#HorizonEU

**THE EU
RESEARCH & INNOVATION
PROGRAMME**

2021 – 2027

Horizon Europe– Cluster 4
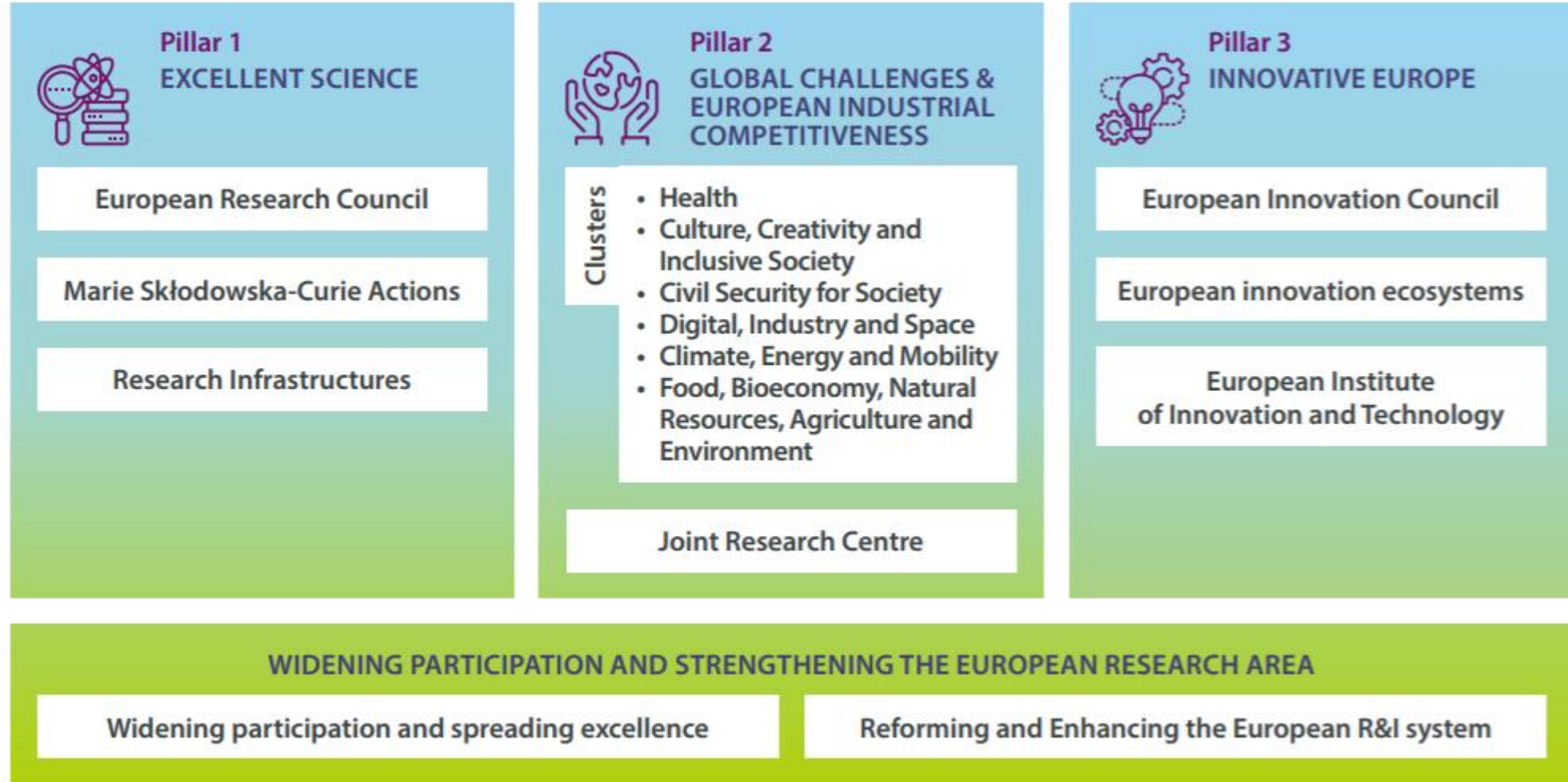
15 December 2022

Destination 1&2

Javier Sanfelix, Garbiñe Guiu

European Commission

Research and Innovation

Structure of Horizon Europe

Pillar 1
EXCELLENT SCIENCE

European Research Council

Marie Skłodowska-Curie Actions

Research Infrastructures

Pillar 2
GLOBAL CHALLENGES & EUROPEAN INDUSTRIAL COMPETITIVENESS

Clusters
- Health
- Culture, Creativity and Inclusive Society
- Civil Security for Society
- Digital, Industry and Space
- Climate, Energy and Mobility
- Food, Bioeconomy, Natural Resources, Agriculture and Environment

Joint Research Centre

Pillar 3
INNOVATIVE EUROPE

European Innovation Council

European innovation ecosystems

European Institute of Innovation and Technology

WIDENING PARTICIPATION AND STRENGTHENING THE EUROPEAN RESEARCH AREA

Widening participation and spreading excellence

Reforming and Enhancing the European R&I system

European Commission

Cluster 4 - Vision

*Competitive technologies respecting the boundaries of our planet,
and reflecting human needs*

Green and digital 'twin' transitions

Climate-neutral, circular and clean industry

Industrial and digital transformation

- mastering technologies
- deploying technologies and technology infrastructures
- securing autonomy in strategic value chains
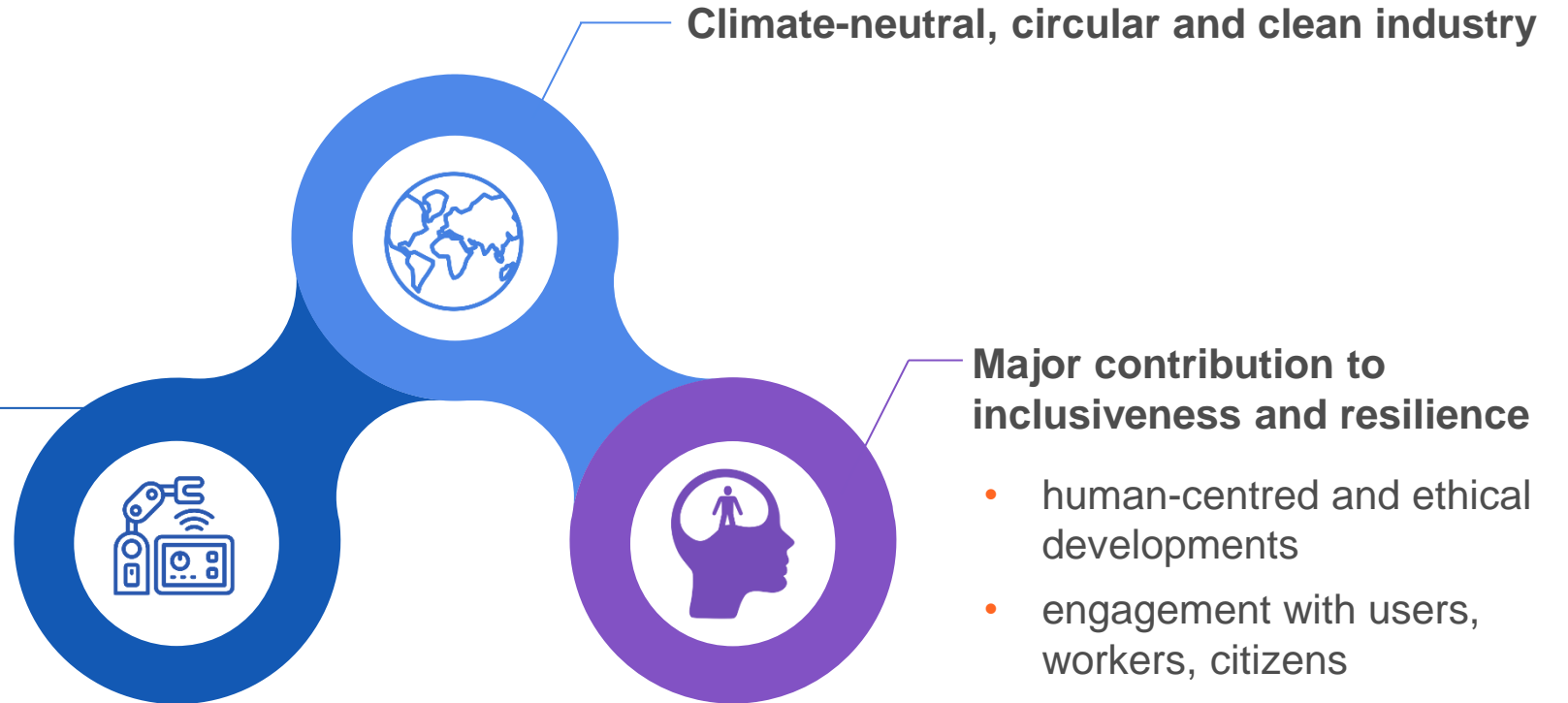
Major contribution to inclusiveness and resilience

- human-centred and ethical developments
- engagement with users, workers, citizens
- social innovation

European Commission

Cluster 4 – Six Destinations

Destination 1: Climate neutral, circular, and digitised production

Destination 2: A digitised, resource-efficient and resilient industry

Destination 3: World leading data and computing technologies

Destination 4: Digital and emerging technologies for competitiveness and fit for the green deal

Destination 5: Strategic autonomy in developing, deploying and using global space-based infrastructures, services, applications and data

Destination 6: A human-centred and ethical development and industrial technologies

European Commission

WORK PROGRAMME 2023-2024 – DESTINATION 1
"CLIMATE NEUTRAL, CIRCULAR AND DIGITISED PRODUCTION"

Call HORIZON-CL4-2023-TWIN-TRANSITION-01

Open: 8 Dec 2022
Deadline: 20 Apr 2023

European Commission

Call - TWIN GREEN AND DIGITAL TRANSITION 2023

Manufacturing Industry

- HORIZON-CL4-2023-TWIN-TRANSITION-01-02: High-precision OR complex product manufacturing – potentially including the use of photonics (Made in Europe and Photonics Partnerships) (IA) (Lump sum)

- HORIZON-CL4-2023-TWIN-TRANSITION-01-04: Factory-level and value chain approaches for remanufacturing (Made in Europe Partnership) (IA)

- HORIZON-CL4-2023-TWIN-TRANSITION-01-07: Achieving resiliency in value networks through modelling and Manufacturing as a Service (Made in Europe Partnership) (RIA)

- HORIZON-CL4-2023-TWIN-TRANSITION-01-08: Foresight and technology transfer for Manufacturing As A Service (Made in Europe Partnership) (CSA) (Lump sum)

HORIZON-CL4-2023-TWIN-TRANSITION-01-02: High-precision OR complex product manufacturing – potentially including the use of photonics (Made in Europe and Photonics Partnerships) (IA)

Expected Outcomes:

- High-precision manufacturing and/or manufacturing of products with complex geometries or structures; embedded electronics, optics or photonics; surfaces and surface functionalities; and multi-process manufacturing;

- Highly resilient and flexible production lines, enabling highly customised products across a wide range of markets, and ensuring strategic autonomy for the manufacturing industry of the Union and Associated Countries.

- Significant reductions in the use of materials, waste, defects and energy consumption.

- Fostering the competitiveness of the European manufacturing industry, in general and (only in the relevant projects) in the field of laser machine tools and within the laser markets in particular.

Procedure:

To ensure a **balanced portfolio** covering **all three technology areas**, grants will be awarded to at least two projects in each technology area (if all thresholds attained).

Indicative budget: EUR 48.00 million
EU contribution per project: EUR 5-6 million
Type of Action: Innovation Actions (60% funding)
TRL: Start at 5 and achieve 7

HORIZON-CL4-2023-TWIN-TRANSITION-01-04: Factory-level and value chain approaches for remanufacturing (Made in Europe Partnership) (IA)

Expected Outcomes :

- Suitably scaled green and digital technologies supporting remanufacturing, for circular value chains in industrial ecosystems;

- Remanufacturing of both components and products towards full circularity while retaining value or functions of components;

- Skills and education capabilities for remanufacturing.

Indicative budget: EUR 37.60 million
EU contribution per project: EUR 5-7 million
Type of Action: Innovation Actions (70% funding)
TRL: Start at 5 and achieve 7

HORIZON-CL4-2023-TWIN-TRANSITION-01-07: Achieving resiliency in value networks through modelling and Manufacturing as a Service (Made in Europe Partnership) (RIA)

Expected Outcomes:

- Availability of reliable models, simulators, digital twins, decision making and planning technologies for specific value networks, providing timely scoreboard views and enabling a better understanding of the impact of unforeseen events on manufacturing and industrial production.

- Availability of technologies to swiftly adapt logistics and production to varying external conditions, improving the resilience of the industrial systems and value chains, and the sustainability of the entire production process.

- Smart manufacturing networks that are resilient and capable of self-adaptation in response to external threats.

Indicative budget: EUR 32 million
EU contribution per project: EUR 4-6 million
Type of Action: Research and Innovation Actions
TRL: Start at 3 and achieve 6

HORIZON-CL4-2023-TWIN-TRANSITION-01-08: Foresight and technology transfer for Manufacturing as a Service (Made in Europe Partnership) (CSA)

Expected Outcomes :

- Foresight for Manufacturing as a Service and digital technologies in manufacturing

  (a) analysis of the best practices to advance circularity, decarbonisation, and sustainability of industrial production;

  (b) analysis of foreseeable developments and trends for Manufacturing as a Service vs. centralised manufacturing;

  (c) recommendations for an EU manufacturing standardisation strategy for data;

  (d) roadmapping for EU industry to transform and anticipate these changes.

- Support for the transfer of information and technologies between Horizon Europe projects and other relevant initiatives, e.g., the Manufacturing Data Spaces and the network of European Digital Innovation Hubs.

Indicative budget: 1 million EUR
EU contribution per project: 1 million EUR
Type of Action: Coordination and Support Actions

European Commission

Call - TWIN GREEN AND DIGITAL TRANSITION 2023

Energy efficient and climate neutral process industries" (Energy Intensive Process Industries)

- HORIZON-CL4-2023-TWIN-TRANSITION-01-31: Energy efficiency breakthroughs in the process industries (Processes4Planet partnership) (RIA) (Lump sum)

- HORIZON-CL4-2023-TWIN-TRANSITION-01-33: Electrification of high temperature heating systems (Processes4Planet Partnership) (IA)

- HORIZON-CL4-2023-TWIN-TRANSITION-01-36: Modelling process industry transition to climate neutrality, sustainability and circularity (Processes4Planet partnership) (RIA) (Lump sum)

European Commission

HORIZON-CL4-2023-TWIN-TRANSITION-01-31: Energy efficiency breakthroughs in the process industries (Processes4Planet partnership) (RIA)

Expected Outcomes :

- Increase the energy efficiency of energy intensive industrial processes by reducing energy use by at least 30% and the process as compared to current state of the art;

- Enable the techno-economic feasibility of novel technologies and processes, validated and demonstrated at suitable scale against state of the art of industrial processes;

- Enable the potential of an increased use of renewable energy;

- Contribute to achieving EU climate neutrality goal and becoming independent from fossil fuel and fossil fuel imports as put forward in the REPowerEU Plan.

Indicative budget: EUR 32 million
EU contribution per project: EUR 8-10 million
Type of Action: Research and Innovation Actions

TRL: Start at 4 and achieve 6

European Commission

HORIZON-CL4-2023-TWIN-TRANSITION-01-33: Electrification of high temperature heating systems (Processes4Planet Partnership) (IA)

Expected Outcomes :

- Demonstrate the use of advanced electric heating technologies for high temperature demand systems in the process industry;

- Prove the effectiveness of the technologies towards GHG emission avoidance;

- Reduce process emissions of high temperature heating systems by at least 30% compared to current state of the art levels of the process with fossil-based heating system;

- Enable the integration of renewable electricity in the process industries to substitute fossil fuels for heating, thereby contributing to the independence from fossil fuel and fossil fuel imports as put forward in the REPowerEU Plan;

- Showcase the scalability and the cost efficiency of the proposed solutions;

- Enable the economic viability of the entire unit to compete with the existing state of the art of fossil-based heating systems and increase of the competitiveness and resilience of the European process industry.

Indicative budget: EUR 35,67 million
EU contribution per project: EUR 12-15 million
Type of Action: Innovation Actions (60% funding)
TRL: Start at 5 and achieve 7

HORIZON-CL4-2023-TWIN-TRANSITION-01-36: Modelling process industry transition to climate neutrality, sustainability and circularity (Processes4Planet partnership) (RIA)

Expected Outcomes :

- Development of a model, enhancement of existing modelling tools towards understanding the pathways for industry, and Energy Intensive Industries in particular, to contribute to EU's climate neutrality;

- Modelling of scenarios of possible pathways of how industry, and Energy Intensive Industries in particular, can become climate neutral according to the following five dimensions: (1) their energy demand and use and energy efficiency, (2) their emissions including process emissions; (3) in use of raw materials, chemicals and water; (4) their production of consumer goods/equipment/construction products; (5) possibility of replacing fossil carbon in materials by more sustainable streams;

- Facilitate future EU and national industry, climate and energy policy assessments. Climate neutrality of industry will be a strong priority for the EU and national policies by 2030 and towards 2050 as industry is considered as hard-to-abate sector . Any policy initiatives will require a robust, forward-looking analytical basis interlinked with macro-economic and energy system trends and such can be provided by modelling;

- Set the climate neutrality transition pathways for process industries in an open and transparent manner via design, modelling, and assessment of pathways of these industries. Modelling exercises can set the framework conditions and project market uptake of transformative solutions and products;

- Enhance the knowledge about climate neutrality pathways for industry and academia as the resulting modelling capacity (model code) and input data should be fully transparent and published under an open-source licencing.

Indicative budget: EUR 13 million
EU contribution per project: EUR 6-7 million
Type of Action: Research and Innovation Actions

Call - TWIN GREEN AND DIGITAL TRANSITION 2023

Circularity and Zero Pollution in process industries

- HORIZON-CL4-2023-TWIN-TRANSITION-01-37: Hubs for circularity for near zero emissions regions applying industrial symbiosis and cooperative approach to heavy industrialized clusters and surrounding ecosystems (Processes4Planet partnership) (IA)

- HORIZON-CL4-2023-TWIN-TRANSITION-01-40: Sustainable and efficient industrial water consumption: through energy and solute recovery (Processes4Planet partnership) (RIA)

- HORIZON-CL4-2023-TWIN-TRANSITION-01-42: Circular economy in process industries: Upcycling large volumes of secondary resources (Processes4Planet partnership) (RIA) (Lump sum)

European Commission

HORIZON-CL4-2023-TWIN-TRANSITION-01-37: Hubs for circularity for near zero emissions regions applying industrial symbiosis and cooperative approach to heavy industrialized clusters and surrounding ecosystems (Processes4Planet partnership) (IA)

Expected Outcomes :

Projects outcomes will enable achievement of the objectives of Processes4Planet partnership by demonstrating hubs for circularity (H4Cs) concepts, fostering circularity within and beyond process industries and driving the partnership's innovation portfolio towards "First of a kind" demonstrators to de-risk investment for subsequent roll-out.

- Achieve a step change in circular utilization of resources within the process industries reducing the use of virgin resources (materials, energy, and water) by at least 20% as compared to current SoA;
- Citizens living in proximity of heavily industrialized clusters will benefit from a healthier environment by lowering emissions through industrial symbiosis and circular and renewable energy sources;
- Use industrial symbiosis and cross-sectorial cooperation to pave the way for achieving the EU Green Deal and "Fit for 55" package objectives: providing recommendations for optimized regional framework conditions by highlighting barriers and suitable innovation-oriented policies.

Indicative budget: 40 million EUR
EU contribution per project: EUR 15-20 million
Type of Action: Innovation Actions
TRL: Start at 5 and achieve 7

HORIZON-CL4-2023-TWIN-TRANSITION-01-40: Sustainable and efficient industrial water consumption: through energy and solute recovery (Processes4Planet partnership) (RIA)

Expected Outcomes :

Projects outcomes will enable achieving the objectives of Processes4Planet partnership by designing industrial processes for the maximum resource (water) efficiency and developing new process to ensure full valorisation of process industries wastewater, recycled water, energy, and solute recovery.

- Demonstrate sustainable industrial water consumption based on new technologies for energy and solute recovery;

- Enable full circular use of water in process industry thus reducing industry dependence and utilisation of fresh water;

- Enable the techno-economic feasibility of the processes and technologies for water treatment and recycling particularly when combined with energy and waste reduction strategies to compete with the existing SoA;

- Maximise the recovery of substances and energy present in the wastewater streams;

- Demonstrate contribution to EU climate neutrality goal.

Indicative budget: 30 million EUR
EU contribution per project: 10-12 million EUR
Type of Action: Research and Innovation Actions
TRL: Start at 4 and achieve 6

HORIZON-CL4-2023-TWIN-TRANSITION-01-42: Circular economy in process industries: Upcycling large volumes of secondary resources (Processes4Planet partnership) (RIA)

Expected Outcomes :

- Prove the technical and economic feasibility of the use of secondary resources in the process industry leading to products with identical properties and performances as those produced using primary resources and allowing production without quality restriction;

- Increase the use of secondary resources in the process industry leading to significant increase in resource efficiency across the value chain and subsequent reduction of CO_2 emissions; reduction of waste sent to landfill and overall positive environmental impact;

- Increase the competitiveness of the European process industry; new business opportunities and revenue flows for recycling companies, benefiting particularly SMEs, which dominate this sector of the market;

- The proposed technologies should contribute to the matching of supply-versus-demand of feedstock at the level of quality constraints (removal of impurities or wrong matrices, concentration etc.);

- Foster data sharing, and FAIR (Findability, Accessibility, Interoperability and Reusability) digital assets principles, considering the application of digital product passport between recycling companies and the process industry to improve the economy of scale in upcycling of material streams;

- Increase the use of unused and new skills to unfold the potential of the technological solutions at the workplace for upcycling and contribution to inclusive growth;

- At a longer term, to pave the way toward sustainable-by-design for circular products.

Indicative budget:
30 million EUR

EU contribution per project:
EUR 10-12 million

Type of Action:
Research and Innovation Actions

TRL:
Start at 4 and achieve 6

CLUSTER 4 – 6 Destinations

Destination 1: Climate neutral, circular, and digitised production

Destination 2: A digitised, resource-efficient and resilient industry

Destination 3: World leading data and computing technologies

Destination 4: Digital and emerging technologies for competitiveness and fit for the green deal

Destination 5: Strategic autonomy in developing, deploying and using global space-based infrastructures, services, applications and data

Destination 6: A human-centred and ethical development and industrial technologies

WORK PROGRAMME 2023-2024 – DESTINATION 2
"Increased Autonomy in Key Strategic Value Chains for Resilient Industry"

Call HORIZON-CL4-2023-RESILIENCE-01

Open: 8 Dec 2022
Deadline: 20 Apr 2023

Call HORIZON-CL4-2023-RESILIENCE-01-TWO-STAGE

Open: 8 Dec 2022
Deadline: 7 Mar 2023 (1st stage), 5 Oct 2023 (2nd stage)

Strategic innovation markets driven by advanced materials

Call - RESILIENT VALUE CHAINS 2023 TWO STAGE

- HORIZON-CL4-2023-RESILIENCE-01-32: Bioinspired and biomimetic materials for sustainable textiles (IA)

- HORIZON-CL4-2023-RESILIENCE-01-33: Smart sensors for the Electronic Appliances market (RIA) (Lump sum)

- HORIZON-CL4-2023-RESILIENCE-01-34: Advanced (nano and bio-based) materials for Sustainable Agriculture (RIA)

- HORIZON-CL4-2023-RESILIENCE-01-37: Advanced materials for magnets in applications for the New Energies Market (RIA)

Call - RESILIENT VALUE CHAINS 2023

- HORIZON-CL4-2023-RESILIENCE-01-39: Coordination and knowledge sharing across materials development communities (CSA) (Lump sum)

European Commission

HORIZON-CL4-2023-RESILIENCE-01-32: Bioinspired and biomimetic materials for sustainable textiles (IA)

Projects are expected to contribute to the following outcomes:

- The innovation market of sustainable textiles requires the use of a new generation of renewable and recyclable materials designed with properties that are inspired by nature.

- Bioinspired and biomimetic advanced materials that do not require or limit the need to use chemical additives or coatings will have a positive impact on the environment, the climate, and the circularity of textile materials, in view of the Safe and Sustainable by Design Framework.

- Smart functions or functionalities of textiles will address future consumer needs.

- Low-cost, low-resource, and low environment-impact high performance durable fibres and textiles from renewable sources will serve for technical end markets.

- Develop effective circularity enabling technologies for technical textiles, non-woven and fibre-reinforced composites, e.g. biopolymer or natural fibre based high performance fibres.

- Use of hazardous chemical processing shall be reduced and reserved for crucial technical functionalities of textiles.

- Designed circularity for renewables and recyclable materials supporting the sustainable use of textiles, reducing the CO_2-footprint of the textiles industry.

Indicative budget of the call: 31.00 million EUR
EU contribution per project: 6.00 to 8.00 million EUR
Type of Action: Innovation Action
TRL: start at TRL 4 and achieve TRL 6-7

European Commission

HORIZON-CL4-2023-RESILIENCE-01-33: Smart sensors for the Electronic Appliances market (RIA)

Projects are expected to contribute to the following outcomes:

- The Innovation market for Electronics Appliances is very broad and fast developing with a range to monitor human and environmental factors, which require to develop materials for a new generation of fast and smart sensors devices.

- Smart sensor technology can support self-monitoring in fitness and well-being, decentral personal health monitoring, environmental monitoring, as well as cooling and thermal distribution and supply chain management.

- Sensor devices must be small, and durable to deploy at various locations and withstand the ambient conditions of the targeted application.

- Advanced materials are needed to allow the capturing of chemical and bio-chemical signals with extended lifetime or extreme low cost for disposable sensors.

- Smart concepts and tools for evolving data analysis that embed a deep understanding of the sensor properties enable new business models for distributed, connected sensors.

Indicative budget of the call: 31.00 million EUR
EU contribution per project: 6.00 to 8.00 million EUR
Type of Action: Research and Innovation Action
TRL: start at TRL 3-4 and achieve TRL 5-6

HORIZON-CL4-2023-RESILIENCE-01-34: Advanced (nano and bio-based) materials for Sustainable Agriculture (RIA)

Projects are expected to contribute to the following outcomes:

- Producers of agrochemicals will provide alternative chemicals and/or bio-based materials following the safe and sustainable by design framework to farmers and comply with relevant agri-food market authorisations.

- Advanced (nano)materials and/or bio-based materials will provide farmers with alternative tools to reduce the use of pesticides and fertilizers, thereby reducing the environmental footprint of these agrochemicals.

- Support to the EU climate ambitions by contributing to reversing biodiversity loss and to more sustainable food production as well as the objectives of the Zero Pollution Action plan and the Chemicals Strategy for Sustainability and where relevant the Farm to Fork Strategy.

- Support to the goals of the Mission 'A Soil Deal for Europe, i.e., such as reducing soil pollution and use of hazardous substances.

- Support the EU goals of the Ocean and Waters mission, i.e., prevent and eliminate pollution by reducing use of fertilizers and chemical pesticides by 50%.

Indicative budget of the call: EUR 31 million
EU contribution per project: EUR 6-8 million
Type of Action: RIA
TRL: Activities starting at TRL 3-4 and achieving TRL 5-6 by the end of the project

HORIZON-CL4-2023-RESILIENCE-01-37: Advanced materials for magnets in applications for the New Energies Market (RIA)

Projects are expected to contribute to the following outcomes:

- Europe's industry will benefit from advanced materials for magnets that are either free from rare-earth metals, or use to a significant extent a substitute and reduce the share of rare-earth metals magnets (compared to the state of art). This will alleviate the dependency and possible supply risks and strengthen Europe's open strategic autonomy and competitiveness.

- Europe used 16 kt of rare earths in 2020, and most of them were used to manufacture permanent magnets (NdFeB). This market is still increasing due to the massive electrification of the energy industries. If new magnet composition is successfully developed by 2030 (Nd1Fe12 phases, NdFeMo, high entropy alloys) this permanent magnet could be widely applied, also in offshore wind energy and in industry.

- The new advanced materials for high-performance magnets must be available at an industrial scale and shall have improved energy-efficiency and performance, whilst at the same time will be easier to recycle with longer and enhanced life cycle.

- This is in particular necessary to keep up with the political ambitions of the European Green Deal matching the increasing demand for energy harvesting and storage with the ambition to reduce emissions.

Indicative budget of the call: 31.00 million EUR
EU contribution per project: 6.00 to 8.00 million EUR
Type of Action: Research and Innovation Action
TRL: start at TRL 3-4 and achieve TRL 5-6

European Commission

HORIZON-CL4-2023-RESILIENCE-01-39: Coordination and knowledge sharing across materials development communities (CSA)

Projects are expected to contribute to the following outcomes:

- A pathway for accelerating advanced material research in line with strategic innovation markets, in particular for generating reliable data and information and for providing easy access to any interested stakeholder;

- A common knowledge base for researchers and industry increasing collaboration between strategic innovation markets driven by advanced materials;

- Overcoming hurdles with regards to the use of digital tools for improved access to and valorisation of data.

Indicative budget of the call: 2 million EUR
EU contribution per project: 2 million EUR
Type of Action: Coordination and support action (CSA)

European Commission

Call – RESILIENT VALUE CHAINS 2023

Safe and Sustainable by Design (SSbD) chemicals and materials

- HORIZON-CL4-2023-RESILIENCE-01-21: Innovative methods for safety and sustainability assessments of chemicals and materials (RIA)

- HORIZON-CL4-2023-RESILIENCE-01-22: Integrated approach for impact assessment of safe and sustainable chemicals and materials (RIA)

- HORIZON-CL4-2023-RESILIENCE-01-23: Computational models for the development of safe and sustainable by design chemicals and materials (RIA) (Lump sum)

European Commission

HORIZON-CL4-2023-RESILIENCE-01-21: Innovative methods for safety and sustainability assessments of chemicals and materials (RIA)

Projects are expected to contribute to the following outcomes:

- EU strategies/policies and regulations, such as the (proposed) Ecodesign for Sustainable Products Regulation, the EU Ecolabel, REACH or CLP can build on new methods and the associated data for chemicals and materials;

- Methods and data will be made available in a format which will allow existing validation networks or bodies (e.g., the EU Reference Laboratory for alternatives to animal testing (EURL ECVAM) or the OECD) or other platforms to launch a validation/standardisation process and to promote wider uptake of the new methods developed;

- Industry and public authorities have access to innovative tools for more comprehensive safety and sustainability assessment covering a wider range of chemicals and advanced materials including composites/mixtures and nanomaterials, supporting the implementation of the Safe and Sustainable by Design framework.

Indicative budget of the call: EUR 29 million
EU contribution per project: EUR 6 and 8 million
Type of Action: RIA
TRL: achieve TRL 6 by the end of the project

European Commission

HORIZON-CL4-2023-RESILIENCE-01-22: Integrated approach for impact assessment of safe and sustainable chemicals and materials (RIA)

Projects are expected to contribute to the following outcomes:

- The stakeholder community including academia, industry, public authorities and NGOs will have access to more robust and consistent guidelines and methodologies for integrative social, economic, health and environment impact assessment;

- Industry will be enabled to make impact-based informed investment decisions for future chemicals and materials;

- Public authorities and policy makers at EU and national level will be supported in the implementation of policies, including the transition to safe and sustainable chemicals and materials through improved understanding of potential sustainability trade-offs.

Indicative budget of the call: EUR 15 million
EU contribution per project: EUR 3 and 4 million
Type of Action: RIA
TRL: achieve TRL 5 by the end of the project

European Commission

HORIZON-CL4-2023-RESILIENCE-01-23: Computational models for the development of safe and sustainable by design chemicals and materials (RIA)

Projects are expected to contribute to the following outcomes:

- The 'chemicals and materials' community will be provided with computational models supported by artificial intelligence for the design of new chemicals and materials integrating functionality and the Safe and Sustainable by Design framework,

- The innovation capacity of SMEs and industry will be boosted with cost effective tools to find safe and sustainable alternatives to substances of concern,

- Industry will lower the environmental footprint of materials and chemicals through improved production methods and optimised applications from the design phase on,

- Industry will be more agile to respond to external and internal influences, e.g., new market demands for chemicals and advanced materials, regulatory requirements or the potential shortage of currently used raw materials,

- The EU climate ambitions will be supported by contributing to a decrease of greenhouse gas emissions through a more sustainable production and use of chemicals and materials.

Indicative budget of the call: EUR 29.00 million
EU contribution per project: EUR 6.00 and 7.00 million
Type of Action: RIA
TRL: achieve TRL 6 by the end of the project

European Commission

Thank you for your questions

Cluster 4 Info Days (for recorded presentations and on-line questions answered)
https://research-innovation-community.ec.europa.eu/events/3jM2kV6qwHjteovSf3VOrp/overview

Research Enquiry Service
https://research-and-innovation.ec.europa.eu/contact-us/research-enquiry-service_en

HorizonEU

http://ec.europa.eu/horizon-europe