



UNIVERSITAT POLITÈCNICA
DE CATALUNYA
BARCELONATECH

Resource Recovery and Environmental Management (R2EM)

Chemical Engineering Department

Barcelona Research Center in Multiscale Science and Engineering

UPC Hydrogen Research Center (CER-H2)

EEBE, Barcelona TECH UPC

J.L. Cortina

09/02/2023

Raw Materials Strategy and Road-Map

Neutral and Circular EU Process Industry (P4Planet)



Science and Technology of Separation Processes

Digital Tools for Process Separation
and Recovery Modelling and Design

Technologies for Circular Economy Solutions in
Urban Mining and Process Industries

Technologies for Industrial De-carbonization

Activity Domains

- a) R&D
- b) Technology transfer
- c) Training and education
- d) Dissemination

Green Deal EU Ecological Transition



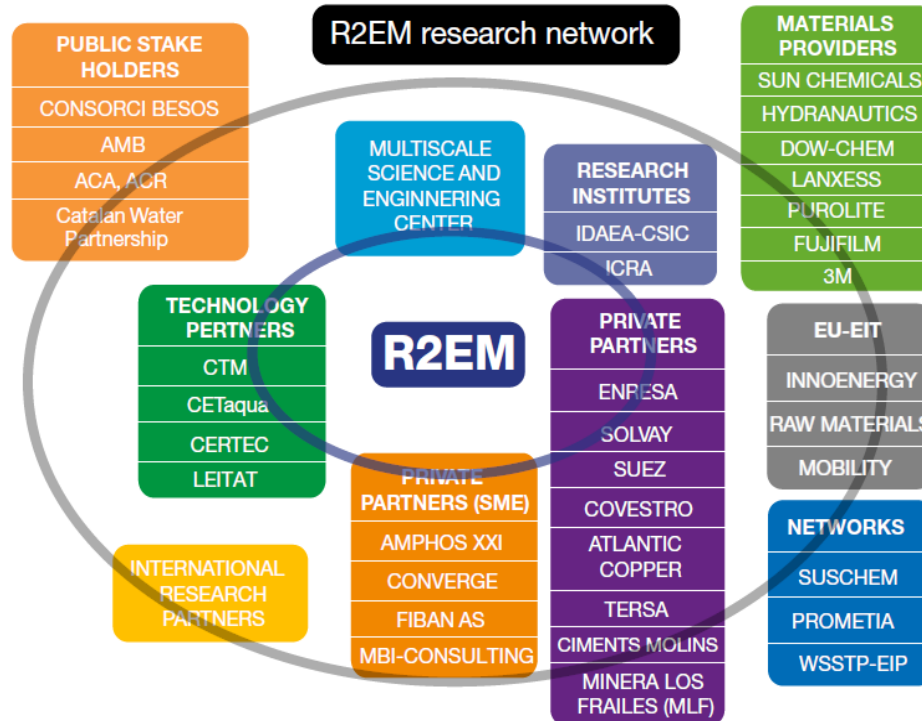
Critical Raw Materials- EIT RM-Lighthouse





Scientific and Technologic Network

Cover the complete value chain: 1-9TRLs



1) H2020 (Sea Mining)

SEA4VALUE

SEARCULARMINE

2) EIT-RM KIC (UP-SCALING)

RECOPPS

REECOVERY

3) HE

METALLICO

EXBRINER(MSCA-ITN)

4) AEI-NATIONAL PROGRAMS

WASTE4VALUE

REEME

REESOURCES (up-scaling)

5) ECOLOGICAL TRANSITION

META4LIBS

SUSTDESALT

4 M€ 2020-2026



1) Research and development domains

- Primary and Secondary Resources to provide metals of the ELVs technology
- End-of-life wastes: recycling of ELV batteries, magnets and s-PVs
- Promoting up-cycling recoveries avoiding complex separation and purification processes.

2) Research infrastructures

- Creación of a Circular Metal Lab (creation a singular infrastructure in the two main UPC campus (Manresa/Barcelona Est)

3) Higher Training and Education activities

- Summer Schools through the EITRM calls (KAVA 10)
- Erasmus Mundus (Master)

4) Dissemination activities

- Southern Spain RIS Innovation HUB (SSRIH)(EITRM) (submitted 01/23)

