Surveying and Mapping Authority of the Republic of Slovenia

ACTIVITIES REPORT 2016


GEODETSKA
UPRAVA
REPUBLIKE
SLOVENIJE

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ADDRESS FROM THE DIRECTOR GENERAL

Dear reader!

The task of the national land survey service in Slovenia falls upon the Surveying and Mapping Authority of the Republic of Slovenia (SMA). It has weathered many changes in the past twenty years - organizational and methodological in nature, which affected the main fields of work, including the Basic Geodetic System, real estate registration and valuation, land administration processes and land rearrangement as well as activities regarding the ensuring of reference spatial data - basic topographic data, spatial units data, geographical names etc.

The main mission of the SMA is providing the Infrastructure for Spatial Information, effective services and high quality authoritative spatial data, provided in a manner that meets quality standards of a geoinformation-enabled society.
With its data, derived information and spatial services, the SMA tries to provide a framework for quality spatial planning and decision-making. This framework presents an integral part in the efficient and effective real time decision-making as well as in the long term use of real estate (land plots with all its elements), water bodies and other natural and artificial spatial phenomena in an appropriate and monitored manner. Data and services managed by the SMA are important for state and local public administration as well as the achievement of national strategic goals. Another important aspect is the cooperation with other public institutions in creating and providing different solutions used in the field of spatial data infrastructure and land administration.
The operation of such an important segment of Public Administration, which the public land survey service undoubtedly is, demands a clear vision and strategy. For this reason we, in 2016, continued work on identifying indicators regarding the achieving of set strategic goals and monitoring the implementation of strategic projects, which will be carried out till the end of this financial period in 2021. For these reasons the year 2016 was an important milestone as it saw the conclusion of two major project of the SMA: the European Location Framework – ELF and the project Modernization of Spatial Data Infrastructure to Reduce Risks and Impacts of Floods, which was co-financed by the EEA Grants and Norway Grants Financial Mechanisms. Another important development in the later part of 2016 was the start of implementing projects from the eProstor (eSpatial) Program.

In addition, the SMA faces challenges due to the ever changing national economic environment, the demand for effective, efficient, accessible and transparent Public Administration, the ever growing role authoritative and high quality spatial data carry and the needs of today's information society along with new technological developments.

An important mark for the SMA was also the introduction of a new National Spatial Coordinate System, which

tried to adhere as best as possible to the European Spatial Reference System – ESRS. Concurrent with this development a methodology for the transformation of authoritative spatial data from the former (but still valid) National Spatial Coordinate System to the new is being prepared. Additionally, standardized procedures need to be ensured to enable geolocation and geodetic measuring in the new coordinate system.

Many novelties were introduced in the field of land administration with the introduction of the Mass Real Estate Valuation System and Real Estate Market Monitoring in light of the proposed real estate taxation reform. A special challenge in the conceptual design of real estate records comes from the proposed legislative changes in the fields of spatial planning and construction as well as the rising number of land consolidation projects. A new software solution is being prepared to better support internal processes and data access for outside users along with the development

of methodologies to improve data quality and interconnectivity of official real estate records.

Additional challenges come in the form of technological developments in the area of mass acquisition of spatial data and data modelling; a new photogrammetric technology has been already implemented for the purpose of Cyclical Aerial Photography. Data for the entire territory of Slovenia is being gathered using LIDAR scanning along with the calculation of new terrain models. A new basis for the conceptual and data model of the National Topographic System is being developed, which in combination with the National Cartography System presents the foundation for spatial decision making, including decisions regarding National Defence and Civil Protection.

One among the more important activates of the SMA is the implementation of the Slovene Infrastructure for Spatial Information in accordance with the Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE).

The importance and necessity of providing an official high quality spatial data infrastructure and land/real estate administration system stem from the fact that most of our decisions directly or indirectly concern space, location. The availability and accessibility of official high quality spatial data, usually provided by national land survey services, are of key importance for sustainable development and efficient and effective decision making in crisis situations.
With this Activities Report for the year 2016 regarding the operation of the Surveying and Mapping Authority of the Republic of Slovenia we wish to highlight only the most prominent tasks and activities, which were carried out in the year 2016. Pleasant reading.

Anton Kupic

General Manager
Surveying and Mapping Authority of the Republic of Slovenia

02

ABOUT THE SURVEYING AND MAPPING AUTHORITY OF THE REPUBLIC OF SLOVENIA

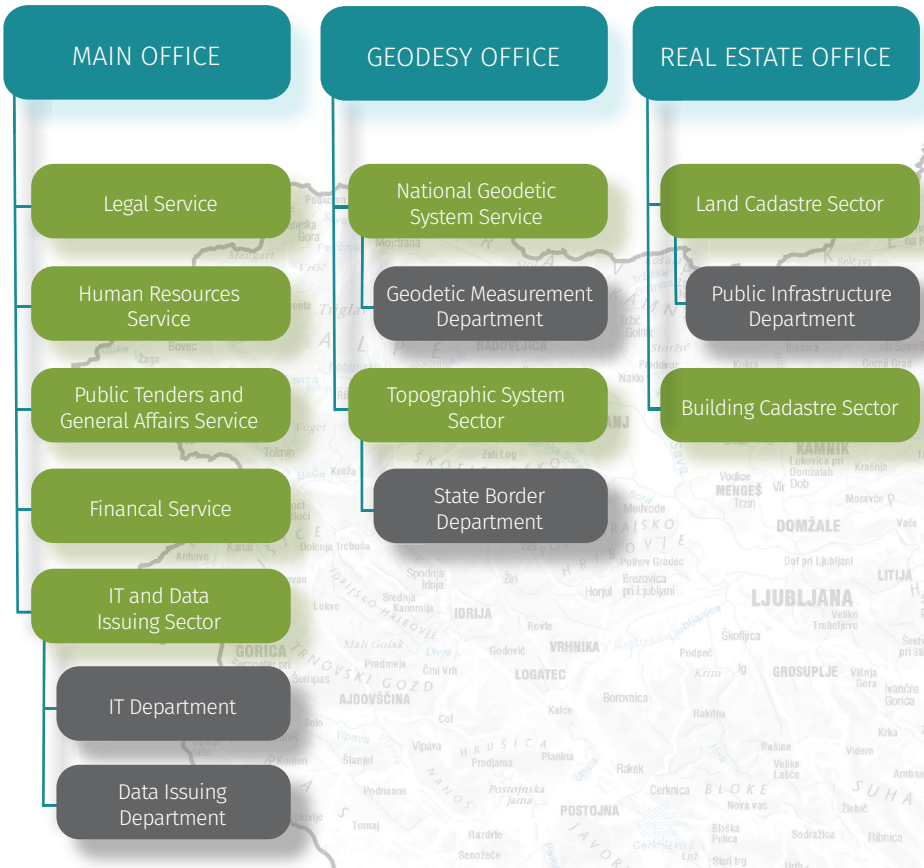
Identity Card

The Surveying and Mapping Authority of the Republic of Slovenia is a body within the Ministry of the Environment 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, management and updating of databases pertaining to the Basic Geodetic System, real estate, the state border, spatial units and house numbers, and the Consolidated Cadastre of Public Infrastructure, as well as the Topographic and Cartographic System.

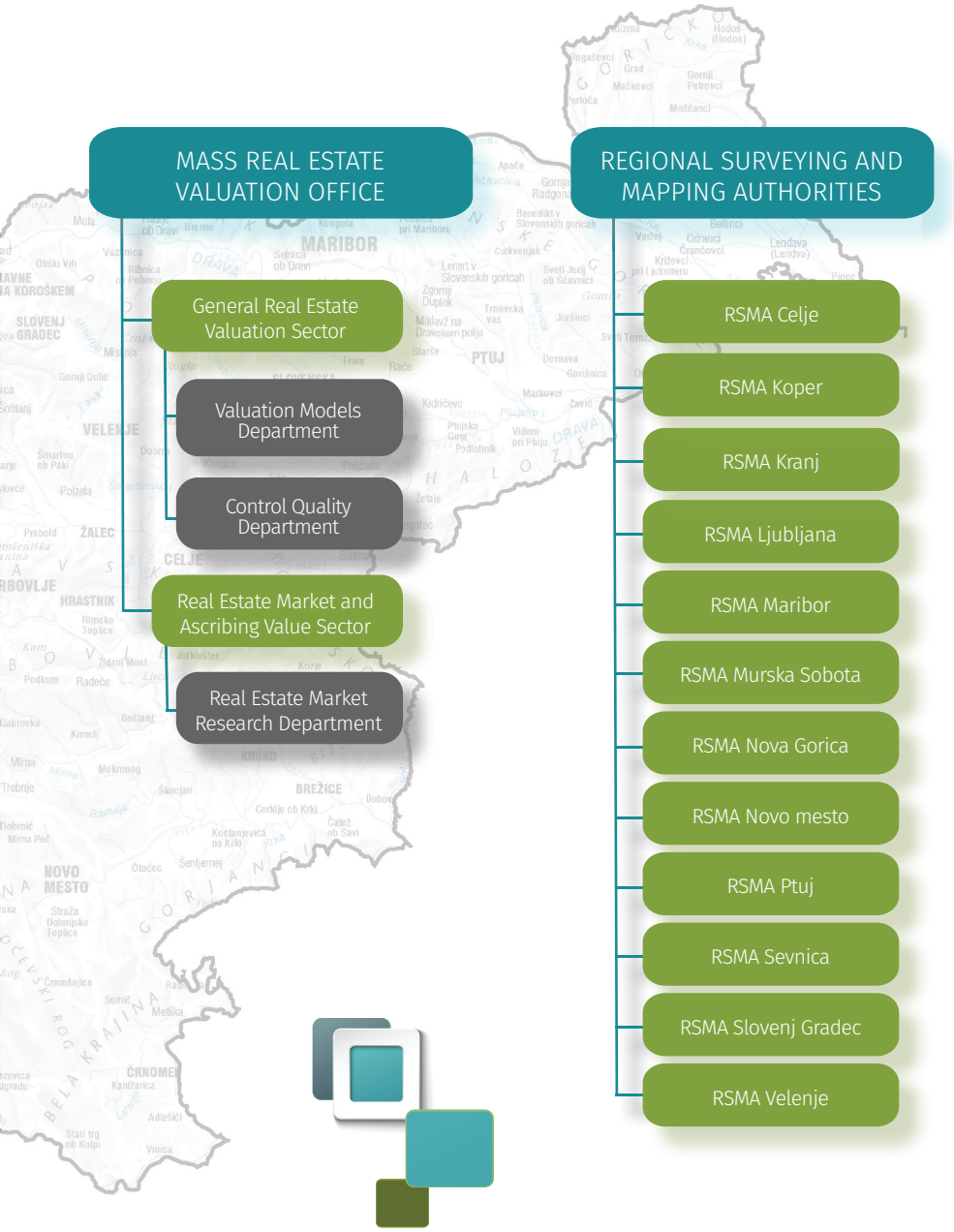
The Surveying and Mapping Authority of the Republic of Slovenia is responsible for basic data on space and real estate in the finalized databases, provides services pertaining to the registration of changes in physical space and on real estate, and performs the role of coordinator for the Real Estate System and Spatial Data Infrastructure.

In cooperation with the Ministry of Finance, it is carrying out Mass Real Estate Appraisal with the aim of creating the foundations for successful and efficient real estate management, to provide data for objective and comprehensive real estate taxation and improve the efficiency of the real estate market. It provides for the National Coordinate System and its compliance with the European Coordinate System and creates the conditions for implementing land surveys.

Organization Chart



The Surveying and Mapping Authority of the Republic of Slovenia (SMA) comprises: the Main Office, the Geodesy Office, the Real Estate Office, the Mass Real Estate Valuation Office and twelve regional surveying and mapping authorities. The latter have been set up to streamline operations and increase the accessibility of administrative and professional tasks and services implemented by the Surveying and Mapping Authority of the Republic of Slovenia.


MASS REAL ESTATE VALUATION OFFICE
General Real Estate Valuation Sector
Valuation Models Department
Control Quality Department
Real Estate Market and Ascribing Value Sector
Real Estate Market Research Department
REGIONAL SURVEYING AND MAPPING AUTHORITIES
RSMA Celje
RSMA Koper
RSMA Kranj
RSMA Ljubljana
RSMA Maribor
RSMA Murska Sobota
RSMA Nova Gorica
RSMA Novo mesto
RSMA Ptuj
RSMA Sevnica
RSMA Slovenj Gradec
RSMA Velenje

Organization Structure

MAIN OFFICE

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

REAL ESTATE OFFICE

The Real Estate Office implements administrative, professional, technical, coordination and supervisory assignments pertaining to the administration of the Land Cadastre, the Building Cadastre, other records on real estate, administration of state border records, and assignments pertaining to landmarking, restoration and maintenance of the state border. It implements assignments of administering the Register of Spatial Units and the Register of House Numbers. It operates in an interagency capacity in the work of the international committees and other assignments and projects. One of its assignments is also the substantive management and coordination of the work of the regional surveying and mapping authorities in the field of real estate.

Janez Slak, MSc

Franc Ravnihar

MASS REAL ESTATE VALUATION OFFICE

The Mass Real Estate Valuation Office implements the assignments of general real estate valuation and the tasks of ascribing value to real estate properties. Its main tasks are the development, establishment, implementation, management and maintenance of the Mass Real Estate Valuation System for taxation and other public sector needs. The Mass Real Estate Valuation Office carries out tasks relating to ascribing value to real estate properties and monitoring the real estate market, mainly data relating to real estate market price and real estate rental.

Dušan Mitrović, MSc

GEODESY OFFICE

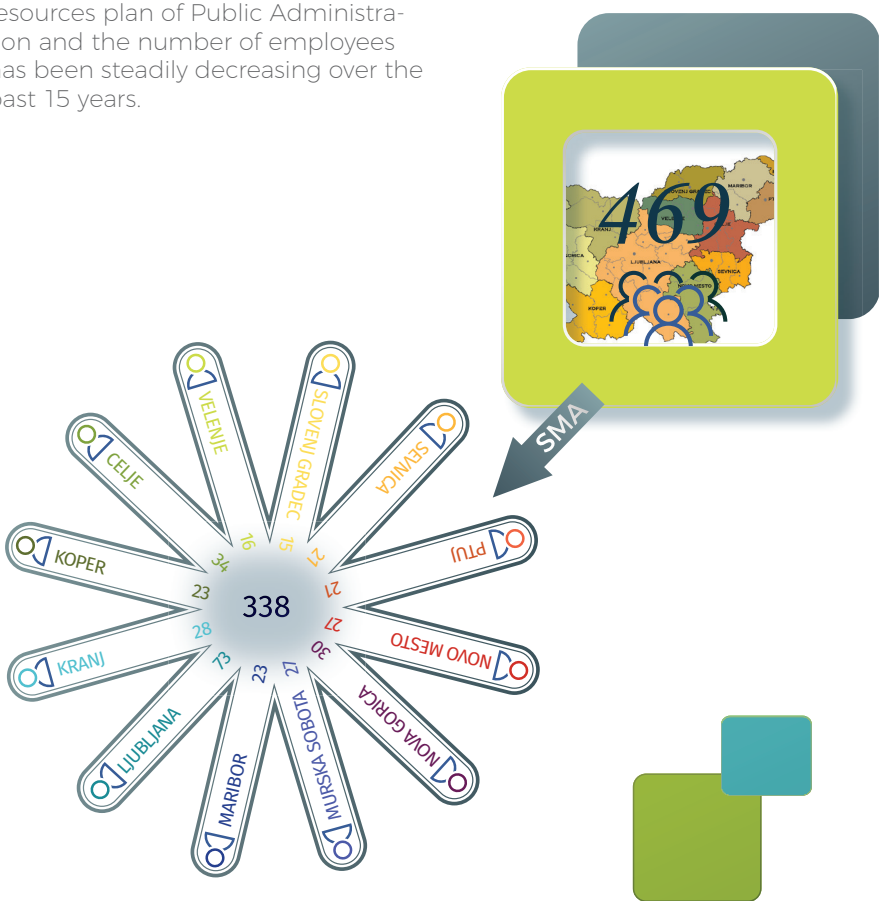
The Geodesy Office is responsible for basic, geoinformation infrastructure. It implements administrative, technical and coordination, implementative and supervisory assignments in the field of the National Geodetic System and the data on the actual situation in the physical space. It is responsible for the establishment and updating of the National Coordinate system and its accessibility through the system of permanent global satellite positioning stations and other geodetic networks. It coordinates the assignments pertaining to the transition to the European Coordinate System and it is responsible for linking the National Coordinate System with the coordinate systems of the neighbouring countries. The office implements assignments in the field of the acquisition and administration of national topographic data, it administers the topographic database, It is responsible for the National Cartographic System and ensures the creation of the national cartographic and topographic products. It ensures the compliance of the Basic Geoinformation Infrastructure with the European guidelines and coordinates the linking and compliance of other spatial data with them. The office participates in the European and international projects in the above-mentioned fields.

Jurij Režek, MSc

Human Resources

On December 31st 2016 the SMA employed 469 people, consisting of 338 employees at the twelve regional surveying and mapping authorities and 131 employees at the central SMA Offices. The personnel structure in subject to the adopted human resources plan of Public Administration and the number of employees has been steadily decreasing over the past 15 years.

In the personnel structure the main part present surveyors with university or high professional education. In addition, the SMA employs lawyers, economists, agronomists, IT specialist and to a smaller degree administrative workers.



Finance

The SMA is financed primarily from the national budget and to a lesser extent from income generated by its own activities. The Surveying Works Program is prepared for a period of two years and is approved by the Government of the Republic of Slovenia.

Revenue generated by the SMA is due to activities regarding issuing geodetic data from the Land Cadastre, the Building Cadastre, the Real Estate Register, the State Border Records and the Register of Spatial Units.

Budget of the SMA
€ 19.5 m

03

INTERNATIONAL ACTIVITIES

In accordance with the Declaration on the Foreign Policy of the Republic of Slovenia and the tasks outlined in the Activities Program of the National Surveying Service, the international cooperation of the SMA consists of participation in the frame of the Institutions of the European Union, collaboration with neighbouring countries and countries in the South-East region of Europe as well as bilateral cooperation with other countries.

The employees of the SMA are actively contributing in different international organizations and associations. Alongside the longstanding membership in EuroGeographics - European National Mapping, Cadastral and Land Registry Authorities, the SMA participates in EUREF - Reference Frame Sub-Commission for Europe of the International Association of Geodesy, in PPC - Permanent Committee on Cadastre in the European Union and in the International Association for the Administration of Real Estate within the United Nations Economic Commission for Europe. From October 23 2014 the SMA is part of the EuroSDR (formerly OOEPE). EuroSRD is a pan-European organization established by International Treaty in 1953 in Paris. With membership in this organization the spatial data research interests of European countries are represented. The result is a network of delegates, from European geographic information organisations and research institutes. Slovenia was also one of the founding Member States that in 2014 supported the formation of UN-GGIM: Europe – the European Regional Committee of the United Nations Initiative on Global Geospatial Information Management, which was established on October 1st 2014. The UN-GGIM: Europe represents the efforts and needs of European states in the field of geospatial information management and provides recommendations when active measures and changes are needed. The representative of the SMA has been elected into the Executive Committee of this organization.

04

PROJECTS


omrežne storitv
medopravilnost
standardiza
GRADEC
SAVA
Podkraj

Besides financing out of the state budget the SMA strives to carry out priority tasks with the help of other European financial sources. Participation in different projects provides the means to carry out planed tasks in a shorter timeframe and/or in a wider scope that if one was just counting on integral budget funds. In 2016 we finished two international projects and begun implementing the eSpatial Program. The project Modernization of Spatial Data Infrastructure to Reduce Risks and Impacts of Floods was concluded in 2016 and was co-financed with the help of the EEA Financial Mechanism, while the eSpatial Program will be co-financed out of the European Regional Development Fund in the frame of EU Cohesion Policy 2014-2020. Both projects are further elaborated on in this Activities Report. Besides these two projects the SMA participated in a few smaller projects out of which we wish to highlight the project European Location Framework – ELF, which was concluded in 2016. The goal of this project has been to deliver the European Location Framework (ELF), required to provide up-to-date, authoritative, interoperable, cross-border, reference geo-information for use by the European public and private sectors. This versatile cloud-based and cascade-supporting architecture provides a platform of INSPIRE compliant geo-information, harmonised at a cross-border and pan-European level.

The digital environment of ELF provides access to many regional and national data sets, which are supported by ELF services. Worth mentioning is the ELF Basemap Service, which is a special view service that supports the use of different data scale levels as the reference basis for other data. The service will use existing EurGeographics data on the global, regional and state levels as well as the ELF Cadastral Index Map – a view service, which enables a simplified and harmonized pan-European look at the footprints of cadastral parcels in conjunction with other basic information, e.g. administrative units, addresses and buildings. Another result was the creation of the ELF Geo Product Finder, which serves as a search engine for data inside the ELF Computer Environment and corresponding licence agreements, as well as ELF View and Download Services, which enable access to ELF data and maps with the use of standard interfaces often used in web and mobile applications. ELF GeoLocator provides discover network services, based on addresses, geographical names and administrative units. All stated services make use of a cloud-based architecture to provide suitable quality and scalability of applications to satisfy user needs and expectations.

The ELF Project was carried out as a collaborative consortium of more than thirty project partners, meaning that the developed products carry the combined knowledge and experience of a wide range of experts from different areas. The participating organizations represent key stakeholders and users (e.g. EuroGeographics, representing national surveying and mapping authorities, and OGC, representing the international standardization community). All the mentioned expert communities gave the project a wide range of participating developers as well as end-users in the development process of end-user solutions in the areas of Emergency Mapping, Real Estate, Health Statistics and Insurance.

Modernization of Spatial Data Infrastructure to Reduce Risks and Impacts of Floods

We can congratulate Slovenia with a top-modern geodetic framework. Horizontal and vertical!

These words were uttered at the start of his presentation by Olaf Magnus Østensen, Director for Strategic Planning and Technological Development at the Norwegian Mapping Authority, and the person responsible for the SMA project Modernization of Spatial Data Infrastructure to Reduce Risks and Impacts of Floods, which was donated by Norway and Iceland through the EEA Grants Financial Mechanism.

We successfully finished the three year-long project in 2016 and the guests present at the closing conference agreed that with it we set the standard for good project implementation and that it presents best practice, when it comes to the execution of similar projects, and as such an example for other countries inside the same financial mechanism. The achievements of the project are excellent results in the field of Basic Geodetic System, topographic data, hydrographic data and Infrastructure for Spatial Information.

In addition to the expert and verifiable results of the four subprojects this project presents new milestones regarding project management and, maybe even more importantly, informing the expert and general public about project achievements. We considered the obligation for project visibility, expected by the financial mechanism, and tried to improve upon it with an active informing of the project's benefits for Slovenia. Besides using articles in print and digital media and television contributions our communication action at the closing of the project "Triglav – Size Matters" was recognized by the expert jury at the Slovenian Advertising Festival (SOF) and by the Public Relations Society of Slovenia, which awarded the project the Prizma for exceptional visibility, effectiveness and creativity.

Below are shown the main results of the project and the project's closing conference, which was attended by more than 100 guests from Slovenia and abroad.

Project manager Jurij Režek, MSc, receiving SOF Award.

RESULTS OF THE PROJECT

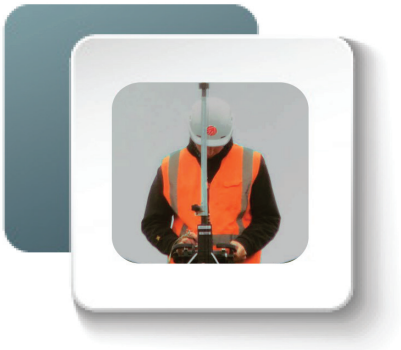
The project was outlined as four subprojects, each with its own goals, which at the end culminated into the overarching goal of the project – establishing an Infrastructure for Spatial Information to reduce risks and impacts of floods. The project has been concluded in 2016 and below we will present the goals and achievements of the four subprojects.

Subproject GRS – GEODETIC REFERENCE SYSTEM

Due to activities in this subproject Slovenia benefits from one of the best and state of the art Basic Geodetic Infrastructure, horizontal and vertical components along with a new geoid model.

Results of the subproject:

- establishment of a National Combined Geodetic Network,
- implementation of the vertical component of ESRS,
- development of the geoid model for the territory of Slovenia.



Subproject TOPO – TOPOGRAPHIC DATABASE

The subproject TOPO established a new, INSPIRE compliant, Topographic Data Model and with it good conditions for the improvement and return to former glory of the Slovene topography.

Results of the subproject:

- change of the existing Topographic Data Model,
- establishment of a physical topographic database model,
- transformation of existing topographic data into the new data model,
- topographic data acquisition in accordance with new instructions,
- development of new methods and processes for the maintenance of topographic data,
- creation of a network service for viewing topographic data.

Subproject HIDRO – HYDROGRAPHY

Up until the realization of this project Slovenia had bad data on hydrography and the situation has since changed dramatically. INSPIRE compliant hydrographic data exist for the entire territory of Slovenia.

Results of the subproject:

- the migration of hydrographic data captured into the topographic database of the SMA,
- update of the Spatial Data Infrastructure to improve operational hydrological systems,
- update of the water infrastructure database to improve the process of water management and maintenance.

Subproject INSPIRE – INFRASTRUCTURE FOR SPATIAL INFORMATION

The subproject INSPIRE had the task of coordinating and guiding the other subprojects towards interoperable results, based on regulations of the INSPIRE Directive. This means the results of the subprojects are for broader (international) use and not just national purposes.

Results of the subproject:

- creation and implementation of the capacity building program and the promotion of the INSPIRE Directive,
- preparation of instructions for interoperability, the coherency of spatial data sets,
- update of the Metadata System,
- transformation of spatial data sets in the distribution environment of the SMA in accordance with the INSPIRE Directive,
- creation of discovery, view, download and transformation network services,
- integration of the network services and metadata into the Slovene and European Geoportal.

CLOSING CONFERENCE OF THE PROJECT

In 2016 we concluded the three year-long project Modernization of Spatial Data Infrastructure to Reduce Risks and Impacts of Floods.

This was that year's biggest project of the SMA, which was also the reason for the organization of a closing conference in order to present the project's results to a broader expert public. The conference was attended by more than 160 participants, confirming the high interest on the project's thematic at that time.

We are proud than many guests accepted out invitation, amongst them were Lidija Stebernak, State Secretary at the Ministry of the Environment and Spatial Planning, Matjaž Mikoš, PhD, Dean of the Faculty for Civil and Geodetic Engineering, Kathrina Ramberg, Chargé d´Affaires a.i., Royal Norwegian Embassy and project participants from Norway and Iceland.

Along with the detailed presentations on the project's results and results of the four subprojects, we could listen to contributions relaying the importance of international partnerships for the exchange of knowledge and experience, as such collaboration the expert knowledge of individuals and consequently better project results.

Following the closing conference a press event was organized at which the SMA presented the project's results and for the first time broke the news regarding the height of Triglav. The re-measuring of the highest mountain in Slovenia, using the upgraded geodetic infrastructure, showed a 34 cm lower height. This news took over the Slovene media and as a result almost every Slovene citizen heard about the activities and results of the project.

All the achievements did not slow us down but spurred us on as there is still much than needs to be done. A lot of topographic data, using the new acquisition rules and INSPIRE demands, are still missing. Therefor we prepared a proposition in co-operation with our Norwegian and Icelandic colleagues to continue the project. The proposition was well received by the EEA Grants Financial Mechanism. We are currently in the negotiation phase with the Government Office for Development and European Cohesion Policy and are hopeful for a favourable outcome and the procurement of funds for the new project, which will build upon the conclusions and results of the previous project with the acquisition of topographic data for the entire territory of Slovenia.

Picture below: Project manager Jurij Režek, MSc, along with the subproject managers.

eSpatial Project

For the successful management of space and real estates it is essential to establish a spatial data infrastructure in Slovenia. This includes quality information and updated spatial data, managed and maintained in easily accessible databases, as well as contemporary and electronic-based services on the basis of spatial data. Guaranteed access to high-quality spatial data and their consistent application in the processes of planning and construction are a prerequisite for effective and easy to implement planning, construction and real estate management processes. In Slovenia,

most of the key spatial databases already exist, some are still in the process of establishment while others need to be updated. Some databases of real estate property (eg. Land and Building Cadastre) have been established with now outdated IT solutions, complicating their integration and modern use in terms of interoperability. In order to improve the current state the Ministry of the Environment and Spatial Planning and the SMA formulated a plan of measures and activities under the name **Projects of the eSpatial Program**.

The specific goal of the eSpatial Program is defined in the Operational Program for the Implementation of European Cohesion Policy in the Period 2014 -2020, Priority axes: "2. Enhancing access to, and use and quality of, information and communication technologies", investment priority "2.2 Strengthening ICT applications for e-government, e-learning, e-inclusion, e-culture and e-health".

The goal of the eSpatial Program is the establishment of a common Infrastructure for Spatial Information in Slovenia, the establishment of a Spatial Information System and the renovation of the Real Estate Records System. After the completion of the eSpatial Program users will have easy access to reliable datasets, meaning linked and interoperable existing as well as newly established datasets and corresponding services.

New services, e.g. e-commerce in the process of acquiring a building permit called eGraditev and e-commerce in the process of spatial planning called ePlan, will encourage businesses to develop new services, sensor technologies and cloud computing. After the completion of the eSpatial Program both foreign and domestic investments will be expedited due to the increased transparency and efficiency regarding spatial management and construction, along with the increased recognition of Slovenia as a land of business opportunities for foreign investors. An increase in business development is expected in all fields that design location services and where spatial and real estate data are being used in the development of high added value products (3D animations, HW, SW...) Users will be able to access data on vacant construction land, degraded areas, intended land use and existing legal regimes for a user specified area.

The funds intended for the eSpatial Program are estimated at **23.125 Million Euros**, of which **18.5 Millon Euros present co-financing out of the structural funds of the European Union**. The eSpatial Program is contentwise divided into the following projects and individual activities:

COMMON INFRASTRUCTURE FOR SPATIAL INFORMATION

I.

- Infrastructure organization, monitoring and reporting
- Establishment of a common Infrastructure for Spatial Information
- Data exchange and network services
- Distribution environment and infrastructure

€ 3.30 m

ESTABLISHMENT OF THE SPATIAL INFORMATION SYSTEM

II.

- Interoperability of data and services of the Spatial Information System
- Joint Spatial Display for legal regimes, intended land use and other information
- System for monitoring interventions in space
- e-commerce in the process of spatial planning (ePlan)
- e-commerce in the process of acquiring a building permit (eGraditev)
- Single access point

€ 4.40 m

RENOVATION OF THE REAL ESTATE RECORDS SYSTEM

III.

- Renovation of the Real Estate Records System-migration of Land Cadastre, Building Cadastre, Real Estate Register, Register of Spatial Units and state border data
- Development of applicable solutions for data archiving, data migration
- Development of applicable solutions for the Consolidated Cadastre of Public Infrastructure

€ 5.71 m

DATA IMPROVEMENT AND ACQUISITION

IV.

- Digitalization of Land Cadastre and Building Cadastre elaborates
- Improvement of ZKP (so called Land Cadastre Display) and acquisition of land use data

€ 8.00 m

V.

SUPPORT FOR PROJECT MANAGEMENT AND INFORMING

€ 1.71 m

I. COMMON INFRASTRUCTURE FOR SPATIAL INFORMATION

Infrastructure organization, monitoring and reporting

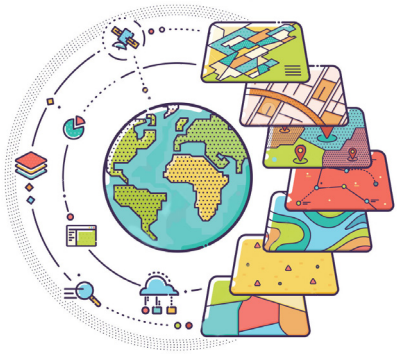
Communication mechanisms will be establishment for the working of the common Infrastructure for Spatial Information as envisioned by the Infrastructure for Spatial Information Act (ZIPI). The organization and way of working of coordination structures will be defined along with individual actors, their roles, responsibilities and relationships - the latter being especially important in order to ensure successful dialog and coordination between participants. Regular monitoring and reporting will be provided in compliance with the INSPIRE Directive and ZIPI.

Establishment of a common Infrastructure for Spatial Information

A detailed analysis of user needs will be carried out. Agreements will be defined between SDI users. Recommendations regarding pricing policy will be prepared, along with recommendations for pricing standardization for datasets governed with ZIPI. The Metadata Management System of the Slovenian Geoportal will be supplemented and upgraded. The preparation and maintenance of metadata descriptions for spatial data from Annexes I, II and III as well as metadata descriptions for all services covered by ZIPI will receive operational support.

Data exchange and network services

The right environment for free-flowing spatial data between Public Administration in Slovenia and data sharing with organizations of the European Commission and Member States will be established and maintained. A network of spatial data services will be established in collaboration between different data set managers.



Distribution environment and infrastructure

All necessary ICT infrastructure for the distribution environment will be established to facilitate access to data and services to participants of the eSpatial Program. Users of this environment (general public, business, Public Administration, Government and EU Institutions) will be able to search and find spatial data, information and services in accordance with national and INSPIRE standards, which in turn will ensure efficient interoperability of referential spatial and real estate datasets. The distribution environment will provide a common national spatial infrastructure, which will be integrated into the national ICT infrastructure, managed and maintained by the Ministry of Public Administration. All the necessary hardware and software

components, network equipment, application server databases, portals and other elements for a continuous and safe working of the system will be provided.

II. ESTABLISHMENT OF THE SPATIAL INFORMATION SYSTEM

Interoperability of data and services of the Spatial Information System

The main purpose of this part is defining the rules for efficient and best possible connection of subjects, information systems and business processes in the field of spatial planning, construction and real estate registration and management. Interoperability will be provided on legal, organizational, semantic and technical levels. This part includes the creation of standards, guidelines, recommendations and instructions, highlighting best practices, definitions, concepts and other products needed to provide interoperability of data and service.

Joint Spatial Display for legal regimes, intended land use and other information

The Joint Spatial Display will encompass mandatory (and other) elements for the entire territory of the Republic of Slovenia, as defined by the Spatial Planning Act and its subordinate and related acts. The Joint Spatial Display will be maintained on a daily basis and

will be free of charge for the purposes of spatial planning, construction and public viewing of legal status of land. Two services will be provided for the purpose of data use: view service for the Joint Spatial Display and download service for data from the Joint Spatial Display.

System for monitoring interventions in space

The system for monitoring interventions and developments in space will enable the understanding of present and future spatial states, which will serve as the basis for defining priority development goals and priority issues that need resolving.

Goals of monitoring interventions and developments in space:

- monitoring, analysing and evaluating spatial policy implementation (spatial development, land policy, housing policy and construction) and planning necessary and appropriate changes and measure,
- professional and efficient implementation of spatial planning processes to ensure sustainable spatial development on local, regional and national levels,

- inclusion of the "spatial perspective" when planning integral and sector development policies and documents on the national level.

e-commerce in the process of spatial planning (ePlan)

The main purpose of the ePlan system is the establishment of e-commerce in the field of preparation, adoption, enforcement and use of national, regional and municipal spatial plans and spatial development measures. The system will be built upon data on spatial acts and will enable the linkage of all key stakeholders. It will connect active spatial public administration services (e.g. e-commerce for service of documents called e-vročanje), office business systems, services in the frame of the Spatial Data Infrastructure, services in the frame of the Spatial Information System and other related services.

e-commerce in the process of acquiring a building permit (eGraditev)

The main purpose of the eGraditev system is the establishment of e-commerce in the field of construction. The system will be included as one of the public administration services in the public administration services portal called e-uprava. Along with the preparation and submission of electronic applications, processing of set applications and reception of public administration decisions regarding these applications, this system will support electronic duty payment methods. With the help of eGraditev paper operation will be steadily replaced by e-commerce in the field of construction.

Single access point

A single access point in the field of spatial planning and construction will provide a comprehensive IT support in a single place, when using the before mentioned services and activates. The single access point will be established as a web portal.

III. RENOVATION OF THE REAL ESTATE RECORDS SYSTEM

Renovation of the Real Estate Records System – migration of Land Cadastre, Building Cadastre, Real Estate Register, Register of Spatial Units and state border data

The main purpose of this task is

ensuring appropriate IT support for business processes to provide efficient and timely real estate data recording in order to establish effective and controlled connections with the Land Register and other spatial data records and enable a more efficient utilization of real estate and spatial data. The new IT solution will be based on a common data model, which will include data on land parcels, buildings and parts of buildings along with links to other data records (e.g. Land Register, Central Population Register...).

Development of applicable solutions for data archiving, data migration

IT solutions will enable reception of new data and changing existing data, data quality control and correctness of data acquisition, recorded into the database (including restrictions and rules of other data sets, e.g. Land Register, spatial information system...), data recording into live and archive databases as well as issuing data to outside users. All activities in the process of data management and maintenance will be monitored and documented, processes will be easy to plan and easily adjustable due to legislative changes concerning the registration of real estate.

Development of applicable solutions for the Consolidated Cadastre of Public Infrastructure

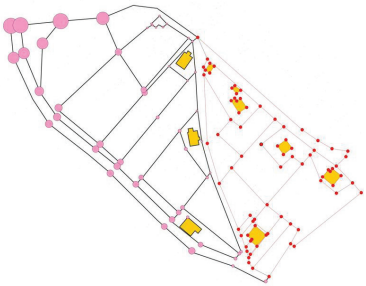
The purpose of the IT overhaul of the Consolidated Cadastre of Public Infrastructure is its connection with the Central Real Estate Database. This will enable correct interpretation of public infrastructure data, support the protection of public infrastructure and

population from harm, prevent direct and indirect damage and accelerate the process of issuing consent.

IV. DATA IMPROVEMENT AND ACQUISITION

Digitalization of Land Cadastre and Building Cadastre Elaborates

This tasks covers the scanning of all archived elaborates stored by the SMA in paper form, which were created as part of Land Cadastre and Building Cadastre land surveying services. Due to the necessity for digitally connecting real estate records with other spatial records it is essential to provide total e-commerce of all institutions and private land surveying companies participating in the process of real



estate registration. For this purpose a basis for a Central Data Archive will be crated along with required applicable solutions, which will enable the reception and recording of scanned documents and transfer of archived data to users.

Improvement of ZKP (so called Land Cadastre Display) and acquisition of land use data

The use of Land Cadastre data is limited, sometimes even impossible, due to the low accuracy of location data (inaccurate plans). Bad location data make it harder to prepare and enact municipal and national spatial plans, agricultural policy and other measures, which use land parcels as

the delineation marks for restrictions and regimes. Bad location data can also lead to data errors and incongruences between real estate records as a result of faulty graphical intersection of two or more layers with different location accuracy (e.g. land use and the so called Land Cadastre Display). The improvement to location data of the Land Cadastre will be carried out in stages and in the timeframe of a few years.
In the frame of the eSpatial Program the dataset for land use of build-up land will be established. The main purpose of this data set is to support decisions regarding spatial development, especially for settlement planning and planning of public infrastructure. These decision are primarily dependant on the quality of spatial information (present state and future trends)

V. SUPPORT FOR PROJECT MANAGEMENT AND INFORMING

In the frame of the eSpatial Program a Project Office will be established, which will provide organizational and technical support to the management and implementation of all projects under the umbrella of the eSpatial Program. This activity will also serve to inform and educate stakeholders and the broader expert public.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Surveying and Mapping Authority of the Republic of Slovenia, Activities Report 2016

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Photographs
Surveying and Mapping Authority of the RS Archive,
Freepik and Pixabay

Ljubljana, 2017

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