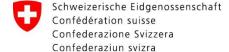




Progress in End-of-Life Secondary Raw Materials

Raw Materials Week 2023 – Brussels 16. November 2023

Iman Dorri, Soraya Heuss-Aßbichler Ludwig-Maximilians Universität München



Swiss Confederation

Federal Department of Economic Affairs, Education and Research EAER State Secretariat for Education, Research and Innovation SERI

EU Framework Programmes





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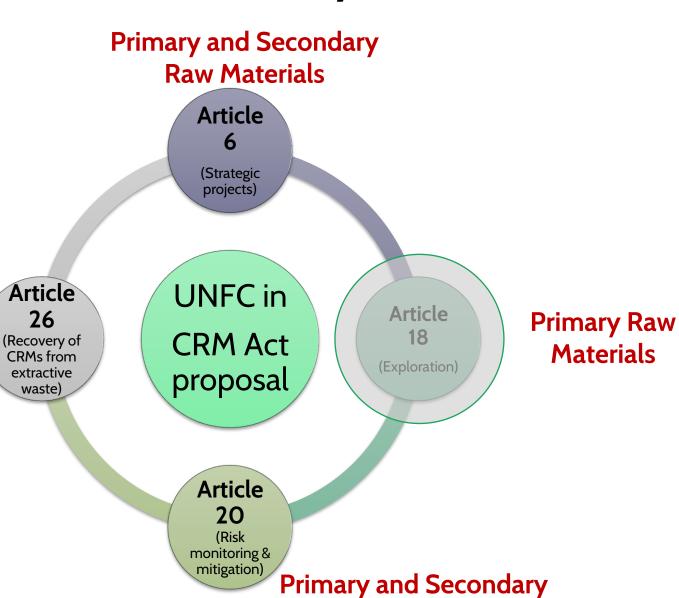
UNFC in Critical Raw Material (CRM) Act

CRM Act, UNFC and Secondary Raw Materials

Secondary Raw Materials

(Extractive/mining waste)

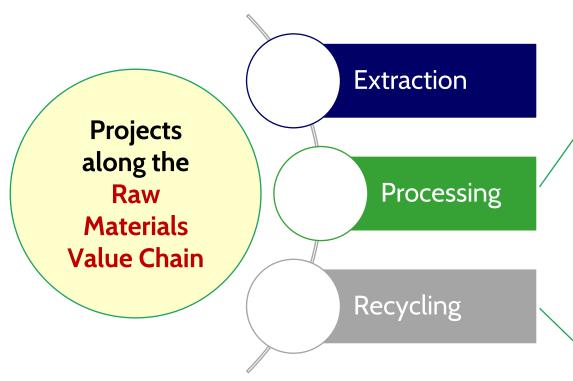




Raw Materials

Raw material projects in CRM Act (including Strategic projects)





All physical, chemical and biological processes involved in the transformation of a raw material from ores, minerals, plant products or waste into pure metals, alloys or other economically usable forms

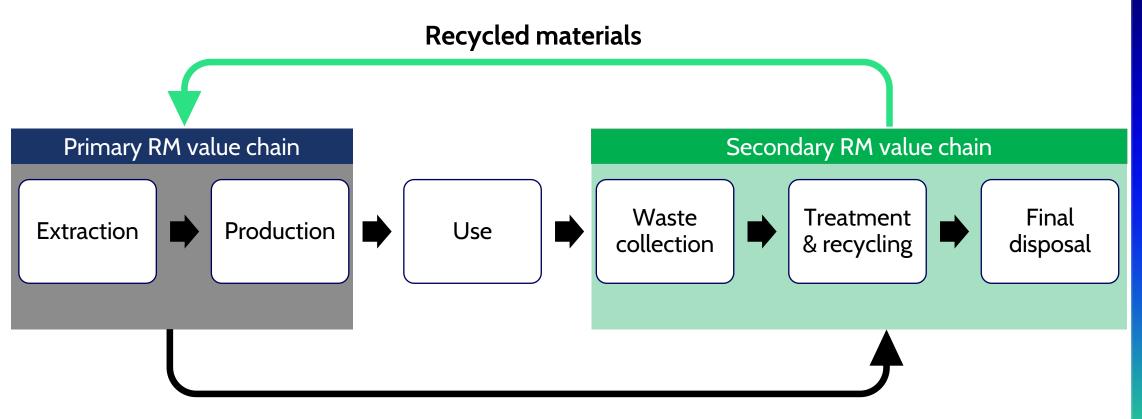
(CRM Act. Article 2)

'Recycling' means any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes.

(CRM Act. Article 2)

Raw material (RM) value chain





Extraction and production waste

UNFC stakeholders

UNFC stakeholders

Users of UNFC (Project Classifiers)















National authorities

Geological surveys

Project developers



End users of UNFC results (Beneficiaries)



Project developers

Investors

Public and **NGOs**

National authorities (Government)

Geological surveys

Policy makers

Systematic procedure to apply UNFC on site-specific projects

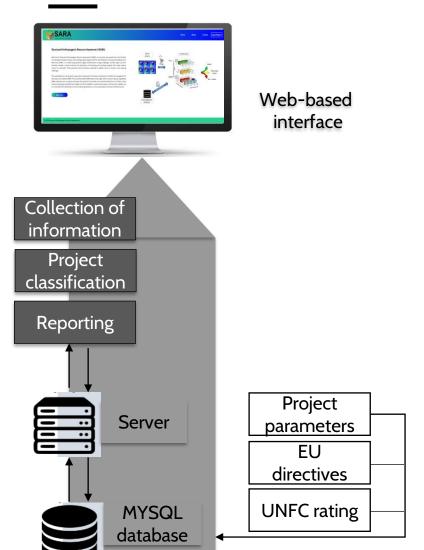
Procedure for UNFC implementation (7 stages) for individual projects

F

- 1 Project profile main information
- 2 Project definition and settings
- 3 Controlling factors for project classification
- 4 Project assessment and used methodology
- 5 Result categorization
- 6 UNFC Classification
- 7 UNFC Reporting

Web tool as a UNFC use facilitator





User-friendly procedure

- A step-by-step and easy-to-follow procedure
- Facilitate the assessment of multiple factors

Efficiency and accuracy

- Reducing errors and saving time
- Ensures ease of use for a wide range of professionals

Real-time updates

- The web tool can be updated with the latest UNFC guidelines and data
- Ensures ongoing relevance and compliance

UNFC and raw materials management

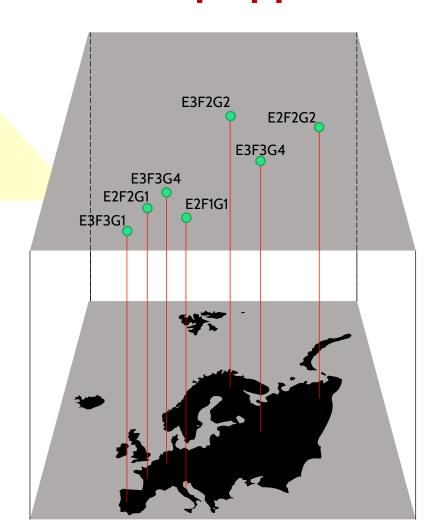
UNFC and resource management on the EU level



Bottom-up approach

Mapping all raw material projects classified by UNFC

Classification of individual raw material projects by UNFC all over the EU



Meta database

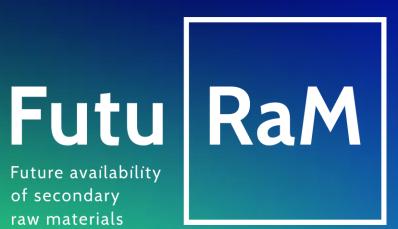






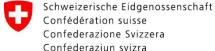






Thanks for your attention

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