



 **REPUBLIC OF SERBIA**  
**REPUBLIC GEODETIC AUTHORITY**


**Development of e-processes concept in the Real Estate Cadastre  
within the quality improvement project**


Развој концепта е-процеса у катастару непокретности у оквиру пројекта  
унапређења квалитета

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 **REAL ESTATE CADASTRE**

- Cadastral and property information – integral part of national or European spatial data infrastructure.
- Realization of cadastral system reform in the Republic of Serbia – within the “Real Estate Cadastre and Registration Project in Serbia”
- Project was financed from the World Bank loan and supported by numerous donors projects from the European Union countries.






## REAL ESTATE CADASTRE






- Project was successfully implemented by the Republic Geodetic Authority
- Competences of the Republic Geodetic Authority
- Present: Real Estate Cadastre in the Republic of Serbia, as a unique public register of real estate and property rights.
- Real Estate Cadastre as a quality infrastructural base and efficient real estate management system.



## MODERN TECHNOLOGIES AND ELECTRONIC BUSINESS PROCESSES

- Modern society and new business requirements impose the need for higher quality and quantity of information, especially in urban areas.
- Accelerated development of electronic communications – positive results in spite of global economic crisis; “Digital Agenda for Europe”
- ICT serving electronic communications and business – integral part of all sectors of the economy

European Commission  
Digital Agenda for Europe



## STRATEGIC IMPORTANCE



- European Union Strategy: Europe 2020 - *Brussels, 2010*
- Strategic importance of ICT in Europe and Serbia
- Strategy of e-government development in the Republic of Serbia – introducing **electronic Real Estate Cadastre**




## IMPORTANCE OF SPATIAL INFORMATION AVAILABILITY

- Present society – growing demand for higher quantity and quality of spatial information
- Significance of geospatial and cadastral data within the decision making process, to produce clear and proper decisions




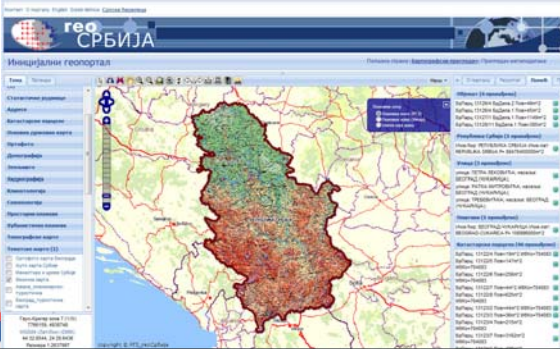



- Application in the fields of environmental analysis, planning, infrastructural development, healthcare, education, protection, transportation, energy, agriculture, climate changes and crisis management.




## National Spatial Data Infrastructure

- INSPIRE Directive: necessity, purpose and significance
- NSDI establishing strategy in the Republic of Serbia
- Republic Geodetic Authority – successful establishing of Spatial Data Infrastructure in Serbia
- Achieving an important goal – official data from public institutions available in public and efficient manner by application of modern ICT

## SIGNIFICANCE OF SPATIAL INFORMATION AVAILABILITY




Initial geoportals




Геопортал – геодаци [1]  
Физичка карта 1:500 000  
Сегине + Хидрографија




Геопортал – геодаци [2]  
Адресе + Парцеле  
Адресе + Ортофото



Ортофото 48cm  
Мрежа државних путева

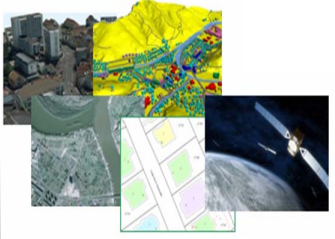



Хазард 200 + околине



## SIGNIFICANCE OF QUALITY MANAGEMENT AND APPLICATION ON SPATIAL AND CADASTRAL DATA

- Evolution of quality:
  - ✓ Quality control
  - ✓ Quality assurance
  - ✓ Total quality management


- Modern quality assurance and control systems, based on ISO standards and accepted international practice, are also being applied on spatial data, as well as the cadastral data.



## QUALITY UPGRADING PROJECTS IN THE RGA





- Projects by: Swedish International Development and Cooperation Agency (SIDA) “Capacity Building in Serbia: Real Estate Cadastre and Registration” and Norwegian donors project “RGA – Statens Kartverk Twinning”
- Republic Geodetic Authority had established new methods for service provision by upgrading processes in the Real Estate Cadastre and harmonizing services provided in the field of geodetic and geographic information
- Goals of these projects are comprehensive quality upgrading by developing a sustainable land administration system in Serbia and developing cooperation among stakeholders in data sharing.




## Standardization of data exchange process with external users


- System for quality assurance and control is also important for cadastral and legal data migration and system sustainability
- “Development of concept for quality assurance and quality control” project – standardization of data exchange process with external users, including private geodetic companies, via web application.
- For that purpose, an application was developed, linking work processes in Real Estate Cadastre, using functional solutions of various web services of the Republic Geodetic Authority.

## Standardization of data exchange process with external users



- Defining access rights during the registration
- Downloading data from GEOSRBIJA portal in formats congruent with the existing international standards
- Web service dedicated to the external users, directly downloading official data necessary to perform all types of works






### **Standardization of data exchange process with external users**

- This web application provides the users with seamless, fast and reliable method for submitting a request or documents, as well as to obtain quality and credible data:
- On property rights holder on subject real estate, area of subject parcel and parts thereof, together with encumbrances and limitations (mortgages, annotations on existence of unresolved cases, etc), i.e. data kept in the alphanumerical database
- Data on position of subject parcel with detail points coordinates, graphical and vector overview of parcels kept in graphical database
- Data on geodetic base – trigonometric, polygonal and reference network points, transformation parameters
- Orthophoto map and digital terrain model

### **Compatibility with priorities of UN Committee of Experts on Global Geospatial Information Management**

- GGIM Working Group on future trends in geospatial information management
- Compatibility with issues and trends for the development over the next 5 years (ECOSOC 2016).
- Item No. 4. *Inventory of Issues* - Assuring the quality of geospatial information
- Item No. 5. *Inventory of Issues* - Promoting data sharing, accessibility and dissemination
- Item No. 6. *Inventory of Issues* - Embracing trends in Information Technology





## CONCLUSIONS



- Republic Geodetic Authority, as a state institution, after Real Estate Cadastre project implementation, defines in its strategy the priority to upgrade and assure quality of data in the Real Estate Cadastre and to contribute to the sustainable market development and poverty alleviation, better environmental management, security of property rights and active property market through an efficient land administration.
- Defined goals through upgrading and comprehensive quality control of land administration obligate the Republic Geodetic Authority to strengthen its institutional capacities and make them sustainable for the future, to implement its competences and responsibilities as its developmental goal and to achieve expected results, as defined on the national level, in line with the international community and European Union standards.



## THANK YOU FOR YOUR ATTENTION!



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