



GSEU

GEOLOGICAL SERVICE | FOR EUROPE

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GSEU WP2 TRAIN-THE-TRAINER COURSE

Module: Other national reporting systems to

UNFC

Level 1

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SARA Supervisory Authority
for Regulatory Affairs



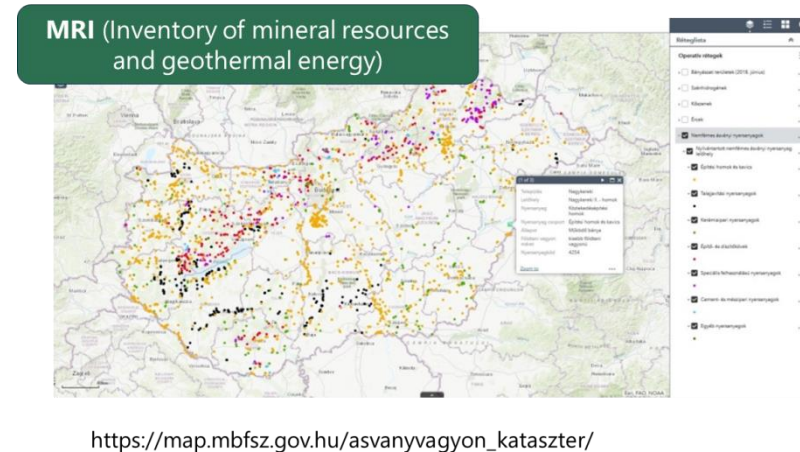
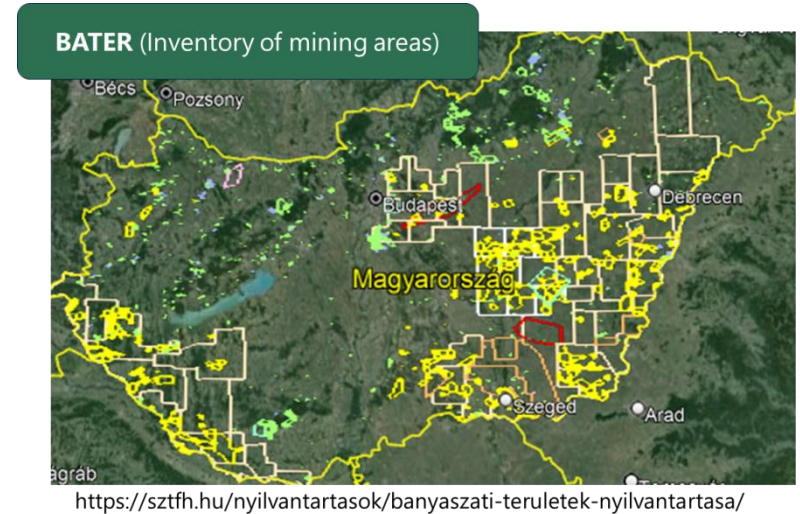
Content

- Resource management in Hungary
- Reporting and resource classification in the legislation
- National resource classification and reporting
- Data source for UNFC „E” category
- Data source for UNFC „F” category
- Data source for UNFC „G” category
- Methodology for UNFC classification
- Lessons to learn



Resource management in Hungary

- The Directorate of the Mining Supervision in the SARA with its regional Mining Supervision Departments performs the procedures of mining activity.
- Act XLVIII of 1993 on Mining, the management of mineral resources is a set of decisions and measures of the mining inspectorate.
- 20/2022 (I.31.) SARA Decree on certain rules for the implementation of the Mining Act.
- In Hungary, mineral resources and geothermal energy are state-owned at their natural location.
- SARA maintains the State Register of Mineral Resources and Geothermal Energy (MRI, since 1953) and the inventory of mining areas (BATER) and inventories for closed and open mining waste facilities.
- Act CL (2016) on general administrative regulations.





UNFC in the legislation

- 20/2022. (I. 31.) SARA Decree on certain rules of law enforcement XLVIII of 1993 on mining



Experts

Legally binding involvement of national qualified experts in reporting of changes of resource volume

Reporting form and frequency

Annual, legally binding for companies, „G” category in the form, Mineral resource inventory is being developed with UNFC

Solid and fluid type

+ mining wastes

Viable and Potential-viable projects

UNFC 111, 112, 221 and 222 classes are defined

CRIRSCO-type reporting (PERC, JORC)

Defined in the context of the traditional reporting

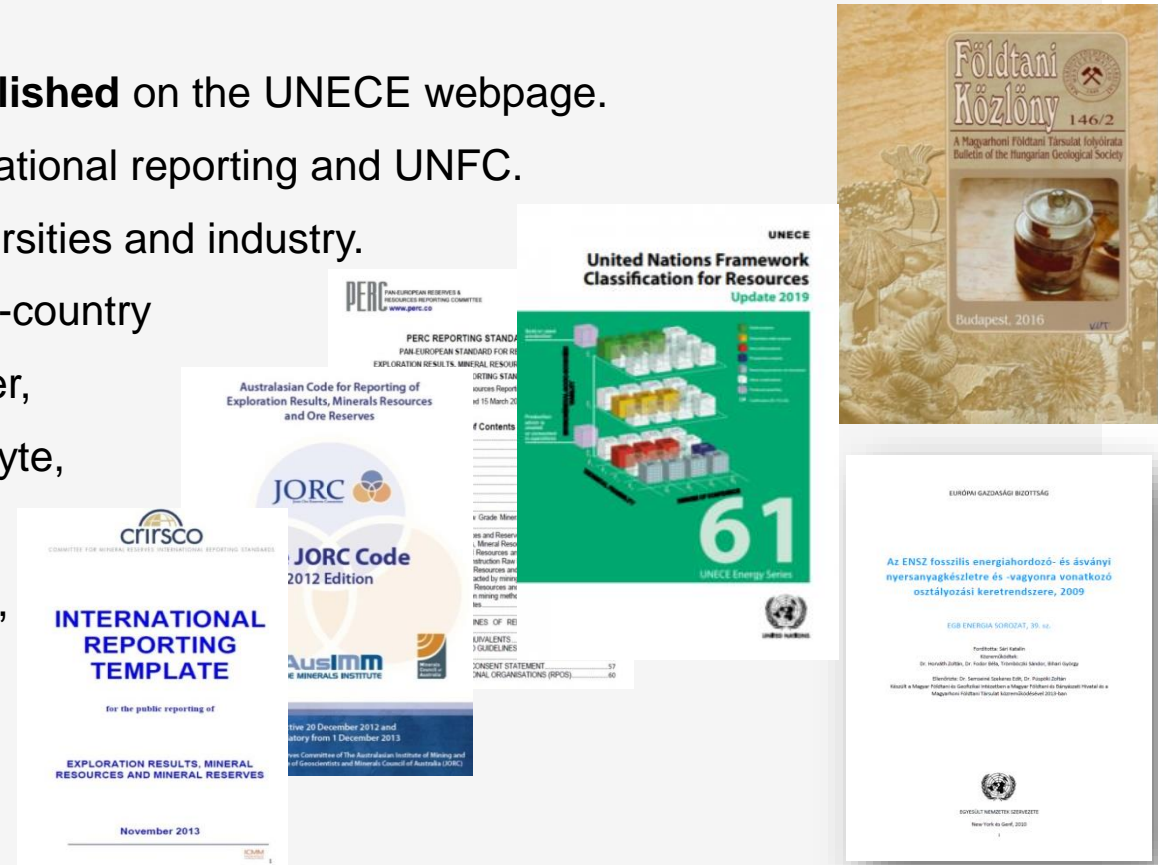
A,B,C1 and C2 categories

Probability based, traditional, all MRI data in traditional classification



History of the UNFC activity in Hungary in the last 10 years

- **Translation** of international reporting codes (CRIRSCO: JORC, PERC, SPE-PRMS, Australasian Geothermal Code) and UNFC
- UNFC (2009) and UNFC (2019) **in Hungarian are published** on the UNECE webpage.
- **Mapping** between the national classification and international reporting and UNFC.
- **Stakeholder consultations:** experts, authorities, universities and industry.
- **Case studies:** non-metallic solid raw materials on local-country levels (~ 3000 sites), ores on local level (porphyric copper, manganese oxid ore and manganese carbonate ore, baryte, apatite, Pb-Zn; on 5 mining or exploration areas), hydrocarbons (local-country level; 360 gas and oil fields), geothermal energy (at least 10 sites)
- **Bridging Document** was prepared and is being developed in the frame of GSEU project.





Methodology of national resource classification

Mineral Resource Inventory (MRI)

- **Coal and ores (bauxite, U), non-metallic solid, hydrocarbones, geothermal energy, mining waste**
- **Basic** individual number, date, name of the mineral deposit, locality (xyz), code of change, block **Resource Type**: inhomogeneity, knowledge (A-C2), geological resource in place, pillar, dilution, loss, production, exploitable resource, bottom, cover, quality depending on resources (gechemical, geotechnical)
- **Technical**: mining method, stability, fire and water hazards, temperature, drilling data
- **Admin.:** decisions, relation to mine plot

Inventory of Mining Areas / BATER

- **ID**: type of area management (mine plot, exploration, concession, initiations)
- **Type of decisions**: on exploration, establishment of mine plot, suspension, closure, merger, succesion,
- **Admin.:** name of licensee, date and number of decision and recording, registration
- **Other**: map viewer, resource data, all coordinates for a mine plot

Other permissions: Indirect, other authority, web



Data source for UNFC „E” category

Mineral Resource Inventory (MRI)

Mineral occurrences and mine plots

- Mine status: operating, suspended, closed, free (for further exploration and mining), under construction.
- Exploration activity: mine plot-exploitation, presence of exploration



- Other :**
- Environmental and social licenses are integrated into TOPs,
 - Data Repository of SARA (Mining and Geoscientific)
 - Co-authorities and municipalities: decisions and internet (e.g. public hearing)

Inventory of Mining Areas / BATER

Only mine plots and exploration areas

- Mine status: according to decisions (Technical Operation Plan; TOP for exploration via suspension to mine closure)
- Exploration activity: see above



Data source for UNFC „F” and „G” categories

„F” category

Mineral Resource Inventory (MRI)

- Secondary role; mine status and exploration; other:



Inventory of Mining Areas / BATER

Main datasource: Technical Operation Plan for exploratin via suspension to mine closure, and exploration activity.

„G” category

Mineral Resource Inventory (MRI)

- Level of knowledge on mineral deposits
- Exploration reports
- Decisions on exploration reports
- Decisions on mine lease

Inventory of mining areas (BATER)

- Secondary role (resource data available due to relationship with MRI)

Other :

- Data Repository of SARA (Mining and Geoscientific)
- Internet (e.g. feasibility studies)



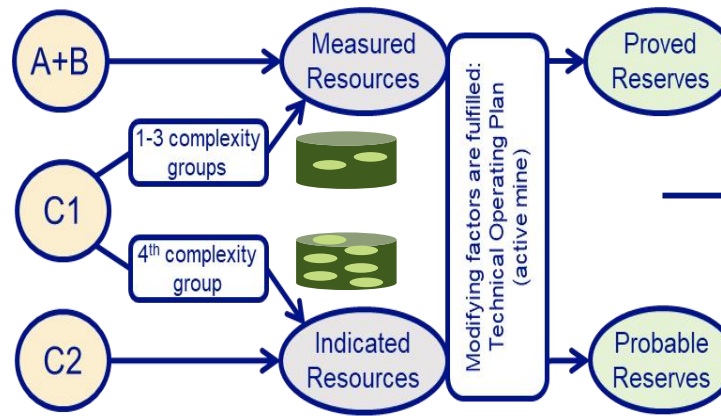


Mehodology for UNFC classification

National classification and reporting

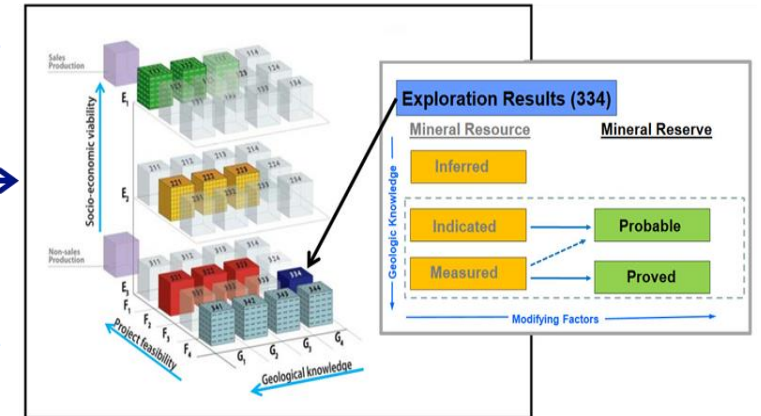
Category	General knowledge	Knowledge on additional parameters	Sampling, recovery
A	Extrapolation is forbidden	Groundwater Tectonics 	Min. 80 % full logging Boreholes
B	Extrapolation may be allowed		Min. 80 %, in boreholes more than half with logging
C1	Extrapolation based on similarities		Sampling: less than in category B
C2	Extrapolation single observations		Minimum

National to CRIRSCO



(Based on FGU GKZ, 2010)

From CRIRSCO to UNFC



(After Bankes, 2013)

- „G” is based on Mineral Resource Inventory including the status of mining areas
- „E” and „F” is based on Inventory of Mining Areas (**T**echnical **O**peration **P**lan and status of the project)
- E.g. **mining plot with extraction TOP: E1.1;F1.1.** (viable project); mine with TOP for suspending: **E2;F2.2.** (potential viable project); mine without licensee: **E3.1, F2.3** (non-viable project) – more details: on training Level 2.
- The recent status of exploration or mining activity and historical data (UNFC E3,F4,G1-2-3) need to be considered.



Lessons to learn

Strengths and opportunities

- **Legally binding data provision for companies** to Authority (SARA); the operation of inventories is legally binding; almost 100% of UNFC related data
 - **Modern database** with a developing e-system
 - **Department and experts** are on board with openness for further developments
 - **Data** in both inventories are **based on decisions**.
- National reporting, CRIRSCO-type **reporting and UNFC, preliminary bridging are in the legislation**
 - **UNFC „G”** category is in the **reporting form**
 - **UNFC Methodology**: for all types of mineral deposits there are results with UNFC, semi-automatic
 - **UNECE (2009) and (2019) in Hungarian**; translation of UNFC Guidance for Europe is in progress

Weaknesses and threats

- **Historical data need to be considered** (pl. UNFC E3, F4, G1-2-3)
- UNFC related data need to be collected from **separated databases and in some cases, for category „E” contact is needed to co-authorities, or searching via internet.**
- Recent UNFC guidance will be updated according to the UNFC Guidance for Europe (2022)



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Thank you for your attention



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