



Raw Materials in 2023

Cluster 4, Horizon Europe

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Horizonte Europa Jornada Informativa Nacional

Clúster 4 Industria

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*GROW I.1 – Energy Intensive Industries
and Raw Materials*

Call – RESILIENT VALUE CHAINS 2023*

Raw Materials

for EU open strategic autonomy and successful transition to a climate-neutral and circular economy

6 topics in 2023

EUR 118 mln

**Opening: 8 Dec 2022
Deadline: 20 Apr 2023**

- HORIZON-CL4-2023-RESILIENCE-01-02: Innovative technologies for sustainable and decarbonised extraction (RIA) (Lump sum)
- HORIZON-CL4-2023-RESILIENCE-01-03: Technologies for processing and refining of critical raw materials (IA)
- HORIZON-CL4-2023-RESILIENCE-01-05: Recycling technologies for critical raw materials from EoL products (IA)
- HORIZON-CL4-2023-RESILIENCE-01-06: Earth Observation platform, products and services for raw materials (IA) (Lump sum)
- HORIZON-CL4-2023-RESILIENCE-01-07: Expert network on Critical raw materials (CSA) (Lump sum)
- HORIZON-CL4-2023-RESILIENCE-01-09: Recyclability and resource efficiency of Rare Earth based magnets (IA)

***Text available on:**

https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2023-2024/wp-7-digital-industry-and-space_horizon-2023-2024_en.pdf

Call – RESILIENT VALUE CHAINS 2023*

Raw Materials

for EU open strategic autonomy and successful transition to a climate-neutral and circular economy

Participation in these topics is limited to legal entities established in Member States, associated countries, OECD countries, African Union Member States, MERCOSUR, CARIFORUM, Andean Community and countries with which the EU has concluded strategic partnerships on raw materials.

HORIZON-CL4-2023-RESILIENCE-01-02: Innovative technologies for sustainable and decarbonised extraction (RIA)

Projects are expected to contribute to the following outcomes:

- Develop innovative technologies for extraction of raw materials in the European Union.
- Increase the domestic EU sourcing of raw materials.
- Improve responsible supply of raw materials to Europe in line with the EU principles for sustainable raw materials, which are a non-regulatory set of principles based on the EU acquis. They set out requirements for sustainable raw materials and extraction and processing in Europe in terms of social, environmental and economic performance.
- Show the potential to reduce substantially the Green House Gases (GHGs) emissions intensity of extraction per ton of the material (metal, metal content, concentrate, mineral) sold on to the downstream value chain, thus contributing to EU climate neutrality objectives.
- Promote the utilisation of UNFC (United Nations Framework Classification for Resources) and UNRMS (United Nations Resource Management System) in the raw materials sector.
- Accelerate development of EU domestic raw materials exploration projects integrating innovative technologies.

Indicative budget of the call: 25 million EUR

EU contribution per project: 5 million EUR

Type of Action: Research and Innovation Actions

TRL: 3-5

HORIZON-CL4-2023-RESILIENCE-01-03: Technologies for processing and refining of critical raw materials (IA)

Projects are expected to contribute to the following outcomes:

- Increase recovery rates of valuable raw materials, particularly critical raw materials from low grade or complex ores and/or from extractive waste;
- Significantly increase economic performance in terms of higher material-, water-, energy- and cost-efficiency and flexibility in minerals processing and metallurgical processes;
- Significantly improve the health, safety and environmental performance of the operations throughout the whole life cycle which is considered, including a reduction in waste, wastewater and emissions generation and a better recovery of resources from generated waste;
- Improve responsible supply of raw materials to Europe in line with the EU principles for sustainable raw materials, which are a non-regulatory set of principles based on the EU acquis. They set out requirements for sustainable raw materials and extraction and processing in Europe in terms of social, environmental and economic performance.

Indicative budget of the call: 22 million EUR

EU contribution per project: 7.3 million EUR

Type of Action: Innovation Actions

TRL: 6-7

HORIZON-CL4-2023-RESILIENCE-01-05: Recycling technologies for critical raw materials from EoL products (IA)

Projects are expected to contribute to the following outcomes:

- Develop raw materials recycling and re-use of components and/or products from end-of-life products technologies and urban mines, including efficient sorting technologies for separation and recycling and the sustainable embedment of the process regarding energy, resource and water efficiency.
- Improve responsible supply of raw materials to Europe in line with the EU principles for sustainable raw materials, which are a non-regulatory set of principles based on the EU acquis. They set out requirements for sustainable raw materials and extraction and processing in Europe in terms of social, environmental and economic performance.
- Demonstrate contribution to EU climate neutrality objectives.

Indicative budget of the call: 28 million EUR

EU contribution per project: 7 million EUR

Type of Action: Innovation Actions

TRL: 6-7

HORIZON-CL4-2023-RESILIENCE-01-06: Earth Observation platform, products and services for raw materials (IA)

Projects are expected to contribute to the following outcomes:

- Develop and deploy innovative technologies, products and services based on satellite, airborne and ground-based remote sensing data combined with other in-situ data sources (e.g. geophysical and geological data), supporting the whole raw materials value chain, from mineral exploration to post-closure activities.;
- Improve responsible supply of raw materials to Europe in line with the EU principles for sustainable raw materials, which are a non-regulatory set of principles based on the EU acquis. They set out requirements for sustainable raw materials and extraction and processing in Europe in terms of social, environmental and economic performance.
- Improve knowledge on raw materials resources in Europe.
- Actions are expected to contribute to the implementation the EU action plan on Critical Raw Materials.
- Develop best practices and standards for innovate EO technologies, products and services for a more efficient permitting and environmental compliance processes.

Indicative budget of the call: 20 million EUR

EU contribution per project: 6.7 million EUR

Type of Action: Innovation Actions

TRL: 6-7

HORIZON-CL4-2023-RESILIENCE-01-07: Expert network on Critical raw materials (CSA)

Projects are expected to contribute to the following outcomes:

- Strengthening the expert capacity in the EU in a wide range of raw materials along the whole value chain;
- Better informed and more effective decision-making by the EU and National policy makers and the producers and users of raw materials regarding the supply and demand of raw materials and the associated environmental and social aspects;
- Improving EU official statistics and building the EU knowledge base of primary and secondary raw materials.
- Improving awareness of society across the EU about importance of the critical raw materials and other relevant materials for strategic value chains in support of the implementation of the green and digital transitions;
- In the longer term improved diversification of CRMs supply to the EU.
- Improve responsible supply of raw materials to the EU in line with the EU principles for sustainable raw materials, which are a non-regulatory set of principles based on the EU acquis. They set out requirements for sustainable raw materials and extraction and processing in Europe in terms of social, environmental and economic performance.

Indicative budget of the call: 3 million EUR

EU contribution per project: 3 million EUR

Type of Action: Coordination and support action (CSA)

HORIZON-CL4-2023-RESILIENCE-01-09: Recyclability and resource efficiency of Rare Earth based magnets (IA)

Projects are expected to contribute to the following outcomes:

- Develop more cost effective and resource efficient rare earth permanent magnets.
- Improve recyclability, re-use, refurbishment and/or repurposing of end-of-life magnets.
- Improve responsible supply of raw materials to Europe in line with the EU principles for sustainable raw materials, which are a non-regulatory set of principles based on the EU acquis. They set out requirements for sustainable raw materials and extraction and processing in Europe in terms of social, environmental and economic performance.
- Demonstrate contributions to EU climate neutrality objectives.

Indicative budget of the call: 20 million EUR

EU contribution per project: 6.7 million EUR

Type of Action: Innovation Actions

TRL: 6-7

Thank you



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