

THE USE OF NEW TEHNOLOGIES FOR MAPPING THE FUTURE

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I HAVE 3 QUESTIONS

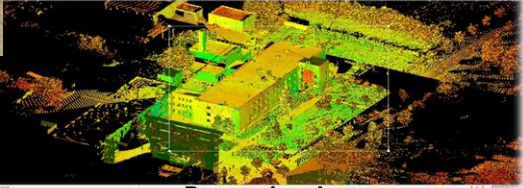
- ▶ WHERE WE WERE
- ▶ WHERE WE ARE
- ▶ WHERE WE'LL BE

Who is the surveyor

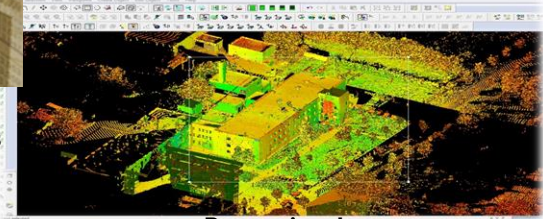


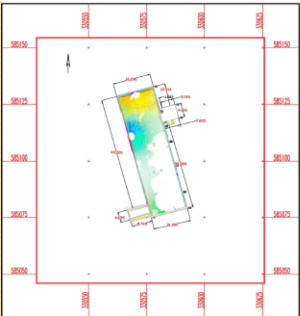
Measure the points






Processing data






Drawing the map




Combine results with existing Measurements cycles


Technology evolution




1920




1950




1980





2000





20....






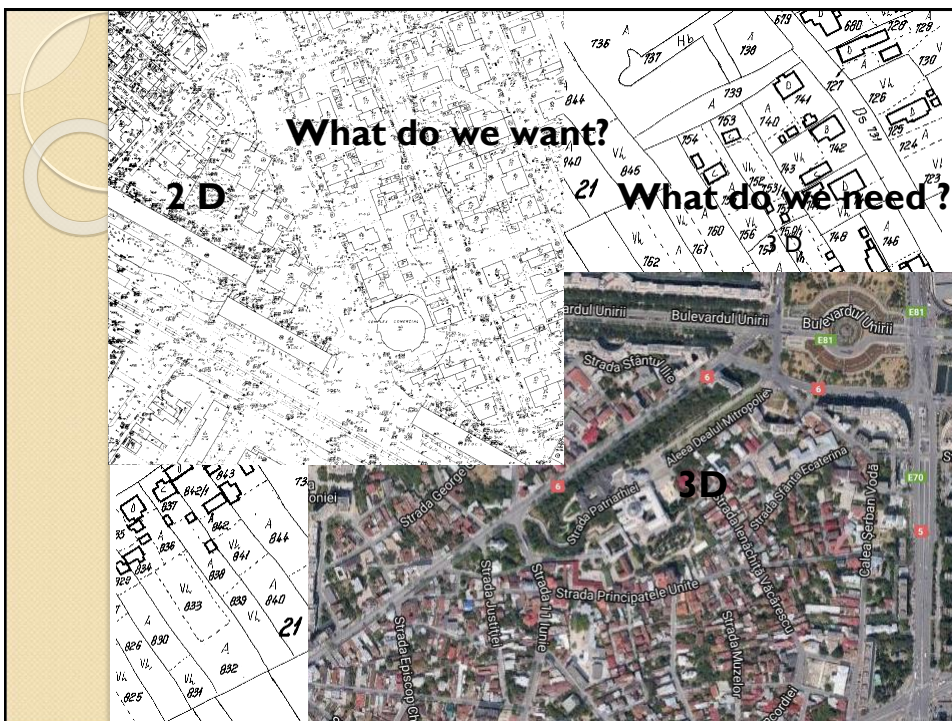


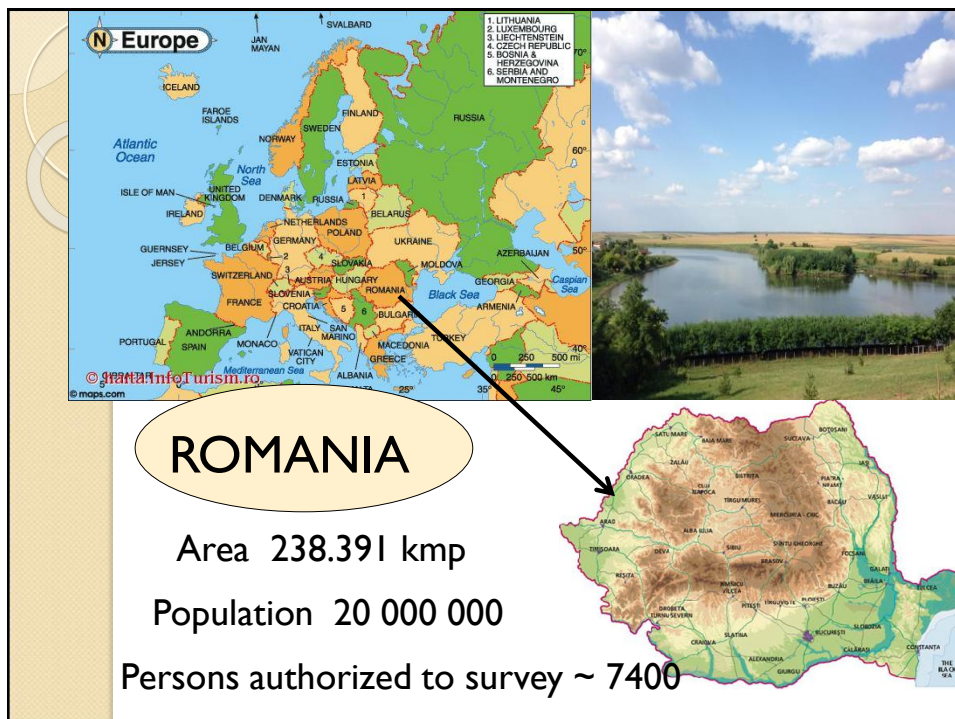
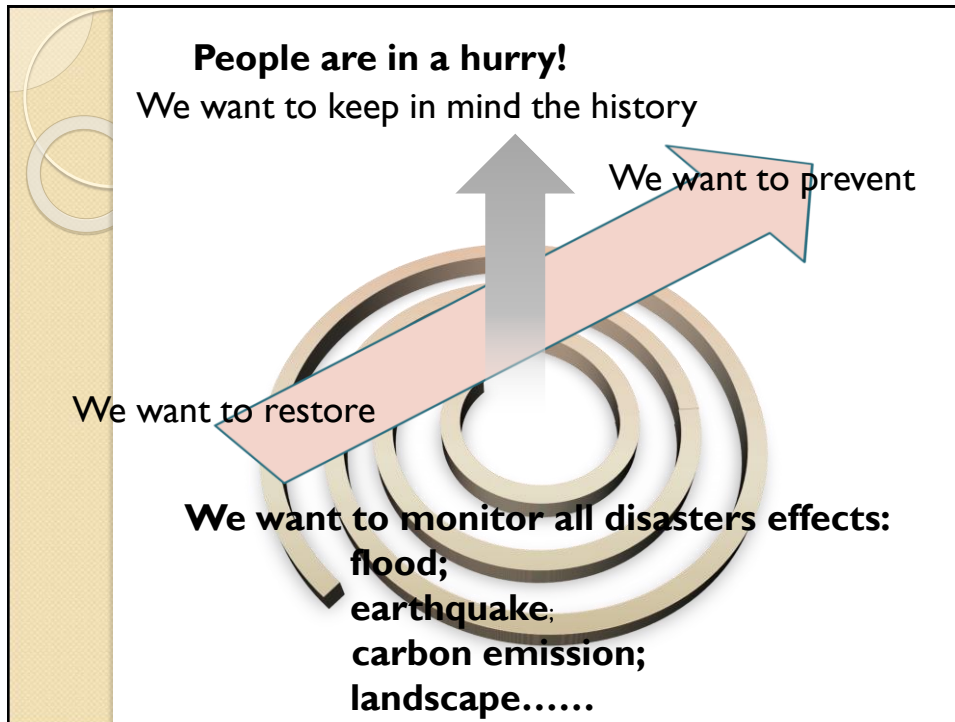




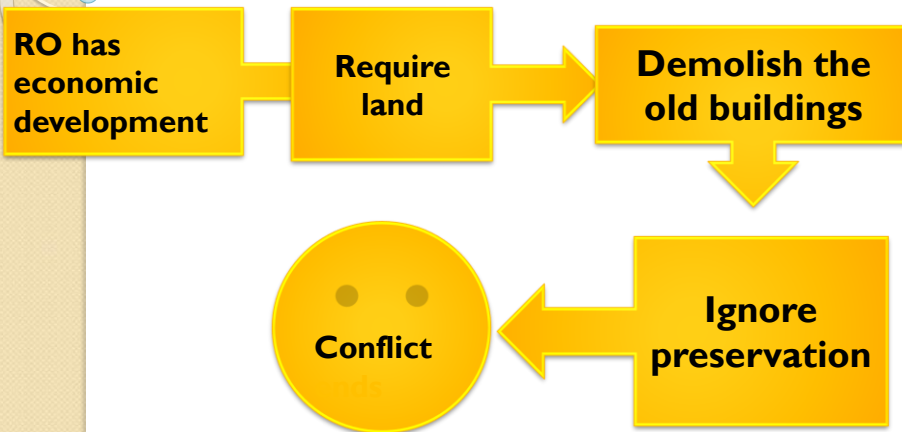


HIGH TECHNOLOGIES

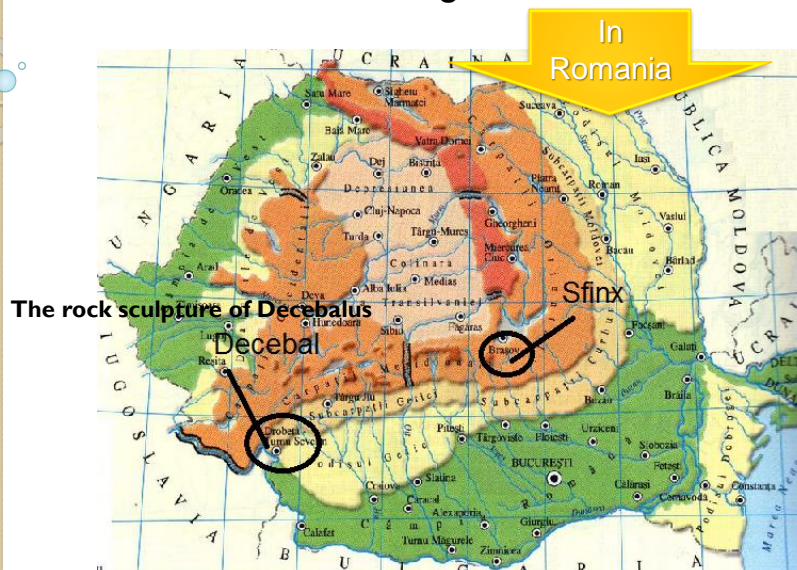




What we try to do ???



Preserve the cultural heritage



The rock sculpture of Decebalus

- Located in Mehedinti county, on the rocky shore of the Danube
- The largest sculpture made of stone across Europe

➤ On the initiative of the historian Iosif Constantin Dragan

- It has a height of 55 m and a width of 25 m
- Made between 1994 - 2004



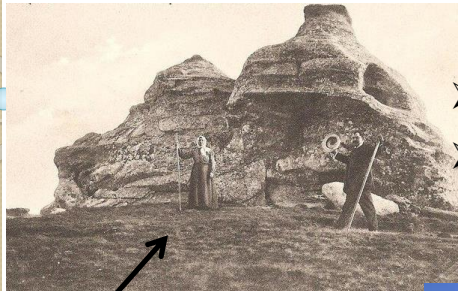
The Sphinx

➤ Located in Bucegi Mountains

➤ 2.216 m altitude

➤ Anthropomorphic megalith

➤ 8 m height and 12 m width

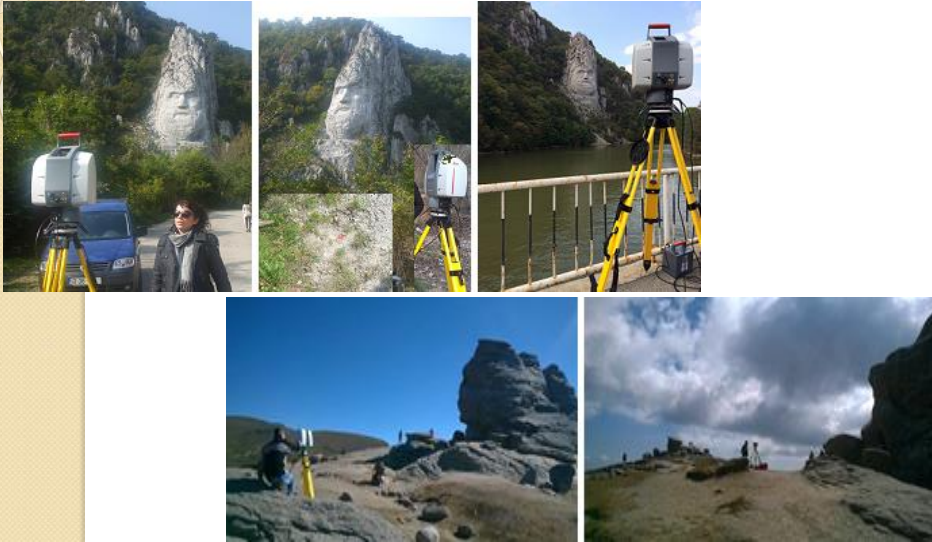


Picture made in 1940??

Picture made in 2014



Measurements



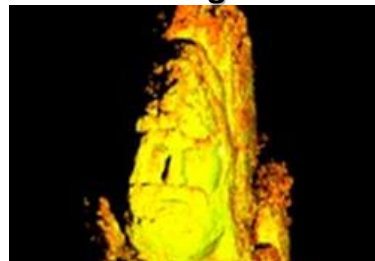
Results - 3D modelling



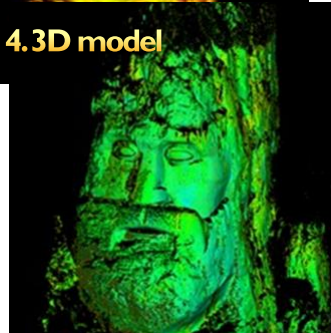
1. Data acquisition



2. Registration



4. 3D model

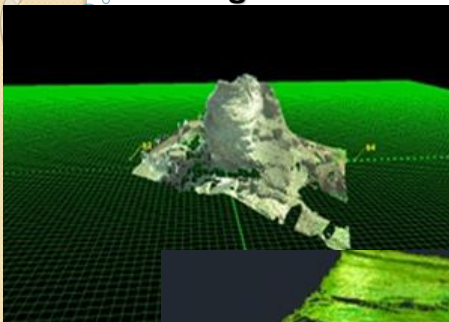


3. Mesh integration

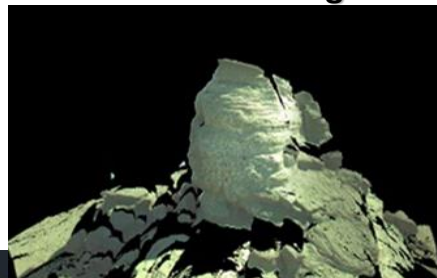


Results - 3D modelling

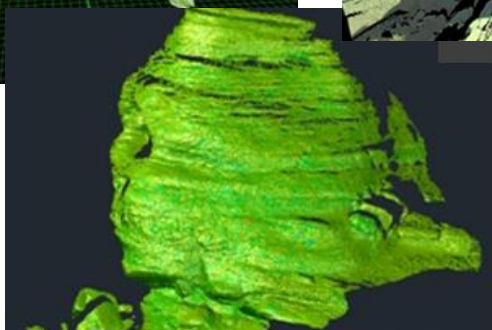
1.Registration



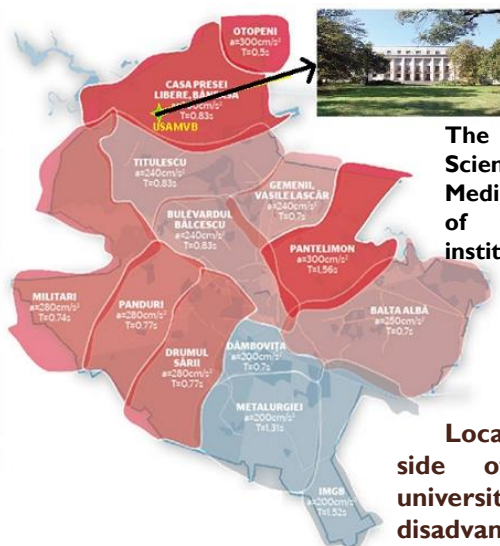
2.Mesh integration



3.3D model

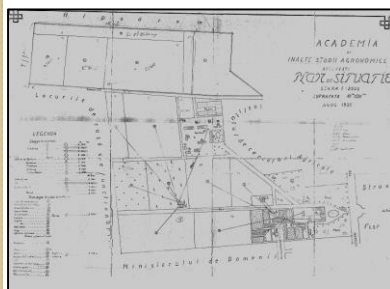


USE IN SEISMIC RISK MONITORING



The University of Agronomic Sciences and Veterinary Medicine from Bucharest is one of the oldest educational institution in Romania

Located in the north side of Bucharest our university has a major disadvantage, it is located in a high seismic risk area



Cadastral plan since 1935 – scale 1:2000



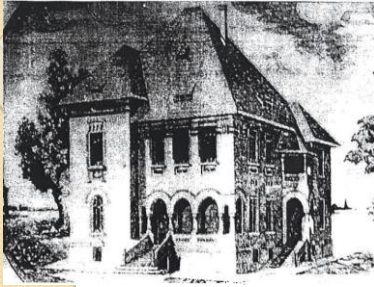
Cadastral plan since 1955 – scale 1:500



Cadastral plan since 1978 – scale 1:500

Due to the increasing of student population and high demand on academic facilities, the university is undergoing a structural change

The university wants to preserve its structural history in digital form, which can be retrieved at any desired time and form

Past**"Chemistry laboratory" building - history**

- Built between 1925-1927
- Height regime S+P+1E+attic

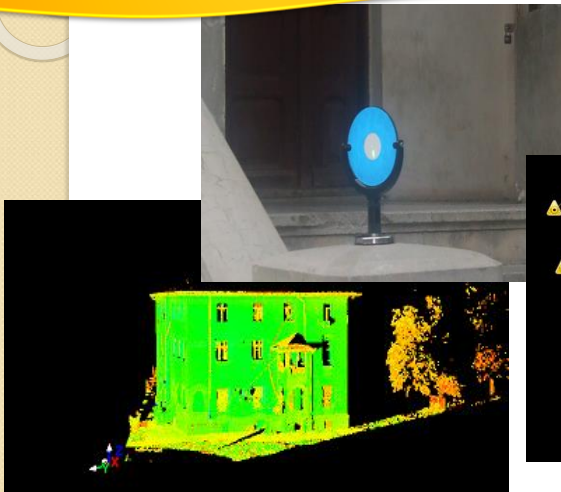


- Height regime S+P+2E (2nd floor built between 1964-1966)
- Still retains the laboratory use

Present

Main entrance of the building - damages

Use terrestrial laser scanning technique, to provides a fast solution for a complete data set



NATIONAL PROGRAMME FOR CADASTRE AND LAND BOOK IN ROMANIA



Program objectives 2015 - 2023



**FREE registration for ALL
administrative territorial units**



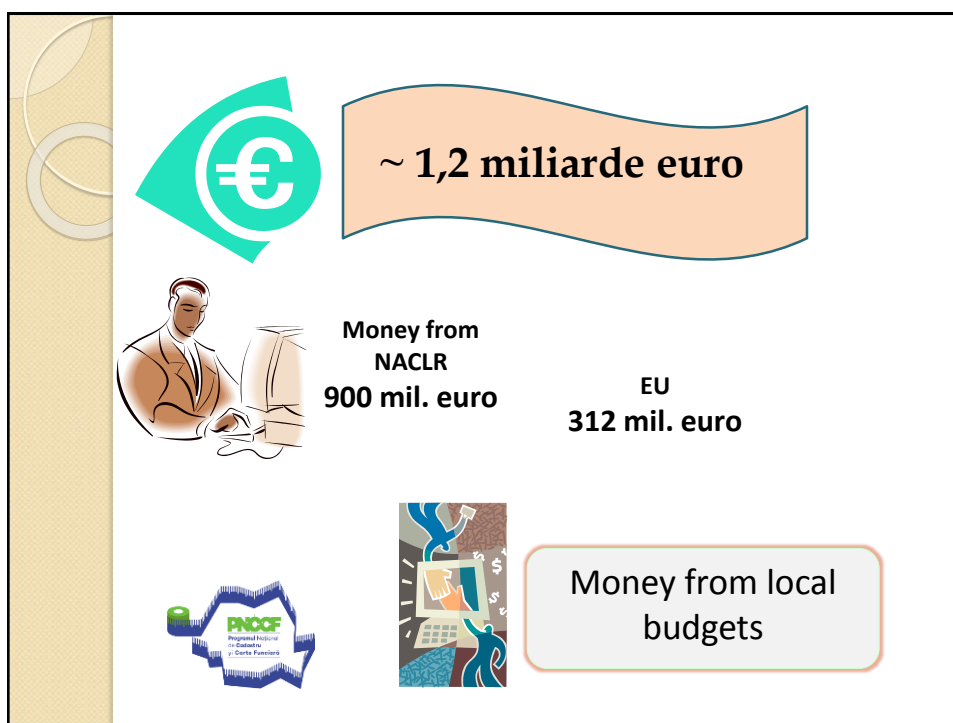
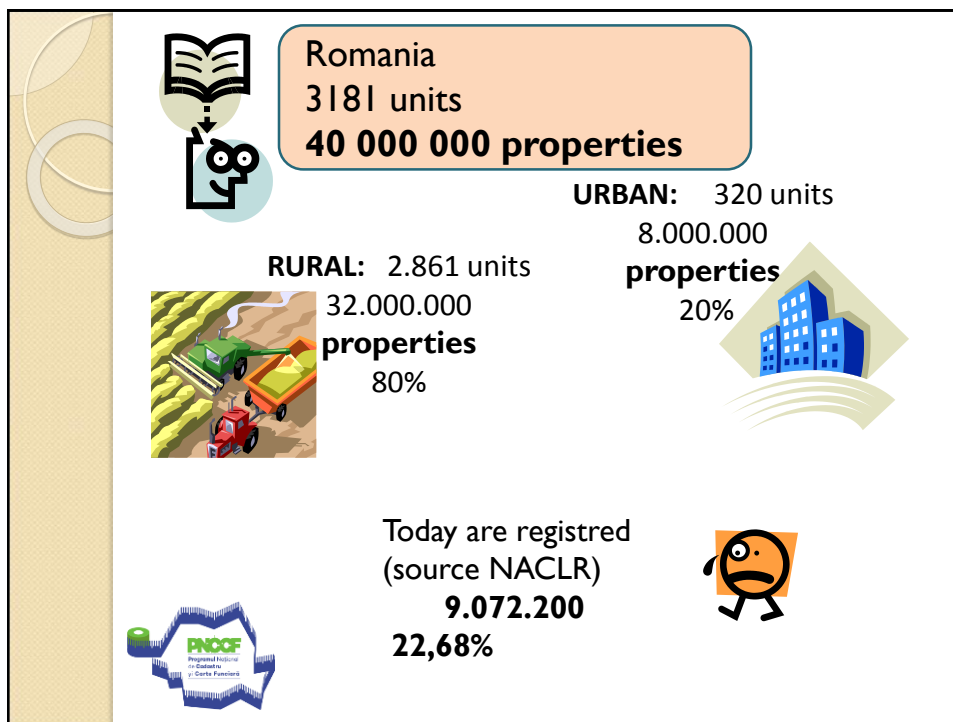
Cadastral map for all our country



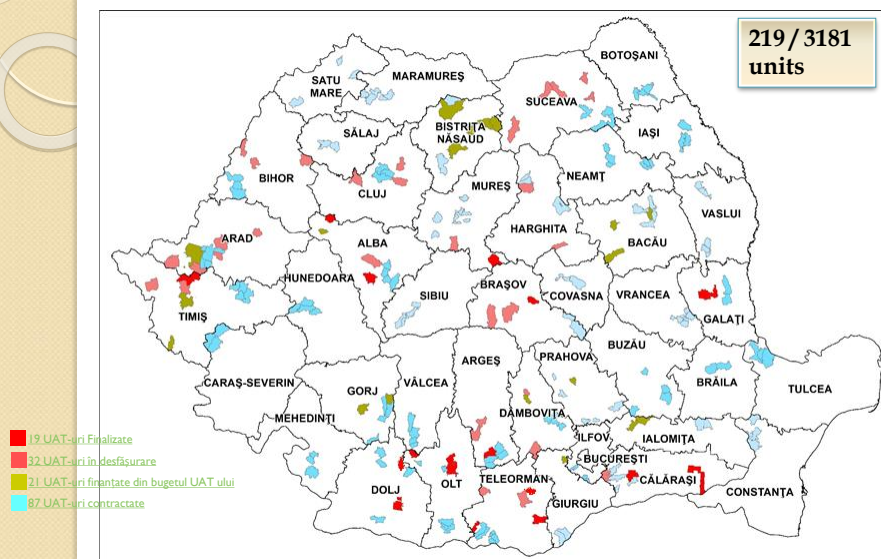
Register the possession instead of property
Open the land book for all proprietries



Solving inheritance



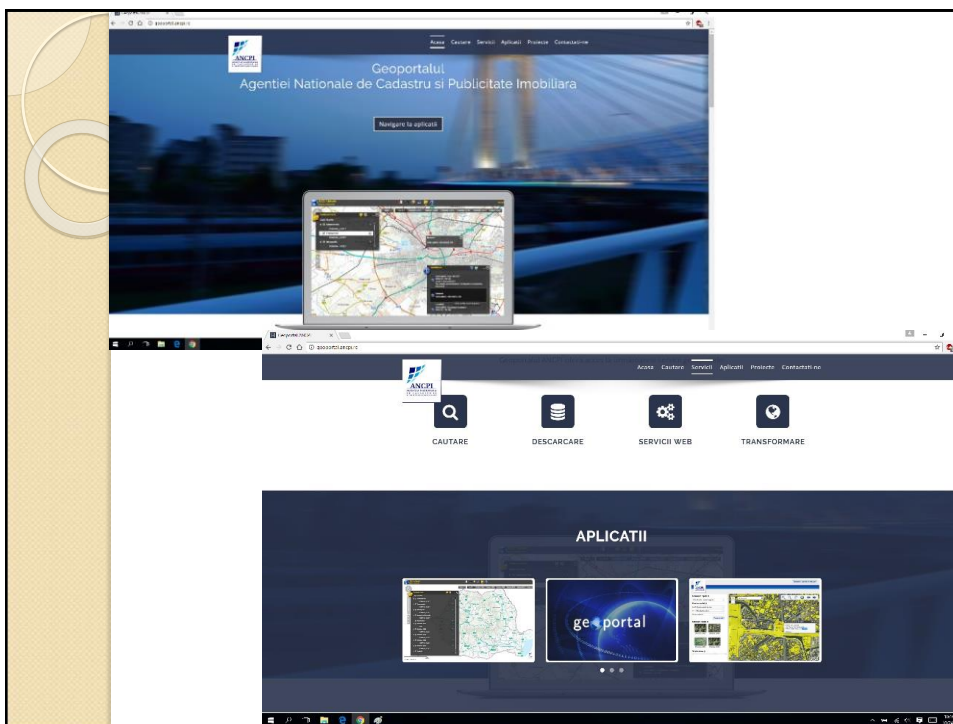
What we did... CESAR project when we registered 51 units



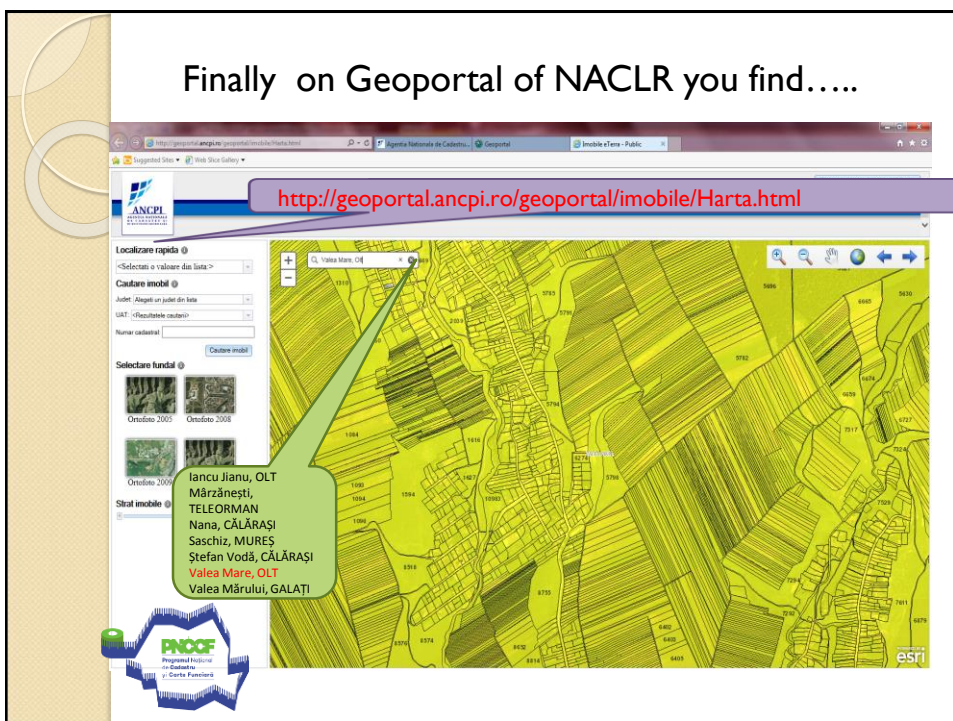
Citizens know ???

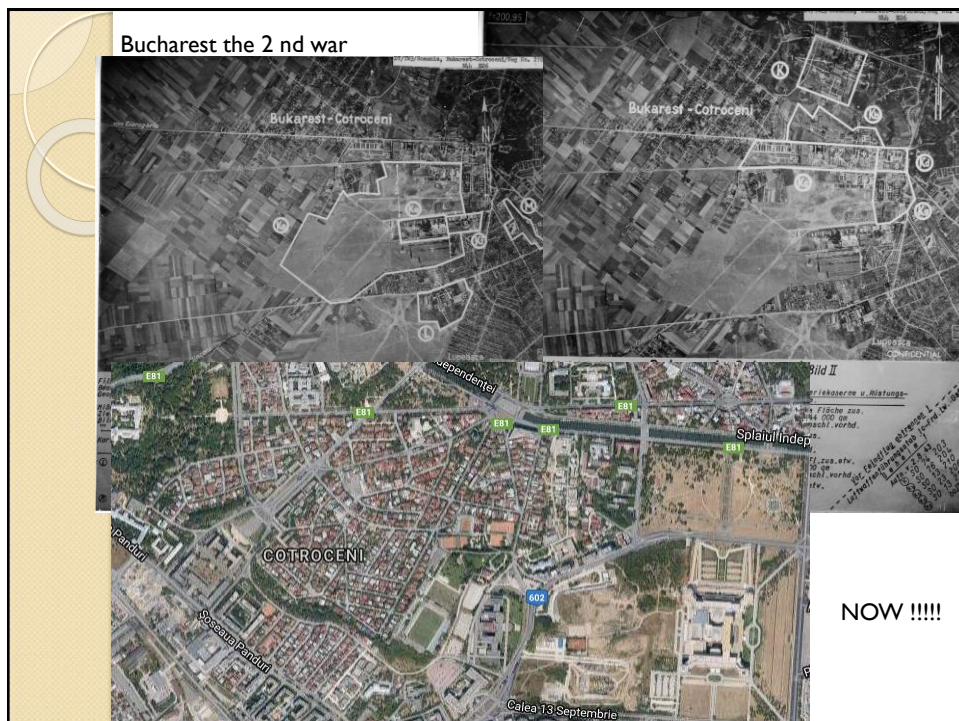
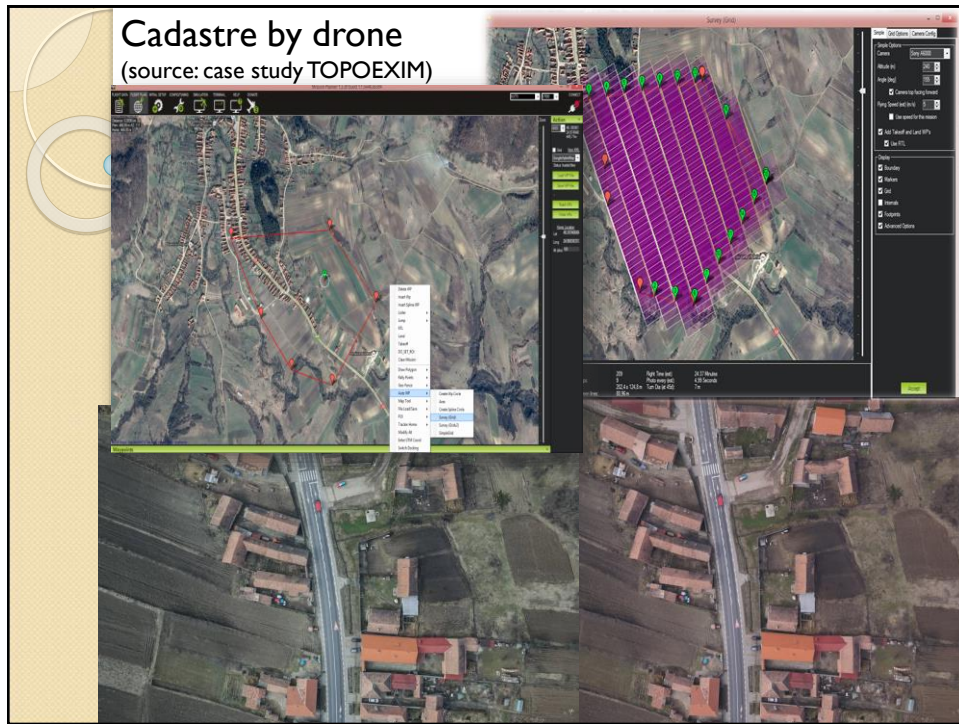
Did we made it ... ?





Finally on Geoportal of NACLRL you find.....





Back where we started

Now few answers !

Technology helps but do not replace us!

Climate changes happen because we challenge !

Changes can be monitored but can not be removed !

What do you think???

Can we Map the Future?

It is impossible to preserve **all**
and not having any developments!

Use the technology with intelligence end never
forget that we are the users !

