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GSEU DAY

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CRM's CHALLENGES IN EUROPE



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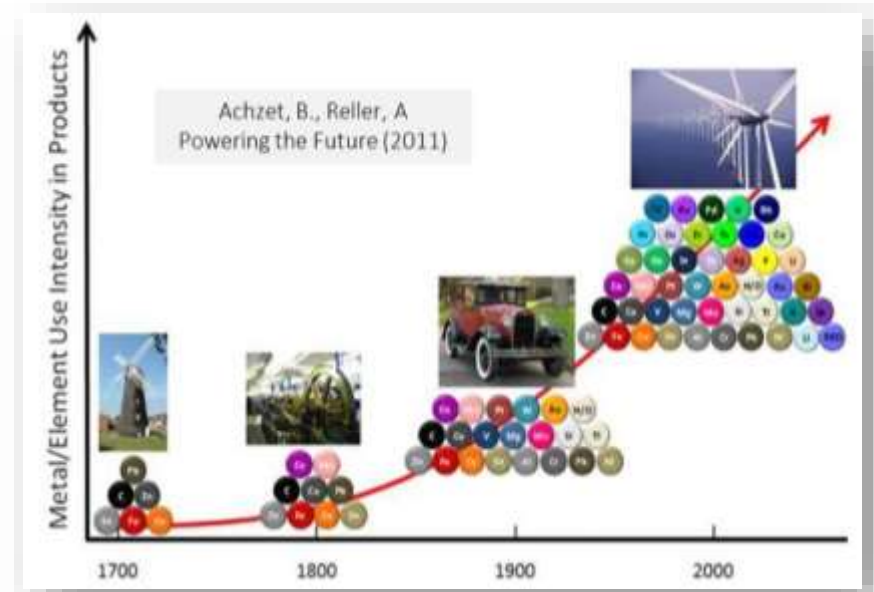


The Geological Groups of Europe

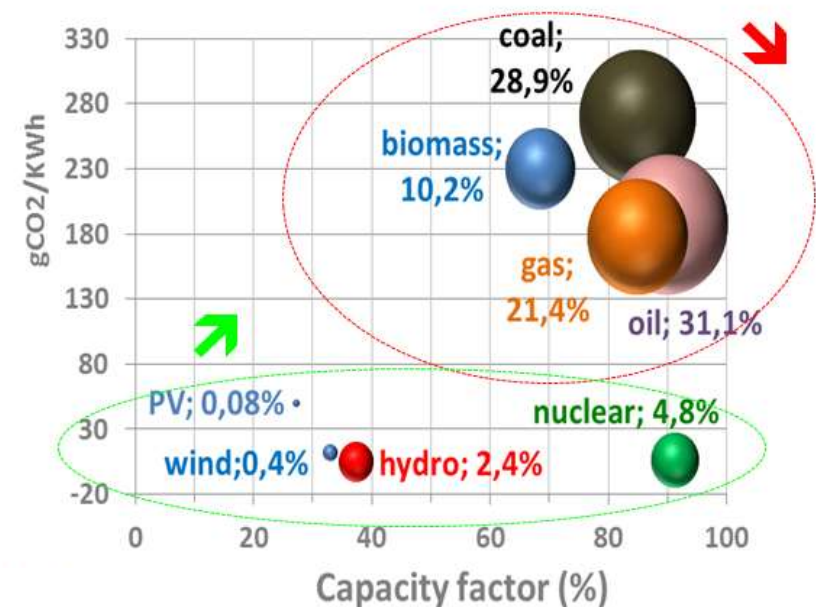
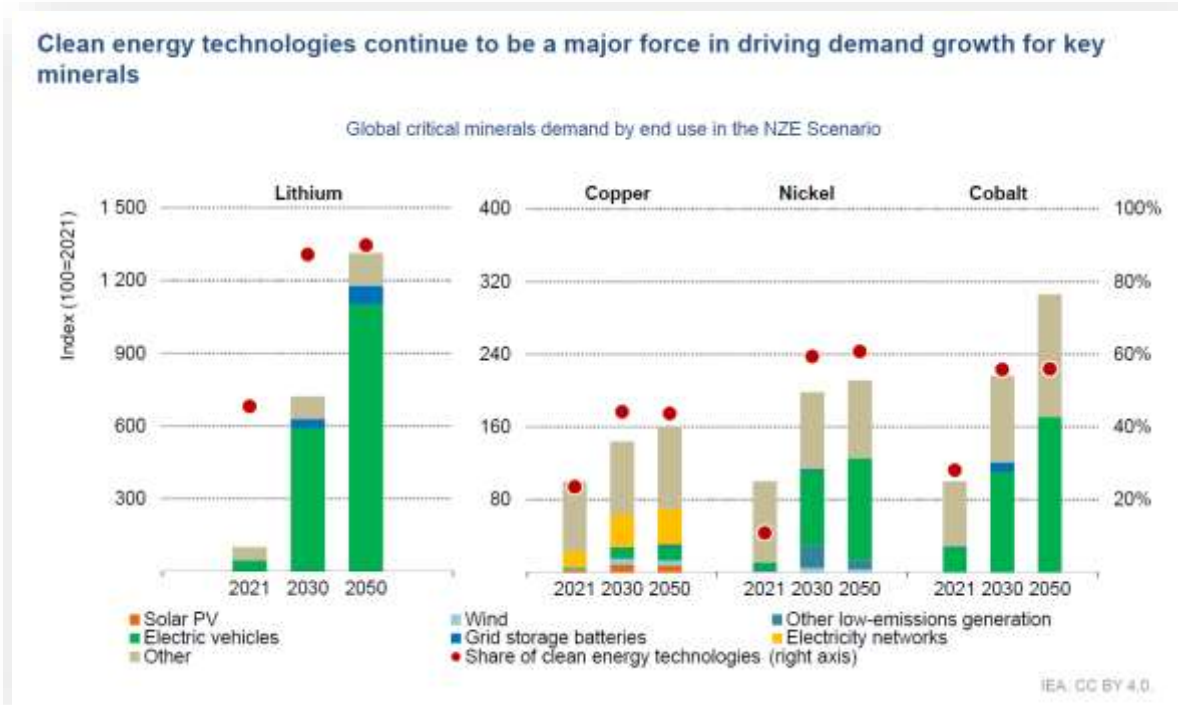


CRMs IN A CHANGING WORLD

- For centuries, the need for mineral resources has been growing in quantity and diversity
- Challenges we are facing today impose transitions (energy, digital,...) that are materials intensive
- The need for CRM is and will keep increasing in the long term



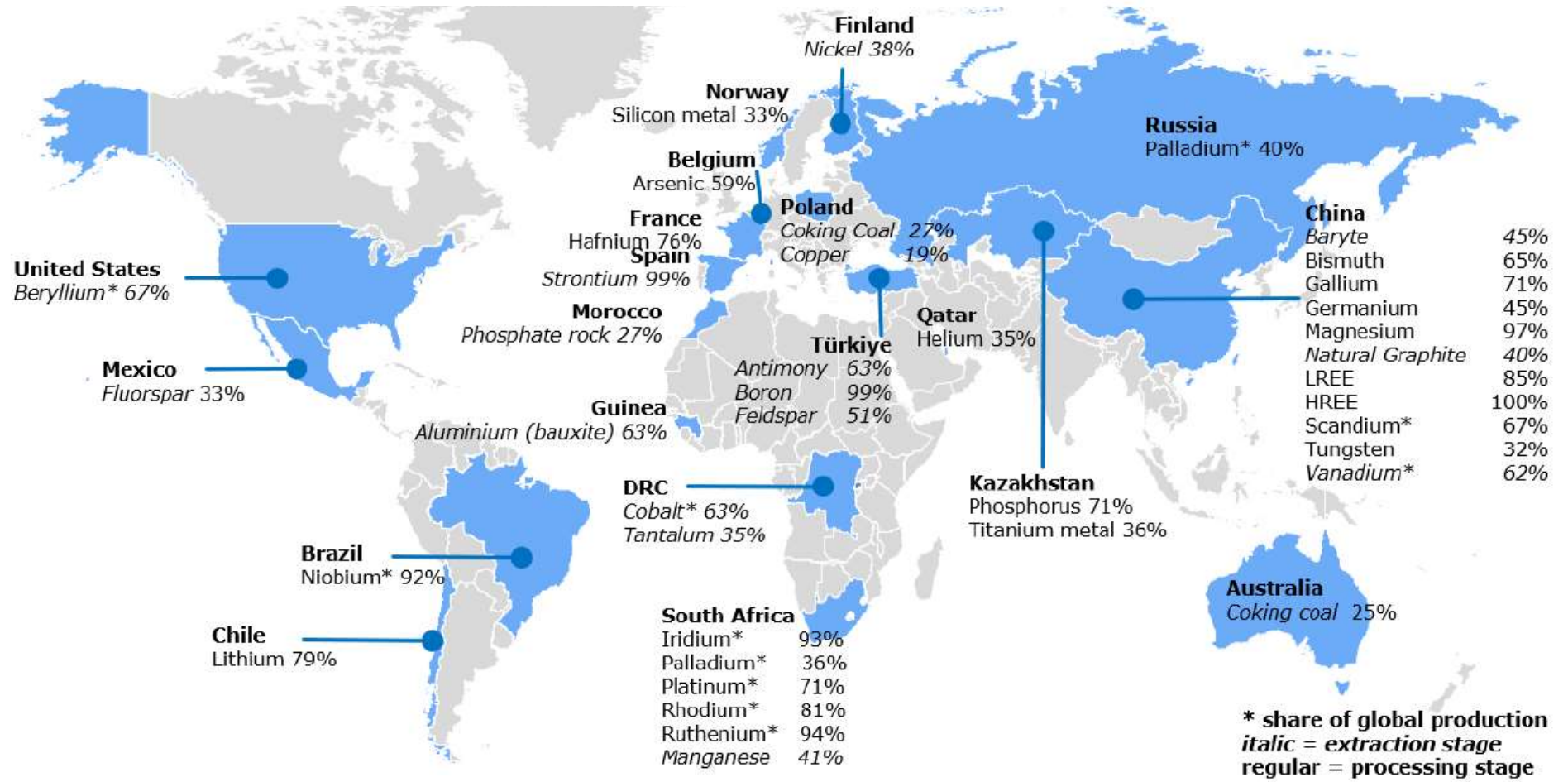
World energy mix (GIEC, 2019)





EU's DEPENDENCY ON CRMs

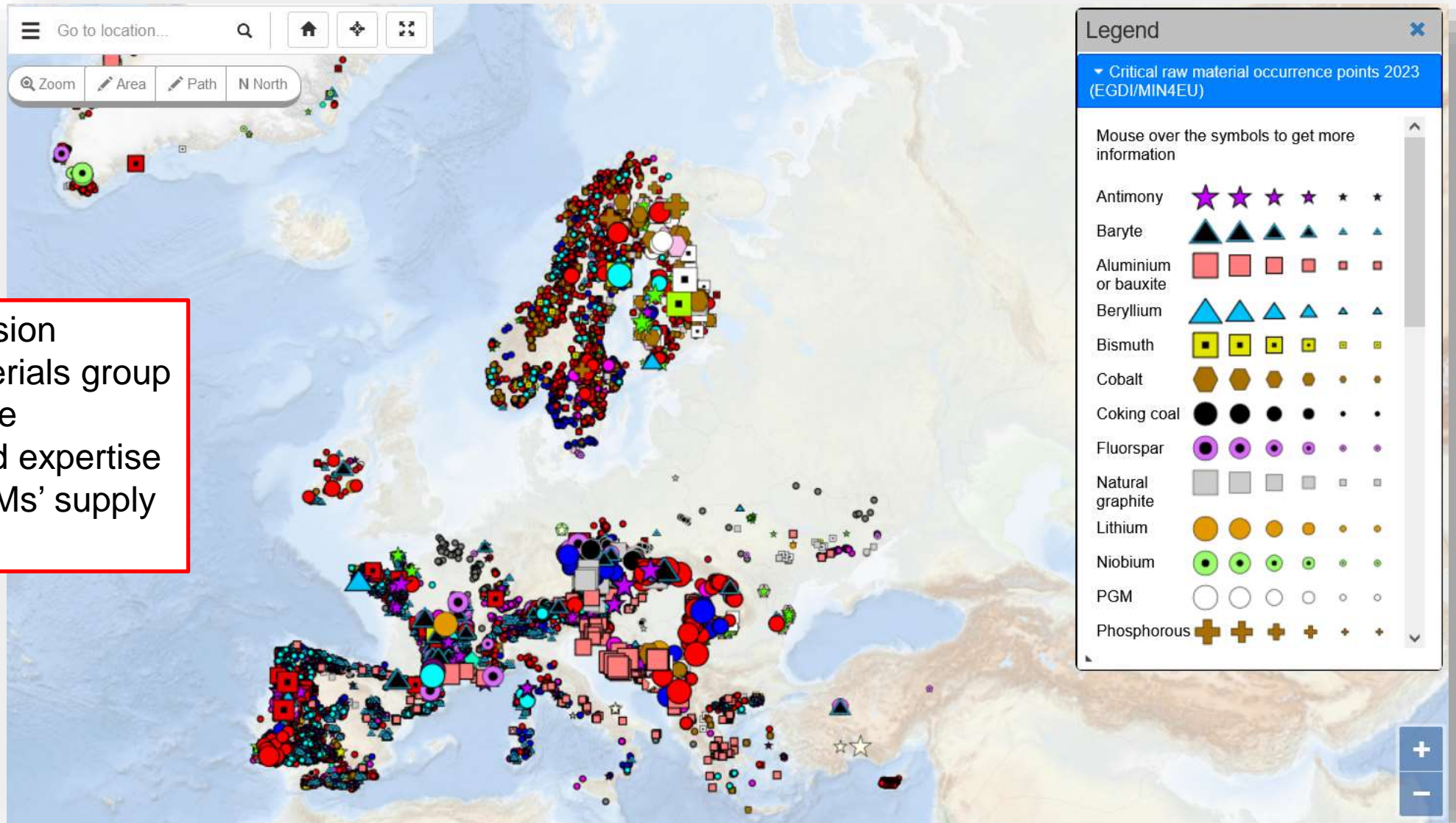
Countries accounting for the largest share of EU supply of CRMs



Source: "European Commission, Study on the Critical Raw Materials for the EU 2023– Final Report"



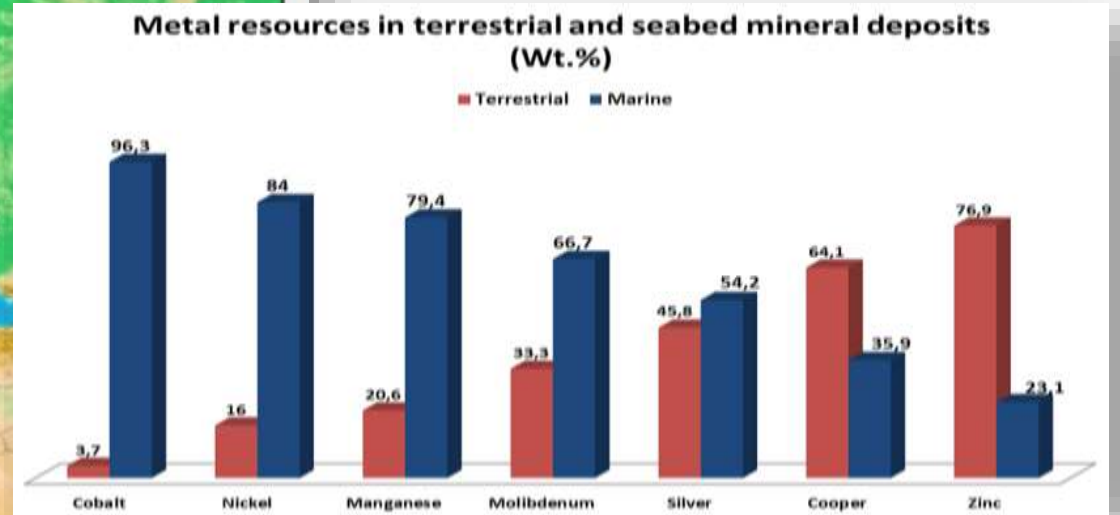
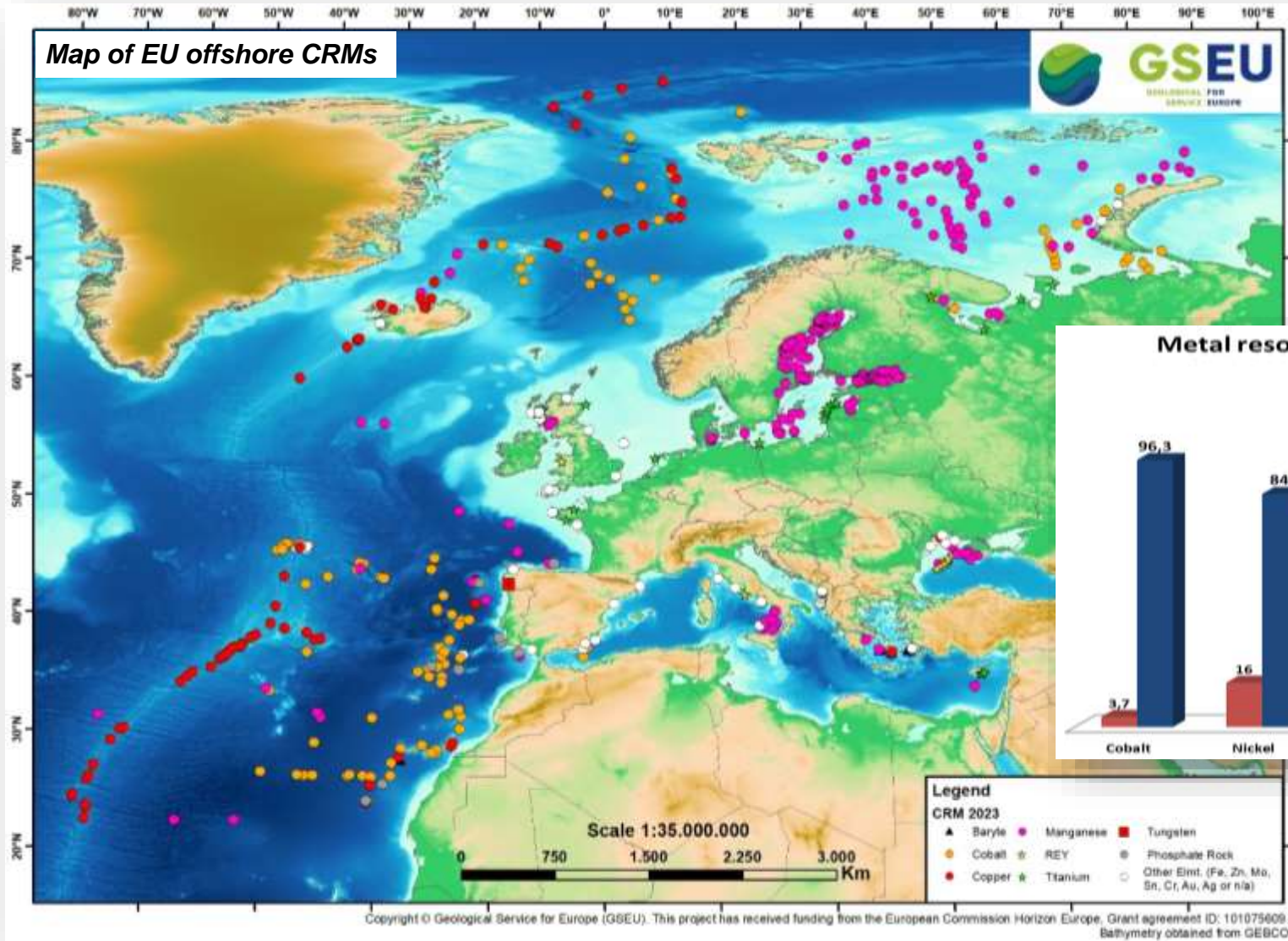
EU's POTENTIAL FOR CRMs



The core mission of GSEU's Raw Materials group is to provide high quality data and expertise to help relocate CRMs' supply in Europe.



EU's OFFSHORE CRMs





EU's ONSHORE CRMs

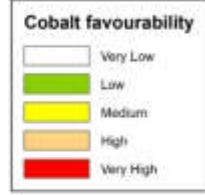
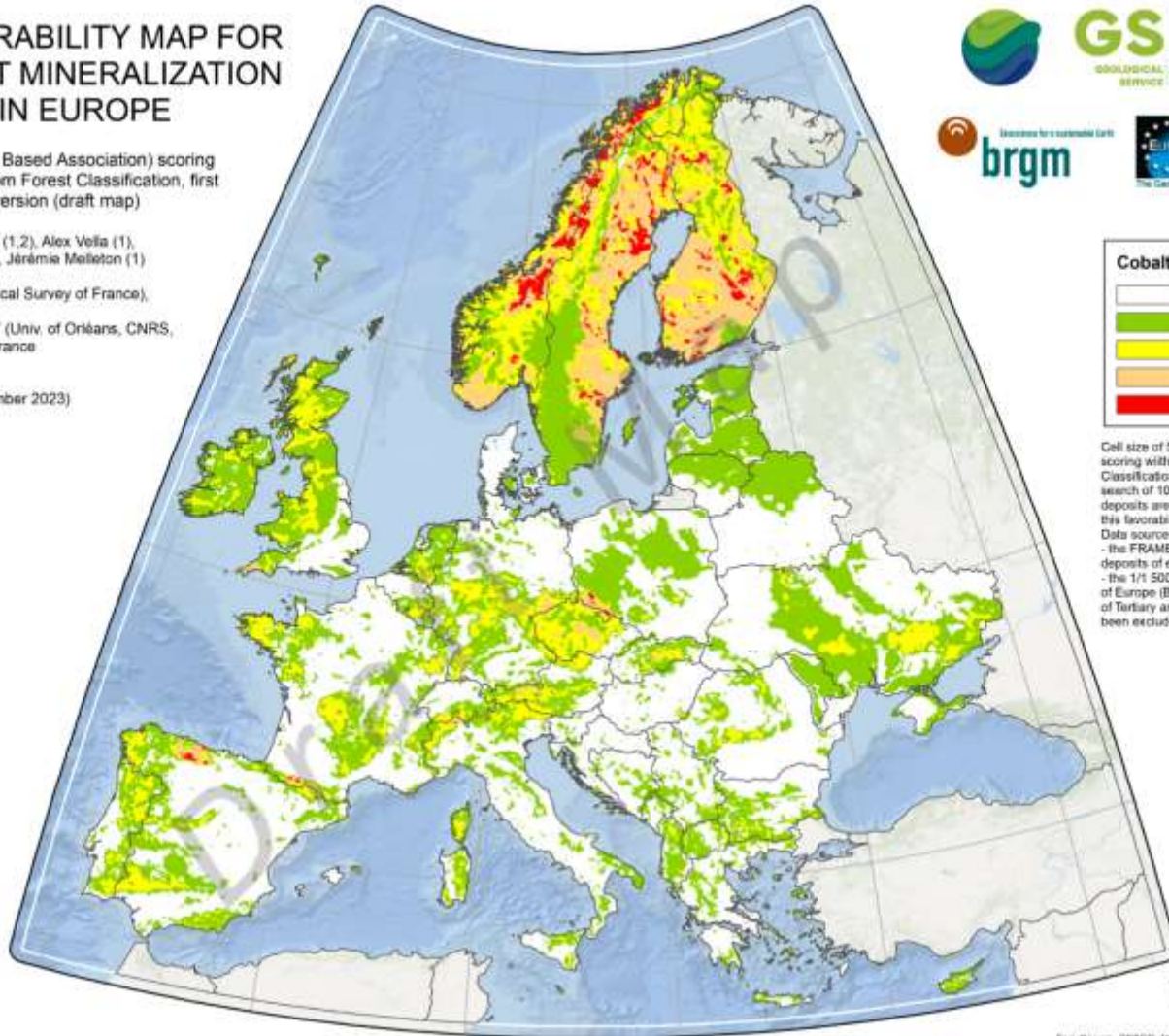
FAVOURABILITY MAP FOR COBALT MINERALIZATION IN EUROPE

DBA (Disc Based Association) scoring with Random Forest Classification, first version (draft map)

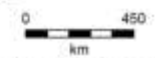
Guillaume Bertrand (1,2), Alex Vella (1), Capucine Albert (1), Jérémie Melleton (1)

1 – BRGM (Geological Survey of France), Orléans, France
2 – ISTO UMR7327 (Univ. of Orléans, CNRS, BRGM), Orléans, France

Version 0.1 (September 2023)



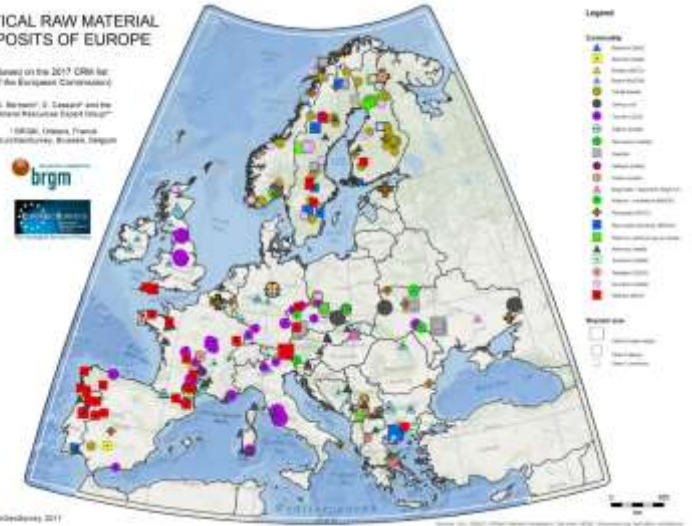
Cell size of 5km x 5km. DBA scoring with Random Forest Classification, neighbouring search of 10km. Only known deposits are used to produce this favourability map.
Data sources are:
- the FRAME project database on deposits of energy critical elements;
- the 1/1 500 000 geological synthesis of Europe (Billa et al., 2008); lithologies of Tertiary and Quaternary ages have been excluded.



Eni, Garmin, GIBCO, NOAA NGDC, and other contributors

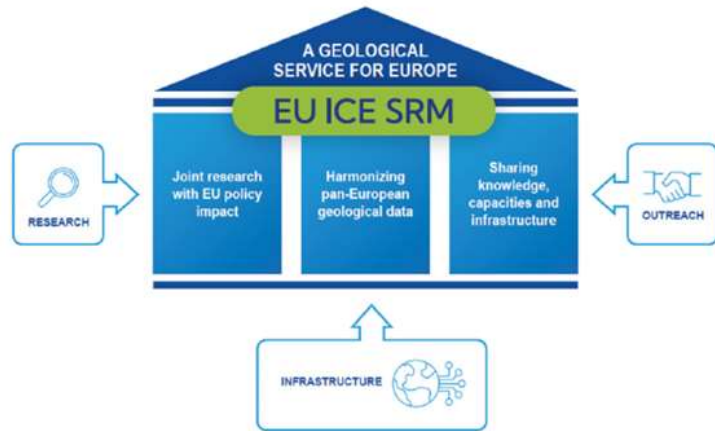
CRITICAL RAW MATERIAL DEPOSITS OF EUROPE

(Based on the 2017 CRM list of the European Commission)
G. Bertrand, J. Cassard and the Mineral Resources Expert Group**
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** Luxembourg, Brussels, Belgium





INTERNATIONAL CENTRE OF EXCELLENCE ON SRM

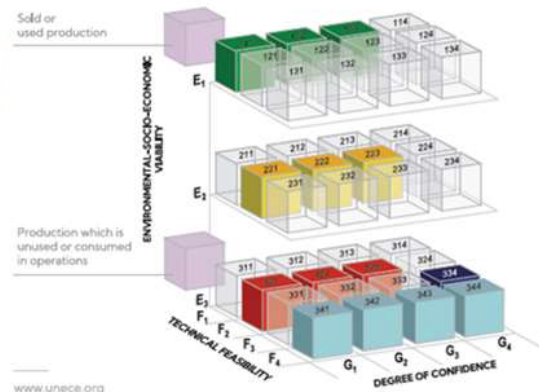


Capacity Building and Knowledge Centre in support of UNFC and UNRMS



UNECE **ICE-SRM**

Promotion, Capacity Building on UNFC

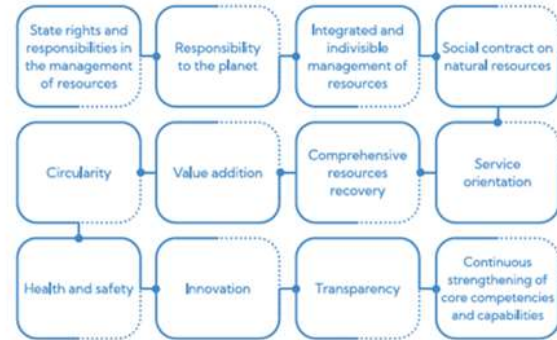


Support UNRMS, in line with the UN 2030 Agenda for Sustainable Development



www.sdg.un.org

UNRMS Fundamental Principles



www.unece.org





AMBITIOUS ACTIONS IN A CHALLENGING CONTEXT

- Raising awareness of stakeholders
- Strong expectations on the raw materials topics (e.g. CRM Act)
- Time is a key issue
- Strong need of data and expertise from GSEU and the future Geological Service for Europe.





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