

Closing the innovation and skills gaps: Raw Materials, advanced materials, and the circular economy in FP10





I Draghi Report: CRMs at the heart of European competitiveness

- Report confirms CRMs are the foundation of Europe's industrial future – #2 priority after energy and before digital!
- EIT RawMaterials' strategic agenda fully aligned with CRMA We are focused on securing supply, innovation, development of new technologies, materials and industry symbiosis as a PPP
- EIT RawMaterials-led ERMA supporting CRM supply
 Accelerating EU and international CRM projects, working towards pooling
 Member States resources in a Fund-of-Funds-type solution

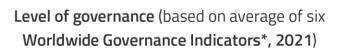
EIT RawMaterials mission is more vital than ever before, breaking dependencies on supply and key technologies to ensure EU resilience and competitiveness!







In 2023, the EU defined 34 Critical Raw Materials, 16 of which are considered of strategic importance for the digital and green transitions.



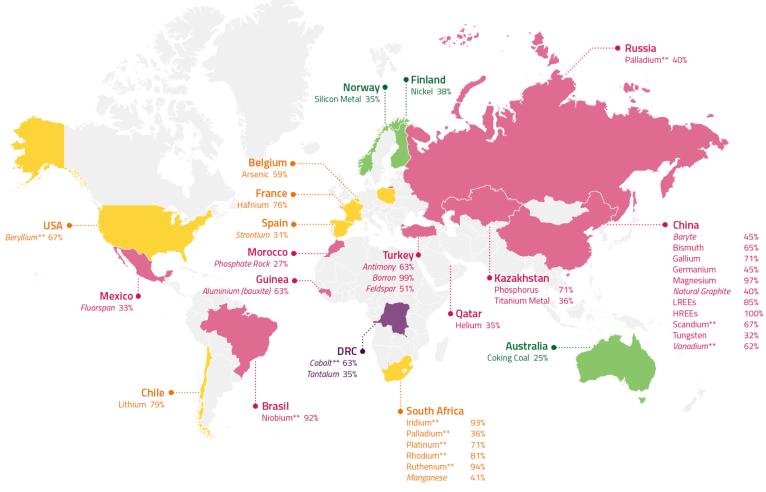


Italic: extraction phase regular: processing stage

** share of global production

*Including: Voice and accountability; Political stability and absence of violence/terrorism; Goverment effectiveness; Rule of law; Control of corruption

Source: Draghi Report "The future of European competitiveness" Part B (European Commission)







EIT RawMaterials is the leading public-private-partnership in raw materials, advanced materials, and the circular economy

EIT RawMaterials success indicators

- 600 startups supported
- 1,400 pilot plants, demonstrator projects and prototypes launched
- 260 products and services brought to market
- €500,000,000 raised by projects and businesses we supported
- €300,000,000 to be invested 2025-2027 to accelerate innovative projects and bring solutions to market



Development of mineral production rates 2000-2020, WMD 2022.





A manifesto highlighting the importance of allocating FP10 funds to close the innovation and skills gaps in raw materials.

Key challenges identified

- Supply chain vulnerabilities: Europe is highly dependent on China for Critical Raw Materials, such as lithium, magnesium, vanadium, and rare earth elements as well as advanced materials produced using these materials.
- Environmental and social responsibility: We must not shy away from European leadership in developing and deploying environmentally friendly mining and recycling practices to minimise the impact of resource extraction on ecosystems and communities.
- Economic and job creation potential: By 2030, securing a stable supply of Critical Raw Materials could generate €2.0 trillion in value and create more than 32 million jobs across sectors, including clean energy, automotive, and manufacturing.



"Security is a precondition for sustainable growth.

Europe is particularly exposed. We rely on a handful of suppliers for critical raw materials, especially China, even as global demand for those materials is exploding owing to the clean energy transition."

M. Draghi, The future of European competitiveness 2024, p3





I FP10 funding should cover the full value chain

- Sustainable mining: Europe must invest in fully digitalised and automated mines, which will improve efficiency, minimise environmental damage, and increase societal acceptance of mining.
- Advanced materials for a green economy: Europe must lead in the development of advanced materials that reduce dependency on Critical Raw Materials.
- Recycling and circular economy: Strategically investing in the capacity of our circular economy is key to reducing Europe's dependency on imported raw materials and lowering environmental footprints.
- Europe's raw materials sector will require over 1.2 million new workers by 2030 to meet the demand for skilled labour in sustainable mining, material science, and recycling technologies.



EPIROC: Boltec Auto Bolt Reload





Key recommendations for FP10

- 1. Invest in disruptive technologies: Europe must lead the world in breakthrough technologies that reduce the environmental impact of raw material extraction and processing.
- 2. Accelerate the circular economy: Support large-scale investments in industrial symbiosis, product design, and recycling technologies that enable reclaiming Critical Materials along the full value chain of products
- 3. Strengthen public private partnerships: We recommend allocating €4 billion in public-private funding over the next decade, leveraging this to attract additional private investments.
- Support workforce development: A green and digital Europe requires a skilled workforce.



EIT RawMaterials – the leading PPP in raw materials and advanced materials innovation covering the full value chain.





FP 10 ROADMAP TO 2028

