



POLICY BRIEF:

Advancing Sustainable **Raw** **Material Recovery** in the EU



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Funded by
the European Union

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Executive summary:

This policy brief aims to contribute to improve material waste processing and recycling. By promoting effective waste management practices and circular economy principles, we can mitigate environmental impact, conserve resources, and stimulate economic growth.

Introduction:

The RAWMINA project aims to develop and implement an innovative, sustainable system for recovering critical raw materials (CRMs) from mine waste within the EU. Given the EU's heavy reliance on imported CRMs, RAWMINA provides a strategic approach to reducing dependency while promoting environmental and social sustainability.

Key Findings:

1

Environmental and Economic Life Cycle Assessment

The RAWMINA pilot system demonstrates a significant reduction in carbon emissions and energy savings compared to conventional methods.

The environmental assessment highlights reduced ecological impact, particularly in water scarcity and freshwater ecotoxicity categories.

2

Social Impact Assessment

The project emphasises job creation, technological advancement, and regional economic benefits.

Ethical mining practices and stakeholder engagement are promoted to ensure social acceptance and responsible CRM production.

3

Circular Economy Performance

RAWMINA promotes resource efficiency by transforming solid waste into marketable products.

Most of process water is reused, significantly reducing overall consumption.

The project aligns with EU directives on extractive waste, water management, and sustainability policies.

Policy Recommendations:

1 Support for Sustainable CRM Recovery Initiatives

The EU should promote and fund technologies like RAWMINA that both enhance the sourcing of CRMs locally, and reduce reliance on imported materials.

Regulatory frameworks should incentivise the integration of sustainable raw material recovery into mining operations.

2 Standardization and Best Practices for Circular Mining

Develop EU-wide best practices and certification for circular mining operations.

Establish mandatory environmental and social impact assessments for CRM recovery projects.

3 Investment in Green Technologies

Provide tax incentives and grants for industries adopting sustainable CRM recovery methods.

Facilitate public-private partnerships to scale up the technologies demonstrated in RAWMINA.

4 Enhanced Public Awareness and Stakeholder Engagement

Conduct information campaigns to build trust and social acceptance of sustainable mining practices.

Foster open dialogue sessions between policymakers, industries, and local communities to address concerns and encourage participation.

Conclusion:

RAWMINA has established a benchmark for sustainable CRM recovery in the EU by integrating environmental, economic, and social considerations into a circular economy framework. Policymakers should leverage the project's insights to develop robust strategies that enhance sustainability, secure raw material supply chains, and drive economic and environmental benefits. Continued support and policy alignment will ensure the successful implementation of sustainable raw material recovery initiatives across the EU.



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