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Strengthening the security of supply of products containing Critical Raw Materials for the green transition and decarbonisation

The study¹ assesses the needs and vulnerabilities of the EU in accessing products containing Critical Raw Materials (CRM) needed for the green and digital transitions in a changing

geopolitical context. It provides an overview of the wider situation, as well as a policy context. The study sets out to identify at which stage of the supply chain, ranging from raw materials to final products, the European industrial ecosystem is dependent on CRM imports. It reviews the CRM methodology designed by the JRC to identify which materials are critical and require special attention. The study finds out that setting up of EU stockpiling facilities could mitigate supply disruptions of raw materials and components. However, such an action would require an effective public-private management.

Background

The research provides an overview of the supply chains involved in key green and digital technologies, from raw The materials as such. At present, the EU relies on Russia for a significant share of its imports for three CRMs: platinun palladium and titanium. These are indispensable materials for the development of hydrogen technology. In addition

the EU highly depends on imports from China for both the production of permanent magnets and the extraction and refining of Rare Earth Elements (REEs) used in their production and relies on China for imports of batteries used for Electric Vehicles (EVs) and energy storage.

