

Circular economy innovations:
From waste to valuable materials with EU R&I



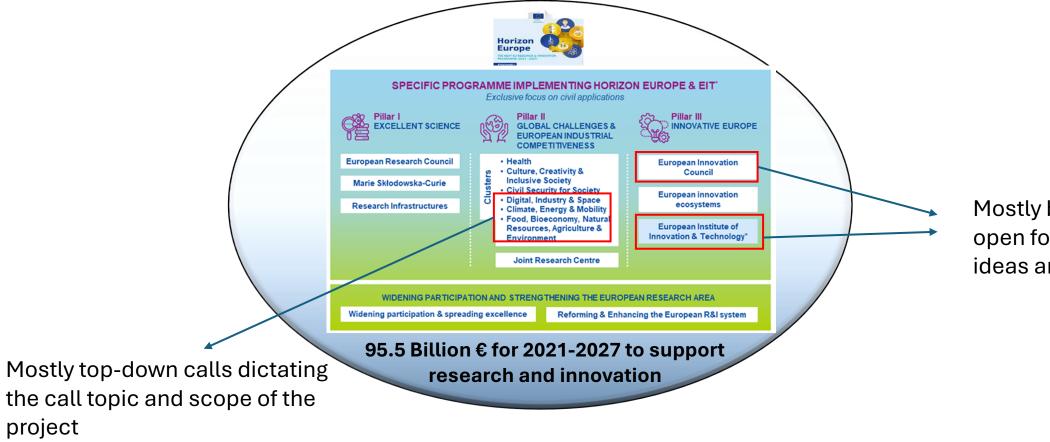


### **Outline**

- ✓ The EU has put in place a comprehensive policy mix to support the green transition.
- ✓ Today we will learn about the essentials about those policy initiatives and the supporting/funding mechanisms for innovative circular economy projects
- ➤ Horizon Europe
- > Life
- Critical Raw Materials Act-Strategic projects
- Competitive Compass- Competitiveness fund



# Funding schemes under Horizon Europe



Mostly bottom up calls open for any innovative ideas and concepts



# Examples of relevant Funding schemes under Horizon Europe for circular economy (metals)- Cluster 4

## HORIZON-CL4-INDUSTRY-2025-01-MATERIALS-61: Technologies for critical raw materials and strategic raw materials from end-of-life products

Type: Innovation Action (IA)

Budget: 8M€ per project, €24 M available, Deadline: 23/09/2025

Focus: Reuse and Recycling critical raw materials from end-of-life products such as WEEE, waste batteries, end-of-life vehicles, waste wind turbines, waste solar photovoltaics, waste heat pumps, waste electrolysers and machine tools made from high-performance alloys.

## HORIZON-CL4-2025-05-TWIN-TRANSITION-35-two-stage: Developing and embedding upcycling technologies into viable business

Type: Innovation Action (IA)

Budget: 8-12M€ per project, €48 M available, Deadlines: 23/09/2025 and 14 April 2026

Focus: Upcycling of end-of-life materials for providing new business opportunities and revenue flows for recycling

companies



# Examples of relevant Funding schemes under Horizon Europe for circular economy (metals)- Cluster 4

HORIZON-CL4-INDUSTRY-2025-01-MATERIALS-63: Innovative solutions for the sustainable production for Semiconductor raw materials

Type: Innovation Action (IA)

Budget: 8 M€ per project, €24 M available, Deadline: 23/09/2025

Focus: Increase recovery rates of particularly raw materials from low grade or complex ores and/or from residues and/or by-

products and/or extractive waste and/or manufacturing waste

#### HORIZON-CL4-INDUSTRY-2025-01-TWIN-TRANSITION-01 Integrated approaches for remanufacturing

Type: Innovation Action (IA)

Budget: 5-7M€ per project, €35 M available, Deadline: 23/09/2025

Focus: Developing integrated solutions for remanufacturing to enhance circularity

### HORIZON-CL4-INDUSTRY-2025-01-TWIN-TRANSITION-05: Advanced manufacturing technologies for leadership of EU manufacturers in products for the net-zero industry

Type: Innovation Action (IA)

Budget: 5-7M€ per project, €42 M available, Deadline: 23/09/2025

Focus: Circular manufacturing approaches and reduced reliance on Critical Raw Materials, in view of increasing the options for re-

manufacturing, disassembly, recycling, etc



# Examples of relevant Funding schemes under Horizon Europe for circular economy (metals)- Cluster 5

## HORIZON-CL5-2025-02-D2-03: Sustainable processing and refining of raw materials to produce battery grade Li-ion battery materials

Type: Innovation Action (IA)

Budget: 10 M€ per project, €20 M available, Deadline: 23/09/2025

Focus: Advanced technologies for the processing of primary and secondary raw materials into high-quality battery

metals or active materials

# HORIZON-CL5-2025-01-Two-Stage-D3-23: Critical elements for energy security of grid and storage technologies

Type: Research and Innovation Action (RIA)

Budget: 3M€ per project, €9 M available, Deadline: 2/09/2025 and 31/03/2026

Focus: Increasing circular economy processes, recycling, re-use or substitution of sustainably supplied critical

materials and electronics for energy network and storage technologies;



# **Examples of relevant Funding schemes under Horizon Europe for circular economy - Cluster 6**

## HORIZON-CL6-2025-01-CIRCBIO-01: Novel circular business models to enable the just transition to a sustainable and circular economy

Type: Innovation Action (IA)

Budget: 5 M€ per project, €10 M available, Deadline: 17/09/2025

Focus: Development of innovative business models, to enable the transition towards a circular and sustainable

ecosystem

## HORIZON-CL6-2025-01-CIRCBIO-01-two-stage: Open Topic: Innovative solutions for the sustainable and circular transformation of SMEs

Type: Innovation Action (IA)

Budget: 5M€ per project, €10 M available, Deadline: 4/09/2025 and 18/02/2026

Focus: Address common but also new, upcoming, or unforeseen challenges to the green transition of SMEs through

innovative, disruptive and sustainable solutions.



### Funding schemes under the LIFE Programme

EU's funding instrument for environment and climate action.

#### **Key objectives:**

- Promote innovative techniques and approaches for environmental policy.
- Support large-scale deployment of successful solutions.
- Contribute to EU Green Deal and Circular Economy Action Plan.

#### Circular economy topics covered:

• Recovery of Resources from Waste, Innovative recycling and recovery technologies: (WEEE, Batteries, EoL Vehicles, C&D, plastics, textiles, composite, recovery and/or reuse of CRM from waste, packaging etc.)

Available budget for Circular economy and Quality of life in 2025: 77 M€ (30 projects to be funded) Project type: Standard Action Projects (SAPs).

- Funding rate: Up to 60% of eligible costs.
- Typical budget: €2M €10M per project.
- Eligible costs: Personnel, equipment, subcontracting, overheads (7%).
- Deadline 23 September 2025





### The Critical Raw Materials Act (CRMA)

It was proposed by the EC in March 2023 and entered into forces about a year ago (23 May 2024).

#### Aim:

- > Strengthen EU's critical raw materials capacities along all stages of the value chain.
- Ensure a diverse, secure, and sustainable supply of critical raw materials for the EU's industry.

#### **How?** Actions under the CRMA:





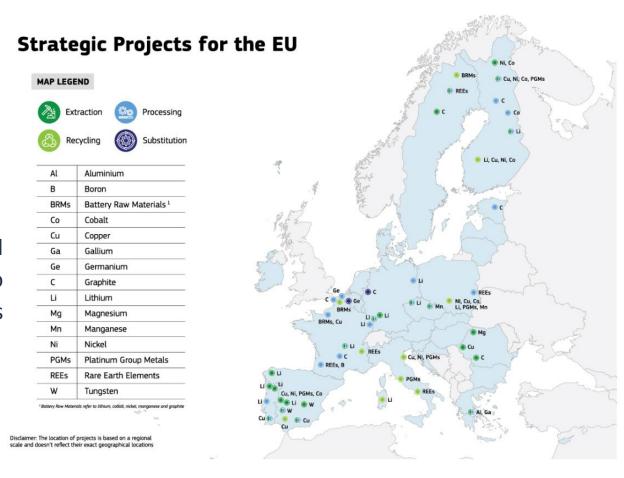
- 3- Creating secure and resilient supply chains e.g. reduce admin burden, streamlining permitting procedures for CRM projects, select Strategic Projects benefiting from support for access to finance and shorter permitting (27 for extraction and 15 Month for processing/recycling).
- 4- Supply risk preparedness and mitigation e.g. Supply chain monitoring, stress test, coordinates strategic stocks
- 5- Improving sustainability and circularity of CRM e.g. improve collection and ensure recycling of CRM rich waste
- 6- Diversifying the EU imports of raw materials





### The Critical Raw Materials Act (CRMA)-Strategic projects

- ➤ 47 strategic projects selected as Strategic Projects (25 March 2025) located in 13 EU member states
- 25 projects comprising extraction activities, 24 processing,
   10 recycling and 2 substitution of raw materials.
- ➤ Those 47 Projects have an expected overall capital investment of €22.5 billion. These projects will be able to benefit from coordinated support by the EC, Member States and financial institutions to become operational.





### The Competitiveness Compass- Why and aim?



- Europe lags in productivity growth compared to major economies
- The Competitive Compass: A strategic Roadmap to Regain Competitiveness and Secure Sustainable Prosperity
- ➤ Launched: 29 January 2025 by the European Commission
- Aims to steer Europe toward innovation, sustainability, and resilience
- Guides the Commission's work for the 2024-2029 period



### The Competitiveness Compass- Core areas of Actions

#### 1. Closing the Innovation Gap

- A dedicated EU Start-up and Scale-up Strategy will address the obstacles that are preventing new companies from emerging and scaling up
- 2. Develop AI Gigafactories & Apply AI initiatives to drive development and industrial adoption of AI in key sectors
- **3. Action plan to support deep tech**: advanced materials, quantum, biotech, robotics and space technologies
- 4. Proposal for a 28th legal regime to simplify applicable rules, to make it possible for innovative companies to benefit from one single set of rules (corporate law, labour and tax law, insolvency) wherever they invest and operate in the Single Market.

#### 2. Decarbonisation & Competitiveness

- 1. An Affordable Energy Action Plan will help bring down energy prices and costs,
- 2. An Industrial Decarbonisation Accelerator Act will extend accelerated permitting to sectors in transition
- 3. Tailor-made action plans for energy intensive sectors, such as steel, metals, and chemicals (the most vulnerable in this phase of the transition).

#### 3. Reducing Dependencies & Increasing Security

- **1. New range of Clean Trade and Investment Partnerships** to help secure supply of raw materials, clean energy, sustainable transport fuels, and clean tech from across the world
- 2. Review Public Procurement rules



# The Competitiveness Compass- 5 Horizontal enabler for competitiveness

- **1. Simplification**: Reduce regulatory and admin burden. Accessing EU funds and EU admin decision simpler and faster.
- **2. Lowering barriers to the Single Market**: Modernise the governance framework, removing intra EU-barriers, faster process in particular for SMEs and start-ups.
- **3. Financing competitiveness:** present a European Savings and Investments Union to create new savings and investment products. A refocused EU budget will streamline access to EU funds in line with EU priorities.
- **4. Promoting skills and quality jobs:** present an initiative to build a Union of Skills, adult and lifelong learning, future-proof skills creation, skill retention, fair mobility, attracting and integrating qualified talent from abroad
- **5. Better policy coordination at EU and national level:** Introduce the Competitiveness Coordination Tool. In the next Multiannual Financial Framework, a Competitiveness Fund will replace multiple existing EU financial instruments with similar objectives, providing financial support to the implementation of actions under the Competitiveness Coordination Tool.



### **Conclusions**

➤ Currently Several open funding calls under HORIZON EUROPE and LIFE for circular economy proposals with deadlines mostly in September 2025

> The CRMA is a running initiative and provide opportunities including financial opportunities for organisations who are/will be developing recycling projects.

➤ The Competitive Compass will develop a new roadmap in the coming 4 years including new financial instruments and opportunities for organisations who are working to develop clean and decarbonised industry.

## Thank you for your Attention!

Nader AKIL: <a href="mailto:nader.akil@pnoconsultants.com">nader.akil@pnoconsultants.com</a>

