

SEG 2023 Conference: Resourcing the Green Transition

Metals and Minerals in Europe – Demand, Exploration, Mining and More

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Raw materials are important for society in general, and for the transition to a green economy in particular. They are key for achieving the goals set out in COP21 and several of the United Nations Sustainable Development Goals, for implementing the European 2030 Agenda for Sustainable Development, and for the European Resource Efficiency Flagship. Metals, minerals, and materials and their sustainable supply and consumption are essential in the move towards a circular economy as laid out in the new EU Circular Economy roadmap.

When a mineral is both essential in use and subject to supply risk, it is considered critical. Emerging energy and mobility technologies create a strong demand for certain raw materials, and some of these are critical raw materials where demand will dramatically exceed current production in the next 10-15 years. Limited access to these materials might negatively impact the transition and reduce the competitiveness of European actors downstream.

Almost all research and other initiatives regarding critical raw materials are aiming at substitution, new materials and technologies, new methods to produce critical raw materials from non-conventional sources, and exploration activities. However, this seems to have not significantly improved the criticality situation, so the challenges perhaps lie elsewhere.

The mismatch between the time a commodity remains critical and the decadal scale of mining development makes it difficult and possibly unattractive for existing mining groups to enter the CRM business. What are we doing about it, and is it helping?