

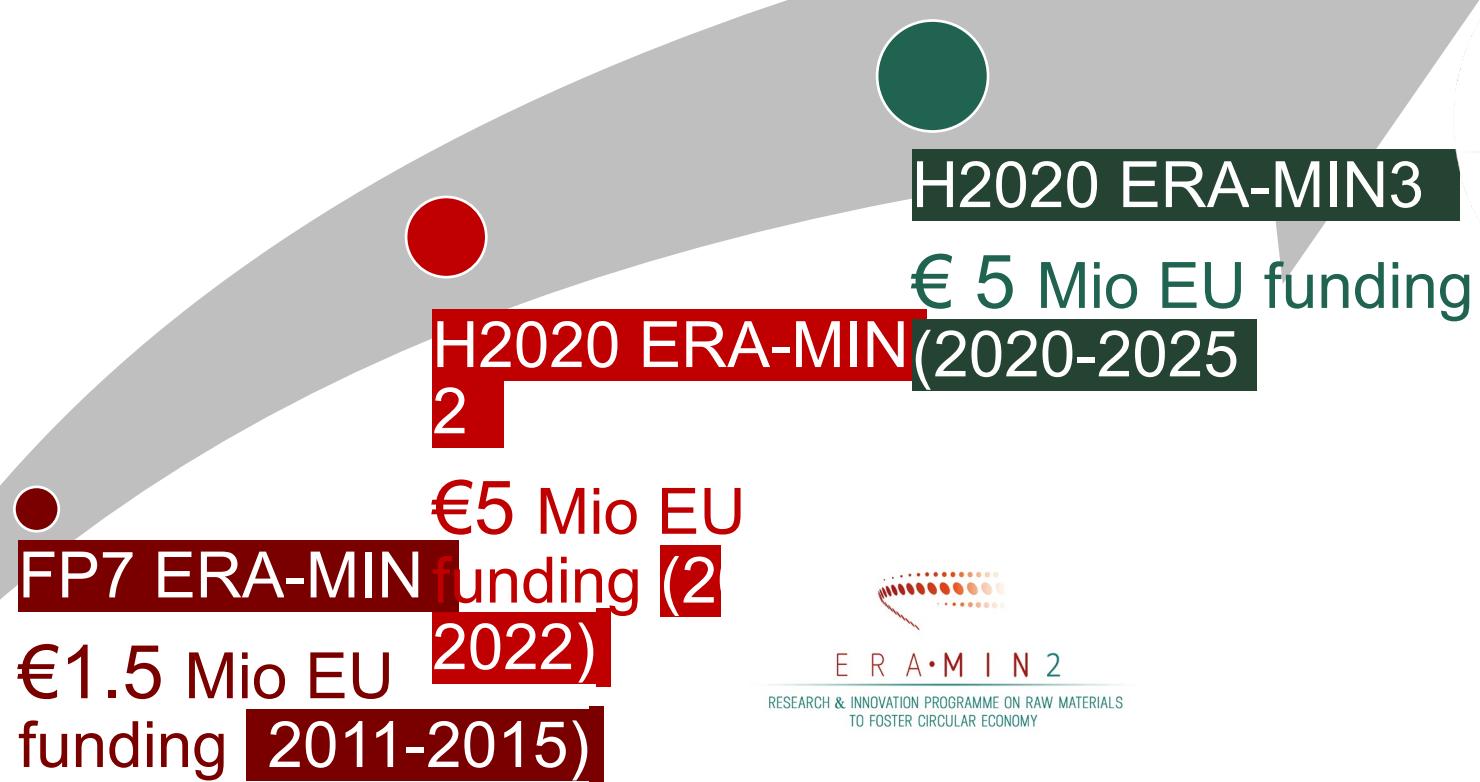
# ERA-MIN 2 “Research & Innovation Programme on Raw Materials to Foster Circular Economy”



Support the development of the non-fuel, non-food mineral and metals raw materials research area through world-wide coordinated funding

EU funding  
to ERA-NETs  
since 2011

## Three ERA-MIN networks supported by EU



## Objectives

Pan-European, Innovative and Flexible Network of Public Research and Innovation Funding Organisations

Secure the sustainable and responsible supply of **non-food, non-fuel mineral raw materials** for a **carbon-neutral and a circular economy**

Promote **world-wide** research and innovation (R&I) cooperation through **coordinated funding**

**Reduce the fragmentation of R&I funding across Europe and globally**

Implement **Joint Calls for transnational R&I projects on “Raw materials for the sustainable development and the circular economy”**

Support international R&I projects between **universities, research institutes, small, medium and large enterprises, NGOs, public authorities, etc**



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RESEARCH & INNOVATION PROGRAMME ON RAW MATERIALS  
TO FOSTER CIRCULAR ECONOMY



Co-funded by the Horizon 2020 programme of the European Union



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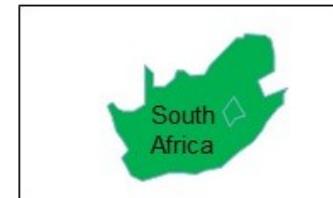
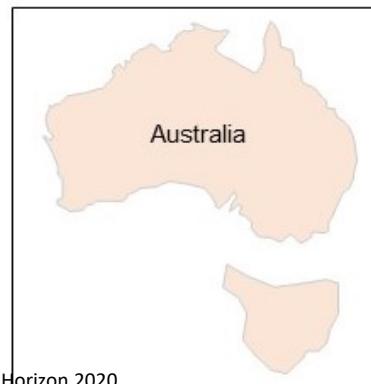
RESEARCH & INNOVATION PROGRAMME ON RAW MATERIALS  
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# ERA-MIN Consortium

## Evolution since 2011

EU Member States Countries/region  
EU Associated Country (Turkey)

Non-EU countries ( Argentina, Brazil, Chile,  
Québec/Canada, South Africa )



Legend:  ERA-MIN 1, 2 and 3  ERA-MIN 3  ERA-MIN 2 and 3  ERA-MIN 1 and 2  ERA-MIN 1  Observers

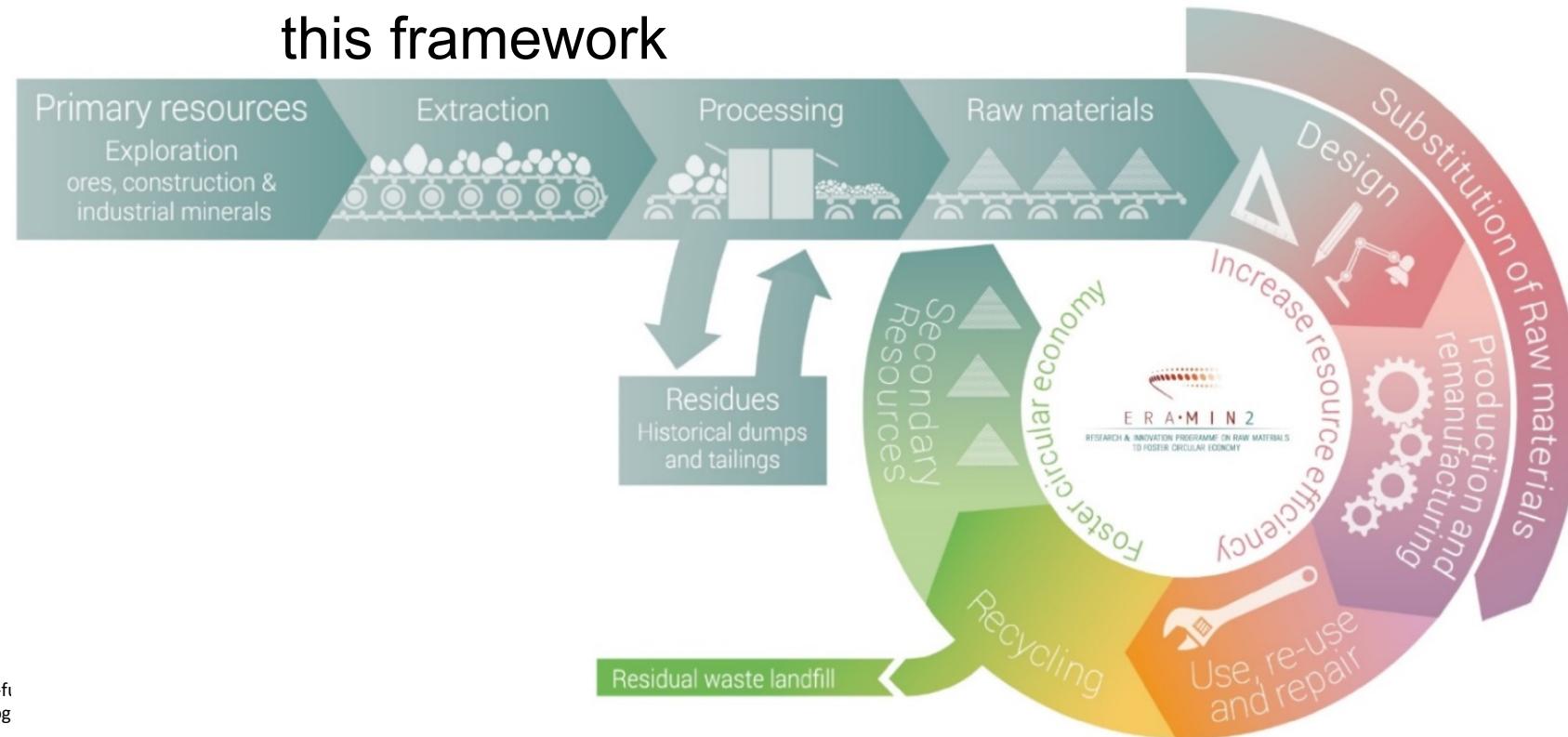


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- ## Non-fuel non-food raw materials
- Metallic,
  - Construction,
  - Industrial minerals.

## Call scope

Raw materials for batteries, and their recycling, are included in this framework



**ERA-MIN 2 Calls  
&  
40 funded Projects  
&  
€29 million public funding**

**8 Battery related projects**  
(€6 million) ERA-MIN Calls  
(2015, 2017, 2018, 2019)

**6 Joint Calls of ERA-MIN and ERA-MIN 2**

FP7 ERA-MIN Joint Calls			H2020 ERA-MIN 2 Joint Calls		
2013	2014	2015	2017 (EU co- funded)	2018	2019

**57 R&I transnational projects (total)**

**30% enterprises (average)**

**€42 Million total public funding**

**€60 Million total project costs**



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# ERA-MIN Joint Calls 2017, 2018 and

All thematic areas were  
covered

2019

a circular economy  
approach

1.Exploration/min  
ing



H2020 evaluation criteria:  
1. Excellence  
2. Impact  
3. Implementation

Selection of project for funding through a ranking list from an international scientific assessment of proposals

Variable funding rates:  
• 100 % for non-profit organisations  
• <70% for profit organisations

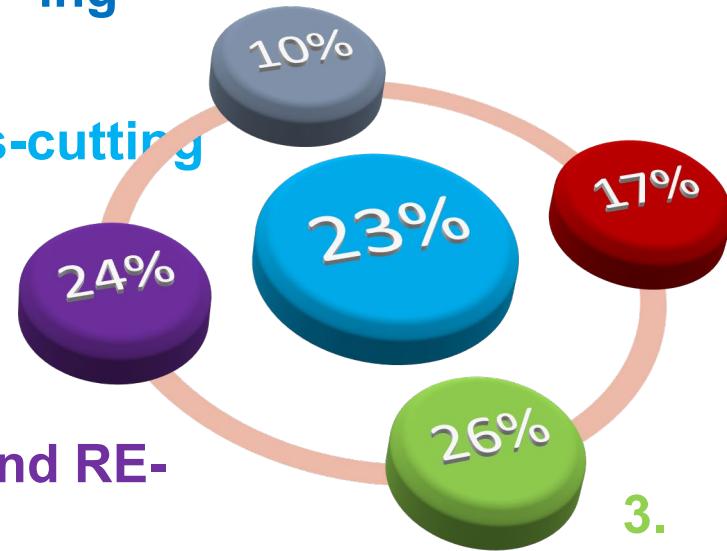
Project start

5. Cross-cutting topics

4. Recycling and RE-use of End-of-Life products

2. Design

3. Processing/Producton/  
Remanufacturing



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# BATTERY RELATED PROJECTS IN ERA-MIN JOINT CALLS



## Overview of the 8 Transnational R&I projects



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BATRE-  
36 months  
A2R6S9)

## Battery Recycling – Achieving Rare Earth Separation

**BatreAres** project was funded under [ERA-MIN Joint Call 2015](#) on “Sustainable Supply of Raw Materials in Europe”.

Li+WATER  
36 months  
(2018-22)

Membrane electrolysis for resource-efficient lithium and water recovery from brines

**Li+Water** project was funded under [ERA-MIN Joint Call 2017](#) on “Raw materials for the sustainable development and the circular economy”.



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# LIGHTS

36 months  
(2018 -21)

## Light weight Integrated Ground and Airborne Hyperspectral Topological Solution

**LIGHTS** project was funded under [ERA-MIN Joint Call 2017](#) on “Raw materials for the sustainable development and the circular economy”.

# NEXT-LIB

36 months  
(2019 -22)

## Novel Circular Economic Approaches for Efficient Extraction of Valuables from Spend Li-Ion Batteries

**NEXT-LIB** project was funded under [ERA-MIN Joint Call 2018](#) on “Raw materials for the sustainable development and the circular economy”.

# LIMEX

36 months  
(2019-22)

# BaCLEM

36 Months  
(2020-23)

## Innovative Membrane Extraction of Lithium for Spent Lithium-Ion Battery Recycling

**LIMEX** project was funded under [ERA-MIN Joint Call 2018](#) on “Raw materials for the sustainable development and the circular economy”.

## Bio-assisted Closed loop recycling of E-Mobility Metals from waste PCBs and Li-Ion Batteries

**BaCLEM** project was funded under [ERA-MIN Joint Call 2019](#) on “Raw materials for the sustainable development and the circular economy”.



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# ELiMINATE

36 Months  
(2020-23)

End-of-life Li-ion battery management integration and technology evaluation

**ELiMINATE** project was funded under [ERA-MIN Joint Call 2019](#) on “Raw materials for the sustainable development and the circular economy”.

# LICOBAT

30 months  
(2019-22)

**Lithium and Cobalt recovery from batteries coming from the reverse logistics chain of WEEE**

**LICOBAT** project was funded under [ERA-MIN Joint Call 2018](#) on “Raw materials for the sustainable development and the circular economy”.



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- ✓ Reverse logistics chain of Waste Electrical and Electronic Equipment, through Recycling and Re-use of End-of-Life Products



Social and economic impacts of circular economy processes



- ✓ Operationalize a pilot plant for the treatment of up to 100 kg of lithium-ion batteries



Within the best cost/benefit ratio and minimum environmental impact



# Get involved

## Contact & Info

### Partner Search Tool

<https://www.submission-era-min.eu/partner-search>

### Newsletter

<https://www.era-min.eu/newsletter>



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- If you are a **research performing organisation** (including enterprises), submit an application to the Call for proposals;
- If you are an **expert on non-fuel, non-food raw materials**, apply as a reviewer.
- If you are a **research funding organisation** (Ministry or Agency), join the future Joint Call planned to 2023.
- If you are a **raw materials related project or initiative**, liaison with ERA-MIN3 to promote synergies.

### FOLLOW US



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<https://www.era-min.eu/>

### CONTACT DETAILS

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**Mr. Stefano Amaral**

