PRESS RELEASE

Europe's Critical Raw Materials Challenge: The Key Role of Geologists in Securing Industrial Competitiveness

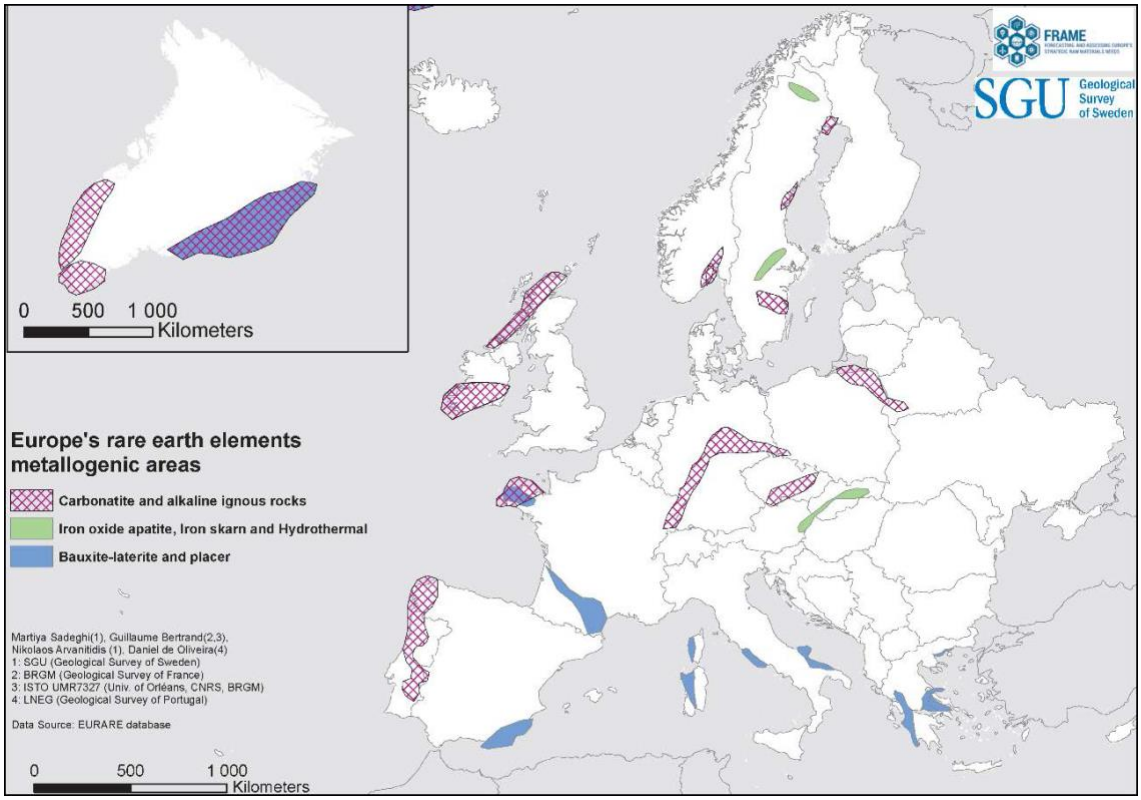

Image from FRAME (Forecasting and assessing Europe's strategic raw materials needs) - Project - SGU

Brussels, 7 March 2025 – The European Union is at a turning point in its raw materials strategy. With the recently approved **Critical Raw Materials Act (CRMA)**, the EU has recognised the urgent need to secure a sustainable and independent supply of minerals essential for the green and digital transitions. This urgency stems from Europe's heavy reliance on imports—98% of its rare earth elements (REE) come from non-EU countries (European Commission, 2023)—and the growing geopolitical instability affecting supply chains.

European Federation of Geologists
13, Rue Jenner, 1000 Brussels, Belgium
Email: info.efg@eurogeologists.eu
Web: www.eurogeologists.eu

Rare Earths: A Geopolitical and Economic Challenge

Rare earth elements (REE) are essential for modern industries, from **renewable energy (wind turbines, solar panels), electric mobility (batteries, motors), and digital technologies (smartphones, semiconductors), to aerospace and defense applications**. However, their supply is currently concentrated in a handful of countries, with **China controlling over 60% of global extraction and more than 85% of refining** (U.S. Geological Survey, 2023).

China's recent decision to **restrict exports of gallium and germanium** has demonstrated the vulnerability of Europe's industrial supply chains. With global demand for REEs expected to surge in the coming years, Europe must act decisively to **diversify supply sources, strengthen domestic exploration, and ensure a secure and ethical supply of critical raw materials**.

The Impact of the War in Ukraine on European Supply Chains

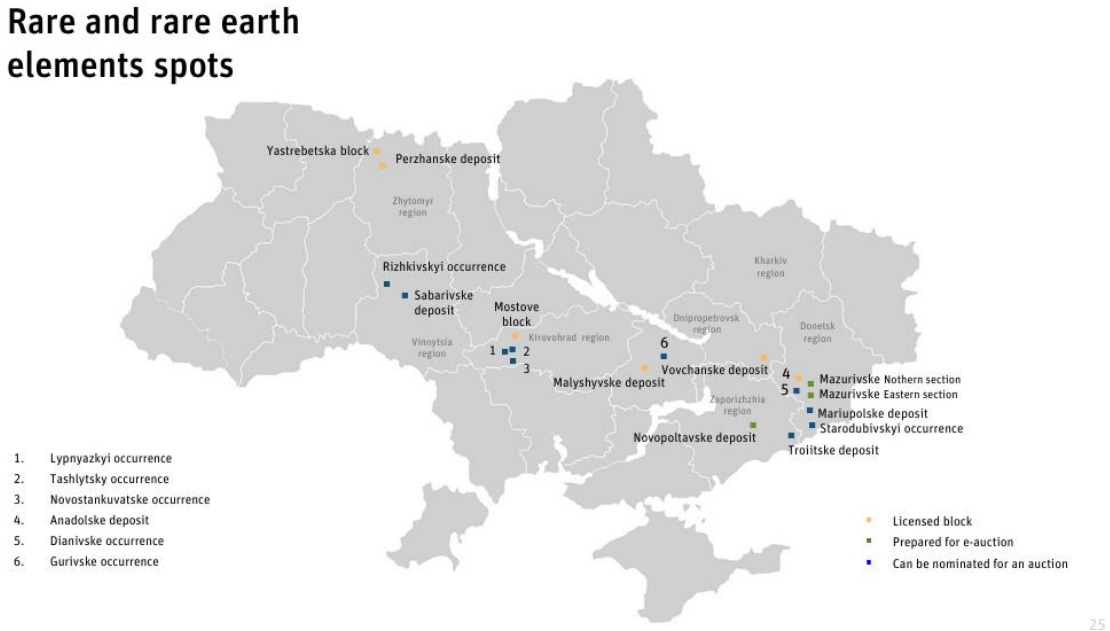

Image extracted from UKRAINE: Mining Investment Opportunities - Critical Raw Materials - Ukrainian Geological Survey Ministry of Environmental Protection and Natural Resources of Ukraine (https://www.geo.gov.ua/geo/investment-opportunities-in-exploration-production-strategic-and-critical-minerals)

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The war in Ukraine has further **disrupted access to key mineral resources**. Before the conflict, Ukraine was a **major global producer of iron, manganese, and titanium** and held **significant reserves of lithium and rare earths**, including yttrium and neodymium (British Geological Survey, 2022). However, the **occupation of strategic mining regions, such as Donbas (coal), Crimea (titanium), and Zaporizhzhia (lithium), has cut off access to these essential resources**, leaving European supply chains increasingly vulnerable.

As of 7 March 2025, the Ukrainian Geological Survey lists on its own website 24 opportunities for investment in CRMs in Ukraine, 19 mainly for exploration & development and 5 for production. Ukraine officials are travelling to several European counties to promote investments in their industries, including investments in the mining sector.

The conflict has accelerated international competition over critical raw materials, with **Ukraine and the United States engaging in discussions on the future of rare earths exploitation**. While geopolitical agreements will play a key role in securing new sources, Europe **must also focus on its own geological potential to reduce external dependence**.

Unlocking Europe's Own Mineral Potential

To ensure long-term security of supply, **Europe must accelerate the exploration and extraction of its own mineral resources, particularly those classified as strategic under the CRMA**. While the EU has significant geological potential, many deposits remain **underexplored or lack reliable resource assessments based on international standards such as CRIRSCO**.

The **development of domestic REE deposits is crucial not only for industrial security but also to maintain competitiveness in key sectors**. However, mining independence can only be achieved through **accurate resource mapping, responsible extraction practices, and investment in sustainable mining technologies**.

Geologists: The Experts Behind Europe's Resource Security

In this new scenario, **geologists play a fundamental role in identifying and managing Europe's mineral resources**. Their expertise is essential for:

- **Mapping and evaluating Europe's mineral potential**, particularly for REEs and other strategic metals.
- **Ensuring that resource development aligns with international standards** such as CRIRSCO, providing transparency and sustainability in mining projects.
- **Driving technological innovation in mineral exploration** to make extraction more efficient and environmentally responsible.

The **European Federation of Geologists (EFG)** strongly advocates for:

- **Strengthening geological exploration** to provide reliable data on Europe's REE potential and other critical raw materials.
- **Integrating certified geologists into mining legislation**, ensuring that exploration and extraction projects meet ethical and environmental standards.
- **Investing in education and research** to develop the next generation of professionals capable of addressing Europe's raw materials challenges.
- **Encouraging international collaboration and professional mobility** to facilitate expertise sharing across European countries.

As **David Govoni, President of the EFG**, states:

"Geologists are the key to unlocking Europe's mineral wealth responsibly. Without them, securing a sustainable and competitive industrial future is simply not possible. We must act now to build a solid foundation for Europe's raw materials strategy."

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Investing in Geology: An Economic and Environmental Imperative

Investing in geology is not just a strategic necessity—it is also an **extraordinary economic opportunity**. Studies suggest that every euro invested in geological exploration can generate up to **1,000 times its initial value** in economic return. Unlocking Europe's mining potential could **inject hundreds of billions of euros into the European economy**, strengthening industrial security and boosting technological innovation.

At the same time, **sustainable mining must be a priority**. The extraction of rare earths **poses significant environmental challenges, including soil pollution, water contamination, and waste management**. Only through **detailed resource mapping, responsible permitting processes, and sustainable deposit management** will it be possible to ensure a secure supply for European industry without compromising environmental integrity.

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