



# GSEU

**GEOLOGICAL SERVICE | FOR EUROPE**

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## The GSEU – Geological Service for Europe - project

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**Funded by  
the European Union**



The Geological Surveys of Europe

**UNECE RESOURCE MANAGEMENT WEEK 2023**  
**ASSURING SUSTAINABILITY IN RESOURCE MANAGEMENT**  
25 - 28 APRIL 2023 | PALAIS DES NATIONS | GENEVA





# Why GSEU?

## The challenges

- We are facing a rapid succession of crises (climate, energy, Russian invasion of Ukraine, etc.) ;
- These crises highlight our vulnerabilities, especially those linked to our environment natural resources, exposition to natural risks, etc.) ;
- Mitigating these crises requires lots of geoscientific data and expertise;
- As geology does not care about political boundaries, Europe is the right scale to address this challenge;

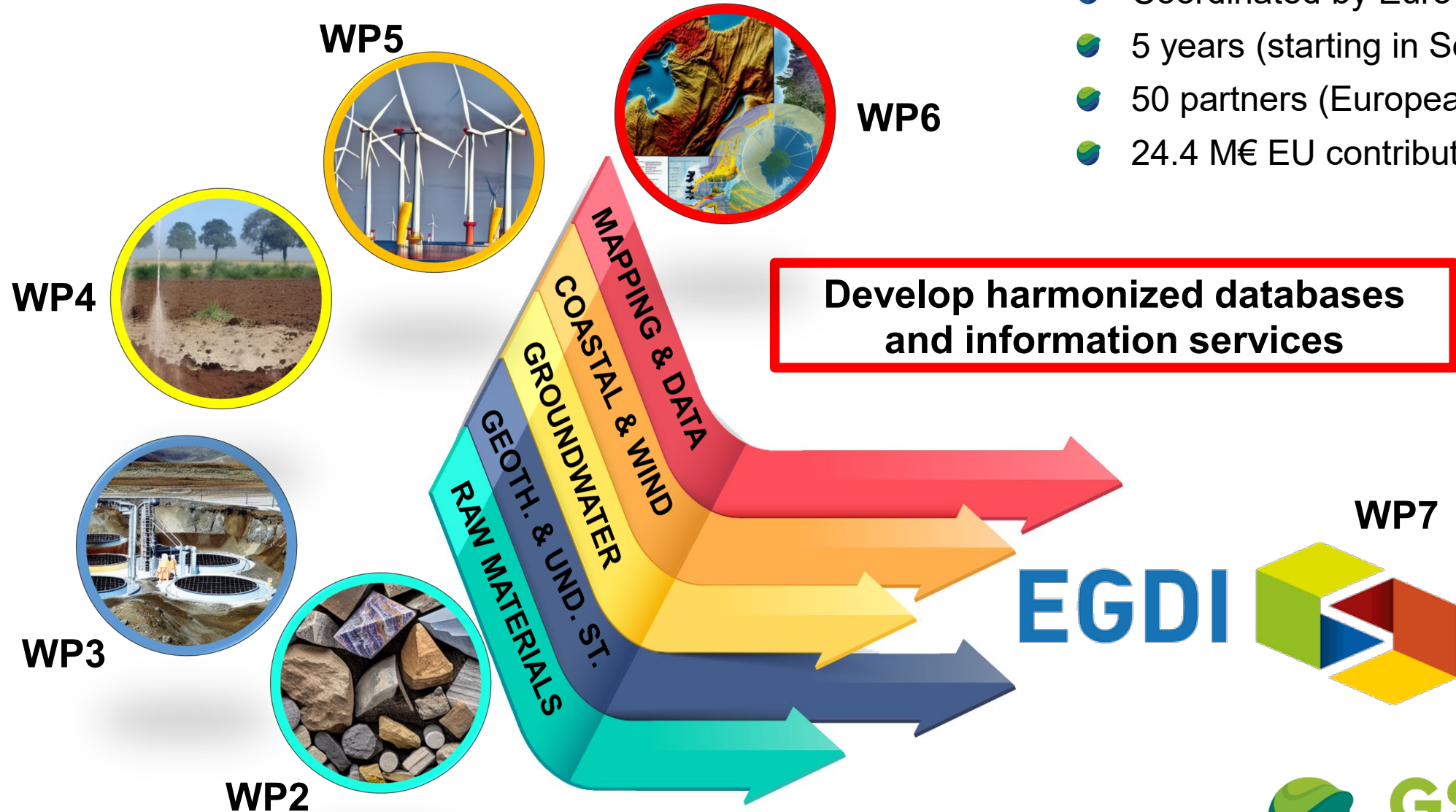
## Main objectives of GSEU

“The main general objective of this project is to establish a Geological Service for Europe, which we envisage as a point of entry into a permanent collaborative network of European geological survey organizations. Our long-term ambition is to provide European institutions, enterprises, and citizens with up-to-date, high-quality information, aggregated at the EU-level, about the earth beneath our feet, which is largely out of sight, out of mind, even though it holds vital resources and may present us with a variety of hazards.”





# Overview of the project



- Coordinated by EuroGeoSurveys
- 5 years (starting in Sept. 2022)
- 50 partners (European NGOs)
- 24.4 M€ EU contribution





# Overview of WP2

## Structure

30 partners, 4 tasks, 4.1 M€ EU contribution;

## Main objectives

- Re-evaluate the European potential in primary onshore and offshore critical raw materials and mining wastes;
- Develop the use of the UNFC classification system in mineral resources databases;
- Develop an International Center of Excellence on Sustainable Resources Management;

## Main impacts

- Strengthen the network of geological surveys in the thematic domain of raw materials and mineral resources sustainable management;
- Contribute to the Geological Service for Europe by providing services and knowledge to help secure EU's CRM supplies;





# Overview of WP2

## Overall philosophy of the WP2

- Benefit from relevant past projects (e.g., GeoERA Raw Materials) and build synergies with on-going projects or initiatives (e.g., FUTURAM, EIS, UNFC NoP, etc.), to maximize the impact of EU fundings;
- Strong interaction with other WPs, especially to 1) ensure diffusion of harmonized data via EGDI, and 2) extend the use of UNFC beyond mineral resources (water and geothermal energy);
- Work in close collaboration with EGS' Mineral Resources Expert Group;

## WP2 is organized in 4 tasks:

- EU primary and secondary onshore CRM resources
- EU offshore CRM resources;
- EU International Center of Excellence on Sustainable Resource Management;
- Resource management using the UNFC (United Nations Framework Classification system);





## Task 2.1 : EU primary and secondary onshore CRM resources

### Task partners:

- Lead by BRGM (G. Bertrand, J. Melleton);
- Contribution from 26 partners (AGS, BGR, BRGM, CGS, EGT, GBA, GeoZS, GEUS, GIU, GSB, GSD, GSI, HGI-CGS, HSGME, IGME-CSIC, IGMOF, IGR, IGS, ISPRA, LNEG, SZTFH/SARA, NGU, PGI-NRI, SGIDS, SGU, UAG)

### Main objectives and impacts:

Filling the gap in CRM data and information at European level and re-evaluation of European resources on primary onshore CRM and mining wastes », with a focus on European CRM for power generation and energy storage;

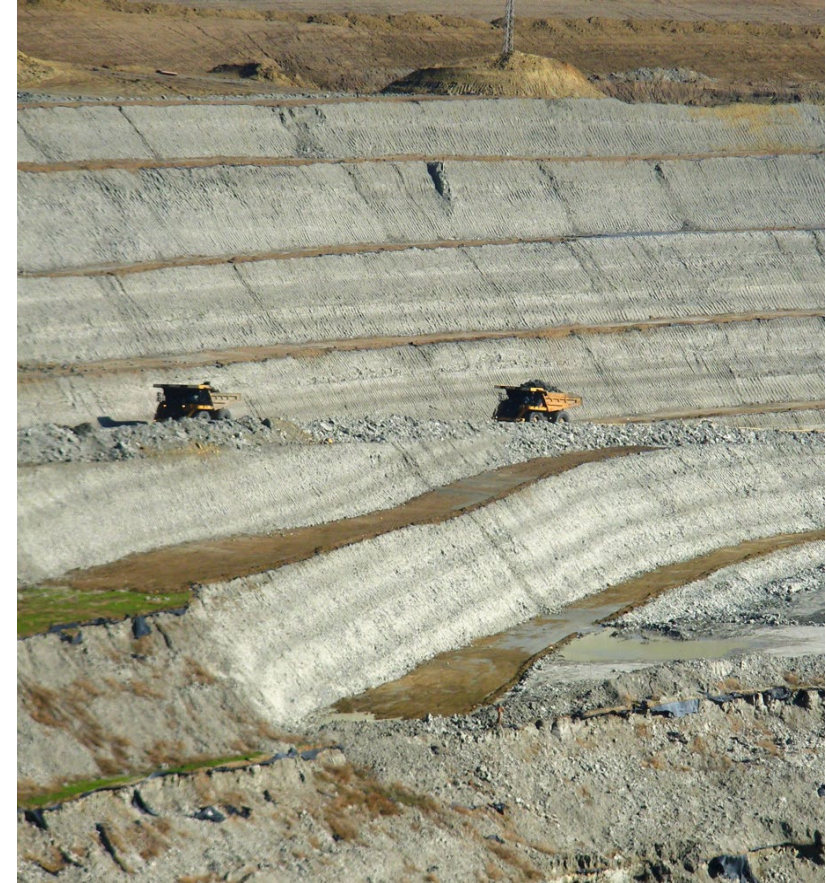


Photo G. Bertrand, BRGM





## T2.2 : EU offshore CRM resources

### Task partners:

- Lead by IGME-CSIC (F.J. González, E. Marino);
- Contribution from 15 partners (BRGM, GEUS, GIU, GSB, GSI, HSGME, IGME-CSIC, IGMOF, IGS, IPMA, LNEG, NGU, NPD, PGI-NRI, UAG)

### Main objectives and impacts:

Assessing Europe's offshore CRM resources, improving the knowledge of underexplored areas and their resources, harmonizing datasets and cartographic products, with a focus on European CRM for power generation and energy storage;

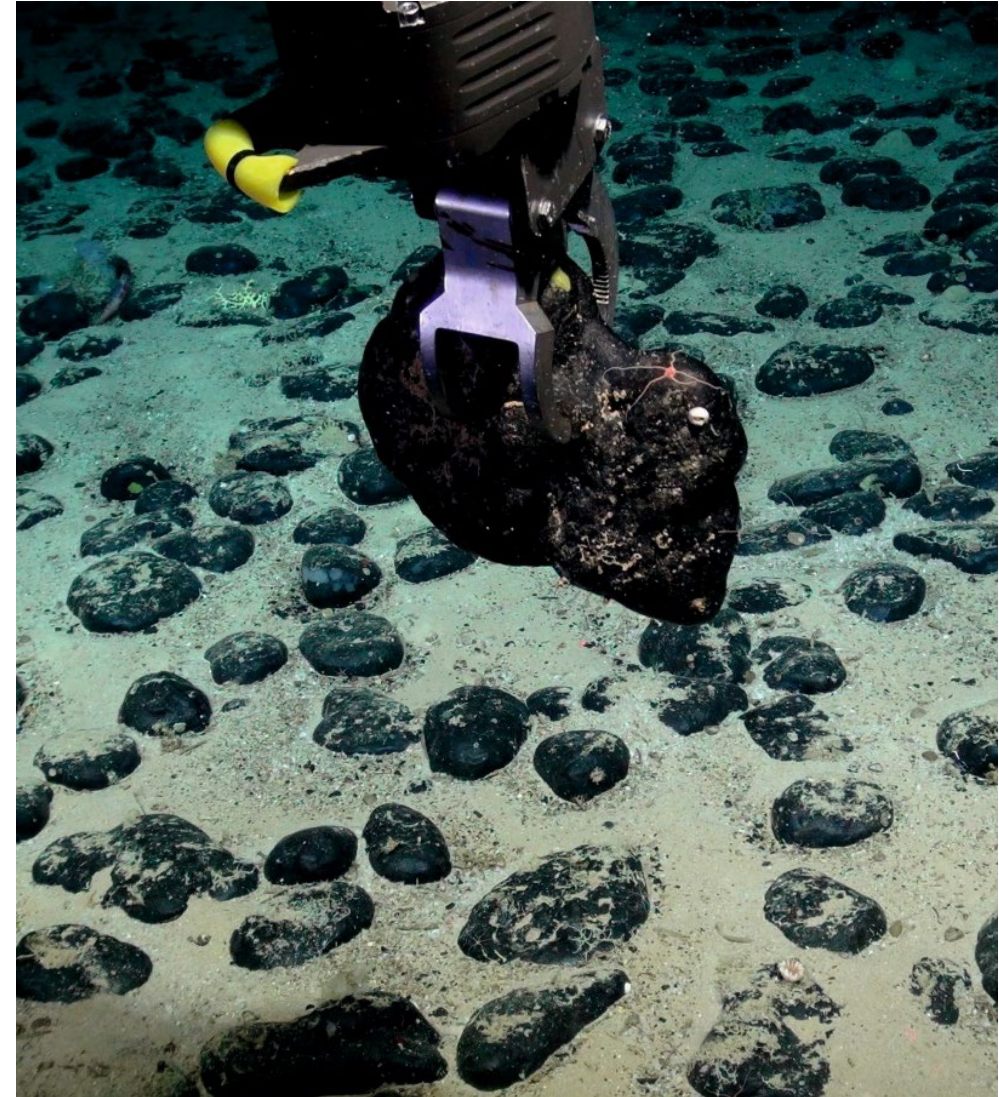


Photo IGME-CSIC





## T2.3 : EU International Center of Excellence on Sustainable Resource Management

### Task partners:

- Lead by GeoZS (S. Miletic, M. Dobnikar);
- Contribution from 21 partners (BGR, BRGM, CGS, GBA, GEUS, GIU, GTK, IGME, IGS, ISPRA, LNEG, MBFSZ, NGU, SGU, TNO, UAG, HGI-CGS, BGS, IPMA, GSD)

### Main objectives and impacts:

- The objective is to develop a European Centre of Excellence on Sustainable Resource Management, promoting the deployment of the UNFC and UNRMS that will be embedded within the GSEU;
- The expected impact is an improved sourcing of primary and secondary CRM in Europe, by promoting and building capacity in UNFC/UNRMS and integrating information on the availability of natural resources as well as building a strong EU-level expertise on CRM intelligence in support to provision information compliant to the UNFC;



Photo S. Bertrand, CC BY 2.0 license







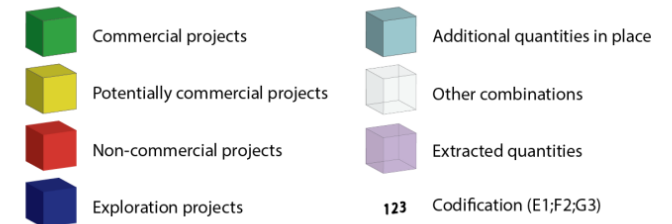
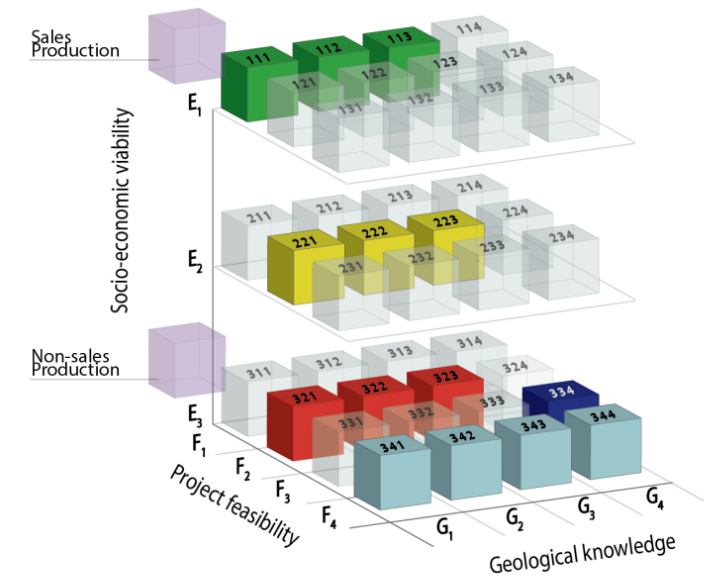
## T2.4 : Resource management using the UNFC

### Task partners:

- Lead by SZTFH/SARA (Z. Horváth, B. Polonkai);
- Contribution from 20 partners (BGR, BRGM, CGS, GBA, GIU, GeoZS, GSI, GTK, HGI-CGS, IGME, IGS, LNEG, NGU, SGU, HSGME, BGS, IPMA, GZS, GSD, IGR)

### Main objectives and impacts:

- The objective is to develop a joint methodology for using UNFC by all GSEU data providers, application of UNFC for primary and secondary RM, serving data to the EGDI, using synergies between ICE – UNFC – UNRMS, supporting GSEU's contribution to the European Green Deal, UN SDGs and Horizon Europe objectives;
- The expected impact is an increased sourcing of primary/secondary CRM in Europe, based on proper methodology for using UNFC and appropriate FAIR data in UNFC system;



United Nations Framework Classification for Resources  
– Update 2019 – ECE Energy Series No. 61





## Conclusion - towards a Geological Service for Europe

The overall objective of GSEU is to establish a Geological Service for Europe, which should be a permanent collaborative network of European geological survey organizations;

In the present context, a Geological Service for Europe is more than ever needed; It will be in a near future a key actor for the implementation of, e.g., the CRM Act, by contributing in:

- Providing data and knowledge to help drawing up “national programmes for general exploration targeted at critical raw materials”;
- Bringing together national geological surveys in the subgroup of the European critical raw materials board, to contribute to the coordination of national exploration programmes;
- Compiling and harmonizing information on primary and secondary mineral resources in Europe, and their classification with the UNFC;
- Developing and promoting expertise on sustainable resources management;
- ...





# GSEU

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## Thank you for you attention!



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