DEPOSITS IN THE EU – AN EPITOME OF MINERALS INFORMATION

Brussels, 1 October 2020

The two wide maps data sets of EuroGeoSurveys

The European Commission has recently adopted a European strategy for data 'COM(2020) 66', which foresees a data-driven innovation approach from which all the stakeholders involved in the European Green Deal 'COM(2019) 640' will benefit. Following this track, EuroGeoSurveys (EGS) has set its priorities and deliverables for the year 2020 to be fully in line with these major EU policy communications. The two maps below are notable examples of the EGS community’s efforts in this direction.

Map 1 (left) EU Mineral Occurrences for Selected Commodities; Map 2 (right) Favourability Map for Lithium Mineralization in Europe

Map1 emphasizes the various forms of mineral occurrences in Europe. It provides an overview of 35 distinct mineral commodities that occur within the European Union. The data for the map was initially created under the EU 7th Framework Programme project Minerals4EU, followed by the Horizon 2020 GeoERA Mintell4EU project and further extended under the EGS initiative European Geological Data Infrastructure (EGDI) where all data from the map are stored. The map was developed under the direction of the Federal Institute for Geosciences and Natural Resources (BGR) and the auspices of the Commission for the Geological Map of the World (CGMW) with contributions from 48 European geological services and more than 20 scientific institutions. The map was promoted during the Prospectors & Developers Association of Canada (PDAC) 2020 event where EGS was present within the European Commission booth.

Map2 specifies the Lithium Mineralization in Europe. Lithium is considered to be one of the critical raw materials in the EU and is used in the production of batteries. The Favourability Map for Lithium Mineralization in Europe was prepared by Bureau de Recherches Géologiques et Minières (BRGM) with input from the Forecasting and Assessing Europe’s Strategic Raw Materials Needs (FRAME) GeoERA Project. The GeoERA ERA-Net is constituted of mostly EGS members that

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2 https://eur-lex.europa.eu/resource.html?uri=cellar:b828d165-1c22-11ea-8c1f-01aa75ed71a1.0002.02/DOC_1&format=PDF
maintain EGDI. Looking at the geographical distribution of lithium in the map, it offers an interesting overview of opportunities both for the exploitation of the raw material and on potential locations for its processing in Europe. The latter needs particular attention, given that all European mined lithium is currently exported for processing.

**European Green Deal: Striving to be the first climate-neutral continent**

In line with the European Commission’s priorities for 2019-2024, where climate change and environmental degradation are considered to be an existential threat to Europe and the world, the two wide maps data sets contribute to the European Green Deal by turning climate and environmental challenges into opportunities and making the transition just and inclusive for all.

Map 1 - Describes the sourcing of raw materials in the EU where the EGDI itself plays a greater part in the contribution. As the European Union aims to reduce the import dependency of raw materials that are critical to Europe’s industries, the improved access to raw materials within the EU and from other sources by promoting resource efficiency, recycling and advancing alternatives through substitution remains vital. The map provides valuable insights into the EU mineral occurrences which could prove crucial to the implementation of the European Green Deal, as the EU aims to place Europe at the forefront of raw materials innovation and mitigate negative environmental and societal impacts.

Map 2 - Inline to achieve the EU’s goals, battery technologies are vital factors. In the context of the need to reduce CO₂ emissions and in which electromobility is becoming increasingly important, lithium is one of the important raw material substances which is required to produce batteries. For this purpose, the European Commission has published a [Critical Raw Materials Resilience report ‘COM(2020) 474’](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0474&from=EN) on September 3, 2020, where it was estimated that the EU would need up to 18 times more lithium by 2030, and almost 60 times more lithium by 2050. These figures are in contrast to how it was in the past, as lithium was not considered to be such a valuable mineral.

For more information and to view the maps, visit:

EGS: [www.eurogeosurveys.org](http://www.eurogeosurveys.org)

EGDI: [www.europe-geology.eu](http://www.europe-geology.eu)

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