



# Activities in Croatian State Geodetic Administration

**Marijan Marjanović**

Technical Meeting of the EuroGeographics Data Producers  
6<sup>th</sup> to 7<sup>th</sup> of November 2018, Zagreb

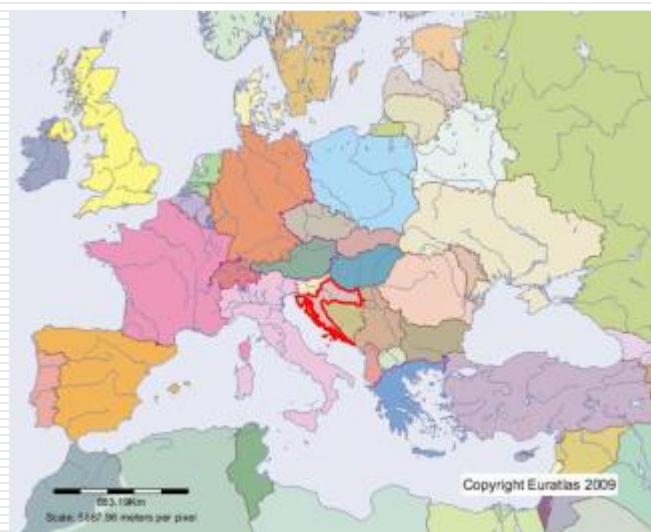
# AGENDA

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- **Organizational structure of the State Geodetic Administration (SGA)**
- **Spatial data in former state (till 1990)**
- **Topographic development 1990. - 2018.**
- **Official mapping**
- **Usage of official mapping**

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# STATE GEODETIC ADMINISTRATION



- **Main spatial data provider in country**
- **SGA head office + Regional Cadastral Offices (20) and Branch Offices (92)**
- **Administrative and professional tasks in the field of:**
  - **Cadastre**
  - **Geodesy**
  - **Photogrammetry and Cartography**
  - **National Spatial Data Infrastructure**

# SECTOR FOR STATE SURVEY

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Sector for  
State Survey

Department for  
topographic survey  
and state maps

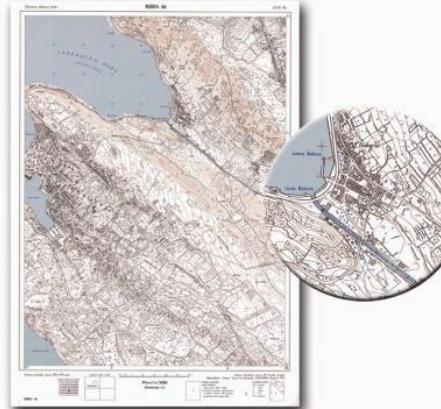
Department for  
fundamental geodetic  
works

Department for state  
boundary

# Spatial data in former state (till 1990)

- Till 1990 all maps production process (from 1:25000 to 1:200000 maps) and photogrammetric works was reserved for Military geographic institute from Beograd.

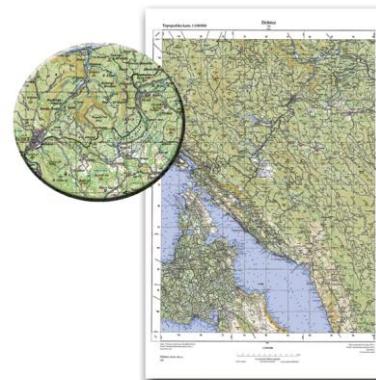
HOK - 1:5000



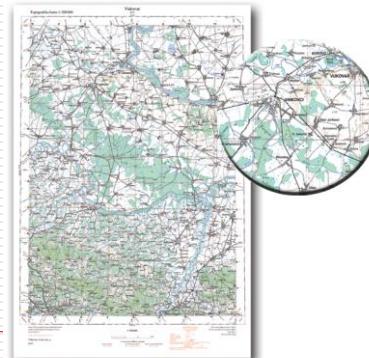
TK - 1:25000



TK - 1:10000



TK - 1:200000



- Only 1:5000 maps was made by civilian sector but for app 50% of national territory.

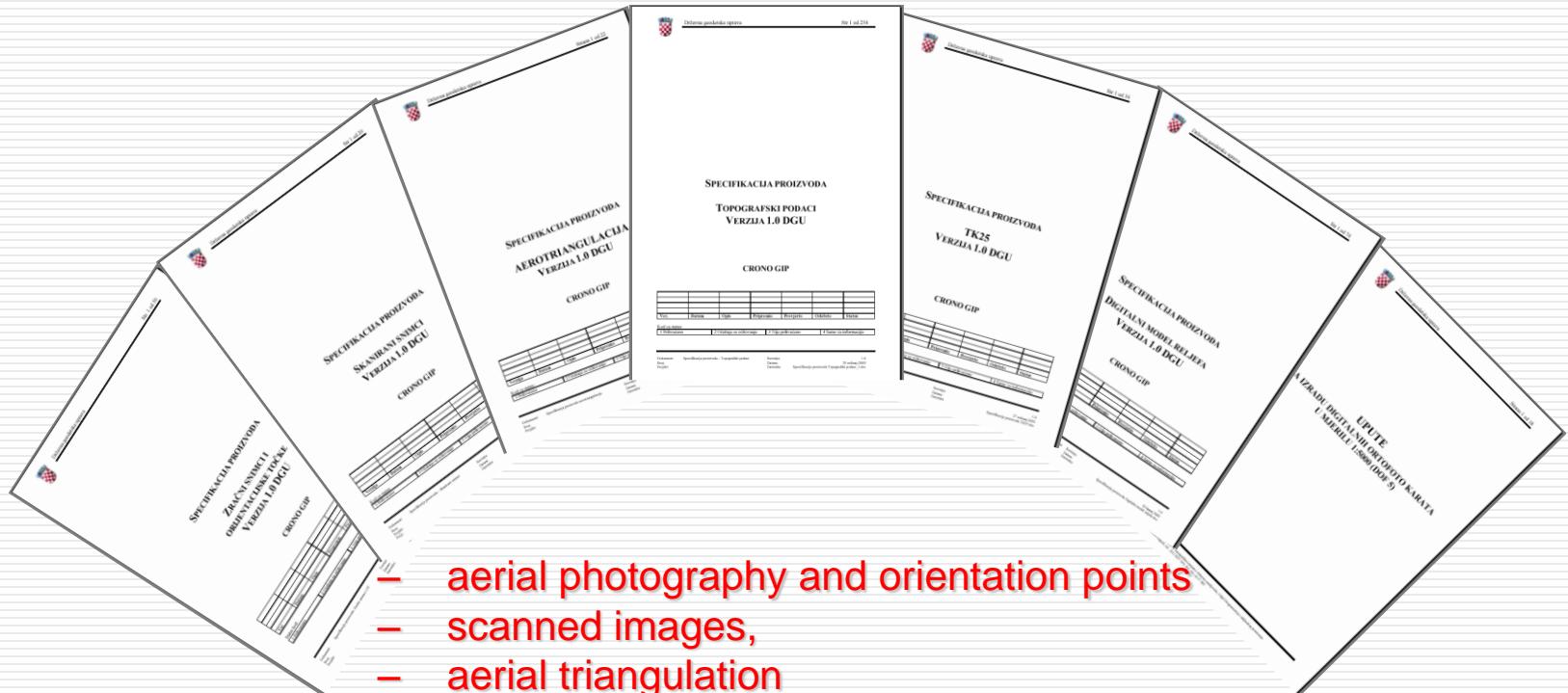
# Topographic development 1990. – 2018.

- Studies produced for SGA in topographic domain in period 1992.-2008.
- STOKIS (Official Croatian Topographic - Cartographic Information System)
- CROTIS (Croatian Topographic Information System)
- Product Specifications
- Base Topographic Database (BTD)



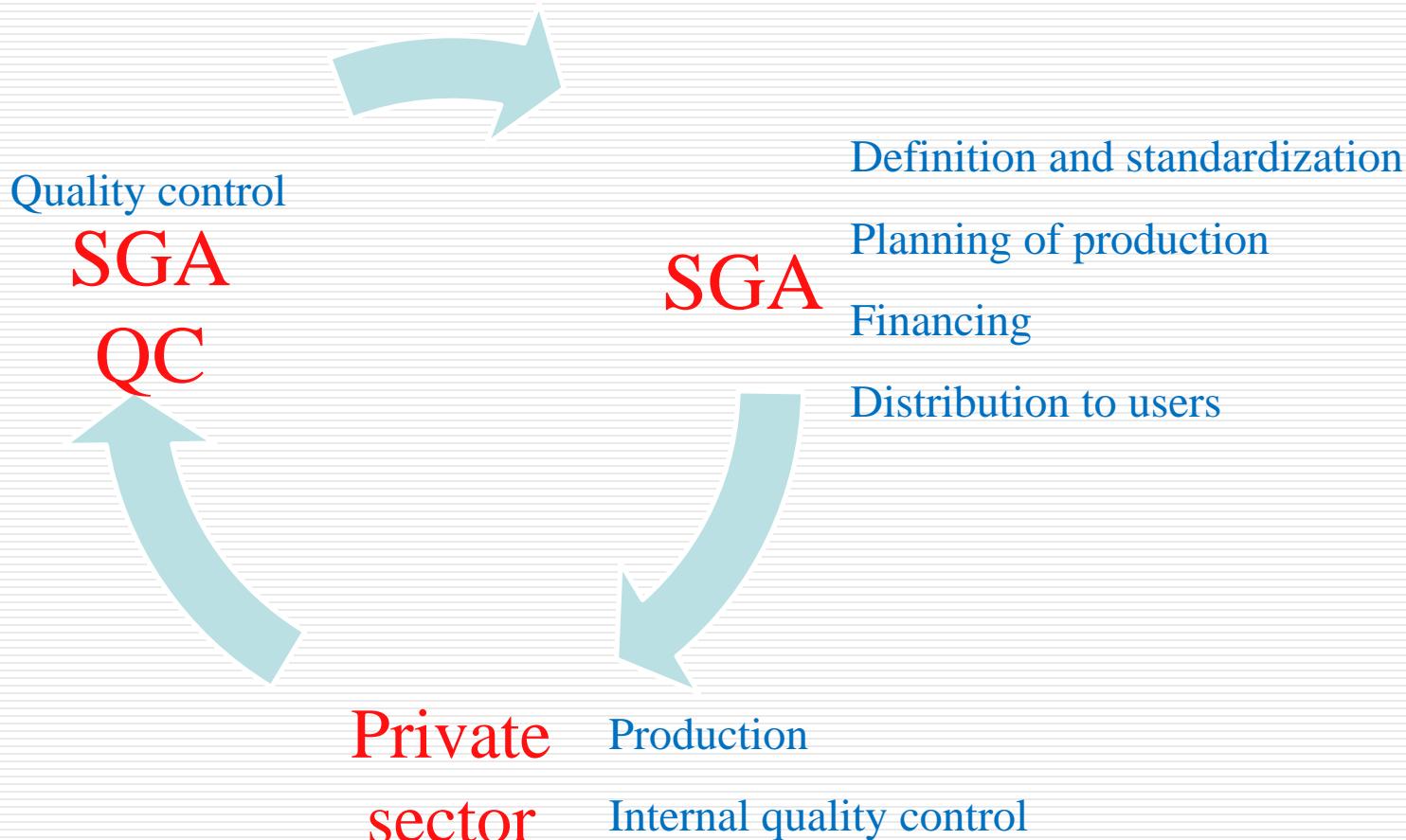


# Reference framework



- aerial photography and orientation points
- scanned images,
- aerial triangulation
- topographic survey data,
- topographic map production
- for the production of the digital orthophoto map
- production of the digital terrain model

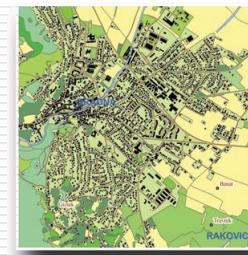
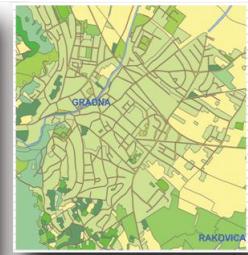
# Production framework



# Basic Vector data

## BASIC TOPOGRAPHIC DATABASE - BTD

- Large scale vector topographic data stored in spatial database
- Data divided to main topographical units  
**GEOGRAPHIC NAMES;  
BUILDINGS; UTILITIES;  
TRANSPORTATION; LAND COVER  
AND LAND USE; HIDROGRAPHY**
- Covered all territory of Republic of Croatia

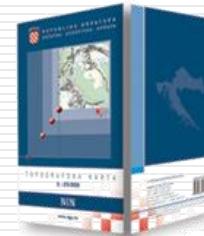


# Official mapping

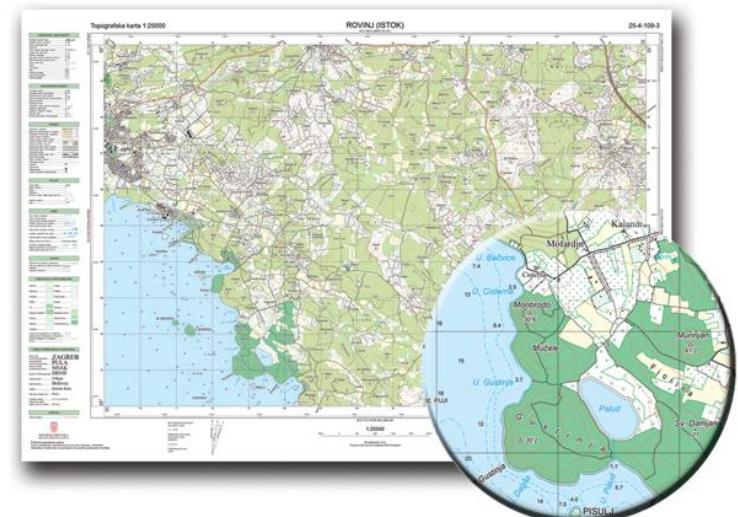
## Official state maps

### TOPOGRAPHIC MAP IN SCALE 1:25000 – TK25

- Produced digitally
- Produced: 603 / 603 Gauss-Krueger projection Bessel ellipsoid
- Sheet size 50 x 70 cm
- A sheet covers the area of 13,745 ha

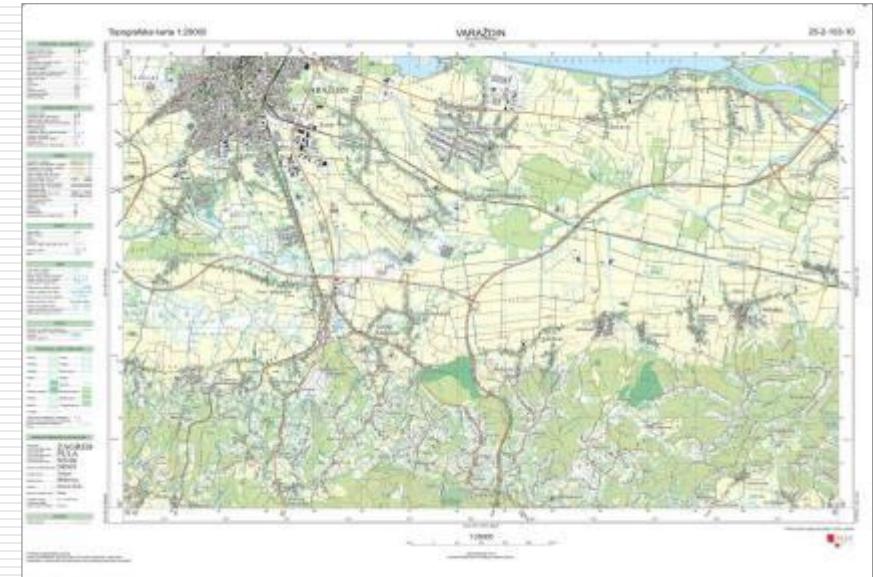


- Produced: 386 / 539 Transverse Mercator projection GRS80 ellipsoid
- Sheet size 72 x 50 cm
- A sheet covers the area of 15,000 ha
- Multicolour print (3 or 4 colours)



# Official mapping

## Official state maps – TK25



2010 – *in progress*

*(updating process ongoing)*

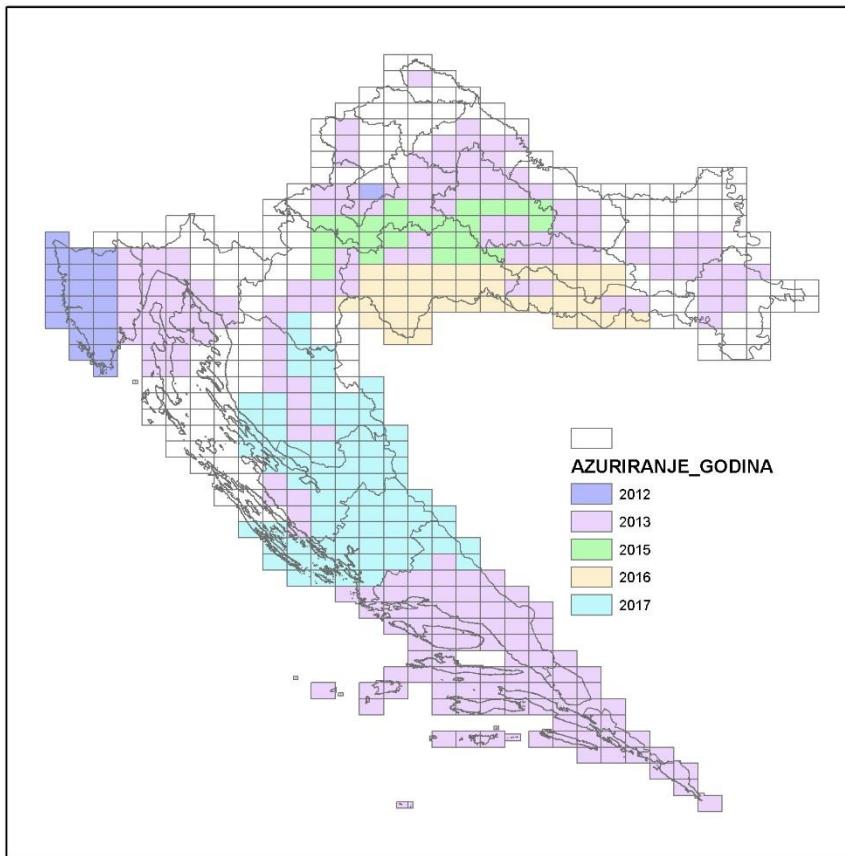
Until 2010

“New – old” TK25

New cartographic projection HTRS96/TM and  
new map format of TK25

# Official mapping

## Official state maps – TK25 (2011 – 2018)



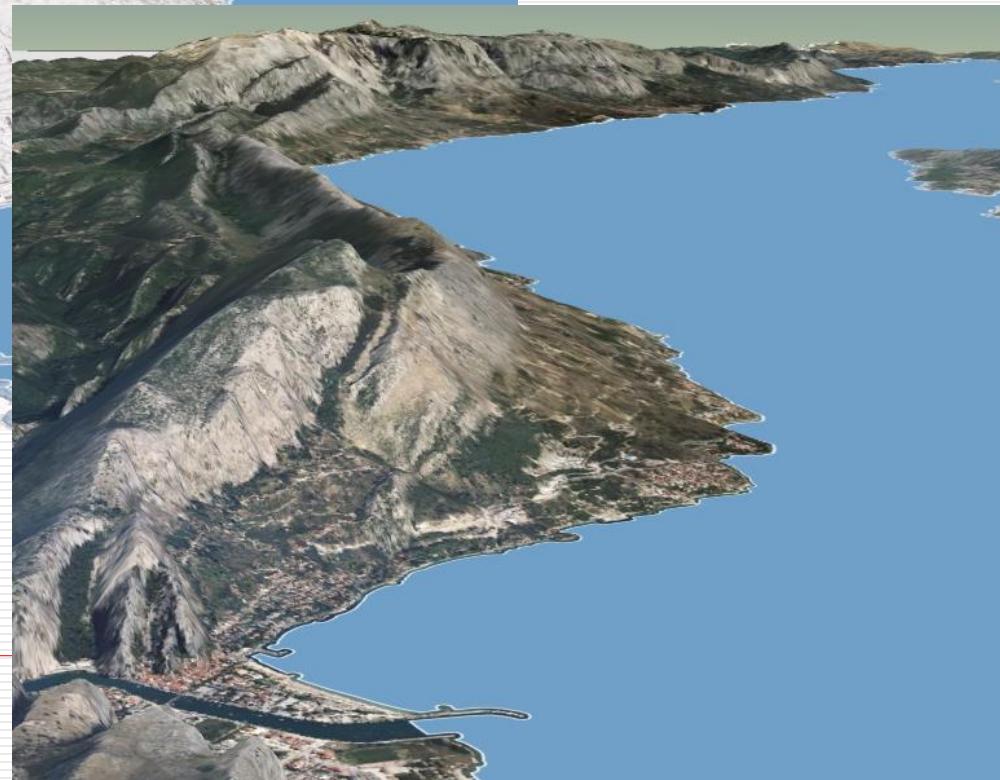
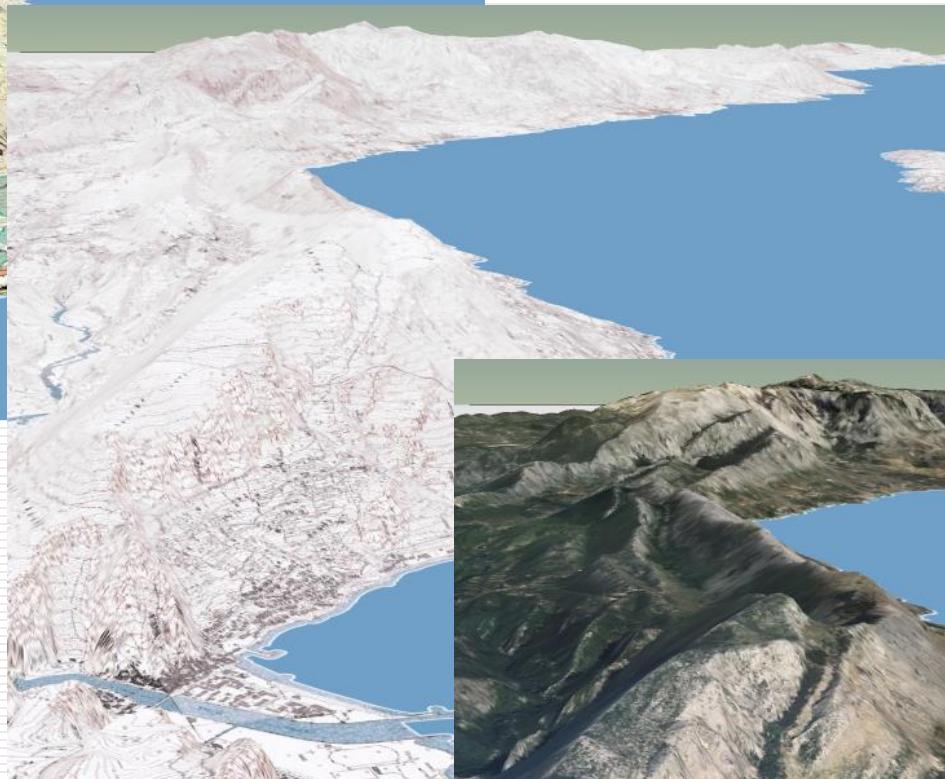
Updated 72%  
386 of 539 TK25

# *Digital ortophoto map 1:5000*

## Production cycles:

- 2011.
- 2014. – 2016.
- 2017. – 2018.
- 2019. – 2020.



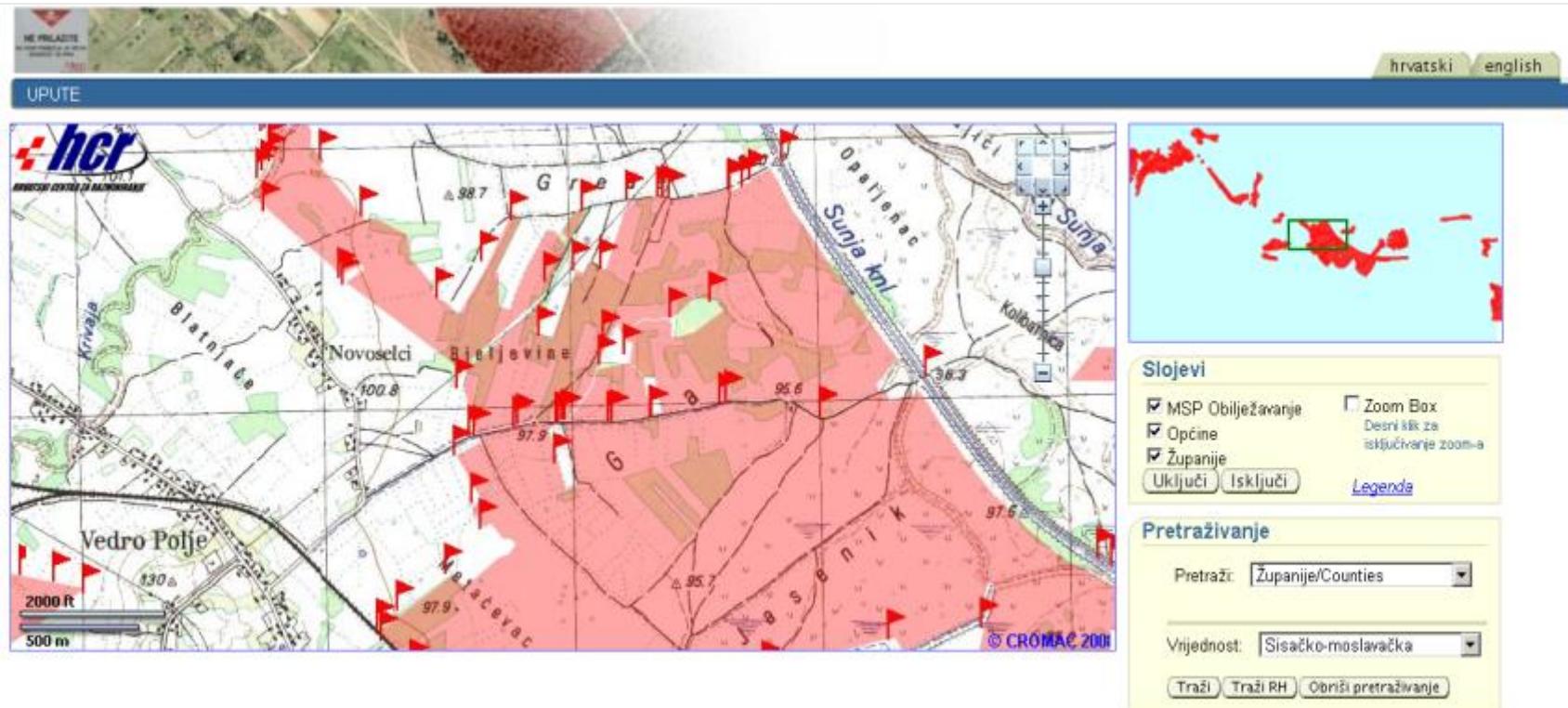


<http://geoportal.dgu.hr/>  
Free WMS services

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# Usage of official mapping

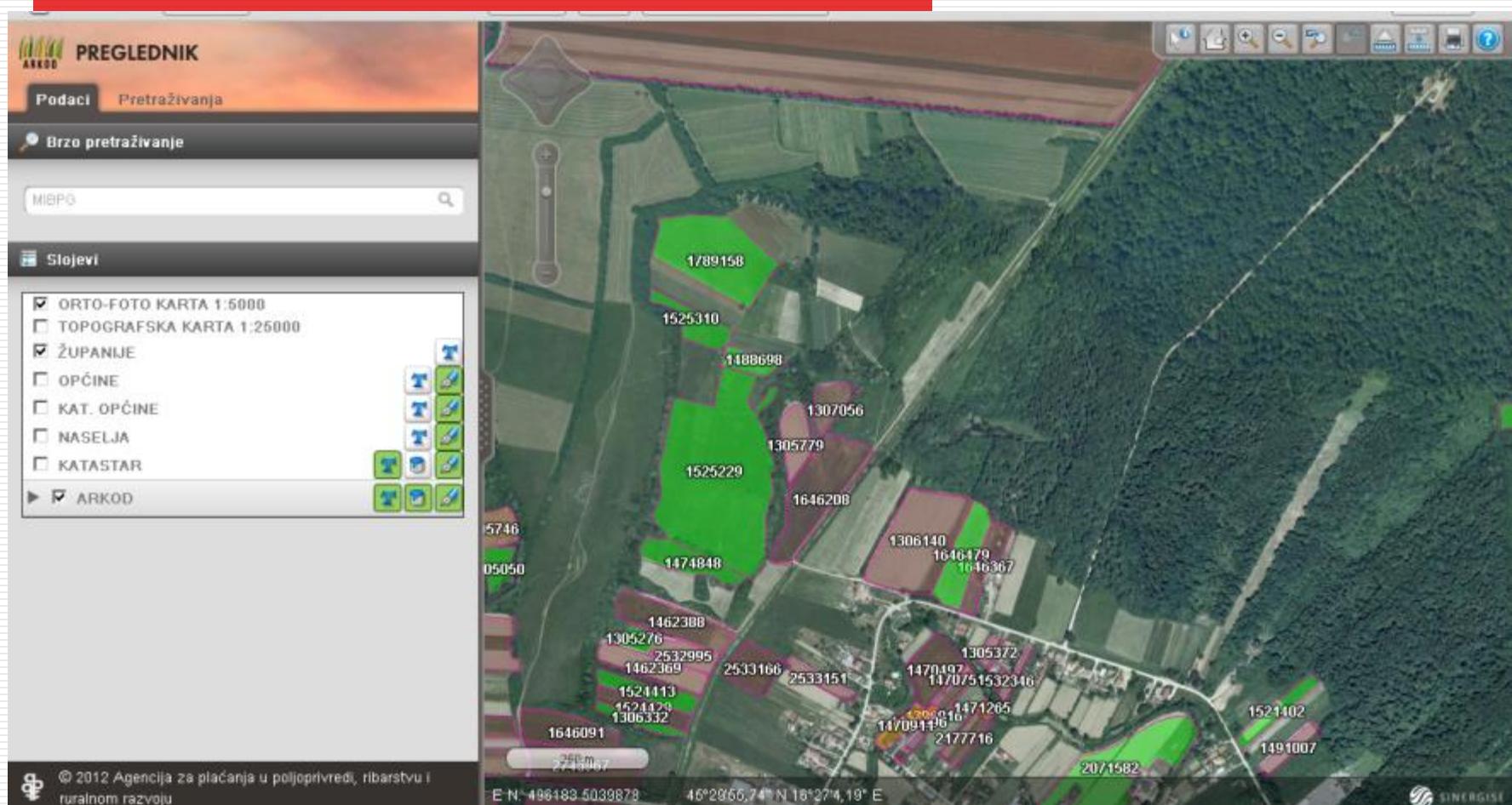
## Croatian mine action center





# Usage of official mapping

## Ministry of Agriculture



**PREGLEDNIK**

Podaci Pretraživanja

Brzo pretraživanje

MIBPG

Slojevi

- ORTO-FOTO KARTA 1:5000
- TOPOGRAFSKA KARTA 1:25000
- ŽUPANIJE
- OPĆINE
- KAT. OPĆINE
- NASELJA
- KATASTAR
- ARKOD

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E N: 496183.5039878 46°29'56.74" N 16°27'4.19" E

2071582 1491007 1521402 2177716 1471265 147091196 1470497 1470751532346 1305372 1462388 1305276 2532995 1462369 1524413 1524429 1306332 1646091 2533166 2533151 1474848 1525229 1305779 1646208 1307056 1488698 1525310 1789158 1305050 5746

250m 2749907





# Usage of official mapping

## Ministry of culture

## GIS portal zaštite prirode Ministarstva kulture

## Sadržaj karte

- Podaci u nacionalnim parkovima i parkovima prirode
  - Gradovi i naselja
  - Informacije
  - Smještaj
  - Mjesta za odmor
  - Orientacijski objekti
  - Rekreacija
  - Kulturne i prirodne zanimljivosti
  - Promet - staze i putevi s pripadajućim objektima
  - Zaštićena područja
  - Podaci crvene knjige
  - Ekološka mreža
  - Stanjska mjerila 1:100000
- Granice NP i PP
  - Granice NP i PP
    - Granica Nacionalnog parka
    - Granica Parka prirode
- Administrativna podjela
- Topografske karte
  - Topografske karte 25000
  - Topografske karte 100000
- DOF
- HOK
- Model terena

## Rezultati upita

Uvjeti koristenja

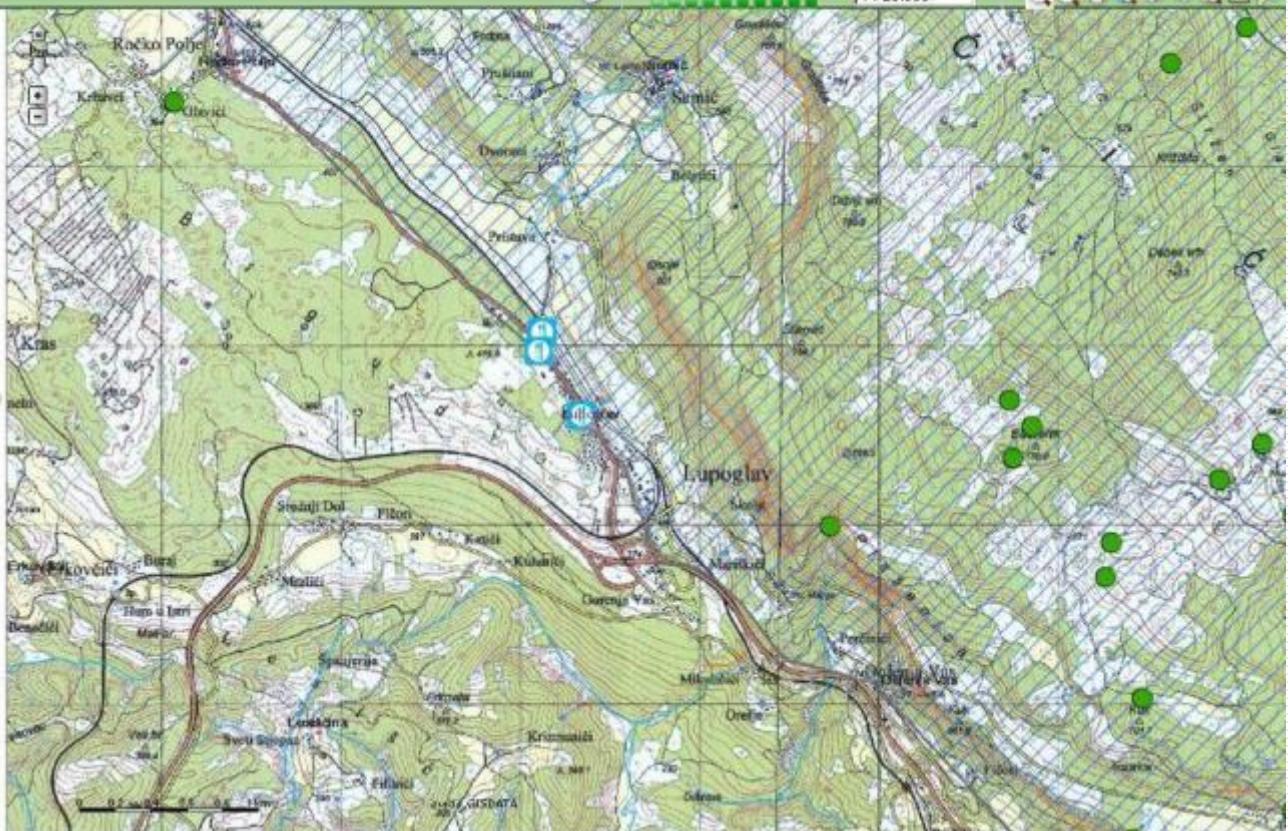
Napomena korištenici

Ministarstvo kulture

Kontakt

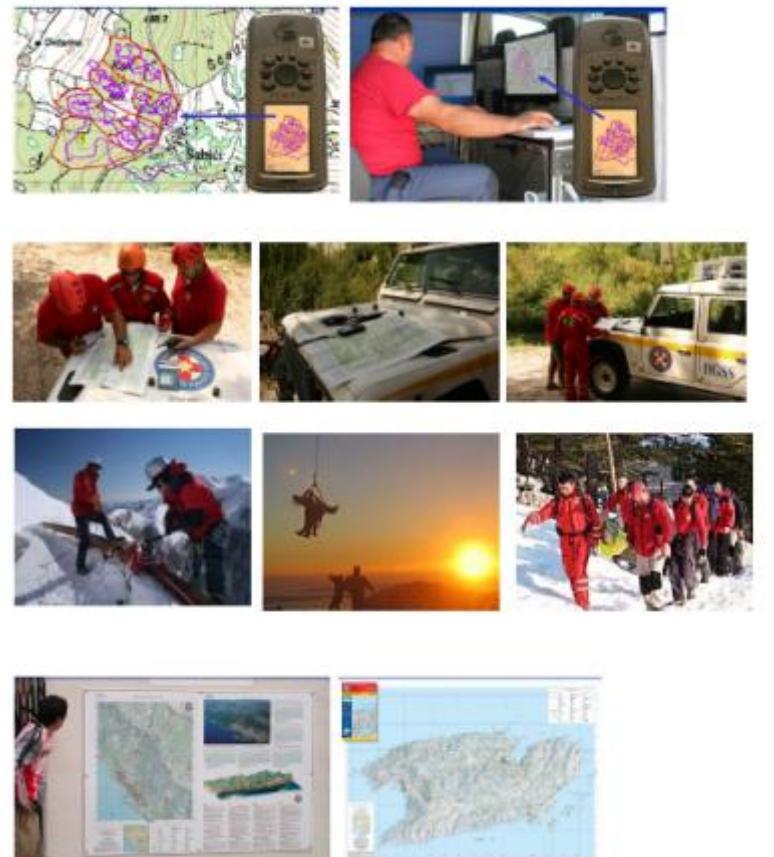
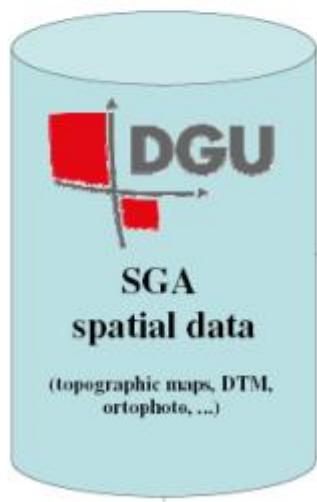
Pomoć

1 : 25.003



# Usage of official mapping

## Croatian Mountain Rescue Service



**Prevention – HGSS**  
thematic maps which are  
available in tourist offices, hotels ...

***Thank you for your attention***

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