



Map of critical raw material deposits in Europe

Bertrand Guillaume, Daniel Cassard, Nikolaos Arvanitidis, Gerry Stanley

► **To cite this version:**

Bertrand Guillaume, Daniel Cassard, Nikolaos Arvanitidis, Gerry Stanley. Map of critical raw material deposits in Europe. EGU General Assembly 2016, Apr 2016, Vienne, Austria. pp. EGU2016-17451, 2016.

HAL Id: hal-01293446

<https://hal-brgm.archives-ouvertes.fr/hal-01293446>

Submitted on 24 Mar 2016

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Map of critical raw material deposits in Europe

Bertrand Guillaume

Bureau de Recherches Géologiques et Minières, France (b.guillaume@brgm.fr)

Map of critical raw material deposits in Europe

Guillaume BERTRAND¹, Daniel CASSARD¹, Nikolaos ARVANITIDIS², Gerry STANLEY³ and the EuroGeo-Survey Mineral Resources Expert Group⁴.

1 – Bureau de Recherches Géologiques et Minières (BRGM), Georesources Division, 3 avenue Claude Guillemin, 45060 Orléans cedex 2, FRANCE.

2 – Sveriges Geologiska Undersökning (SGU), Box 670, SE-751 28, Uppsala, SWEDEN

3 – Geological Survey of Ireland (GSI), Beggars Bush, Haddington Road, Dublin D04 K7X4, IRELAND

4 – EuroGeoSurveys, Rue Joseph II 36-38, 1000 Brussels, BELGIUM

The Critical Raw Material (CRM) Deposit Map of Europe, prepared by EuroGeoSurvey's Mineral Resources Expert Group (MREG), shows European mineral deposits from the ProMine Mineral Deposit database containing critical commodities, according to the 2014 list of critical raw materials of the European Commission.

EuroGeoSurveys (EGS), The Geological Surveys of Europe, is a not-for-profit organization representing 37 National Geological Surveys and some regional Geological Surveys in Europe. It provides the European Institutions with expert, independent, balanced and practical pan-European advice and information as an aid to problem-solving, policy development, regulatory and programme formulation in areas such as natural resources, energy and geo-hazards. The EGS MREG is actively involved in contributing to policy and strategy-making processes aimed at identifying, characterizing and safeguarding resource potential, especially for critical raw materials through data provision, research, technological development and innovation.

The European Union aspires to reducing the import dependency of raw materials, especially CRM, that are essential to Europe's industries. In this respect, mineral resource information, data sharing and networking by European Geological Surveys is crucial. The Strategic Implementation Plan of the European Innovation Partnership on Raw Materials highlights the need for establishing and maintaining a common interoperable EU Geological Knowledge Base. Such a Knowledge Base will support exploration for indigenous mineral resources and strengthen policy and decision making.

In 2010, the European Commission identified 14 non energy non-agricultural raw materials as being critical. Criticality is based on both the scarcity of supply and the importance to European industry. This list was updated in 2014 to include 7 new commodities with one being dropped from the original list. The list now comprises: antimony, beryllium, borates, chromium, cobalt, coking coal, fluorspar, gallium, germanium, graphite, indium, magnesite, magnesium, niobium, phosphate rock, platinum group metals, light and heavy rare earth elements (separately), silicon metal and tungsten.

ProMine was a European Union (EU) co-funded project, which had as its main objective the stimulation of the extractive industry to deliver new products to manufacturing industry. A major deliverable of the project was the ProMine Mineral Deposit (MD) database that contains information related to almost 13,000 mineral deposits in Europe.

In order to extract data to be displayed on the CRM map of Europe, the ProMine MD database was queried for all commodities on the EC CRM list which were in the medium to super-large deposit size. Following this, the dataset was circulated to MREG in order to verify, validate and update the list.