



MINISTRY OF JUSTICE
OF GEORGIA



NATIONAL AGENCY OF
PUBLIC
REGISTRY



THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP

Land Registration Reform in Georgia

Innovative Approaches

Elene Grigolia - Project Manager at World Bank "Georgia Resilient Agriculture, Irrigation, and Land" Project (GRAIL) Component 2.2 "Enhancement of Land Administration Service Delivery and Building Digital Governance Infrastructure"



Georgia



Forest Fund

3,007,000 ha (54% of the Territory 43%)

Forest Fund excluding forest funds on occupied territories

2,2332,855 ha

Forest Fund on occupied territories

674, 145 ha

Georgia

6,970,000 ha; 69,700 sq. km.

Occupied Territory of Abkhazia

868,180 ha

Occupied Territory of Shida Kartli

383,729 ha

Territory Excluding Occupied Regions

5,718,091 ha

Self Governing Cities (Tbilisi, Rustavi, Batumi, Kutaisi, Poti)

74,228 ha

National Agency of Public Registry

Under the Ministry of Justice of Georgia



Registry of Immovable Property Rights



Registry of Pledge and Leasing



Address Registry



Registry of Political Parties



Business Registry



Registry of Public -Law Restrictions



Registry of Economic Activities



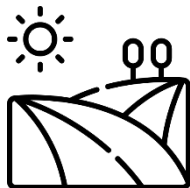
Registry of Tax Lien/Mortgage



Registry of Municipalities

Irrigation and Land Market Development Project

(USD 13 million in total)



Land Market Development Component



- ✓ Systematic registration of rights to land plots in **12 pilot areas** (2017-2019)
- ✓ Systematic registration of land plots in **28 administrative units of 5 municipalities**, where the construction and restoration of irrigation systems was in progress (2020 - 2023)
- ✓ **Enhancing the IT capabilities** of the National Agency of Public Registry (2020 - 2023)

Institutional Capacity Building of the Land Market Development Component

Documents developed with the involvement of local and international experts



Systematic Land Registration
guidelines



Law on “Systematic and
Sporadic Registration”



Baseline survey



Technical specifications of
field/cadaster works



Quality control manual



Pilot project evaluation report and
recommendations for the national
rollout of the Systematic Land
Registration



Georgian addressing system survey
report



Communication strategy and action
plan

Cadastral Surveys of Land Parcels



The following three approaches have been used under the Systematic Land Registration project:

Approach 1 (outsource)



in one pilot area a contractor carried out all the surveying/measurement works, collected and analyzed ownership evidence;

Approach 2 (hybrid)



in three pilot areas a contractor carried out all the surveying/measurement works and NAPR collected and analyzed ownership evidence;

Approach 3 (in-house)



in eight pilot areas NAPR carried out all the surveying/measurement works, collected and analyzed ownership evidence.

Awareness Raising



Information campaigns were carried out in the project areas, meetings were convened in the pertinent municipalities, informational materials were distributed, and land registration forums were organized.



226 representatives from municipalities and Property Rights Recognition Committees underwent training on Systematic Land Registration issues.



Innovative Survey Methods



Traditional Method of Surveying



Surveying Plot Boundaries and Buildings



Completing the minutes of a survey, taking pictures and gathering signatures



Processing data in the field offices



Surveying using new technologies



Surveying in real time via GG04 Smart Antenna and ArcGISOnline Application



Completing Survey minutes digitally, electronic signatures, digital photography



Quality check of the data and automatic generation of registration packages.

Drones were used to produce high -resolution orthophotos .

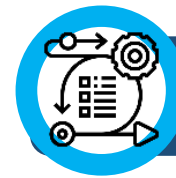


Capacity Building - Human Capital and Equipment



Human Capital Development

- Hiring and Training Registrars, Surveyors, GIS, Quality control Specialists
- Forming a corps of Junior to mid -level managers to lead the National Rollout
- Encouraging Women Participation



Technical Development

- Survey Equipment for the field teams, GPS Rovers and Tablets;
- Survey Drones;
- Personal Computers and Lap Tops for field teams and back office staff;
- Office Equipment for field teams and back office staff;
- Pick Up Trucks and SUVs;
- Specialized Work Clothing for all seasons for field teams;
- Personal Protection Equipment;
- IT Hardware and Software



Irrigation and Land Market Development Project

Results :



Within the Pilot Project, **175,000 land plots (190 000 ha)** were surveyed and registered



A systematic registration methodology and procedural **guidelines were created**



With the involvement of international experts, the **server infrastructure** was evaluated and updated



An innovative **Application of Electronic Minutes** was created

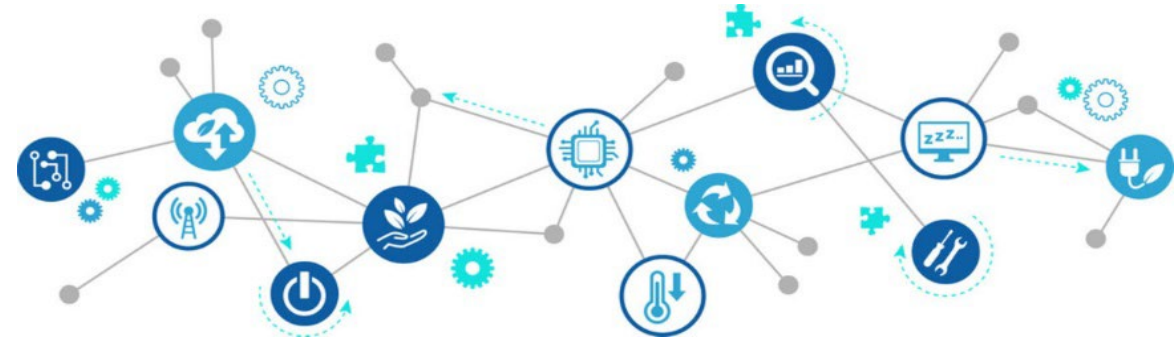
World Bank Evaluation: World Bank Mission has evaluated the implementation of the project as successful, which is reflected in the performance of predetermined evaluation indicators **as mostly overfulfilled**

Capacity Building - Innovation

✓ Agile Transformation



✓ ICT Assessment and Upgrade



✓ New IPRS System and Smart Contract Pilot



✓ Electronic Minutes Software (EMS)





Electronic Minutes - Catalyst for SLR



Software developed by NAPR in house Team automatically connects to different databases to provide every available information to the staff on the ground.



Paper Based protocol

ფანარია №1

სისტემური რეგისტრაციის ფარგლებში უძრავი წიგნის ადგილზე დათვალიერების ოქმის ფორმა

ოქმი № 000214

უძრავი წიგნის მისამართი (მუნიციპალიტეტი, დასახლება):
 საგარეო - სკახისაყი ზონა 55, სექტორი 13

მე გიორგი კობახიძე; პირადი № 35001008430
 /სახელი და გვარი/

გვინაწილობდი მესაკუთრის/საკუთარების უფლების რეგისტრაციის მოთხოვნის უფლების მქონე პირის ხესენი მსხვიანი; პირადი № 35001008279
 /სახელი და გვარი/

კუთვნილი მიწის ნაკვეთის საკადასტრო ადგილი/პროექტი/სამშენობის (სახურებისა და კომუნიკაციის დადგენის) შერჩეულობისა და ფაქტობრივი მდებარეობის დადასტურების პროცესში.
 577-44-3936 - გიორგი
 საკონტაქტო ინფორმაცია: 555-3791-97 - ხესენი

შენიშვნა: მივითვება ერთ-ერთი

- მესაკუთრე
- საკუთრების უფლების რეგისტრაციის მოთხოვნის უფლების მქონე პირი
- ამავე გეოგრაფიულ არეალში მდებარე სხვა მიწის ნაკვეთის მესაკუთრე/საკუთრების უფლების რეგისტრაციის მოთხოვნის უფლების მქონე პირი
- მუნიციპალიტეტის წარმომადგენელი

უძრავი წიგნის აღწერა

კვარტალი № 55 ბლოკი № 006 ნაკვეთი № 023

ტომონომერი: _____

ინფორმაცია სარეგისტრაციო ბლოკში მდებარე სხვა მიწის ნაკვეთების მესაკუთრების/მფლობელების/მისარგებლებების შესახებ (სხვისი არსებობის შემთხვევაში):

იანე კობახიძე; პირადი № 35001008222
 /სახელი და გვარი/

გიორგი მსხვიანი; პირადი № 35001061309
 /სახელი და გვარი/

_____ ; პირადი № _____
 /სახელი და გვარი/

დათვალიერების თარიღი და დრო: 2021 წლის 19 თებერვალი ; საათი _____

ადგილზე დათვალიერებაში მონაწილე პირების/გამგებლების/საგვალისტების:

გიორგი კობახიძე; პირადი № 35001008430
 /სახელი, გვარი, თანამდებობა/

იანე კობახიძე; პირადი № 35001008222
 /სახელი, გვარი, თანამდებობა/

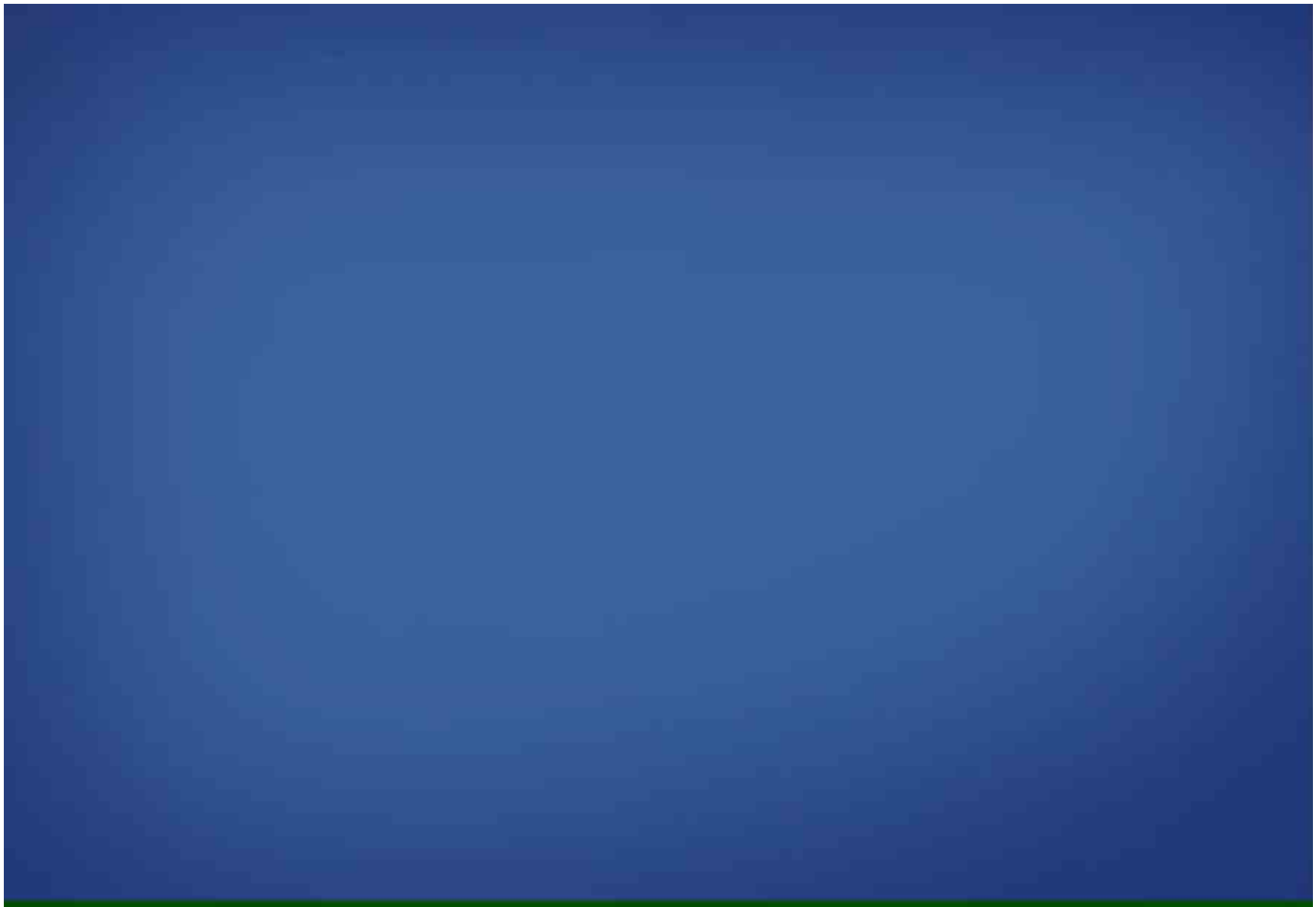
გიორგი მსხვიანი; პირადი № 35001061309
 /სახელი, გვარი, თანამდებობა/

დათვალიერებაში მონაწილე პირების მოსარგებელი/შენიშვნები (სხვისი არსებობის შემთხვევაში):
ხესენი მსხვიანი 135001008279

ვადაცხესები ხამ ხესენი მსხვიანი 135001008279
 პირდაპირი ნაკვეთი ფარგლებში/პროექტი/სამშენობის (სახურებისა და კომუნიკაციის დადგენის) შერჩეულობისა და ფაქტობრივი მდებარეობის დადასტურების პროცესში და არა მხოლოდ დონის ინჟინერის დამოუკიდებელი შეფასებით და შემდგომი აქტივობის შემთხვევაში განსაზღვრული უნდა იქნას მისი/იწესი/დასაბუთებული ინფორმაცია ადგილზე დათვალიერების და გამგებლების/საგვალისტების მიხედვით ნაკვეთის ხელის ჩაყვანის შემთხვევაში.

გიორგი კობახიძე; მისი ხესენი მსხვიანი წარმომადგენელი
 მისი 35001008430 მისი 35001061309 (12.02.2021)
 მისი 35001008222 მისი 35001008222
 ვადაცხესები ხამ ხესენი მსხვიანი 135001008279
 ვადაცხესები ხამ ხესენი მსხვიანი 135001008279
 ვადაცხესები ხამ ხესენი მსხვიანი 135001008279
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 ვადაცხესები ხამ ხესენი მსხვიანი 135001008279

გიორგი კობახიძე



From the Pilot Project to the Systematic Land Registration Reform across the Country

✓ Since 2022, systematic land registration reform has been launched across the country

Results:

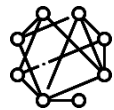
✓ More than 1,000,000 land plots have been surveyed

✓ Out of which more than 700,000 land plots have already been registered

Daily 3,500 – 4,000 land plots are surveyed and 2,700 land plots are registered

As a result of special training, the systematic land registration works involve :

✓ 1000 immovable property surveyors and registrars



The ongoing large -scale Systematic Land Registration reform is a completely digitalized process.



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Thank you for attention!

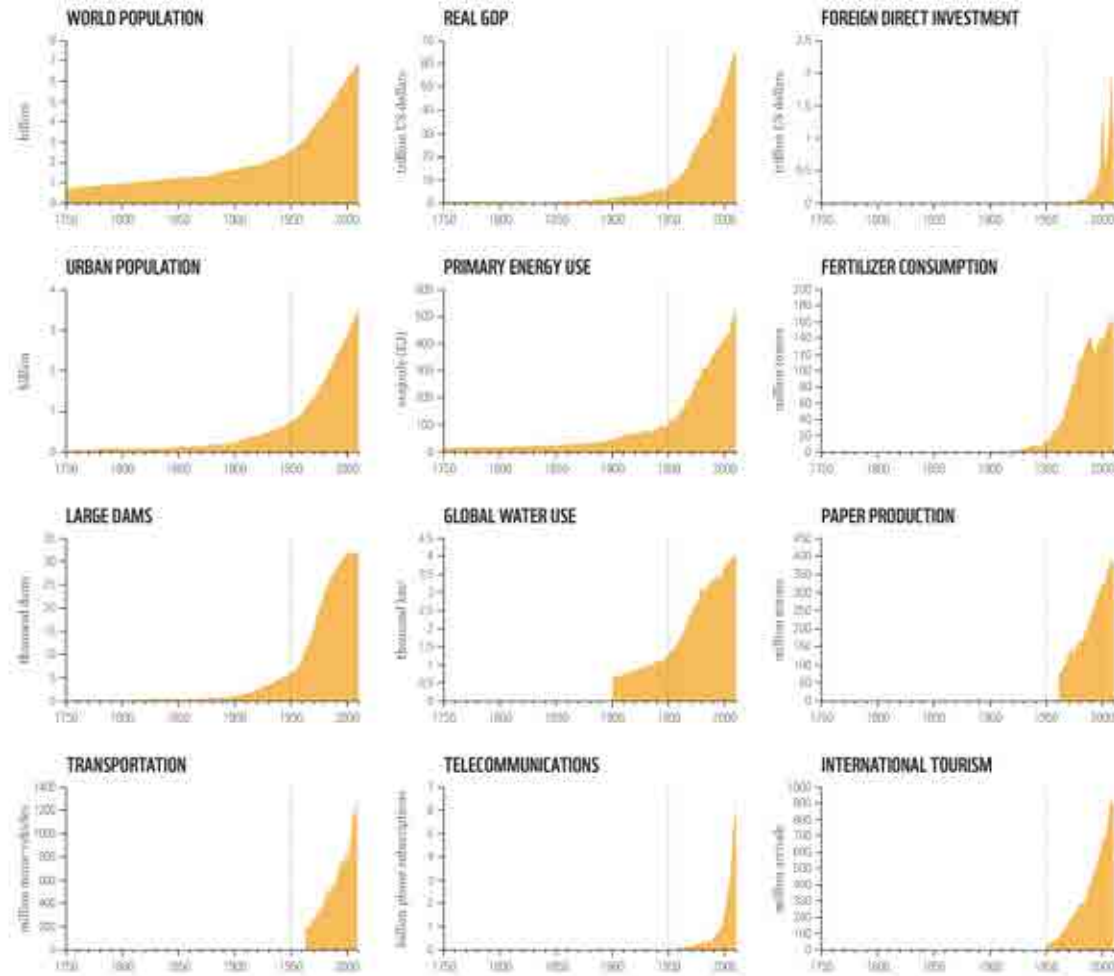


The background features a dark blue gradient with a subtle pattern of white stars. Overlaid on this are several technical diagrams in a lighter blue color. These include circular gauges with numerical scales (e.g., 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260) and various circular arrows indicating movement or processes. The text is centered in the lower half of the image.

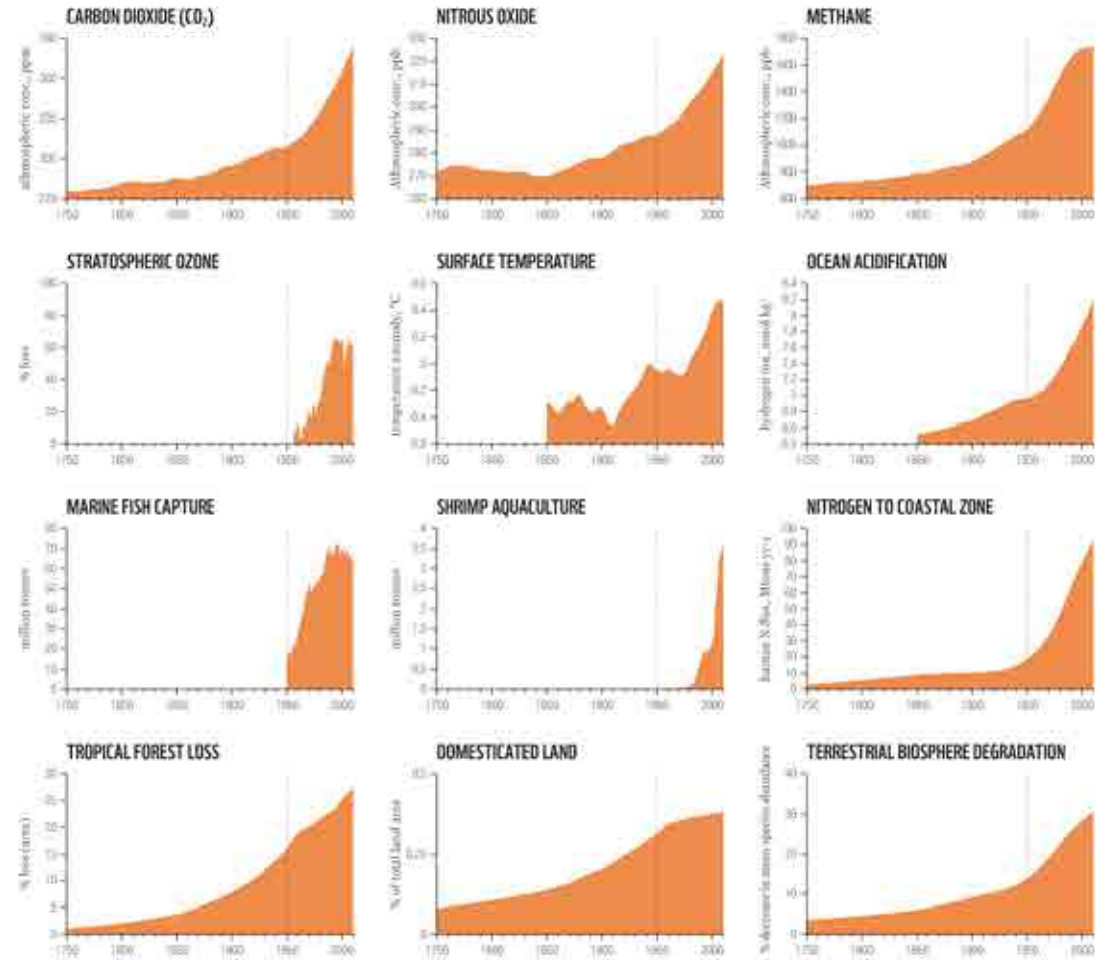
**A NEW REGISTRATION SYSTEM DESIGN TO SUPPORT TÜRKIYE'S
DEVELOPMENT AND RESILIENT CITIES
(FROM 2D TO 3D SPATIAL DATA)**

THE ROOT OF THE PROBLEM : HUMAN ACTIVITIES

SOCIO-ECONOMIC TRENDS

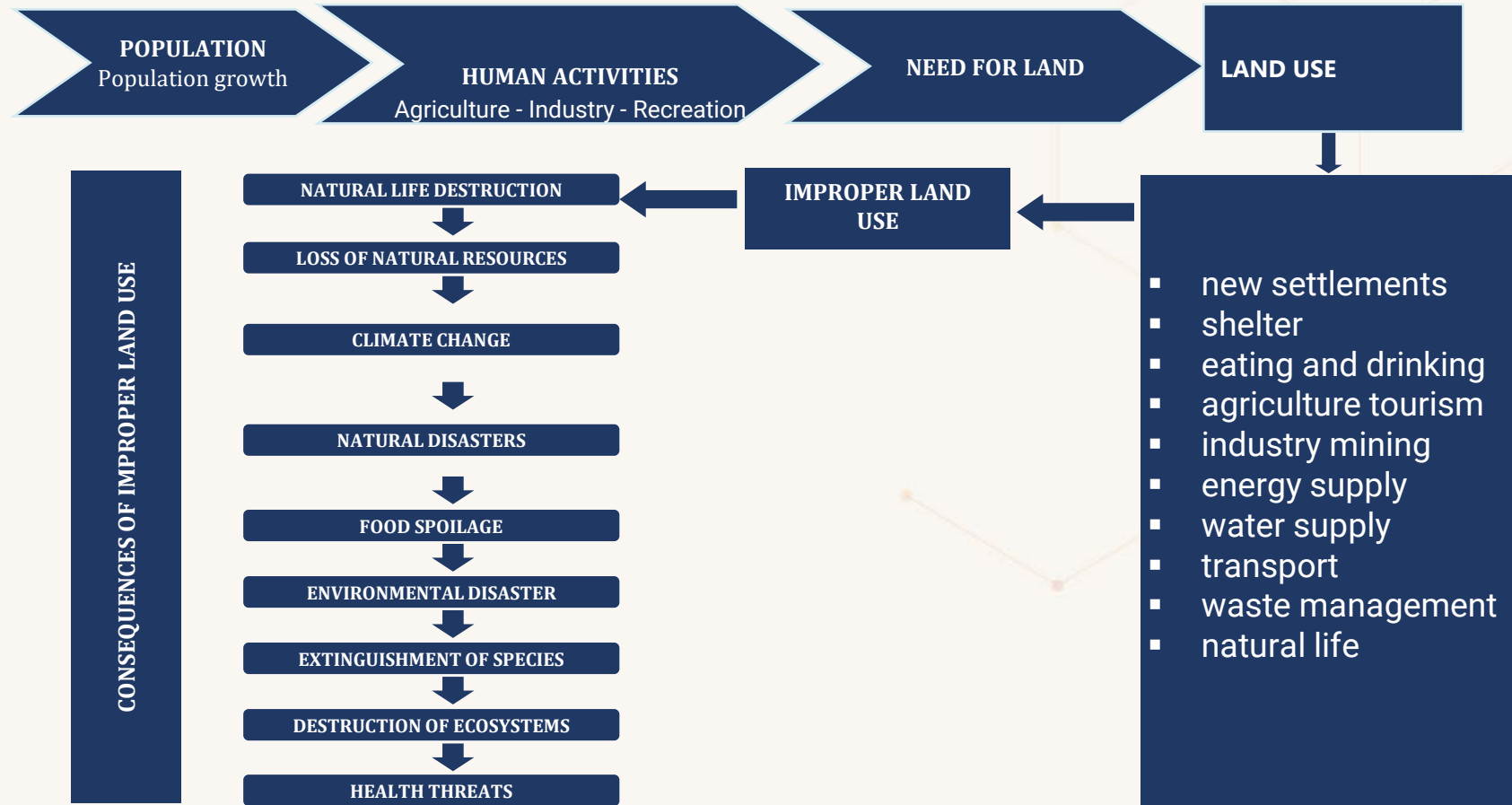


EARTH SYSTEM TRENDS



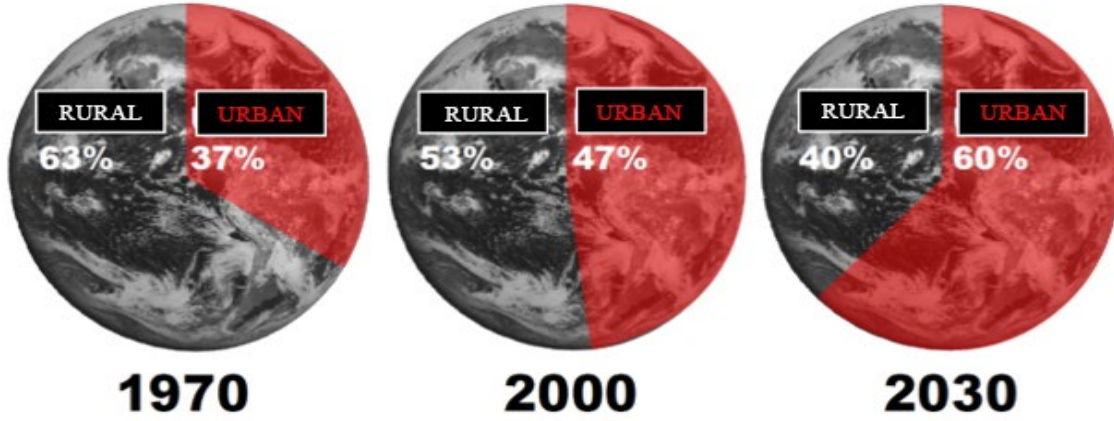
Source :Steffen, W. et al. 2015 -The trajectory of the Anthropocene

THE ROOT OF THE PROBLEM : HUMAN ACTIVITIES



Source: ULGER, E. Land Management, 2019

THE ROOT OF THE PROBLEM : HUMAN ACTIVITIES



Just as the industrial revolution and technological developments brought about huge changes on the land, which was seen as a source of life, people who were settled in rural areas, where more than 90% of the world's population lived until this period, began to migrate to cities for economic reasons.



THE ROOT OF THE PROBLEM : HUMAN ACTIVITIES

URBAN AREAS

The capacity to produce quality housing is insufficient

Natural Disaster Risks

Inadequate Infrastructures

Residential issues

Population density

Difference between existing usage and registered usage

Plans do not reflect regional characteristics

RURAL AREAS

Land degradation

Insufficient Rural Development Projects

High Food Prices Due to Poor Productivity

Poor life quality

Inefficient Rural Land Policies

Inconsistent Land Use with Legal Registration

MIGRATION FLOW FROM RURAL TO URBAN AREAS



In recent years, Turkiye has been heavily faced with disasters such as **earthquakes, floods, forest fires, landslides, avalanches, tornadoes, storms, droughts, extremely hot weather, heavy snowfall, sandstorms, sinkholes and rockfalls.**

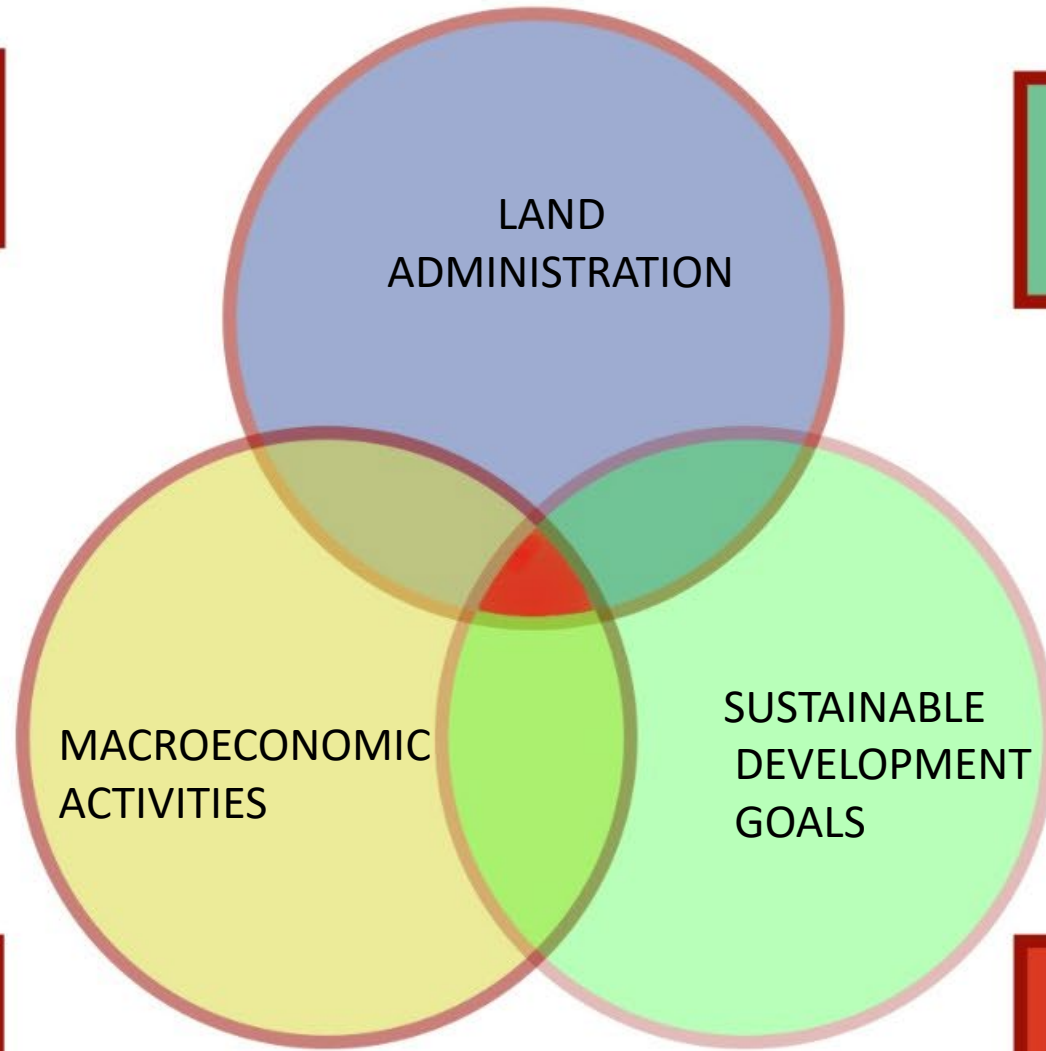




GLOBAL AGENDA

LAND VALUE

LAND USE



GREEN DEVELOPMENT

LAND MANAGEMENT

LAND MANAGEMENT MODEL FOR SUSTAINABLE DEVELOPMENT

NATIONAL LAND POLICY (ECONOMIC - ENVIRONMENTAL - SOCIAL)

CADASTRE

PLANNING

LAND TENURE

LAND VALUE

LAND USE

LAND DEVELOPMENT

LAND INFORMATION SYSTEM (LAND USE DATA SETS AND 3D BUILDING MODELS INTEGRATED)

NATURAL STRUCTURE (LAND) INVENTORY DATA

- SATELLITE IMAGERY AND MONITORING
- 1:25 000 SCALE DIGITAL
- ORTHOPHOTO MAPS
- LAND USE AND VEGETATION
- PROTECTED AREAS/RESERVED AREAS
- WATER SOURCES
- CLIMATE CHANGE DATA
- PROTECTED AREAS ANALYS
- ISECOSYSTEM, BIODIVERSITY DATA

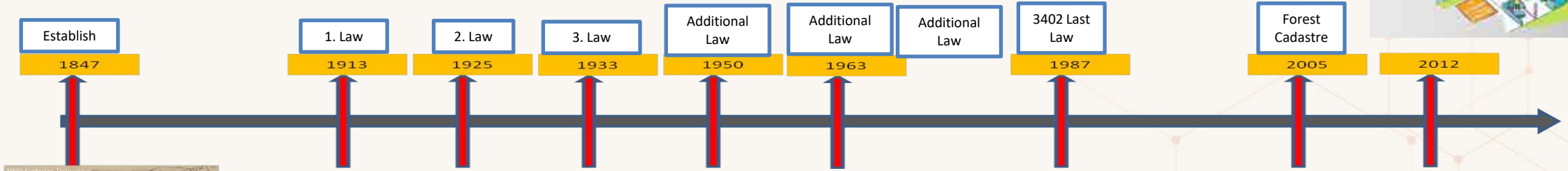
SPATIAL DATA INFRASTRUCTURE (TUCBS)

- GEODETIC REFERENCE
- CADASTRE/PROPERTY
- LAND USE
- BUILDING
- ADDRESS
- ORTHOPHOTO MAPS
-

STATISTICAL DATA

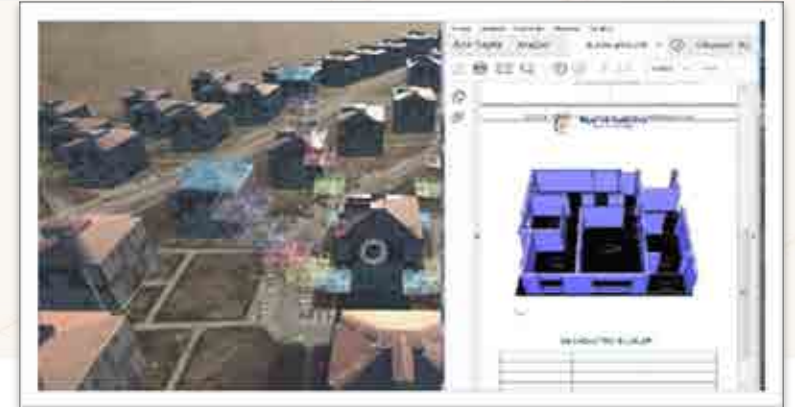
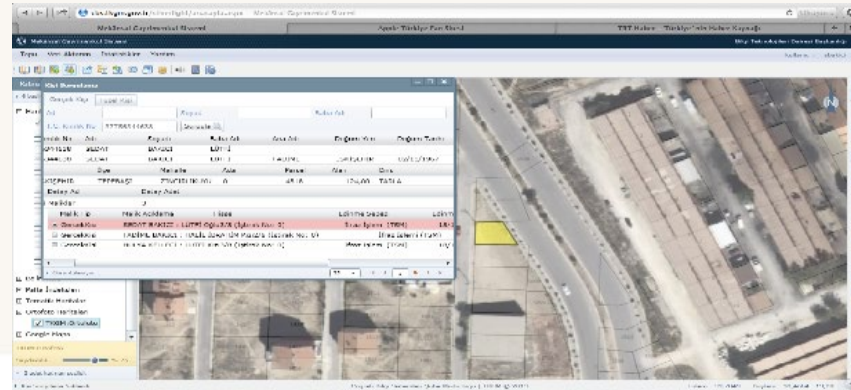
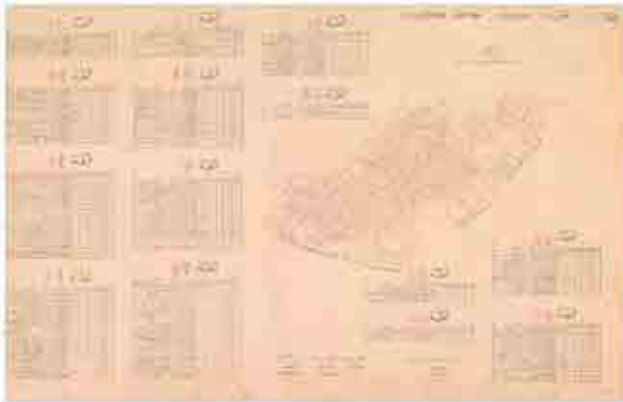
- POPULATION
- AGRICULTURE/LIVESTOCK
- ECONOMYTOURISM
- TRANSPORTATION
- OTHER

Cadastral Adventure in Türkiye



- Main Purpose: Establishing the land registry system and establishing the infrastructure of the spatial information system..

- In accordance with the fit for purpose;
- Different Arrangements in Rural and Urban Areas
- Spatial and Thematic Accuracy Differences
- Different Mechanisms in Limitation, Measure, Determination, and Commission Studies.
- In 2005 Forests (Cadastre) Included.
- Updates; Systematic and On Demand.





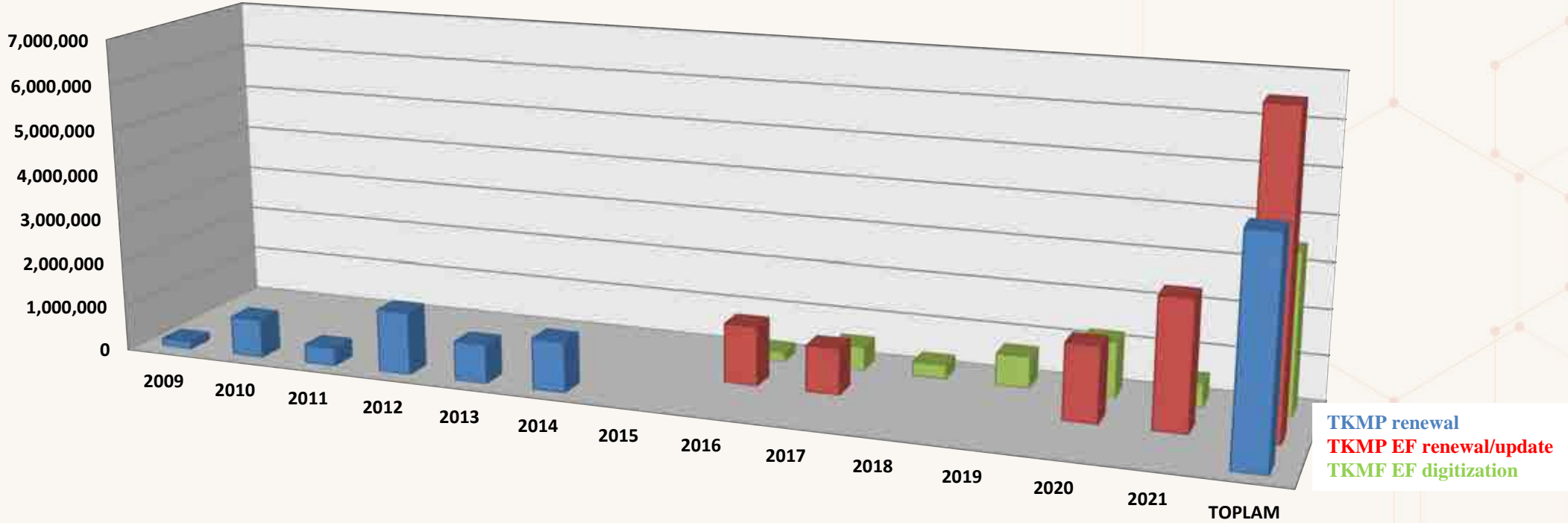
BIG DATA MANAGEMENT
UNLOCKING THE POTENTIAL
OF DATA
DATA QUALITY
INTERNATIONAL STANDARDS
BEST PRACTICES

ADAPTATION TO
TECHNOLOGY
SYSTEM UPDATE
SERVICE DELIVERY QUALITY
DIGITAL LAND REGISTRY AND
CADASTRE

PERSONAL DATA
PROTECTION
NEW TOOLS FOR DATA
SHARING
INTEROPERABILITY – OPEN
DATA

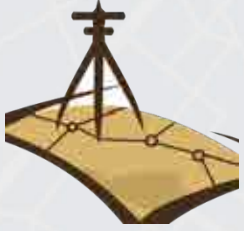
CONTINUOUS
PROFESSIONAL
DEVELOPMENT
COOPERATION AND
COLLABORATION WITH
UNIVERSITIES, CIVIL
SOCIETY AND
PROFESSIONAL
ORGANIZATIONS

PROJECTS REALIZED WITH THE WORLD BANK (TKMP, TKMP EF)



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	TOPLAM
TKMP renewal	166,956	859,096	402,598	1,390,412	863,193	1,125,837								4,808,092
TKMP EF renewal/update								1,315,146	1,021,512			1,666,848	2,847,230	6,850,736
TKMF EF digitization								206,448	531,190	311,167	700,154	1,221,012	514,171	3,484,142

Project Components



Cadastre



Land Title



Photogrammetry



Architectural



Public restrictions



Address



Building information



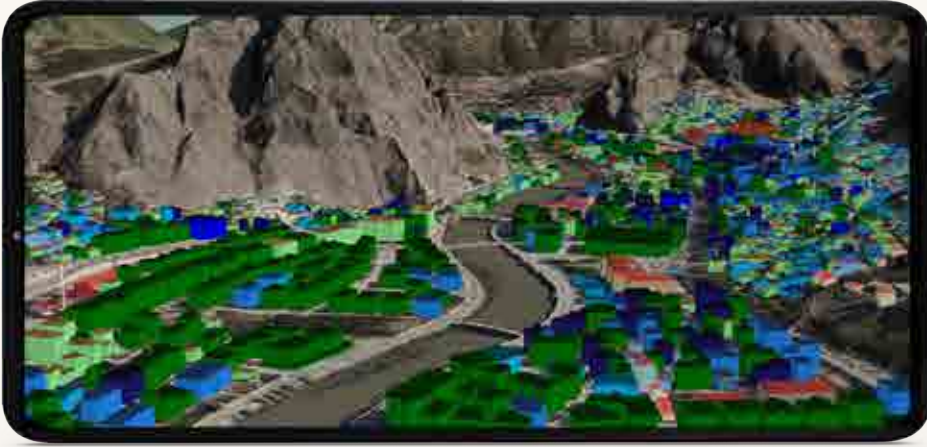
Development rights



From Past to Future, Land Registry and Cadastre in Türkiye



Building Stock



Certificate of Occupancy



Real Estate Valuation



Property/Address Integration

3B Data Representation

Mustafa ASLAN

Head of Cadastre Department

General Directorate of Land Registry and Cadastre

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international@tkgm.gov.tr



Tapu ve Kadastro
Genel Müdürlüğü



REPUBLIC GEODETIC AUTHORITY



ВЛАДА РЕПУБЛИКЕ СРБИЈЕ
GOVERNMENT OF THE REPUBLIC OF SERBIA

GEOSPATIAL DATA IN THE SERVICE OF DIGITAL SERBIA: IMPLEMENTATION AND SOLUTIONS FOR DEVELOPMENT





UNITED NATIONS

REPUBLIC GEODETIC AUTHORITY - THE HIGHEST QUALITY, SECURITY, AND INFORMATION MANAGEMENT STANDARDS

11000 digital processes per **SECOND**

>3000 employees



>400 law graduates

>800 graduate engineers

LEADER IN DIGITALIZATION

>3,8 Petabytes of data

>50% of employed are women



More than **4000** computers



More than **500** virtual and **70** physical servers



More than **330** institutions are digitally connected to **RGA**



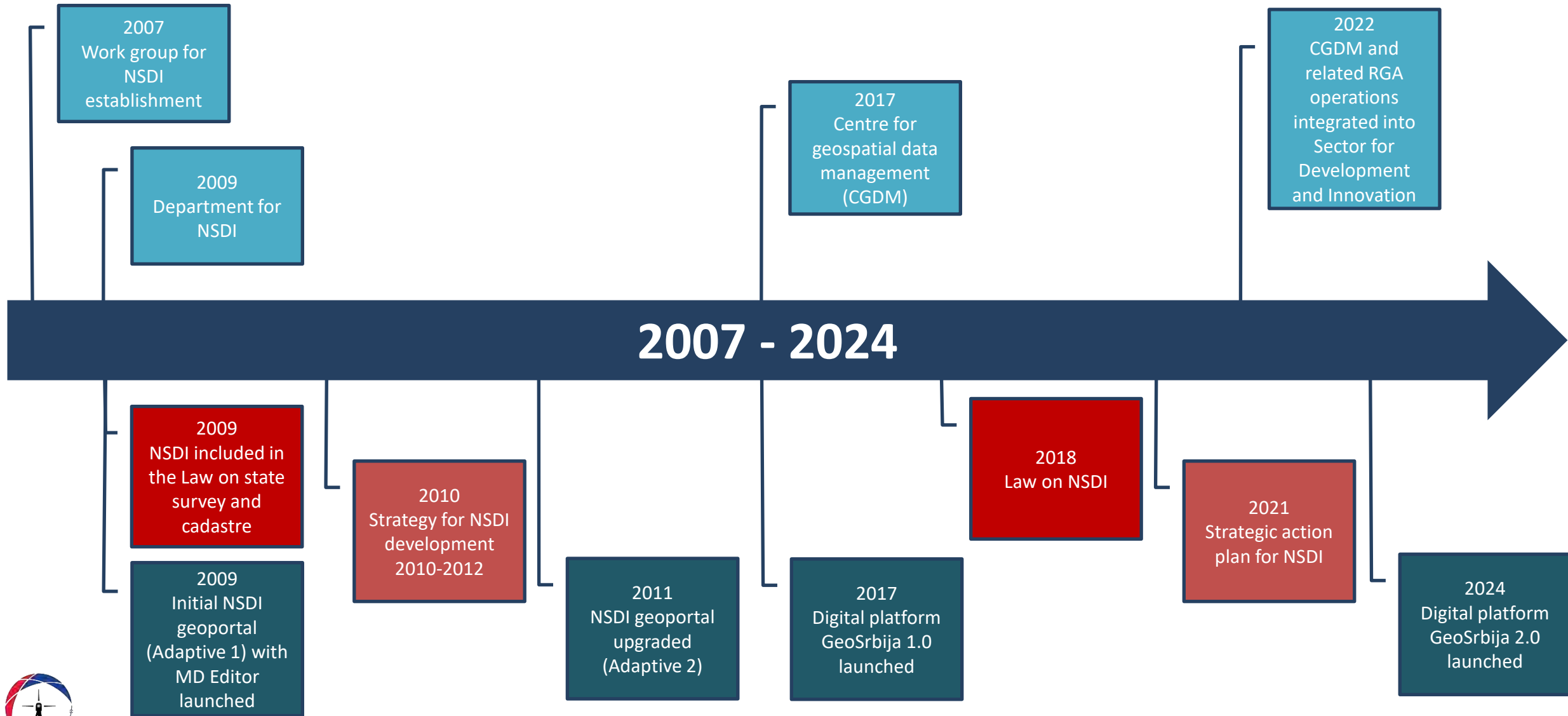
More than **185** years of professional existence



At **170** locations in Serbia

AN INSTITUTION OF PUBLIC INTEREST, PART OF THE STATE'S CRITICAL INFRASTRUCTURE, AND A SYSTEM OF IMPORTANCE FOR THE SECURITY OF THE REPUBLIC OF SERBIA.

Serbian NSDI legal, organizational and technology frameworks



NSDI DIAGNOSTIC TOOL 2016



Food and Agriculture
Organization of the
United Nations



THE WORLD BANK

- Data exist on national level
- No clear definition of responsible institutions for some core data sets

Core Data I

(DOP, administrative units, addresses, cadastral parcels, elevation., geographical names...)

- Data exist on national level
- Outdatedness of some data sets

Core Data II

(stat. units, buildings, land cover, utilities...)

- Underway usage of NSDI for decision making in areas of planing and construction and environment protection
- No incentive in usage of NSDI in other areas
- Generally Public decision making is not based on udsage of NSDI
- „Crowd-sourcing” solutions still not introduced

Use of NSDI/Applications

- Developed capacities through development projects
- No clear strategy on CD within NSDI
- Insufficient engagement of educational sector
- Unsatisfactory capacities in public sector

Capacity Development

- RGA Strategy adopted
- New NSDI Strategy under development
- NSDI in line with e-Gov
- No clear „Open Data” policy

Policy and Strategy

- Established NSDI Council, and TWGs
- Support and Access to data and services provided
- No estimation of realltion : NSDI – SDGs
- Unsuufficient participation of other institutions

Governance arrangements

- New Law on NSDI under adoption
- Laws on lformation, Intellectual rights and Personal data Protection exist
- Inadequate legal basis for data sharing and exchange and data licencing
- No link between Laws on on data protection in case of geospatial information

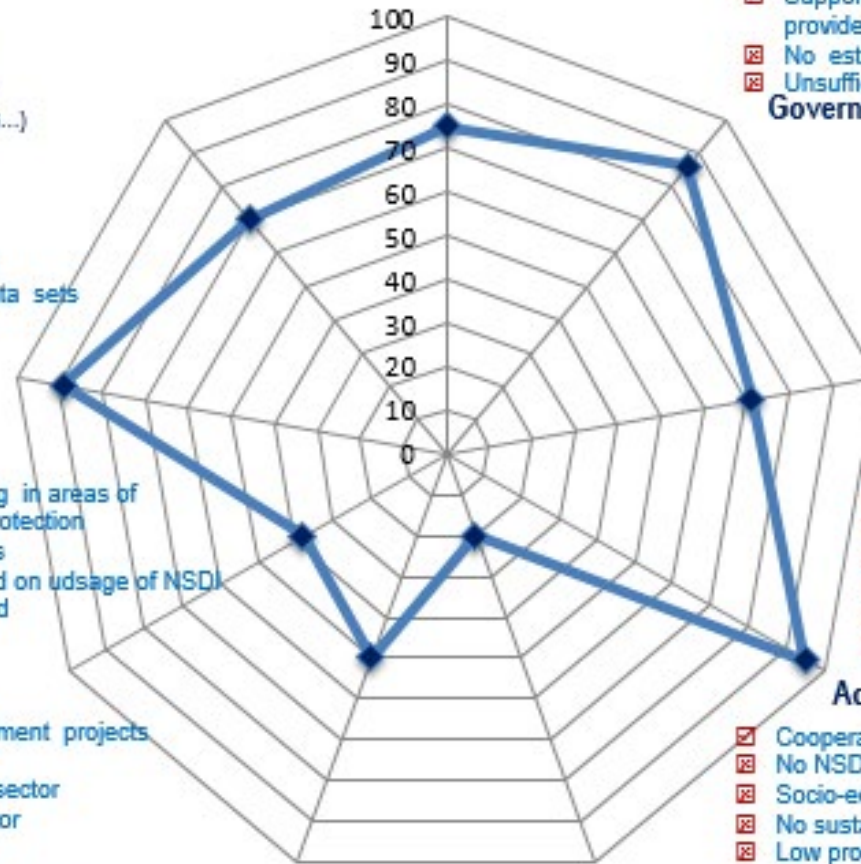
Legal framework

- Spatial reference system and ICT infrastruacter established
- Standards on data , metadata and services exist
- National geoportal provided
- Technical performances of National geoportal low
- Transformation of data into unique coord.system to be done
- Low degree of spatial data access by internet technology

Accessibility and Technical Infrastructure

- Cooperation with other institutions improved through agreements
- No NSDI business model
- Socio-economic impact never estimated
- No sustainable system of spatial data pricing and licencing
- Low provision of data and services based on NSDI by private sector

Socio-Economic impact



REGISTER OF INFORMAL OBJECTS

NUMBER OF FORMAL AND REGISTERED OBJECTS - 4.911.436

NUMBER OF INFORMAL OBJECTS - 4 782 469



- CONSTRUCTION INDUSTRY
- BANKING AND FINANCIAL SECTOR
- INVESTMENT SECTOR
- INSURANCE
- TELECOMMUNICATION
- ENERGY
- SALES AND MARKETING
- TRANSPORT AND LOGISTICS
- URBAN PLANNING AND SPATIAL PLANNING
- CITIZENS

COMPREHENSIVE REFORM OF GEOSPATIAL AND LAND ADMINISTRATION SYSTEM 2016-2024



REPUBLIC GEODETIC AUTHORITY

The **overall goal** - support the economic reform of the Government by effective provision of information in the sphere of real-estate and geospatial related activities for the **fast, easy and rightful decision-making at all strategic levels.**

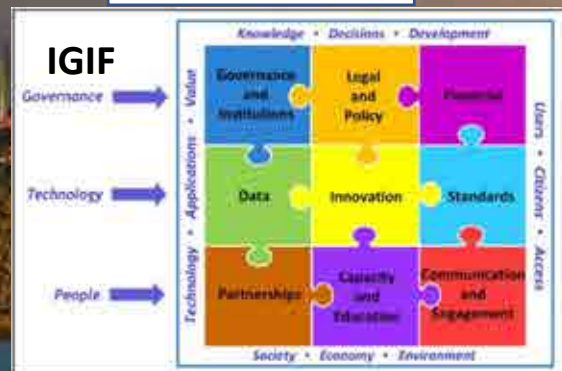
KEY PILLARS OF REFORMS



Participatory
Transparency
Equal access to information
Efficiency
Gender equality
Accountability

TODAY: RGA = PLATFORM (SmartSDI)

Republic geodetic authority is a platform for informative decision making based on geospatial data





REPUBLIC GEODETIC AUTHORITY

LAND ADMINISTRATION SYSTEM

RGGA BEFORE THE REFORM



RGGA AFTER THE REFORM



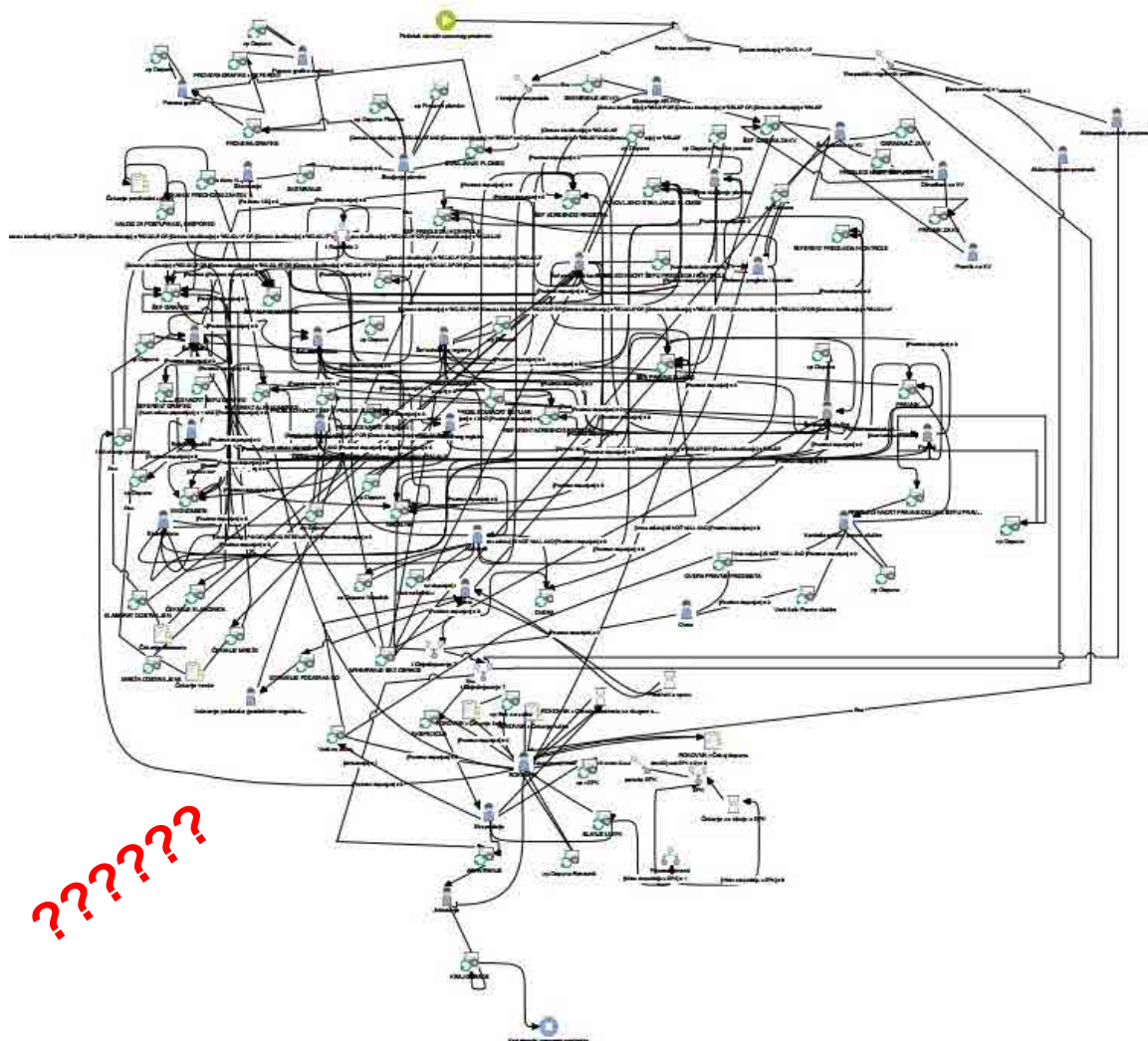
SIMPLIFIED BUSINESS PROCESSES

Changed policy, many laws, procedures and technologies
Since July 2018 all services are available **end-to-end digital**



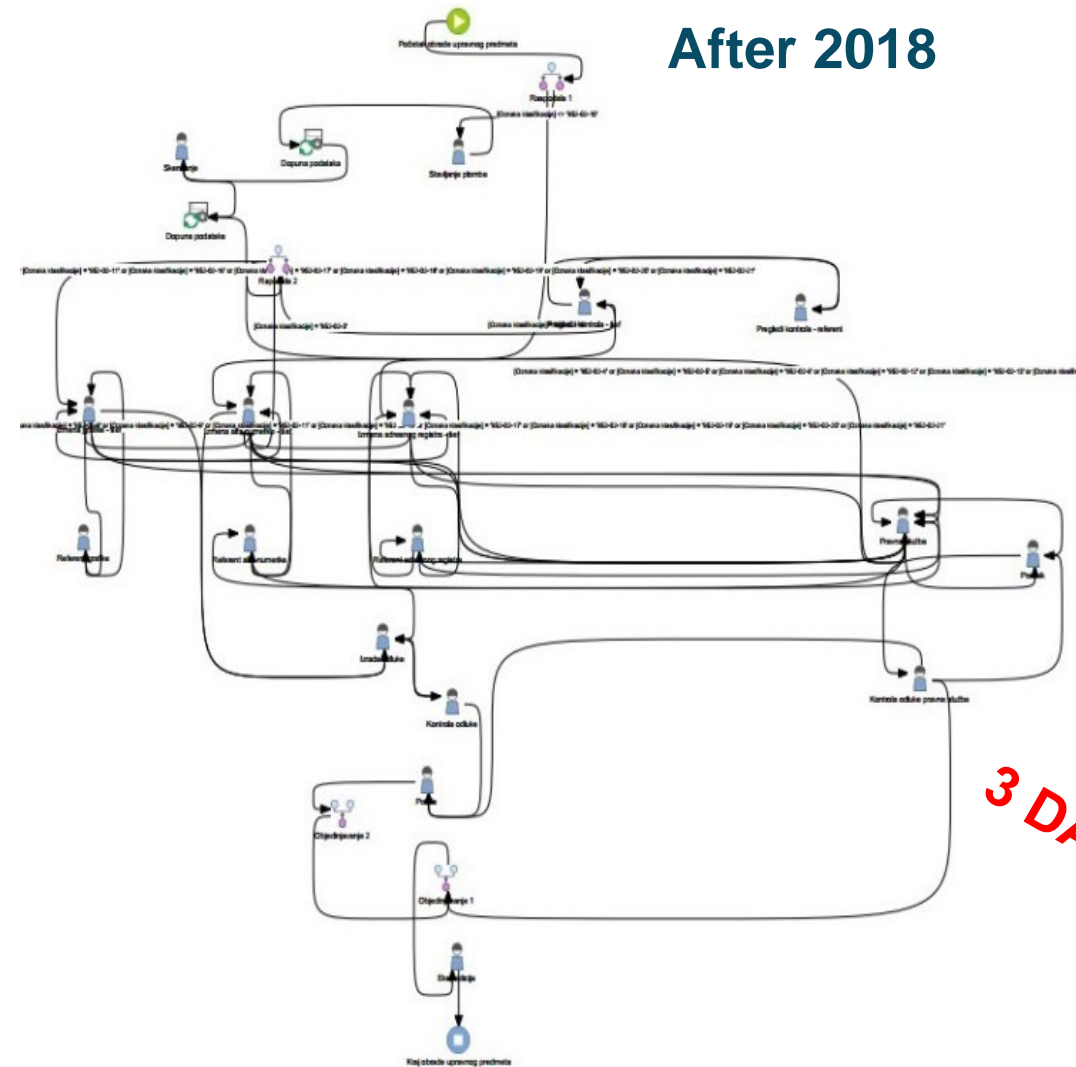
REPUBLIC GEODETIC AUTHORITY

Before 2018



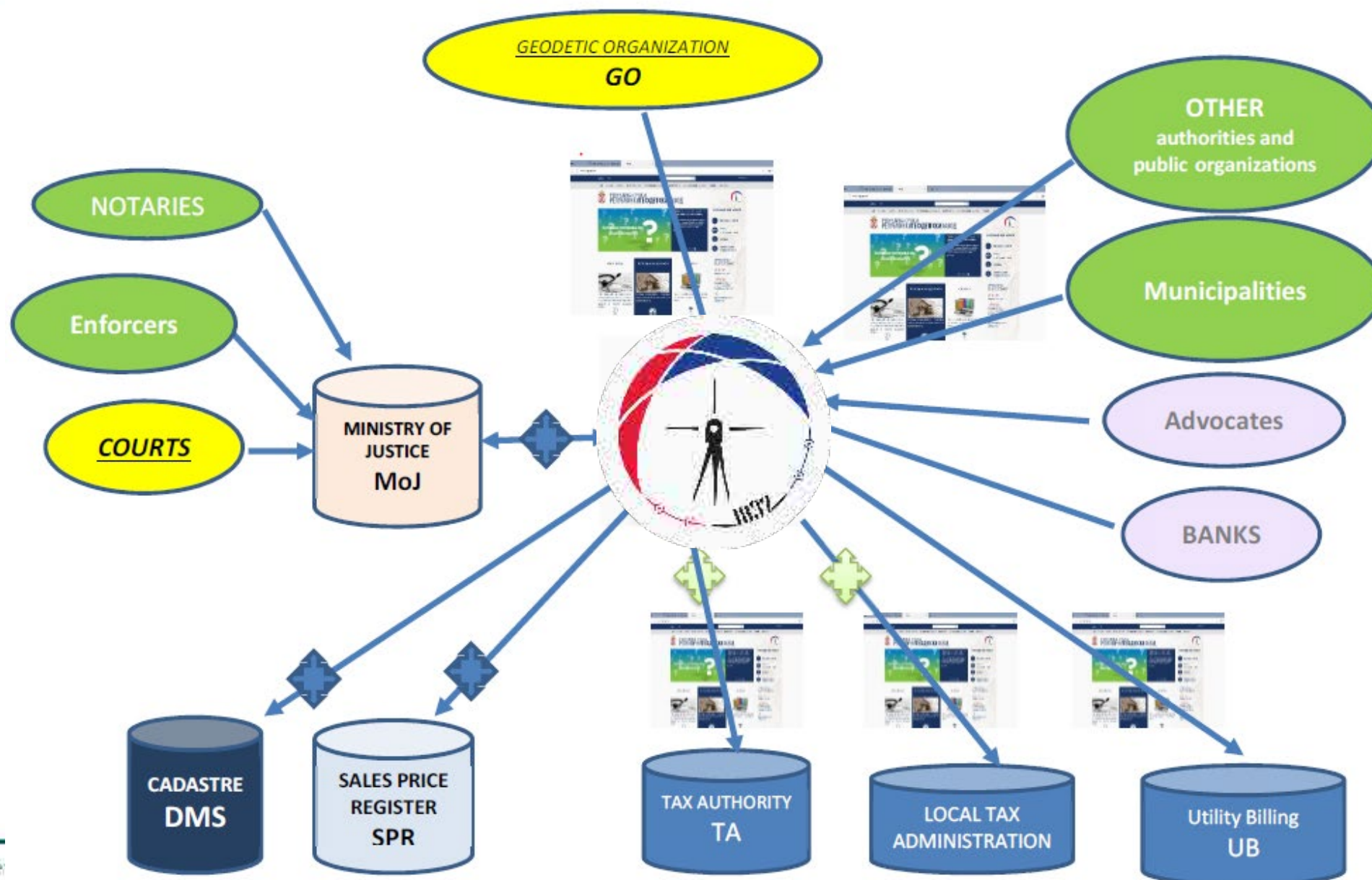
??????

After 2018



3 DAYS

eFrontDesk and eServices



EXAMPLE OF BENEFITS FOR CITIZENS OF SERBIA

- ▶ **LEADERSHIP AND GOOD MANAGEMENT + COMMUNICATION AND ENGAGEMENT = SYSTEM SUCCESS**
- ▶ Digitization of real estate cadastre data, automation of processes and development of technological solutions made it possible to abolish the REAL ESTATE DEED
- ▶ Over 220 institutions have direct access to the CENTRAL BASE OF REAL ESTATE REGISTRATION through the Service Highway of state bodies - the most numerous and active local governments

SAVINGS FOR CITIZENS

> 25 000 000 hours compared to the old system, when they had to personally obtain documents at the counter

> 120,5 miliona euros how much they would pay for administrative fees before the digitization of the cadastre



REAL ESTATE MARKET AND VALUE OF PROPERTIES

REAL ESTATE PRICE REGISTRY



1,3 million
transactions.

MONITORING AND REPORTING ON THE REAL ESTATE MARKET



- Quarterly
- Semi-annual
- Annual

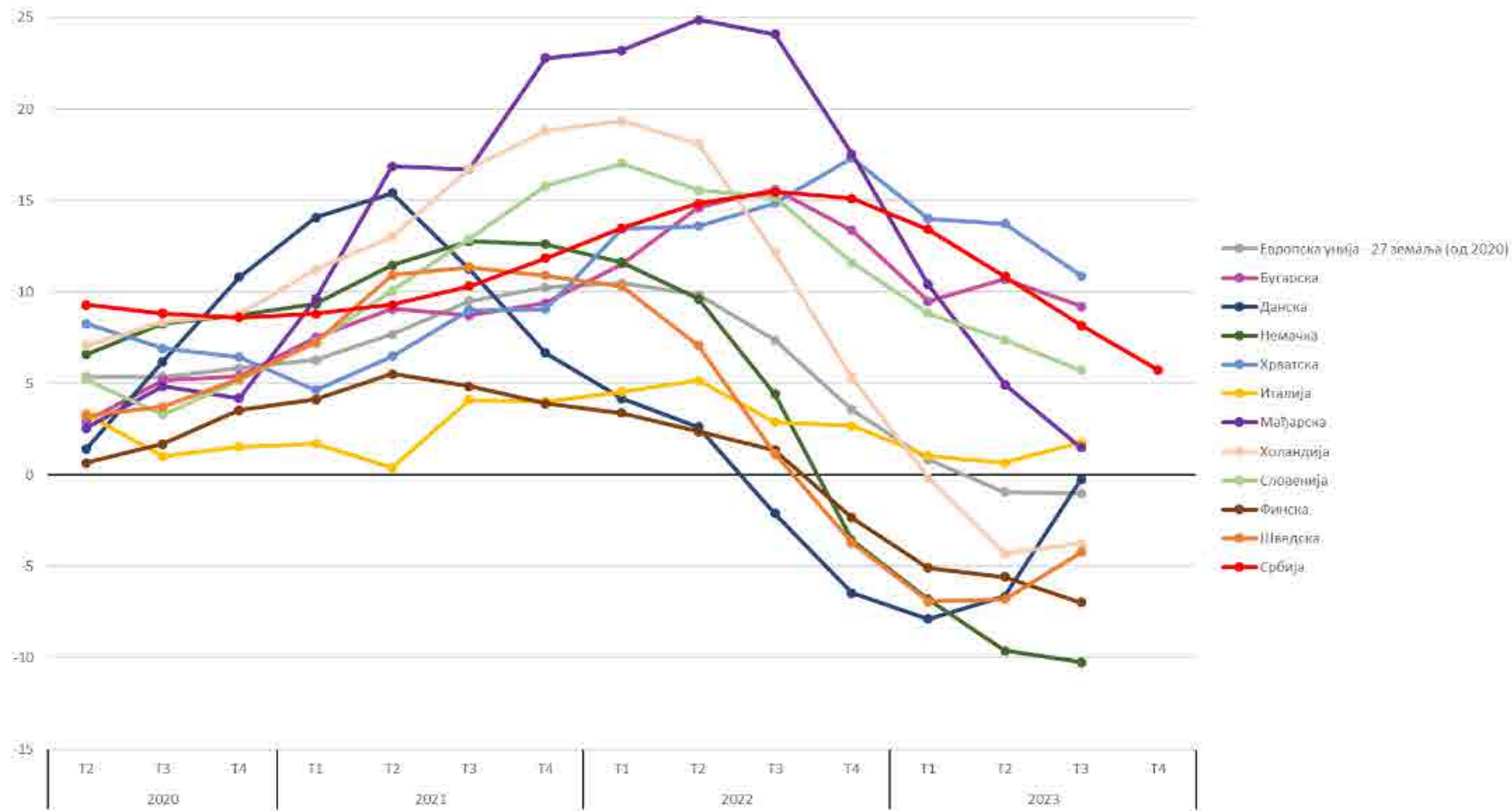


RGA PRICE INDEX



INTERNATIONAL COMPARISON

Our real estate market is showing greater resilience to global economic changes



Слика 11. Годишње стопе раста цена стамбених непокретности: међународно поређење *

Adress: Lomina 39, Savski
venac, Belgrade



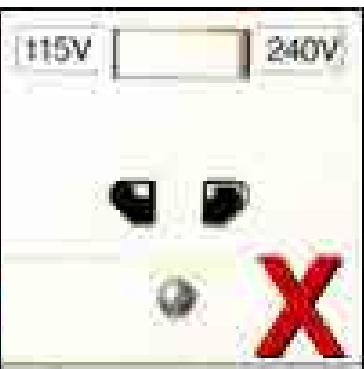
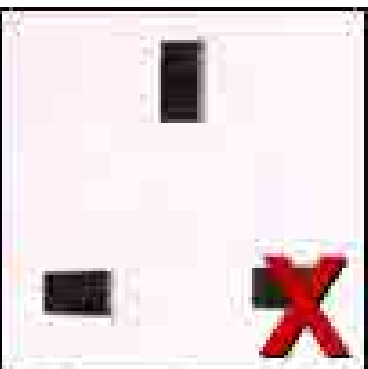
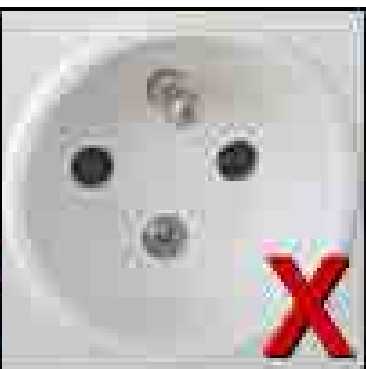
Number of Rooms	Floor	Sale date	Contract price	TASP	RATIO	Appraisal Value	Apartment Area (m2)
Studio	Ground Level					53,100	20
Studio	Ground Level	2021-Oct	50,000	56,600	0.94	53,100	20
Studio	7 th floor					68,100	25
One room Apartment	Ground Level	2018-Mar	64,000	93,000	1.08	100,600	41
One room Apartment	6 th floor					106,200	42
One room Apartment	3 rd floor	2017-Dec	75,000	110,400	0.98	107,800	42
Two and a half room apartment	7 th floor					110,800	44
Two and a half room apartment	5 th floor					151,800	63
Two rooms apartment	4 th floor	2018-Mar	101,000	146,800	1.03	151,800	63
Two rooms apartment	6 th floor	2022-Mar	143,000	154,700	1.00	155,000	63





REPUBLIC GEODETIC AUTHORITY

SPATIAL DATA DISTRIBUTION SYSTEM



North America
Grounded
NEMA 5-15

Japan
Non-grounded
JIS C 8303

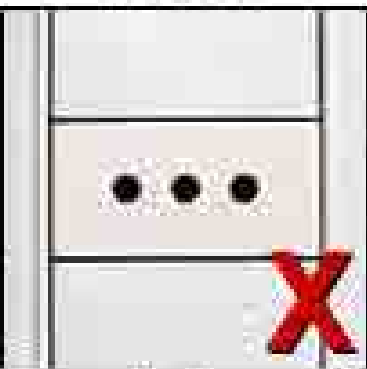
Europe
German style
CEE7/4 Schuko

Europe
French style
Schuko

Europe/Russia
Non-grounded
CEE7/16 Europlug

Great Britain
Grounded
BS-1363

Great Britain
"Shaver socket"
BS-4573



Australia/China
Grounded
AS-3112

Italy
Grounded
CEI 23-16

Switzerland
Grounded
SEV-1011

Denmark
Grounded
SRAF 1962/DB

Israel
Grounded
SI 32 (IS 16A-R)

India
Grounded
BS-546 "Small"

South Africa
Grounded
BS-546 "Large"

GEOSRBIJA - GEOSPATIAL PLATFORM

“a plug-and-play business model that allows multiple participants (producers and consumers) to connect to it, interact with each other and create and exchange value. Also collections of services used for hosting, processing and distributing geospatial data are called platforms.”

Key components of the platform:

- ▶ Data standardisation – data schemas, quality rules, life-cycle rules, collection guidelines
- ▶ Data tools for the producers –data life-cycle management, error reporting, data updating tools
- ▶ Data portal – finding, evaluating data – situational picture, metadata search, quality dashboards
- ▶ Data distribution services, APIs, Analysis and processing services
- ▶ Support (community)
- ▶ Management of the ecosystem

GEO SERBIA – DIGITAL PLATFORM WITH MORE THEN 330 DATA SETS AND 15M SESSIONS/MONTH



Utility Cadastre:
Water supply network
Sewage network
Telecommunication
Gas....



Real Estate Cadastre
Ownership, Mortgages...
Informal Buildings and
Properties

REGISTER OF INFORMAL OBJECTS - PUBLICLY AVAILABLE

NUMBER OF FORMAL AND REGISTERED OBJECTS - 4.911.436
NUMBER OF INFORMAL OBJECTS - 4 782 469



- CONSTRUCTION INDUSTRY
- BANKING AND FINANCIAL SECTOR
- INVESTMENT SECTOR
- INSURANCE
- TELECOMMUNICATION
- ENERGY
- SALES AND MARKETING
- TRANSPORT AND LOGISTICS
- URBAN PLANNING AND SPATIAL PLANNING
- CITIZENS

CONDOMINIUM REGISTER – ALL DETAILS ABOUT BUILDINGS IN SERBIA

Search for content in selected sources

Layer Manager Pro Collapse

- Administrative Units
- Addresses
- Building register**
- Cadaster
- Utility Cadaster
- Geographical Names Register
- Condominium register
 - Condominium registrar
 - Condominium registrar (pro)**
- Price Register
- Points of interest
- Coordinate reference systems
- Ortophoto

N: 4963137 E: 457569

STRAHINIĆA BANA 66A

Hits (5)

- СТАМБЕНА ЗАЈЕДНИЦА ДОБРАЧИНА 33
Condominium re
- СТАМБЕНА ЗАЈЕДНИЦА СТРАХИЊИЋА БАНА 66А
Condominium re
- СТАМБЕНА ЗАЈЕДНИЦА СТРАХИЊИЋА БАНА 66А
Condominium re
- СТАМБЕНА ЗАЈЕДНИЦА СТРАХИЊИЋА БАНА 66А
Condominium re
- СТАМБЕНА ЗАЈЕДНИЦА СТРАХИЊИЋА БАНА 66А
Condominium re

Condominium registrar (pro)

Пословно име:
СТАМБЕНА ЗАЈЕДНИЦА СТРАХИЊИЋА БАНА 66А

Име Управника: СОЊА

Презиме управника: ПАНТЕЛИЋ

Број телефона: 069/5060947

Имејл: sonjap.profi@gmail.com

Download PDF Zoom to

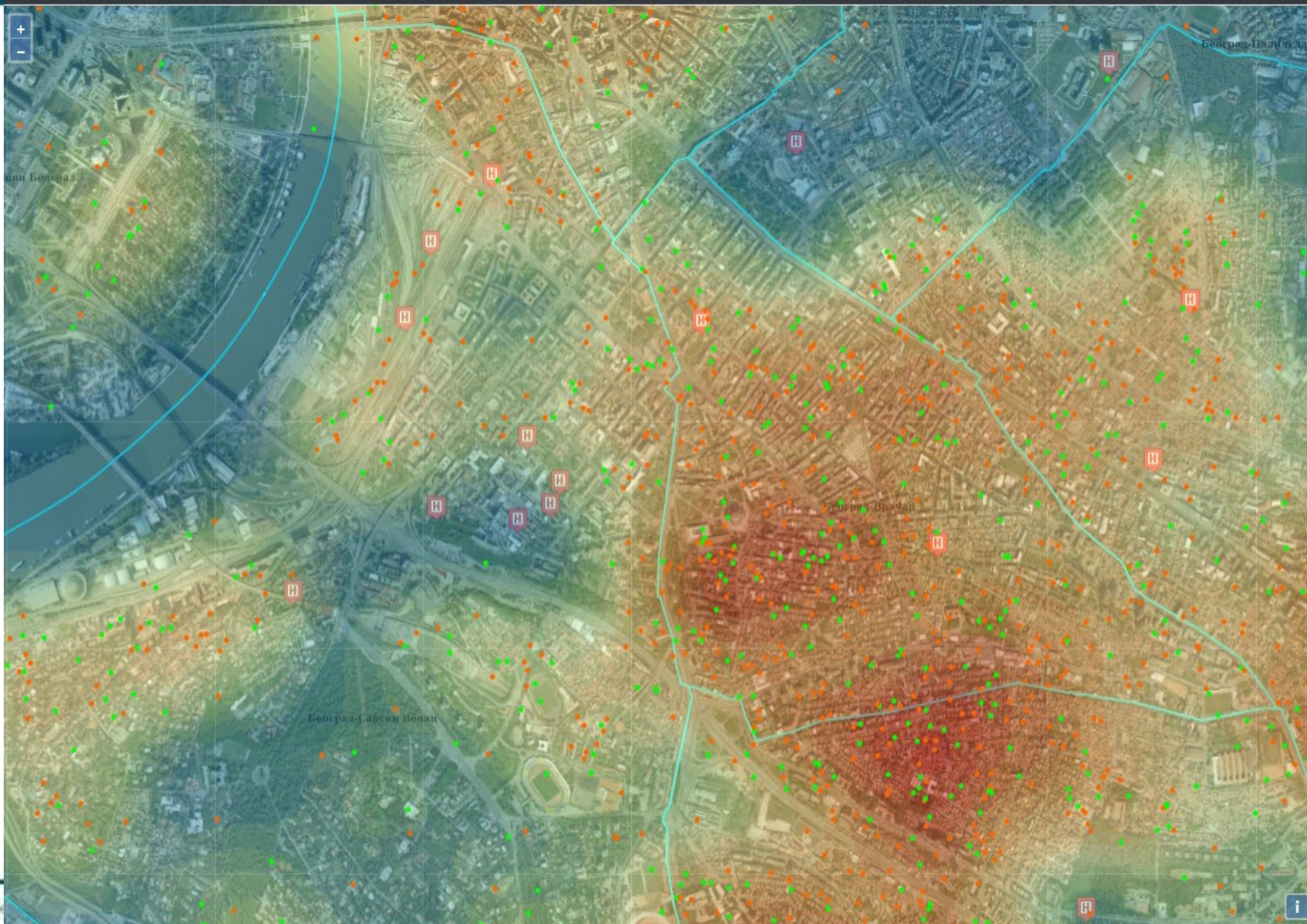
CADASTER BASEMAPS

EPSG:32634 N: 4961994 E: 458833 Scale: 1:10 000 Darko Vucetic

DRIVEN BY Astoria Vias AS

gov.rs

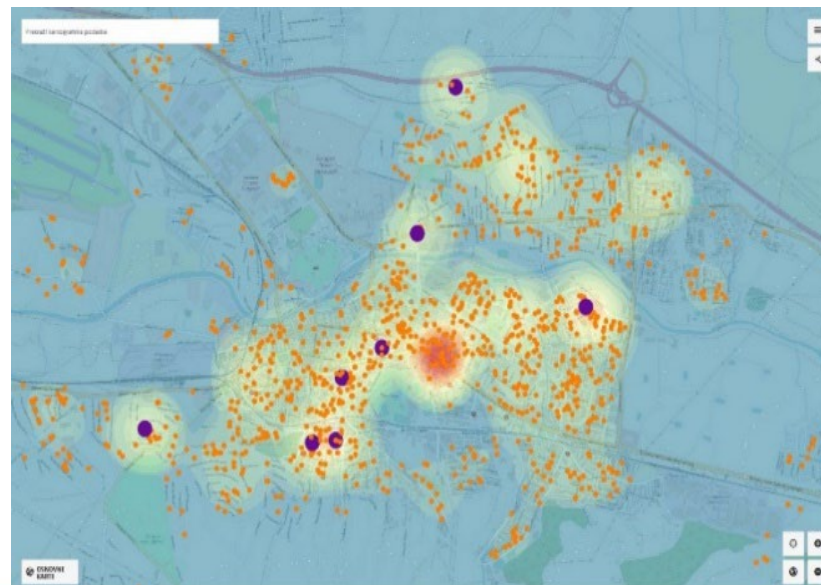
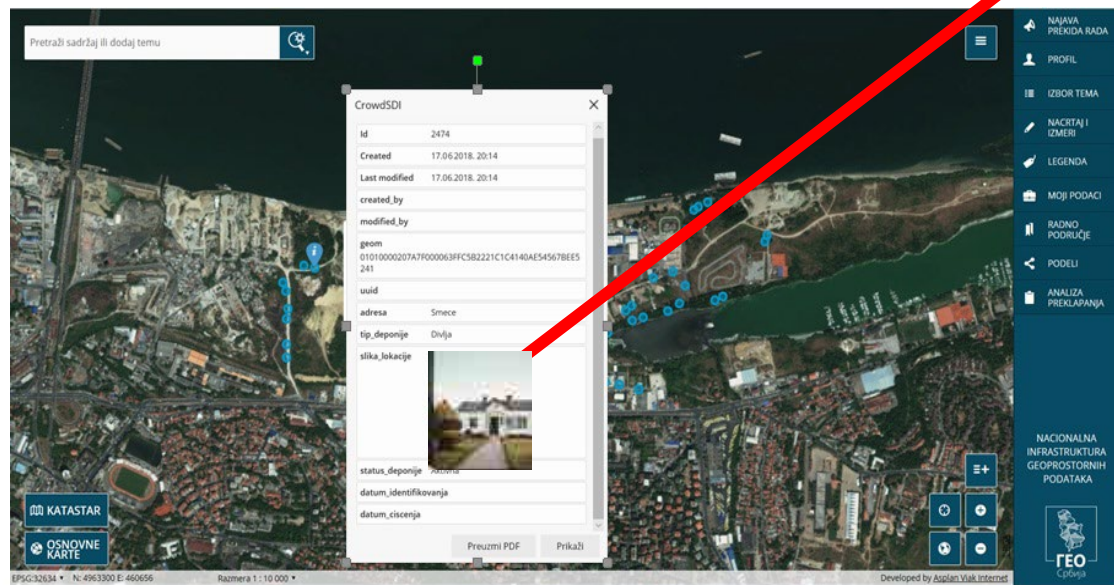
“GREEN PASSPORTS” FOR ENERGY-EFFICIENT BUILDINGS - MONITORING



Layer Manager Pro Collapse

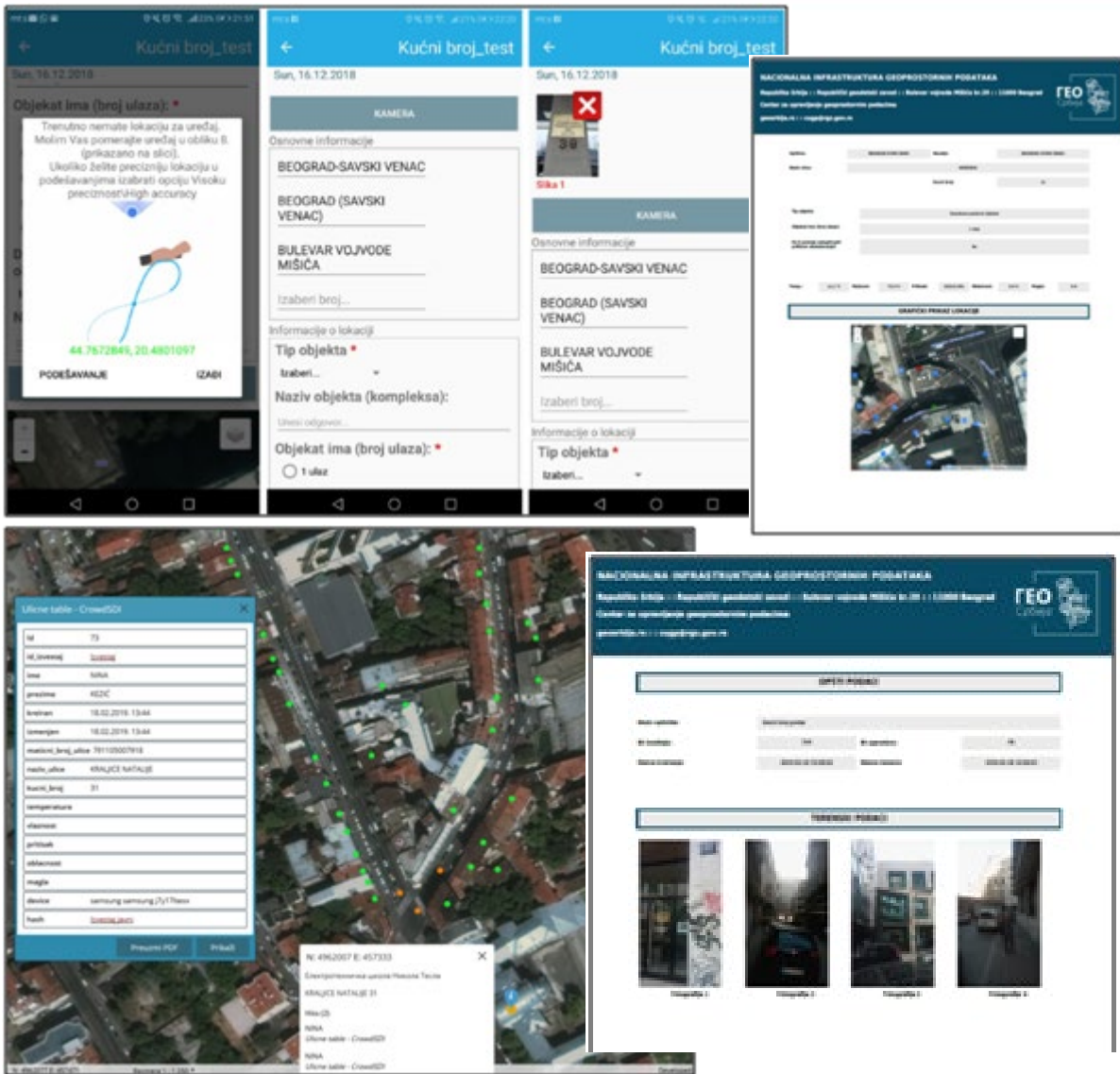
- State authorities
- City authorities
- Local authorities and tax administra...
- Judicial authorities
- Real Estate Cadastre Services
- Religious buildings
- Buildings
- Social welfare institutions
 - Nursing home
 - Social welfare facilities
 - Cultural Institution
 - Educational institutions
 - Health institutions
 - Hospital
 - Special hospital
 - Community health centre
 - Health Institute
 - Pharmacy
 - Other health care institutions

CrowdSDI – Crowdsourcing tool for collecting vast amount of information rapidly



Potential to gather a vast amount of information rapidly and at a relatively low cost, enabling comprehensive and up-to-date insights into the characteristics and conditions of houses and buildings

AN EXAMPLE OF GOOD PRACTICE - Address Register Update Project



Serbian population : 7,020,858

2016 - 3.028.020 no addresses

NOW – 99% COVEREGE OF ADDRESSES IN SERBIA

CrowdSDI



Mechanism for fast field data acquisition for the purposes of monitoring, creating a new register or quality improvement of the existing one.

Good example of cost effective data collection, where the data reliability is system guaranteed.

*** Service available to registered users with contract.**

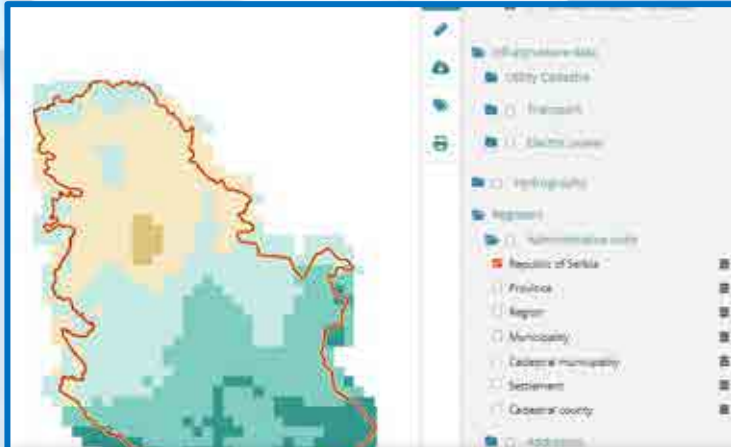
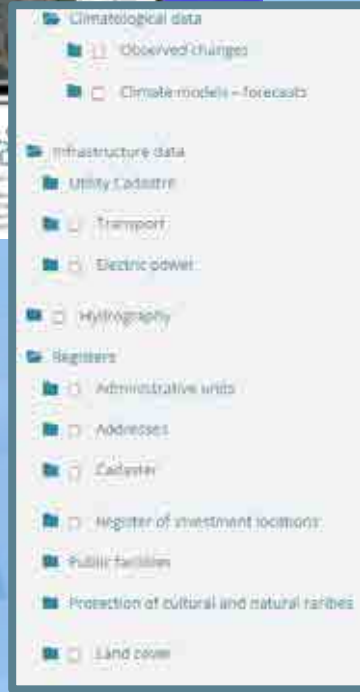
Link to the application: <https://crowdsdi.geosrbija.rs>



REPUBLIC GEODETIC AUTHORITY

DISASTER RISK MANAGEMENT AND REDUCTION SYSTEM

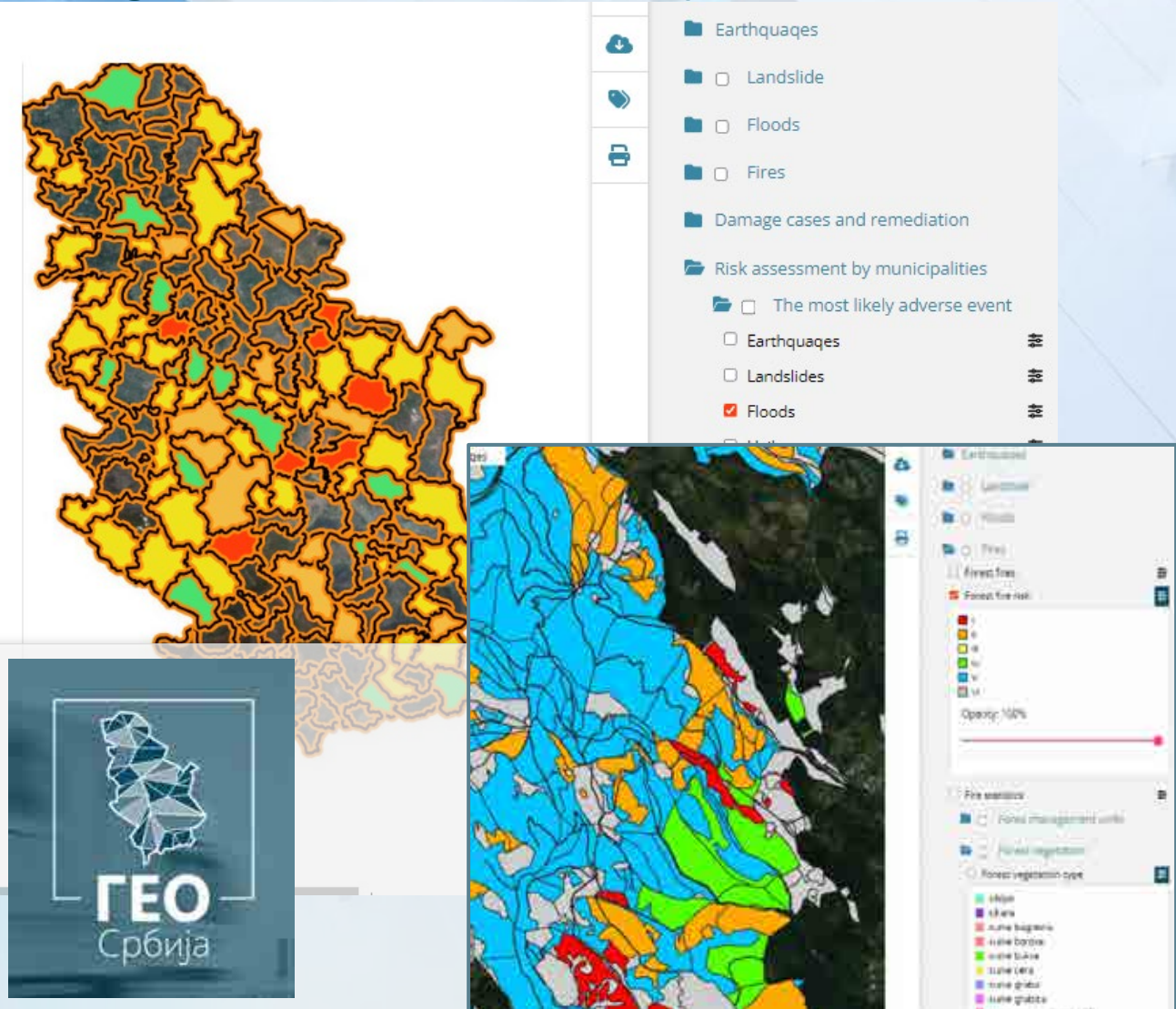
Most popular subsystem of Geosrbija



GIS data in a single spot for professional and timely risk management.
Good example of integration with other registries and international cooperation.



REPUBLIC GEODETIC AUTHORITY



Disaster Risk Register

Interactive, electronic INFORMATION SYSTEM containing data of importance for risk management.

Link to the application: <https://drr.geosrbija.rs>





 Analiza u toku

Izađite

 Pretraga

 Izbor tema

 Legenda

 Merenje

 Analiza

 Dodaj WMS

 Izvoz

Analiza



1 2 3

Izlaz

earthquakes

landslides

floods

stormy wind

pandemic

epidemics

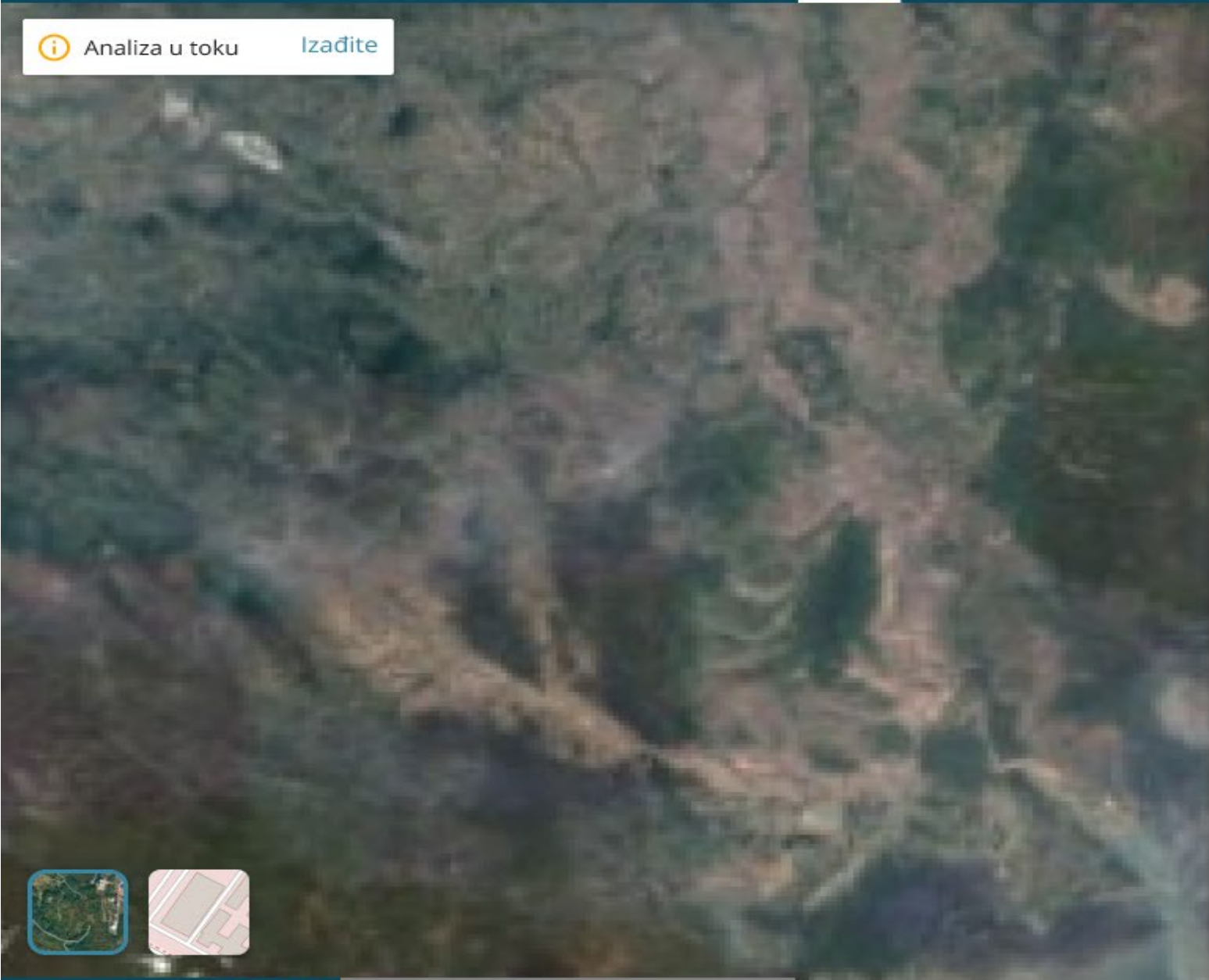
droughts

blizzards, drifts and ice,
cold wave

Sledeći korak



 Analiza u toku [Izađite](#)



 Pretraga

 Izbor tema

 Legenda

 Merenje

 Analiza

 Dodaj WMS

 Izvoz

Analiza 

1 2 3 [Izlaz](#)

occurrence of risk at a specific location

proportion of threatened area according to individual risk

the number of people at risk

threatened infrastructure

endangered objects

endangered public institutions

national threat statistics

analysis of data on repair of damage to buildings

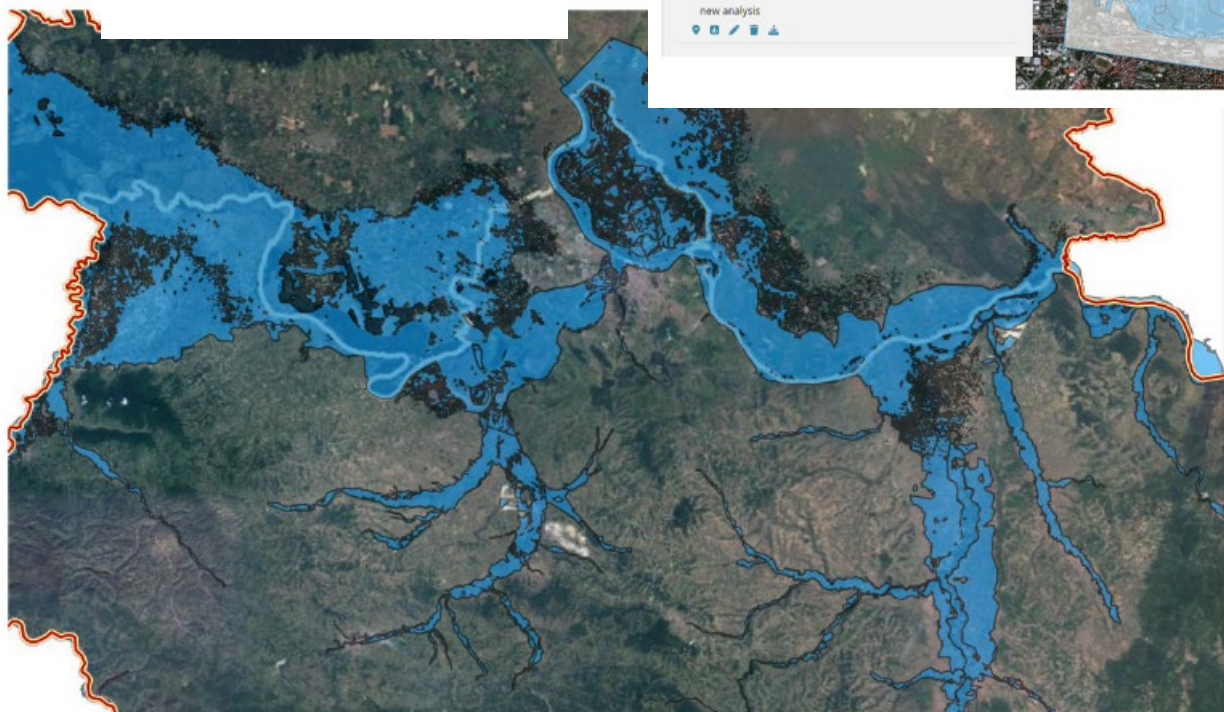
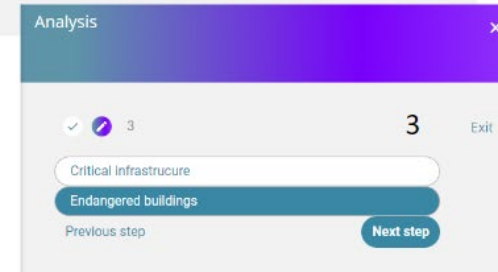
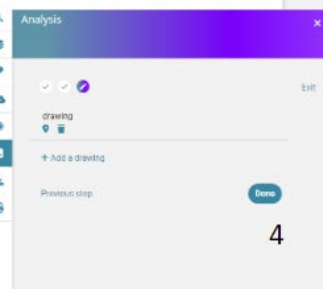
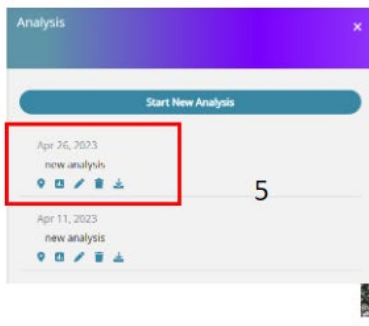
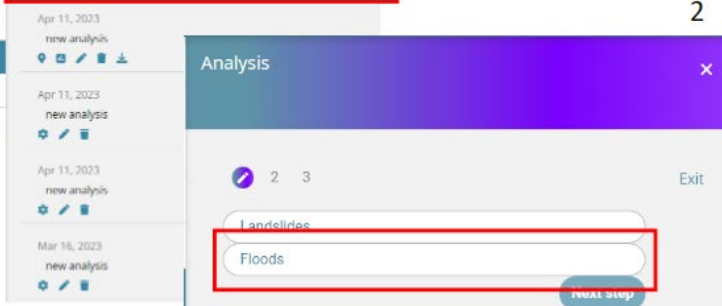
occurrence of risk at a specific location

[Nazad](#)

[Sledeći korak](#)



REPUBLIC GEODETIC AUTHORITY



new analysis

Id	Object	Value	Unit	Priority
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
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17
18
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41
42
43
44
45
46
47
48
49
50

CLIMATE CHANGE – PREDICTION AND HISTORICAL DATA

Risk Type: All ▾



N: 5026527 E: 461898

Precipitation

Show chart

Republic of Serbia

REPUBLIKA SRBIJA

- ☰
- 🔍
- 📄
- 🔧
- 📥
- 📊
- 📄
- 🖨️

- Dangers
- Landslide
 - Floods
 - Fires
 - Earthquakes
 - Damage cases and remediation
 - Risk assessment by municipalities
 - Climatological data
 - Observed changes
 - Precipitation

- Landslide
- Floods
- Fires
- Earthquakes
- Damage cases and remediation
- Risk assessment by municipalities
- Climatological data
 - Observed changes
 - Precipitation
 - Maximum five-day precipitations
 - Number of days with precipitation over 30 mm
 - Average daily temperature
 - Number of tropical days
 - SPEI drought index
 - Climate models - forecasts
- Infrastructure data
- Hydrography

Republic of Serbia / Precipitation



Activate Windows
Go to Settings to activate Windows.

Data source: [Climate change platfo](#)

Register of Investment Locations

Locate • Invest • Register





Pretražite



Registar

Napredna pretraga

Korisnička uputstva

SR

Uloguj s



Planirana namena

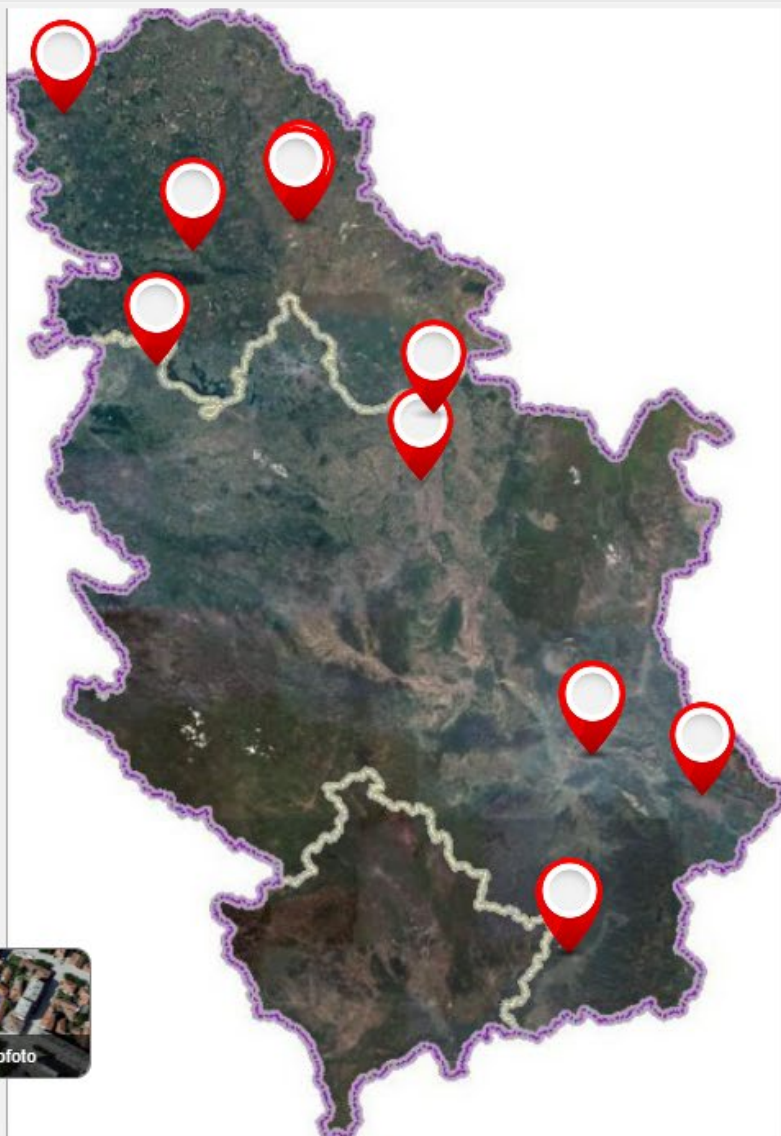
% Pripada slobodnoj zoni

Površina

Urbanistički parametri

Još filtera

Sačuvaj fi



Prikazujem 1 - 19 od 19



ID ITYX / Meš



Investiciona
lokacija
Lozni Kalem
1

Grad Niš

67.657
m²

Verifikovan

23.203
m²

Verifikovan

22.751
m²

Verifikovan

Results Achieved

- ✓ Provides a tool for easy finding, comparing, analysing and presenting of investment locations;
- ✓ Standardized way of describing investment locations for the entire territory of the Republic of Serbia;
- ✓ Enabled collection of information by networking electronic services of various institutions;
- ✓ Collection of information by local self-governments is reduced only to attributes within their competence;
- ✓ Improved reliability, up-to-dateness and verifiability of data

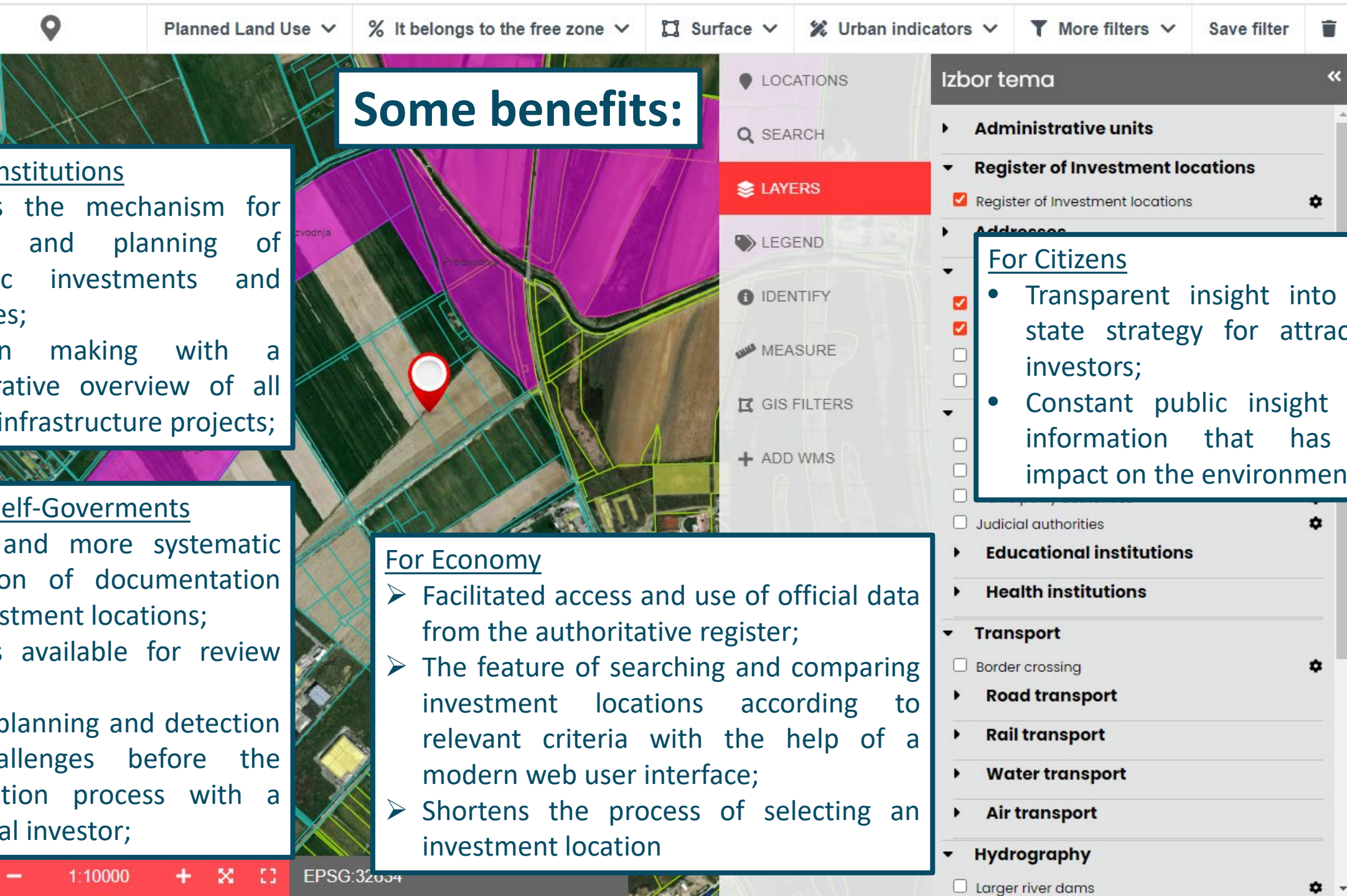


Ortofoto

1:2500000



EPSG:32634



Some benefits:

For State Institutions

- ✓ Enables the mechanism for review and planning of strategic investments and priorities;
- ✓ Decision making with a comparative overview of all capital infrastructure projects;

For Local Self-Governments

- Faster and more systematic collection of documentation on investment locations;
- Data is available for review 24/7;
- Better planning and detection of challenges before the negotiation process with a potential investor;

For Economy

- Facilitated access and use of official data from the authoritative register;
- The feature of searching and comparing investment locations according to relevant criteria with the help of a modern web user interface;
- Shortens the process of selecting an investment location

For Citizens

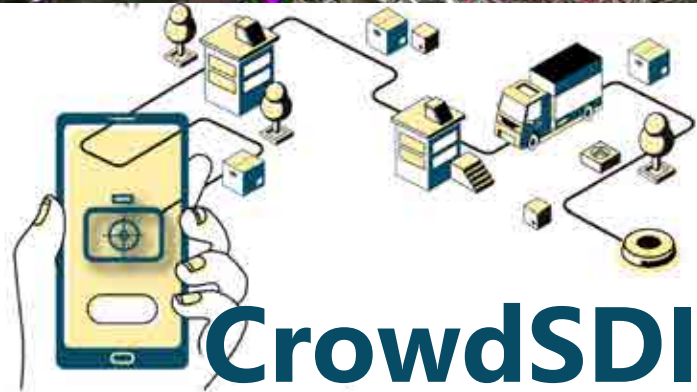
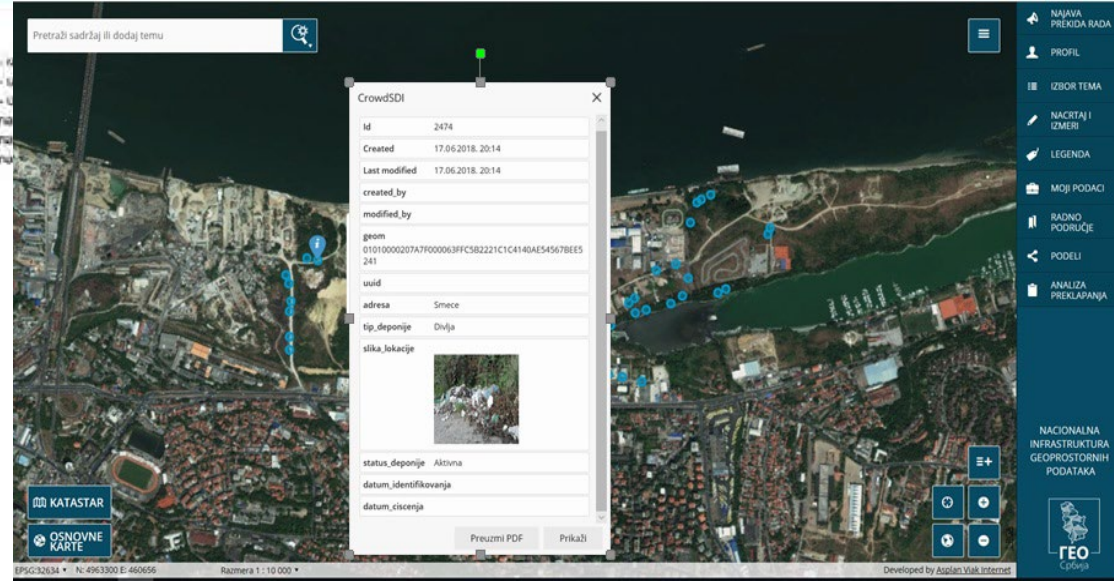
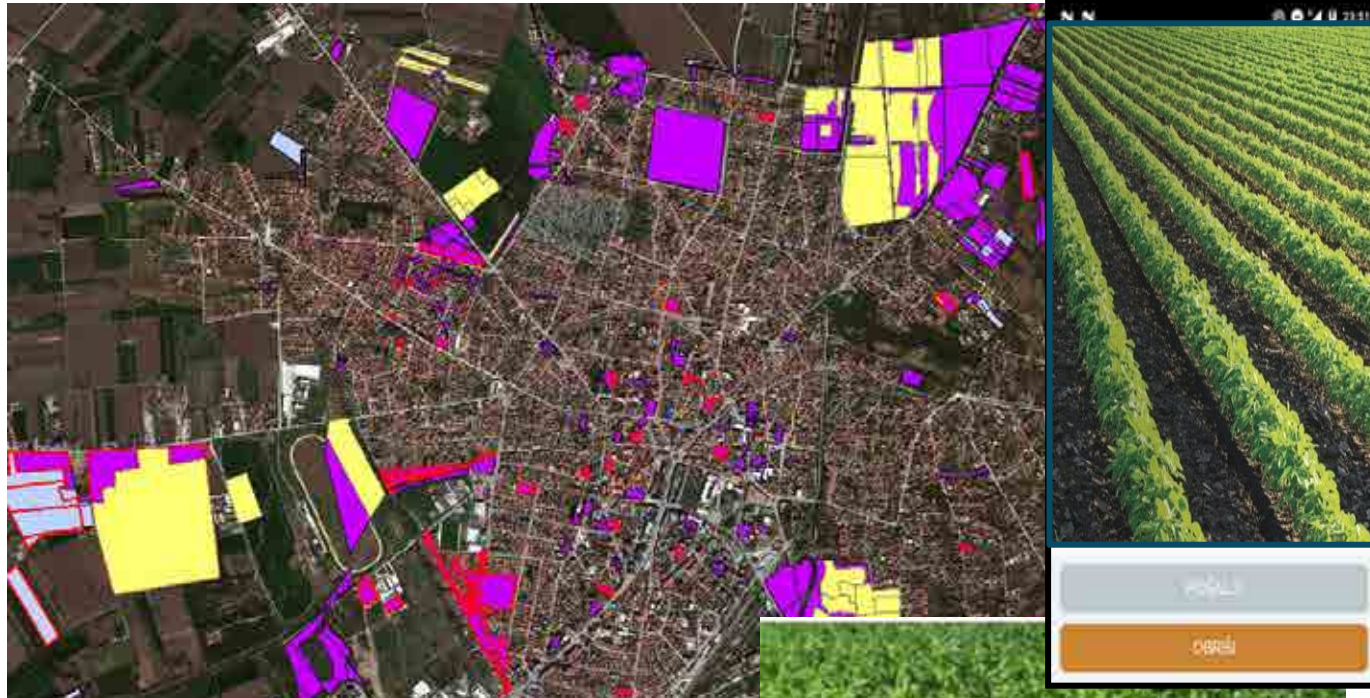
- Transparent insight into the state strategy for attracting investors;
- Constant public insight into information that has an impact on the environment



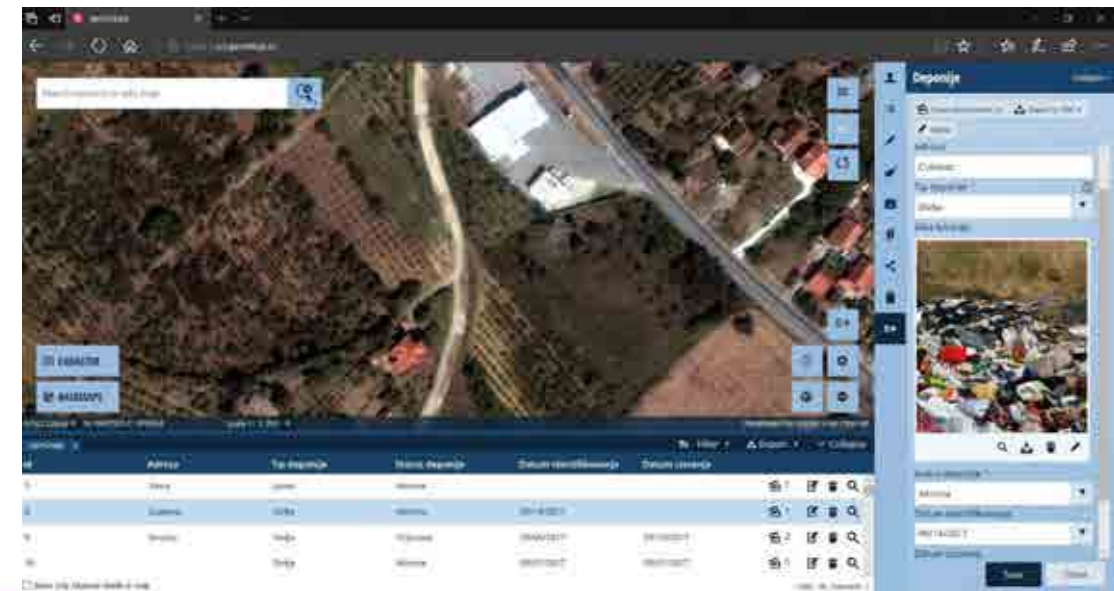
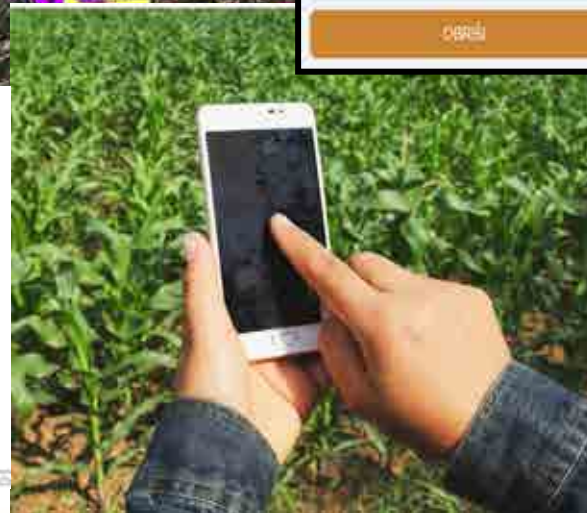
SYSTEM FOR AGRICULTURE



Crowdsourcing - Arrangement of agricultural land



CrowdSDI



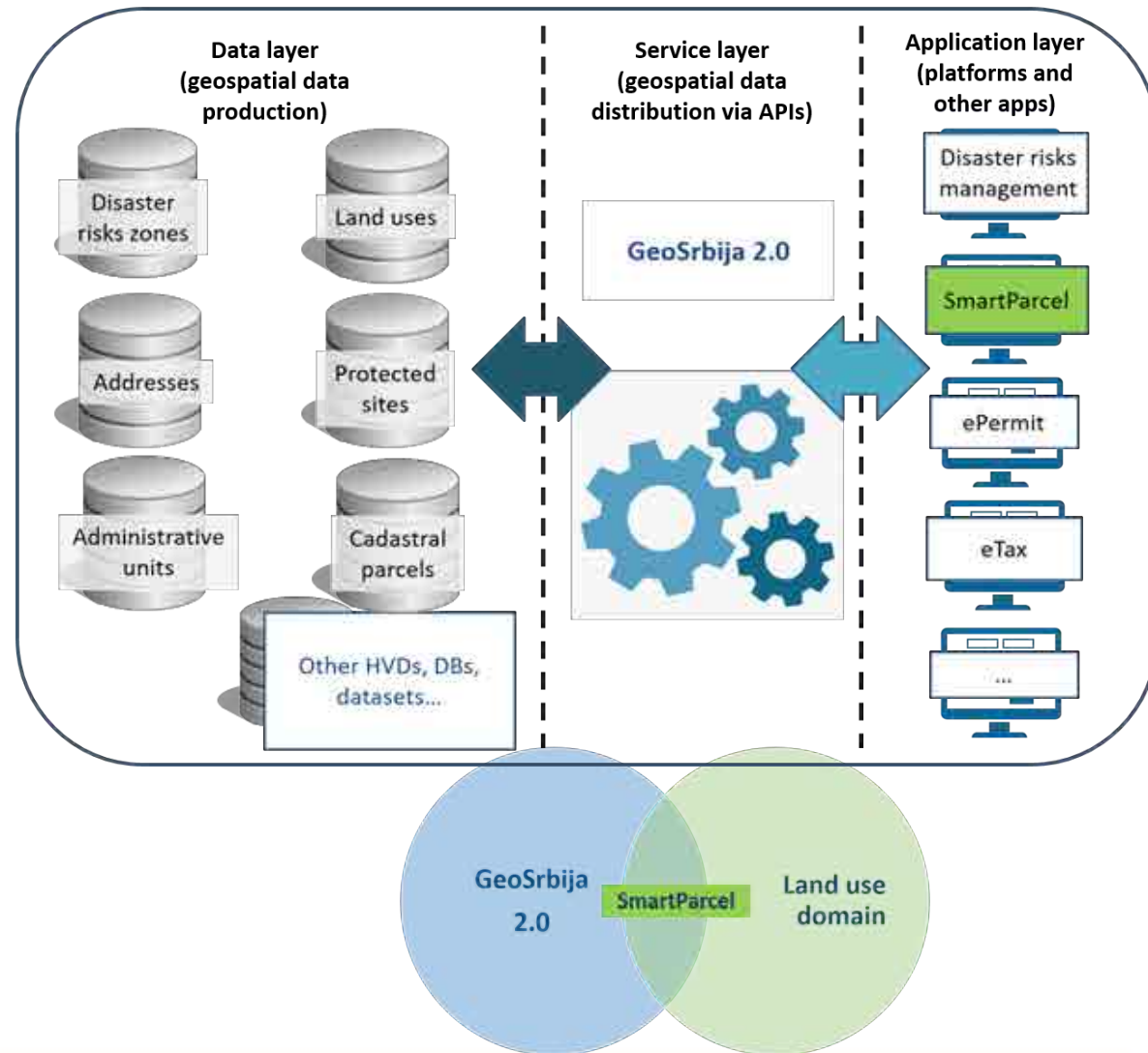
SYSTEM FOR SPATIAL AND URBAN PLANING

SmartSDI platform

- Upgrading existing digital platform GeoSrbija 2.0
- New platform for sustainable land use domain in Serbia – **SmartParcel**

- *Outputs:* user-friendly platform with user-centric services, data sharing tools based on APIs, new collaboration services for stakeholders
- *Impacts:* increased understanding of geospatial information importance, greater usage of geospatial information
- *Effects:* insights/knowledge creation service(s), on-line instructions for geospatial data usage, etc.

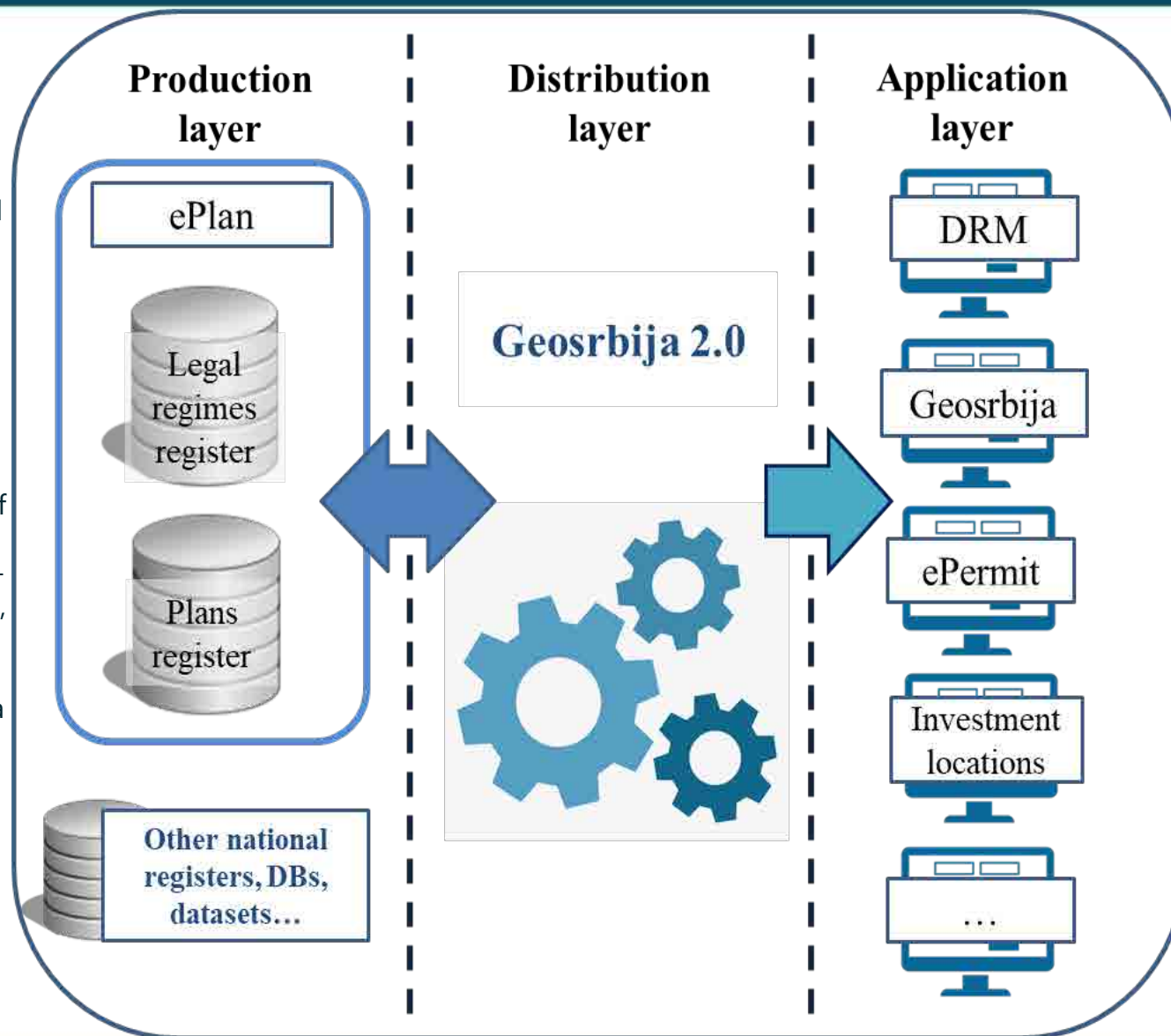
SmartSDI platform



INTEGRATED SPACE FOR DIGITAL DATA

SYSTEM eSPACE

- ▶ For the creation and management of public policies aimed at integral and sustainable development, while introducing the advantages of digital and open Government in Serbia
- ▶ To integrate all national digital registers, databases and systems important for determining the conditions of sustainable development for each specific location (the so-called place-based approach), as well as providing access to geospatial data and public services when, where and in a way that suits the needs of citizens, private sector and public administration



**THANK YOU FOR YOUR
ATTENTION!**



REPUBLIC **GEODETIC** AUTHORITY





WORLD BANK



CONFERENCE



Kosovo Cadastral
Agency



LEGISLATIVE
REFORM AND
CADASTER
RECONSTRUCTION
IN KOSOVO

Avni Ahmeti,
Drenushë Januzi
Kukaj, Ardita

Washington DC, 13-17 May
2024



Purpose of the Law

This Law aims at regulating the public service of registration of immovable properties in the cadastre, the administration of the cadastre and the organization of the responsible institution.

Approved in December 2023.



The By-laws defined by this Law are:

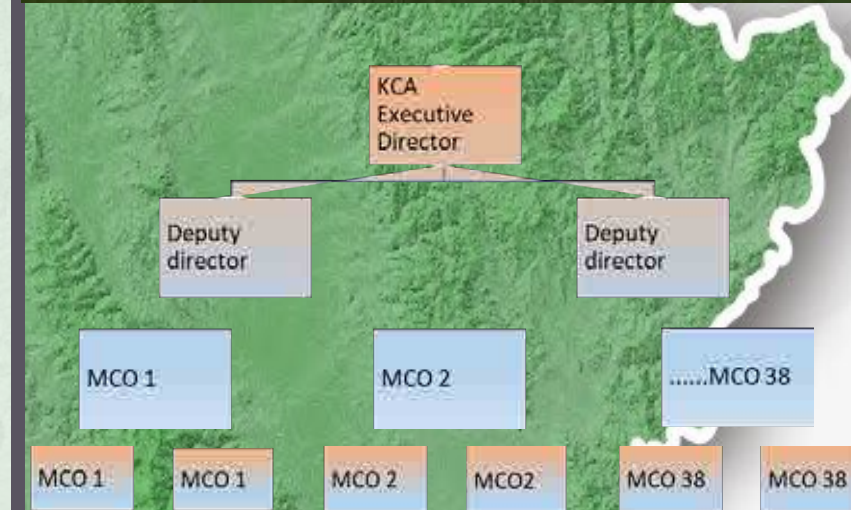
1. Administrative Instructions,
2. Strategy for cadastre, sustainable development and action plan, and
3. Regulation on Internal Organization and Systematization of workplaces in KCA and MCO's



1. Responsible institutions in the field of cadastre shall be organized in the following organizational structure:

1.1. Kosovo Cadastral Agency; and

1.2. Municipal Cadastral Offices as integral parts of KCA.



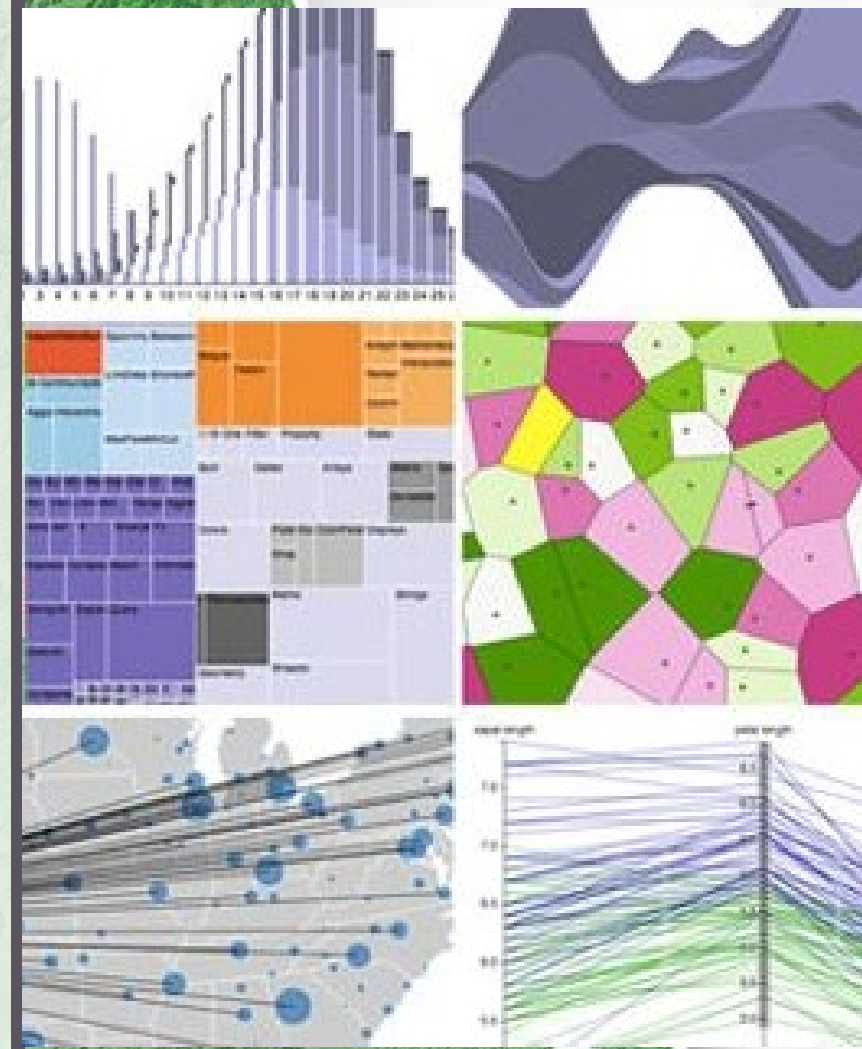
Organizational structure of KCA

From Law:

1. Cadastral data of immovable properties from the IPRR shall be public, open accessible and published for viewing only.
2. Cadastral data of immovable properties must be accessible by everyone based on the legislation in force.
3. Data on sale and purchase in transactions of the immovable property shall be transparent and the same must be published in State Geoportal.

Transparency and accountability for citizens remains our commitment, therefore this year the Kosovo Cadastral Agency will open the data by making them public on the state Geoportal.

With the recent changes in legislation, the prices of transactions with sales contracts will also be published in Geoportal, thus enabling a more accurate assessment of the property.





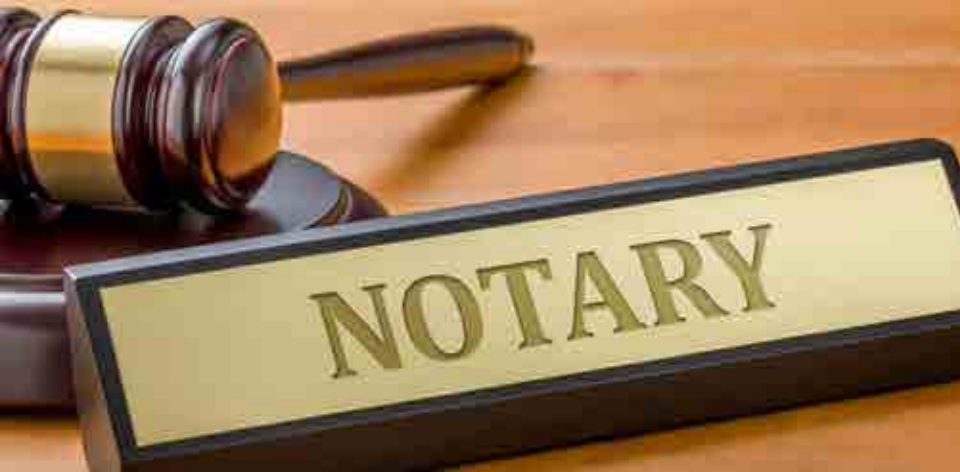
Law on Cadastre:

1. Pre-registration of a construction object shall be done according to the construction permit in compliance with the relevant law on construction.
2. The competent body for issuing the construction permit shall notify the MCO for the logging the pre-registration.

This will certainly increase the security of concluding contracts with Notaries by making it impossible for two or more contracts to be concluded for the same unit.



DIGITALIZATION OF PROCEDURES



- All type of Notaries Act related to Immovable properties will be updated directly by Notaries direct into KCLIS T, through the new system developments
- Also cases from licensed surveyors will be done directly from their offices.
- It is digitalized also the application for license for private sector of geodetic companies.



LAW NO. 08/L-010 ON ESTABLISHMENT OF THE NATIONAL SPATIAL INFORMATION INFRASTRUCTURE IN THE REPUBLIC OF KOSOVO

5 Administrative Instruction:

1. ADMINISTRATIVE INSTRUCTION (MESPI) NO.11/2023 For Defining The Rules For The Exchange Of Geospatial Data Sets And Services, Between Public Authorities
2. ADMINISTRATIVE INSTRUCTION (MESPI) No.12/2023 Of Defining The Technical Standards For Providing Services From The NSII Geoportal
3. ADMINISTRATIVE INSTRUCTION MESPI NO.13/2023 For Defining Dhe Standards For The Creation, Storage, Updating And Structure Of Metadata
4. ADMINISTRATIVE INSTRUCTION MMPHI NO.14 /2023 Defining Detailed Rules For The Implementation Of The Interoperability Of Spatial Information Sources
5. ADMINISTRATIVE INSTRUCTION (MESPI) NO.10/2023 On The Composition, Scope And Mode Of Operation Of Working Groups For The NSII

The projects planned for 2024-2025

PLAN
2024



AERIAL PHOTOGRAPHY OF THE TERRITORY OF THE REPUBLIC OF KOSOVO

The resolution of the Orthophotos will be:

In the Urban Area 8cm surface 1026km²

In the Rural Area 15cm surface area 10134km²

DEVELOPMENT OF THE LEVELING NETWORK PROJECT AND HEIGHT REFERENCE SYSTEM

With this project, the Geodetic Networks in the territory of the Republic of Kosovo are completed.

The data from the leveling network will serve for high precision measurements.

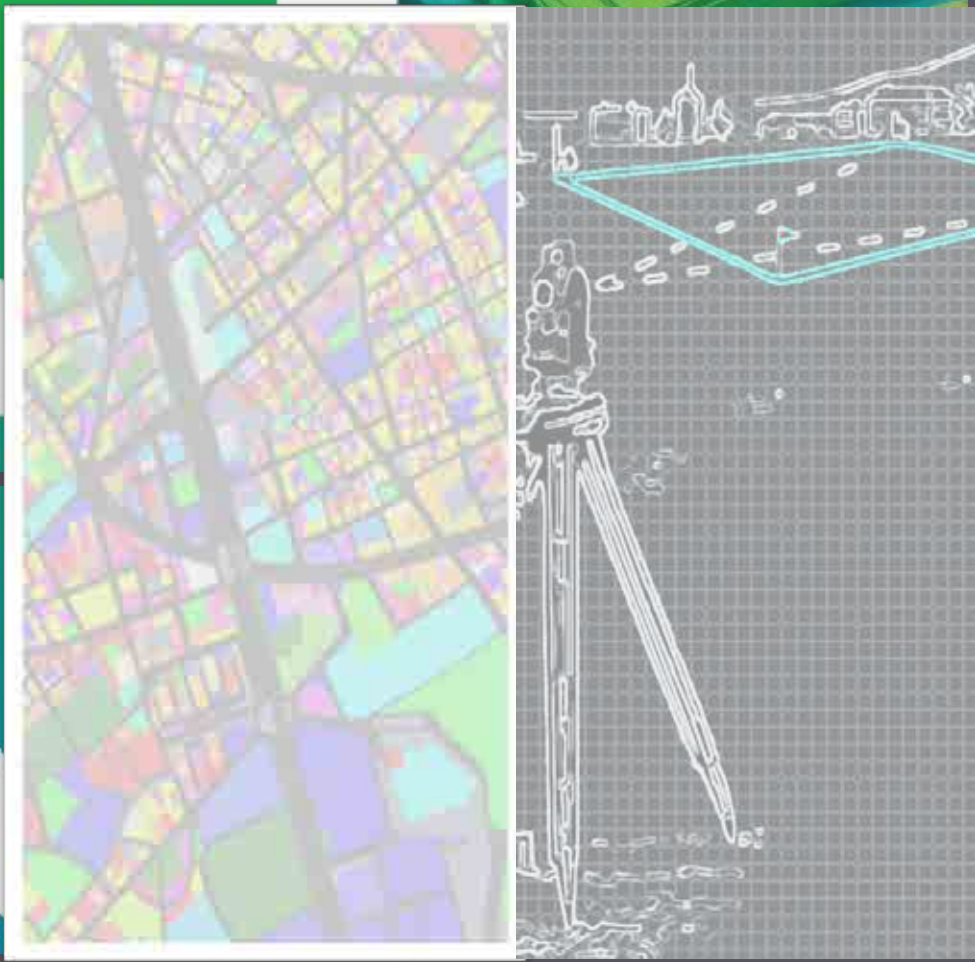
Basic point 5

Node point 50

Common points 350

Leveling line 800 km





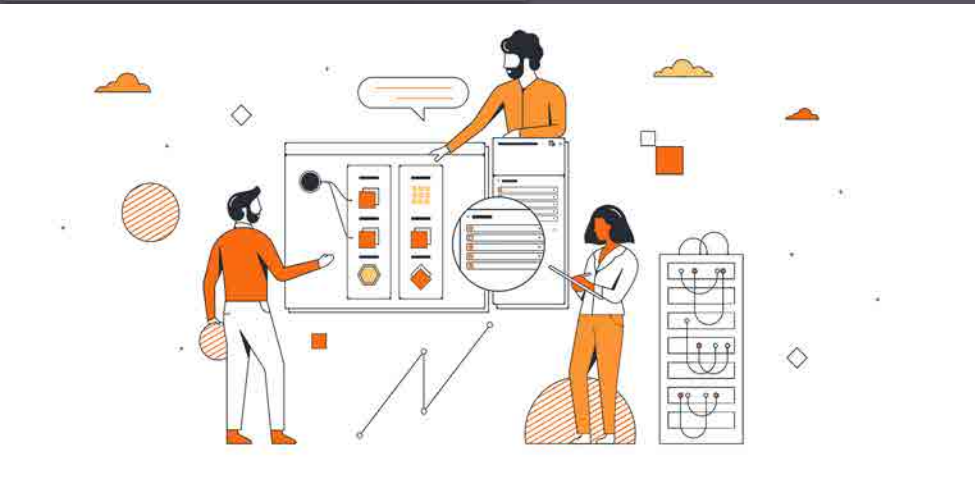
ADVANCEMENT OF CADASTRAL SYSTEMS

These systems are expected to be advanced with new modules for better quality, more accurate, transparent and fast services for the citizens of the Republic of Kosovo.

The system will be advanced to interact with the systems of institutions and other interest groups for access to cadastral data (notaries, surveyors, etc.).

Recent developments in KCA are focused on providing electronic services to citizens.

Also, the entry into force of the law, the dynamism of the cadastre, changes in regulations and procedures bring additional requests for changes.





DEVELOPMENT OF THE GEOPORTAL OF THE NATIONAL SPATIAL INFORMATION INFRASTRUCTURE (NSII)

The existing Geoportal will be advanced and a new Geoportal will be created for NSII.
The new Geoportal will be easy to use even on the phone.



Shqip | Sqesi | English | KOSOVA

Titulli / KTRKO DHE PARAGJIT

1:100000

Lista e shtresës

- Orthophoto2010Rrunt
- Orthophoto2010Rrallora
- Orthophoto2010Rrallura
- Orthofoto 2015 UAV
- Orthofoto 2012
- Orthofoto 2009
- Orthofoto 2004
- Orthofoto 2001
- Mapa Topografike 1:250000
- Mapa Topografike 1:25000 (2015)
- Historik/aktuale
- Rrethimi
- Indikator i Çelësorëve 2018
- Rregullat Rregullor
- Autorregullat
- Rregullat Nacionale
- Rregullat Rajonale
- Niveli Administrativ
- Kufijt dhe Ennat e Komunave
- Zona urbane
- Zona Rrëzore
- Niveli Kadastrore
- Zona Kadastrore
- Parrizat
- Niveli parcalles
- Niveli rrethor
- Niveli rrethor
- Stacionet e Adresave
- Rregullat
- Ennat e shtresës
- Adresa
- Çelësorët dhe Adresat në Kufijt
- Adresat në Geoportal
- Emertimet e shtresës

Kosova


Scale = 1 : 100000

Pozita: 7376100.000, 4757380.000

RECONSTRUCTION OF CADASTRE

- Reconstruction of Cadastre in 120 Cadastral Zones;
- For the first time, with the CR project, the opportunity has been created for the examination and establishment of the recognition and formalization of non-contentious property rights over immovable properties, including inheritance and informal transactions, which remained unformalized before the start of the RK project;
- This will be done through a Commission whose composition will include professionals from the field of property rights from institutions other than AKK.



- 
- Considerable number of unregistered elaborations are planned to be registered with the project "Analysis, correction and entry into the official cadastral system of expropriation documents", which will be led by KCA with funding from the state budget.
 - Barrier to capital investment
 - Burden for municipalities as an unresolved problem for several years
 - Lack of capacities



3D LIFTING OF OBJECTS


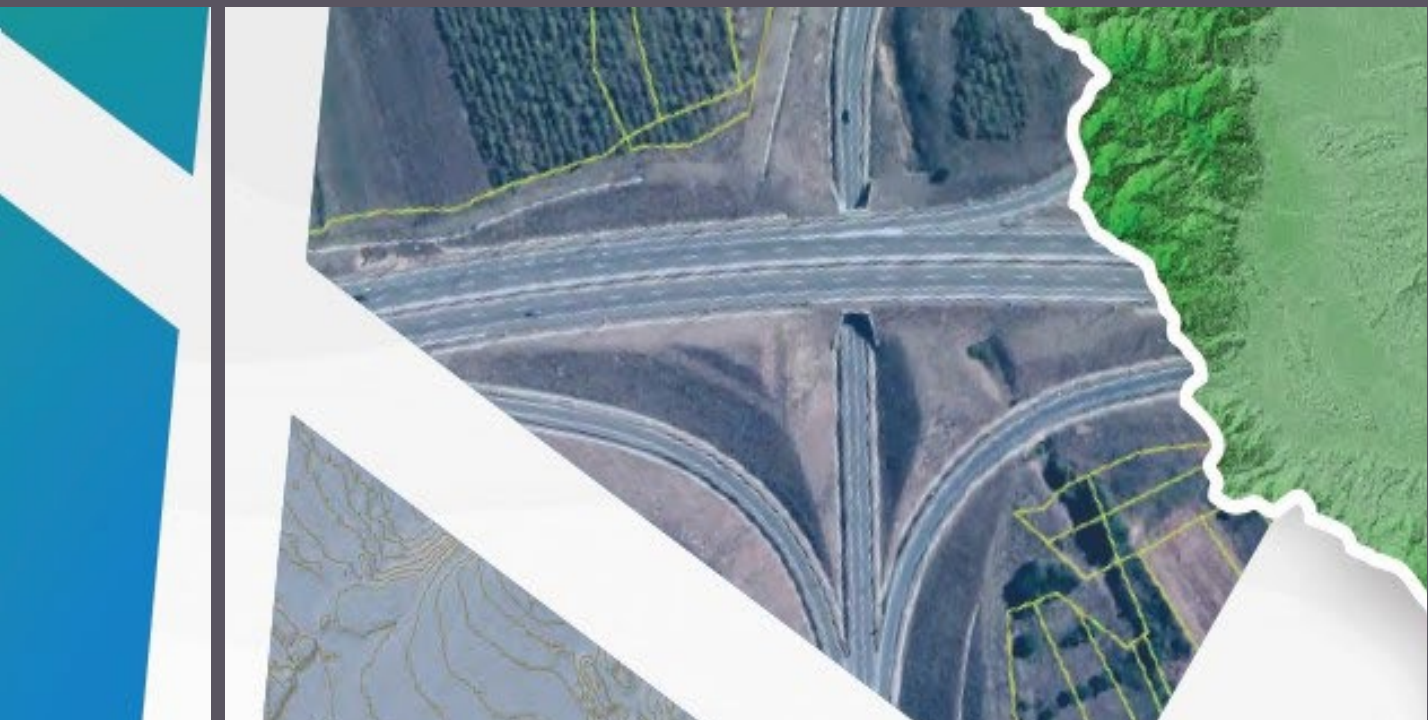
Another project planned for completion in 2024 or 2025.

After the completion of most other projects.





THANK YOU FOR YOUR
ATTENTION



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gov.net
KOSOVO CADASTRAL AGENCY
[https://akk.rks-
gov.net/en](https://akk.rks-gov.net/en)



WORLD BANK
LAND
CONFERENCE



Reforms and innovations in land administration in Uzbekistan

Mirsaid Mirmaksudov
Deputy Director Of Cadastre Agency
Republic Of Uzbekistan

May 17, 2024

About **Uzbekistan**

- ◆ Total area
448,000 km²
- ◆ Population
37 million
- ◆ Density
80 people per km²
- ◆ Regions
14



History of the organization

1996

General directorate of geodesy, cartography
and state cadastres under the Cabinet of Ministers
of the Republic of Uzbekistan

2004

State Committee of land resources, geodesy,
cartography and state cadastres of the
Republic of Uzbekistan

2020

Cadastre agency under the State tax committee
of the Republic of Uzbekistan
Organizational structure

2022

Cadastre agency under the Ministry of Economy
and Finance of the Republic of Uzbekistan



Main activities of cadastre agency

State registration of rights to real property,

Maintaining the State Cadastre of lands and buildings

Cadastral and geodetic surveys

Maintaining an address register

Land, cadastral and geodetic control

Conducting cadastral, geodesy and cartography policy

Delimitation and demarcation of borders

Legislation in the sphere of cadastre



14 | Laws



24 | Presidential decrees
and resolution



42 | Government resolution



16 | Acts of Cadastre agency

2020

Law On geodetic and
cartographic activities

2021

Law On spatial data

2022

Law On State registration of
real property rights

Simplified procedures for registering rights to real property

- ◆ Cancellation of the issuance of a paper certificate
- ◆ Issuance of an extract from the State Register in digital form
- ◆ Cancellation of mandatory notarization of purchase and sale transactions of non-residential real estate
- ◆ Resolution of disputes regarding real estate rights by commissions
- ◆ Formation of a cadastral file - at the request of the copyright holder



Process of rights registration before and after reform

up to 150 days



up to 2 days ✓



Digitization of cadaster sphere

- Integrated Information System for Real Property Registration and Cadastre was created Instead of old Information Systems
 - Data center was launched (1-1 petabytes of permanent storage)
 - An online geoportal **open.ngis.uz** was launched
- Electronic maps of all land plots were created, and information
- including agricultural lands (type of real estate, its location, boundaries, area) which can be published publicly in the geoportal
- “E-yer nazorat”** automated information system
- Land and cadastral control activities and their results will be conducted electronically, which will allow tracking of the logical conclusion of each identified situation
- geonames.uz** A unified information web portal has been created,
- which contains all information about the names of more than **185,000** geographical objects

Project “Modernization of real property registration systems and cadastre of Republic of Uzbekistan” with participation of World Bank



- ✓ Total cost - **35.77 million dollars**
- ✓ WB loan - **\$20 million**
- ✓ Cadastre Agency – **\$5.0 million**
- ✓ Contribution of Republic of Uzbekistan
(*tax and customs benefits*) – **10.77 million dollars**

Main objective of the project

- ✓ Fundamental modernization of the existing “paper” system of cadastre and real estate registration through the creation of a modern, integrated information system of cadastre and real estate registration based on the use of geoinformation and web technologies as an integral part of the e-gov system

Integrated Information System of Real property Cadastre and Registration (IISCRN-UzKAD)



Developed within the framework of the project, the Integrated Information System of Real Estate Cadastre and Registration (IISCRN-UzKAD) is a complex of information resources integrated into a unified system, created by regional, district and city real estate cadastre services in the process of cadastral survey, inventory, formation and registration of real property



System is designed to create, update and operate databases of geospatial, cadastral and registration information about real property objects for the purpose of maintaining cadastral records, state registration of rights to real property and prompt provision of information and data to all interested users, including in the form of e-gov services

Results achieved under project

- ✓ complete conversion of data from cadastral files and registers of rights to real property from paper to electronic format
- ✓ introduction of computerization of processes and procedures of the cadastre and registration of real property
- ✓ equipping the Republican Data Center, the Reserve Data Center, 14 regional and 206 district branches of the Chamber of State Cadastres of the Cadastre Agency with server, computer and communication equipment, software necessary for the implementation of the integrated system
- ✓ creation of a Database on real property objects as part of the basic platform of the e-gov systems
- ✓ improving quality with a simultaneous sharp reduction in the time for providing cadastral and registration services, expanding their range, bearing in mind the transition to electronic registration of rights to real property
- ✓ High-precision aerial survey work was carried out with a resolution of **20** cm on an area of **124,816** square meters. km. to the territory of the republic

Unified System of State Cadastres

 Land cadastre	 Cadastre of roads
 Cadastre of deposits and occurrences of minerals	 Cadastre of railways
 Water cadastre	 Cadastre of transport pipelines
 Forest cadastre	 Cadastre of communication facilities
 Cadastre of flora objects	 Cadastre of energy facilities
 Cadastre of fauna	 Cadastre of waste disposal sites
 Cadastre of protected natural areas	 Cadastre of areas of natural danger
 Cadastre of buildings and structures	 Cadastre of areas of technogenic danger
 Cadastre of hydraulic engineering structures	 Cartographic and geodetic cadastre
 Cadastre of historical and cultural heritages	 Urban planning cadastre

Stages of development of NSDI in Republic of Uzbekistan

	Determining the composition of NSDI data
	Planning for the long-term development of NSDI
	Development of projects, laws and regulations for the development of NSDI
	Spatial data processing
	Creation, maintenance and updating of the NSDI Geoportal
	Geographic Information Systems Management

Current Status

Uzbekistan has made huge strides towards the implementation of an NSDI

- ✓ There is political backing and the basis of a governance framework
- ✓ The NSDI is backed by legislation
- ✓ Considerable investment in terms of technology
- ✓ Large volumes of geospatial information covering the foundation themes that form the basis for a NSDI already exist in Uzbekistan
- ✓ Considerable effort has been put in to capture data as part of the Unified System of State Cadasters
- ✓ The stakeholders who contributed to this assessment understood the value of implementing an NSDI and some of the current issues holding back the development

NSDI Project Components

Component A

Support the Establishment
of UZ-NSDI.

Component B

Cadaster Modernization and
Integration in UZ-NSDI

Component C

Enhancing Territorial Planning and
Regional Competitiveness

Component D

Enhancing Organizational Capacity,
Partnership & Awareness.

Overview of actions

- ✓ Improving the quality of services for state registration of rights to real estate
- ✓ Improving the accuracy of information by introducing standards, providing spatial information
- ✓ Improve NSDI Governance and Institutional Arrangements
- ✓ Enhance legal and policy frameworks
- ✓ Develop NSDI business and financial models
- ✓ Develop an NSDI technical architecture
- ✓ Procure software and hardware for the NSDI
- ✓ Improve data sharing
- ✓ Strengthen capacity and capability through education and awareness

Thank you for your attention!

