

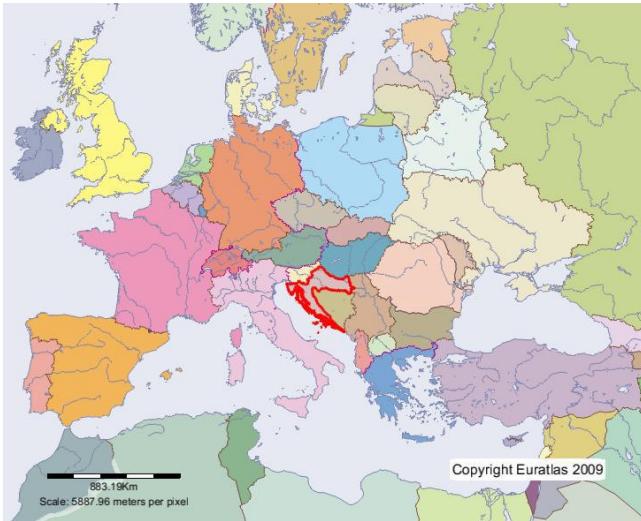
**State Geodetic Administration (SGA)
Croatia**

Improved (digital) data and processes in Cadastral System

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Presenter: Maja Pupačić

www.dgu.gov.hr



• THE REPUBLIC OF CROATIA

- **Republic with multi-party parliament**
- [Constitution adopted on 22 December 1990]
- **56 594 sq km (land surface)**
- **Counties (21), including the City of Zagreb ;**
Towns (127); Municipalities (429); Settlements (6755)
- **4.290.612 persons /75,81 persons /sq km,**
- **Croatia is became the 28th member state of the European Union on 1. July 2013.**



STATE GEODETIC ADMINISTRATION

State Administrative Organization

SGA head office + Regional Cadastral Offices (20) and Branch Offices (92)

City Office for Cadastre and Geodetic Activities (Zagreb)

Cadastral parcels apx. 15 ml

3389 C.M.

POLITICAL & STRATEGIC FRAMEWORK

EUROPEAN CONTEXT - STRATEGY

- *In the development of the Land Administration System in RoC we were guided by the guidelines imposed by the **European and national strategic context as well as the legal framework on both levels**.* The strategic context which determines the direction of e-government development most is the **Digital Agenda for Europe**.
- **EU Action Plans** for eGovernment are **political instruments** for promoting the modernization of public administrations throughout the EU.
 - **eGovernment Action Plan 2016-2020**
 - **eGovernment Action Plan 2011-2015**

POLITICAL & STRATEGIC FRAMEWORK

EUROPEAN CONTEXT – LEGAL FRAMEWORK

- **Regulation on electronic identification** and trust services for electronic transactions in the internal market
- **Directive on the re-use of public sector information**
- **Directive 2007/2/EC of the EP and of the Council (2007) establishing an Infrastructure for Spatial Information in the European Community (INSPIRE).**
- **General Data Protection Regulation (GDPR) – REGULATION (EU) 2016/679 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**
- **Law on Freedom of Information**

POLITICAL & STRATEGIC FRAMEWORK

NATIONAL CONTEXT – STRATEGY

- E-Croatia 2020 Strategy
- Action Plan for E-government development
- Strategy of Public Administration Development in the Republic of Croatia
- Strategic plan of the Ministry of Construction and Physical Planning (including SGA strategic plan)
- National Spatial Data Infrastructure Strategy

NATIONAL CONTEXT – LEGAL FRAMEWORK

- Law on State Survey and Real Property Cadastre
- Law on National Spatial Data Infrastructure
- Law on National Information Infrastructure

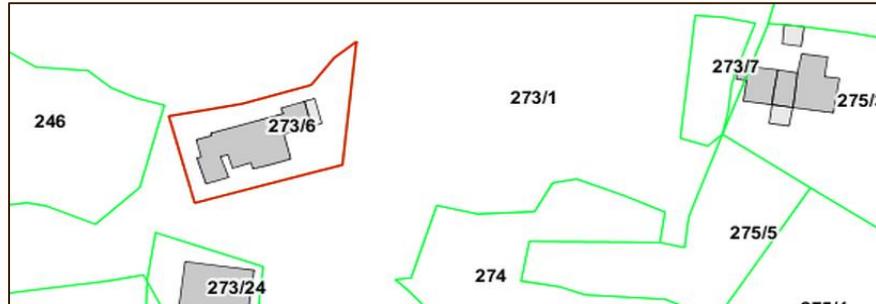
CRO model for registration property and rights is divided between two institutions

Before establishing one common data base

KATASTAR



Keep and maintain all cadastral data into 112 cadastral databases



PODACI O KATASTARSkim ČESTICAMA

ZGR	DIO	Broj katastar. čestice	Broj D.I kat. plana	Adresa katastarske čestice (naziv rudine, ulice, trga i sl.)	Način uporabe katastarske čestice / Način uporabe zgrade, kućni brojevi zgrade, naziv zgrade	Površina / m ²	Posebni pravni režim
		273/6	3	DUBRAVA	KUĆA DVORIŠTE	138	
		273/6	3	DUBRAVA	DVORIŠTE	369	
				Ukupna površina katastarskih čestica upisanih u posjedovni list		507	

UPISANE OSOBE

DIO	Prezime i ime odnosno tvrtka ili naziv upisane osobe	OIB
1/1	PETAR PERIĆ, DUBRAVA 15, MLINI	



ZEMLJIŠNA KNJIGA

Keep and maintain all land registry data into 100 LR databases

A - POSJEDOVNICA

Redni broj	Broj zemljišta	Oznaka zemljišta	Površina u			Primjedbe
			m ²	jutra	čhv	
1	363/13	KUĆA I DVORIŠTE	507			PRIPIS IZ ULOŠKA 352

B - VLASTOVNICA

Redni broj	Upisi					Primjedbe
1. UDIO 1/1						
1	Pero Perić, MLINI, DUBRAVA 15					

C - TERETOVNICA

Redni broj	Upisi	Iznos tereta	Primjedbe
Tereta nema!			

We were/are aware that the future development of e-Cadastre will primarily depend on the satisfaction of the customers with the services provided, their motivation for using them and their support. In order to fulfil these expectations, the basic precondition is a unified and up-to-date database. This means that data must be organised and accessible in such a way that any kind of query, analysis or statistics can be made at any time and for any purpose and that the data can be provided on a daily basis.



Land registers digitization at the Land Registry Office of the Municipal Civil Court



State of some land registers

Key Performance Indicators

% of digitized and verified LR Sheets in RoC

	2003.	2004.	2005.	2006.	2007.	2008.	
Hrvatska	0%	1%	9%	27%	40%	52%	Since 2000, SGA has conducted many programs standardizing the cadastral system throughout the RoC in organisational and technological terms.

% of vectorized or vectorization **in progress** of cadastral maps in RoC

	2004.	2005.	2006.	2007.	2008.	2009.*
Hrvatska	11,80%	35,18%	48,33%	82%	100%	100%

Project - Organized Land

Since 2003, the Government of the Republic of Croatia, through the Ministry of Justice and the State Geodetic Administration, has been implementing the National Real Property Registration and Cadastre Program, known as Organized Land (Uređena zemlja.)

www.uredjenazemlja.hr



UREĐENA ZEMLJA

Nacionalni program sredivanja zemljišnih knjiga i katastra

Start of Project: 15th of January 2003.

The main goal of the Project is to built effective system of land administration, with effective real estate market and supporting private sector development.

SGA ACTIVITIES



Real Property Registration and Cadastre Joint Information System (JIS)

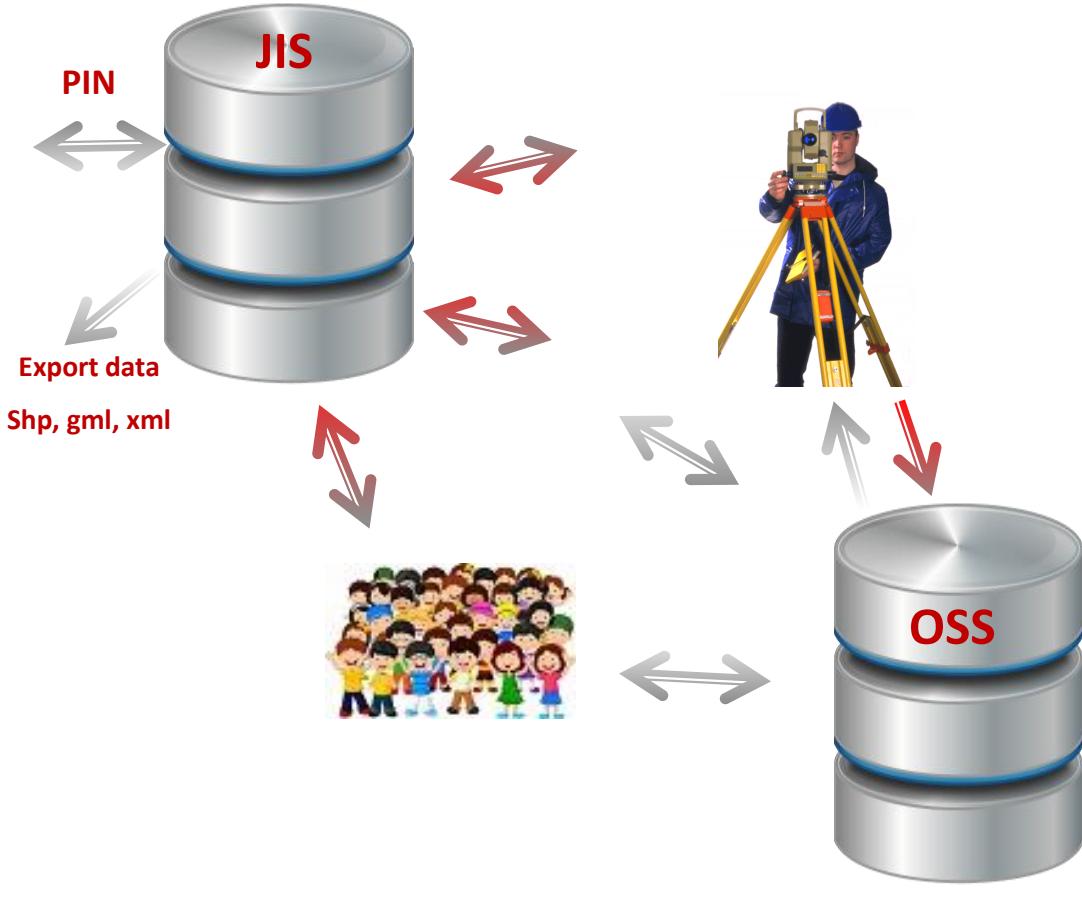
- One of the most significant and challenging projects that was financed by the WB loan between 2003 and 2016 was the establishment of the JIS
- LA institutions decided not to get merged into one institution but opted for a unique **Croatian solution of linking the institutions at the level of data and business processes** to be maintained according to respective jurisdictions
 - A unified, centralised application for all cadastral offices and land registries (unified data model)
 - Standardised proceedings with data maintenance (central process-oriented solution)
 - IT linking of land registries and cadastral offices (time and financial savings)
 - Graphic and alphanumeric data integration
 - Integration with other registers and services (PIN, Spatial Units' Register, e-Citizens, Geoportal, digital archives....)
 - Maintenance of harmonised (LDB) and non-harmonised data

State Geodetic Administration spatial data portal

JIS -an unified database and application for keeping and maintaining the land registry and cadastre data has been established.



GEOPORTAL - central point of access to SGA spatial data.



- >JIS data available to citizens through web portal
- >Online submission for public documents through private mailbox
- >Online payment
- >Digitally signed documents





Allows receiving
digitally produced
geodetic reports while
digital business
processes are revised

JIS

PIN

Export data
Web servis
Shp, gml, xml

ADMINISTRATION WITHOUT PAPER



A2A A2B A2C

RSU

1,484,479 house
numbers – paired with
cadastral parcels and
allows service issuing
of house number
certificates

DGRS

Enables additional electronic
business operations to be
performed by the SGA and
licensed geodetic firms.

OSS

Allows issuing digital
data to licensed
surveyors



DAS

Allows service viewing
of geodetic report
Digital Archives – over
12 mil. pages available



CROPOS

Delivering real (surveyed
in the field) coordinates

SGA ACTIVITIES



LAW ACTIVITIES (1)

Major legislative changes took place in the last 20 years, along with a growth of the property market in the 1990s

Real property rights	<u>Law on Ownership and Other Real Property Rights</u>	1996
Cadastral map	<u>Law on State Survey and Real Property Cadastre</u>	2007
Registration of rights	<u>Land Registration Act</u>	1996
Buildings & Apartments	<u>Land Registration Act</u>	1996
Surveying & Mapping	<u>Law on State Survey and Real Property Cadastre</u>	2007

However, even the best legislation cannot achieve anything without up-to-date quality cadastral and land registry data, as the key elements of a land administration system.

LAW ACTIVITIES (2)

Law on Performing Geodetic Activities - Adopted in 2018

- 2 Rule Books

Law on State Survey and Real Property Cadastre – Adopted in 2018

- 20 Rule Books are in preparation

Law on National Spatial Data Infrastructure - Adopted in 2018

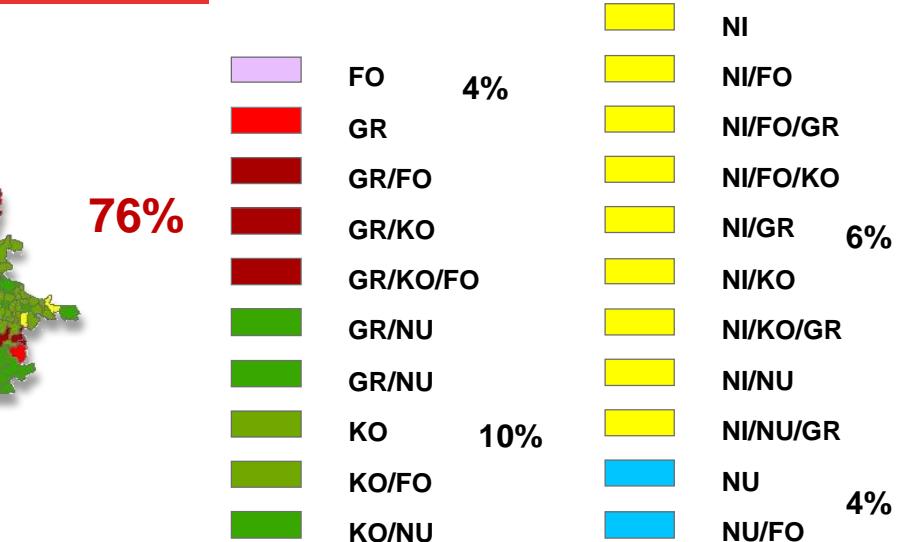
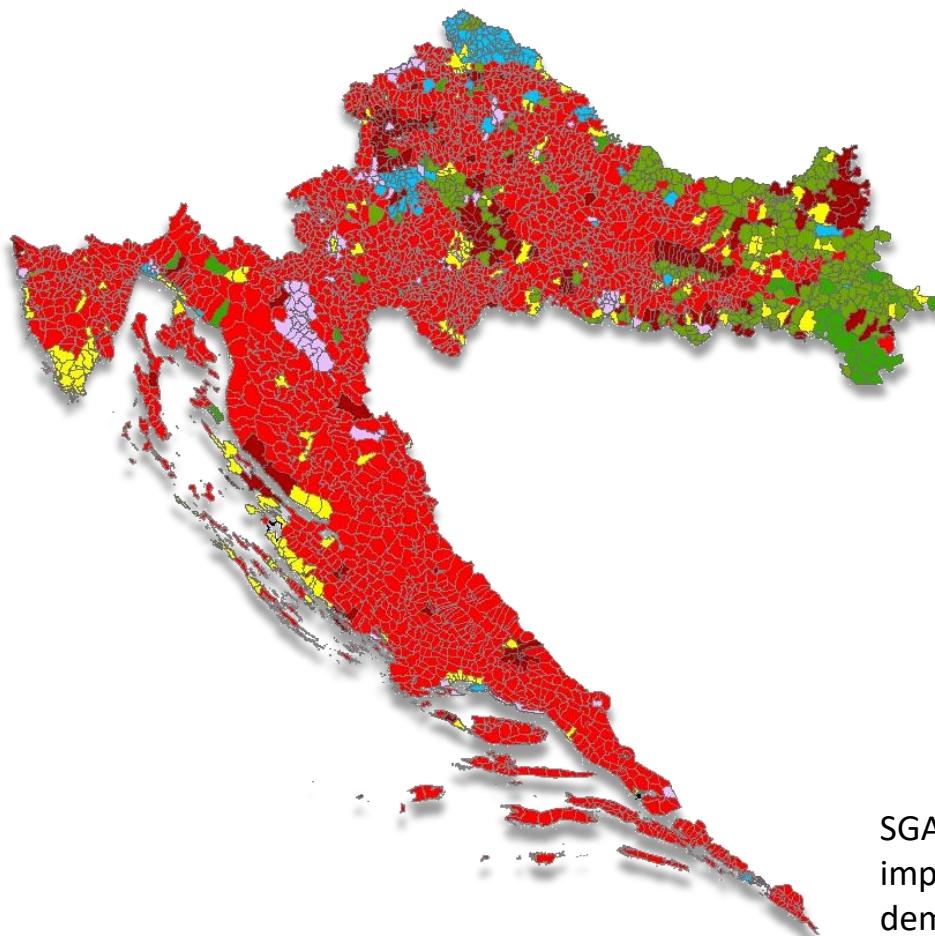
- Spatial Data Infrastructure Act
- 2020 National Spatial Data Infrastructure Strategy

Land Registration Act - Adopted in 2019

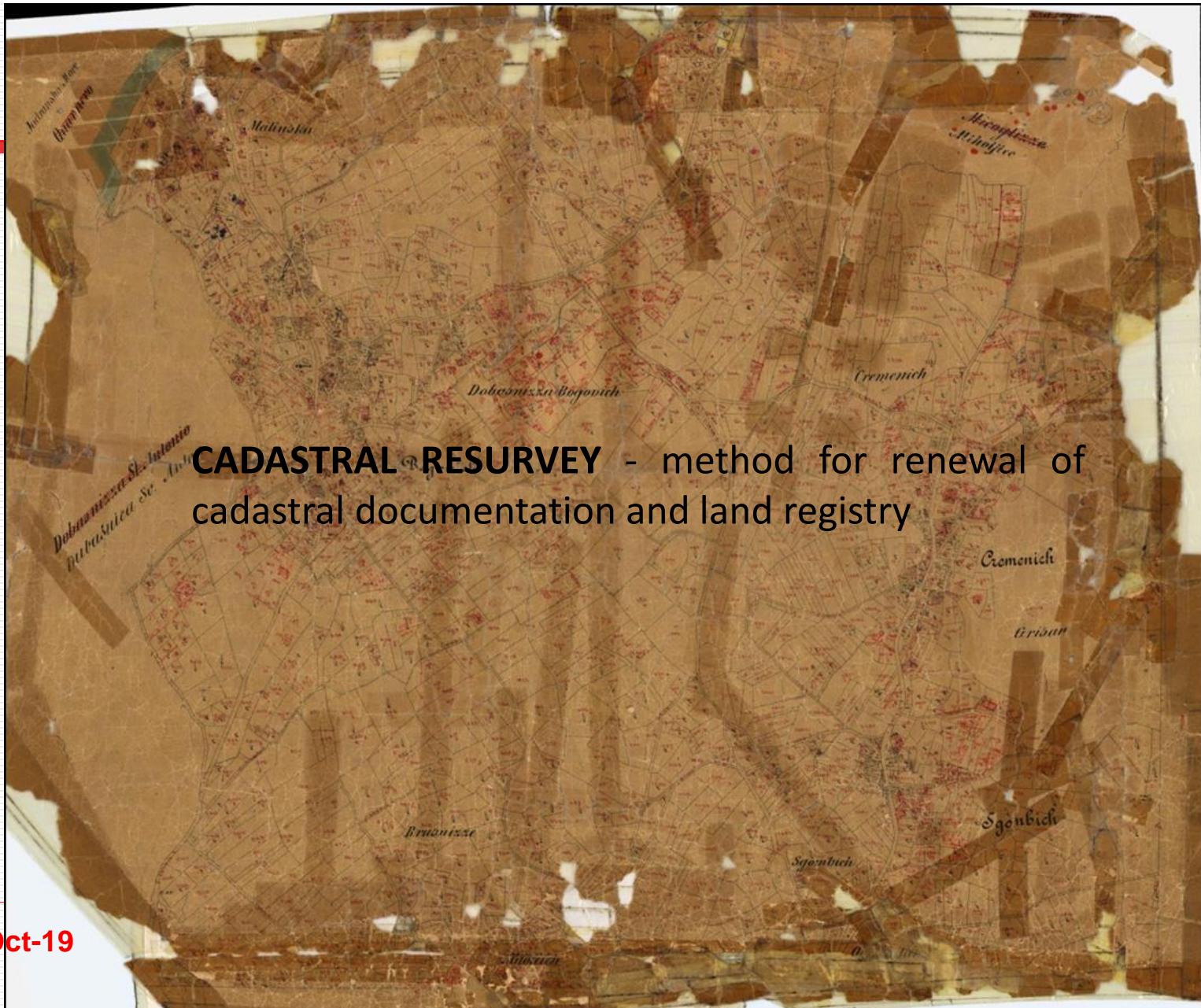
SGA ACTIVITIES



CADASTRAL DATA



SGA conducts a number of activities for data quality improvement, among which the most extensive and demanding are the new cadastral survey and homogenisation.



CADASTRAL RESURVEY - method for renewal of
cadastral documentation and land registry



CADASTRAL PLAN AFTER NEW CADASTRAL SURVEY



HOMOGENISATION

HOMOGENISATION - method for improvement of digital cadastral plan

HOMOGENISATION – is not cadastral resurvey process

HOMOGENISATION – is a technical process

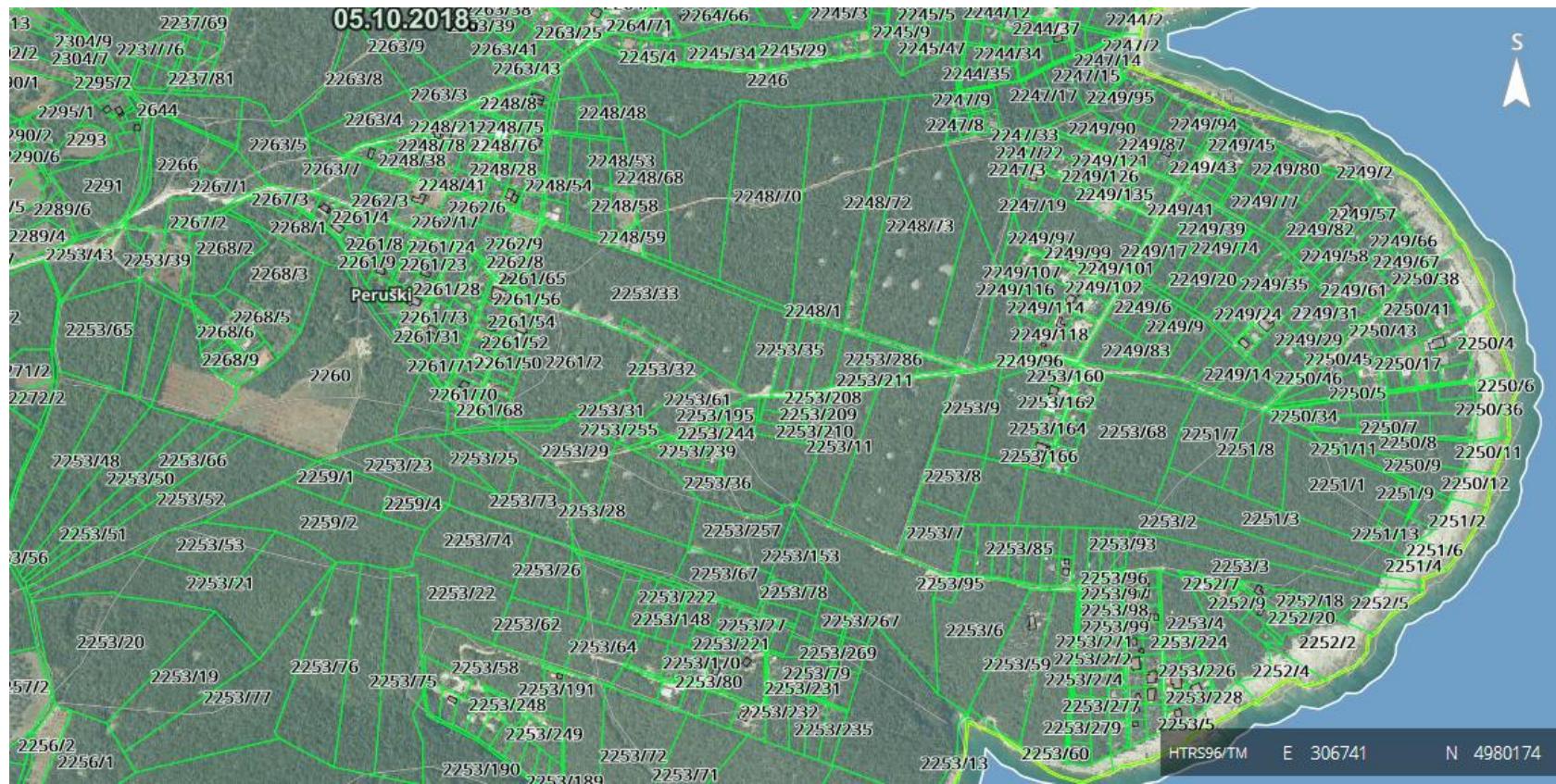
- geometric and positioning accuracy improvement of the digital cadastral maps (DCM) of the graphical survey
- correct the deformations, inhomogeneities and anomalies, and at the same time keep the parts of the cadastral maps that are already mapped by the geodetic records unaltered on their position
- There is still a danger of incompetent use of homogenised data if the expert audience is not educated on how to use homogenised maps. If the homogenised data, although in digital format, does not represent the quality of the digitally surveyed point that was previously marked in the field by the owner it cannot be the basis for transferring digital data in the field (staking, court expert visit, measuring distances in the map for the purpose of project designs) because damage would thus be caused.

Before homogenisation:

1. The cadastral maps that the detail is already mapped by the geodetic records
2. Detail on the cadastral map – position 160 m into the sea
3. There is no cadastral parcel on the cadastral map (the result of inadequate maintenance)



After the process of the homogenisation



SGA ACTIVITIES



EDUCATION FOR ADMINISTRATION WITHOUT PAPER

A2A A2B A2C

Cadastral staff on how
to use the JIS
application (1,000
employees and
continued expert
education)

Users via web services



State Geodetic Administration spatial data portal



After establishing the paperless administration, it was
necessary and mandatory to educate all the system users:

Daily and continued support
to the DAS, OSS and
other State bodies on
how to use cadastral data.
Public awareness
campaign

Users via web services



RSU

Geodetic experts on
how to use the DGRS
functionality (1,000)



DGRS



DAS



OSS

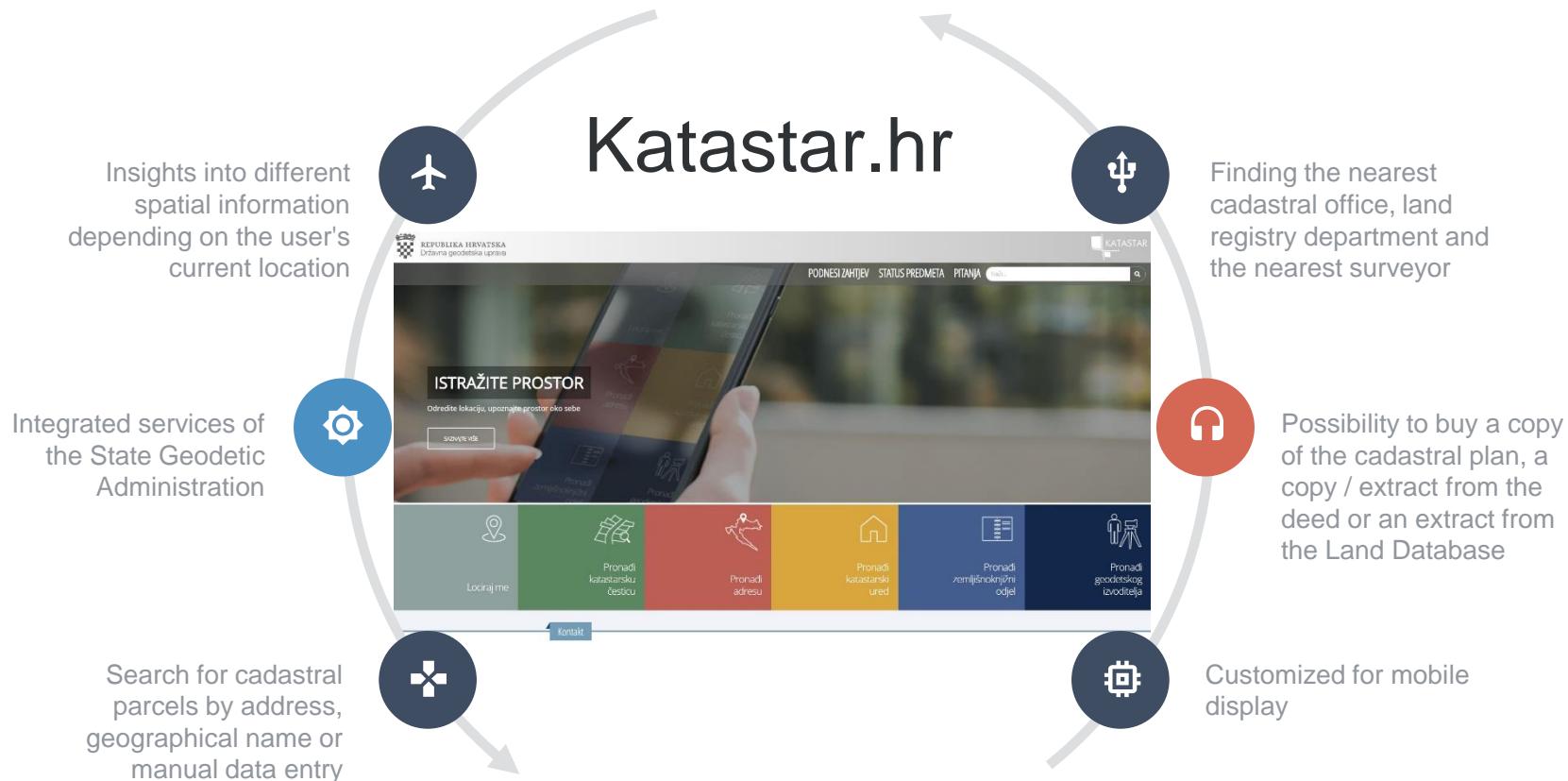
Citizens on how to use
the OSS functionality
(public awareness
campaign)



Geodetic experts on how
to use the CROPOS
system (500 and annual
CROPOS conferences)



KATASTAR.HR – integrated services of SGA (2019)



WWW.KATASTAR.HR – integrated services of SGA (2019)

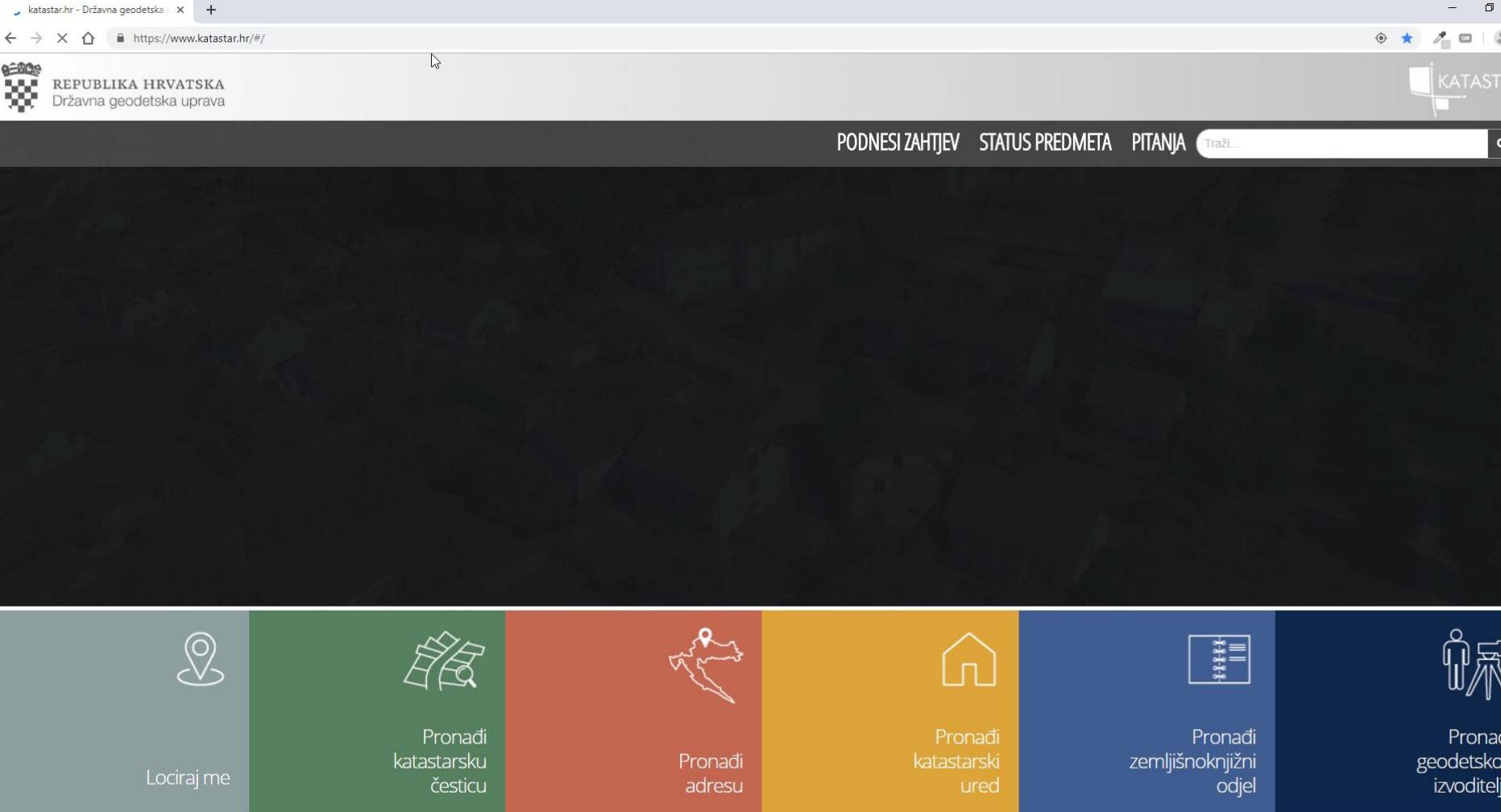
katastar.hr - Državna geodetska x +

https://www.katastar.hr/#/

REPUBLICA HRVATSKA Državna geodetska uprava

KATASTAR

PODNEŠI ZAHTJEV STATUS PREDMETA PITANJA Traži... 



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