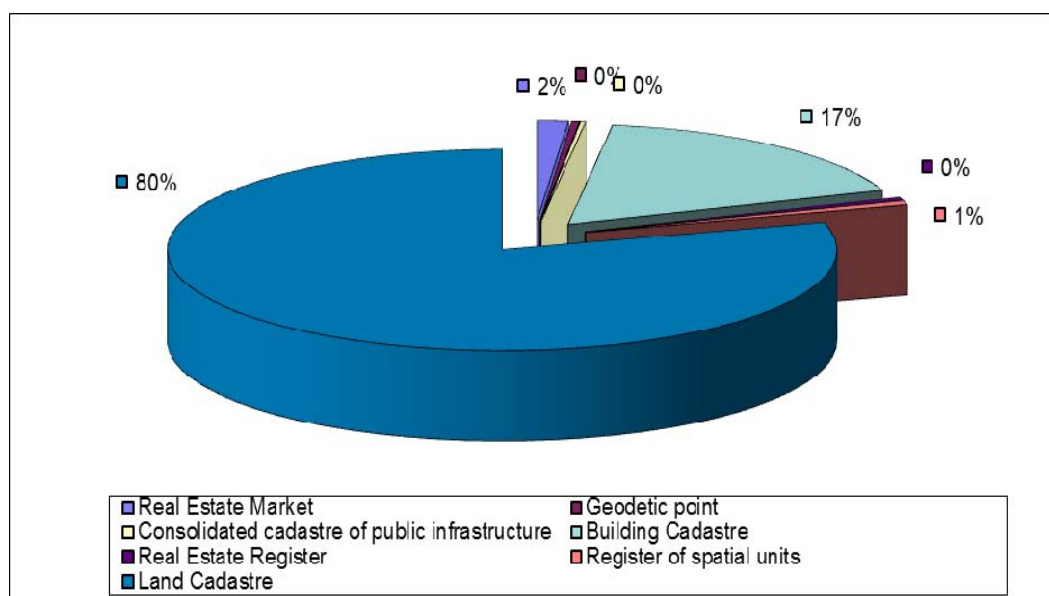


Diagram 7: Number of queries by type of data

The Access to real estate data for registered users service is also intended for all legally determined bodies that are allowed to, in addition to the Surveying and Mapping Authority, issue certificates from geodetic databases (state bodies, public notaries and geodetic companies involved in geodetic activities).

In 2011, 196,916 certificates from geodetic databases were issued together with 90,546 plot outlines - unofficial certificates.

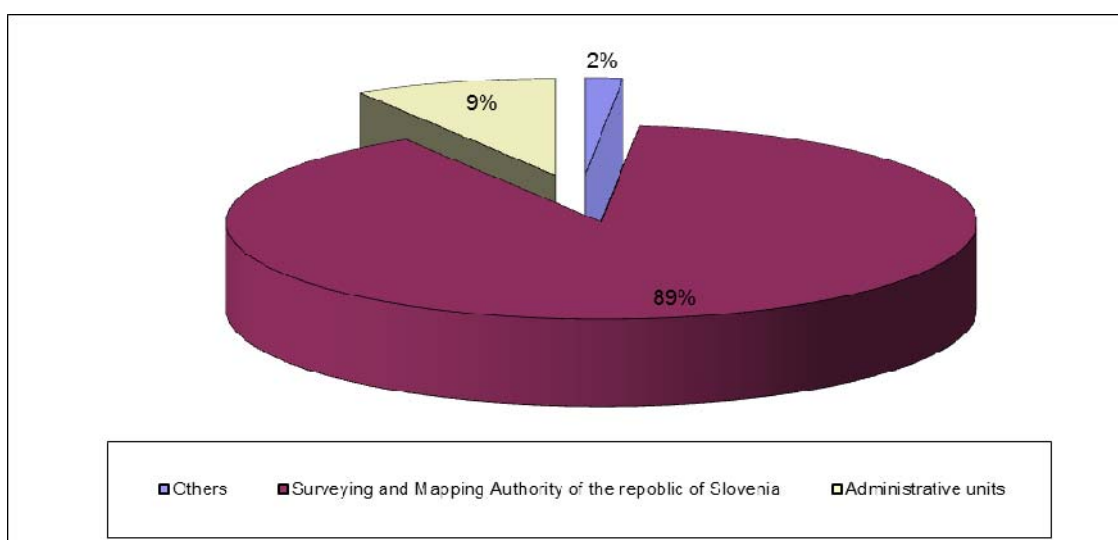


Diagram 8: Share of issued certificates from geodetic databases by bodies

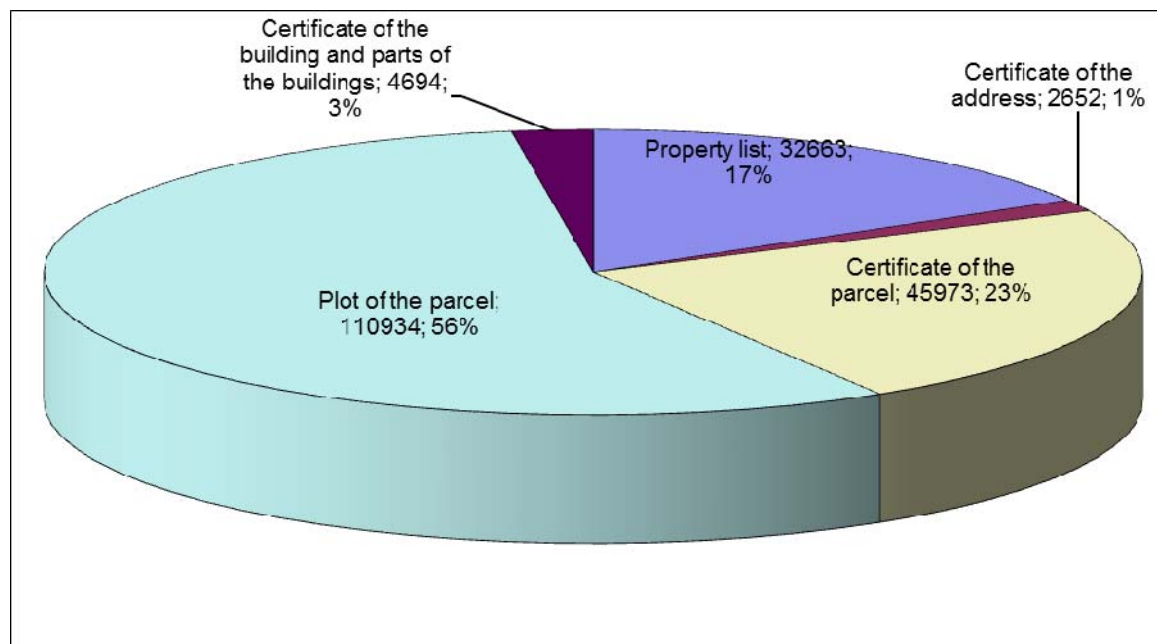


Diagram 9: Share of issued certificates from geodetic databases by type of certificate

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 users then copy to their system.

The online services that 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, 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 state and local level) started using these services for the purposes of managing and updating the more important national and local registers and records.

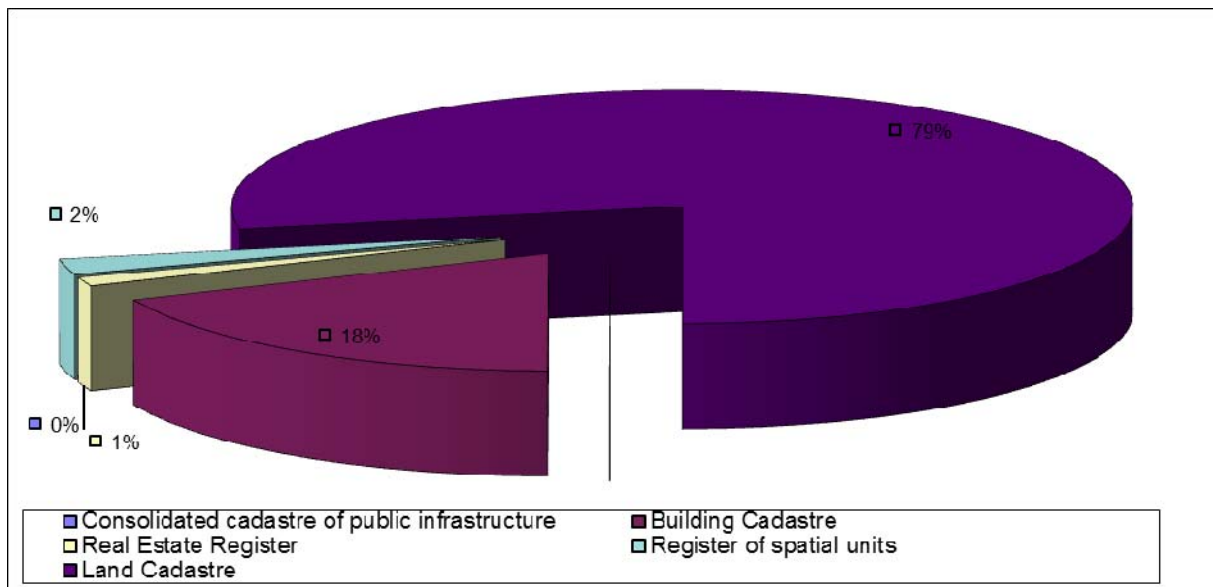


Diagram 10: Number of queries by type of interface

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

3.3 Important Activities of the Real Estate Office

The Land Cadastre, Building Cadastre and the Real Estate Register

In 2011, special attention was paid to improving data on buildings and parts of buildings and plots. In order to comprehensively and systematically improve the quality of data from real estate records, in 2011 a detailed programme for improving the quality of data according to individual locations in Slovenia was prepared.

The Surveying and Mapping Authority implemented various activities for improving the quality and comprehensiveness of data in real estate records:

- it implemented analyses and harmonised existing records,
- trial of on-site identification of buildings was implemented,



- software enabling a simpler and easier search for discrepancies in real estate data was developed,
- procedures for changing data on buildings and parts of buildings were simplified,
- in October 2011, maintenance of actual land use in the Land Cadastre was performed.

The informing of real estate owners regarding the trial real estate valuation, which ended in January 2011, increased regular recording of data in cadastres and the Real Estate Register. In 2011, the Surveying and Mapping Authority noted an increase in the number of requests for recording cadastral data (by 7% for the Land Cadastre and by 29% for the Building Cadastre). New and updated data in both cadastres consequently mean updated data in the Real Estate Register. The number of requests to owners for registration of buildings in the Building Cadastre also increased. In cases where owners failed to register building data despite the issued request, 148 motions to the competent inspection body were issued in 2009, 105 motions in 2010 and 392 motions in 2011.

Organisational measures of distributing work to all locations of land survey offices across Slovenia allowed us to equally distribute the delay in registration that was caused while informing real estate owners of the trial real estate value calculation.

The existing software of the Land Cadastre, the Building Cadastre and the Real Estate Register was upgraded so as to ensure more stable operation.

On 31 December 2011, 5,405,799 plots and 1,161,407 buildings were registered, of which 59,493 were registered in the Building Cadastre 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). On 31 December 2011, 1,807,258 parts of buildings were registered, of which 527,653 were registered in the Building Cadastre.

In 2011, 13,839 procedures of registration of buildings in the Building Cadastre were carried out and 7,468 procedures for changes of data in the Building Cadastre. For buildings and parts of buildings that are entered in the Land Register, about 26,367 procedures of ownership recording were carried out in 2011.

In 2011, there were 69,990 procedures of plot changes in the Land Cadastre, which is 5% more than in 2010.

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, the Building Cadastre and the Land Cadastre.

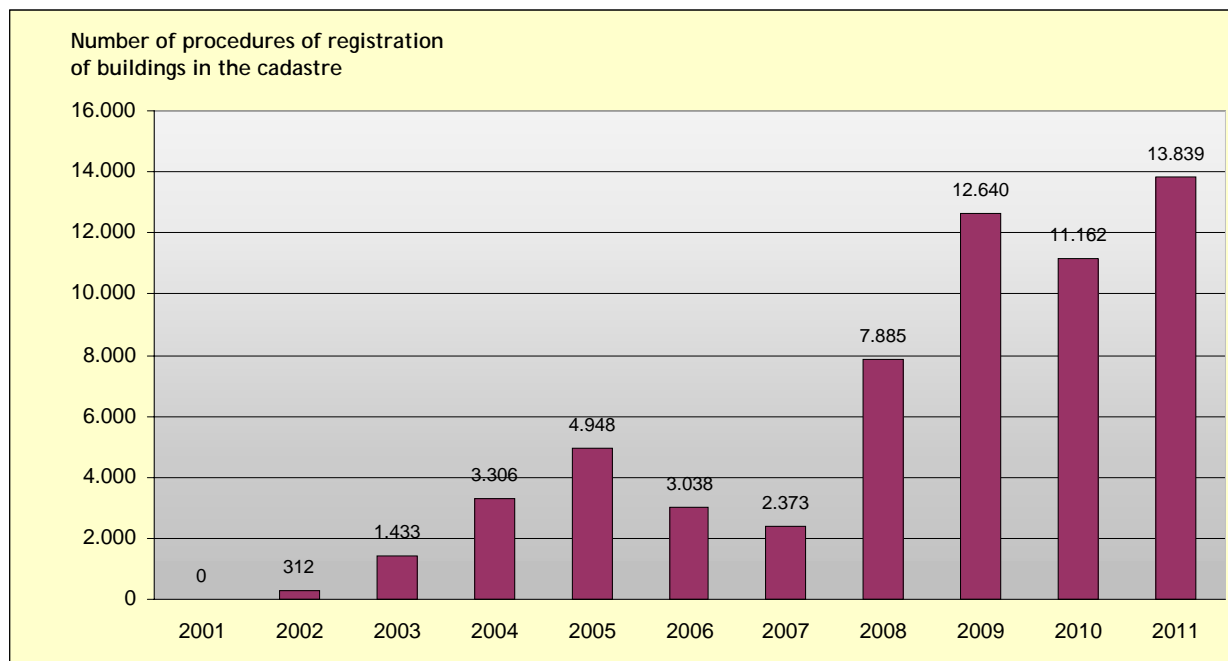


Diagram 11: Number of procedures of registration of buildings in the cadastre by year

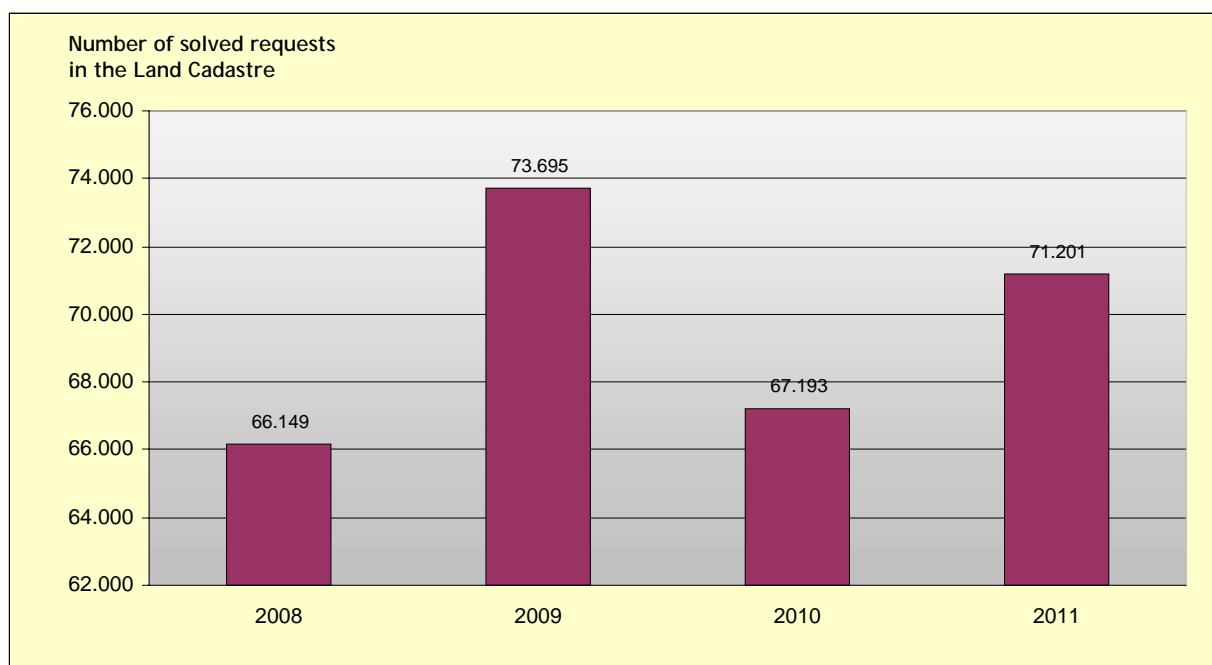


Diagram 12: Number of solved requests in the Land Cadastre by year



In 2011, the Decree on Data regarding Real Estate Characteristics in the Real Estate Register (Official Gazette of the Republic of Slovenia, nos. 95/2011 and 109/2011) was adopted.

In 2011, the Surveying and Mapping Authority of the Republic of Slovenia finished the Informing Owners on the Trial Real Estate Value Calculation Project. 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 real estate, stating the probable value that such a real estate would gain in the market. In 2011, real estate owners changed 2,160,494 elements of real estate data in the Real Estate Register.

The owners may submit changes to the real estate data and ownership by using various methods: by post, at land survey offices' headquarters or through the online application.

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.

At the border with Austria, we moved 14 boundary markers in the XX and XXI border section to the right or secure place. We finished periodic control of boundary markers only in the IX border section (477 boundary markers). Owing to lack of budget resources, we did not carry out periodic control in the X (393 boundary markers) and XI (300 boundary markers) border sections. We produced new border documentation for the XX and XXI border sections.

Minor maintenance works were performed at the border with Italy in border sections 3, 4 and 5. GPS measurements in border section 7 (dry walls) and control GPS measurements in border sections 1 and 6 were performed. »We did not perform the planned vegetation removal in border section 7 due to decreased budgetary resources.

At the border with Hungary, boundary markers were restored or replaced as part of periodic control at section A199 through A357 (5 boundary markers) and at section A357 through A614 (15 boundary markers). Limited field work (cut budget funds) prevented us from finishing periodic control and thus 16 boundary markers remain uncompleted. Together with the Hungarian entity, we updated (amended) drafts for new border documentation. We did not perform the planned vegetation removal along the entire border due to decreased budgetary resources.

In 2011, political negotiations regarding the determination of the state border with Croatia advanced, and we cooperated with the Ministry of Foreign Affairs in providing professional assistance in the preparation of proof for arbitration.



Coordination of the Work of the Regional Surveying and Mapping Authorities

In the field of coordination of the work of regional surveying and mapping authorities in the real estate field, we prepared several operational instructions and professional clarifications in order to help implement 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. Individual instructions, knowledge transfers and exchange of experiences were presented to the employees of regional surveying and mapping authorities and geodetic offices in the form of educational workshops.

Training of Geodesists with a Geodetic Permit and Employees of the Surveying and Mapping Authority

Pursuant to the provisions of the Land Survey Service Act (ZGeoD-1), the organisation and implementation of mandatory training of geodesists with a geodetic permit came under the jurisdiction of the Slovenian Chamber of Engineers in 2011. The training covered topics from various fields of geodesy and the Surveying and Mapping Authority helped in preparing the training programme.

3.4 Important Activities of the Mass Real Estate Valuation Office

Mass real estate valuation is a rather new systemic field in Slovenia and is related to real estate, real estate prices, values and the real estate market. It affects the decision-making and operation of practically all state bodies, municipalities, real estate owners and other citizens.

In 2011, the Government of the Republic of Slovenia determined real estate valuation models. Based on real estate valuation models and real estate data from the Real Estate Register, real estate value was determined. A generalised market value was ascribed to all real estate that is entered in the Real Estate Register. This concluded the first cycle of the general valuation of real estate in the Republic of Slovenia. The real estate mass valuation system was finally practically implemented. It can be used for public purposes determined by law. The first important use of generalised market values was in the field of social transfers in establishing the financial position of individuals.

The field of mass valuation of real estate is governed by the Mass Real Estate Valuation Act, which was adopted in May 2006. In autumn of 2011, the National

Assembly adopted amendments to this Act, determining in more detail the procedure for general valuation of real estate and providing a detailed classification of real estate valuation models and the trial value calculation. The most important changes relate to systematic recording of data relating to purchases of real estate and rent of buildings and parts of buildings in the Real Estate Market Record. The future regulation will enable more comprehensive collection of data relating to purchases and legal transactions that are subject to value added tax and rental agreements relating to commercial and residential units.

Based on the recorded, verified and improved data of the Real Estate Market Register, in 2011 the Surveying and Mapping Authority prepared quarterly reports on average real estate prices and an interim and annual report on the Slovenian real estate market.



Figure 20: Reports on the real estate market in Slovenia

The reports are publicly available on the Internet. The professional and lay public can access data on the recorded purchases and other transactions in the Real Estate Market Record through an online application. The public access and periodic publication of reports provide better transparency of the real estate market in the Republic of Slovenia.

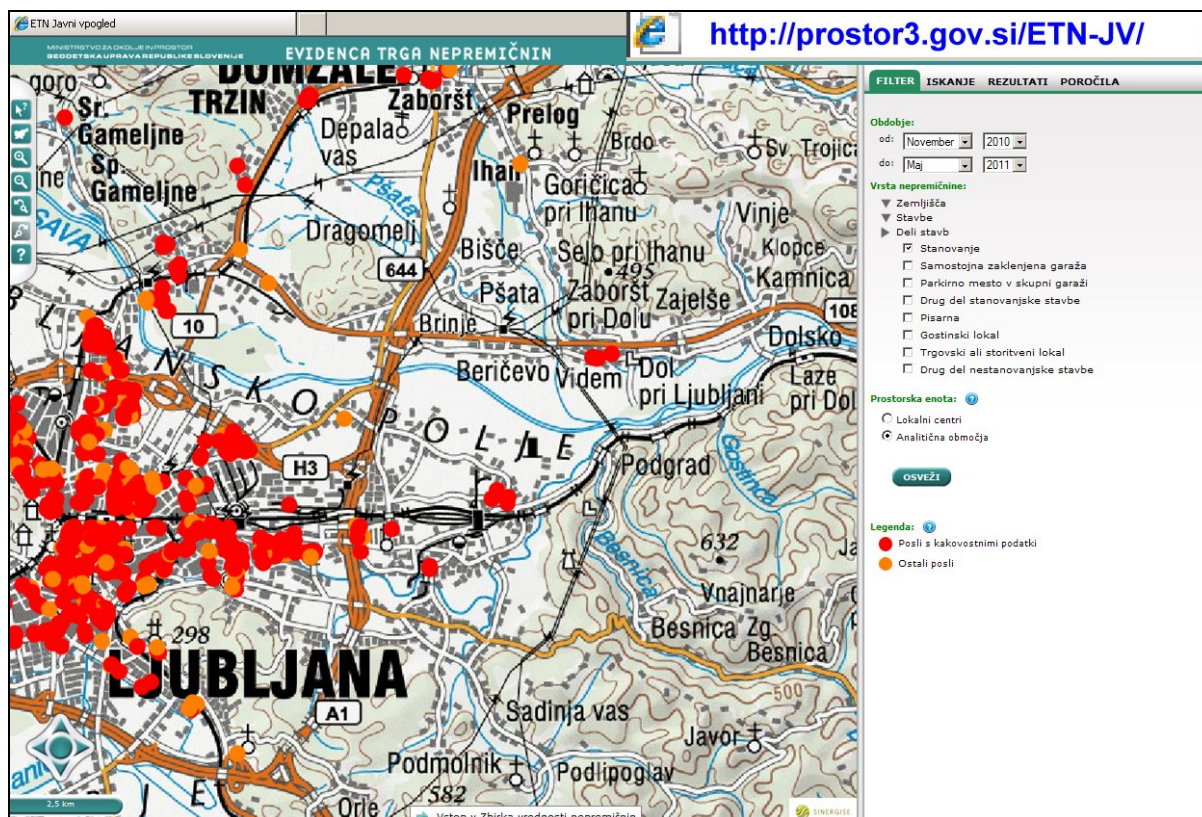


Figure 21: Public access to real estate market data

The general real estate valuation system allows for continual reviewing and updating of data on purchases and other legal transactions for purposes of determining real estate valuation models. Based on studying the suggestions of real estate owners concerning the trial calculation of the value of real estate and their consideration in accordance with the measures of mass valuation of real estate, a final proposal of models of mass valuation of real estate was prepared in 2011. After interministerial sessions, the Government of the Republic of Slovenia determined real estate valuation models. This concluded the first cycle of general real estate valuation. Generalised market values of all real estate that is entered in the Real Estate Register have been calculated. 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 that 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 regard to a number of other areas such as determining social transfers in establishing financial position, monitoring the real estate portfolio credit risk, during real estate valuating for buy-offs or expropriation that involves public benefits, during the valuating and assessing of 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.

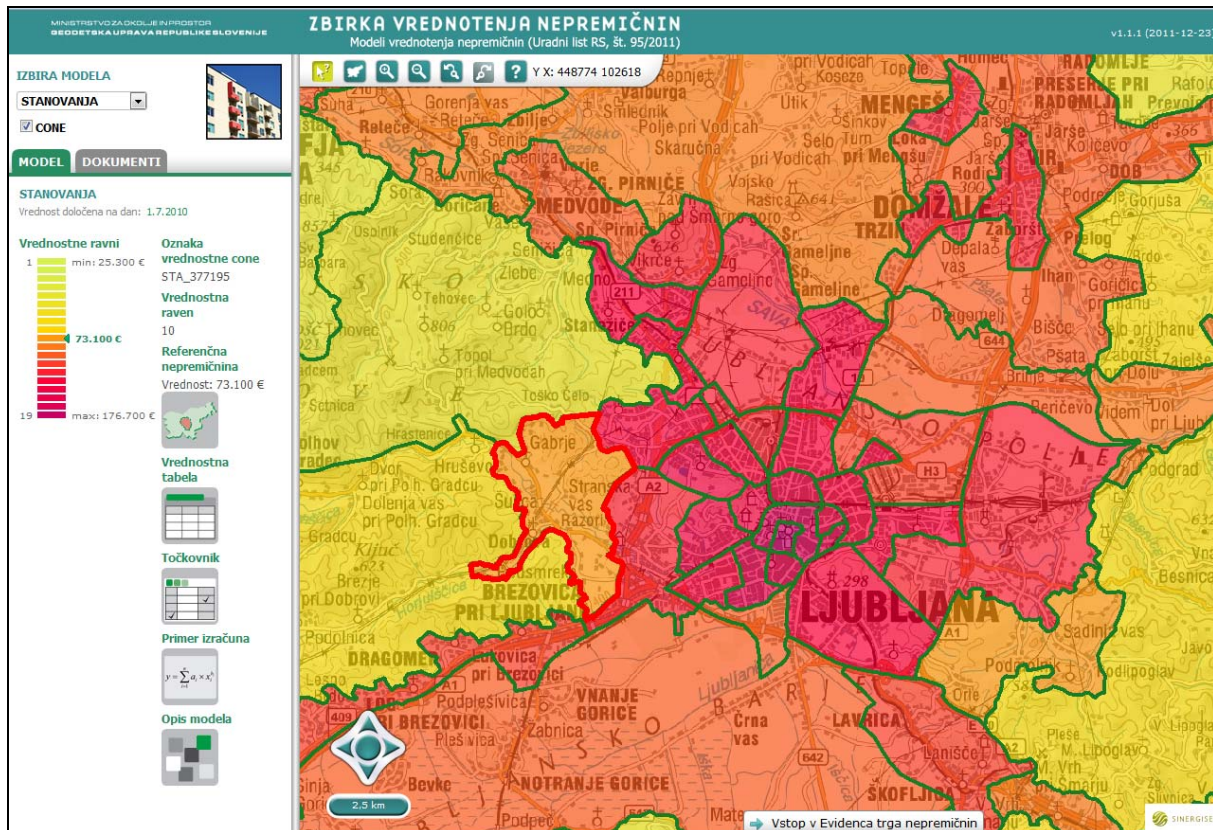


Figure 22: Public access to the real estate valuation database

3.5 Important Activities of the Geodesy Office

In the field of the national geodetic reference system, activities in 2011 were mostly focused on the transition to the new national coordinate system. In the field of topographic systems, the activities included acquisition, maintenance and management of spatial data.

Within the framework of the EEA Financial Mechanism 2009-2014, the Surveying and Mapping Authority, together with the Ministry of the Environment and Spatial Planning, prepared a proposal for the Updating Spatial Data Infrastructure for Reducing Effects of Natural Disasters Project. The aim of the project is to set up the altitude component of the national coordinate system and to update spatial data infrastructure in accordance with the requirements of the INSPIRE Directive in support of water management and reduction of flood hazards and risks. This is a

pre-defined project that is part of the Memorandum of Understanding on the Implementation of the EEA Financial Mechanism 2009-2014 that was concluded in May 2011 between the donor states of Iceland, the Principality of Liechtenstein and the Kingdom of Norway and the Republic of Slovenia as the beneficiary state. The Surveying and Mapping Authority of the Republic of Slovenia cooperated with other relevant ministries in preparing the proposal for the EEA Financial Mechanism 2009-2014 programme. The project proposal has been included in the programme area of Environmental Monitoring and Integrated Planning and Control.

Transition to the New Coordinate System

In 2011, 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:

- the horizontal system:
 - provision of data of the SIGNAL network to users via mobile service operators;
 - updating of the firmware of the national network of permanent SIGNAL GNSS stations,
 - upgrading of one permanent SIGNAL station from a GPS to a GNSS station,
 - connection of some permanent GNSS stations of the SIGNAL network to the levelling and gravimetric network;
 - GNSS observations at points for geoid determination;
 - processing of GNSS observations for determining ellipsoidal heights of levelling points;
 - elaboration of a new concept design for the new basic multi-purpose national geo-information infrastructure, i.e. a combined geodetic network;
- the altitude system:
 - processing and evaluation of levelling measurement data;
 - correction of the Postojna - Ilirska Bistrica - Kozina levelling line of the 1st order,
 - correction of the Ljubljana - Celje levelling line of the 1st order,
 - stabilisation of benchmarks on the new Brežice - Šmarje pri Jelšah levelling line of the 1st order,
- the gravimetric system:
 - implementation of supplementary gravimetric measurements at high-altitude points (benchmarks).

The Horizontal System

The setting up of the SIGNAL network began in 2000 and ended in 2006 when it was technically set up 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 a network of 15 permanent GNSS stations (receiver and GNSS aerial), the monitoring and distribution centre and 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 2011, firmware at all stations of the SIGNAL network was updated to the latest version. Operation of component parts of permanent stations was reviewed regularly.

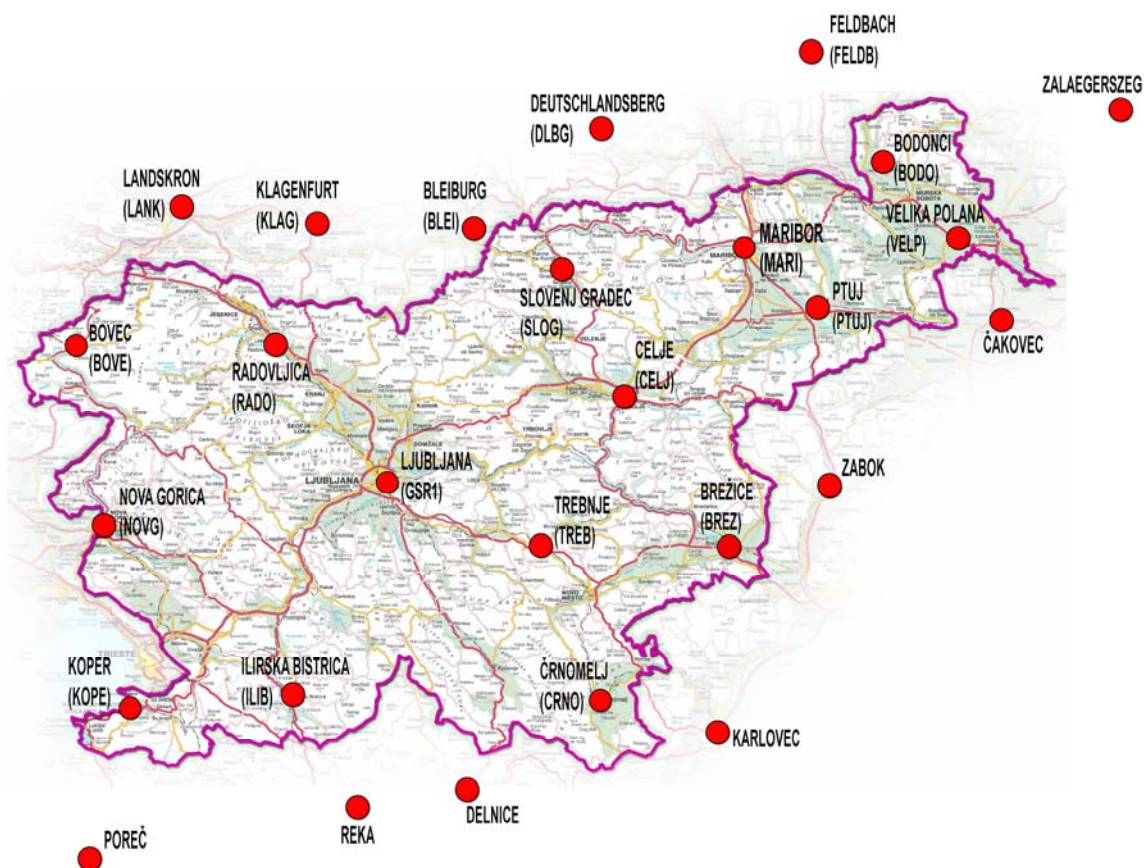


Figure 23: The SIGNAL network stations with connections to the stations in neighbouring countries

Since 2010, SIGNAL network services are payable for real time commercial use, while RINEX data from the network for the subsequent processing of measurements is available free of charge. Software for daily calculations of the coordinates of permanent SIGNAL network stations was designed. The software enables us to determine the speed of changes of coordinate points. This represents the basis for determining the future geo-kinematic model of the Republic of Slovenia.

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



Figure 24: GNSS measurements

The project for the concept and the implementation of the materialisation of the coordination system has been elaborated in the form of a combined geodetic network of the zero order that will encompass the horizontal, altitude and

gravimetric systems. We will strive towards acquiring co-financing from foreign sources intended for financing international projects.

The Altitude System

In line with the transition to the new coordinate system, the Surveying and Mapping Authority of the Republic of Slovenia will continue carrying out corrections to the levelling network. In 2011, several levelling lines of the 1st order with a total length of 151 km were measured.

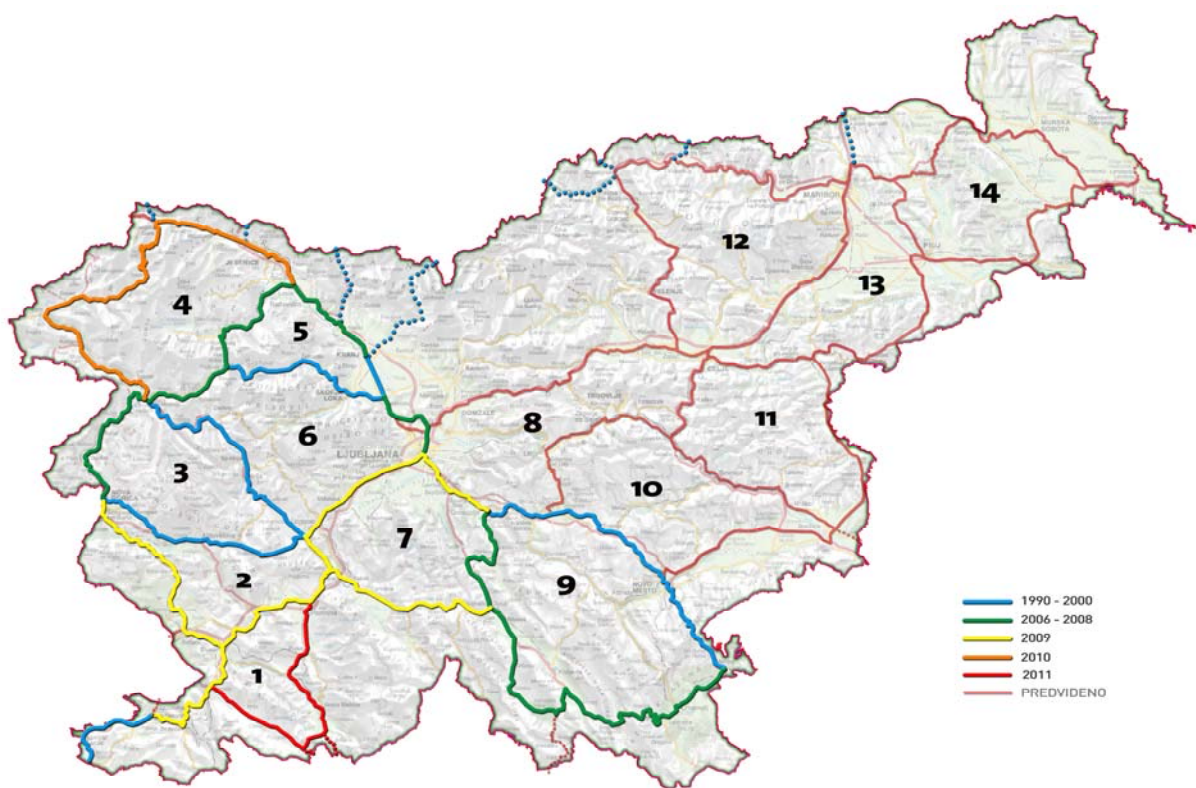


Figure 25: The new levelling network with lines measured in the last years (2011 in red)

GNSS measurements were performed at certain benchmarks of the levelling network, with a view towards determining ellipsoidal heights and controlling the existing geoid.



Figure 26: Levelling measurement of the 1st order

The Gravimetric System

In 2011, we continued with gravimetric measurements at high-altitude points (benchmarks) for the needs of implementing the new altitude system and determining the new geoid of the Republic of Slovenia. The measurements were conducted using two relative gravimeters, the Scintrex CG-3 and Scintrex CG-5.



Figure 27: Gravimetric measurements at benchmarks

EuroRegionalMap (ERM)

In 2011, we continued with ERM maintenance. ERM is the European topographic database corresponding to the similarity and accuracy of the 1:250 000 scale. The database was first set up in 2004 within the framework of EuroGraphics. Collection and restoration of data is the task of individual members of this association, and the Surveying and Mapping Authority of the Republic of Slovenia is responsible for the collection and restoration of data for the territory of Slovenia. In 2011, we restored data on administrative borders and hydrography. New data on interesting facilities (schools, universities, hospitals, etc.) was collected.



Figure 28: ERM data coverage across Europe

DTK 5 Topographic Database

In 2011, the entire DTK 5 database was transformed to the new national coordinate system. The basic sources for collecting topographic data for the DTK 5 database are aerial photos from the cyclical aerial photographing of Slovenia that has been performed in the new coordinate system since 2009. It was therefore sensible to transform existing topographic data to the new coordinate system. The application also enables data exporting in the existing and old coordinate system.

A function for controlling altitude data was created, enabling the search for errors in reambulation or data collection.

The key for 2R data display was prepared (creation of a topographic map at a scale of 1:5,000). A test solution for 3R display of data was prepared. This solution enables an orthophoto to serve as the template for the outline.



Figure 29: 3R display of topographic data with orthophoto as a template

Aerial Photographing and Producing of Orthophotos

In the 2009-2011 period, a new cycle of aerial photographing of Slovenia was implemented. This was done using a Vexcel UltraCam X digital air-camera that produces colour air photos (panchromatic + three colour channels - RGB) with a ground sampling distance (DTI) of 0.25 m. A digital relief model (5 x 5 m) and orthophoto were also made for the entire area of Slovenia by means of DTI 0.5 m (DOF050). In cooperation with the Land Survey Institute of Slovenia, all products were subject to quality control.

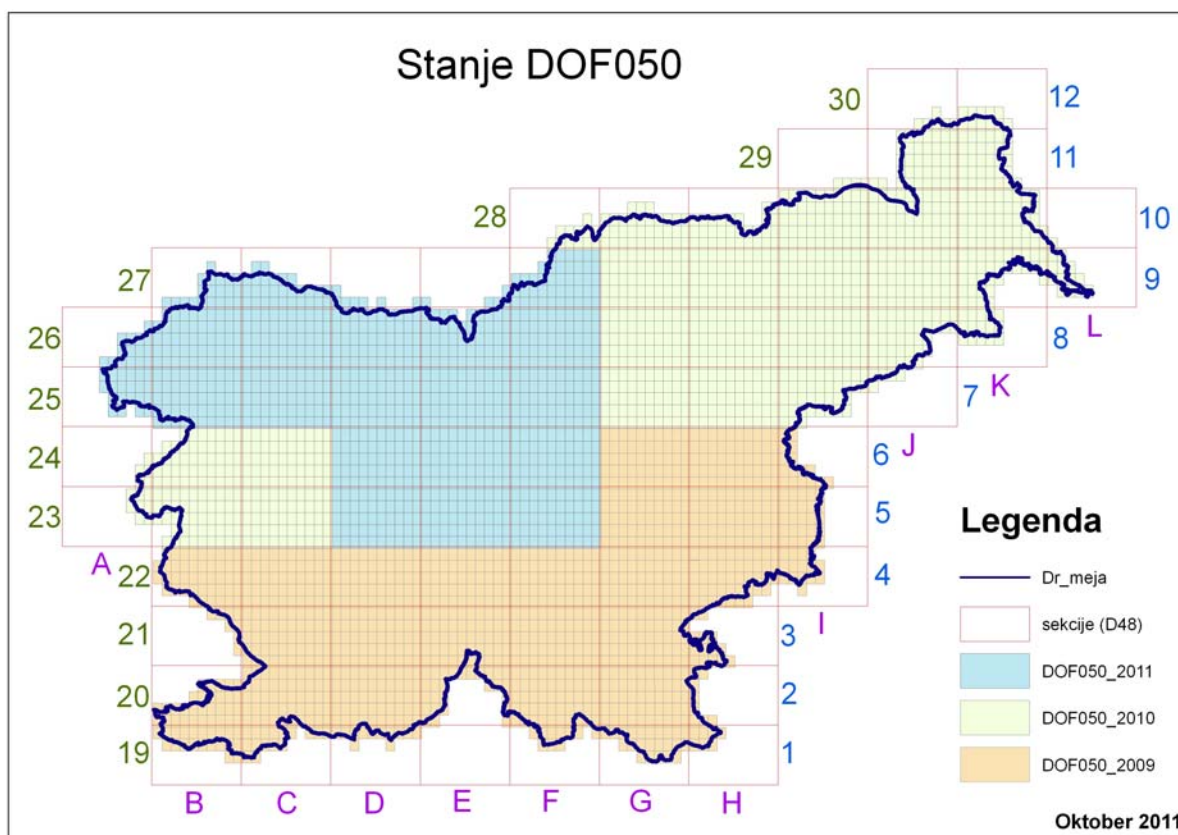


Figure 30: Orthophoto situation with DTI 0.5 m, October 2011

Laser Scanning - LIDAR

In 2011, we began implementing a task that will provide high quality surface data for the entire territory of Slovenia. Data will be captured using laser scanning - LIDAR (Light Detection and Ranging) with a density of 2 to 10 points per square metre. In 2011, approximately 10% of the territory was captured and the task is planned to be concluded in 2012. The basic products for users will be the georeferenced point cloud, a classified and georeferenced cloud of points and a digital relief model of 1 x 1 m. In cooperation with the Land Survey Institute of Slovenia, quality control is foreseen for all products.

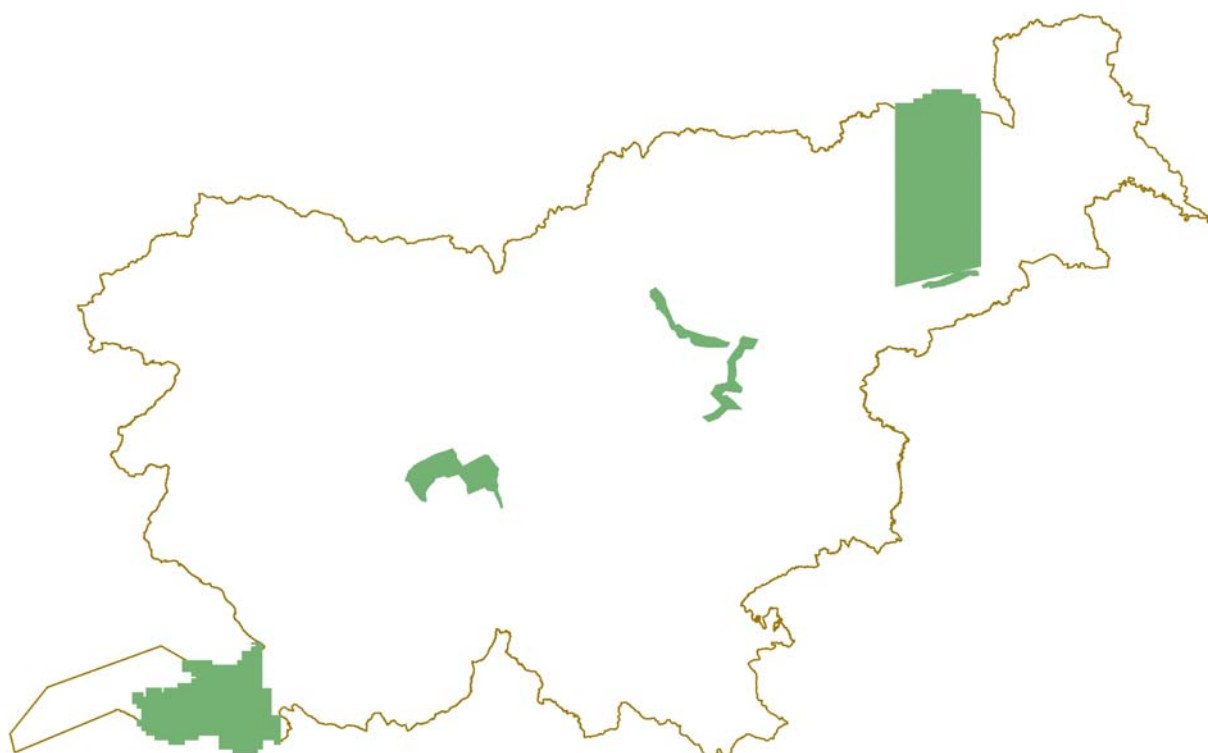


Figure 31: Lidar - captured by December 2011

Recording Public Infrastructure

With the adoption of spatial legislation in 2002 (the Construction Act and the Spatial Management Act) and 2007 (the Spatial Planning Act), the legal framework for the setting up of systematic recording of the public infrastructure was installed. The Surveying and Mapping Authority of the Republic of Slovenia was assigned the task of ensuring 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,
- established a consolidated cadastre of public infrastructure,
- ensured conditions for accessing data from the Consolidated Cadastre of Public Infrastructure.

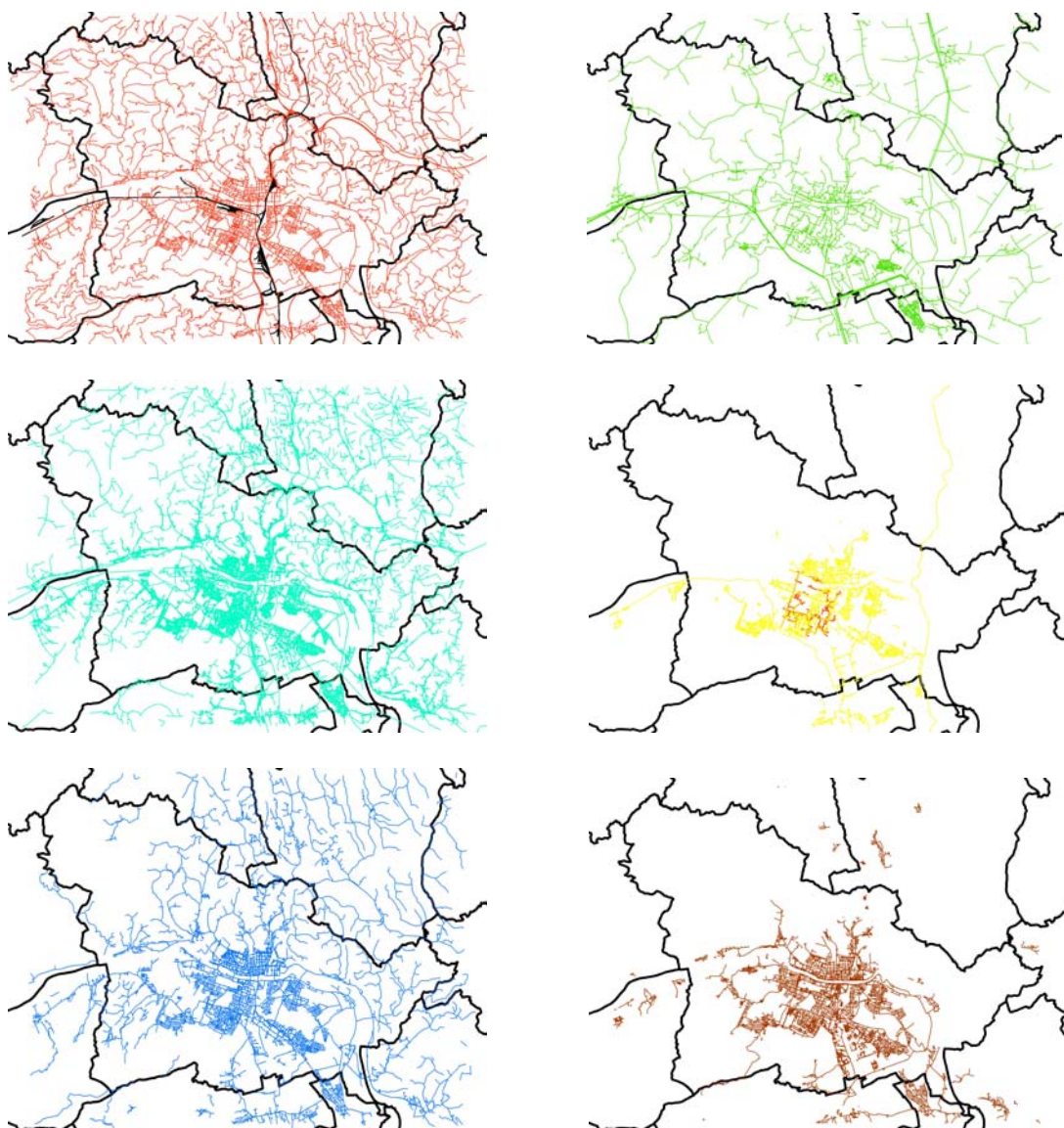


Figure 32: Consolidated Cadastre of Public Infrastructure using the example of the Municipality of Maribor:

line 1: left - roads and railways, right - electricity;
 line 2: left - electronic communication, right - gas pipeline and hot water system;
 line 3: left - municipal infrastructure - water distribution system, right - sewerage system

The owners of the public infrastructure are responsible for administering their own infrastructure data and sharing it with the Cumulative Cadastre of Public Infrastructure. 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 2011, 5,660,000 facilities, in the total length of line facilities of 181,425 km, were registered in the Consolidated Cadastre of Public Infrastructure.

Table 2: Length and number of infrastructure facilities according to type in the Consolidated Cadastre of Public Infrastructure on 31 December 2011

Type	Number of facilities	Infrastructure length (km)
Roads	135,754	49,709
Railways	7,526	2,495
Airports	89	
Ports	1,088	
Cable railways	164	11
Electricity	1,268,371	36,543
Gas	363,572	4,227
Thermal energy	67,516	962
Petroleum products	202	
Water distribution system	792,402	20,990
Sewerage system	682,116	8,602
Waste management	693	
Water infrastructure	7,559	4
Electronic communications	2,334,996	57,882
Total	5,665,048	181,425

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



Figure 33: Data in the Cumulative Cadastre of Public Infrastructure using the example of the Municipality of Maribor - the squares Slomškov and Glavni trg and their surroundings



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

- greater protection of infrastructure against damages (if their infrastructure is recorded, every person carrying out activities that affect the physical environment can obtain information on the location of such infrastructure in the space and protect the infrastructure against damages during carrying out the activities),
- greater legal security in managing the infrastructure.

The Call Before You Dig Development Project

In 2009, a development project for the Call Before You Dig service was implemented at the Surveying and Mapping Authority of the Republic of Slovenia. In 2010 and 2011, the trial service that was established in 2009 in the territory of the Celje Municipality 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 Cadastre of Public Infrastructure. Close cooperation has been established with individual owners of infrastructure and providers of public utility services for the needs of verifying and updating public infrastructure data.

The Call Before You Dig service will enable users to obtain basic information on the occupancy of a space with public infrastructure facilities within the entire Slovenian territory. The main purpose of the service is to provide a safer economic infrastructure, particularly the underground infrastructure. The service is intended for all legal and natural persons that wish to intervene in space, not only in terms of bigger construction interventions but also interventions such as the construction of less demanding and simple facilities (construction of a swimming pool, woodshed, etc.), wells for exploitation of geo-thermal energy, planting of trees or raising a fence.

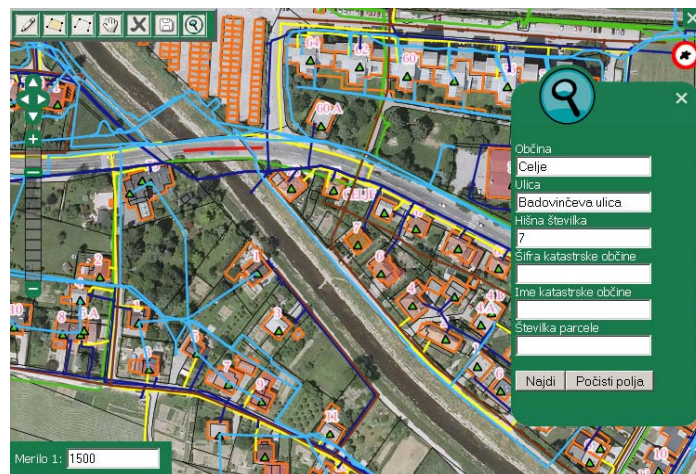


Figure 34: Graphical interface of the Call Before You Dig online application



The user of the service may obtain data on the occupancy of space with public infrastructure facilities within an 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 and currently a little over 1,270 users are registered.



Figure 35: The final document of the Call Before You Dig application

Conferences, Projects and International Participation of Representatives of the Cumulative Cadastre of Public Infrastructure

On 26 October 2011, the Planning and Maintenance of Public Street Lighting Conference was organised in Celje with the cooperation of the Energy Agency of the Savinjska, Šaleška and Koroška region, the Municipality of Celje and Adesco d.o.o. The conference featured participants from the Ministry of the Economy, the Maribor Faculty of Electrical Engineering and Computer Science, the Ljubljana Faculty of Electrical Engineering, the Lighting Engineering Society of Slovenia and



other various companies and experts. The Surveying and Mapping Authority of the Republic of Slovenia participated with the paper “Recording of Public Lighting in the Cumulative Cadastre of Public Infrastructure”.



Figure 36: Nikolaj Šarlah, MSc (Surveying and Mapping Authority) at the Planning and Maintenance of Public Street Lighting Conference in Celje

On 21 and 22 October 2011, an International symposium was organised by the Croatian Chamber of Chartered Geodetic Engineers (HKOIG) in Opatija, Croatia. The topic of the 4th symposium was Real Estate Records in the Republic of Croatia. Three institutions represented Slovenia at this symposium: the Economic Interest Grouping of Geodetic Service Providers, the Slovenian Chamber of Engineers and the Surveying and Mapping Authority of the Republic of Slovenia with the paper “When the EURO replaces the m²”.



Figure 37: Nikolaj Šarlah, MSc (Surveying and Mapping Authority) at the Real Estate Records in the Republic of Croatia Symposium in Opatija

In May and July of 2011, the Surveying and Mapping Authority implemented a bilateral assistance project entitled Starting Points for the Setting Up of a Consolidated Cadastre of Public Infrastructure in Moldova. During the project, the Surveying and Mapping Authority worked together with the Moldovan Agency for the Real Estate Cadastre. The project was implemented in two phases: phase 1 - three-day workshops in Chisinau, Moldova and phase 2 - visit of experts from Moldova to Ljubljana and Celje.



Figure 38: Experts from Moldova during their visit to Celje

Introduction of the Directive Establishing the Infrastructure for Spatial Information in Europe (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 the responsibilities stipulated by the INSPIRE Directive. Geodetic data is basic reference data important for locating other facilities and phenomena in space and is therefore included primarily in the subject matter that is discussed 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 for the preparation and adoption of regulations for the implementation of the directive.

In 2011, the Slovenian INSPIRE geoportal was created together with a metadata information system and a keyword browser. The Geodesy Office participated in these activities and took over the management of the INSPIRE geoportal.



Slovenski INSPIRE geoportal

KAJ JE INSPIRE
PREDPISI IN GRADIVA
SEZNAM ZBIRK
OMREŽNE STORITVE

► WWW.IINSPIRE.SI ► NOVICE

Datum: 24 Jan 2012

Izvedbena pravila za storitve za prostorske podatke in storitve priklica

Osnutek je bil posredovan nacionalnim točkam za stike v pripombe.

Dokument, ki je bil s strani pripravljalne skupine poslan INSPIRE nacionalnim točkam za stike, določa zahteve za medoprevelnost in usklajenost za storitve v zvezi s prostorskimi podatki. Določa tudi izvedbena pravila za storitve, ki omogočajo priklic drugih storitev za prostorske podatke. Pomenski model in razvrstitev storitev za prostorske podatke sta razvidna s spodnje slike:



Figure 3 - The conceptual model of INSPIRE services

Figure 39: The Slovenian INSPIRE geoportal

The INSPIRE geoportal offers a list of databases comprising the Slovenian spatial data infrastructure. The list of databases is classified under headings as required by the INSPIRE Directive and the Slovenian Infrastructure for Spatial Information Act (ZIPI), and the database manager is listed next to each database. All databases have to consider the implementing rules of INSPIRE (decrees and decision of the European Commission) and the provisions of ZIPI. The geoportal regularly publishes important events and news relating to INSPIRE and geoinformation as well as material that the European Commission submits for public discussion.



Tema	Zbirka podatkov	Upravitelj zbirke
1. digitalni model reliefa	Digitalni model višin 12,5	Geodetska uprava Republike Slovenije
2. pokrovnost tal	CLC Corine pokrovnost tal	Agencija Republike Slovenije za okolje
3. ortofoto ▼	Ortofoto	Geodetska uprava Republike Slovenije
Geolocirani slikovni podatki zemeljske površine iz satelita ali senzorjev v zraku. Podrobnejši opis ▶		
4. geologija	Litološka in tektonska karta	Geološki zavod RS
4. geologija	Hidrogeološka in geotermalna karta	Geološki zavod RS

Figure 40: List of databases at the geoportal

In 2011, the European Commission prepared draft data specifications for data from Annexes II and III of the INSPIRE Directive, altogether for 25 topics. Due to their complexity, data specifications are complex for discussion. The Surveying and Mapping Authority of Slovenia dealt with and commented on data specifications for the following themes: statistical units, buildings, orthoimagery, relief models and municipal and public services.

The Geodesy Office continued with activities related to the implementation of the directive regarding linking, single capturing, administering and maintaining of data. This includes activities that are necessary for the mutual connecting of the Geodesy Office's databases and linking of topographic data with data from other offices and sectors within the Ministry of the Environment and Spatial Planning and with data from other sectors.

For the purposes of annual monitoring of the setting up and use of national infrastructure, data was collected that is required for the calculation of indices that need to be provided to the European Commission every year in accordance with its decision on monitoring and reporting.

A lot was done in the field of promoting the requirements and effects of the INSPIRE Directive in the future. A representative of the Geodesy Office presented the national activities relating to INSPIRE at the 5th INSPIRE Conference in Edinburgh, at the 3rd Croatian INSPIRE Day in Split, at the 40th Geodetic Day in Ptuj, at the 3rd Information Science in Public Administration Conference in Brdo and at the Administrative Resources Advisory Committee.



Figure 41: Participants of the 3rd Croatian INSPIRE Day in Split



4 STEPS FORWARD IN 2012?

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 land surfaces, facilities and real estate (stored in orderly databases) and for providing services pertaining to the registration of changes introduced to real estate. Furthermore, it acts as a coordinator in the field of the real estate system and spatial data infrastructure, performs real estate mass evaluations and provides data for an objective and comprehensive real estate tax assessment and improvement of real estate market performance. It establishes and manages topographic system data and 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.

The strategic objectives support the development of a comprehensive real estate system and national spatial data infrastructure in view of providing basic and derived data and services to all users and especially to support the implementation of 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,
- Cooperate 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 real estate data in basic databases (hosting data) or entering new data by linking data from other databases with basic databases (linked data).

By achieving strategic objectives in real estate registration, we will meet the requirements for the 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 protection and rescue services.

The coordination role in the real estate system:

- Coordinate 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. This 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, manage, maintain and develop a mass real estate valuation system for the purpose of real estate taxation,
- Develop and upgrade the real estate mass evaluation system for other public and business purposes, as system starting points:
 - for monitoring real estate portfolio credit risks and as a starting point in the mortgage credit value methodology within mortgage banking,
 - during 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,
 - in valuating and assessing economic interference into space,
 - in supporting all administrative and court procedures related to real estate (taxes, auctions, immovable property, merging or splitting and land consolidation);
- Develop and upgrade real estate market records with data on new buildings and 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. It will also provide data on realised prices and rents in the real estate market and data on the 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.

The Geodesy Office

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

- continue setting up the new national coordinate system (the horizontal, altitude and gravimetric component) as part of the European coordinate system ETRS (Spatial Reference System),
- ensure the functioning of the network of permanent GNSS stations and GPS service for the purposes of controlling network functioning, use of the network for carrying out national geodetic measurements, communication of data for carrying out geodetic surveys, navigation and other geolocation,
- continue with establishing and maintaining national data about the features of the land surface 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 georeferenced 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 stated objectives will provide more efficient data capturing necessary to maintain and update real estate and spatial records as well as to geolocate data and phenomena in ETRS, which will simplify networking, data exchange and cooperation in international projects. National topographic data, cumulative economic infrastructure data and state maps will be used as expert bases in spatial and 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 public infrastructure, we will:

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

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



When introducing the INSPIRE Directive, the Surveying 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,
- cooperate with the European Commission in the process of enforcing the implementation rules of the INSPIRE Directive as an authorised organisation,
- cooperate 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 that are managed by other bodies of general public services and private sectors with a view towards ensuring single capturing and joint data management and maintenance.

Reaching these objectives will provide for a geodetic data infrastructure that 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 in compliance with the provisions of the EU INSPIRE Directive.

The 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 (the public and private sector, citizens),
- provide all users with simple and quick access to data in one place (the Prostor portal) 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 implement guidelines provided by the INSPIRE Directive in 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 and European e-government projects,
- apply the NATO guidelines in cooperation with the Ministry of Defence, taking into account interoperability in the preparation of topographic and cartographic products,
- provide professional assistance to other countries both in cooperation with the private sector and independently,
- encourage and support the private sector 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 information science, 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 processes in information science.

Reaching strategic objectives will enable an efficient, stable and user-friendly information environment geared towards supporting legally prescribed activities and 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 operating 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, implementation 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 an appropriate level of education and competence of experts in view of effective and efficient task performance of the land survey service,
- develop and upgrade required staff competencies in the area of interpersonal relations and leadership,
- extend users' knowledge to the possibilities of using real estate and spatial data.

Reaching the strategic objectives in education and training will ensure an appropriate level of education and competencies of our employees, authorised contractors and users that are required for implementing activities.

4.2 Projects Planned for the Coming Years

Within the framework of the EEA Financial Mechanism 2009-2014, the Surveying and Mapping Authority, together with the Ministry of the Environment and Spatial Planning, prepared a proposal for the Updating of Spatial Data Infrastructure for Reducing Effects of Natural Disasters Project. The aim of the project is to set up the altitude component of the national coordinate system and to update the spatial data infrastructure in accordance with the requirements of the INSPIRE Directive in support of water management and reducing flood hazards and risks. The project will provide a modern geodetic reference (the vertical reference system - levelling network and geoid) and a national combined geodetic network that will be fully in compliance with the European Spatial Reference System (ESRS). This will provide the basis for the vertical component of topographic and especially hydrographic data. It will enable the use of satellite technologies in determining coordinates for the altitude component of position as well and not only the horizontal component as is currently the case. The existing topographic model will be changed so as to comply with the requirements of the INSPIRE Directive. Topographic data will be transcribed to the new data model, which will consider the jurisdictions of the Surveying and Mapping Authority of the Republic of Slovenia. New topographic data for corresponding data themes from the annexes to the INSPIRE Directive will be collected. The hydrographic data infrastructure will be updated by setting up a new data model that will be fully in compliance with INSPIRE requirements and 10 per cent of existing hydrographic data will be transcribed. Among other tasks, this will enable the preparation of reports on water management as required by European directives. Tasks and jurisdictions of managers of hydrographic data will be determined. Online services will be prepared for accessing spatial data, with special emphasis on topographic and especially hydrographic data. These services will be in accordance with INSPIRE requirements and will ensure interoperability of data. They will be included in the Slovenian INSPIRE geoportal and as such be available (accessible) to users.



In the field of setting up the new national coordination system, operation of the permanent GNSS stations of the SIGNAL network will be ensured, along with its use by the public and private sectors. Time analysis of data of the horizontal dimension of the new national coordinate system will be implemented with a view towards creating a geo-kinematic model of the Republic of Slovenia. Basic geodetic surveys will be carried out, particularly on the altitudinal section of the coordinate system and on the gravimetric network. The legislative basis for the new national coordinate system will be prepared as well.

In the field of the topographic system, one third of the Slovenian territory will be annually photographed aerially within the framework of cyclical aerial photography. Orthophotos will be prepared for the area so photographed. We will capture topographic data for the part of the Slovenian territory that is not yet managed. We will continue harmonising 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). In accordance with the INSPIRE Directive, the existing data model for topographic data will be changed and existing data transcribed in the new model. New topographic data for corresponding data themes from the annexes to the INSPIRE Directive will be collected. We will maintain the existing national cartographic products, some of them together with the Ministry of Defence. We will continue recording public infrastructure and the promotion and setting up of the system for public infrastructure protection.

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 managed in many 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 has been enforced and implemented. All real estate in the Real Estate Register have been ascribed the generalised market value of real estate. This represents important additional information for all users in the public and private sectors and is required for 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. We therefore plan to produce various online services and applications adapted to various types of users, for example municipalities, system state users, banks and insurance companies. We plan to carry out real estate market analyses 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 the future.

Two important operative projects in the near future are the upgrading of the information system of the real estate market record and the calculation of real estate value indexes. The information system of the real estate market record needs to be upgraded due to the collection of data on purchases and other legal transactions that are subject to value added tax and rental agreements for buildings and parts of buildings. This will ensure a comprehensive collection of data on real estate purchases, including new residential units and commercial facilities that are the subject of purchase agreements concluded between entities that are liable for VAT payment and rental agreements pertaining to residential and commercial facilities. In the periods between general valuations, appropriate generalised market values have to be created in accordance with the situation in the field of supply and demand in an individual market segment. This can be done via value indexes that are calculated in accordance with the prescribed procedure on the basis of all available data on the real estate market for each region. If value indexes show a difference of over 10% in regard to the last general valuation, real estate indexation in such an area will be implemented.

In the field of real estate, a lot of attention will be paid in 2012 to further and continual improvement of data quality, both data on plots and data on buildings and parts of buildings. In the past years, huge amounts of data were collected and recorded in mass procedures that were implemented within the framework of larger projects. New larger collections of data are not expected, as due to the more severe financial situation, financial resources will undoubtedly be limited. This, however, represents an opportunity to verify the already obtained data and, if so required, correct and amend or harmonise it and thus provide it with a greater utilisation value.

In 2012, a lot of emphasis will be placed on improving the location accuracy of the Land Cadastre. Owing to its method of set 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 (e.g. digital orthophoto) are carried out. Important existing or new systems (spatial plans of municipalities and the state, determining and calculating various duties and levies - cadastral income, determining the fee to be paid on land use change and valuation or real estate) relate to this data.

Due to problems at the Supreme Court, 2011 did not see a completion of all activities related to the implementation of electronic data exchange between the Land Cadastre, the Building Cadastre and the Land Register. We anticipate concluding this task in 2012 and that manual exchange of data will be replaced by electronic exchange.



The experiences obtained in regular procedures of management and maintenance of real estate record data and in the successfully implemented project of informing real estate owners in 2010 and 2011 will be used in 2012 to form a proposal of amendments to existing rules and regulations from the field of real estate recording (amendments to the Real Estate Recording Act, Rules on Entries into the Building Cadastre, Rules on Issuing of Certificates, etc.)

4.3 Regulations Being Prepared

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 branch (the EUREF association - European Reference Frame) have been directing activities towards the complete renovation of national coordinate systems for several years. A uniform European Spatial Reference System - ETRS is being set up based on the use of satellite technology that 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 in use was set up in the last century and no longer performs its task from a technical as well as a methodological point of view. Furthermore, 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 in regard to where objects and facilities are located. These are important for the establishment of the European coordinate system, land survey infrastructure and performance of land surveys. The national topographic system will also have to be updated, since the existing regulatory basis does not correspond to the state of technology for capturing, managing 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 Amending the Real Estate Recording Act

Amendments to the Real Estate Recording Act - ZEN (Official Gazette of the Republic of Slovenia, nos. 47/06, 65/07 - Decision of the Constitutional Court of the Republic of Slovenia and 106/10 - Zdob-2H) will work in line with the suggestions of the Court of Auditors and the Office of Legislation that the managing of real estate data be regulated systematically and comprehensively in the Real Estate Recording Act. This will provide an appropriate legal basis for recording data in the Real Estate Register and determine measures (regulate procedures) for improving the quality and comprehensiveness of data in the Real Estate Register.



The amendments to the Real Estate Recording Act will regulate the recording of data in the Real Estate Register, i.e. real estate data and personal data of real estate owners (either natural or legal person), the procedure for entering data of real estate owners in the Real Estate Register, the acquisition of additional data from the Central Population Register and the Register of Natural and Legal Persons for the purposes of entering data of real estate owners in the Real Estate Register, the manner of acquiring data on real estate by means of questionnaires and the imposition of penalties due to non-compliance with the requirements of communicating data in the Real Estate Register.

4.3.2 Regulations and Acts to be Adopted by the Government of the Republic of Slovenia

- 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), which 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 the 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.

- Decree on the Methodology of Real Estate Valuation Required for the Implementation of National Spatial Plans

The Act on Spatial Arrangements of National Importance in Space - ZUPUDPP (Official Gazette of the Republic of Slovenia, no. 80/10) determines the legal framework of spatial arrangements of national importance in space and introduces a new concept for real estate valuation for the purposes of acquisitions in the construction of public infrastructure, which will provide an objective and equal database and methodological basis in real estate valuation.

Valuation under ZUPUDPP is real estate valuation required for the preparation of plans and the evaluation regarding the acquisition of this real estate and the rights to this real estate in relation to damage compensation and other costs. The valuation methodology under ZUPUDPP is determined by the Government of the Republic of Slovenia.



4.3.3 Regulations and Acts to be Adopted by the Minister of Infrastructure and Spatial Planning

- Rules on Managing and Updating the Real Estate Market Register and on the Method and Deadlines for Sending Data

The Act Amending the Real Property Mass Appraisal Act (Official Gazette of the Republic of Slovenia, no. 87/11) is determined by the minister responsible for the recording of real estate in agreement with the minister responsible for finance. The act determines detailed data, the manner of sending data in the real estate market records and the manner of managing and maintaining the real estate market register within three months after the adoption of the amendments to ZMVN.

- 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 that were issued on the basis of the Real Estate Recording Act (Official Gazette of the Republic of Slovenia, nos. 47/06, 65/07 - Decision of the Constitutional Court and 106/2010-ZDoh-2H) regulate open questions relating 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 Real Estate Recording Act (Official Gazette of the Republic of Slovenia, nos. 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 research report 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 Activities

ACTS
Land Cadastre Act - ZZKat (Official Gazette of SRS, nos. 16/1974, 42/1986; Official Gazette of the Republic of Slovenia, nos. 17/1991 - ZUDE, 52/2000 - ZENDMPE and 47/2006 - ZEN)
Basic Geodetic Measurements Act - ZTGI (Official Gazette of SRS, nos. 16/1974, 23/1976 - ZGS, 42/1986; Official Gazette of the Republic of Slovenia, no. 17/1991 - ZUDE)
Land Survey Service Act - ZGeoD-1 (Official Gazette of the Republic of Slovenia, no. 77/2010)
Law of Property Code - SPZ (Official Gazette of the Republic of Slovenia, no. 87/2002)
Spatial Planning Act - ZureP-1 (Official Gazette of the Republic of Slovenia, nos. 110/2002, 8/2003 - amend., 58/2003-ZZK-1, 33/2007-ZPNačrt, 108/2009-ZGO-1C and 80/2010-ZUPUDPP and 106/2010 - amend.)
Agricultural Land Act - ZKZ (Official Gazette of the Republic of Slovenia, no. 71/2011 - o.c.t.)
Land Registry Act - ZZK-1 (Official Gazette of the Republic of Slovenia, nos. 58/2003, 37/2008 - ZST-1, 28/2009 and 25/2011)
Housing Act - SZ-1 (Official Gazette of the Republic of Slovenia, nos. 69/2003, 18/2004 - ZVKSES, 47/2006 - ZEN, 9/2007- Decision of the Constitutional Court of the Republic of Slovenia, 45/2008 - ZVEtL, 57/2008, 90/2009, 62/2010-ZUPJS, 56/2011 - Decision of the Constitutional Court of the Republic of Slovenia and 87/2011)
Construction Act - ZGO-1 (Official Gazette of the Republic of Slovenia, nos. 102/2004 - o.c.t., 14/2005 - amend., 92/2005-ZJC-B, 93/2005-ZVMS, 111/2005 - Decision of the Constitutional Court of the Republic of Slovenia, 120/2006-Decision of the Constitutional Court of the Republic of Slovenia, 126/2007, 108/2009, 61/2010-ZRud-1, 62/2010 - amend. and 20/2011)
General Administrative Procedure Act - ZUP (Official Gazette of the Republic of Slovenia, nos. 24/2006 - o.c.t., 105/2006 - ZUS-1, 126/2007, 65/2008 and 8/2010)
Real Property Recording Act - ZEN (Official Gazette of the Republic of Slovenia, nos. 47/2006, 65/2007 - Decision of the Constitutional Court of the Republic of Slovenia and 106/2010-ZDoh-2H)
Real Property Mass Appraisal Act - ZMVN (Official Gazette of the Republic of Slovenia, nos. 50/2006 and 87/2011)
Access to Public Information Act - ZDIJZ (Official Gazette of the Republic of Slovenia, nos. 51/2006 - o.c.t. and 117/2006 - ZDavP-2)
Spatial Planning Act - ZPNačrt (Official Gazette of the Republic of Slovenia, nos. 33/2007, 70/2008-ZVO-1B, 108/2009, 80/2010-ZUPUDPP, 106/2010 - amend. and 43/2011 - ZKZ-C)
Administrative Fees Act - ZUT (Official Gazette of the Republic of Slovenia, no. 106/2010 - o.c.t.)
Civil Servants Act - ZJU (Official Gazette of the Republic of Slovenia, nos. 63/2007 - o.c.t., 65/2008, 69/2008 - ZTFI-A and 69/2008 - ZZavar-E)
Act on Designating Areas and Naming and Marking Settlements, Streets and Buildings - ZDOIONUS (Official Gazette of the Republic of Slovenia, no. 25/2008)

IMPLEMENTING REGULATIONS
REGULATIONS ISSUED ON THE BASIS OF THE LAND CADASTRE ACT
Instructions Concerning Location and Marking-Out of Land Property Boundaries (Official Gazette of SRS, nos. 2/1976, 6/1987; Official Gazette of the Republic of Slovenia, nos. 52/2000 - ZENDMPE and 47/2006 - ZEN)
Rules for Cadastral Classification of Land Properties (Official Gazette of SRS, nos. 28/1979, 35/1983; Official Gazette of the Republic of Slovenia, nos. 52/2000 - ZENDMPE and 47/2006 - ZEN)
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, nos. 52/2000 - ZENDMPE and 47/2006 - ZEN)
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, nos. 52/2000 - ZENDMPE and 47/2006 - ZEN)
Instruction on the Beginning of the Official Use of the Digital Cadastral Register (Official Gazette of the Republic of Slovenia, nos. 57/1999, 52/2000 - ZENDMPE and 47/2006 - ZEN)
REGULATIONS ISSUED ON THE BASIS OF THE BASIC GEODETIC MEASUREMENTS ACT
Instructions for the Archiving and Copying of Reduced Format Data of Basic Geodetic Measurements (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 and Official Gazette of the Republic of Slovenia, no. 40/2004 - Rules on Land Survey Plan)
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 Programme and Method of Taking an Exam in Land Surveying (Official Gazette of the Republic of Slovenia, no. 10/11)
Rules on Terms and Procedures for Scoring, Monitoring, Certification and Registration of Mandatory Proficiency Education of Certified Land Surveyors (Official Gazette of the Republic of Slovenia, no. 10/2011)
Rules on the Programme and Method of Taking Proficiency Examination for the Performance of Land Surveying Services (Official Gazette of the Republic of Slovenia, nos. 11/2011 and 23/2011)
Rules on the Content, Form and the Issuing Procedure of the Land Survey Licence (Official Gazette of the Republic of Slovenia, no. 14/2011)
Decision on the Change of the Status of the Land Survey and Photogrammetry Institute of the Faculty of Civil Engineering and Geodesy into the Land Survey Institute of Slovenia (Official Gazette of the Republic of Slovenia, no. 38/2011)
REGULATIONS ISSUED ON THE BASIS OF THE SPATIAL PLANNING ACT
Rules on Land Consolidation in the Area of the Municipality Location Plan (Official Gazette of the Republic of Slovenia, nos. 21/2004 and 33/2007 - ZPNačrt)
Rules on the Land Register of the Public Communications Network and Associated Facilities (Official Gazette of the Republic of Slovenia, nos. 56/2005, 64/2005 - amend. and 33/2007 - ZPNačrt)

Rules on Drinking Water Supply (Official Gazette of the Republic of Slovenia, nos. 35/2006, 33/2007 - ZPNačrt, 41/2008 and 28/2011)
REGULATIONS ISSUED ON THE BASIS OF THE LAND REGISTRY ACT (ZZK-1)
Rules of Land Register (Official Gazette of the Republic of Slovenia, nos. 30/2011 and 55/2011)
Rules on Electronic Exchange of Data Between the Land Register and Cadastres (Official Gazette of the Republic of Slovenia, no. 30/2011)
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 (ZGO-1)
Regulation on Classification of Constructions with Regard to their Complexity (Official Gazette of the Republic of Slovenia, nos. 37/2008 and 99/2008)
Rules on the Form and Content of Identity Card and Uniform Stamp of Certified Engineers (Official Gazette of the Republic of Slovenia, nos. 51/2004, 60/2005, 73/2005 and 55/2011)
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, nos. 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 - amend., 31/2008, 35/2009, 58/2010 and 101/2010)
Decree on the Education Requirements for Employees to Manage and Decide in the Framework of Administrative Procedure and regarding the Professional Examination on General Administrative Procedure (Official Gazette of the Republic of Slovenia, nos. 29/2000, 66/2004 and 17/2006)
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)
Rules on Boundary Settlement and Changing and Recording Data in the Land Cadastre (Official Gazette of the Republic of Slovenia, nos. 8/2007 and 26/2007)
Rules on Entries into the Building Cadastre (Official Gazette of the Republic of Slovenia, nos. 22/2007 and 33/2009)
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)
Rules on the Terms and Methods of Computer Access to Data from Geodetic Data Records and Databases (Official Gazette of the Republic of Slovenia, nos. 25/2008 and 10/2011)
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 THE 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, nos. 134/2006 and 87/2011.)
Rules on Ways 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 Determine an Official Short Name of a Settlement and Official Short Name of a Street (Official Gazette of the Republic of Slovenia, no. 78/2008)
REGULATIONS ISSUED ON THE BASIS OF THE ACT ON THE ACCESS TO INFORMATION OF PUBLIC CHARACTER
Decree on Communication and Re-use of Information of a Public Nature (Official Gazette of the Republic of Slovenia, nos. 76/2005, 119/2007 and 95/2011)
REGULATIONS ISSUED ON THE BASIS OF THE SPATIAL PLANNING ACT
Decree on the Content and Management of the Spatial Data System (Official Gazette of the Republic of Slovenia, nos. 119/2007 and 8/2010-ZIPI)
REGULATIONS ISSUED ON THE BASIS OF THE CIVIL SERVANTS ACT
Rules on a Particular Part of the Exam for Inspectors in the Fields of Environment and Nature, Construction, Mining, Energy, Land Survey and Housing (Official Gazette of the Republic of Slovenia, nos. 125/2004 and 62/2006)

6 CONTACTS

6.1 Addresses of the Surveying and Mapping Administrative Bodies

REPUBLIC OF SLOVENIA MINISTRY OF INFRASTRUCTURE AND SPATIAL PLANNING SURVEYING AND MAPPING AUTHORITY OF THE REPUBLIC OF SLOVENIA	
✉ Zemljemerska ulica 12 1000 Ljubljana	☎ 00 386 1 478 48 00 ☎ 00 386 1 478 48 34 @ pisarna.gu@gov.si

REGIONAL SURVEYING AND MAPPING AUTHORITIES

CELJE REGIONAL SURVEYING AND MAPPING AUTHORITY	
✉ Mariborska cesta 88 3000 Celje	☎ 00 386 3 428 13 50 ☎ 00 386 3 428 13 60 @ ogu.guce@gov.si
KOPER REGIONAL SURVEYING AND MAPPING AUTHORITY	
✉ Cankarjeva ulica 1 6000 Koper	☎ 00 386 5 663 59 50 ☎ 00 386 5 663 59 52 @ ogu.gukp@gov.si
KRANJ REGIONAL SURVEYING AND MAPPING AUTHORITY	
✉ Slovenski trg 2 4000 Kranj	☎ 00 386 4 201 80 58 ☎ 00 386 4 201 80 71 @ ogu.gukr@gov.si
LJUBLJANA REGIONAL SURVEYING AND MAPPING AUTHORITY	
✉ Cankarjeva cesta 1 1000 Ljubljana	☎ 00 386 1 241 78 01 ☎ 00 386 1 241 78 20 @ ogu.gulj@gov.si
MARIBOR REGIONAL SURVEYING AND MAPPING AUTHORITY	
✉ Ulica heroja Tomšiča 2 2000 Maribor	☎ 00 386 2 220 16 03 ☎ 00 386 2 252 64 57 @ ogu.gumb@gov.si
MURSKA SOBOTA REGIONAL SURVEYING AND MAPPING AUTHORITY	
✉ Slomškova ulica 19 9000 Murska Sobota	☎ 00 386 2 535 15 70 ☎ 00 386 2 532 10 63 @ ogu.gums@gov.si

NOVA GORICA REGIONAL SURVEYING AND MAPPING AUTHORITY		
✉	Rejčeva ulica 7 5000 Nova Gorica	Q 00 386 5 330 45 50 ☎ 00 386 5 330 45 71 @ ogu.gunogo@gov.si
NOVO MESTO REGIONAL SURVEYING AND MAPPING AUTHORITY		
✉	Ljubljanska cesta 26 8000 Novo mesto	Q 00 386 7 393 10 10 ☎ 00 386 7 393 10 20 @ ogu.gunome@gov.si
PTUJ REGIONAL SURVEYING AND MAPPING AUTHORITY		
✉	Kremljeva ulica 2 2250 Ptuj	Q 00 386 2 748 26 20 ☎ 00 386 2 748 26 39 @ ogu.gupt@gov.si
SEVNICA REGIONAL SURVEYING AND MAPPING AUTHORITY		
✉	Trg svobode 9 8290 Sevnica	Q 00 386 7 816 35 70 ☎ 00 386 7 816 35 88 @ ogu.gusevn@gov.si
SLOVENJ GRADEC REGIONAL SURVEYING AND MAPPING AUTHORITY		
✉	Francetova cesta 7 2380 Slovenj Gradec	Q 00 386 2 881 23 60 ☎ 00 386 2 881 23 73 @ ogu.guslgr@gov.si
VELENJE REGIONAL SURVEYING AND MAPPING AUTHORITY		
✉	Rudarska cesta 3 3320 Velenje	Q 00 386 3 898 27 00 ☎ 00 386 3 898 27 04 @ ogu.guve@gov.si

✉	Address
Q	Telephone number
☎	Fax number
@	Email address

7 STATISTICAL DATA ABOUT SLOVENIA

7.1 Slovenia 2011 in Numbers

Surface area of the Republic of Slovenia	20,273 km ²
Population*	2,054,741

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

* Border not marked on land; the border length was calculated on the basis of the borders of cadastral communities.

** The length of the sea border has not yet been determined.

Highest peak	Triglav (2,864 m)
The longest Karst cave (together with Pivka and Črna Jama)	Postojna cave (20,570 m)
The largest Karst intermittent lake	Cerknica Lake (24 km ²)
The largest natural lake	Bohinj Lake (3.28 km ²)
The longest river	The Sava (947 km, of which 221 km run through Slovenia)

House numbers	536,616
Buildings	1,161,407
Municipalities	211
Settlements	6,031
Streets	10,261
Cadastral communities	2,698
Plots	5,392,020

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