



Coordinating and integrating state-of-the-art
Earth Observation Activities in the regions of
North Africa, Middle East and Balkans
and Developing Links with GEO related initiatives
toward GEOSS

GEO-CRADLE Pre Kick-Off Meeting
Friday, 18th of February, 2016
EGS networking event

EuroGeoSurveys
Geological Survey of the Republic of Macedonia

Republic of Macedonia



National strategic approach

Experience, constellation and envisioned goals brought the need and better awareness for:

- Systematic data and mineral resources managing in the domain of geology;
- Detailed researches with the state-of-art technologies available today.

Therefore, at the end of 2012 the Government ***established the Geological Survey of the Republic of Macedonia*** in order to carry out in first place:

✓ ***basic geological explorations***

✓ ***geology data management***

The Geological Survey of the Republic of Macedonia is an ***expert, independent, administrative organization***, which has started with active work in ***October 2013*** and is financed ***100% from the State Budget***.



Competences

- ✓ Researches, analysis, data formatting, managing in the field of **basic geological researches**;
- ✓ creation of **basic geological maps**, their publishing;
- ✓ Mineral resources **data surveying and structuring**;
- ✓ Preparing **geological base data layers** in the fields of spatial planning, civil engineering, water supply, agriculture, forestry, urbanization, etc.;
- ✓ **archive, manage and provide data** from the basic and detailed geological explorations;
- ✓ create and develop the **single geological information system** and provide information and data to the users;
- ✓ establish **contacts with international geological surveys** through exchange of geological information.



Relevant legislations and authorities

Relevant laws in the field of geological research and mineral resources:

- ✓ ***Law on the Geological Survey of the Republic of Macedonia***
- ✓ ***Law on Mineral Resources***

Competent authorities in the field of geological research and mineral resources:

- ✓ ***Geological Survey of the Republic of Macedonia*** (www.geol.gov.mk)
 - basic geological researches, scientific and prospectus (surveying)
 - geological researches, expert assessment (audit) of geological documentation, formation of geological data base
- ✓ ***Ministry of Economy*** (www.economy.gov.mk)
 - procedures for granting concessions, procedures for approval for exploitation of mineral resources, procedures for licenses and authorizations for preparation of geological documentation, technical management and inspection of granted concessions



Existing data

- ✓ **large base of geological data** and information on the territory of our country, **situated at different locations:**
 - in the fund of the former Council for research activities in mining, part of former Geological survey – Skopje,
 - in the former Federal Geological Survey of Yugoslavia,
 - in the State Archive of the Republic of Macedonia
 - in the Ministry of Economy of the Republic of Macedonia, and
 - small part in private companies
- ✓ **archiving documentation and establishing geological database**
 - registering and takeover of the overall geological documentation;
 - scanning the geological documentation located in the Archives of Yugoslavia in Belgrade;
 - forming a **single geological information system.**



Existing data

- ✓ ***Basic geological maps at a scale 1: 500 000*** with interpreters, as part of preparation of regional geological maps of former Yugoslavia:
 - all these maps are very old, made only in analogue (paper) form, so there is a need for their digital processing;

- ✓ ***Basic geological maps of the Republic of Macedonia in a scale 1: 200 000***
 - made in analogue (paper) form, and almost all maps, our survey process them in electronic form (scanning and geo-referencing) and are available for public use;

- ✓ ***Basic geological map of the Republic of Macedonia in the scale of 1: 100 000*** made in sheets, total 25 sheets with interpreters
 - processed by Geology Institute of RM rewrite them in electronic form (scanned, geo-referenced and digitized in ArcGIS software platform) and put them available for public use;

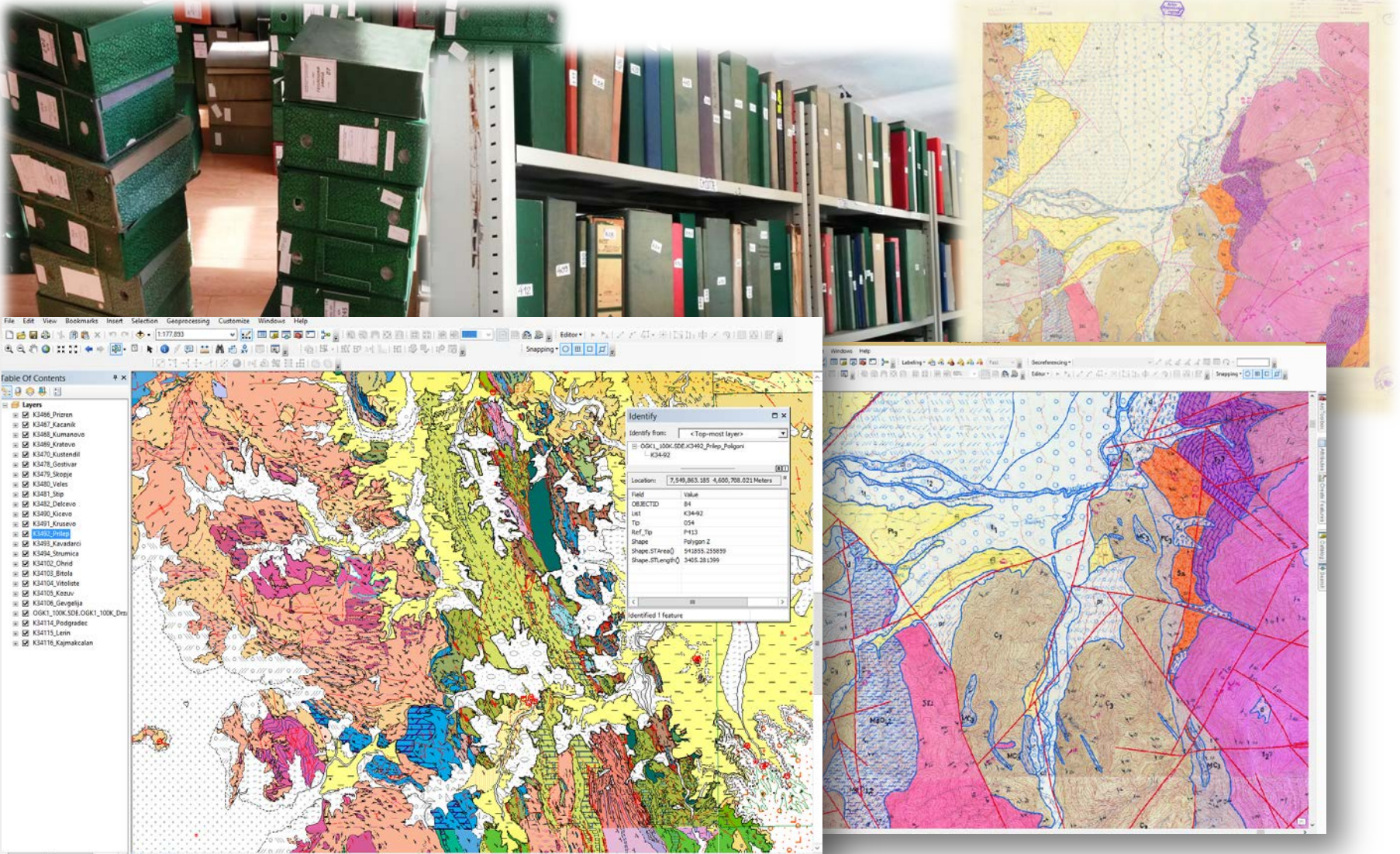


Existing data

- ✓ ***Basic hydrogeological map and engineering-geological map of the Republic of Macedonia in the scale of 1: 100 000***, fully prepared, revised and printed 7 sheets;
- ✓ ***Geophysical maps of the Republic of Macedonia with interpreters in scale 1: 500 000 and 1: 200 000***, in printed paper form.
- ✓ ***Geological maps in scale 1:25 000 for the territory of the Republic of Macedonia***, which include 298 sheets (sections).
 - ***they represent the basic map of the geological database model of Macedonia***
 - Geological survey started with ***their processing in electronic format*** (digitization and geo-referencing ***in ArcGIS software platform***)
- ✓ Large fund of expert reports, projects, elaborates, studies for carried out researches on different types of mineral resources on the territory of the Republic of Macedonia and other thematic maps, in paper form.;



Existing data



GEO-CRADLE Pre Kick-Off Meeting, 18 February 2016, IONIC Centre, Athens – Greece



Users

- ✓ The geological information system will be a central place for using geological data and information by:
 - ***state institutions***, for control, planning and management of geological resources;
 - ***entire public sector***,
 - ***scientific research institutions***, for developing further investigations and researches;
 - ***private legal entities and individuals***, for further investments and exploitation.

- ✓ providing information and data to the users from the geological database ***is regulated by Tariffs amount of compensation*** for use and access to the data of the geological information system, as well as using results of geological investigations;



Future plans and needs

- ✓ creating and developing a modern and high quality **geological information system** of the Republic of Macedonia with the inclusion of **data sets**;
- ✓ **web service and GIS portal** for the Geological survey;
- ✓ intensifying and involving of the Geological survey in the **basic geological research**, which are public interest of the state;
- ✓ establishing an **e-cadaastre** for deposits of mineral resources and **e-balance** of geological and mineral reserves of mineral resources in the country;
- ✓ involvement of the Geological survey in **regional and international projects** of interest for the Republic of Macedonia;
- ✓ further **personnel and technical formation** of the Geological Survey.