**ACTIVITIES REPORT**

**SURVEYING AND MAPPING AUTHORITY OF THE REPUBLIC OF SLOVENIA**

Ljubljana, 2023

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# INTRODUCTORY WORDS

**Everything happens somewhere in space, which is why location information is becoming increasingly important in our rapidly changing society. The National Surveying and Mapping Authority provides the conditions for placing our actions, decisions, and objects in space.**

Dear readers.

The year 2022 was marked primarily by the completion of the Programme of the projects eProstor (eProstor), under the slogan “One Space for all”. eProstor, which started in 2016, was carried out with great effort and successful collaboration of all participants. Our goal was to enable spatial management in a coordinated and high-quality manner along with effective real estate management.

Legislative changes and the successful implementation of eProstor enabled digital business operations in real estate management and spatial planning. With eProstor, a comprehensive and unified information infrastructure for spatial and real estate data was established, facilitating the sharing and interoperability of spatial data and services at the national and European levels. Additionally, records from the Land Cadastre, Building Cadastre, Real Estate Registry, Register of Spatial Units, and National Border Record were updated, the Consolidated Cadastre of Public Infrastructure was renovated, and a new information system was established to manage the Real Estate Cadastre. The new Real Estate Cadastre Act - ZKN, which came into force in 2022, provided the needed legal basis for digital business operations in the field of real estate registration and introduced unified cadastre procedures. Lastly, by scanning all archival elaborates of cadastral measurements and capturing data on populated build-up land, unnecessary administrative barriers were eliminated and easy access to official data on real estate, space and construction was made possible enabling their inclusion in digital business operations.

In addition to achieving all the goals set within eProstor, we also carried out other, extensive activities in 2022, which are an integral part of the regular work programme of the Surveying and Mapping Authority of the Republic of Slovenia. The results of all these activities are presented in the activities report before you and were made possible by the hard work and cooperation of all employees at the Surveying and Mapping Authority, the Ministry of Natural Resources and Spatial Planning, and the Ministry of Public Administration. These departments are responsible for the common building blocks and the operation of the national cloud computing environment, which hosts the entire eProstor infrastructure. Despite some difficulties with delays in setting up the test environment and the subsequent migration of databases to the new production and distribution environments, we can proudly state that mandatory electronic document submission and electronic record-keeping represent the next step in the modernization and streamlining of our processes.

Therefore, we would like to express our gratitude to all participants for their contributions towards achieving this goal.

Tomaž Petek

General Manager

Surveying and Mapping Authority of the Republic of Slovenia

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

**Presentation and organization**

The Surveying and Mapping Authority of the Republic of Slovenia (SMA) is a body within the Ministry of Natural Resources and Spatial Planning. The area of work of the SMA encompasses the tasks of the national land survey service, which include the creation, management and maintenance of databases pertaining to the Basic Geodetic System, Real Estate, State Border, Spatial Units, Addresses, and the Consolidated Cadastre of Public Infrastructure, as well as the Topographic and Cartographic System.

**The SMA is responsible for conducting administrative procedures and decision-making on administrative matters at the first instance, issuing data from geodetic data sets and performing other administrative services and tasks of the geodetic service.**

**The Surveying and Mapping Authority of the Republic of Slovenia**

* is responsible for surveying, maintaining, managing and providing fundamental and reference data on space and real estate, provides services related to the registration of changes in physical space and real estate, and performs the role of coordinator for the Real Estate System and Spatial Data Infrastructure,
* maintains the Mass Real Estate Valuation System, records and monitors real estate sales and lease transactions, analyses the state and characteristics of the real estate market, prepares periodic reports on real estate market developments, and provides data regarding the real estate market and the market values of real estate,
* manages the National Coordinate System, which is the foundation to locate data in physical space and provides the infrastructure to carry out land surveys.

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[Surveying and Mapping Authority | GOV.SI](https://www.gov.si/en/state-authorities/bodies-within-ministries/surveying-and-mapping-authority/about-the-surveying-and-mapping-authority/)

ACTIVITY & MAIN TASKS

**Activities**

The SMA closed the year 2022 with successfully completing all tasks set out in the Annual Work Programme of the National Geodetic Service as well as those planned under the Programme of the projects eProstor (eProstor).

As a state institution, the SMA has a legal obligation relating to integrated national spatial data sets. This includes the definition and implementation of a reference geodetic coordinate system, the establishment and maintenance of spatial data sets with metadata, the provision of services related to access and use of spatial data, the provision of necessary network solutions and technologies, and the provision of fundamental services in support of spatial management and other decision-making processes. Additionally, the SMA carries out tasks related to the management and maintenance of the Spatial Data Infrastructure, which encompasses data accessibility and use, pricing policies for services, financing, coordination and monitoring of spatial data infrastructure operation, quality management and human resource development.

The SMA is also responsible for mass real estate valuation, as defined in the Real Property Mass Valuation Act – ZMVN-1 (Official Gazette of the Republic of Slovenia [Uradni list RS], No. 77/17, 33/19 and 66/19), for taxation and other purposes defined by law.

**The organizational units of the SMA are the Main Office, the Real Estate Office, the Geodesy Office, the Mass Real Estate Valuation Office and twelve Regional Surveying and Mapping Authorities with associated Local Geodetic Offices, which carry out the tasks of accepting submissions, informing and providing data to clients and carrying out individual actions in administrative procedures related to direct contact with the client at the Regional and local Geodetic Offices.**

**The activities of the SMA include the following tasks:**

* Establishment and maintenance of the national spatial coordinate system, which must be consistent with the European coordinate system, to ensure the basic conditions for carrying out technical surveying tasks in the national spatial coordinate system and for cross-border linking of spatial data sets.
* Provision of basic data in official data sets and implementation of procedures for recording data on state borders, spatial units, addresses and geographical names.
* Provision of data on real estate in organized and high-quality official data sets and implementation of procedures for registering real estate and cadastral rearrangements.
* Monitoring and analyzing the real estate market, maintaining the mass valuation system of real estate, and providing data on the real estate market and estimated market values of real estate.
* Providing basic data and information on the natural and built-up environment with the national topographic system and basic cartographic representations as well as with other products of photogrammetric data capture and remote sensing.
* Establishment and coordination of the public spatial data infrastructure at the national and international level, with the responsibility for implementing and monitoring the adoption of the Directive of the European Parliament and of the Council establishing an Infrastructure for Spatial Information in the European Community (INSPIRE).
* Development and maintenance of geoinformation solutions to support internal processes and provide access to data for external users.

**One of the key tasks of the SMA in the field of real estate registration is to manage administrative procedures at the request of clients, through which real estate records are changed.**

**In 2022, the SMA resolved 85,704 administrative procedures (at the request of clients or ex officio) and received 96,699 administrative procedures for resolution. Additionally, 57,644[[1]](#footnote-1) certificates were issued, and changes were accepted from the Land Register.**

The data on the number of received and resolved requests, certificates, along with changes from the Land Register (A - Received requests; B - Resolved requests; C - Issued certificates and changes from the Land Register):

|  |  |  |  |
| --- | --- | --- | --- |
|   | Received requests | Resolved requests | Issued certificates and changes accepted from the Land Register |
| January  | 9,030 | 10,357 | 12,766 |
| February | 9,062 | 8,942 | 11,638 |
| March | 14,615 | 11,333 | 12,170 |
| April | 14,017 | 14,269 | 8,842 |
| May | 4,618 | 11,925 | 9,281 |
| June | 2,325 | 2,622 | 1,059 |
| July and August | 12,648 | 5,890 | 1,318 |
| September | 8,915 | 4,835 | 570 |
| October | 9,112 | 4,437 | - |
| November | 6,982 | 6,141 | - |
| December | 5,375 | 4,953 | - |
| Total  | 96,699 | 85,704 | 57,644 |

## MAIN OFFICE

The Main Office implements administrative, professional, technical and supervisory assignments related to the linking of spatial databases and spatial data infrastructure. It is responsible for the issuing of data and certificates in analogue and digital form, e-commerce with spatial data, spatial data infrastructure and informatization of the land survey service. It is the administrator for the information and telecommunication infrastructure and provides systemic, application and user support along with IT training and education.

**The SMA performs the tasks of the National Contact Point for fulfilling obligations under the INSPIRE Directive and coordinates the establishment of spatial information infrastructure in the Republic of Slovenia.**

The Main Office also helps with resolving legal matters of all the other central and regional offices of the SMA. It carries out tasks related to personal data protection, financial operations, public procurement, human resources, education and office operations. It takes care of health and safety and performs other common tasks of an organizational nature relevant to the operation of the SMA.

**The SMA ensures the smooth operation of the INSPIRE infrastructure (Slovenian INSPIRE Metadata System, Slovenian Geoportal, web services) and carries out tasks related to monitoring and reporting via the European INSPIRE Geoportal.**

In the past year, in the field of information technology and issuing data, the SMA provided uninterrupted access to geodetic data to public and professional users, companies, state administration and wider public administration with the help of its distribution system network services and, traditionally, at all Regional and Local Offices of the SMA. Activities were carried out to inform the public about the existence of data and services and support their use of spatial data. The gradual digitization of archived data (aerial photographs) was continued.

Funds were transferred for the concessional management of the GEOSS area. In cooperation with the Ministry of Public Administration, the basic infrastructure conditions for the operation of the information systems were ensured and assistance to users of the information infrastructure was provided to facilitate the smooth running of work processes.

The SMA carried out activities in the field of coordination and cooperation in development projects. Within the framework of Targeted Research Programs (CRP), the project “Development of guidelines for improving semantic interoperability in the field of spatial database management and geoinformatics in Slovenia” was launched in order to define the optimal combination of tools for semantic processing of geospatial data and to create guidelines for the future development of semantic interoperability at the SMA and to provide leadership for managing the process of semantic integration of geospatial data in the field of geodetic geoinformatics. In cooperation with The Faculty of Electrical Engineering and Computer Science at the University of Maribor, the project “Architecture and Management Plan for Spatial Information Interoperability Infrastructure” has laid the foundations for the integration of different spatial database managers and providers of IT solutions and web services**.**

## REAL ESTATE OFFICE

The Real Estate Office implements administrative, professional, technical, coordination and supervisory assignments pertaining to the administration of the Real Estate Cadastre, the Register of Spatial Units, Addresses Register, the Consolidated Cadastre of Public Infrastructure and carries out different tasks relating to real estate. One of its assignments is also the substantive management and coordination of the work of the Regional SMA Offices in the field of real estate.

**As of April 4, 2022, the new Real Estate Cadastre Act - ZKN has come into force. The Real Estate Cadastre combines data from the Land Cadastre, Building Cadastre, and Real Estate Register into a new data set called the Real Estate Cadastre.**

In March 2021, the National Assembly of the Republic of Slovenia adopted the Real Estate Cadastre Act – ZKN (Official Gazette of the Republic of Slovenia [Uradni list RS], No. 54/21), which entered into force on April 4, 2022, and replaced the 2006 Real Estate Records Act – ZEN.

The Real Estate Cadastre maintains data on the position, shape, physical and other characteristics of parcels, buildings and parts of buildings that show the actual status of real estate. The Address Register maintains data on addresses in the Republic of Slovenia. The Register of Spatial Units maintains data on administratively determined spatial units (municipalities, settlements, administrative units, electoral units, polling stations, and school districts). Data on public infrastructure networks and objects are maintained in the Consolidated Cadastre of Public Infrastructure. They are based on data of already built public infrastructure networks and objects along with data provided by investors after completing construction.

The Real Estate Office and the Regional SMA Offices have carried out regular procedures for managing and maintaining data in real estate data sets along with activities to improve data quality.

In the field of IT support, software updates were carried out for the Land Cadastre, Building Cadastre, and Real Estate Register, to align with the updated regulations. As of April 4, 2022, the new

information system called IS Kataster has been put into operation.

**From April 4th, 2022 onwards, the new information system called IS Kataster became operational.**

In the field of providing ICT, geodetic, and general infrastructure, there have been upgrades to the information system IS Kataster (IR Delovodnik and IR Kataster), allowing for more optimal operations. Changes of the GeoProX software package were also implemented to better support data exchange with IS Kataster, and upgrades were made to the software package for mail delivery (support for IR Delovodnik).

In the area of data improvement of real estate records, reviews and controls of recorded data were carried out, and the latest procedures for migrating additional data to the new information system IS Kataster were updated. In the area of cadastral municipality 1603-Dol, the second phase of land cadastre adjustment was carried out for plots that were registered differently in terms of position and shape than the actual landowners used them in real life. Automatic classification of unrecorded or modified buildings was carried out for about one-third of the country. As part of research tasks (CRP 2021): “Connectivity of official spatial data with cadastre data”, “Multilingual dictionary for the field of geoinformatics”, “GeoBIM and state surveying data”, planned tasks were carried out and interim reports were prepared. The data processing for the purpose of improving the graphic layer of areas of equal land rating has been completed.

The day-to-day management and maintenance of the Consolidated Cadastre of Public Infrastructure was ensured, which included the registration of infrastructure facilities into the Consolidated Cadastre and registration of network connection points - a total of 1,105 elaborates were submitted for registration of infrastructure facilities and 113 elaborates for network connection point registration.

**During the implementation of cadastral procedures according to the Real Estate Cadastre Act - ZKN with the help of the new information system IS Kataster, eight regional trainings were organized and carried out for employees of the SMA and authorized surveyors.**

## GEODESY OFFICE

**The Geodesy Office is responsible for the national spatial coordinate system and the national topographic system, which includes data from remote sensing, data sets on natural and constructed land, geographic names, and national maps. It also maintains the state border, marking, maintaining, and renewing it.**

The Geodesy Office is responsible for the state geodetic reference system. The national spatial coordinate system is the basis for placement of objects and other phenomena in space. Spatial placement means determining or assigning coordinates to points that describe objects or phenomena in the state coordinate system. The national spatial coordinate system is the official valid coordinate system in the country and is aligned with the European Coordinate System. The national topographic reference system provides databases of topographic data on natural and constructed land, geographical names, and national topographic and base maps. In accordance with ratified international treaties, it performs the tasks of keeping state border records, marking, maintaining and restoring the state border markings and participates in the work of related international commissions.

In the field of the national coordinate system, the Geodesy Office ensured the operation of 16 permanent stations of the GNSS network SIGNAL and 5 permanent stations of the GNSS network of the National Combined Zero Order Geodetic Network. The necessary technical equipment was purchased, upgraded and maintained for smooth operation of both GNSS networks, as well as regular maintenance and service work on surveying instruments. The GNSS Service at the Geodetic Institute of Slovenia ensured the network’s operation, providing data to end-users. Analytical work on the operation of both GNSS networks was carried out by calculating daily coordinates, time series, and velocity vectors. Surveying fieldwork was carried out for the maintenance of both horizontal and vertical components (the height and gravimetric part) of the national coordinate system. This includes control measurements of the SIGNAL national network, levelling network renovation, gravimetric surveys, measurements for geodynamic purposes, and geoid fitting. Inspection of height markers and trigonometric points was conducted, and the surveying basis was adjusted with additional reference points in the border area with the Republic of Croatia.

In the area of the national topographic system, the project Cyclic Aerial Photography of Slovenia (CAS) produced aerial photographs for the Eastern part of Slovenia, aerotriangulation, a digital relief model, colour orthophotos and quality control of the project’s tasks. Technical and tender documentation was prepared for the implementation of cyclical aerial photography of Slovenia for the years 2023, 2024 and 2025. Maintenance of topographic data DTM (scale 1:5000) and maintenance control have been started. The topographic data DTM for 2% of the area of Slovenia has been renewed. One-third of the land cover layer for the central part of Slovenia has been established. Ten sheets of the state/military topographic map scale 1:50000 (DTK/VTK 50) have been renewed. Cartographic data and data on administrative boundaries have been prepared for the EuroGeographics collections. Work was carried out in the Commission for Standardization of Geographical Names and in the field of quality of geographical name data. Special tasks in the field of cartography and topography were carried out for the Ministry of Defence. Field control of the capture of topographic data DTM has been carried out.

Maintenance work and other tasks determined by mixed international commissions were carried out on the state borders. The 8th periodic inspection was conducted along the border between Slovenia and Austria, covering approximately 11 kilometers. Border markers in the IV and VI border sectors were adjusted, and GNSS measurements were taken on border markers from the XIV to the XXI border sector. A periodic inspection was carried out in parts III and V of the border sector with Italy, and height transfer was performed on nearby border markers to determine new heights for border points. The 9th periodic inspection has commenced along the border with Hungary, covering approximately 13 kilometers, and vegetation clearance has been conducted along the entire Slovenian-Hungarian state border (approximately 100 km). Data collection and preparation of a geodetic basis for border demarcation were carried out on the border with Croatia.

## MASS REAL ESTATE VALUATION OFFICE

The Mass Real Estate Valuation Office carried out tasks of recording data from sales and lease agreements regarding real estate, analysing the real estate market and preparing reports on the real estate market. Based on real estate market data and methods of mass valuation, which are based on statistical and other mathematical methods, the Mass Real Estate Valuation Office develops and calibrates valuation models and carries out processes to define the models adhering to defined criteria.

**Mass real estate valuation is carried out by the Surveying and Mapping Authority of the Republic of Slovenia.**

The valuation models are managed and maintained in the Register of valuation models. The management and maintenance of the mass real estate valuation is being carried out in the Valuation Register. Real estate values are calculated based on real estate data and valid valuation models. The valuation models do not consider special circumstances, which are considered through administrative procedures. These special circumstances influence real estate value, and their impact and expiration date are recorded in the Valuation Register.

**In 2022, the implementation of legally prescribed procedures for determining valuation models and adjusting the mass real estate valuation system continued to support the execution of tasks and the transition to a new real estate cadastre system.**

The Act Determining Temporary Measures to Mitigate and Remedy the Consequences of COVID 19 – ZZUOOP (Official Gazette of the Republic of Slovenia [Uradni list RS], No. 152/20) has moved the deadlines for the implementation of certain tasks of the real estate mass valuation to a date to be set by a new Decree determining real estate valuation models, as provided for in Article 20 of the Real Property Mass Valuation Act – ZMVN-1 (Official Gazette of the Republic of Slovenia [Uradni list RS], No. 77/17, 33/19 and 66/19). Despite the delay under ZZUOOP, the SMA, as the valuation body, is obliged to carry out all the tasks assigned to it under ZMVN-1, ZZUOOP only postpones the public display of data in the valuation register and the assertion of special circumstances, while the provisions of ZMVN-1 are not affected in the remaining part. This means that the SMA must monitor developments in the real estate market, to carry out appropriate analyses and if it finds that the models no longer meet the criteria set out in ZMVN-1, adapt them to the new situation. The statutory time limit for the verification of valuation models is 2 years (Article 10 of ZMVN-1).

In 2022, the statutory procedures for determining valuation models were therefore continued. A draft proposal of valuation models was prepared (Article 15 of ZMVN-1), consultations were held with professional experts (Article 16 of ZMVN-1), and the valuation models were aligned with municipalities (Article 17 of ZMVN-1).

Within the allocated budgetary funds, the mass real estate valuation system was maintained and adjusted to provide successful and efficient support for the implementation of legally prescribed procedures and tasks, with a particular emphasis on the process of determining valuation models and transitioning to a new real estate cadastre.

Real estate transactions, including purchases and leases of commercial properties, were reviewed and processed for the purpose of modelling and preparing regular reports on the real estate market in the Republic of Slovenia. The latest empirical representation of the real estate market conditions was provided in the semi-annual report for the year 2022.

**Data on sales and rental transactions were processed to prepare real estate market reports, including the semi-annual report for the year 2022.**

# HUMAN RESOURCES

As of December 31, 2022, the SMA employed a total of 464 employees, with 330 working at twelve regional surveying and mapping administrations and 134 at the central SMA Offices. The number of employees decreased by 1.9% compared to the end of 2021 due to the expiration of fixed-term employment contracts resulting from the completion of the eProstor project.

Among the employees, there is a predominance of surveyors with a university degree or higher. However, the Surveying and Mapping Authority of the Republic of Slovenia also employs other professionals, such as lawyers, economists, agronomists, IT specialists, and administrative-technical staff. The staffing follows the approved personnel plans of the public administration.

Table 2: Number of Employees in the Central and Regional Offices as of December 31, 2022

|  |  |
| --- | --- |
| Organizational Unit | Number of Employees |
| Main Office | 41 |
| Real Estate Office | 28 |
| Mass Real Estate Valuation Office | 26 |
| Geodesy Office | 26 |
| Project unit eProstor | 5 |
| Outside Organizational Units | 8 |
| Regional Office Ljubljana | 68 |
| Regional Office Celje | 30 |
| Regional Office Kranj | 30 |
| Regional Office Koper | 25 |
| Regional Office Nova Gorica | 28 |
| Regional Office Murska Sobota | 27 |
| Regional Office Maribor | 28 |
| Regional Office Novo mesto | 27 |
| Regional Office Sevnica | 18 |
| Regional Office Ptuj | 19 |
| Regional Office Velenje | 16 |
| Regional Office Slovenj Gradec | 14 |
| TOTAL | 464 |

Table 3: Structure of employees by field of education in 2022

|  |  |
| --- | --- |
| Educational Background | Percentage of Employees |
| Surveyors | 58 % |
| Agronomists | 2 % |
| IT specialists | 2 % |
| Lawyers, economists and administrative staff | 38 % |
| TOTAL | 100 % |

# FINANCE

The SMA is financed primarily from the national budget and to a lesser extent from income generated by its own activities with the operation of permanent GNSS stations of the SIGNAL network. The Annual Work Programme of the National Geodetic Service is confirmed by the Government of the Republic of Slovenia.

For the year 2022, the budget of the SMA was initially set at 24,744,887 EUR. However, following redistributions based on the decision of the Government of the Republic of Slovenia, the budget was reduced to 24,701,567 EUR. The overall financial realization of the valid budget was 94.83%, amounting to 23,425,005 EUR.

Table 4: Adopted and Valid Budget, as well as the Financial Realization in 2022

|  |  |
| --- | --- |
| Budget Category | Financial Realization |
| Adopted Budget | 24,744,887 EUR |
| Valid Budget | 24,701,567 EUR |
| Financial Realization | 23,425,005 EUR |

Table 5: Financial Realization of the Budget in 2022

|  |  |
| --- | --- |
| Budget Category | Percentage of Expenditure |
| Salaries | 68.8% |
| Material Costs | 4.5% |
| Investments and Capital Maintenance | 0.4% |
| Own Activities | 0.5% |
| Surveying Activities Program | 25.8% |
| Total | 100% |

INTERNATIONAL ACTIVITIES

**International Cooperation**

By contributing and engaging in the international community, the SMA governs over the implementation of European guidelines and initiatives in the fields of real estate registration, cartography and geoinformatics. It also serves as the National Contact Point (NCP) for fulfilling obligations under the European INSPIRE Directive, coordinating the establishment of the spatial information infrastructure in the Republic of Slovenia.

**The SMA has conducted international cooperation activities in accordance with the guidelines and strategic objectives outlined in the Annual Work Programme of the National Geodetic Service for the year 2022.**

In addition to its long-standing membership in [EuroGeographics](https://eurogeographics.org/), an association of European geodetic and mapping authorities, and its involvement in the European Regional Committee for Global Geospatial Information Management ([UN-GGIM Europe](https://un-ggim-europe.org/)), the SMA participates in various other international organizations. Among them are the United Nations Group of Experts on Geographical Names ([UNGEGN](https://unstats.un.org/unsd/ungegn/)), the United Nations/Economic Commission for Europe ([UN/ECE](https://unece.org/)) Working Party on Land Administration, the Permanent Committee on Cadastre in the European Union ([PCC](http://www.eurocadastre.org/)), [EuroSDR](http://www.eurosdr.net/), [EUPOS](http://www.eupos.org/), and the European Reference Frame Sub-Commission ([EUREF](http://www.euref.eu/)) within the International Association of Geodesy (IAG). A representative from the SMA serves as the Chair of the Executive Committee of UN-GGIM Europe.

In 2022, the SMA actively cooperated with similar institutions in the European area and the region of the South-Western Balkans and carried out activities in accordance with strategic objectives set out in the Annual Work Programme of the National Geodetic Service. The international cooperation funds were used to pay the membership fee for EuroGeographics and participation in related activities, such as KEN group meetings, and the provision of data to the common products provided by the association at the pan-European level. Part of the funding was earmarked for active involvement in activities of UN-GGIM Europe and the EuroSDR association. The SMA was involved in the work of other international associations and initiatives (PCC, EUREF, WPLA, etc.) and carried out regional cooperation tasks in South-Eastern Europe and the Western Balkans.

At the meeting of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) held at the United Nations headquarters from April 26th to 28th, 2022, participants gathered to develop the work program for the implementation of the Integrated Geospatial Information Framework (IGIF) and prepare a report for the United Nations Economic and Social Council (ECOSOC). The meeting was attended by 48 participants from 31 countries, including representatives from the private sector, civil society, and the World Bank. Slovenia was represented by Tomaž Petek, the General Manager of the SMA, who currently chairs the Executive Committee of the United Nations Committee of Experts on Global Geospatial Information Management for Europe.

The Geospatial World Forum (GWF), a gathering of geospatial professionals and leaders representing the entire ecosystem of public policy, national mapping agencies, private sector companies, multilateral and development organizations, scientific and academic institutions, and major end-users from government agencies and citizen services, took place in Amsterdam from May 10th to 12th, 2022. The General Manager of the SMA also participated in the fourth plenary session on the first day.

The regular General Assembly of EuroGeographics, the association of European geodetic and cadastral agencies, took place in Sarajevo from May 15th to 17th, 2022. The conference, organized by the Federal Administration for Property and Legal Affairs of the Federation of Bosnia and Herzegovina, was attended by 100 participants from 38 countries, including representatives from the SMA.

At the international EUREF (European Reference Frame) Symposium, which took place remotely from June 1st to 3rd, 2022 in Zagreb, more than 120 guests from 25 countries were in attendance. Slovenian representatives presented the national report during the symposium.

Organized by the Autonomous Region of Friuli Venezia Giulia, a professional meeting of surveying authorities from successor states of the Austro-Hungarian cadastre was held in Trieste from June 8th to 10th, 2022. The meeting was attended by 35 representatives from countries with similar professional backgrounds and solutions in the field of land cadastre. During the meeting, the SMA presented its activities related to the transition to the new Real Estate Cadastre information system.

At the plenary meeting of the European Regional Committee of Experts on Global Geospatial Information Management (UN-GGIM), held in Geneva on June 20th and 21st, 2022, 35 representatives from 24 UN member states from geographic Europe and 6 international organizations gathered. The meeting was also attended by 26 participants online. The General Manager of the SMA represented Slovenia at the UN-GGIM Europa plenary meeting.

At the 12th regular session of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) in New York, held from August 1st to 5th, 2022, 256 representatives from 73 countries and 111 observer representatives gathered. Tomaž Petek, the General Manager of the SMA, attended the session on behalf of Slovenia. He currently chairs the executive committee of the European Regional Association of the UN-GGIM.

The International Federation of Surveyors (FIG), also known as Fédération Internationale des Géomètres, organized its 27th regular congress in Warsaw from September 10th to 15th, 2022. This congress is held every four years. Over 800 participants from around the world attended numerous plenary sessions and more than 50 technical sessions, where over 200 papers were presented. The General Manager of the SMA presented the strategy and action plan of the European Regional Committee during the technical session titled "UN-GGIM - An Update and Priorities".

The SMA organized the 14th Regional Conference on Cadastre and Spatial Information Infrastructure in Laško from September 21st to 22nd, 2022. The conference was attended by representatives from the surveying and mapping authorities of Croatia, Bosnia and Herzegovina, Serbia, Montenegro, Kosovo, North Macedonia, Bulgaria, Sweden, the Netherlands, and Slovenia, as well as representatives from some international associations and organizations.

The second United Nations World Geospatial Information Congress (UNWGIC) was held in Hyderabad, India, from October 10th to 14th, 2022. The congress brought together 1,369 participants from 76 countries. It featured 123 different topics presented in plenary sessions and various parallel sections. Additionally, global and regional meetings, workshops, training events, and the regular annual plenary session of the United Nations Regional Committee on Global Geospatial Information Management for Asia and the Pacific were organized. The congress was attended by the General Manager of the SMA, who served as the Chair of the European Regional Committee.

The Agency for Real Estate Cadastre of North Macedonia (AREC) organized an international conference in Skopje from October 12th to 14th, 2022, to celebrate the dual anniversary of 95 years of surveying practice and 75 years of surveying administration in North Macedonia. In addition to domestic guests, representatives from numerous countries and organizations, including Norway, Sweden, the Netherlands, Japan, Bulgaria, Serbia, Albania, Croatia, Bosnia and Herzegovina, Greece, and Slovenia, participated in the conference. At the event, Dr. Klemen Medved, a representative of the SMA, presented a professional contribution titled "State Combined Geodetic Network" related to the geodetic reference system.

On November 8, 2022, the 8th Slovenian INSPIRE Day took place at the Crystal Palace in Ljubljana, organized by the SMA in collaboration with the ICT Horizontal Network Partnership. Approximately 60 participants were informed about current topics in the field of Spatial Information Infrastructure.

In Ljubljana, on November 15 and 16, 2022, the international meeting of EUPOS (European Position Determination System) took place. EUPOS is an association of public institutions from Central European countries that provide GNSS (Global Navigation Satellite System) network services. In addition to representatives from Slovenia, participants from 13 other countries, including Austria, Czech Republic, Estonia, Latvia, Lithuania, Hungary, Moldova, Germany, Netherlands, Poland, Romania, North Macedonia, and Slovakia, attended the event. They were informed about the current state, best practices, innovations, and future trends in GNSS network management.

In Prague, on November 22 and 23, 2022, the Joint Conference of the Permanent Committee for Cadastre (PCC) of the European Union and the Cadastre and Land Registry Knowledge Exchange Network (CLR KEN) of EuroGeographics took place both in-person and online. During the conference, the SMA presented the Consolidated Cadastre of Public Infrastructure and its renovation within the eProstor project.

A workshop organized by the EuroGEO regional initiative, which is part of the Group on Earth Observations (GEO), took place in Athens from December 8th to 10th, 2022. The General Manager of the SMA participated as a panellist in a roundtable discussion. The sessions were attended by over 200 participants.

# THE PROGRAMME OF THE PROJECTS ePROSTOR

**The program, whose main purpose was to ensure greater transparency and efficiency in spatial planning, construction, and property management, was implemented by the SMA and the Ministry of the Environment and Spatial Planning (now the Ministry of Natural Resources and Spatial Planning), Directorate for Spatial Planning, Construction, and Housing (now the Directorate for Spatial Planning and Construction).**

The project operated under the slogan “One Space for All” as a modern digital hub for various stakeholders’ spatial data sets. Its purpose was to simplify the lives of users, including government organizations, spatial data managers, investors, professionals and, most importantly, citizens involved in planning, construction and management of real estate. eProstor aimed to provide easy access and enhance transparency and efficiency in spatial planning, construction, and property management.

**In 2022, the six-year long Programme of the Projects eProstor was concluded, which laid the key foundations for further development in geodesy, spatial planning, and construction.**

The results of eProstor:

* The investment was co-financed by the Republic of Slovenia and the European Union from the European Regional Development Fund.
* The total implementation of the project amounted to just over 21 million euros.
* During the project, 60 public procurement procedures were conducted, and 55 contracts were signed with external contractors.
* In addition to the regularly employed staff of the SMA and the Ministry of the Environment
* and Spatial Planning (now Ministry of Natural Resources and Spatial Planning), 41 project employees also participated in the project.
* Over 500,000 working hours were completed. Seventeen issues of the digital news bulletins were published, three books were released, six promotional videos were produced, and several commemorative brochures were issued.
* Five conferences were organized. All activities aimed to improve the involvement and informing of all stakeholders.

**Conclusion of the Programme of the Projects eProstor**

**Within the project real estate records were renovated, establishing a unified IT solution that enables modern operation of the real estate system and represents a integrated fundamental national spatial infrastructure.**

With the complete digitalization of extensive spatial data sets, there are no longer unnecessary steps, running from door to door, as these have been replaced by simple, fast, and efficient electronic procedures. As part of the project, IT solutions for the Spatial Information System were developed, which encompass electronic transactions in spatial planning (ePlan) and construction of objects (eGraditev).

The eProstor project introduced a integrated national spatial infrastructure that effectively connects the Ministry of Natural Resources and Spatial Planning with the Surveying and Mapping Authority and other key stakeholders. This infrastructure enables convenient access to spatial data from other national systems, such as eGovernment (eUprava), Land Registry, Business Register of Slovenia, Central Population Register, etc. With the comprehensive digital renewal of the spatial infrastructure, we have taken a crucial step towards sustainability by establishing electronic business operations that eliminate numerous administrative barriers.

**At the end of a complex journey, we can finally celebrate**

The Transitional provisions of the Real Estate Cadastre Act - ZKN defined a one-month period for the establishment of the information system. During this period, the Land Cadastre, Building Cadastre, and Real Estate Register were abolished, and the new Real Estate Cadastre was established. Additionally, necessary changes were made to the Spatial Unit Register, Address Register, and Consolidated Cadastre of Public Infrastructure. The migration took place through a direct transition, by disabling the existing system and enabling the new one.

**“The mandatory electronic document submission and management of the ‘electronic’ case file signify the modernization and streamlining of operations within the SMA. After six years of implementing the Programme of the Projects eProstor, we reflect on the past while proudly gazing toward the future. In step with the increasingly prominent global trends of sustainable development, we have established paperless electronic transactions, eliminated administrative barriers, and ensured easy access to high- quality official data on real estate, space, and construction. With such foundations in place, I am confident that a bright future lies ahead for the field of surveying”, emphasized Tomaž Petek, the General Manager of the SMA, during the project’s closing conference held on November 22, 2022, in Ljubljana.**

**Achieving greater data transparency through the national cloud**

**The information system (IS Kataster) is among the more complex information systems in the Republic of Slovenia, established on the national cloud computing infrastructure.**

The new Real Estate Cadastre Act - ZKN, which introduced standardization and simplification of real estate registration processes and provided a legal basis for the implementation of electronic transactions in this field, was adopted on March 26, 2021. It came into force on April 4, 2022. However, the law also necessitated an essential subsequent step: the renovation of information systems for managing and maintaining real estate records. The old information solutions were fragmented, technologically outdated, and did not allow for the implementation of electronic transactions or the execution of updated real estate registration processes.

The information system IS Kataster is a comprehensive solution, managed and maintained by the Ministry of Public Administration. It includes data on 5,700,000 land parcels from the Land Cadastre, 1,200,000 buildings, 1,900,000 parts of buildings from the Building Cadastre, as well as data on 53,000 spatial units from the Register of Spatial Units. Additionally, it contains data on 566,000 house numbers from the Address Register, data on 7,800,000 public infrastructure objects (water supply, sewage, electricity, roads, railways, and electronic communications) from the Consolidated Cadastre of Public Infrastructure, and data on 57,000 points from the State Border Record.

**Carbon Neutrality and Sustainable Business bring added value to users**

The Programme of the Projects eProstor acted as a modern digital hub for spatial data sets from various stakeholders and will now facilitate data use for everyone: government bodies, spatial data set managers, investors, professionals working in the field of spatial data, and most importantly, all citizens involved in planning, construction, or management of real estate.

Building permits, information about allowable interventions on one’s own land, registration of buildings in the real estate cadastre, house numbers... No more running from door to door and dealing with three separate records. With the digital archive, location-improved data, and electronic transactions, eProstor enables easier, simpler, and more precise data entry for changes to real estate data.

**The Programme of the Projects eProstor acted as a modern digital confluence for spatial data sets from various stakeholders and now enables simple, fast, and efficient electronic processes.**

# KEY ACHIEVEMENTS

**COMMON INFRASTRUCTURE FOR SPATIAL INFORMATION**

**A unified information infrastructure for spatial and real estate data has been established, providing comprehensive coverage in Slovenia.**

The most prominent result of this unified information infrastructure is the renovated web portal Prostor, that enables the reuse and interoperability of spatial data and services on both a national and European level. With the establishment of network and other services for spatial data sets, compliant with the INSPIRE directive, access to 50 different web services that enable the unhindered flow of information and their exchange is possible through the web portal Prostor. Interoperability is only guaranteed if the spatial data sets are in the same coordinate system. One of the tasks of the project was also the transformation of all data into a new coordinate system, transitioning from the old coordinate system labeled D48/GK to the European-compliant coordinate system labeled D96/ TM.

**98 spatial datasets are compliant with the INSPIRE Directive in the Republic of Slovenia.**

**131 view and download services, compliant with the INSPIRE Directive, exist for spatial datasets.**

(Data source: end of 2022)

**RENOVATION OF THE REAL ESTATE RECORDS SYSTEM**

**The SMA has carried out a comprehensive information renovation of real estate records, with the goal of building an efficient environment with the tools for managing and maintaining real estate data by the SMA and data producers.**

Existing records of the Land Cadastre, Building Cadastre, Real Estate Register, Register of Spatial Units, and State Border Record have been updated. A new cadastre information system has been established and the Consolidated Cadastre of Public Infrastructure has been renovated. The unified information solution brings modern operation to the real estate registration system, as it introduces comprehensive electronic business and eliminates numerous administrative barriers. A suitable legal basis for the electronic business has been ensured with the Real Estate Cadastre Act - ZKN, which introduces unified cadastral procedures. It was adopted during the implementation of eProstor.

**DATA ACQUISITION AND DATA QUALITY IMPROVEMENT**

**All archives of real estate records and state spatial plans have been scanned for the purposes of electronic business. The positional improvement of the graphical part of the Land Cadastre has been completed, and data on populated land and the actual use of populated land have been captured.**

Even though we have been implementing digitization of records at the SMA since the early 90s, we managed to finish it during this project. The remaining 9 million documents were scanned, so today the entire digital archive comprises 23 million documents. Since the introduction of the new information system, geodetic companies can obtain digital records from the archive of elaborates themselves.

A large part of the graphic layer of the Land Cadastre originates from over 200 years ago, when the Land Cadastre was established. The combined display of land cadastre data and other graphic records based on topographic data can show a graphical misalignment between the data. To improve this matter, a positional improvement of cadastral maps was carried out, which eliminates most of the graphical discrepancies between the data.

**SPATIAL INFORMATION SYSTEM**

**The Spatial Information System for supporting spatial management has been established.**

The system combines four main sets of digital services (electronic business in the field of spatial planning, electronic business in the field of building construction, monitoring the state of spatial development, and a register of build-up land), complemented by collections of spatial data and interactive graphic viewers. Detailed explanations of spatial planning and building construction procedures are available on the website of the spatial information system. Interactive assistants and guides are prepared, supplemented by a collection of frequently asked questions and a glossary of professional terms. In the procedures of preparing spatial acts, it is possible to monitor procedures, inspect data and documentation, and submit comments and suggestions during public displays. In the field of building construction, the system provides insight into the documentation and the possibility of notifying participation in the procedure.

**PROJECT MANAGEMENT AND INFORMATION**

**Operational support was carried out for the management of the program of projects and for informing and educating participants in the program and the broader professional public.**

The project office was established, which organizationally and technically supported the management and implementation of all projects within the program. Promotion services and communication activities were carried out, such as publishing an electronic news bulletin, organizing events and conferences, maintaining the project’s website, issuing printed materials (books, brochures), promotional products, presentation videos, etc. Activities were carried out in connection with job vacancies on the project, legal and consulting services as part of the project office’s work.

# ACCES TO DIGITAL DATA

**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 the quality standards of a geoinformation-enabled society. The need for digitally accessible spatial data has been rising over the years and this trend has in recent time only increased due to improvements made regarding the accessibility of spatial data over different digital channels.**

The SMA provides uninterrupted access to geodetic data to public and professional users, companies, state administration, and the wider public administration through electronic means via services in the distribution system, as well as traditionally at counters at all locations of the SMA.

Links to all applications for viewing geodetic data, managed by the SMA and also a few other data manager, are accessible on the Prostor web portal, which provides access to data from the Real Estate Cadastre, National Border Record, the Consolidated Cadastre of Public Infrastructure, the Register of Spatial Units, real estate market records, the Register of Geographical Names, and topographic-cartographic data.

Depending on the access type, the applications are categorized into three categories: public access, personal access, and access with registration. Public access applications are freely accessible to all users without any sign-in. Personal access applications are intended for property owners, to view their properties’ data and require authentication. Applications with registered access also required authentication, as they allow users with the necessary legal basis to view personal and other non-public data.

**All users can view the current data via the updated public viewer for surveying data called Javni vpogled (JV).**

**All users can bulk download the latest state of public surveying data from the public download portal called Javni geodetski podatki (JGP).**

**We also provide users with access to public data using open spatial web services. All information and links are available on the updated Prostor web portal.**

**An important point is also the publication of cadastral procedures, where users obtain information about cadastral procedures related to a specific parcel or building.**

# GREEN SLOVENIAN LOCATION FRAMEWORK (SLO4D)

Digital connectivity of space, environment, water, and nature for a green location 2021-2026

**The Green Slovenian Location Framework (SLO4D) brings digitalization of business and the connection of spatial, land, and environmental policy, which will improve the business and investment environment and stimulate sustainable investments for an economy with higher added value.**

**The project provides a solution for Slovenian development challenges in the areas of space, water, nature, environment, and real estate.**

Connected infrastructure, digital technologies, and a common data space are crucial for achieving climate goals, supporting circular economy, preserving ecosystems and biodiversity, and efficient energy use. Developing and deploying modern innovative technologies that will help accelerate a green digital transformation is therefore one of the key strategic objectives that Slovenia is pursuing together with the UN and the EU. To implement the strategic guidelines of the UN Permanent Committee for Effective Management of Spatial Data (UN-GGIM), titled the Integrated Geospatial Information Framework, the Ministry and bodies within the Ministry of the Environment and Spatial Planning, now the Ministry of Natural Resources and Spatial Planning, prepared a Strategic Plan for the Digitalization of Space and Environment in 2021.

The Green Slovenian Location Framework (SLO4D) project, valued at 48 million EUR, was based on the aforementioned Strategic Plan. It is financed through the Recovery and Resilience Plan (worth 33.5 million EUR), specifically from Component 2 - Digital Transformation of the Public Sector and Public Administration, integral funds (VAT), and the Climate Fund (8.5 million EUR). The project will be implemented in several phases (from 2022 to 2026).

The project, led by the SMA, involves the Ministry of Natural Resources and Spatial Planning, the Ministry of the Environment, Climate and Energy, the Slovenian Water Agency, and the Slovenian Environment Agency.

The project will be implemented according to the planned timeline from April 8, 2022 to June 30, 2026. The key objective of the SLO4D project is the horizontal digital integration of space, environment, real estate, water, and nature, which will enable smart management of space as a limited natural resource, reducing the construction on new land and thereby increasing resilience to climate change.

The project will establish a horizontal connection of systems, unlocking the significant potential of connected processes and data to support priority actions of the European Green Deal related to climate change, circular economy, zero pollution, biodiversity, and ensuring compliance with the legal order of the European Union.

This will contribute to the reduction of ‘greenfields’ and an increase in ‘brownfields’. Simultaneously, opening up and digitally linking will ensure easy access to digital data and services for the economy, the population, and other decision-makers for high-quality and quick decisions.

**Planned results**

* to link key spatial and environmental digital data infrastructures so that key processes and data sets of systems for space, environment, water, and nature are integrated;
* to open up and enable access to digital data and services;
* to establish an environment for location-based and other services;
* to establish the fourth component of the state coordinate system as a basis for digitalization and to provide missing digital data from the national spatial and environmental data infrastructure (topography, Lidar, public infrastructure, building floor plans).

Due to the project’s extensive nature, it is segmented into eight project groups, consisting of two horizontal and six vertical components:

* Common Geoinformation Infrastructure
* Project Office
* Surveying and Mapping Authority of the Republic of Slovenia
* Ministry of Natural Resources and Spatial Planning, Spatial Planning and Construction Directorate
* Ministry of Natural Resources and Spatial Planning, Water Directorate
* Slovenian Water Agency
* Ministry of the Environment, Climate and Energy, Environment Directorate
* Slovenian Environment Agency.

[www.gov.si/drzavni-organi/organi-v-sestavi/geodetska-uprava](http://www.gov.si/drzavni-organi/organi-v-sestavi/geodetska-uprava)

greenslo.gu@gov.si

# SLOVENIA IN NUMBERS

(Statistics on some general spatial data in Slovenia, representative for December 31st, 2022)

Table 6: Statistics on some general spatial data in Slovenia, representative for December 31st, 2022

|  |  |
| --- | --- |
| Spatial units | Number of spatial units |
| house numbers | 568.943 |
| streets  | 10.446 |
| settlements | 6.035 |
| municipalities | 212 |
| land plots | 5.774.025 |
| buildings | 1.163.305 |
| parts of buildings | 1.879.136 |
| cadastral municipalities | 2.698 |

1. After the introduction of the new Real Estate Cadastre Act - ZKN and the new information system IS Kataster, changes from the Land Register are recorded automatically. Due to the unified record of the Real Estate Cadastre, the structure of requests has also changed (for example, there are no longer separate requests for changes to data on parcels and buildings/ parts of buildings). [↑](#footnote-ref-1)