



# Producing battery-grade materials for electrodes through sustainable processing and refining of raw materials or developing bio-based materials (BATT4EU Partnership)

HORIZON-CL5-2026-09-D2-01

Program:	<b>Horizon Europe Cluster 5.</b>
Típus:	<b>Research and Innovation Action</b>
TRL szint:	<b>4-5</b>
Támogatás projektenként:	<b>28.30 M EUR</b>
Támogatott projektek száma:	<b>4</b>
Pályázati felület megnyílik:	<b>2026. május 5.</b>
Beadási határidő:	<b>2026. szeptember 15.</b>
Felhívás linkje:	

[LINK](#)

Proposals are expected to contribute to all following points:

1. Significantly reduced EU dependency on imported battery-grade raw materials, specifically emerging technologies and carbon-based electrode materials.
2. Established European value chains for next-generation battery materials, enhancing the EU's technological leadership and strategic autonomy.

Proposals under this topic must address all aspects for one of the following:

1. Sustainable Processing and Refining of next generation batteries-grade Material, or
2. Utilising Bio-based Raw Materials for Battery Electrode Materials

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# Development of direct recycling processes (BATT4EU Partnership)

HORIZON-CL5-2026-03-D2-02

Program:	Horizon Europe Cluster 5.
Típus:	Research and Innovation Action
TRL szint:	5
Támogatás projektenként:	14.20 M EUR
Támogatott projektek száma:	2
Pályázati felület megnyílik:	2025. december 18.
Beadási határidő:	2026. március 31.
Felhívás linkje:	

[LINK](#)

Proposals under this topic are expected to focus explicitly on the development, validation, and upscaling of direct recycling technologies targeting next-generation and low-value battery chemistries (notably LFP, LMFP, and sodium-ion), as well as efficiently managing gigafactory production scrap.

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# Integrated Production and Product Development for Next-Generation Lithium-based Batteries for Mobility (BATT4EU and Made in Europe Partnerships)

HORIZON-CL5-2026-03-D2-03

Program:	<b>Horizon Europe Cluster 5.</b>
Típus:	<b>Innovation Action</b>
TRL szint:	<b>5</b>
Támogatás projektenként:	<b>100 M EUR</b>
Támogatott projektek száma:	<b>3</b>
Pályázati felület megnyílik:	<b>2026. június 4.</b>
Beadási határidő:	<b>2026. október 8.</b>
Felhívás linkje:	

[LINK](#)

This topic will support the scaling-up of next generation (i.e., beyond generation 3) lithium-based batteries (e.g., semi and all-solid state, generation5) from cell prototypes (TRL 4-5) to demonstration of scalable production and demonstration of cell integration into module/pack level. The projects will cover pilot production, process automation, system integration and demonstration, advanced cell design, and supply chain development to ensure that Europe remains at the forefront of battery innovation. The projects must address the needs of a single specific and strategically relevant transport mode, and the targeted mode must be clearly indicated in the proposal. The following transport modes are in scope: Automotive; Aviation; Rail; Waterborne.

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# Coordinated topic with India on recycling of EV batteries

HORIZON-CL5-2026-09-D2-04

Program:	<b>Horizon Europe Cluster 5.</b>
Típus:	<b>Innovation Action</b>
TRL szint:	<b>7-8</b>
Támogatás projektenként:	<b>10 M EUR</b>
Támogatott projektek száma:	<b>1</b>
Pályázati felület megnyílik:	<b>2025. szeptember 16.</b>
Beadási határidő:	<b>2026. január 20.</b>
Felhívás linkje:	

[LINK](#)

Projects are expected to build a jointly operated recycling pilot line on Indian soil demonstrating innovative recycling processes for lithium-ion batteries going beyond the current state of the art in terms of recycling efficiency (in particular of Li), environmental impact, cost, and compatibility with different types of batteries (including those currently on the market and to be anticipated in the coming years).

The pilot line must be able to process black mass including mixed chemistries with Li as end product, readily available input material for Cathode Active Material (CAM). Recovery of graphite or silicon/graphite in various compositions should also be addressed. Adequate benchmarking figures must be provided to show progress beyond the state of the art.

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# Improvement of Adaptability, Flexibility and Efficiency of Existing Recycling Processes (BATT4EU Partnership)

HORIZON-CL5-2027-02-D2-05

Program:	<b>Horizon Europe Cluster 5.</b>
Típus:	<b>Innovation Action</b>
TRL szint:	<b>6-7</b>
Támogatás projektenként:	<b>37.80 M EUR</b>
Támogatott projektek száma:	<b>2</b>
Pályázati felület megnyílik:	<b>2026. december 3.</b>
Beadási határidő:	<b>2027. március 31.</b>
Felhívás linkje:	

[LINK](#)

Proposals under this topic are expected to specifically address innovation actions that enhance the adaptability, flexibility, and operational efficiency of existing battery recycling processes.

Projects are expected to explicitly target improvements for processing mixed input streams, particularly production scrap and various lithium-ion battery chemistries

Proposals must clearly demonstrate technical innovations in black mass processing, resulting in the efficient recovery of high-purity battery-grade materials suitable for reintroduction into the European battery manufacturing value chain.

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# Sustainable and Competitive Cell Production Techniques for Lithium-ion And Sodium-ion Batteries (BATT4EU Partnership)

HORIZON-CL5-2027-02-D2-06

Program:	<b>Horizon Europe Cluster 5.</b>
Típus:	<b>Innovation Action</b>
TRL szint:	<b>6-7</b>
Támogatás projektenként:	<b>40 M EUR</b>
Támogatott projektek száma:	<b>2</b>
Pályázati felület megnyílik:	<b>2026. december 3.</b>
Beadási határidő:	<b>2027. március 31.</b>

Felhívás linkje:

[LINK](#)

Proposals are expected to address all of the following:

Demonstration of flexible, modular, and reconfigurable machinery to be integrated in manufacturing pilot lines that effectively accommodate transitions between various lithium-ion chemistries/compositions and sodium-ion chemistries.

Development and demonstration novel mixing systems and novel electrode manufacturing techniques with advanced inline quality control

Optimization of dry-room cell assembly processes, including the development and validation of advanced assembly equipment and techniques to significantly increase cell assembly throughput rates, reduce overall energy consumption associated with maintaining dry-room conditions, and enhance environmental controls

Establishment of rapid and energy-efficient cell formation processes, significantly shortening formation and aging times compared to state of the art and enhancing quality assurance.

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# Novel approaches towards next-generation battery concepts, leveraging the enabling role of innovative advanced materials (BATT4EU and IAM4EU Partnerships)

HORIZON-CL5-2027-04-Two-Stage-D2-07

Program:	<b>Horizon Europe Cluster 5.</b>
Típus:	<b>Research and Innovation Action</b>
TRL szint:	<b>6-7</b>
Támogatás projektenként:	<b>48 M EUR</b>
Támogatott projektek száma:	<b>10</b>
Pályázati felület megnyílik:	<b>2026. december 15.</b>
Beadási határidő:	<b>2027. április 14.</b>
Felhívás linkje:	

[LINK](#)

Projects are expected to contribute to one of the following battery concepts that meet different end-user needs and applications, going beyond state-of-the-art:

Area A: Low-cost batteries designed primarily for passenger electric vehicles and/or stationary storage, OR

Area B: High-performance battery chemistries intended for applications requiring superior energy density, power density, and safety standards, such as aviation and maritime sectors;OR

Area C: Novel battery advanced materials and cell-level concepts, for stationary energy storage for grid storage and/or energy-intensive industrial applications.

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# Demonstration for Long-duration Battery Energy Storage Systems (BATT4EU Partnership)

HORIZON-CL5-2027-07-D2-08

Program:	Horizon Europe Cluster 5.
Típus:	Innovation Action
TRL szint:	6-7
Támogatás projektenként:	18.80 M EUR
Támogatott projektek száma:	2
Pályázati felület megnyílik:	2027. május 5.
Beadási határidő:	2027. szeptember 15.

Felhívás linkje:

[LINK](#)

Proposals must focus on system-level demonstrations of innovative long-duration (> 8 hours) battery storage concepts that can effectively support utility-scale energy systems or industrial consumers in achieving energy security and operational sustainability.

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