EUROGEOSURVEYS

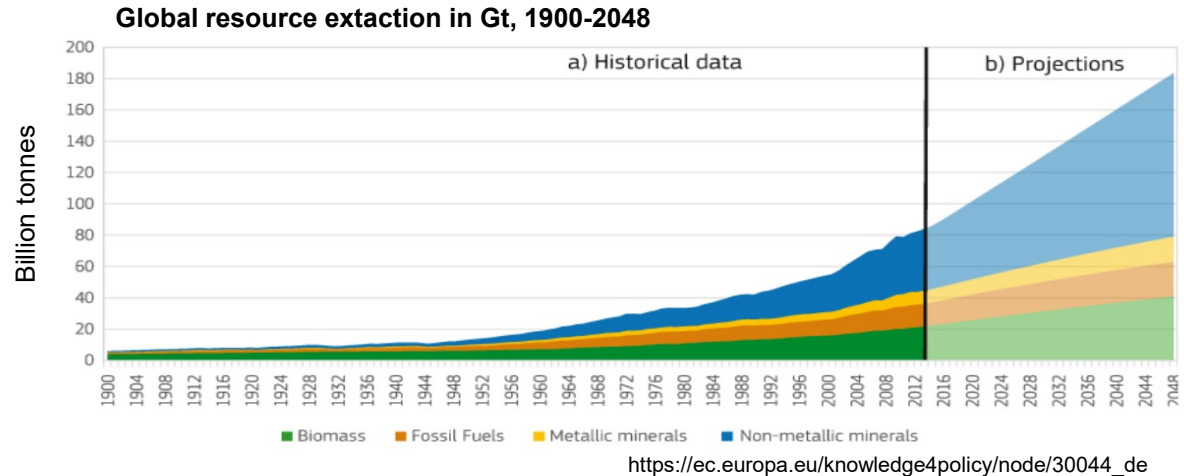**EGS activity with UNFC and future plan (*GSE*)**

Zoltán Horváth (MBFSZ), Daniel de Oliveira (LNEG)

40 Years Listening to the Beat of the Earth

Introduction

- Growing need for raw materials

Global resource extaction in Gt, 1900-2048

https://ec.europa.eu/knowledge4policy/node/30044_de

- Growing need for a resource management tool

Attendance at the UNECE Resource Management Week

2020-2021: more workshops, trainings

■ European attendance
■ Global attendance

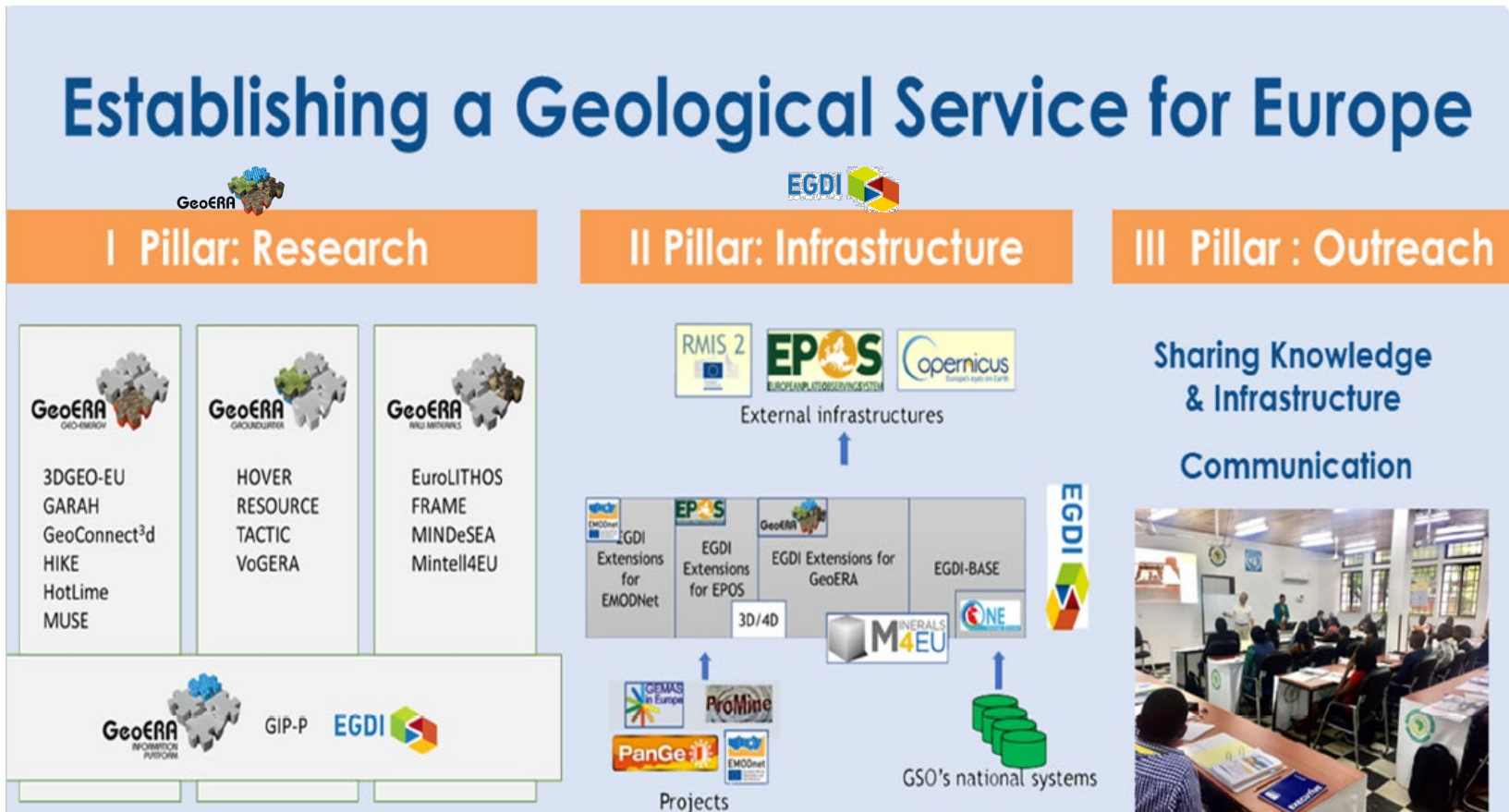Sári K. and Horváth Z. based on UNECE EGRM data (2019)
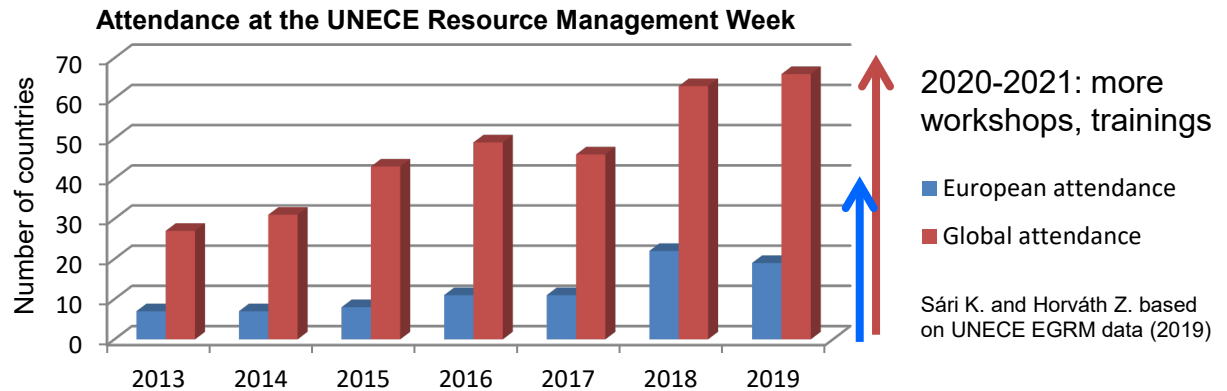
European Geological Surveys are the main data providers handling geoscientific and raw material data with statistical and spacial data and support the development and the use of UNFC

3 PILLAR STRUCTURE

By Slavko Solar (EGS Secretary General)

Activities with UNFC

- **EGS MREG, GE, GW**
  mineral resource, geoenergy,
  groundwater expert groups

Memorandum of Understanding between UNECE and EGS (2018-2021) will continue

- UNECE EGRM

https://www.youtube.com/watch?v=DhSNjoqp81I

https://www.unece.org/energywelcome/areas-of-work/unfc-and-sustainable-resource-management/media.html

- GEOERA Program

https://geoera.eu/
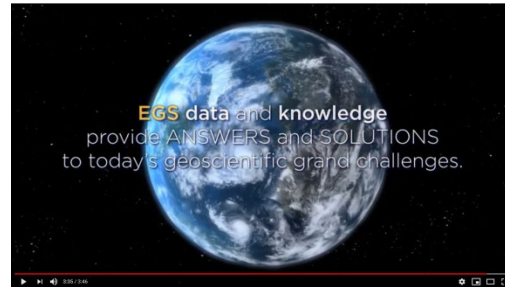
COUNTRY_NAME	Experience in the EGS MREG	Representation	Mapping	Case studies (ns: natural stone gr: grapgite m: marin, E: energy)	Harmonization (yes/can)	Guidance: exist, progress, involvement
Albania						
Austria				aggregates, anthropogenic		MINTELL4EU
Belgium				phospate, limestone		MINTELL4EU
Bosnia and Herzegovina						
Bulgaria						
Croatia				limestone, aggregates, ns, gr		MINTELL4EU
Cyprus			developing	knowledge, intention		
Czech Republic						
Denmark				limestone, aggregates (m)		MINTELL4EU
Estonia						
Finland				gold, Co, Cu,		MINTELL4EU
France				hydro, renewables		
Germany				e.g. anthropogenic		
Greece						
Hungary				all min. res., mine waste		MINTELL4EU
Iceland						
Ireland						
Italy						
Netherlands						
Norway				Cu, Co, Phos, agg., ns., gr, OG		MINTELL4EU
Poland						
Portugal				metallic, non-met., E		MINTELL4EU
Romania						
Serbia and Montenegro						
Slovakia						
Slovenia				Limestone		MINTELL4EU
Spain						
Sweden				REE		MINTELL4EU
Switzerland						
Ukraine				graphite		MINTELL4EU
United Kingdom				ores, aggregates		

UNFC is increasingly relevant and at the frontier of geoscience!

Supporting documents

- Guidances, guidelines, publications to facilitate national, regional and EU-level data harmonization with UNFC

A GUIDANCE FOR THE APPLICATION OF THE UNFC-2009 FOR MINERAL RESOURCES IN FINLAND, NORWAY AND SWEDEN

MINERAL COMMODITY SUMMARIES OF THE CZECH REPUBLIC

2017

(Statistical data to 2016)

Czech Geological Survey

October 2017

MINERAL RESOURCES OF POLAND

Polish Geological Institute National Research Institute

Földtani Közlöny 146/2
A Magyarhoni Földtani Társulat folyóirata
Bulletin of the Hungarian Geological Society

Budapest, 2016

Funded by the European Union

Optimizing quality of information in RAw MAterial data collection across Europe

Deliverable 1.4
Draft good practice guidelines for harmonisation of resource and reserve data

Title of the project:	Optimizing quality of information in RAw MAterial data collection across Europe - ORAMA
Grant Agreement number:	776517
Funding Scheme:	H2020 – SC5-15-2017 – CSA
Start date:	01.12.2017
Duration:	24 months
Document title:	Deliverable 1.4: Draft good practice guidelines for harmonisation of resource and reserve data
Work Package:	1
Author(s):	Tom Bide, Teresa Brown, Gus Gun, Richard Shaw, Carolin Kresse and Eimear Deady (BGS), Pedro Delgado (IGME), Zoltan Horváth (MBFSZ), Špela Bavec and Duška Rokavec (GeoZS), Taina Eloranta (GTK) and Kari Aasly (NGU)
Date of delivery:	30/4/2019
Dissemination level:	PU[1]
Reviewed by:	
Status of the document:	**Final**
Document location:	Tiimeri: Documents / Deliverables
Project web site:	http://www.orama-h2020.eu

Link: https://orama-h2020.eu/wp-content/uploads/ORAMA_WP1_DEL1.4_20190430_BGS_v1.0.pdf

[1] PU=public, PP= Restricted to other programme participants (including the Commission Services), RE= Restricted to a group specified by the consortium (including the Commission Services), CO= Confidential, only for members of the consortium (including the Commission Services)

EuroGeoSurveys - The Geological Surveys of Europe

ORAMA: other cases

orama-h2020.eu/downloads/

Public ORAMA deliverables and dissemination material such as flye... of each embedded window and downloaded by clicking the Downlo...

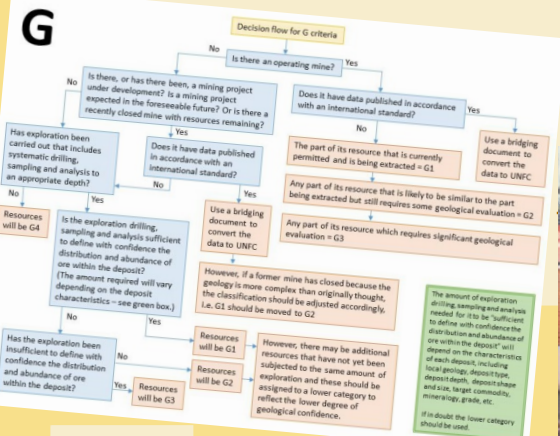**Deliverables** **Led by GTK**

WP1 Primary raw materials   WP2 Secondary Raw Materials   WP3

D1.1 Initial analysis for the improveme...

DOWNLOAD / OPEN FILE

D1.2 Final analysis and recommendatic... raw materials

	Short term 1-3 years	Medium term 3-5 years	Long term > 5 years
Stakeholders	Industry, EOL actors Reporting authorities, Policy Makers, statistics, academia, EC	Industry, EOL-actors, Reporting authorities, statistics, Policy makers, EC	Law Enforcements Agencies, Policy Makers

Adopt and enforce policies
- 8. Amend definitions Directive 2006/66/EC
- 1,2 & 8. Adopt legal requirements of reporting at higher level of detail
- 8. Enforce reporting compliance by third party audits

Ensure funding
- 4. Create, operate and maintain public databases and platforms (e.g. UMP)

Improve/build frameworks
- 5. Work towards closer cooperation between Battery & WEEE Compliance schemes
- 1. Establish a harmonized framework of data collection methods across member states

Improve reporting
- 2. Improve the level of detail to identify battery sub families by using new classifications
- Extended reporting requirements to monitor second life batteries from electric vehicles (see case study)
- 7. Conducting household surveys to monitor battery stocks

Monitor
- 6. Conduct country studies to assess batteries in unaccounted waste
- 3. Conduct periodic sampling exercises measuring composition of battery types, including CRM content

DOWNLOAD THE TRAINING MATERIALS

Agenda

Morning Session (11 MB)

Primary Raw Materials Session (21 MB)
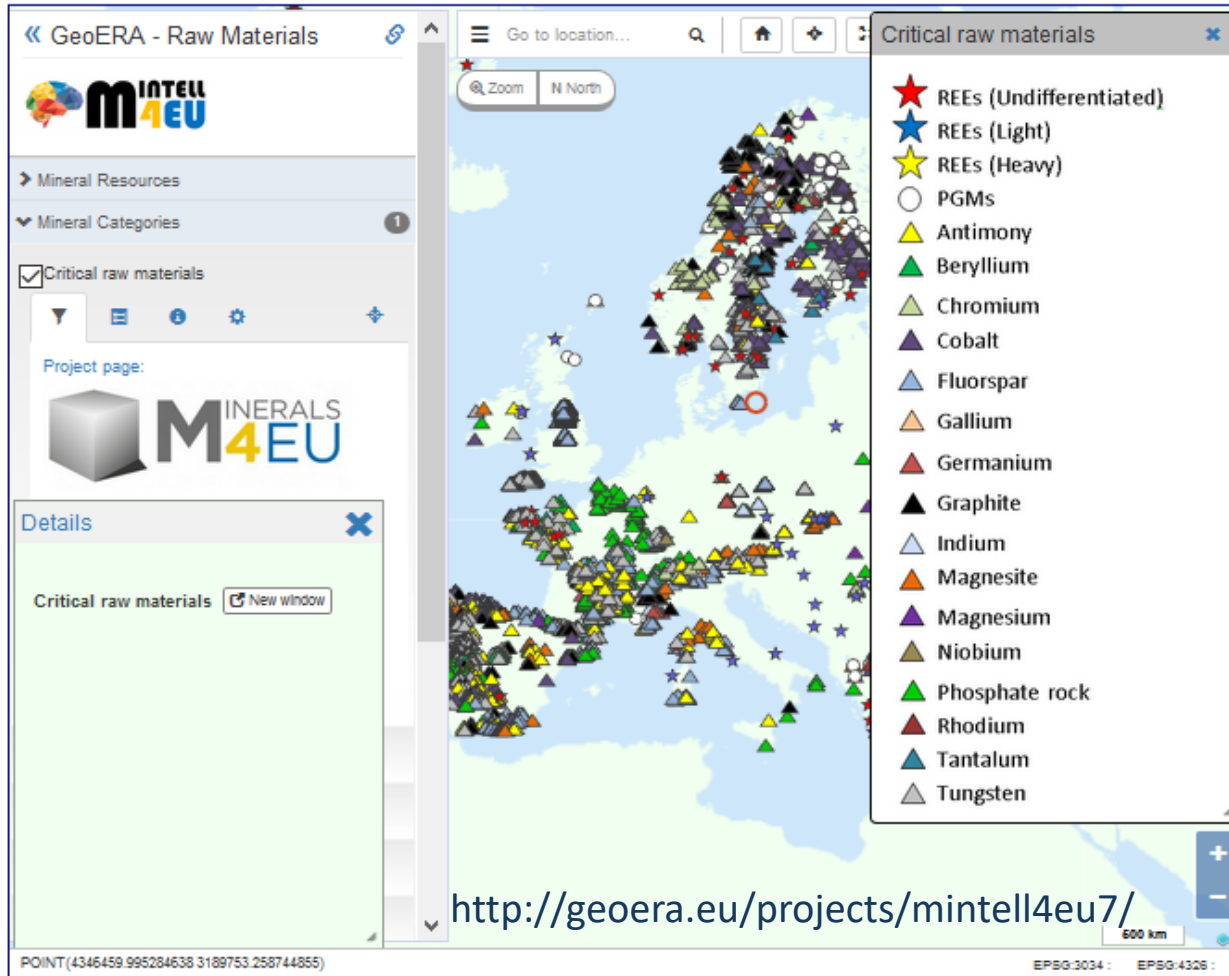
Secondary Raw Materials Session (34 MB)

~~~~~~~~~~~~~~

NOTE: Final version of the training materials can be found in Deliverable 4.2 (21 MB)

Examples and training materials for Hungary, Norway, UK

EuroGeoSurveys - The Geological Surveys of Europe

MINTELL4EU: Mineral Intelligence for Europe

Co-ordinator: Geological Survey of Denmark and Greenland (GEUS)

http://geoera.eu/projects/mintell4eu7/

Aims amongs others:

- **Improving the quality and spatial coverage of the Minerals Inventory**;

- T**esting the application of the UNFC classification system as a tool**

- **Recommendations for improving integration communication of** existing databases and data portals, incl. Raw Materials Information System (RMIS);

CSA-GSE-ICE-UNFC in progress

International Centre of Excellence on Sustainable Resource Management
A collaborative NETWORK within GSE to

promote and build capacity on United Nations Framework Classification for Resources (UNFC) for mineral resources (primary and secondary)	**support the United Nations Resource Management System (UNRMS) in line with the UN 2030 Agenda for Sustainable Development**	**support policy on Resource Management at national and EU level**

Baseline assessment

Methodology to fill data gaps and improve dataservice

Guidance for using UNFC in Europe

Development of EGDI with UNFC datasets and UNFC visualisation

Starting the operation of UNFC modul of the EGDI with dissemination and communication

- **Production of data** regarding the location and spatial distribution of **PRMs and SRMs** needs regular updates

- **Operating infrastructure** and network of data providers across Europe, collecting

- ,• Work on data gaps and harmonizing, disseminating and **safeguarding data**

- Providing **INSPIRE compliance** (updating of INSPIRE code lists with UNFC etc.) still needs to be elaborated.

- **Implementation of UNFC** as a decision making tool in exploiting and assessment of the potentials in mineral resources

- **improve the Knowledge Base** by extending the spatial coverage and quality of data currently in the MIN4EU database in order to efficiently support the objectives of the EU Green Deal

- Update mineral resource assessment information for the **Minerals Inventory**;

- **Increase the degree of harmonization**, communication and interaction between existing data platforms, with the ambition of reaching a fully operational and reliable database, **supporting the European needs and connecting to RMIS of the EU**

- Ensure future sustainability as part of the EuroGeoSurveys-governed **European Geological Data Infrastructure (EGDI)**.

- Search synergies with the **EU International Centre of Excellence on Sustainable Resource Management (UNFC)**

- Strengthening the **network** with and the capability of data providers;

- **Targeted visualization** of data for a correct understanding of the content, interpretation of data
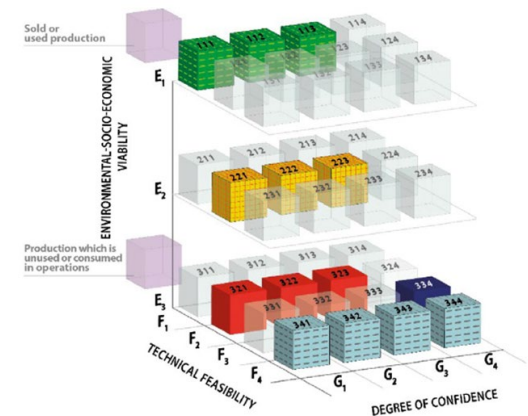
Conclusions

- Favourable time period and historical chance to strenghten co-operation between players for full implementation of the UNFC for PRM ans SRM in the frame of new EU CSA – Geological Service for Europe.

- MoU between UNECE and EGS will have a streamlined period based on more experience, case studies and future program planned for 2022-2026.

- EU-projects (ORAMA2020, GEOERA program) dealing not only with minerals but geoenergy and groundwater will have stronger co-operation with building the European Geodata Infrastructure in the frame of Geological Service for Europe.

- Data and experience will be interoperable into the Raw Materials Information System (EC JRC) that will allow to compare national/regional and EU-level datasets and in global context as well for decision makings.

- UNFC:
  - is the only classification that can be integrated into a resource management framework
  - is a tool having proper bridging between national and international reporting standards and codes
  - is applicable to various types of resources
  - is full accounting of resource quantities
  - integrates geological data, information on feasibility, economic, environemntal-social viability.
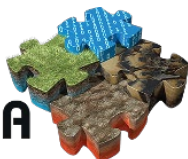
„Alea iacta est"

Thank you for your attention

wwww.eurogeosurveys.org,   www.unece.org.,   https://orama-h2020.eu   www.mbfsz.gov.hu

40 Years Listening to the Beat of the Earth