



Development of safe and sustainable alternatives to substances of concern

HORIZON-CL4-2026-02-MAT-PROD-21

Program:	Horizon Europe Cluster 4
Típus:	Innovation Action
TRL szint:	7
Támogatás projektenként:	6-7,5M EUR
Támogatott projektek száma:	6
Pályázati felület megnyílik:	16 December 2025
Beadási határidő:	17 Mar 2026 / 13 Oct 2026
Felhívás linkje:	LINK

The focus of this topic is on alternatives for the substitution of substances of concern (SoCs) as defined in the Ecodesign for Sustainable Product regulation. The design and development of these alternatives should lead to an innovation cycle covering their (re)design, development, production processes, and integration into products in manufacturing.

The scope includes necessary developments of related processes and technologies to ensure alignment with and integration in industrial manufacturing facilitating uptake of the develop alternatives. If relevant, challenges for the adaption of existing production lines should be identified and solutions proposed.

Proposals should develop new chemical substances, innovative advanced materials or technologies to replace existing SoCs in one of the following areas: energy, mobility, construction, electronics, technical textiles as well as medical devices.

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Accelerating the discovery and development of chemicals and innovative advanced materials through digitalisation and artificial intelligence

HORIZON-CL4-2026-01-MAT-PROD-23

Program:	Horizon Europe Cluster 4
Típus:	Innovation Action
TRL szint:	7
Támogatás projektenként:	13M EUR
Támogatott projektek száma:	4
Pályázati felület megnyílik:	6 January 2026
Beadási határidő:	21 April 2026
Felhívás linkje:	LINK

Proposals should accelerate the pathway to market of new substances (chemicals or advanced materials) with superior or novel functionalities. This can be achieved with novel tools or proofs of concept using digital methods to accelerate development of new materials and demonstration of their properties. Where possible this should explore collaboration with other initiatives such as the Materials Commons for Europe or DIGIPASS, contributing data, modelling, digital tools applicable to the design, development, production, manufacturing, use and end of life phases, which connect to repeatable workflows. These workflows and tools may include the use of artificial intelligence as well as self-driving labs and their interconnection and design of experiment/design of simulation methods. They should also drive innovation in risk assessment, new test methods and support and facilitate the operationalisation and use of the SSbD framework. Projects should include demonstrators which help to validate the materials development in realistic conditions.

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Cooperation on innovative advanced materials with Japan

HORIZON-CL4-2026-01-MAT-PROD-24

Program: **Horizon Europe
Cluster 4**

Típus: **Coordination &
Support Action**

TRL szint: **-**

Támogatás projektenként: **0,8M EUR**

Támogatott projektek száma: **1**

Pályázati felület megnyílik: **6 January 2026**

Beadási határidő: **21 April 2026**

Felhívás linkje: [LINK](#)

In the context of the Communication 'Advanced Materials for Industrial Leadership' and the recent cooperation with Japan in this area, the purpose of this action is to enable researchers in innovative advanced materials from Member States and Associated Countries to make research visits to related Japanese institutions.

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Advanced manufacturing for key products

HORIZON-CL4-2026-01-MAT-PROD-01

Program:	Horizon Europe Cluster 4
Típus:	Innovation Action
TRL szint:	7
Támogatás projektenként:	6-8M EUR
Támogatott projektek száma:	6
Pályázati felület megnyílik:	6 January 2026
Beadási határidő:	21 April 2026
Felhívás linkje:	LINK

This topic addresses technologies and machinery for advanced manufacturing, focusing on manufacturing excellence and on increasing circularity, including through the better use of innovative advanced materials and secondary raw materials. The focus is on key manufactured components and products that are competitive and have enhanced performance, and contribute to Europe's technological leadership in manufacturing, but which are at risk of being lost to Europe or rely on raw materials or parts whose supply is mostly coming from outside Europe.

Proposals should develop technologies and machinery to enable the manufacturing of these components with a minimal use of critical raw materials [reference to overall targets] or imported materials. This includes an increased use of secondary raw materials or biobased materials or revalorised components.

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Optimise the usage of resources in a circular economy

HORIZON-CL4-2026-01-MAT-PROD-04

Program:	Horizon Europe Cluster 4
Típus:	Research & Innovation Action
TRL szint:	6
Támogatás projektenként:	5-7M EUR
Támogatott projektek száma:	10
Pályázati felület megnyílik:	6 January 2026
Beadási határidő:	21 April 2026
Felhívás linkje:	LINK

The topic aims to optimise the efficiency of materials, water and energy use by recycling and upcycling of side streams from production and end-of-use waste, to become more competitive, safe and sustainable. Material production becomes less dependent on imports and / or use of non-renewable materials by improving recovery along the value chain, developing and upscaling low-CO2 processes to recover materials, including replace current efficient but CO2-intensive recycling.

The development of technologies should encompass the entire value chain from the collection, dismantling, sorting and separation of waste to the processing of the streams and the production of new high-quality materials. The demonstration of the innovative, efficient, and economically viable technologies is required, considering a scale and conditions that can give reliable indications on the real-world economic potential. Minimizing the intake of energy and water should be considered.

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Circular innovative advanced materials: facilitating the transition from design to markets

HORIZON-CL4-2026-01-MAT-PROD-05

Program:	Horizon Europe Cluster 4
Típus:	Research & Innovation Action
TRL szint:	6
Támogatás projektenként:	5-6,5M EUR
Támogatott projektek száma:	7
Pályázati felület megnyílik:	6 January 2026
Beadási határidő:	21 April 2026
Felhívás linkje:	LINK

The focus of this topic is on enabling circularity and resilient supply networks through R&I in advanced materials, in particular recyclable polymers and composites, magnets and metal (alloys) for additive manufacturing, and on accelerating their pathway to market. Proposals should develop new innovative advanced materials (IAMs) with superior or novel functionalities designed for circularity. The scope includes necessary developments of related processes and technologies to ensure integration in industrial manufacturing facilitating uptake of the developed solutions. Proposals should also develop circular business models considering the cost of changes needed along the life cycle of these new materials to facilitate their uptake.

The scope covers the full innovation cycle from the design for circularity and functional integration (new materials designs), development and scaleup (including scalable recovery, recycling and valorisation at end of life), to demonstration of industrial uptake and integration into products.

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Efficient capture / purification / utilisation of CO₂ for the production of competitive products

HORIZON-CL4-2026-01-MAT-PROD-31

Program:	Horizon Europe Cluster 4
Típus:	Research & Innovation Action
TRL szint:	6
Támogatás projektenként:	5-7M EUR
Támogatott projektek száma:	9
Pályázati felület megnyílik:	6 January 2026
Beadási határidő:	21 April 2026
Felhívás linkje:	LINK

Proposals under this topic are expected to address all of the following points:

- Develop new methodologies, processes and technologies for the smart integration of CO₂ capture, purification, and conversion, focusing on reducing energy demand and capital expenditure.
- Incorporate renewable energy sources (including the fluctuation of energy availability) and innovative energy management strategies to enhance the sustainability and cost-effectiveness of the CO₂ valorization processes.
- Identify and integrate available heat sources and existing infrastructures to enhance process efficiency and reduce operational costs.
- Address the constraints related to CO₂ conversion processes, employing innovative approaches to maximize yield and process efficiency, for example by overcoming low equilibrium yields.
- Conduct comprehensive lifecycle and economic assessments to ensure that the proposed solutions are viable, sustainable, and economically attractive.

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Enhancing industry-academia knowledge exchange in Social Sciences and Humanities (SSH)

HORIZON-CL4-2026-01-MAT-PROD-41

Program:	Horizon Europe Cluster 4
Típus:	Coordination & Support Action
TRL szint:	-
Támogatás projektenként:	1M EUR
Támogatott projektek száma:	2
Pályázati felület megnyílik:	6 January 2026
Beadási határidő:	21 April 2026
Felhívás linkje:	LINK

This action aims to leverage the strengths of social sciences, humanities and arts (SSH) to address companies' specific needs, fostering a dynamic and productive industry-academia co-creation for knowledge valorisation. This action will support SSH-industry co-creation (for example hackathons, team-based approaches, targeted mentorship and exchange programmes etc) focussing on specific challenges from industry and SMEs including, but not limited to understanding the socio-technical implications of new technologies and innovations, broadening the perspectives of companies' strategic actions, creating a deeper understanding of customer requirements, strengthening the integration of social, economic and cultural inequality considerations into industry practices and innovation processes, developing new ideas and innovations and contributing to organisational development, sustainability and long-term profitability.

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Attracting management talent for capacity building for Technology Infrastructures staff members

HORIZON-CL4-2026-01-MAT-PROD-44

Program: **Horizon Europe
Cluster 4**

Típus: **Coordination &
Support Action**

TRL szint: **-**

Támogatás projektenként: **3M EUR**

Támogatott projektek száma: **1**

Pályázati felület megnyílik: **6 January 2026**

Beadási határidő: **21 April 2026**

Felhívás linkje: [LINK](#)

Proposals are expected to develop and provide schemes to attract management talent (including but not limited to organisational sciences) to technology infrastructures in EU member states.

Proposals should propose ways to enhance skills and career profiles of technical staff working in technology infrastructures to address evolving needs such as research security, data management, quality assurance, etc., as well as further professionalising the training of managerial and leadership staff in technology infrastructures. They should help also to promote entrepreneurial skills for technology infrastructures staff in training curricula to fully capture the potential of technology infrastructures as centres of deep-tech innovation ecosystem.

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Pilot access schemes to Technology Infrastructures for European startups, scaleups and innovative SMEs

HORIZON-CL4-2026-01-MAT-PROD-45

Program:	Horizon Europe Cluster 4
Típus:	Coordination & Support Action
TRL szint:	-
Támogatás projektenként:	1M EUR
Támogatott projektek száma:	5
Pályázati felület megnyílik:	6 January 2026
Beadási határidő:	21 April 2026
Felhívás linkje:	LINK

The action will develop and test pilot multi-site access schemes for startups, scaleups and other innovative SMEs, involving a critical mass of Technology Infrastructures operators and users in priority areas (including but not limited to advanced materials, clean energy, or health and biotechnology).

The action should include setting-up a pilot centrally managed and funded access programme, allowing companies quick access to the needed services, with simplified and standardised access conditions applicable across the EU, to be coordinated and in line with the work on the envisaged European Charter of access for industrial users to research and technology infrastructures.

The action should aim at significant broadening of the user base of the technology infrastructures to address the needs of startups and scaleups that do not have access to such facilities in their local ecosystems.

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Mapping and service finder for Technology Infrastructures

HORIZON-CL4-2026-01-MAT-PROD-46

Program: **Horizon Europe
Cluster 4**

Típus: **Coordination &
Support Action**

TRL szint: **-**

Támogatás projektenként: **2M EUR**

Támogatott projektek száma: **1**

Pályázati felület megnyílik: **6 January 2026**

Beadási határidő: **21 April 2026**

Felhívás linkje: [LINK](#)

Proposals are expected to create an inventory of existing and ongoing mapping of technology infrastructure and technology infrastructure services in Europe and to consolidate the knowledge into an interactive portal that will serve as technology infrastructure service finder. Furthermore, based on this inventory and other existing evidence-gathering and policy analysis, the proposals should use a comprehensive taxonomy of the technology infrastructures landscape. The portal, in line with regional smart specializations and existing ecosystems, should help assess which new technology infrastructure needs to be built to ensure long-term Europe's competitiveness and sovereignty.

Proposals should set out to establish an interactive portal including an interactive finder for technology infrastructure services in the EU. The finder should be aligned with other ongoing activities such as EIB TechEU, EIB Advisory services and other relevant tools identified during the inventory stage.

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‘Proof of market’ to improve valorisation and commercialisation of Horizon generated R&I results

HORIZON-CL4-2026-01-MAT-PROD-48

Program:	Horizon Europe Cluster 4
Típus:	Innovation Action
TRL szint:	-
Támogatás projektenként:	0,2M EUR
Támogatott projektek száma:	25
Pályázati felület megnyílik:	6 January 2026
Beadási határidő:	21 April 2026
Felhívás linkje:	LINK

The EU must do better in translating the knowledge generated by the Framework Programme into innovations with economic and societal value.

The objective of this action is to provide financial support (‘Proof of market’) to small consortia (i.e. spin-offs, startups, SMEs) to explore the exploitation potential, in the EU, of results emerging from ongoing or completed projects funded under Cluster 4 ‘Digital, Industry and Space’ or its predecessor activities under Horizon 2020.

The consortia do not necessarily have to be made of former or current beneficiaries but must own or have access to the knowledge assets of projects, including intellectual property, where relevant.

Proposals should envisage valorisation activities.

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Innovative technologies and tools for exploration and data modelling of raw materials

HORIZON-CL4-2026-01-MAT-PROD-11

Program:	Horizon Europe Cluster 4
Típus:	Research & Innovation Action
TRL szint:	6
Támogatás projektenként:	5-7M EUR
Támogatott projektek száma:	3
Pályázati felület megnyílik:	6 January 2026
Beadási határidő:	21 April 2026
Felhívás linkje:	LINK

Actions should develop new knowledge and conceptual models, supported by innovative technologies to strengthen and secure the EU's supply of primary raw materials by:

- Generating better geological understanding (i.e. characterization, modelling, mapping) of known mineral deposits to facilitate discovery of new resources, including mineral systems carrying critical minerals;
- Collecting new geological, geophysical, and geochemical data and developing ore genetic models and mineral system analysis to build a broad understanding of EU's deposit type, including CRMs in order to identify areas for exploration, especially in previously underexplored regions;
- Advancing mineral prospectivity modelling processes;
- Facilitate the integration of existing multi-datasets with newly acquired data.

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Technologies for innovative extraction of critical raw materials

HORIZON-CL4-2026-01-MAT-PROD-12

Program:	Horizon Europe Cluster 4
Típus:	Research & Innovation Action
TRL szint:	6
Támogatás projektenként:	5-7M EUR
Támogatott projektek száma:	3
Pályázati felület megnyílik:	6 January 2026
Beadási határidő:	21 April 2026
Felhívás linkje:	LINK

Actions should develop new sustainable concepts and technological solutions, including alternative approaches such as biohydrometallurgy and bio-based/bioinspired technologies, for mining of complex or difficult to access mineral deposits, including abandoned mining sites, particularly addressing the challenges of accessibility, efficiency, industrial viability, safety and environmental and health impacts, including water use, environmental degradation, pollution to water, soil and air and GHG intensity of extraction.

Actions should be driven by industry and raw materials users. The actions should duly justify the relevance of all targeted minerals and metals. Priority are the EU critical raw materials. Deep sea mining is not in the scope of this topic.

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Monitoring of secondary raw materials

HORIZON-CL4-2026-01-MAT-PROD-13

Program: **Horizon Europe
Cluster 4**

Típus: **Coordination &
Support Action**

TRL szint: **-**

Támogatás projektenként: **4M EUR**

Támogatott projektek száma: **1**

Pályázati felület megnyílik: **6 January 2026**

Beadási határidő: **21 April 2026**

Felhívás linkje: [LINK](#)

Actions should be based on a common understanding of relevant terms and codes, and develop an understanding of anthropogenic resources and derive the needed aspects for classification of recovery projects and to develop criteria for a transparent, consistent and objective classification, needed to establish a comprehensive resource classification approach.

Actions should acquire new data on secondary raw materials via in situ sampling from different regions across the EU, collect existing data and present in a harmonised UNFC format. The monitoring should focus on countries where the waste goes into European recycling industrial ecosystems.

The action should focus on the following streams of secondary raw materials, with particular attention to critical raw materials: waste batteries, WEEE, mining waste, slags and ashes, and construction and demolition waste. The action should also anticipate the evolution of WEEE directive.

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Improving availability of secondary raw materials through recycling

HORIZON-CL4-2026-01-MAT-PROD-14

Program: **Horizon Europe
Cluster 4**

Típus: **Innovation Action**

TRL szint: **7**

Támogatás projektenként: **6-7,5M EUR**

Támogatott projektek száma: **4**

Pályázati felület megnyílik: **6 January 2026**

Beadási határidő: **21 April 2026**

Felhívás linkje: [LINK](#)

Actions should demonstrate new or improved systems located in the EU developing material efficient high-quality recycling of raw materials and improved resource efficiency. Actions should focus on the whole chain of recycling processes and procedures - from collection, logistics, characterisation, disassembly, separation, shredding, sorting, cleaning, refining and purification of secondary raw materials and quality of produced outputs.

Recycling and re-use where the recycled material is of lower quality and functionality than the original material (downcycling), is not in the scope of the topic.

Actions should envisage clustering activities with other projects aiming at second life, re-use, repurposing, remanufacturing of products and/or components relevant selected projects for cross-projects co-operation, consultations and joint activities on cross-cutting issues and share of results as well as participating in joint meetings and communication events.

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New or enhanced Innovative Advanced Materials (IAM) enabled sensing functionality

HORIZON-CL4-2026-05-MAT-PROD-25

Program:	Horizon Europe Cluster 4
Típus:	Research & Innovation Action
TRL szint:	5-6
Támogatás projektenként:	8M EUR
Támogatott projektek száma:	4
Pályázati felület megnyílik:	6 January 2026
Beadási határidő:	21 April 2026
Felhívás linkje:	LINK

Proposals should address at least one of the following two areas.

A. IAM-enabled multifunctional surfaces able to detect and respond to changes in the environment, such as temperature, pH, moisture, microbiological or chemical pollutants, concentration of chemical species in air, gases and liquids, and converting these signals into measurable outputs. Such surfaces should demonstrate high performance in terms of sensitivity, selectivity, response time, durability and cost-effectiveness. Proposals should target applications such as environmental and health monitoring.

B. The development of enhanced IAM-based sensor demonstrators, that enable miniaturization and integration into application systems e.g. into portable IoT devices, lightweight wearables and wearable systems. These sensors must meet key performance requirements, e.g. compatibility with silicon technology, operation in real conditions with low power consumption, high sensitivity (low limit of detection and/or high signal to noise ratio), high selectivity and fast detection speed.

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Innovative advanced materials and new production processes – reducing dependencies on Critical and Strategic Raw Materials

HORIZON-CL4-2027-01-MAT-PROD-22

Program: **Horizon Europe
Cluster 4**

Típus: **Innovation Action**

TRL szint: **7**

Támogatás projektenként: **6-7,5M EUR**

Támogatott projektek száma: **6**

Pályázati felület megnyílik: **22 September 2026**

Beadási határidő: **02 February 2027**

Felhívás linkje: [LINK](#)

Proposals should address one or several of the following approaches:

- Design, development and production with targets on performance, safety and sustainability of IAMs substituting or making a more efficient use of critical and strategic raw materials.
- Innovative industrial processes for the reduction of the use of critical and strategic raw materials focussed on optimizing process safety, sustainability, flexibility, scalability, cost-efficiency.
- Co-development strategies for IAMs and industrial processes. These strategies should demonstrate the value of co-development through specific use cases while maintaining broad relevance across various materials and process types.

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Advanced manufacturing for key products

HORIZON-CL4-2027-01-MAT-PROD-02

Program:	Horizon Europe Cluster 4
Típus:	Innovation Action
TRL szint:	7
Támogatás projektenként:	6-8M EUR
Támogatott projektek száma:	6
Pályázati felület megnyílik:	22 September 2026
Beadási határidő:	02 February 2027
Felhívás linkje:	LINK

This topic addresses technologies and machinery for advanced manufacturing, focusing on manufacturing excellence and on increasing circularity, including through the better use of innovative advanced materials and secondary raw materials. The focus is on key manufactured components and products that are competitive and have enhanced performance, and contribute to Europe's technological leadership in manufacturing, but which are at risk of being lost to Europe or rely on raw materials or parts whose supply is mostly coming from outside Europe.

Proposals should develop technologies and machinery to enable the manufacturing of these components with a minimal use of critical raw materials [reference to overall targets] or imported materials. This includes an increased use of secondary raw materials or biobased materials or revalorised components.

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Factory processes and automation for de- and re-manufacturing

HORIZON-CL4-2027-01-MAT-PROD-03

Program:	Horizon Europe Cluster 4
Típus:	Research & Innovation Action
TRL szint:	6
Támogatás projektenként:	5-6,5M EUR
Támogatott projektek száma:	6
Pályázati felület megnyílik:	22 September 2026
Beadási határidő:	02 February 2027
Felhívás linkje:	LINK

Proposals should focus on developing de-manufacturing and re-manufacturing technologies at the factory level, addressing at least three of the following:

- Technologies to efficiently analyse part condition and support predictive maintenance, including for re-manufactured parts or components of lower value, e.g. by combining multimodal sensor data, AI and human inputs;
- AI and robotic-assisted technologies, e.g. innovative end-effectors, to de-manufacture products and components, including handling, sorting and extended logistics;
- Model-based systems, to allow de-manufacturing and re-manufacturing operators to use CAD data and digital twins related to the original parts (and contribute to the development of a digital ecosystem);
- Solutions allowing local (on-site) repair or re-manufacturing of high-added value components (applied to e.g. wind turbines, aircraft and vessels); and
- Solutions to plan the sequence of operations based on the characteristics of the incoming products to be re-manufactured.

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Circular innovative advanced materials: facilitating the transition from design to markets

HORIZON-CL4-2027-01-MAT-PROD-06

Program:	Horizon Europe Cluster 4
Típus:	Research & Innovation Action
TRL szint:	6
Támogatás projektenként:	5-6,5M EUR
Támogatott projektek száma:	7
Pályázati felület megnyílik:	22 September 2026
Beadási határidő:	02 February 2027
Felhívás linkje:	LINK

Proposals should develop new innovative advanced materials (IAMs) with superior or novel functionalities designed for circularity. The scope includes necessary developments of related processes and technologies to ensure integration in industrial manufacturing facilitating uptake of the developed solutions.

The scope covers the full innovation cycle from the design for circularity and functional integration (new materials designs), development and scaleup (including scalable recovery, recycling and valorisation at end of life), to demonstration of industrial uptake and integration into products. The transformative potential of the developed solutions is to be showcased by demonstrators and industrial use cases. Projects should also explore possibilities to transfer developed solutions to other applications or sectors.

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Textile circularity through advanced processing and manufacturing technologies and system approaches

HORIZON-CL4-2027-01-MAT-PROD-08

Program: **Horizon Europe
Cluster 4**

Típus: **Innovation Action**

TRL szint: **6-7**

Támogatás projektenként: **4-6M EUR**

Támogatott projektek száma: **3**

Pályázati felület megnyílik: **22 September 2026**

Beadási határidő: **02 February 2027**

Felhívás linkje: [LINK](#)

Proposals should specifically address:

- Innovative processing technologies to facilitate the efficient use of recycled, regenerated and bio-based fibres as well as sustainable processing and functionalising chemicals across all major stages of the textile manufacturing value chain, such as spinning, weaving, knitting, dyeing or finishing;
- Characterisation, quality assurance and mitigation strategies for the most common processing and functionality challenges and limitations of the sustainable materials and chemicals targeted;
- Development of best practices and training materials targeted at designers, manufacturers, brands, end of life managers and end users, working with the targeted materials and chemicals;
- Strategies and tools to practically implement collective risk sharing and smart scaling approaches.

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Efficient energy input from renewable sources and energy management in the process industries

HORIZON-CL4-2027-01-MAT-PROD-32

Program:	Horizon Europe Cluster 4
Típus:	Research & Innovation Action
TRL szint:	6-7
Támogatás projektenként:	7-9M EUR
Támogatott projektek száma:	8
Pályázati felület megnyílik:	22 September 2026
Beadási határidő:	02 Feb 2027 / 02 Sep 2027
Felhívás linkje:	LINK

Most processes in the process industries require significant energy inputs which currently lead to substantial CO2 emissions by the process industries. The reduction of the CO2 footprint can be achieved by several measures, e.g. electrification or use of other renewable sources of energy, lowering of the energy demand, increasing energy efficiency, and energy integration. This call aims to lead to significant steps in reducing the CO2 footprint by technological innovations, at least by 20%.

A key problem in the use of renewable energy sources is their fluctuation over time. Projects should take this into account and develop solutions that aim for energy efficiency and include novel storage technologies of relevance to the process industries.

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Unlocking the potential of academic intellectual assets for industry, SMEs and startups

HORIZON-CL4-2027-01-MAT-PROD-42

Program:	Horizon Europe Cluster 4
Típus:	Coordination & Support Action
TRL szint:	-
Támogatás projektenként:	1M EUR
Támogatott projektek száma:	2
Pályázati felület megnyílik:	22 September 2026
Beadási határidő:	02 February 2027
Felhívás linkje:	LINK

The action should explore strategies and implement pilots for actively involving students and researchers (including those in social sciences and humanities) in valorising academic IP and intellectual assets. These should include hackathons, workshops and larger-scale “summer camp” programmes, and foresee the involvement of interested industry partners than can be potential adopters.

The action should also identify and test models and tools for easier IP access and utilisation by startups and SMEs. These should cover innovative licensing and other valorisation approaches, especially tackling the issue of unused academic patents, as well as the use of AI to manage and valorise research results and IP.

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Fast Track to Research and Innovation for breakthroughs in industrial technologies

HORIZON-CL4-2027-01-MAT-PROD-61

Program:	Horizon Europe Cluster 4
Típus:	Research & Innovation Action
TRL szint:	-
Támogatás projektenként:	2,5M EUR
Támogatott projektek száma:	8
Pályázati felület megnyílik:	22 September 2026
Beadási határidő:	02 February 2027
Felhívás linkje:	LINK

This is an open topic, intended to cover breakthrough innovations, up to TRL 4, within the scope of the strategic research agendas of the partnerships Made in Europe, Process4Planet, Clean Steel, Innovative Advanced Materials for the EU (IAM4EU) and Textiles for the Future.

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Fast Track to Innovation for breakthroughs in the Chemical Industry Action Plan

HORIZON-CL4-2027-01-MAT-PROD-62

Program:	Horizon Europe Cluster 4
Típus:	Coordination & Support Action
TRL szint:	-
Támogatás projektenként:	2,5M EUR
Támogatott projektek száma:	6
Pályázati felület megnyílik:	22 September 2026
Beadási határidő:	02 February 2027
Felhívás linkje:	LINK

This open topic aims to speed up the adoption of new, groundbreaking innovations (starting TRL 4) as part of the Chemical Industry Action Plan, in the areas of decarbonisation of energy intensive industries; as well as development of alternatives (new chemical substances, advanced materials or technologies) to substances of concern.

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Pilot access schemes to Technology Infrastructures for European startups, scaleups and innovative SMEs

HORIZON-CL4-2027-01-MAT-PROD-47

Program:	Horizon Europe Cluster 4
Típus:	Coordination & Support Action
TRL szint:	-
Támogatás projektenként:	1,5-2,5M EUR
Támogatott projektek száma:	2
Pályázati felület megnyílik:	22 September 2026
Beadási határidő:	02 February 2027
Felhívás linkje:	LINK

The action will develop and test pilot multi-site access schemes for startups, scaleups and other innovative SMEs, involving a critical mass of Technology Infrastructures operators and users in priority areas (including but not limited to advanced materials, clean energy, or health and biotechnology). It should build on existing initiatives with already developed single access points to a comprehensive set of facilities and services in a selected technology area, like for example Open Innovation Test Beds or other integrated networks, that allow for a quick deployment of a common access scheme.

The action should include setting-up a pilot centrally managed and funded access programme, allowing companies quick access to the needed services, with simplified and standardised access conditions applicable across the EU, to be coordinated and in line with the work on the envisaged European Charter of access for industrial users to research and technology infrastructures.

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‘Proof of market’ to improve valorisation and commercialisation of Horizon generated R&I results

HORIZON-CL4-2027-01-MAT-PROD-49

Program: **Horizon Europe
Cluster 4**

Típus: **Innovation Action**

TRL szint: **-**

Támogatás projektenként: **0,2M EUR**

Támogatott projektek száma: **25**

Pályázati felület megnyílik: **22 September 2026**

Beadási határidő: **02 February 2027**

Felhívás linkje: [LINK](#)

Proposals should envisage valorisation activities, such as:

- demonstrating a technology (e.g. testing);
- defining a commercialisation process;
- undertaking:
 - a market and competitiveness analysis;
 - a technology assessment and/or certification;
 - a verification of innovation potential;
- assessing potential “end users” of the expected innovation;
- testing, piloting with users or potential customers;
- complying with regulatory compliance and standards;
- consolidating IP rights.

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Technologies for innovative processing of raw materials

HORIZON-CL4-2027-01-MAT-PROD-16

Program: **Horizon Europe
Cluster 4**

Típus: **Innovation Action**

TRL szint: **-**

Támogatás projektenként: **10-12,5M EUR**

Támogatott projektek száma: **4**

Pályázati felület megnyílik: **22 September 2026**

Beadási határidő: **02 February 2027**

Felhívás linkje: [LINK](#)

Actions should develop pilot demonstrators located in the EU integrating relevant processing and refining technologies for better recovery of raw materials from low grade and/or complex ores from extractive wastes, reduction of waste and water and air pollution, higher energy efficiency and reduction of land and sea-use change, habitat loss, degradation and fragmentation. The actions should target minerals and metals, particularly critical raw materials.

The solution proposed should be flexible enough to adapt to different or variable ore grades and extractive waste streams and should be supported by efficient and robust process control. Actions should develop intelligent and innovative production systems which better utilise natural resources by minimising losses during waste-rock separation in an optimised and energy-efficient process and by minimising use of water.

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Expert network on Critical raw materials

HORIZON-CL4-2027-01-MAT-PROD-17

Program:	Horizon Europe Cluster 4
Típus:	Coordination & Support Action
TRL szint:	-
Támogatás projektenként:	3M EUR
Támogatott projektek száma:	1
Pályázati felület megnyílik:	22 September 2026
Beadási határidő:	02 February 2027
Felhívás linkje:	LINK

The consortium should build the EU expert community covering each screened raw material with expertise on primary and secondary resources; production, including exploration, mining, processing, recycling and refining; substitution of CRMs; raw materials markets; future demand and supply; supply risk management and stress tests; materials flows; raw materials standardisation; environmental footprint, socio-economic analysis, and strategic value chains and end-use sectors, including batteries, e-mobility, renewable energy, electronics, security and aerospace.

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