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# **Annex IX**

# **Horizon Europe**

# 9. Food, Bioeconomy, Natural Resources, Agriculture and Environment

# **DISCLAIMER**

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# Introduction

This document contains the revised orientations for the 2026-2027 Work Programme part of Cluster 6 'Food, Bioeconomy, Natural Resources, Agriculture and Environment' and intends to support the co-creation process within the Commission and with the delegates' of the Cluster 6 Horizon Europe Programme Committee.

The document includes revised expected impacts, expected outcomes and policy context from the orientation document, as well as the tentative lists of draft topics proposed for the exchange of views on the initial draft Work Programme 2026-2027 that will take place in the 18<sup>th</sup> Programme Committee meeting on 12 March 2025 and in thematic workshops planned between 14 March and 18 March 2025.

Cluster 6 Work Programme 2026-2027 is expected to complete the implementation of research activities planned in the Strategic Plan 2025-2027, while addressing the new Commission policy priorities for 2024-2029 with a focus on "Sustaining our quality of life: food security, water and nature" and "A new plan for Europe's sustainable prosperity and competitiveness". The Cluster will further contribute to the priorities "Supporting people, strengthening our societies and our social model" and "Protecting our democracy, upholding our values".

At least 35% of Horizon Europe resources are committed to be used on climate action and 10% on biodiversity in the period 2025 to 2027. Cluster 6 is expected to be a significant contributor to achieve both targets with the next Work Programmes.

In order to maximise the impact of R&I activities and speed up innovation, the multi-actor approach will be adopted, where appropriate, in the relevant topics of the work programme of this cluster.

Moreover, societal transformation will be pursued in Cluster 6 via the integration, as appropriate, of Social Sciences and Humanities (SSH), since these play a critical role in finding pathways and solutions for the green transition.

All topics under this cluster will also comply with the 'do no significant harm' (DNSH) principle and, where relevant, will benefit from the use of advanced digital technologies, such as artificial intelligence, to accelerate and maximise the impact of policies dealing with environment protection and climate change, as stated in the European Green Deal.

Finally, all R&I activities in the present Work Programme will produce results supporting the implementation of the United Nations Sustainable Development Goals (SDGs).

# **Destinations**

# **Destination - Biodiversity and ecosystem services**

# **Revised orientations**

# Addressing main policy priorities

This destination will mostly support the EU Commission priority 'Sustaining our quality of life: food security, water and nature'.

The implementation of the EU Green Deal will continue to guide R&I in this destination. R&I will develop knowledge and tools to support the implementation of the EU Biodiversity Strategy for 2030 and notably the EU Nature Restoration Regulation, the EU proposal for a Directive on soil monitoring and resilience and the EU proposal for a Regulation on a forest monitoring framework, thus protecting our natural world, and to inform the development of the post 2030 EU Biodiversity Strategy. This will at the same time support the climate adaptation strategy and the EU climate mitigation targets by maintaining or improving natural carbon sinks.

Actions will contribute to the forthcoming initiatives the European Ocean Pact, of the European Water Resilience Strategy and of the EU legislative proposal on pollutants in EU waters (update of chemical substances listed for control).

R&I activities for sustainable farming, fishing and aquaculture will be supported in alignment with the Vision for Agriculture and Food and the Vision for Fisheries and Aquaculture towards 2040, ensuring the sectors' long-term competitiveness within ecological boundaries.

R&I actions under this Destination will encourage international cooperation, in line with the global approach on R&I, and will contribute to ensuring we reach our international biodiversity commitments, notably those taken under the Kunming Montréal Global Biodiversity Framework (GBF), the Paris Agreement, the Sustainable Development Goals and the United Nations agreement on biodiversity beyond national jurisdiction (BBNJ Agreement). Support to processes of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) will be continued.

#### Draft expected impacts

<u>Strategic Plan 2025-2027 – Expected Impact 28</u>: Putting biodiversity on a path to recovery and protecting and restoring ecosystems and their services.

Proposals for topics under this destination should set out a credible pathway contributing to "putting biodiversity on a path to recovery, and protecting and restoring ecosystems and their services", and more specifically to one or more of the following impacts:

• Improved knowledge, in particular on biodiversity status and trends and drivers of biodiversity loss, and innovations, methods, pathways, models and tools are available and used to protect healthy and resilient ecosystems and to restore degraded ones,

ensuring the continuous provision of ecosystem services, including for adaptation and/or mitigation to climate change;

- The ongoing biodiversity crisis and its consequences, notably on ecosystem functioning and their services, and the need to monitor, protect, restore and sustainably use biodiversity are better understood to better benefit the whole society in an inclusive way;
- Policymakers and stakeholders, all relevant economic sectors and society are aware and
  well informed of relevant challenges and opportunities of biodiversity protection,
  restoration and sustainable use, leading to better implementation of the biodiversity
  legislation and better valuation of ecosystem services, leading to transformative change
  towards a nature positive economy;
- Farmers, foresters, land and sea managers, fishers and aquaculture producers have access
  to key information, test and implement biodiversity-friendly management practices,
  while safeguarding food and water security and fostering competitiveness,
  demonstrating the long-term sustainability of these sectors;
- Progress towards international commitments worldwide on biodiversity is made.

# Main expected outcomes

To achieve the above-mentioned impacts, the following **expected outcomes** will be pursued:

- Innovative ways of dissemination and exploitation of research results on biodiversity and capacity building are tailored for key stakeholders and social groups and scaled up, to better inform the EU society and stakeholders, to boost transformative changes and to support decision-makers including in international fora.
- FAIR data from environmental observations is available in global databases and scalable to enhance cross-connections between efforts of biodiversity and ecosystem monitoring, reporting and decision-making and to bridge critical data gaps. International cooperation is enhanced.
- Knowledge gaps about direct and indirect drivers of biodiversity loss and their cumulative effects are addressed. Innovations and transformative solutions to tackle drivers of biodiversity loss, in particular invasive alien species, are developed and tested with relevant stakeholders. The causes of collapse of target species are better understood and solutions for immediate remediation are developed. The status of insects and the drivers of their decline are better understood and capacity to tackle it is improved.
- Stakeholders implementing policies and legislations on biodiversity protection and
  restoration co-create and/or benefit from improved knowledge, innovative solutions and
  options for transformative changes and new business models for sustainable use of
  biodiversity and ecosystems which are tested in real conditions. Conditions for protected
  areas to effectively protect habitats and species (e.g. insects, birds, migratory species)
  are better understood. Methods to adapt their management are developed considering

the effects of the drivers of biodiversity loss and ecosystem-based management options. Social innovation approaches are explored;

- Gaps in coverage, knowledge and monitoring of deep-sea biodiversity, ecosystems
  functioning, and connectivity with other ocean zones are addressed to describe
  Ecologically or Biologically Significant Marine Areas (EBSAs), prioritise protection
  and restoration areas, and inform integrated ecosystem management.
- The knowledge of groundwater ecosystems is improved in particular with the view of developing ecotoxicity assessment methods;
- Risks and benefits of synthetic biology and biotechnology applications are assessed for the protection, restoration and sustainable use of biodiversity and ecosystems;
- Knowledge generation and decision-making are improved through predictive
  capabilities and innovations in AI, tools to collect and manage data according to FAIR
  principles, robust systems, modelling and monitoring (building on existing modelling
  projects and initiatives) taking into account how ecosystems functioned in the past. The
  models will assess and predict risks associated with biodiversity loss, including financial
  risks, ecosystem services provisions and global health;
- The integration of nature-based solutions across sectors and societal challenges enhances ecosystem restoration, climate resilience and biodiversity protection. This offers sustainable, long-term benefits and valuable insights to practitioners and decision-makers into their effectiveness under diverse climate scenarios;
- The ability to measure business impacts, dependencies and efforts on biodiversity in a
  robust and decision-relevant way continues to be improved by filling gaps in data,
  knowledge, knowledge access and practice including by enhancing accessibility of
  existing methods and assessing the cost of inaction in protection and restoration of
  ecosystems;
- The knowledge and its access on both the negative impacts of biodiversity loss and the benefits of healthy ecosystems on wildlife and human health is improved, while taking into account the cost of inaction and the socio-economic dimension;
- Land managers have access to a wider range of crops and breeds with a rich genetic
  base, supporting agrobiodiversity, agroecology and contributing to low-input,
  competitive and resilient agriculture, including climate change adaptation. Incentives
  and methods to reward farmers, aquaculture producers and fishers who adopt sustainable
  practices, working with nature, preserving our biodiversity and natural ecosystems and
  wildlife health, are reinforced.

#### First topic ideas

# Consolidating biodiversity knowledge for nature and society

Proposals are invited against the following topic(s):

# HORIZON-CL6-2026-2027-01-BIODIV-0X: Science-policy support to the implementation of EU and global biodiversity policies and strategies

Specific conditions	
Type of Action	CSA

### **Expected Outcome:**

Project results are expected to contribute to all the following expected outcomes:

- Effective and efficient policy support provided by the Science Service for Biodiversity (SSBD), the scientific pillar of the EC Knowledge Centre for Biodiversity (KCBD), supporting EU policymaking related to biodiversity and biodiversity-related sectors. Information and information systems with key evidence accessible and tailored for different target stakeholders are developed and tested.
- Science-policy support and knowledge transfer from EU-funded R&I projects to the global IPBES and CBD processes, and greater capacity of researchers and negotiators from the EU and associated countries to engage in these processes, also through the European Technical and Scientific Cooperation Support Centres (TSCCs) and the Global Knowledge Support Service for Biodiversity (GKSSB) are enhanced.

# Scope:

# Proposals should:

- Support the provision of a functional and responsive Science Service for Biodiversity, acting as a one-stop-shop for ad hoc advice, capacity building, resources, services and tools that enable EU policymakers and other decision makers to ensure the protection, restoration and sustainable use of biodiversity, and supporting the transformative changes required to achieve that.
- Strengthen the capacity of researchers and negotiators from the EU and associated countries to engage in IPBES and CBD processes; provide scientific and back-office support to EU negotiators in these processes; and facilitate technical and scientific cooperation, knowledge transfer and networking between researchers, policymakers and other decision makers to enhance awareness and application of IPBES deliverables and CBD decisions.

Successful proposals should support the European Green Deal goals and contribute to the effective implementation of the EU biodiversity strategy for 2030, the EU Nature Directives and the EU Nature Restoration Regulation, as well as the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) and global policy frameworks such as the Convention on Biological Diversity (CBD), the Kunming-Montreal Global Biodiversity Framework and the Sustainable Development Goals (SDGs).

# HORIZON-CL6-2026-2027-01-BIODIV-0X: Integrating Satellite Remote Sensing and in situ observations of Biodiversity, towards a fully interoperable observation and data framework

Specific conditions	
Type of Action	RIA

# **Expected Outcome:**

Project results are expected to contribute to all the following expected outcomes:

- The implementation of EU Green Deal policies related to biodiversity and ecosystems, based on robust, interoperable and fit for purpose data (from genomes to space) across Europe and beyond, is improved
- The capacity of researchers and decision-makers to address critical biodiversity monitoring and knowledge gaps is strengthened, through consolidated coordination between and across European and global activities on biodiversity data and workflows provisioning.

# Scope:

# Proposals should:

- Provide a framework to ensure integration and interoperability of in situ and satellitebased earth observation data for terrestrial, freshwater and marine biodiversity in Europe (including Horizon Europe Associated Countries), based on the identification and prioritization of critical knowledge gaps and their data needs view to biodiversity protection, restoration and sustainable use goals and targets, as other related policy objectives.
- Work towards consensus and implementation of joint definitions of in situ to satellite
  data collection and processing protocols, data quality and harmonization of standards
  through e.g. development of AI-based translation mechanisms, across existing
  initiatives (i.e. GBIF, OBIS, LUCAS, GBiOS, GEOBON, KCBD, KCEO and the longterm research infrastructure).

Successful proposals should support the European Green Deal goals and contribute to the effective implementation of the EU biodiversity strategy for 2030, the EU Nature Directives and the EU Nature Restoration Regulation, as well as the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) and global policy frameworks such as the Convention on Biological Diversity (CBD) and the Kunming-Montreal Global Biodiversity Framework.

# HORIZON-CL6-2026-2027-01-BIODIV-0X: Tackling the decline of insect species

Specific conditions	
Type of Action	RIA

# **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Status and population trends of (non-pollinator) insect species and drivers of their decline are better understood, and capacity to tackle the major drivers is improved.
- Socioeconomic benefits and ecological importance of (non-pollinator) insect species are better understood, valued, and accounted for in decision-making.

# Scope:

Successful proposals are expected to improve understanding and identification of insect diversity, including through genomic approaches, assess the status and trends of (non-pollinator) insect species and analyse multiple drivers affecting insects and ecosystem services that they provide, at different spatial scales. They should devise, test and promote effective strategies to mitigate the major drives of insect decline and analyse the ecosystem functions underpinned by (non-pollinator) insect species and undertake qualitative and quantitative valuation of ecosystem services emanating from those functions.

Successful proposals should contribute to the EU biodiversity strategy for 2030 and exploratory work towards possible future initiatives.

# HORIZON-CL6-2026-2027-01-BIODIV-0X: Developing methods to assess the presence, functions and sensitivity of groundwater ecosystems

<b>Specific conditions</b>	
Type of Action	RIA

#### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- The knowledge of existing groundwater ecosystems is improved, supporting policymakers and technical experts in assessments of their presence, of their functions and condition or status and of their protection.
- Society benefits from enhanced knowledge of pollution risks to groundwater ecosystems and the ecosystem services provided by them, including of possible implications for other ecosystems and for human health.

# Scope:

# Proposals should:

- Improve and develop innovative methods for assessing the presence, functions and condition or status of groundwater ecosystems.
- Develop methods for assessing ecotoxicity of pollutants as regards groundwater ecosystems and in particular sensitive/vulnerable ecosystems.

This topic is expected to support the EU biodiversity strategy for 2030 and the EU legislative proposal for revision of surface- and groundwater pollutants lists and relevant provisions in the Environmental Quality Standards Directive, the Groundwater Directive and the Water Framework Directive.

# HORIZON-CL6-2026-2027-01-BIODIV-0X: Pushing the frontier of knowledge and conservation action for deep sea ecosystems

<b>Specific conditions</b>				
Type of Action	RIA			

# **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Member States can contribute to the implementation for deep-sea zones of the Treaty on Biodiversity Beyond National Jurisdiction (BBNJ), the Kunming-Montreal Global Biodiversity Framework, notably in identifying Ecologically and biologically significant marine areas (EBSAS), in prioritizing area-based management measures and informing the next Global Assessment of Biodiversity and Ecosystem Services;
- Public Authorities have the science-based information for deep-sea zones to prioritize
  areas for protection measures, maritime spatial planning and ecosystem-based approach,
  habitat mapping and defining national restoration plan for implementing the Nature
  Restoration Regulation, the EU biodiversity and the EU climate adaptation strategies for
  2030.

# Scope:

# Proposals should:

- Fill the gaps in geographical coverage, mapping, species inventory, genetic diversity, ecological functioning, food webs and connectivity of deep-sea ecosystems (seafloor and in the water column) between them and with shallower ocean zones;
- Set the indicators, EOVs and EBVs, data integration, for long-term monitoring of deepsea biodiversity and ecosystems functioning, ecological modelling, covering C and nutrients cycles, to inform management on pressures and conservation measures.

# HORIZON-CL6-2026-2027-01-BIODIV-0X: Assessing risks and benefits of synthetic biology and biotechnology applications for the protection, restoration and sustainable use of biodiversity

<b>Specific conditions</b>	
Type of Action	RIA

# **Expected Outcome**:

Project results are expected to contribute to all the following expected outcomes:

- Improved understanding by relevant actors, including researchers, policymakers and
  public authorities, of the risks and benefits of synthetic biology and biotechnology
  applications for the protection, restoration and sustainable use of biodiversity and the
  multiple ecosystem services it delivers, and their role in climate mitigation and
  adaptation.
- Scientific support, recommendations, and policy advice are provided to policymakers
  and public authorities for the development, implementation and evaluation of policies,
  and strategies, including regulatory measures and financing flows, to govern and
  manage risks and benefits for biodiversity and ecosystem services arising from the use
  of synthetic biology and biotechnologies.

# Scope:

#### Proposals should:

- Assess, using cross-disciplinary research approaches, the direct, indirect and cumulative
  risks and benefits for biodiversity and ecosystem services of synthetic biology and
  biotechnology applications, as well as the adequacy of the current policy and regulatory
  context to govern and manage these risks and benefits, taking into consideration the
  latest science as well as relevant policy opinions and options.
- Facilitate an effective knowledge transfer from the research community to
  policymakers, public authorities and citizens to enhance their ability to make informed
  decisions based on the latest science and guided by the precautionary and DNSH
  principles. Provide actionable policy, governance and management options to support
  policymaking and research processes.

Successful proposals should support the European Green Deal goals and contribute to the proposed EU European life science strategy, taking into account global policy frameworks such as the Convention on Biological Diversity (CBD), the Global Biodiversity Framework, the Cartagena Protocol on Biosafety and the Nagoya Protocol on Access and Benefit Sharing.

# Restoring ecosystems for resilient society and economy

Proposals are invited against the following topic(s):

# HORIZON-CL6-2026-2027-01-BIODIV-0X: Living labs for the restoration of ecosystems

Specific conditions	
Type of Action	RIA

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Effective collaboration among research, practice, and policy to co-develop, test, refine and scale up solutions, methods and tools for the restoration of ecosystems is developed;
- Practice-oriented knowledge and tools are available to stakeholders restoring ecosystems and to provide advice.

### Scope:

# Proposals should:

- set up living labs and light houses as places for testing and demonstrating innovative solutions to restore ecosystems,
- demonstrate how ecosystem restoration can support EU general policy objectives such as competitiveness, trade or defence.

Proposals are expected to support the implementation of the EU nature restoration regulation.

Proposals should improve knowledge for the restoration of ecosystems. All ecosystem types may be addressed including terrestrial, freshwater and marine ones. Some of the living labs should focus on less known ecosystems.

Proposals should apply the three main principles of the living labs research concept and living labs should correspond to the definition of the European Network of Living Labs. They should involve partners from different backgrounds, disciplines and/or sectors that are most relevant to achieve the project objectives.

This topic requires the effective contribution of SSH disciplines to collect and validate technical as well as socio-economic data.

# HORIZON-CL6-2026-2027-01-BIODIV-0X: Technical innovation to protect ecosystems and to scale up their restoration

Specific conditions	
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Type of Action
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### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Activities of protection and restoration of ecosystems by stakeholders become easier and more effective;
- Conditions to scale up the implementation of the EU nature restoration regulation by stakeholders are improved.

# Scope:

Ecosystem restoration activities often require human intervention, for instance to temporarily protect plants or animals, or to remove invasive species (including their seeds) for which there is usually no dedicated machinery or equipment. Stakeholders use for instance agricultural machineries or equipment but this is not always effective.

Successful proposals are expected to identify ecosystems protection and/or restoration activities which would benefit from dedicated machines or equipment and design and test them. A wide range of possible innovations can be proposed, including new or adapted machines, low techs, digital innovations or combinations of them and a wide range of ecosystem types, including terrestrial, freshwater and marine ones can be addressed. Attention should be paid to effectiveness, simplicity of use, durability and environmental responsibility.

# HORIZON-CL6-2026-2027-01-BIODIV-0X: Unlocking the potential of citizen action for nature protection and restoration

<b>Specific conditions</b>	
Type of Action	IA – possibility to consider Fast Track to Innovation for this topic

# **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- citizen engagement in nature conservation and restoration is leveraged,
- new business opportunities and markets in the area of nature conservation and restoration are created.

# Scope:

Successful proposals are expected to explore innovation approaches that could apply to nature restoration activities and develop and test new ways to restore and conserve nature that can be directly implemented by citizens at small scale. A wide range of ecosystem types (in terrestrial

environment, in fresh and/or marine water) can be considered. Proposals are expected to develop, test and market citizen toolkits for species conservation, with the following scope:

- Animal species across various taxonomic groups, including pollinating insects.
- Protected species or species threatened with extinction according to the European Red List.
- Species suitable for direct citizen conservation action and with feasible breeding programmes.

Where necessary, the toolkit should include material for the creation of a habitat required by targeted species, such as seed material. Proposals should also design and test social incentives that encourage citizens to take an active role in nature conservation and restoration. Social innovation can be considered.

# HORIZON-CL6-2026-2027-01-BIODIV-0X: Open topic on uncovering the causes of collapse of target species and exploring rapid solutions

Specific conditions			
Type of Action	RIA		

# **Expected Outcome:**

Project results are expected to contribute to the following expected outcome(s):

- Drivers behind the collapse of target species are better understood;
- Policymakers, land managers, national agencies and other stakeholders have fast, practical and effective measures to prevent further decline and promote the recovery of affected species populations.

# Scope

Under the open topic, proposals are welcome to develop creative or disruptive tools or solutions to enhance understanding and provide solutions to target species collapse. They should investigate the multifaceted reasons behind species collapse, considering the drivers of biodiversity loss and their cumulative impacts. The topic is open to all types of ecosystems including marine, freshwater, and terrestrial ones.

Proposals should explore and develop tools and solutions that can be relatively quickly implemented to halt or reverse species decline. They should convincingly explain how they will plan and/or carry out demonstration, testing or validation of developed tools and solutions, which are expected to be pragmatic, considering the feasibility of implementation, the potential impact on the species and ecosystems in question, and the socio-economic context in which they will be applied. Proposals should envisage the development of plans to support future

uptake and upscaling after the research project, and how tools and solutions can be adapted and applied across different regions and contexts.

# HORIZON-CL6-2026-2027-01-BIODIV-0X: Improving the effectiveness of protected areas in conserving habitats and species

Specific conditions	
Type of Action	RIA

# **Expected Outcome**:

Project results are expected to contribute to all the following expected outcomes:

- Improved and/ or innovative management practices of protected areas are developed and tested;
- Stakeholders in charge of the protection of habitats and species are better equipped to address the impacts of the drivers of biodiversity loss, including climate change.

# Scope:

# Proposals should:

- improve the understanding of the relation between the good conservation status of the protected habitats and species with the drivers affecting them negatively. The experience of climate refugia (areas where ecosystems sustain stability and resilience despite climate change) and of bright spots (where targeted conservation actions, climate adaptation strategies, or natural resilience mechanisms mitigate biodiversity loss) could be used. Direct and indirect drivers should be considered, including socioeconomic evolutions in concerned areas
- investigate novel approaches for protection, such as assisted migration, or the use of innovative technologies, such as remote sensing or genetic analysis, to monitor and manage protected areas.

Proposals should support the implementation of the EU biodiversity strategy for 2030, the EU legislation on biodiversity protection and the Kunming-Montréal Global Biodiversity Framework. Proposals should seek to address some knowledge gaps identified by the relevant IPBES assessments and if appropriate provide recommendations to policy makers. Proposals might address terrestrial, freshwater and/or marine ecosystems.

# HORIZON-CL6-2026-2027-01-BIODIV-0X: Effective stakeholder-driven approaches for the eradication or management of invasive alien species

Specific conditions	
Type of Action	RIA

<u>Expected Outcome</u>: Project results are expected to contribute to all of the following expected outcomes:

- The capacities of researchers, practitioners and other stakeholders (including local communities) to effectively collaborate to co-develop, test, refine and scale up solutions, methods and tools to eradicate or manage invasive alien species (IAS) are enhanced;
- Practice-oriented knowledge and tools to eradicate or manage IAS or to provide advice are available.

# Scope:

Proposals are expected to support the eradication or management of invasive alien species by stakeholders, and thus to support the implementation of the EU biodiversity strategy for 2030, the EU regulation on invasive alien species and the nature restoration regulation. All ecosystem types may be addressed including in terrestrial environments, in fresh and/or in marine waters. Proposals should seek to address some knowledge gaps identified by the IPBES assessment on invasive alien species (2023).

Successful proposals should set up living labs building on existing methods or developing new ones for detecting and monitoring invasive alien species, such as the use of citizen science, eDNA, remote sensing and machine learning algorithms, and test them at scale. They should design and test innovative eradication and management strategies and methods which may include for instance the use of biological control, chemical control, bio-engineering and physical removal. Proposals are also expected to provide data and experience to assess socio-economic impacts of invasive alien species, side-effects of the management, the cost of inaction and the benefits of eradication or effective management.

Proposals should apply the three main principles of the living labs research concept. Living labs should correspond to the definition of the European Network of Living Labs and involve relevant partners from different backgrounds, disciplines and/or sectors.

# Transformative change towards a nature positive economy

Proposals are invited against the following topic(s):

# HORIZON-CL6-2026-2027-01-BIODIV-0X: Accelerating the Transition to a Nature Positive Economy: Integrating Biodiversity into the private sector

Specific conditions	
Type of Action	RIA

# **Expected Outcome:**

Project results are expected to contribute to all the following expected outcomes:

- Policy and decision makers are provided increased knowledge for policy and fiscal reforms to align economic incentives with nature positive investments and scalable biodiversity finance mechanisms (including blended finance, green bonds, nature credits, ecosystem service markets, etc.) with clear evaluation frameworks for effectiveness, and have access to improved measurement and reporting of business impacts, dependencies, and efforts on biodiversity.
- Overall, the economic case for biodiversity protection, restoration and sustainable use is strengthened, including robust assessments of the cost of inaction. Businesses are better able to mainstream biodiversity considerations in decision-making, including improved financial inclusion for biodiversity, particularly for start-ups and SMEs.

# Scope:

### Proposals should:

- Support decision-making for a nature positive economy by addressing knowledge and
  practice gaps, advancing standardised biodiversity metrics, improving accessibility of
  assessment methods, integrating risks related to biodiversity loss into corporate
  strategies, and identifying financial incentives for nature positive investments.
- Develop and promote policy and financial strategies for nature positive investments by analysing and promoting fiscal reforms, such as phasing out harmful subsidies and introducing biodiversity incentives, while piloting innovative financial mechanisms and valuation approaches in real-world business contexts to strengthen the business case for biodiversity protection, restoration and sustainable use.

The proposals will support the objectives and the implementation of the European Green Deal, the European Biodiversity Strategy, the Nature Restoration Regulation, EU Sustainable Finance Policy, and the Kunming-Montréal Global Biodiversity Framework. Proposals should seek to address some knowledge gaps identified by the relevant IPBES assessments and if appropriate provide recommendations to policy makers.

# HORIZON-CL6-2026-2027-01-BIODIV-0X: Advancing integrated scenarios and models for informing transition to a nature positive society

Specific conditions	
Type of Action	RIA

# **Expected Outcome**:

Project results are expected to contribute to all the following expected outcomes:

 Collaboration is strengthened across bio-physical and socio-economic research communities, to better capture interactions and trade-offs between biodiversity and other priorities. More integrated and robust scenarios, that bridge direct and indirect

drivers of biodiversity loss, different nexus interlinkages, telecoupling of European ecosystems (terrestrial, freshwater and marine) with their global dependencies, as well as economic frameworks.

• Global processes are supported and European policies are effectively informed, they deliver a more comprehensive and consistent frame for future-oriented scenarios.

# Scope:

### Proposals should:

- Design and develop a European integrated scenario framework informing and testing
  critical biodiversity policy priorities (including the EU Biodiversity Strategy, the EU
  Bioeconomy Strategy, the Sustainable Finance Strategy and the EU Water resilience
  strategy). Test and assess the suitability of the IPBES Natures Futures Framework for
  the further development of EU biodiversity action.
- Implement and improve modelling intercomparison capabilities, taking into account existing efforts, to integrate diverse drivers of biodiversity loss, including changes in the earth system, bio-physical, socio-economic and geopolitical considerations to inform the development of robust transformative policies for Europe.

The proposals should support the objectives and the implementation of the European Green Deal, the European Biodiversity Strategy, the Nature Restoration Regulation and the Kunming-Montréal Global Biodiversity Framework. Proposals should seek to address some knowledge gaps identified by the relevant IPBES assessments and if appropriate provide recommendations to policy makers.

# HORIZON-CL6-2026-2027-01-BIODIV-0X: Living Labs driving Transformative Change via Knowledge Integration and Inclusive Governance

Specific conditions		
Type of Action	RIA	

#### **Expected Outcome:**

Project results are expected to contribute to all the following expected outcomes:

Society and decision-makers are provided options for enhanced governance frameworks
that, through knowledge integration per ecosystem (including terrestrial, freshwater and
marine ones) and/or challenge, address institutional barriers, power asymmetries, and
policy fragmentation to accelerate transformative change towards a nature positive
economy.

• Practitioners and public authorities co-create and have access to 'Living Labs' as innovation hubs for testing, and scaling both governance and socio-economic models that integrate diverse knowledge systems and participatory approaches.

### Scope:

# Proposals should:

- Establish Living Labs as real-world testing environments to experiment with policy solutions, stakeholder engagement, and new economic models.
- Develop inclusive and adaptive governance strategies that foster systemic transformative change, based on both biodiversity and socio-economic metrics and emphasising equity and sustainability.

Projects should adopt interdisciplinary approaches, engage policymakers, and contribute to EU biodiversity and climate goals, and the Kunming-Montréal Global Biodiversity Framework. Proposals should seek to address some knowledge gaps identified by the relevant IPBES assessments and if appropriate provide recommendations to policy makers.

Proposals should apply the three main principles of the living labs research concept and living labs should correspond to the definition of the European Network of Living Labs. They should involve partners from different backgrounds, disciplines and/or sectors that are most relevant to achieve the project objectives.

# HORIZON-CL6-2026-2027-01-BIODIV-0X: Scaling Up Nature-Based Solutions towards a nature positive and climate-neutral economy

<b>Specific conditions</b>	
Type of Action	RIA

#### **Expected Outcome:**

Project results are expected to contribute to all the following expected outcomes:

- Policymakers are able to systemically integrate nature-based solutions (NbS) across sectors (in particular energy, water and transport) to protect and restore ecosystems and strengthen climate resilience while maximising cost-effectiveness.
- Robust evidence (including from EO and modelling) and insights for practitioners and
  decision-makers on the long-term effectiveness of NbS (including in terrestrial,
  freshwater and marine ecosystems) under diverse climate scenarios. This includes
  understanding how factors such as vegetation growth, health, and variety, the
  degradation of engineered materials, cost-effectiveness, and maintenance practices
  evolve over time, supporting the wider adoption and policy integration of NbS.

### Scope:

### Proposals should:

- Develop and implement large scale pilots of interconnected, cross-landscape scale NbS that address multiple challenges, including biodiversity loss, climate adaptation and mitigation, and water security while clearly creating new economic opportunities.
- Facilitate effective knowledge transfer from researchers to policymakers and public authorities to support science-based decision-making, while advancing methods to assess the long-term viability of NbS and ensuring their integration into policy, infrastructure and spatial planning.

The proposals will support the objectives and the implementation of the European Green Deal, the European Biodiversity Strategy, the Nature Restoration Regulation and the Climate Adaptation Strategy, the Water Resilience Strategy, and the Kunming-Montréal Global Biodiversity Framework. Proposals should seek to address some knowledge gaps identified by the relevant IPBES assessments and if appropriate provide recommendations to policy makers.

# HORIZON-CL6-2026-2027-01-BIODIV-0X: Health of ecosystems and wild species, predictions and impacts on human health, in the face of existing and emerging stresses

Specific conditions			
Type of Action	RIA		

# **Expected Outcome:**

Project results are expected to contribute to all the following expected outcomes:

- Transdisciplinary research communities work together to predict the health of
  ecosystems and wild species (including physiology, genetic diversity, population
  distribution and ecology) in the face of the existing and emerging stresses induced by
  the drivers of biodiversity loss, including but not restricted to climate change, through
  increased knowledge and monitoring.
- Policymakers, public authorities, stakeholders and citizens better understand the interlinkages between ecosystems health and human health and assess the progress towards a comprehensive One Health governance, thanks to the development of sciencebased indicators.

#### Scope:

### Proposals should:

Based on existing knowledge, describe the current health status of priority ecosystems
and wild species (including terrestrial, freshwater and marine ones). Describe the impact
of the stresses induced by the drivers of biodiversity loss on their physiology, genetic
diversity, population distribution and ecology. Taking into consideration the most

updated scientific scenarios (eg. IPBES nexus assessment), predict the future health status of priority ecosystems and wild species in the short, mid and long term.

• Propose benchmark protocols to ensure comparability between research communities and define common science-based indicators describing the risks (e.g. loss of ecosystem services, exposure to pathogens) and benefits (e.g. dilution phenomena) of the interlinkages of ecosystem health and human health. Provide actionable policy recommendations based on these indicators, to support policymakers and authorities in establishing a One Health policy framework, with a focus on low-income communities.

The proposals should support the objectives and the implementation of the European Green Deal, the European Biodiversity Strategy, and the Kunming-Montréal Global Biodiversity Framework. Proposals should seek to support the mainstreaming of the One Health approach and address some knowledge gaps identified by the relevant IPBES assessments and provide recommendations to policy makers.

### **Biodiversity friendly practices in agriculture**

Proposals are invited against the following topic(s):

# HORIZON-CL6-2026-2027-01-BIODIV-0X: Boosting agrobiodiversity for food security and sustainable competitiveness

Specific conditions			
Type of Action:	Research and Innovation Action		

#### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Land managers, farmers, agri-businesses, and policy makers gain access to clear demonstrations of the benefits and trade-offs associated with biologically diversifying their production systems.
- All stakeholders of the agricultural sector recognize and implement agrobiodiversity for increased resilience, long term sustainability, by increasing income and food security, competitiveness, and healthier ecosystems.

### Scope:

# Proposals should:

• Quantifying the contribution of agrobiodiversity, considering both species abundance and composition, to food security metrics such as yield stability, nutritional quality, and resilience to pests and diseases.

 Evaluating how agrobiodiversity supports climate change adaptation by enhancing ecosystem services, improving agricultural resilience, and ensuring long-term food security.

# HORIZON-CL6-2026-2027-01-BIODIV-0X: Fostering common farmland birds for resilient food production systems

Specific conditions	
Type of Action:	Research and Innovation Action

# **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Land managers, farmers, conservation organizations, researchers, policymakers, and agribusinesses are equipped with the knowledge and tools to implement practices that enhance habitats for farmland birds, thereby improving pest control, supporting pollination, and strengthening agricultural resilience.
- Challenges, measures, and needs of land managers, farmers and conservation organizations are known and supported via appropriate incentives to facilitate the wide adoption of biodiversity friendly practices.

# Scope:

# Proposals should:

- Study the impact of various farming practices on both farmland bird populations and agricultural productivity, while also assessing the role of specific bird species in pest control and soil health to better understand their ecological contributions in agricultural landscapes.
- Develop participatory research programs that involve farmers, land managers, and conservationists in collaboratively identifying and testing locally tailored solutions, while understanding farmers' perceptions, needs, and challenges in adopting birdfriendly practices.

# HORIZON-CL6-2026-2027-01-BIODIV-0X: Enhancing the competitiveness of organic breeding: focus on intercropping adapted varieties

Specific conditions	
Type of Action	RIA

# **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- The efficiency and competitiveness of the organic breeding sector are boosted by providing organic breeders with a comprehensive toolbox to develop varieties specifically adapted to intercropping.
- An improved understanding of key target traits for developing varieties adapted to intercropping farming systems is available to researchers and breeders.

# Scope:

### Proposals should:

- Provide novel insights into favourable interactions and mechanisms involved in intercrop performance by expanding knowledge on model approaches suited to explore the relationships between plant traits, plant arrangement and performance, with a focus on capturing both above and belowground processes.
- Develop new organic breeding approaches that prioritize enhancing crop performance within multi-species systems, emphasising the importance of complementarity and synergy.

Successful proposals under this topic should support the EU Vision for Agriculture and Food and the EU Action Plan for the Development of Organic Production (2021-2027).

# Destination - Fair, healthy and environment-friendly food systems from primary production to consumption

# **Revised orientations**

#### Addressing main policy priorities

This destination will support the EU Commission priority 'Sustaining our quality of life: food security, water and nature'.

R&I will provide new knowledge and innovation in support of the EU Vision for Agriculture and Food, to ensure the long-term competitiveness and sustainability of our farming, fisheries and food sector within the boundaries of our planet. The implementation of the Green Deal will continue to guide R&I in this destination to foster sustainable food systems, addressing potential trade-offs between economic competitiveness and environmental sustainability.

The R&I activities under this Destination will contribute to the ambitious objectives of the current CAP concerning the sustainability of feed, food and non-food production. More specifically, actions will contribute to the following policy priorities including specific objectives of the CAP; EU action plan for the development of organic production; food safety regulations; sustainable use of pesticides requirements under the plant protection products framework; action plan against antimicrobial resistance; animal health and welfare legislations; legislative and non-legislative initiatives to enhance cooperation of primary producers and support their position in the food chain; protein strategy; contingency plan for ensuring food

supply and food security and communications on food security and fertilizers, the Nature Restoration Regulation, the Zero Pollution Action Plan.

R&I will also support the announced Vision for the Fisheries Sector with a 2040 perspective and the European Ocean Pact, a framework of coherence across all policies linked to the oceans. R&I will also be relevant to the outcomes of the evaluation of the common fisheries policy (CFP) and will support its placement under this Pact, as fisheries and aquaculture are affected by other ocean related policies.

An important driving force of food systems transformation should be the integration of sectors, actors and policies. This will involve a better understanding of the multiple interactions between the components of current food systems, to foster solutions that maximise co-benefits with respect to the priorities of Food 2030<sup>1</sup>.

The EU Communication on Boosting Biotechnology and Biomanufacturing in the EU provides an overview of the application of biotechnologies in several sectors including food and feed. R&I activities in this destination will also contribute to achieving the forthcoming initiatives: the Strategy for European Life Sciences, the EU Biotech Act, and the Bioeconomy Strategy

# Draft expected impacts

<u>Strategic Plan 2025-2027 – Expected Impact 30</u>: Ensuring healthy food and nutrition security by making agriculture, fisheries, aquaculture and food systems sustainable, resilient, inclusive and within planetary boundaries.

Topic proposals under this destination should set out credible paths to "ensuring healthy food and nutrition security by making agriculture, fisheries, aquaculture and food systems sustainable, resilient, inclusive and within planetary boundaries". More specifically, proposed topics should contribute to one or more of the following impacts:

- Agriculture and food systems contribute to ensuring a secure, safe, nutritious, and affordable supply of healthy food in Europe and beyond by fostering its long-term competitiveness, resilience and sustainability within the boundaries of our planet with the One Health approach.
- Farmers are empowered to ensure the competitiveness, resilience and sustainability of
  the farming sector, through increasing knowledge, tools, innovative solutions, and
  advice that allow efficient productivity, working for and with nature, preserving and
  restoring biodiversity within agricultural ecosystems and helping to decarbonise the EU
  economy.
- Sustainable fisheries and aquaculture contribute to fair, healthy, resilient and environment-friendly food systems in healthy aquatic ecosystems with thriving diversity

The four priorities of Food2030 are: 1) nutrition and health; 2) climate and environmental sustainability; 3) circularity and resource efficiency; and 4) innovation and empowering communities.

of species and habitats providing ecosystem and climate services and triggering growth and jobs' creation in coastal and rural areas.

- Tools are provided so that citizens and communities are empowered to make the informed food choices and move towards safe, healthy, nutritious, accessible, affordable and sustainable diets. Insights and advances in life science and digital & data technologies are valorised to deploy solutions in practice across the EU.
- Food businesses, including food processing industries and SMEs, are supported to increase their resilience and competitiveness, while ensuring resource efficiency and sustainability, food safety as well as human, animal and ecosystem health is preserved.

# Main expected outcomes

To achieve the above-mentioned impacts, the following **expected outcomes** will be pursued:

- Farmers improve their competitiveness and socio-economic resilience thanks to better access to knowledge and innovations for sustainable and productive agricultural practices (including in Controlled Environment Agriculture).
- Diversified agricultural production contribute to healthy, sustainable and circular cropping and livestock systems, while protecting public health and the environment (including inter alia agroecology and organic farming, plant breeding plant and animal health, protein crops).
- Farmers have access to knowledge and innovative tools and services to further preserve
  and improve/restore natural resources and other ecosystem services and contribute to
  decarbonisation and climate change adaptation and mitigation, in particular water
  scarcity in agriculture.
- Knowledge of key species for fisheries and aquaculture is advanced and tools for their sustainable management are developed.
- Long-term competitiveness and sustainability of the aquatic food sector is ensured following an ecosystem-based approach rooted on state-of-the-art science.
- Innovative tools and companies, especially SMEs and particularly startups and those using biotechnology, optimise and scale innovative processes, enabling resource efficiency and the development of sustainable products that contribute to healthy diets and nutrition security, aligning with consumer needs.
- Sustainable and healthy diets are the easiest choice and affordable for all. R&I activities help tackle all forms of malnutrition, exploring how a dietary shift and diet diversity can be incentivised, and supporting healthy diets that are sustainable, including a better understanding of the human microbiome.
- Resilient and empowered communities at the local and regional levels, as well as new jobs across Europe, are created to foster thriving urban, rural and coastal economies. The

governance of data and digital innovation, supporting sustainable food systems transformation and competitiveness, is also improved.

- Circular, climate-smart and nature-positive food systems, which are resilient to climate change, preserve natural resources and ecosystem functions, limit environmental degradation and contribute to climate change mitigation and adaptation, are promoted.
- Innovative tools and approaches for the development and support of sustainable agriculture practices and food systems beyond Europe (especially in Africa) are developed.

# First topic ideas

# **Enabling sustainable farming systems**

Proposals are invited against the following topic(s):

# HORIZON-CL6-2026-2027-01-FARM2FORK-0X: Increasing the resilience of agriculture in water and nutrient-scarce environments

Specific conditions		
Type of Action	RIA	

# **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Farmers are given the tools to improve their water and nutrient resilience;
- European dependency on mineral fertilisers is reduced while closing nutrient cycles and improving competitiveness.

#### Scope:

#### Proposals should:

- Improve knowledge and advanced innovations to better understand and test the effects of agricultural practices and land management measures in terms of water and nutrient resilience in different pedoclimatic zones.
- Address challenges to the adoption of and safe and sustainable use of these practices and measures.

Successful proposals under this topic should support the EU Vision for Agriculture and Food, the Climate Adaptation Strategy and the Water Resilience Strategy.

# HORIZON-CL6-2026-2027-01-FARM2FORK-0X: Developing innovative phytosanitary treatments for plant health: focus on imported goods (e.g. wood, fruits)

Specific conditions	
Type of Action	RIA

# **Expected Outcome**:

Project results are expected to contribute to all of the following expected outcomes:

- The toolbox of cost-effective phytosanitary treatments for wood and fruits for a large number of pests is enlarged.
- Scientific support, recommendations and policy advice are provided to enhance plant health policies, fostering international cooperation and strengthening global efforts to combat plant pests.

# Scope:

# Proposals should:

- Develop cost-effective phytosanitary treatments to prevent the introduction of plant pests through commodities like wood and fruits, considering a large number of pests, including the development of protocols and guidelines.
- Test and promote innovative solutions that are not only technically sound but also economically feasible for real-life implementation.

As the treatments differ largely for wood and fruits, it is proposed to have two subthemes a) wood and b) fruits, and finance the best proposal for each theme.

# HORIZON-CL6-2026-2027-01-FARM2FORK-0X: Emerging and future risk to plant health

<b>Specific conditions</b>	
Type of Action	RIA / IA

# **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

 Based on new knowledge, economic, social, and environmentally sound preventive and/or curative measures to new and/or emerging plant pests for effective pest management in farming and/or forestry are developed and available for farmers;

• Scientific support, recommendations, and policy advice are provided to strengthen plant health policies.

# Scope:

# Proposals should:

- Increase knowledge of the biology, pathways of entry, behaviour and drivers of spread, including the influence of climate change, ecosystem degradation and globalisation, of new and/or emerging plant pests;
- Develop and uptake rapid and effective tools for the prevention of entry, spread and establishment, early detection, surveillance, treatment and (bio) control of plant pests for a sustainable and integrated pest management.

# HORIZON-CL6-2026-2027-01-FARM2FORK-0X: Tackling pesticide resistance: early detection, management strategies, and foresight

<b>Specific conditions</b>				
Type of Action	RIA			

# **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- A holistic approach to tackling pesticide resistance is developed, providing scientific support, practical recommendations, and policy advice to strengthen crop protection strategies.
- Farmers and advisors gain the necessary knowledge and tools to sustain production despite a limited crop protection toolbox.

# Scope:

#### Proposals should:

- Develop early detection methods and protocols and use AI-driven modelling to anticipate resistance evolution.
- Advance and test innovative integrated pest and weed management (IPWM) strategies to overcome the limited toolbox, optimise pesticide rotation and combination approaches, and leverage innovative technologies for targeted application.
- Support foresight activities to mitigate and prevent resistance impacts and establish longterm resistance monitoring and foster global collaboration between researchers, industry, and policymakers.

# HORIZON-CL6-2026-2027-01-FARM2FORK-0X: Advancing integrated pest and weed management solutions for protein crops

Specific conditions	
Type of Action	IA

### **Expected Outcome**:

Project results are expected to contribute to all of the following expected outcomes:

- Efficient integrated pest and weed management strategies, specifically tailored to minor protein crops in the EU, are made widely accessible and easily adoptable to farmers and advisors.
- Farmers profitability and the resilience of protein crops production systems are improved.

# Scope:

# Proposals should:

- Develop, test and validate innovative and scalable integrated pest and weed management strategies tailored for protein crops to enhance crop resilience and productivity. This should include exploring alternative practices and agents that leverage the complex interactions between protein crops and associated microorganisms.
- Set up demonstration sites across a wide range of farm typologies and systems (including both conventional and organic) to showcase the developed integrated pest and weed management strategies.
- Build an easy-to-use toolbox of practices, which can be widely shared with farmers and advisors through existing advisory networks, digital platforms or capacity building programmes.

# HORIZON-CL6-2026-2027-01-FARM2FORK-0X: Accelerating the development of breeding tools for perennial crops

Specific conditions	
Type of Action	RIA

# **Expected Outcome**:

Project results are expected to contribute to all of the following expected outcomes:

• Scalable and accessible tools and methods are available to accelerate the breeding of perennial crops, enhancing the competitiveness of the sector.

• Researchers and breeders have access to innovative plant breeding tools that enhance sustainability traits, including pest and disease resistance, yield and fruit quality.

# Scope:

# Proposals should:

- Develop new and/or improved tools and methods to shorten generation time, overall
  breeding cycle in perennial crops, while enhancing sustainability traits such as disease
  resistance, yield and fruit quality, ensuring scalability and accessibility. The target crops
  are fruit and nut trees.
- Provide empirical results on the application of genomic selection tools and models into actual breeding schemes for perennial crops.

Successful proposals under this topic should support the EU Vision for Agriculture and Food by promoting plant breeding innovations, including new genomic techniques (NGTs).

# HORIZON-CL6-2026-2027-01-FARM2FORK-0X: Boosting circularity and diversification strategies of livestock production systems

<b>Specific conditions</b>			
Type of Action	RIA/IA		

## Expected Outcome:

Project results are expected to contribute to all of the following expected outcomes:

- Farmers, rural communities, and agrifood or animal by-product value chains operators benefit from improved practices, technologies, validated tools and cooperative approaches used to implement diversification and circularity in livestock farming systems.
- Public authorities, consumers and other organizations are provided with evidence-based information on the socio-economic-environmental impacts of diversification and circularity strategies in the livestock farming systems to support their decisions

### Scope:

#### Proposals should:

• Develop and validate innovative strategies and tools to optimize diversification and circularity at different levels (animals, products and by-products, farm, land) and scales to enhance the resilience, sustainability and profitability of the sector.

• Foster the development of value-added products from livestock and analyze the economic viability of livestock farming systems, with particular attention to market trends and value chain analysis, including the contribution to sustainable rural development.

# HORIZON-CL6-2026-2027-01-FARM2FORK-0X: Enhancing knowledge on feed additives with effects on mitigation of GHG emissions and feed efficiency.

<b>Specific conditions</b>	
Type of Action	RIA/IA

# **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Farmers benefit from increasing availability of improved, efficient, easily managed and affordable feed additives and related practices that reduce GHG emissions and improve animal production.
- Provision of evidence-based recommendations for the implementation of EU policies and strategies, including the CAP, relevant to sustainable livestock farming systems

# Scope:

# Proposals should:

- Develop and test a wide range of additives, their synergies and optimal delivery strategies, especially in extensive livestock systems. Long-term impacts/effects and trade-offs on animal performance and product quality should be addressed.
- Verify the practicalities, applicability and socio-economic-environmental impacts of the
  use of feed additives across different production systems and in different feeding
  scenarios.

# HORIZON-CL6-2026-2027-01-FARM2FORK-0X: Boosting organic farming for a competitive, sustainable and resilient farming sector

Specific conditions	
Type of Action	RIA/IA

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

 Farmers, advisors, food chain operators and policy-makers benefit from knowledge, innovations and tools to boost the competitiveness, sustainability and resilience of the organic farming sector;

• The EU regulatory framework for organic farming, the Common Agricultural Policy, and the EU's biodiversity and climate policies are supported by science-based evidence.

# Scope:

# Proposals should:

- Fill R&I gaps, in line with the ongoing EU Action Plan for the Development of Organic Production (2021-2027) and the Vision for Agriculture and Food, clearly demonstrating value added and complementarity with past/ongoing EU-funded R&I projects, including projects funded under the Horizon Europe Partnership 'Agroecology' and the EU Mission Soil.
- Increase knowledge and develop innovations to tackle agronomic and value chain development and market-related challenges of organic production. The contribution of these innovations to facilitating the uptake and implementation of organic production methods by relevant stakeholders, including farmers, should be clearly demonstrated, including through increasing networking and knowledge and best practice exchange. Innovations should address both crop and livestock organic production in a range of pedo-climatic conditions in the EU and Associated Countries.

# HORIZON-CL6-2026-2027-01-FARM2FORK-0X: Enhancing farmers profitability and resilience through innovations for diversification

<b>Specific conditions</b>	
Type of Action	IA

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Farmers are able to transition to diversified climate-resilient farming practices and innovations, increasing their sustainability, competitiveness and promoting biodiversity conservation.
- Profitability of farmers is boosted through the adoption of protein crops and the development of local value chains as well as valorization of their by-products.

### Scope:

- Develop innovative solutions as well as business and cooperation models with a focus on near-farm processes to support farmers in diversifying their crop production, enhancing profitability and resilience.
- Address challenges and opportunities for diversifying crop production along the whole agri-food value chain, including the availability and use of specific machinery, inputs, services, marketing opportunities.

• Specific need for protein crops: Increase competitiveness of protein crops by creating value across the entire supply chain, including expanding locally adapted protein crops, valorizing by-products to promote the circular bioeconomy, developing specialized machinery and encouraging the association in producers and marketing cooperatives.

# HORIZON-CL6-2026-2027-01-FARM2FORK-0X: Supporting an EU-wide benchmarking system to assess on-farm sustainability

Specific conditions	
Type of Action	RIA

### **Expected Outcome**:

Project results are expected to contribute to all of the following expected outcomes:

- Farmers are enabled to compare and improve the sustainability of their production systems;
- Policy makers, citizens, farmers and advisory services can rely on a harmonised benchmarking system to take informed decisions;

# Scope:

# Proposals should:

- Develop/update EU benchmarking systems to facilitate comparisons across different farm types (including organic farming) and production systems (crops, livestock, ...), geographical contexts and sustainability objectives (environmental, social, economic), and evaluate its impacts along the supply chain.
- Provide guidance on harmonising methodologies and data at European level to assess onfarm and territorial sustainability and on making the link to the wider food system sustainability.

Successful proposals under this topic should support the EU Vision for Agriculture and Food, and the Common Agricultural Policy.

# HORIZON-CL6-2026-2027-01-FARM2FORK-0X: Advanced innovative solutions for improved competitiveness and sustainability in controlled environment agriculture

Specific conditions	
Type of Action	IA

### Expected Outcome:

Project results are expected to contribute to all of the following expected outcomes:

- Farmers are supported in their transition into innovative farming techniques and decision support tools for growth optimisation strategies.
- Competitiveness and sustainability in controlled environment agriculture are improved.

# Scope:

# Proposals should:

- Develop advanced cost-effective innovative solutions to address the key challenges for crop optimisation in CEA.
- Develop data-driven decision-making smart automation and precision farming techniques, predictive analytics for growth optimisation (AI modelling).
- Foster knowledge sharing including by training and informed advice for improved competitiveness and sustainability of CEA

Successful proposals under this topic should support the EU Vision for Agriculture and Food, the Common Agricultural Policy, the Green Deal and the Apply AI Strategy.

# **Enabling sustainable fisheries and aquaculture**

Proposals are invited against the following topic(s):

HORIZON-CL6-2026-2027-01-FARM2FORK-0X: Unleashing the potential of sustainable small-scale aquatic food production for food and nutrition security

<b>Specific conditions</b>	
Type of Action	RIA

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Consumers benefit from the availability of locally and fairly produced nutritious aquatic, food following highest environmental and social standards.
- Aquatic food production and consumption provides co-benefits relevant to nutrition, climate, circularity, and communities, in line with the Food 2030 policy framework.

### Scope:

### Proposals should:

 Advance know-how and develop tools for managing small-scale aquatic food production such as small-scale fisheries, recreational fisheries, urban aquaculture and aquaponics and small-scale fish farms and mollusk farms.

Include aspects of natural science as well as social sciences and humanities.

The proposals will support the objectives of the EU Common Fisheries Policy, the EU Oceans Pact, the Vision for Fisheries and Aquaculture with a 2024 perspective and the Food 2030 policy framework

# HORIZON-CL6-2026-2027-01-FARM2FORK-0X: Advancing basic knowledge and developing tools for sustainable management of key migratory fish species

Specific conditions		
Type of Action	RIA	

# **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Better knowledge of key migratory species life history parameters, through basic and applied research in all aspects of biology, ecology, conservation, management and exploitation
- Better knowledge of the extent of anthropogenic impacts on key migratory species (including anadromous and catadromous) through their whole life cycle, in marine, coastal, transitional and fresh waters.

#### Scope:

# Proposals should:

- Develop methods/methodologies, where relevant at regional scale, to assess the
  effectiveness of measures put in place for the conservation and management of key
  migratory species. The scope includes all migratory marine and diadromous species of
  interest for fisheries and aquaculture.
- Develop tools and practices to decrease all anthropogenic mortality factors during all stages of their life of key migratory species in all aquatic habitats.

The proposals will support the objectives of the EU Common Fisheries Policy, the EU Oceans Pact, the Vision for Fisheries and Aquaculture with a 2024 perspective, the Biodiversity Strategy and the Food 2030 policy framework.

# Transforming food systems for health, sustainability and inclusion

Proposals are invited against the following topic(s):

# HORIZON-CL6-2026-2027-01-FARM2FORK-0X: Sustainable and healthy diet for cardiovascular diseases prevention

Specific conditions	
Type of Action	IA

### **Expected Outcome:**

Project results are expected to contribute to the following expected outcomes:

- The effects of sustainable healthy diet on the gut microbiome and on cardiovascular prevention are identified.
- The knowledge through the use of digital health solutions is enhanced. SMEs and startups provide support on how to decrease specific nutritional risk factors and increase beneficial nutritional intake in order to achieve improved cardiovascular health and a reduction in related multiple morbidities

# Scope:

# Proposals should:

- Establish the host-microbiota interactions involving inflammatory and metabolic pathways to elucidate the casual relationship between changes in the gut microbiome and some cardiovascular disorders.
- Map the existing digital health solutions (including existing hubs) which have an impact on the reduction of cardiovascular diseases linked to unhealthy diets and nutrition, and ensure that SMEs and start-ups will facilitate the successful deployment and commercialization of such digital solutions and will be actively involved by expanding data integration across various healthcare systems and analysing health data to provide insights into the link between diet, cardiovascular health, and sustainability.

The topic is relevant to the EU policies related to the 'Healthier Together' initiative, the Commission Communication on the European Health Union<sup>2</sup> and the Council conclusions on the improvement of cardiovascular health in the European Union<sup>3</sup>. Synergies with Cluster 1-Health will be addressed.

# HORIZON-CL6-2026-2027-01-FARM2FORK-0X: Healthy diet based on health and socio-economic risk factors of ageing population

Specific conditions
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Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: The European Health Union: acting together for people's health (COM/2024/206 final)

<sup>&</sup>lt;sup>3</sup> Cardiovascular health: Council calls for more robust efforts to help prevent cardiovascular diseases

Type of Action	CSA
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# **Expected Outcome:**

Project results are expected to contribute to the following expected outcomes:

- Specific dietary needs in the older population (above 65 years old) which may also be
  affected by specific diseases by mapping data on the EU older population by considering
  their social (loneliness, handicaps, etc) and economic (low income, etc) difficulties, are
  identified.
- The knowledge in Member States on how they address at national level the diet provided to the older population, in particular concerning those living in home cares or other structures hosting them, is enhanced.

# Scope:

### Proposals should:

- Provide a healthy diet programme for the older population affected by malnutrition or at a high risk to develop malnutrition, including nutrient- and food based dietary recommendations together with an underlying rational.
- Provide recommendations to be used in home care and other national, regional and local institution responsible for the care of old people

The topic is relevant to the EU policies related to ageing such as the Green Paper on Ageing adopted on 27 January 2021<sup>4</sup>, the Commission Communication on Demographic change in Europe: a toolbox for action <sup>(5)</sup>, and the Principle 18 of the European Pillar of Social rights - Long-term care.

# HORIZON-CL6-2026-2027-01-FARM2FORK-0X: Scaling up and commercialization of microbiome solutions tackling cross-sectorial challenges

<b>Specific conditions</b>	
Type of Action	IA

### **Expected Outcomes:**

Project results are expected to contribute to the following expected outcomes:

• Barriers and opportunities for scaling up the production of innovative microbiome solutions applying to different bioeconomy sectors (agriculture, food, industrial, including the circular bio-based industry, circular economy,

<sup>&</sup>lt;sup>4</sup> COM (2021) 50 final.

<sup>&</sup>lt;sup>5</sup> COM(2023) 577 final.

environment/bioremediation) and addressing climate and/or biodiversity, as well European competitiveness, are identified.

• Innovative microbiome (bio)technologies on the EU market are deployed.

# Scope:

# Proposals should:

- Develop innovative microbiome technologies for access to the EU market to tackle crosssectorial challenges (nature restoration, industrial circular applications, biodiversity restoration or monitoring, climate change mitigation, plant health and food productivity, etc) and technological solutions enabling their cost-effective production and deployment at scale
- Provide business models for companies, SMEs and start-ups to facilitate the successful deployment and commercialization of microbiome (bio)technologies for the EU market.

The topic is relevant to the EU policies related to the Commission communication on: Building the future with nature: Boosting Biotechnology and Biomanufacturing in the EU <sup>6</sup>, the Bioeconomy Strategy, the Life Science Strategy and the EU Biotech Act, Clean Industrial Deal, and the policies on digital transition (e.g. AI Act etc).

# HORIZON-CL6-2026-2027-01-FARM2FORK-0X: Microbiome innovations: advancing cross-sectoral solutions for environmental, food and industrial challenges

<b>Specific conditions</b>	
Type of Action	RIA

### **Expected Outcomes:**

Project results are expected to contribute to the following expected outcomes:

- Enhanced understanding of the integrated microbiome's impact on its host and environment, and how it translates in opportunities for cross-sectorial challenges such as nature restoration, industrial circular applications, climate change remediation or biodiversity losses, resilient food systems.
- Improved infrastructure (existing European Research Infrastructures such as those prioritised by the European Strategy Forum on Research Infrastructures (ESFRI)<sup>7</sup>) and data-sharing platforms capacity to facilitate the exchange, pooling and analysis of microbiome data and promote collaboration among researchers and stakeholders.

<sup>&</sup>lt;sup>6</sup> COM (2024)137 final.

The catalogue of European Strategy Forum on Research Infrastructures (ESFRI) research infrastructures portfolio can be browsed from ESFRI website <a href="https://ri-portfolio.esfri.eu/">https://ri-portfolio.esfri.eu/</a>

# Scope:

# Proposals should:

- Explore technologies enabling studying the holobiome also with the support of the existing European Research Infrastructures, such as ELIXIR, MIRRI, EuroBioImaging, or other relevant research infrastructures: multi-omics technologies and genome identification, high-throughput sampling/phenotyping systems, predictive models that forecast microbial communities behaviour, cultivation methods in laboratory to study and ultimately, exploit, the microbial and non-microbial interactions, to measure their impact, and to assess or improve the quality of the data generated.
- Establish microbiome biobanks systems able to integrate data from diverse sources (e.g., genomics, metabolomics, environmental data) and explore promotion of data sharing, providing standard protocols and quality control measures (proposals are encouraged to consider, where relevant, the services offered by European research infrastructures such as ELIXIR, MIRRI, EuroBioImaging, or other relevant research infrastructures), supporting international cooperation, for win-win outcomes.

The topic is relevant to the EU policies related to the Commission communication on: Building the future with nature: Boosting Biotechnology and Biomanufacturing in the EU<sup>8</sup>, the Life Science Strategy, the EU Biotech Act, EU strategy on research and technology infrastructure, Clean Industrial Deal and the policies related to the digital transition (e.g. AI Act etc).

# **Targeted international cooperation**

Proposals are invited against the following topic(s):

# HORIZON-CL6-2026-2027-01-FARM2FORK-0X: Boosting plant health and reducing on farm losses for sustainable growth in Africa (FNSSA)

Specific conditions	
Type of Action	RIA

### **Expected Outcome:**

Scope:

Project results are expected to contribute to all of the following expected outcomes:

- Enhanced ability of agricultural actors to manage pest risks sustainably, addressing climate and biodiversity challenges.
- Agricultural actors identify and implement practices to reduce crop losses due to plant pests.

Proposals should:		
8	COM (2024)137 final.	

- Advance knowledge on plant pest biology, spread dynamics and climate change impacts on the main plant health threats across different African agro-ecosystems.
- Develop methods, tools and strategies for the sustainable management of the most impactful plant pests in Africa, aiming to minimise crop losses.

# HORIZON-CL6-2026-2027-01-FARM2FORK-0X: Optimising the water-nutrient-energy nexus for sustainable agriculture in Africa (FNSSA)

Specific conditions	
Type of Action	RIA

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Agricultural actors implement sustainable practices for resource-efficient and climatesmart farming in diverse African agro-ecosystems.
- Integrated water, nutrient and energy management systems are available to smallholder farms in Africa.

# Scope:

# Proposals should:

- Assess needs and opportunities from different African agro-ecosystems at the regional and local level for the valorisation of natural and agricultural resources for food and non-food.
- Develop knowledge, practices and tools for the efficient and sustainable management of agricultural resources at the nexus of water, nutrient and energy inputs and outputs.

# HORIZON-CL6-2026-2027-01-FARM2FORK-0X: Green Transition Food Processing Africa

<b>Specific conditions</b>	
Type of Action	RIA

# **Expected Outcome:**

Project results are expected to contribute to the following expected outcomes:

Food processing facilities in Africa which target underutilized crops to deliver healthy
nutrition, such as pulses and soy, millets, cassava for some regions, or food chains of
high value for local markets or export, like the cocoa chain and fruits, both organic and
conventional, have improved their operations by using results from life sciences and
biotechnologies, such as fermentation, in processes based on renewable energy.

 Post-harvest food losses and waste are reduced, by using by-products in the process, following circular approaches in line with the EU bioeconomy strategy through new and innovative techniques and best practices, ready for scale-up by complementary instruments of the EU Global Gateway Strategy such as the AU-EU Innovation Agenda and the EU International Partnerships such as DeSIRA.

# Scope:

### Proposals should:

- Promote start-ups by providing a space for mentoring and accelerating innovative business concepts, including social innovation and upscaling in view of African or European food business entrepreneurs with special consideration of women, young entrepreneurs and the diaspora using cascading funding opportunities. Proposals may involve financial support to third parties e.g. to academic researchers, start-ups, SMEs and other multidisciplinary actors, to, for instance, develop, test or validate approaches.
- Lead to healthy nutritious food, follow a multi-actor approach, such as combining researchers, food processors, farmers and other food systems actors. They should link to other projects of the AU-EU Food and Nutrition Security and Sustainable Agriculture Priority (FNSSA) in particular the CEA-First coordination and support action and the International Research Consortium. It should build on results of previous projects including linkages to projects funded under the AU-EU priority on "Climate Change and Sustainable Energy (CCSE)".

# HORIZON-CL6-2026-2027-01-FARM2FORK-0X: Fostering strategic advice and synergies between national and EU research and innovation agendas, including SCAR foresight

<b>Specific conditions</b>		
Type of Action	CSA	

# **Expected Outcome**:

Project results are expected to contribute to the following expected outcomes:

- Improved coordination of European strategies of SCAR Members, including agriculture, food and bioeconomy research and innovation, in areas covered by SCAR Strategic and Collaborative Working Groups and Task Forces.
- Improved participation in SCAR Groups of underrepresented countries, taking widening dimensions into account.

### Scope:

Proposals should:

- Strengthen the strategic functioning and capacities of SCAR groups to improve coordination among R&I programmes.
- Develop a toolkit of measures and provide robust scientific support, as well as practical administrative help, to enable a better-structured organisation.

# HORIZON-CL6-2026-2027-01-FARM2FORK-0X: African Union – European Union Partnership on Food and Nutrition Security and Sustainable Agriculture (FNSSA)

<b>Specific conditions</b>	
Type of Action	CSA

## **Expected Outcome:**

Project results are expected to contribute to the following expected outcomes:

- The coordination of Research and Innovation Policies of AU and EU Members in the Working Group on FNSSA is improved.
- Improved coordination of the portfolio of projects funded under the first priority on FNSSA of the African Union – European Union High-level Policy dialogue across all funding instruments of the EU and the AU and its members, in particular the EU Research Framework Programme, Co-funding instruments, the DeSIRA programme and others.

### Scope:

### Proposals should:

- Implement the AU-EU roadmap by Strengthen the strategic functioning and capacities
  of the FNSSA Working Group. Develop a toolkit of measures and provide robust
  scientific support, as well as practical administrative help, to enable a better-structured
  organisation.
- Operationalise the International Research Consortium (IRC) as a platform to implement the roadmap on food and nutrition security and sustainable agriculture (FNSSA) by creating a learning environment, including communication channels, to support multi stakeholder networks and to strengthen R&I coordination.

### **Destination - Circular economy and bioeconomy sectors**

# **Revised orientations**

### Addressing main policy priorities

This destination will support the EU Commission priorities 'Sustaining our quality of life: food security, water and nature' and 'A new plan for Europe's sustainable prosperity and competitiveness'.

The Destination supports the European Green Deal and contributes to Europe's competitiveness and sustainable prosperity by supporting the development of a more resilient circular economy in line with the EU Competitiveness Compass, the announced EU Clean Industrial Deal and the EU Circular Economy Act.

It aims to increase market demand for secondary materials and establish a single market for waste, whilst enhancing Europe's efforts to develop a single market for sustainable products. It will also support the implementation of the framework conditions set by the upcoming EU start-up and scale-up strategy.

Furthermore, the Destination aims to facilitate the emergence and uptake of innovative, circular and bio-based materials, products, processes and value chains that play a key role for the defossilisation, climate neutrality and strategic autonomy of our economy, in line with the updated EU Bioeconomy Strategy and its revision planned for 2025, as well as with the New European Bauhaus.

In addition, this Destination supports several key EU policies including the industrial strategy, the chemicals industry package and the Ecodesign for Sustainable Products Regulation and its working plan.

It also contributes to the EU Biotechnology and Biomanufacturing Initiative, the SME strategy, the communication on safe and sustainable by design framework, the sustainable blue economy, the European Ocean Pact, the European Water Resilience Strategy, the European Life Science Strategy, the EU biodiversity strategy for 2030, and the Nature Restoration Regulation.

Further support extends to the CAP, the EU forest strategy for 2030, the proposal for a Regulation on an EU forest monitoring framework, the EU proposal for a directive on soil monitoring and resilience, and the Vision for Agriculture and Food.

### Draft expected impacts

Strategic Plan 2025-2027 – Expected Impact 29: Achieving healthy soils and forests, as well as clean air, fresh and marine water, whilst ensuring water resilience and the transition to a clean, competitive and circular economy and sustainable bioeconomy.

Proposals for topics under this destination should set out a credible pathway contributing to "achieving healthy soils and forests, as well as clean air, fresh and marine water, whilst ensuring water resilience and the transition to a clean, competitive and circular economy and sustainable bioeconomy", and more specifically to one or more of the following impacts:

- Improved climate change adaptation and mitigation through the transition to a more sustainable and circular economy and bioeconomy, underpinned by biotechnologies and sustainable industrial solutions, such as carbon capture and utilisation and recovery of materials, water and energy.
- Industrial competitiveness and strategic autonomy are improved through the development of safe, sustainable, circular and/or bio-based value chains. This is done

by promoting the efficient and circular use of secondary materials<sup>9</sup> and water, fostering the multi-functionality of forests, and ensuring the sustainable supply of critical resources from land and sea.

- Living conditions for individuals and communities are improved through innovative, affordable and sustainable products and services based on circular and/or bio-based solutions while demonstrating a reduction of environmental and climate pressures.
- Advanced societal transformation based on a systemic approach, as well as people's
  involvement and integration of social sciences and humanities for fair, sustainable and
  circular value chains, sustainable consumption patterns, environmental justice, gender
  equality and social inclusion.

# Main expected outcomes

To achieve the above-mentioned impacts, the following expected outcomes will be pursued:

- Sustainable, circular and bio-based materials, products, processes and value chains are
  established using upcycled and recycled resources incorporating secondary raw
  materials with minimal quality loss while increasing the uptake of recycled materials
  and preventing waste through repair, refurbishment, and reuse.
- Innovative circular solutions are developed to tackle complex waste streams and create
  markets for waste materials by transforming them into valuable secondary resources,
  while fostering urban, rural and coastal industrial symbiosis, providing data and digital
  tools and promoting a more efficient use of bio-resources.
- Citizens, businesses, investors, and public institutions are actively involved in circular and climate-neutral practices, and knowledge transfer between cities and regions is promoted.
- Circular governance models, framework conditions and indicators are developed to enhance resource valorisation, create green jobs, address social and macroeconomic impacts, including labour market transformations and societal acceptance, while integrating behavioural strategies, including social sciences and humanities, skills and training.
- Bio-based and bio-inspired processes, products and materials are developed and deployed via innovation in biotechnology, life sciences and biomanufacturing concepts, e.g. synthetic biology, microbiome, biofoundry approaches, with improved convergence of biotech and life sciences underpinning the bio-based sector with nature-based solutions, and integrating digital technologies (e.g. AI, bioinformatics).

examples include crop residues, industrial side-streams, household waste.

- The transition to safe-and-sustainable-by-design bio-based chemicals and materials is enabled by advancing scientific solutions that support the standardisation of the bio-based sector, such as the ecodesign.
- The large-scale uptake of innovative circular solutions for safe water reuse and wastewater treatment is supported, increasing efficiency and recovery of resources and energy and helping the transition to a carbon neutral water sector.
- Socio-economic opportunities for the bio-based sectors and bioeconomy are created and expanded, through better understanding of consumption patterns and improved consumer and market acceptance, which will advance the sustainable way of living, underpinned by bio-based innovation.
- The involvement of primary producers, including farmers, foresters, fish farmers, and fishers, in the deployment of circular bio-based solutions and innovations is stimulated, supporting rural and coastal development.
- Healthy, biodiverse and resilient forests are sustainably managed and able to provide a
  wide range of key ecosystem services, including climate mitigation through carbon
  removals, and continue supplying materials and services for the development of a
  sustainable forest bioeconomy.
- The full potential of marine and freshwater biological resources and blue biotechnology is harnessed by developing circular systems and processes by utilizing and valorizing marine or aquatic residues and biowaste and by replacing unsustainable materials with marine-based bio-inspired materials and greener chemicals.

# **Enabling a circular economy transition**

Proposals are invited against the following topic(s):

# HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Enhancing ecodesign and circularity of consumer electronics

Specific conditions		
Type of Action	RIA (tbd)	

#### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

 Material and product manufacturers apply relevant ecodesign and design for recycling principles in developing and manufacturing products that contribute significantly to EU climate, water resilience, circular economy, biodiversity goals as well as open strategic autonomy;

 Consumers benefit from more sustainable and circular products, i.e. durable, reliable, reusable, reparable, upgradable, recyclable products including increased recycled content.

### Scope:

# Proposals should:

- Develop and test novel ecodesign of consumer electronics, incl. design for durability, reusability, reparability, disassembly, separability, recyclability, uptake of recycled content;
- Assess and provide recommendations for mechanisms and incentives to address the trade-offs with costs and innovation limitations and to reward design for circularity and product durability – such as extended guarantees, "second" VAT reduction, and others, and promote new business models such as leasing.

This topic supports the implementation of the European Green Deal, the Ecodesign for Sustainable Products Regulation and its working plan, the WEEE Directive, contribute to waste prevention, higher circularity and uptake of recyclate, and Europe's efforts to develop a single market for sustainable products.

# HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Enhancing ecodesign and circularity of construction products

Specific conditions	
Type of Action	RIA (tbd)

# **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Material and product manufacturers apply ecodesign principles in developing and manufacturing products that contribute significantly to EU climate, circular economy, and biodiversity goals;
- Consumers and professionals benefit from more sustainable and circular products, i.e. durable, reliable, reusable, reparable, upgradable, recyclable products including increased recycled content.
- Elements promoting assembly and disassembly of products should be considered.

### Scope:

Proposals should:

- Develop and test novel ecodesign of construction materials and products, incl. design for durability, reusability, reparability, separability, recyclability, and uptake of recycled content;
- Assess and provide recommendations for mechanisms and incentives to reward design for circularity, disassembly, and product durability – such as extended guarantees, VAT reduction, and others – including potential trade-offs.

The topic supports the European Green Deal, the Construction Products Regulation, the Ecodesign for Sustainable Products Regulation and its working plan, and Europe's efforts to develop a single market for sustainable products.

# HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Systemic circular solutions for sustainable music and sports events

Specific conditions		
Type of Action	IA	

# **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Development and promotion of replicable sustainable and circular products, services
  and practices that contribute significantly to EU climate, water resilience, circular
  economy, and biodiversity goals, as the use of harmful substances and the generation of
  waste is minimised, collection of waste generated by the event is as close to 100% as
  possible, and the use of energy, land and water is minimised;
- Deployment of replicable systemic solutions for cities and regions, where circularity is embedded from the concept phase.

#### Scope:

### Proposals should:

- Implement and demonstrate circular systemic solutions, involve businesses, local administration, and civil society, address economic, social and environmental dimensions and stimulate behavioural change at the level of individual decisions
- Set ambitious and plausible waste reduction and circularity benchmarks, propose measures that are easy to implement and economically feasible and analyse and edit results for multiplication through media and on the ground

The topic supports the European Green Deal and contributes to Europe's competitiveness and sustainable prosperity.

# HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Improving circularity of multilayer flexible plastic food contact packaging

Specific conditions	
Type of Action	IA

# **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Environment and society at large benefit from recyclable food packaging which can be recycled in a controlled loop back into food packaging;
- Industrial value chains introduce sustainable food packaging on the market through enhanced design for recycling and solutions for effective sorting and recycling on an industrial scale;

# Scope:

# Proposals should:

- advance marketable solutions for multilayer flexible plastic food contact packaging to enable its effective end-of-life collection, sorting and recycling into food contact-compliant recycled plastic suitable for food packaging;
- demonstrate the solution on an industrial scale involving the whole value chain to reach TRL 8, while ensuring compliance with food contact regulations.

The topic supports the European Green Deal, the Ecodesign for Sustainable Products Regulation and its working plan, the Regulation for recycling of plastic intended for contact with food, the EU Circular Economy Act and contributes to Europe's efforts to develop a single market for sustainable products.

# HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Developing novel recycling technologies for complex plastic materials including biotech solutions

Specific conditions	
Type of Action	IA

# **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

• Environment and society at large benefit from recyclable plastic products which can be recycled in a controlled loop back into high value applications;

 Industrial value chains introduce sustainable plastic products on the market through enhanced design for recycling and solutions for effective sorting and recycling on a large scale.

### Scope:

# Proposals should:

- advance novel biotech solutions for recycling of complex plastic materials and products (multi-material/multi-layer/composites), considering latest solutions on material innovation, namely in the sectors of packaging, construction, renewable energy infrastructure and automotive:
- Demonstrate the solution on an industrial scale involving the whole value chain to reach TRL 7/8.

The topic supports the European Green Deal, the Ecodesign for Sustainable Products Regulation and its working plan, the EU Circular Economy Act and contributes to Europe's efforts to develop a single market for sustainable products. It also contributes to the Bioeconomy Strategy, the Life Science Strategy and the EU Biotech Act.

# HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Improving circularity of apparel through enhanced durability and better infrastructure for repairability

<b>Specific conditions</b>	
Type of Action	IA

### Expected Outcome:

Project results are expected to contribute to all of the following expected outcomes:

- Social economy entities and society at large benefit from favourable conditions for reuse and repair practices which enable product lifetime prolongation and stimulate second-hand markets
- Businesses are stimulated to advance repair strategies and business models while creating new jobs.

### Scope:

# Proposals should:

- Develop preparing for re-use technologies, including digital and AI to enable repair and affordable pricing of repaired clothes;
- Deploy business models stimulating repair and job creation;

• Incentivise manufacturers to provide spare parts to enhance reuse and reparability (e.g. linen for a coat, extra buttons, zippers, etc.) and to provide guarantee.

The topic supports the European Green Deal, the Ecodesign for Sustainable Products Regulation and its working plan, the EU Circular Economy Act and contributes to Europe's efforts to develop a single market for sustainable products. It also contributes to the Start-ups and Scale-ups strategy.

# HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Advancing recycling technologies for mixed post-consumer textiles waste from blended products

Specific conditions	
Type of Action	IA

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- European manufacturers have access to novel technologies for fibre-to-fibre recycling via technological development, and industrial and urban symbiosis.
- Local authorities and consumers benefit from better waste management of postconsumer textiles.

# Scope:

### Proposals should:

- advance marketable solutions for post-consumer textile waste (apparel) to enable its
  effective end-of-life collection, sorting and recycling (fibre-to-fibre), including biotech
  solutions;
- demonstrate the solution on an industrial scale involving the whole value chain to reach TRL 8.

The topic supports the European Green Deal, the Ecodesign for Sustainable Products Regulation and its working plan, the EU Strategy for Sustainable and Circular Textiles, the EU Circular Economy Act and contributes to Europe's efforts to develop a single market for sustainable products. It also contributes to the Start-ups and Scale-ups strategy.

# HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Enhancing ecodesign and circularity of furniture

<b>Specific conditions</b>	
Type of Action	RIA

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Material and product manufacturers apply ecodesign principles in developing and manufacturing products that contribute significantly to EU energy, climate and biodiversity goals;
- Consumers have access to reliable information about environmental performance, how to
  prolong the product life, and benefit from more sustainable and circular products, i.e.
  durable, reliable, reusable, repairable, upgradable, recyclable products including increased
  recycled content.

### Scope:

# Proposals should:

- Develop and test novel ecodesign furniture products or furniture materials, incl. but not limited to design for durability, reusability, repairability, upgradability, recyclability, and uptake of recycled content;
- Assess and provide recommendations for mechanisms and incentives to reward design for circularity and product durability – such as extended guarantees, VAT reduction, and others – including potential trade-offs, and incentivise retailers to develop take-back policies and provide second-hand products.

The topic supports the European Green Deal, the Ecodesign for Sustainable Products Regulation and its working plan, the EU Circular Economy Act and contributes to Europe's efforts to develop a single market for sustainable products.

# HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Innovative circular solutions for end-of-life footwear through collection, sorting and recycling

Specific conditions	
Type of Action	RIA

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- economic operators are provided with innovative, cost-effective and scalable solutions that improve the management of end-of-life footwear products, valorise footwear waste materials (post-consumption) and increase the circularity of the value chain;
- consumers have access to user-friendly solutions to correctly dispose of end-of-life footwear, reducing landfill, improving sustainability practices and supporting them to make more conscious choices.

### Scope:

# Proposals should:

- Develop, test and validate innovative solutions that facilitate the proper collection and systemic sorting of post-consumer footwear products, as well as footwear-specific recycling technologies, possibly integrating digital tools (including AI) and the use of the Digital Product Passport, to recover the value of components and materials for feedstock as secondary materials for new products;
- Develop and demonstrate large scale innovative business models that enable the transition towards a circular and sustainable footwear value chain, promote the uptake of design for recycling, incentivize retailers to develop take-back policies and stimulate sustainable consumption patterns.

The topic supports the European Green Deal, the Ecodesign for Sustainable Products Regulation and its working plan, the EU Circular Economy Act and Europe's efforts to develop a single market for sustainable products.

HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Advanced recovery of critical raw materials from Waste from Electrical and Electronic Equipment (WEEE)

<b>Specific conditions</b>		
Type of Action	RIA	

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Improved collection, sorting and recycling technologies that enhance markedly the recovery rates of strategic and critical raw materials from waste from electrical and electronic equipment, reducing the dependence on imported primary materials and mitigating the environmental impacts associated with their extraction;
- Strengthened waste market creation through the development of economically viable and environmentally sound recycling practices and technologies, with a particular emphasis on secondary strategic raw materials of lower costs and sufficiently high quality, promoting a circular economy for electrical and electronic equipment;

# Scope:

# Proposals should:

Develop new scalable processes and technologies (including AI), or improve existing
ones, to efficiently collect, sort, extract and recycle strategic and critical raw materials
from electrical and electronic equipment waste, such as rare earth elements, precious
metals and other valuable materials useful for the green and digital transitions, as well
as aerospace and defence;

Develop standards, technologies and processes, that ensure the quality, cost and safety
of recycled strategic and critical raw materials for the creation of an economically viable
and sustainable waste market, sufficiently competitive against imported primary and
secondary materials;

The topic supports the European Green Deal, the EU Circular Economy Act, the Critical Raw Materials Act, the Waste from Electrical and Electronic Waste Directive and Europe's efforts to develop a single market for sustainable products.

# HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Extending product lifecycle through repairing and refurbishing practices

<b>Specific conditions</b>	
Type of Action	RIA

# **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Professionals, consumers and educators adopt widespread repair and refurbishment practices across various product value chains, leading to significant reductions in waste and environmental impacts calculated according to PEF;
- Professionals, consumers and educators have access to high quality training programs that provide them with the necessary skills to repair and refurbish products.

### Scope:

# Proposals should:

- Develop and test innovative training programs for professionals, consumers and educators, focusing on the repair and refurbishment of various product categories, such as electronics, furniture and textiles;
- Investigate and develop strategies to make repairing and refurbishing accessible to all consumers, including those with limited financial resources, technical expertise, or access to repair services.

The topic supports the European Green Deal, the EU Circular Economy Act and Europe's efforts to develop a single market for sustainable products.

# HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Living labs as incubators for sustainable innovations – OPEN TOPIC

Specific conditions		

Type of Action:	IA

# **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Micro and small companies, start-ups, citizens, research and public authorities are collaborating in addressing environmental challenges, as climate-change, resource depletion and biodiversity loss, while contributing to social and economic well-being;
- Impactful sustainable innovations stimulating economic growth by creating new value chains and markets.

### Scope:

# Proposals should:

- set up engaging and effective governance structures, operational models and organizational support to foster communication, collaboration and decision-making for strong networks;
- provide continuous feedback and monitoring to enable an iterative and flexible process.

The topic supports the European Green Deal, the EU Circular Economy Act and Europe's efforts to develop a single market for sustainable products in line with the EU Competitiveness Compass, the EU Clean Industrial Deal.

# HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Strengthening Green Public Procurement in Europe with living labs

Specific conditions	
Type of Action:	IA

### Expected Outcome:

Project results are expected to contribute to all of the following expected outcomes:

- Business, research and public authorities are collaborating, building up capacity and share knowledge
- Sustainable products and services gain a bigger market share and create a lead market

# Scope:

# Proposals should:

- Address methodological developments and standardization needs, digitalization tools or platforms and bridge knowledge gaps
- Providing feedback to policy aiming for a more mandatory and standardization across regions and sectors regulatory framework

The topic supports the European Green Deal, the EU Circular Economy Act and Europe's efforts to develop a single market for sustainable products in line with the EU Competitiveness Compass, the EU Clean Industrial Deal.

# **Topics related to the Circular Cities and Regions Initiative (CCRI)**

These CCRI-related topics are part of a series of demonstration topics launched as of WP 2021, and replicated every 1-2 programming year (WP 2023, WP 2025) with the aim of generating innovative knowledge, creating specific skills and demonstrating circular systemic solutions at city/region level.

# Key principles:

- A bottom-up approach to support placed-based experimentation: CCRI-related topics specifically target cities, regions and their partners in a certain geographical area. Some of these topics are non-prescriptive (sector-neutral) topics, allowing cities, regions and their local partners to propose which sectors/value chains are the most promising in their territory, taking in account their local specificities.
- ➤ Moving from demonstration to replication and upscaling: At least 3 different demonstration and 6 replication cities/regions must be part of the consortium as beneficiaries (eligibility criteria introduced as part of WP 2025).

#### Novelties:

- New geographical focus: 3 out of the 6 replication sites (mentioned above) must be located in Horizon Europe widening countries.
- A stronger ecosystem-based approach to support value chain integration: Cities/regions (public authorities) must engage and support local businesses and industrial players in the development and implementation of their circular systemic solutions.
- Focus on validation, testing and optimisation of innovative, circular systemic solutions in local contexts: Projects will be required to demonstrate their capacity & readiness for replication, deployment and upscaling. They will be requested to adopt robust business plans and exploitation strategies.

1 sector neutral, 3 sector-specific and 2 cross-cutting CCRI-related topics are proposed for WP 2026 and WP 2027.

HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Demonstration, deployment and upscaling of circular systemic solutions in cities and regions (Circular Cities and Regions Initiative – sector / value chain neutral)

<b>Specific conditions</b>	
Type of Action	IA

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- increased circularity and reduced GHG emissions in the economic sectors, services and product value chains at local and/or regional scale, and efficient valorisation of local resources, with positive effects on air quality and biodiversity;
- widespread deployment and easier replication, scalability and visibility of circular systemic solutions for a multiplication of their economic, social and environmental benefits;
- enhanced collaboration and knowledge transfer between the cities, regions and their partners, and increased uptake and stakeholder engagement in their circular and climateneutral practices.

### Scope:

Proposals should:

- implement and demonstrate circular systemic solutions for the deployment and upscaling of the circular economy in cities and regions;
- facilitate knowledge and experience transfer for further outreach and replication across EU Member States and Associated Countries.

The topic supports the implementation of the European Green Deal and contributes to the objectives of the EU bioeconomy strategy and the Start-ups and Scale-ups strategy through deep structural transformations and place-based innovation.

HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Demonstrating and deploying innovative collection and "sorting for reuse" system for textile at city/region level (CCRI-related topic)

<b>Specific conditions</b>	
Type of Action	IA

# **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Local/regional authorities and their operators adopt optimised collection and sorting systems of municipal waste that prioritise textile reuse and recycling;
- Citizens have access to better information, leading to greater awareness and public acceptance, and stimulating behavioural change.
- Innovative circular textile methodologies, practices and solutions are made available to enable large-scale replication and upscaling in EU cities and regions.

# Scope:

# Proposals should:

- Develop, test and validate innovative governance and business solutions that increase and accelerate the adoption of textile reuse and repair practices by local/regional authorities and their operators (e.g. public collection points, retailer take-back schemes);
- Involve citizens, local (e.g. upcycling) businesses and social enterprises in the development and implementation of local repair & reuse strategies;
- Improve data captured on local textile waste flows and ensure transparency and traceability across the supply chain;
- Develop actionable recommendations for replication in other EU cities and regions.

The topic supports the implementation of the European Green Deal and contributes to the objectives of the EU bioeconomy strategy and the Start-ups and Scale-ups strategy through deep structural transformations and place-based innovation.

# HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Demonstrating and deploying innovative circular planning and mobility solutions at city/region level (CCRI-related topic)

Specific conditions		
Type of Action	IA	

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Local/regional authorities and their local partners apply circularity principles to the urban planning and mobility sectors to ultimately reduce the material footprint and GHG emissions in cities/regions;
- Innovative circular planning and mobility methodologies, practices and solutions are made available to enable large-scale replication and upscaling in EU cities and regions.

# Scope:

Proposals should:

- Develop, test and validate innovative governance and business solutions that increase
  and accelerate the adoption of circular planning and mobility practices by local/regional
  authorities and their operators (e.g. circular soil handling, space planning for
  multimodal mobility, circular transportation infrastructure, route planning and service
  operation for public transport, circular public procurement);
- Develop actionable recommendations for replication in other EU cities and regions.

The topic supports the implementation of the European Green Deal and contributes to the objectives of the EU bioeconomy strategy and the Start-ups and Scale-ups strategy through deep structural transformations and place-based innovation.

HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Large-scale demonstration, replication and upscaling of circular solutions in the water sector at regional level (CCRI-related topic)

<b>Specific conditions</b>			
Type of Action	IA		

# **Expected Outcome**:

Project results are expected to contribute to all of the following expected outcomes:

- Local/regional authorities and their local partners apply circularity principles to strengthen local/regional water resilience, freshwater security, and restore aquatic ecosystems, support the green transition and the implementation of the urban wastewater treatment directive:
- Innovative circular water management methodologies, practices and solutions are made available to demonstrate the feasibility of large-scale implementation and enabling large-scale replication and upscaling in EU cities and regions.

### Scope:

# Proposals should:

- Conceptualise, implement and test combinations of resource recovery processes to
  optimise secondary resources production and test different potential viable economic
  uses with local/regional actors. Processes should come from results of previously
  funded Horizon Europe projects and demonstrate the economic viability of the concept.
- Building on HORIZON-CL6-2023-CircBio-01-3 outcomes and ensuring synergies with Water4All partnership are encouraged.

The topic is relevant to the policies related to the European Green Deal, EU Circular Economy Act, the upcoming European Water Resilience Strategy, Water Framework Directive, Urban Wastewater Treatment Directive recast, and other relevant water legislations.

# HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Stimulating a functional service economy at city/region level (cross-cutting CCRI-related topic)

<b>Specific conditions</b>	
Type of Action	IA

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Local/regional authorities and their local partners apply the functional/service economy principles to their public infrastructure and services to offer compact, multi-functional neighbourhoods to citizens;
- Innovative circular function-related and/or service-related methodologies, practices and solutions are made available to enable large-scale replication and upscaling in EU cities and regions.

### Scope:

### Proposals should:

- Develop, test and validate innovative circular methodologies, practices and solutions
  that stimulate a functional service economy favouring usage over ownership at
  city/region level (e.g. reuse and repair centres, bike and car-sharing services,
  construction material marketplace);
- Develop actionable recommendations for replication in other EU cities and regions.

The topic supports the implementation of the European Green Deal and contributes to the objectives of the EU bioeconomy strategy and the Start-ups and Scale-ups strategy through deep structural transformations and place-based innovation.

# HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Using Circular Cities and Regions Initiative to strengthen urban manufacturing in support of the Clean Industrial Deal (CCRI topic)

<b>Specific conditions</b>	
Type of Action	RIA (tbd)

# **Expected Outcome**:

Project results are expected to contribute to all of the following expected outcomes:

• Urban manufacturers engage in clean, sustainable and circular business practices that contribute significantly to EU climate, circularity and biodiversity goals;

• Improved knowledge sharing and supporting digital tools and methods are made available that facilitate the adoption of circular business practices and enable large-scale diffusion.

### Scope:

# Proposals should:

- Provide support to urban manufacturers as they strive to overcome key barriers and challenges in their clean and circular transition and in adapting to new requirements aiming to mitigate environmental degradation, climate change and biodiversity loss;
- Involve economic operators, local authorities, and civil society organisations. [OPEN]

Projects are expected to contribute to Europe's competitiveness and sustainable prosperity by supporting the development of a more resilient circular economy in line with the EU Competitiveness Compass, the EU Clean Industrial Deal and the EU Circular Economy Act.

# Innovating for sustainable bio-based systems, biotechnology and the bioeconomy

Proposals are invited against the following topic(s):

# HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Improving biomass flows in Europe

Specific conditions	
Type of Action	IA

# **Expected Outcome**:

Project results are expected to contribute to all of the following expected outcomes:

- Enhanced understanding and capacity to increase resource efficiency in biomass processing and use, including through digital tools, and roadmaps towards sustainable biomass management.
- Support to businesses and administrations is enhanced that optimise biomass supply, processing and use such that ecosystems and biodiversity are protected and restored, emissions of greenhouse gases reduced, and human needs for biomass satisfied in sufficient and fair way.

#### Scope:

### Proposals should:

• Improve biomass monitoring and assessment tools at regional, national, and continental scale to optimise biomass flows, paying particular attention to areas with untapped (sustainable) biomass resources (e.g. BIOEAST, enlargement countries).

• Establish and extend a biomass support hub network providing guidance towards local, regional, or national biomass plans; build communities around concrete use cases dealing with biomass supply, logistics, and use.

The topic is relevant to the EU policies related to the Commission communication on: Building the future with nature: Boosting Biotechnology and Biomanufacturing in the EU and the forthcoming updated Bioeconomy Strategy, the Life Science Strategy and the EU Biotech Act, Clean Industrial Deal.

### HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Towards a Europe of Bioeconomy Places

Specific conditions		
Type of Action	IA	

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Place-based concepts are elaborated that help places (geographically defined areas) to use bioeconomy solutions for innovation, sustainable prosperity and community wellbeing, are developed across Europe.
- Benchmarks are developed to qualify a 'bioeconomy place' regarding environmental, social and economic indicators, including (but not limited to) awareness and skills development, capacity building, food systems sustainability, and contribution to climate action and biodiversity goals.

### Scope:

# Proposals should:

- Establish a network of "bioeconomy places" (linking regional resources, stakeholders and strategies for circular and bio-based solutions based on local conditions, needs and strengths) with steps made to improved attractiveness of the place and improved wellbeing of all people living in the place, and reduced environmental impact.
- Establish bioeconomy industrial clusters sharing biomass, heat and energy streams for circular and net-zero emissions and waste value chain networks for sustainable and smart products and services.

The topic is relevant to the EU policies related to the Bioeconomy Strategy and the Strategy on European Life Sciences and the Clean Industrial Deal; the Commission communication on: Building the future with nature: Boosting Biotechnology and Biomanufacturing in the EU and the EU Biotech Act.

# HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Bioeconomy policy support facility for Member States, regions and sectors

<b>Specific conditions</b>	
Type of Action	CSA

### **Expected Outcome**:

Project results are expected to contribute to all of the following expected outcomes:

- Improved policy development and implementation in Member States and regions.
- Sectoral mainstreaming of the bioeconomy concept, its principles and its solutions by sectoral representations (e.g. food, textiles, chemicals, energy).

### Scope:

# Proposals should:

- Build on the 10 recommendations of the 2020 Policy Support Facility to develop roadmaps to advance and implement bioeconomy plans, and to build innovation capacities.
- Establish regional and national policy labs led by local bioeconomy councils.
- Increase the awareness across sectors and society at regional and national level, including to, improvement of and link to EU initiatives such as the Circular Biobased Europe Joint Undertaking.

The topic is relevant to the EU policies related to the Bioeconomy Strategy, the Strategy on European Life Sciences and the Clean Industrial Deal; the Commission communication on: Building the future with nature: Boosting Biotechnology and Biomanufacturing in the EU and the EU Biotech Act.

# HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Biotech processes recovering and converting gaseous carbon

<b>Specific conditions</b>	
Type of Action	RIA/IA

# **Expected Outcome**:

- The availability of renewable carbon from gaseous carbon capture using life science technologies and promoting circularity, is increased.
- Innovate transformation of the captured gaseous carbon into suitable feedstock for industrial processes by implementing advanced bio/renewable refinery concepts.

### Scope:

Proposals should address the following activities:

- Review the up-to-date progresses in the CCU R&I, especially focussing on the recovery
  of gaseous carbon from industrial emissions and the atmosphere using life sciencesbased technologies.
- Demonstrate effective and business sound biotechnologies, including synthetic biology, to concentrate and convert gaseous carbon into suitable feedstock for bio-based industries.

Recycled/recovered and biological/renewable carbon (sourced from the technosphere, atmosphere and biosphere – including bio-waste – but not from the geosphere) and its sustainable sourcing is essential for European industries, especially considering the production of chemicals and materials. Increasing industrial productivity and competitiveness cannot be achieved at the cost of environmental degradation. The full potential of life sciences-based technologies needs to be used for novel ways to produce such carbon resources and valorise them for industrial uses which also have societal relevance and benefits.

The projects under this topic are relevant to the EU policies related to the Commission communication on: Building the future with nature: Boosting Biotechnology and Biomanufacturing in the EU, the upcoming Life Science Strategy, the EU Biotech Act, EU strategy on research and technology infrastructure and the Clean Industrial Deal. It also contributes to the Start-ups and Scale-ups strategy. A synergy with activities under the CBE JU is encouraged.

# HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Advancing the European bio-based innovation, biotechnology and biomanufacturing concepts

Specific conditions	
Type of Action	RIA

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Significant advance in the development and deployment of bio-based and bio-inspired
  processes, products and materials via innovation in biotechnology, life sciences and/or
  biomanufacturing concepts, as a basis for sustainable, fair and circular value chains,
  contributing to the industrial competitiveness and strategic autonomy of the EU
- Improved environmental sustainability of the developed solutions, with impact on climate and biodiversity, and circularity of the European bioeconomy via enhanced resource efficiency, including of biological feedstocks, water and energy;

Scope:

Proposals should address the following activities:

- Identify, select and develop further promising key technologies underpinning the biobased innovation/industry/biomanufacturing, in particular synthetic/molecular biology, gene editing, metabolic engineering, microbiome, biofoundry approaches, covering all applications except health biotechnology/solutions, as well as excluding the biofuel/bioenergy area.
- Advance the convergence of biotech and life sciences with nature-based solutions, e.g. environmental applications, carbon sequestration, as well as with (bio-)circular economy principles (e.g. cascading biomass use), and integrating digital technologies (e.g. AI, bioinformatics).

The projects under this topic are relevant to the EU policies related to the Commission communication on: Building the future with nature: Boosting Biotechnology and Biomanufacturing in the EU, the upcoming Life Science Strategy, the EU Biotech Act, EU strategy on research and technology infrastructure, Clean Industrial Deal and the policies related to the digital transition (e.g. AI Act, etc.). It also contributes to the Start-ups and Scale-ups strategy. A synergy with activities under the CBE JU and NEB is encouraged.

# HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Bio-based innovation in society: supporting the sustainable way of living

Specific conditions	
Type of Action	RIA

#### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Advanced socio-economic transformation based on socio-economic opportunities delivered by the bio-based sectors and bioeconomy (e.g. innovative products and services, supporting the more sustainable way of living, higher circularity, affordability, resource efficiency, climate neutrality).
- Improved living conditions, as well as less polluted ecosystems, with benefits for individuals and communities, via more healthy, affordable and sustainable products and services based on circular and bio-based solutions.

### Scope:

The projects under this topic are relevant to the EU policies related to the Commission communication on: Building the future with nature: Boosting Biotechnology and Biomanufacturing in the EU, the upcoming Life Science Strategy, the EU Biotech Act, Clean Industrial Deal and the policies related to the fair green transition (objective of not leaving

anyone behind). It also contributes to the Start-ups and Scale-ups strategy. A synergy with activities under the CBE JU and NEB is encouraged.

Proposals should address the following activities:

- Develop the people-centric innovative bio-based products and services (including the
  contribution of biotechnology and biomanufacturing concepts) to support the more
  sustainable applications with a clear societal benefit, while reducing environmental and
  climate pressures
- Integrate the aspects of environmental justice, gender equality and social inclusion, as well as relevant international global best practice, via e.g. societal dialogue/innovation, involvement and inputs from the social sciences and humanities, as well as ensure addressing the market acceptance and understanding of the bio-based innovation, as well as higher understanding of consumption patterns and social demands. Foresee the feedback loops with industry and authorities, in respect to any new market solutions proposed.

# HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Increasing the circularity of bio-based sector: upcycling and recycling for higher value and environmental benefits

Specific conditions	
Type of Action	IA

#### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- European industry's competitiveness and strategic autonomy are improved, through the development and deployment of safe, sustainable, circular and bio-based value chains.
- Improved climate change adaptation and mitigation and overall environmental sustainability, through application of biotechnologies and industrial symbiosis, such as carbon capture and utilisation and recovery of biological materials, water and energy.

### Scope:

Proposals should address the following activities:

- Develop and deploy/scale-up sustainable, circular and bio-based materials, products, processes and value chains, e.g. including but not limited to the construction sector, using upcycled and recycled resources incorporating secondary raw materials with minimal quality loss, while increasing the uptake of recycled materials and preventing waste through repair, refurbishment, and reuse.
- Develop innovative circular solutions to tackle complex waste streams and create markets for waste materials by transforming them into valuable secondary resources,

while fostering urban, rural and coastal industrial symbiosis, providing data and digital tools and promoting a more efficient use of bio-resources.

The projects under this topic are relevant to the EU policies related to the Commission communication on: Building the future with nature: Boosting Biotechnology and Biomanufacturing in the EU, the Life Science Strategy, the EU Biotech Act, Clean Industrial Deal and the SME Strategy. It also contributes to the Start-ups and Scale-ups strategy. A synergy with activities under the CBE JU and NEB is strongly encouraged.

# HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Advancing standardisation of the bio-based products

Specific conditions	
Type of Action	RIA

### **Expected Outcome:**

- Higher industrial European competitiveness and strategic autonomy through the development and deployment of safe, sustainable, circular bio-based value chains, and creation of a lead market for bio-based industry.
- Improved environmental sustainability via the standardisation of the bio-based sector, including by application of the ecodesign approach in the bio-based industry.

### Scope:

Proposals should address the following activities:

- Support development of Ecodesign applicable to the selected bio-based sectors/industry, aiming at overall high sustainability and environmental benefits, as well considering the economic feasibility.
- Engage with relevant stakeholders from bio-based industry and standardisation bodies at national and European level, creating community of practice, aiming at transparency and inclusiveness.

The projects under this topic are relevant to the EU policies related to the communication on safe and sustainable by design framework, Clean Industrial Deal and the SME Strategy, as well as the chemicals industry package and the Ecodesign for Sustainable Products Regulation and its working plan. It also contributes to the Start-ups and Scale-ups strategy.

# Innovating for blue bioeconomy and biotechnology value chains

Proposals are invited against the following topic(s):

# HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Marine bioinspired materials and biochemicals

Specific conditions	
Type of Action	RIA

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- The transition toward greener, high-performance materials across multiple industries is supported through the development of sustainable marine bioinspired materials and biochemicals.
- Increase support on green bioprocessing and sustainable blue bio-based products through new biotechnology processes and applications that will contribute to Europe's industrial competitiveness.

### Scope:

### Proposals should:

- Develop and optimize processes to ensure recovery of relevant biomaterials and biochemicals, leveraging selective downstream processing techniques to minimize waste and maximize yield.
- Document and establish the safety and effectiveness of bioinspired materials and biochemicals derived from marine environments.

Marine-derived biomaterials such as those from algae, jellyfish, sponges, mussels, and crustaceans offer promising solutions for medical fields, including tissue engineering, bioadhesives, and drug delivery systems. Novel adhesion agents from sponges and mussels, can be applied as antifouling coatings. Marine based compounds that can replace hazardous chemicals used by e.g. the textile industry. For instance, sodium alginate from brown algae is reactive dye used in the textile industry. Marine natural products used in antifouling paints and coatings, can represent an environmentally friendly alternative to synthetic biocides.

Projects under this topic are relevant to the EU policies related to the Bioeconomy Strategy, the European Life Sciences Strategy, the EU Biotech Act, the European Ocean Pact, the EU strategy on research and technology infrastructure, and the new approach for a sustainable <u>blue economy</u>.

# HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Circular systems: transforming blue biomass into bio-based products

Specific conditions		
Type of Action	IA	

# **Expected Outcome**:

Project results are expected to contribute to all of the following expected outcomes:

 The competitiveness of the European blue bioeconomy and marine biotechnology industry is strengthened by reducing technical bottlenecks associated with blue biomass and by increasing awareness on the potential of this sector making it more circular and attractive to investment.

### Scope:

### Proposals should:

- Improve extraction techniques and fermentation processes to enhance yield and costeffectiveness
- Develop of circular processing by transforming (bio)waste, including wastewater into a bio-based products.
- Provide evidence on environmental benefits but also on risks of blue biomass cultivation and/or harvesting.

Making marine industry byproducts circular is crucial for sustainability, resource efficiency, and environmental protection. By repurposing waste like fish trimmings, crustacean shells, and algae residues into valuable bioproducts, pollution is reduced, reliance on virgin materials is minimised, and new economic opportunities are created. Utilizing chitin, chitosan, and marine-derived compounds in industries like food, cosmetics, and medicine promotes a circular bioeconomy, ensuring that valuable resources are continuously reused rather than discarded.

Projects under this topic are relevant to the EU policies related to the Bioeconomy Strategy, the European Life Sciences Strategy, the EU Biotech Act, the EU strategy on research and technology infrastructure, the European Ocean Pact and the new approach for a sustainable <u>blue economy</u>.

# HORIZON-CL6-2026-2027-01-CIRCBIO-0X: Balancing food security, bioeconomy, climate and biodiversity objectives while unlocking sustainable value chains

Specific conditions		
Type of Action	Research and Innovation Action	

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Society benefits from economic activities that align bioeconomy, climate and biodiversity objectives while safeguarding food security. Policymakers are better equipped to develop more effective, evidence-based policies.
- Farmers gain opportunities to diversify their income without compromising food supply.

### Scope:

### Proposals should:

- Explore innovative business models, value chains, and natural capital accounting, assessing their impact on farmers' income, decision-making, market price thresholds, and food security risks;
- Conduct interdisciplinary research from farm to macro levels, encompassing economic, social, environmental and climate impacts, providing policy recommendations to align bioeconomy, climate, and biodiversity goals while safeguarding food security.

### **Destination - Clean environment and zero pollution**

### **Revised orientations**

### Addressing main policy priorities

This destination will support the EU Commission priorities 'Sustaining our quality of life: food security, water and nature' and 'A new plan for Europe's sustainable prosperity and competitiveness'.

The implementation of the Green Deal will continue to guide R&I in this destination. R&I actions under this destination will take forward the zero-pollution ambition, contributing to reach the 2030 targets for pollution reduction in air, water, and soil, as stipulated in the zero-pollution action plan. The activities will help establishing a clean industry, contributing to the

EU Clean Industrial Deal, and will aim to address, among others, pollutants of concern, including of emerging concern, also in view of the environmental objectives of the upcoming new chemicals industry package. Destination 4 will help substituting hazardous chemicals and bringing innovation on safe and sustainable by design chemicals to ensure protection of human health and the environment. It will also continue the work on PFAS, the "forever chemicals", started in the same destination in WP2025. It will also support the implementation of the revised Ambient Air Quality Directive and the Industrial and Livestock Rearing Emissions Directive.

This destination will support the zero-pollution ambition in the industrial bio-based and bioeconomy sectors. The principles of the (upcoming) revised bioeconomy strategy, underpinned by the principles of the circular economy, will allow for the replication value chains with improved resource efficiency and environmental performances, also enabled by innovative approaches designed in the (upcoming) strategy on Life Science and the Biotech Act.

Furthermore, R&I activities under this destination will underpin EU water legislation and the (upcoming) Water Resilience Strategy by addressing water quantity and quality issues in specific sectors as well as across broader water systems, supporting EU policies and international conventions.

R&I actions under this destination will aim to underpin the conclusions from the Strategic Dialogue on EU Agriculture and the Vision for EU Agriculture and Food, as well as improving the forest knowledge base in line with the EU Forest Strategy for 2030.

R&I actions under this Destination will encourage international cooperation, in line with the global approach on R&I.

### Draft expected impacts

<u>Strategic Plan 2025-2027 – Expected Impact 29</u>: Achieving healthy soils and forests, as well as clean air, fresh and marine waters, whilst ensuring water resilience and the transition to a clean, competitive and circular economy and sustainable bioeconomy.

Proposals for topics under this destination should set out a credible pathway to achieve a clean environment, ensure water resilience, and enable the transformative change necessary to reduce air, water and soil pollution to levels no longer considered harmful to health and natural ecosystems, while respecting planetary boundaries. More specifically, they should contribute to one or several of the following impacts:

- Advancing scientific understanding and innovative solutions for identifying, preventing
  and mitigating pollution aim to effectively protect human health and safeguard the
  environment, preserving cleaner water and seas, healthier air and soil, and resilient
  forests.
- Innovative circular bio-based systems and biotechnologies are developed and made available to all stakeholders to progress towards the clean environment and zero-pollution ambition.

- Farmers and other actors in the food chain are empowered to make informed decisions and to apply novel strategies to prevent, reduce and remediate pollution from agriculture and the food system, contributing to the zero-pollution ambition.
- Effective solutions to remediate and decontaminate aquatic pollution are developed, made available and implemented contributing to reducing pollution to levels no longer considered harmful to the environment.

### Main expected outcomes

To achieve the above-mentioned impacts, the following **expected outcomes** will be pursued:

- Methodologies and common criteria to select best available techniques along the whole
  value chain of bio-based systems allow to feed into an EU-wide benchmarking system
  of the bioeconomy sectors, contributing to assessing the progress towards the zeropollution ambition, the clean environment and clean industry, as well as energy and
  resource efficiency.
- Improvement of the environmental sustainability of the EU bioeconomy and bio-based systems, including through applying biotechnology and life-science based solutions for preventing pollution from any sources;
- New technologies, biotechnologies, practices and strategies allow to reduce and prevent air pollution from agriculture and the food system;
- Innovative cost-effective (biotechnology) solutions for monitoring, bioremediation and decontamination of aquatic and soil pollution both at source and sea to further enhance water quality – in freshwater and seas - and contribute to the water resilience of our societies.
- Innovative and improved tools and methods for identifying and monitoring pollution in areas of high environmental concern and transboundary pollution risks related to human activities, ultimately informing more effective strategies to prevent and mitigate their potential impacts.
- Advanced scientific understanding, development and validation of a common European
  approach of multi-scale and micro-scale monitoring and modelling capabilities support
  air quality planning processes from local to European level, aiming at more effectively
  mitigating air pollution exceedances and preventing population exposure, including in
  pollution hotspots.
- Improved methods and tools are developed and made available to environmental authorities to comprehensively identify and monitor underwater noise pollution sources, its effects on aquatic ecosystems, improve the understanding of the effectiveness of policy options.
- Farmers have knowledge and tools available to make informed decisions on preventing and reducing pollution from agriculture.

### First topic ideas

# HORIZON-CL6-2026-2027-01-ZEROPOLLUTION-0X: EU-wide benchmarking system of the bioeconomy sectors

Specific conditions	
Type of Action	CSA

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Innovative circular bio-based systems and biotechnologies are deployed to decrease the environmental footprint, not harm biodiversity and address climate change;
- The EU Bioeconomy and the bio-based systems improve their environmental sustainability and climate neutrality.

### Scope:

# Proposals should:

- Select best available techniques addressing pollution, climate change and biodiversity loss
  along the whole value chain of bio-based systems producing bio-based chemicals,
  materials and end products, excluding food/feed, biofuels/bioenergy and health and
  medical devices to feed into an EU-wide benchmarking system of the bioeconomy
  sectors, based on shared methodologies and criteria;
- Develop monitoring framework to assess progress towards the zero-pollution ambition and clean industry, as well as energy and resource efficiency.

The projects funded will contribute to the goals of the EU policies related to the Commission communication on Building the future with nature: Boosting Biotechnology and Biomanufacturing in the EU, the upcoming Life Science and Bioeconomy strategies, EU Biotech Act and Clean Industrial Deal. They will seek to implement the approaches of the Ecodesign regulation.

# HORIZON-CL6-2026-2027-01-ZEROPOLLUTION-0X: Bioremediation of ecosystems contaminated by conflicts

<b>Specific conditions</b>	
Type of Action	IA

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Innovative circular bio-based systems and biotechnologies are developed to progress towards the clean environment and zero-pollution ambition;
- Contribute to the reconstruction, recovery, circularity and upgrading of economy and environment of Ukraine: remediate severe ecosystems pollution due to conflicts and restore ecosystem services.

# Scope:

### Proposals should:

- Demonstrate innovative cost-effective biotechnology solutions for bioremediation and decontamination of soil pollution both at source (including emissions of pollutants to air or water bodies) and on the land due to conflicts.
- Monitor the extreme pollution from contaminants released in the conflict affecting
  Ukraine. The action should provide recommendations to policymakers and EU and
  international relief organisations, to develop any replication actions, including in the
  context of the possible EU accession process, if relevant. International cooperation is
  strongly encouraged.

The projects funded should contribute to the goals of the Nature Restoration Law, and to the EU policies related to the Commission communication on Building the future with nature: Boosting Biotechnology and Biomanufacturing in the EU, the upcoming Life Science and Bioeconomy strategies and the EU Biotech Act. They should also deliver on EU international commitments and outreach, including actions directed at future EU enlargement and EU international partnerships contributing to the EU global commitments on biodiversity and climate change.

HORIZON-CL6-2026-2027-01-ZEROPOLLUTION-0X: Nature-based and bio-based Safe and Sustainable by Design (SSbD) alternatives replacing hazardous substances in biocides

Specific conditions	
Type of Action	RIA

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

• Innovation in bio-based substances brings safer alternatives for hazardous substances contained in consumers' products.

• Safe and effective solutions for the control of pests affecting human or animal health or the environment are made available to consumers.

### Scope:

### Proposals should:

- Replace hazardous substances which are used to i) extend the life-span of materials and
  manufactured goods (ex: wood preservatives used to treat wood against fungi or insect;
  in-can preservatives used in detergents or paints) and to ii) address emerging human and
  animal diseases transmitted by mosquitoes, with SSbD bio-based substances not
  harmful for biodiversity, including pollinators.
- Demonstrate innovative nature-based solutions and cost-effective SSbD bio-based additives i) limiting the development of resistance or cross-resistance to harmful organisms (ex: harmful fungi, causing diseases in humans, becoming resistant due to cross-resistance coming potentially from pesticides or biocides uses), and ii) acting as insecticides. This can include bioactive substances derived from plants, microbes and other natural sources.

The projects under this topic are relevant to the EU policies related to the Commission communication on: Building the future with nature: Boosting Biotechnology and Biomanufacturing in the EU, the upcoming Life Science Strategy, the EU Biotech Act, EU strategy on research and technology infrastructure, Clean Industrial Deal and the 'safe and sustainable by design' (SSbD) framework. It also contributes to the Start-ups and Scale-ups strategy. A synergy with activities under the CBE JU is encouraged.

# HORIZON-CL6-2026-2027-01-ZEROPOLLUTION-0X: Decontaminate and bioremediate aquatic pollution

Specific conditions	
Type of Action	RIA

# **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

• Competent authorities and the water sector have access to effective (biotechnology) solutions to remediate and decontaminate marine and freshwater pollution.

### Scope:

### Proposals should:

• Develop and demonstrate novel approaches, locally adaptable and site-specific solutions for the bioremediation and decontamination of marine and freshwater pollution at

source, in rivers, lakes, coastal and groundwaters and at sea, including removal processes, management of degradation processes.

- Develop biotechnology and nature-based solutions for clean-up of persistent organic pollutants, degrading pollutants (e.g. plastics, oil, hydrocarbons), contaminants of emerging concern and targeted micropollutants (PFAS, pharmaceuticals, pesticides and micro-and nano-plastics).
- Develop and demonstrate approaches and solutions for effective removal of pollutants from wastewater and drinking waters and from the environment incl. groundwater and sediments.

The projects under this topic are relevant to the EU policies related to the Commission communication on: Building the future with nature: Boosting Biotechnology and Biomanufacturing in the EU, the upcoming Life Science Strategy, the EU Biotech Act, EU Water Resilience Strategy, Nature Restoration Law, and the European Ocean Pact.

# HORIZON-CL6-2026-2027-01-ZEROPOLLUTION-0X: Understand and address underwater noise pollution

Specific conditions			
Type of Action	RIA		

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

• Environmental authorities have access to advanced methods and tools enabling them to comprehensively monitor and address underwater noise pollution.

# Scope:

Proposals should:

- Develop and improve scientific methods and tools for comprehensively monitoring underwater noise pollution and identify and characterize high priority noise sources.
- Improve understanding of the effects of noise exposure as well as their cumulative effects on organisms and ecosystems, and improve the understanding of the effectiveness of policy options.

HORIZON-CL6-2026-2027-01-ZEROPOLLUTION-0X: Risk assessment, management and new solutions for removing contaminant of emerging concerns, in particular PFAS, pharmaceuticals, AMRs, microplastics to protect surface and groundwater ecosystems

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### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Impact of contaminants of emerging concern, especially PFAS antimicrobial resistant substances and microplastics on surface and groundwater ecosystems are better understood.
- Local authorities have improved monitoring and management tools for the protection of surface and groundwater ecosystems against contaminants of emerging concern, especially PFAS antimicrobial resistant substances and microplastics.

### Scope:

### Proposals should:

- Develop new affordable treatment systems for removing PFAS, AMR and microplastics from aquatic ecosystems.
- Integrate monitoring methods of robust risk assessment of the impact of CECs on aquatic ecosystems (both surface and groundwater).

# HORIZON-CL6-2026-2027-01-ZEROPOLLUTION-0X: Developing managed aquifer recharge techniques (MAR) in an EU agricultural context

Specific conditions	
Type of Action	RIA/IA

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Farmers are empowered with appropriate aquifer recharge systems to cope with longer and more intense periods of water scarcity due to climate change, while preserving water quality;
- Pressure on water and related ecosystem services is reduced and water resilience of farming systems is increased;

#### Scope:

## Proposals should:

• Improve and customize managed aquifer recharge techniques at farm and local level, covering different EU agricultural contexts in view of climate change

Test the sustainability of managed aquifer recharge techniques in agriculture

Successful proposals under this topic will support the EU Vision for Agriculture and Food, as well as contributing to the upcoming European Water Resilience Strategy and the EU Climate Adaptation Strategy.

# HORIZON-CL6-2026-2027-01-ZEROPOLLUTION-0X: Developing effective air quality planning strategies through innovative multi-scale modelling and micro-scale analysis

Specific conditions		
Type of Action	RIA	

### **Expected Outcome:**

Project results are expected to contribute to all of the following outcomes:

- Public authorities obtain access to enhanced and innovative modelling capabilities to support air quality planning at various policy levels in a coherent way.
- Society benefits from improved governance processes and effective air quality planning strategies, aiming at mitigating air pollution and reducing population exposure, including from far more targeted air pollution alerts.

### Scope:

Proposals should:

- Develop comprehensive multi-scale modelling chains, addressing air quality assessment, spatial and temporal representativeness, and atmospheric processes of air pollution, with an emphasis on the air pollutants with the highest health impacts.
- Develop, configure and validate innovative micro-scale modelling systems at very high
  resolution with the aim of modelling and evaluating the impact of air quality measures
  to minimize, mitigate, and prevent exceedances at hotspot locations.

The topic supports the implementation of the revised Ambient Air Quality Directive.

### Destination - Land, ocean and water for climate action

### **Revised orientations**

### Addressing main policy priorities

This destination will support the EU Commission priority 'Sustaining our quality of life: food security, water and nature'.

This Destination is expected to foster mitigation and adaptation to climate change on land, in the ocean and water, and therefore contribute to Cluster 6 in support of the ambition for Europe to become the first climate-neutral and climate-resilient continent by 2050.

Destination 5 supports the evidence-base for the implementation of the European Green Deal and its climate and biodiversity objectives included in the European Climate Law, the Nature Restoration Regulation, the European Ocean Pact, the Arctic policy, the amended Regulation on land use, land use change and forestry (LULUCF), the Regulation on Carbon Farming and Carbon Removals.

Destination 5 also fosters the development and deployment of innovative solutions and approaches to strengthen Europe's water security to deliver on the forthcoming Water Resilience Strategy and to support the implementation of EU water legislation.

R&I actions under this Destination will encourage international cooperation and help achieve international commitments concerning land, water, and ocean for climate action under the Paris Agreement, the GBF, the BBNJ Agreement and the Antarctic Treaty. Strengthening the ocean-climate-biodiversity-cryosphere nexus is a priority for the EU, as well as safeguarding the integrity and resilience of the ocean and polar regions as vulnerable parts of the Earth System. R&I will support and close key knowledge gaps through research that contributes substantially to the implementation of key international treaties and the work of various international bodies, assessments, and other initiatives.

### Draft expected impacts

<u>Strategic Plan 2025-2027 – Expected Impact 27</u>: Fostering mitigation of and adaptation to climate change in areas and sectors covered by Cluster 6.

Proposals for topics under this destination should set out a credible pathway contributing to "Fostering mitigation of and adaptation to climate change in areas and sectors covered by Cluster 6", and more specifically to one or more of the following impacts:

- Strengthened knowledge and understanding and reduced uncertainty about the future of Antarctica and the Southern Ocean in the short, medium, and long term, and its impacts on the Global Ocean and the Earth System are available and used, alongside identified commensurate management responses to prevent the Southern Ocean and the Antarctic cryosphere from reaching a point of no return, including enabling protecting, restoring and sustainably managing marine and coastal ecosystems and preventing pollution.
- Effective policy mixes and multi-level governance capable of anticipating a changing Arctic and enabling a just and sustainable transition for all, engaging society at large and balancing economic, social and environmental goals, thanks to improved evidence-based knowledge, tools and science-society-policy interfaces.
- Carbon footprint and greenhouse gas emissions from land and water activities (inland, marine and coastal) – including primary production – and infrastructures are minimised

in rural, urban, and coastal areas while the monitoring, reporting and verification of the emissions is improved.

• Medium- and long-term adaptation and resilience of water infrastructure, agriculture and forestry to challenges related to climate change is further addressed with regard to scientific knowledge, public policy and economic practices.

### Main expected outcomes

To achieve the above-mentioned impacts, the following **expected outcomes** will be pursued:

- Improved scientific understanding of the functioning of the Southern Ocean and the Antarctic cryosphere and ecosystem dynamics, in the near term (~2030), mid-term (2050–2060) and long-term (after ~2060), including their mutual interaction with, impact on and vulnerability to, current and future changes in the other components of the regional and global climate systems, and improved quantification of the impacts of Southern polar ocean changes on the global ocean circulation and their future role in anthropogenic CO2 uptake and regulation of global warming.
- Deeper understanding of and engagement by decision-makers and citizens in the processes leading to an ice-free Arctic, and the surrounding uncertainties, combined effects from loss of biodiversity, pollution and climate change, and impacts at local, regional and global levels (adaptation, resilience and health of Arctic communities, new economic opportunities and related risks, geopolitical and international governance considerations, biodiversity loss, long-range pollution transport, etc.).
- The integration of grey, blue and green infrastructures in rural, urban, and coastal areas is optimised and strategies to upgrade and redesign water infrastructure incorporating the multiple use of water concept in a circular economy while ensuring cost-effectiveness and high level of health protection are mainstreamed.
- Improved knowledge of and measures for reducing greenhouse gas emissions and increasing carbon sequestration from different forms of land use.
- The direct and indirect impacts of climate risks for agriculture are better understood, and additional options for mitigating those impacts are developed.
- More comprehensive and detailed understanding of bio geophysical and socio-economic opportunities and obstacles for adaptation to climate change and management of various interacting risks.
- A set of integrated digital solutions, including Earth Observation, ensures high resolution, continuous and more timely monitoring and modelling for land use, forestry, sustainable agriculture and water management to develop and optimise strategies to support climate adaptation and move to more resilient production systems and infrastructures.

### First topic ideas

# HORIZON-CL6-2026-2027-01-CLIMATE-0X: Ocean-climate-biodiversity-cryosphere nexus: Unlocking a safe operating space for Antarctica and the Southern Ocean

Specific conditions	
Type of Action	RIA

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Advanced research is strengthening our knowledge and understanding and reducing uncertainty about the future of the region and its impacts on the Earth System.
- Commensurate management responses are identified to prevent the Southern Ocean and the Antarctic cryosphere from reaching a point of no return and to enable protecting, restoring and sustainably managing marine and coastal ecosystems and prevent pollution.

### Scope:

# Proposals should:

- Explore the vulnerable ecosystems of the Southern Ocean, including the impacts of climate change, pollution and other anthropogenic activities on marine biodiversity and ecosystem dynamics changes in the near (~2030), mid (2050–2060) and long-term (after ~2060), including how to support the integration into the Planetary Boundaries framework of elements of Southern Ocean biosphere integrity, and improved control variables for the diversity of life forms and functions (functional diversity), as well as the biocomplexity suitable for measuring biosphere integrity in different facets.
- develop mechanisms to distinguish human-induced environmental changes from natural
  ones and develop strategies to protect the fragile environment of the Southern Ocean
  from human activities and climate change, as well as comprehensively establish the
  efficacy of Southern Ocean conservation measures for preserving evolutionary potential
  and those properties that best anticipate change.
- Resolve uncertainties about the Antarctic cryosphere changes in the near-, mid- and long-term (irreversible, abrupt and committed) changes, their likelihood, timing, rate, amplitude, and implications.
- Advance the knowledge on Southern polar ocean and sea ice dynamics in the near-, mid- and long-term, better understand the distribution, underlying mechanisms and impacts of Southern polar ocean-sea ice changes to reduce uncertainties on projected future changes in large-scale ocean circulation and transports, including possible tipping points and collapse of the overturning circulations, regional and global climate and

weather systems, including extreme events and mid-latitude weather, and ocean fluxes to and from Antarctic ice sheets. Quantify how climate change will affect the physical and biological capacity of the Southern Ocean for uptake of CO<sub>2</sub> and long-term storage of carbon.

# HORIZON-CL6-2026-2027-01-CLIMATE-0X: Governance, sustainable development and international politics of a future ice-free Arctic, under different climatic/ice free scenarios

Specific conditions		
Type of Action	RIA	

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- New knowledge on the processes, feedbacks is developed alongside improved quantification of impacts of an ice-free Arctic, both locally/regionally and globally. Advanced research on newly emerging aspects of the regime change in the Arctic is widely spread.
- Knowledge-based recommendations for sustainable development, adaptation and resilience and better-informed planning of resources, as well as policy making recommendations including aspects of International Ocean Governance, are widespread.

### Scope:

# Proposals should:

- better understand the impacts and consequences of an ice-free Arctic and the underlying systems and processes, the drivers of internal variability, feedback loops, projections and reduce their uncertainties, Arctic tipping points, thresholds, and reversibility.
- identify transformative pathways and key leverage points for sustainable mitigation and anticipatory adaptation approaches.

# HORIZON-CL6-2026-2027-01-CLIMATE-0X: Towards the water infrastructures of the future

<b>Specific conditions</b>	
Type of Action	IA

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Water infrastructures have integrated digital solutions and the use of artificial intelligence to optimally operate in changing conditions from climate or pollution pressures, favouring recovery of material and limiting greenhouse gas emissions.
- Water infrastructures are flexible enough to face changes in hydraulic flow and pollution load from emerging or yet unknown contaminants to ensure access to water ad sanitation is protected on a long-term, recovery of safe secondary resources is secured and greenhouse gas emissions are limited.

### Scope:

### Proposals should:

- Enhance the use of digital solutions, new monitoring technics, Earth observation tools, digital twin technology and artificial intelligence within drinking water and wastewater infrastructures to optimise their operation and improve their efficiency, addressing leakages, infiltration, energy consumption and carbon footprint.
- Develop and integrate modular processes and tools to improve the adaptability of water infrastructures to emerging pollutions and effects of climate change.

The proposals will support the objectives of the European Green Deal, the Water Resilience Strategy, the Drinking Water Directive and the recast Urban Wastewater Treatment Directive.

# HORIZON-CL6-2026-2027-01-CLIMATE-0X: Driving a competitive economy in a water safe operating space for a water resilient EU

Specific conditions	
Type of Action	CSA

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Support knowledge-based quantification of availability, needs and use of water resources to support both the economy, human health and aquatic ecosystems
- Enhance the uptake and application of the planetary boundaries framework to water management helping local actors to define a safe and resilient management of water resources.

### Scope:

## Proposals should:

• Integrate the knowledge developed in previous research projects focusing on water resource availability, water allocation, alternative water resources, landscape

management, water efficiency and innovative water governance to improve cooperation among EU and associated countries to standardise data collection of relevant water data (e.g. in relation to water quantity, water quality etc.) and cross linking them with validated remote sensing and satellite data e.g. from Copernicus. Subsequently, the scientific results and outcomes will be disseminated of to validate policy support tools like predictive models that identify emerging pollution risks, as well as early warning systems for floods, and predictive models for drought risks etc. The outcomes of those models can then be disseminated to policy makers in feedback to policy actions and used for awareness-rising, communication and networking activities, policy dialogues, mutual learning or studies, etc. This will be done in close cooperation with local actors to define a water safe operating space where all activities are planned within the natural or enhanced capacity to renew water resource.

• Identify (international) river basin districts in which the standardised data collection, data and modelling validation as well as policy support tools can be piloted and subsequently be used to foster the implementation of this approach in various regions and water basins, especially for transboundary rivers.

The proposals should support the objectives of the European Green Deal, the Water Resilience Strategy and water related EU legislations.

HORIZON-CL6-2026-2027-01-CLIMATE-0X: Strengthening the resilience of EU agriculture and agri-food supply chains against crises and systemic risks including climate-related hazards

Specific conditions	
Type of Action	Research and Innovation Action

# **Expected Outcome**:

Project results are expected to contribute to all of the following expected outcomes:

- Societal and political actors have a better understanding of how EU agriculture and agrifood supply chains are exposed to and impacted by a combination of systemic risks, including climate-related hazards.
- EU and (sub-)national decision-makers have access to improved analytical capacity and recommendations on policy instruments and strategies for preventing and managing crises and systemic risks.

#### Scope:

### Proposals should:

 Improve analytical capacity on the resilience and exposure of the agricultural sector and agri-food supply chains to (interacting) crises and systemic risks, including compound

and amplifier effects related to climate change and trade disruptions. This work should take into account the short-, medium- and long-term impacts (social, economic, environmental) at different scales (global to local).

• Explore (policy) options to further develop integrated prevention, preparedness, management and adaptation strategies that encompass different temporal (short to long term) and spatial (global to local) scales. Analyse those options considering coherence, synergies and trade-offs with competitiveness and sustainability objectives.

# HORIZON-CL6-2026-2027-01-CLIMATE-0X: Towards more effective, fair and coherent policies for climate change mitigation and adaptation in agriculture

Specific conditions		
Type of Action	RIA / CSA	

# **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

 Decision-makers and stakeholders in the EU have access to comprehensive information about and analyses of policy tools in the EU and other jurisdictions targeting or otherwise affecting mitigation and adaptation outcomes in agriculture, including any unintended consequences.

### Scope:

### Proposals should:

Synthesise existing analyses and evidence on the performance of sectoral and horizontal
instruments affecting climate-change mitigation and adaptation in the agricultural
sector, also in terms of the distribution of costs and benefits within and across sectors
and societies.

### HORIZON-CL6-2026-2027-01-CLIMATE-0X: Innovations for carbon farming

Specific conditions	
Type of Action	IA / CSA

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

• Participants in a range of different carbon-farming activities have access to the latest knowledge and technologies.

 Commercial exchange of carbon-removal and emission-reduction certificates is facilitated at scale.

### Scope:

### Proposals should:

- Take stock of existing experience with implementation of the Regulation on Carbon Removals and Carbon Farming, in terms of participation by different groups of operators in carbon farming and their ability to achieve desired environmental and economic outcomes.
- Identify and address informational, technological and socio-economic obstacles for effective participation, and develop potential improvements to incentive structures.

### Destination - Resilient, inclusive, healthy and green rural, coastal and urban communities

### **Revised orientations**

### Addressing main policy priorities

The Destination supports the European Green Deal and contributes to Europe's competitiveness and sustainable prosperity by supporting the sustainable development and the just and fair transition of rural, coastal and urban communities.

This destination will support the EU Commission priorities 'Sustaining our quality of life: food security, water and nature' and 'Supporting people, strengthening our societies and our social model'.

- R&I will support knowledge needs stemming from the EU Vision for Agriculture and Food, the upcoming EU Vision for Fisheries and Aquaculture towards 2040, the CFP Regulation, the upcoming Commission Strategy for Generational Renewal in Agriculture, and continue to support the implementation of the Long-term Vision for EU's rural areas.
- R&I will complement the New European Bauhaus (NEB) initiative by transformation of spaces and integrating the core NEB values.
- R&I activities in this destination will also contribute to achieving the objectives of the Strategy for European Life Sciences Strategy, the EU Startup and Scaleup Strategy, the EU Biotech Act, and the Bioeconomy Strategy as well as the upcoming European Ocean Pact.
- Overall, R&I activities under this destination will contribute to supporting people and strengthening our societies and our social model.
- R&I will also support people from rural and coastal communities to work and prosper with nature, preserving biodiversity and ecosystem, and scaling-up the use of nature-

based solutions, in line with the objectives of the EU Climate Adaptation Strategy, the EU Nature Restoration Regulation and the 2022 All-Atlantic Ocean Research and Innovation Alliance (AAORIA) Declaration.

• R&I actions under this Destination will encourage international cooperation, in line with the global approach on R&I.

### **Draft** expected impacts

Strategic Plan 2025-2027. Expected Impact 31. Sustainably developing rural, urban and coastal areas

Topic proposals under this destination should set out credible paths to 'sustainably developing rural, urban and coastal areas'. More specifically, proposed topics should contribute to one or more of the following impacts:

- Rural, urban and coastal communities are empowered to act for a transformative change
  to increase their sustainability and resilience, through better access to knowledge and
  tools (including digital ones), and are better prepared to adapt to climate change and to
  achieve climate neutrality and to address environmental issues, including biodiversity
  loss.
- Rural communities are prepared to respond to social, economic and environmental shocks and are attractive for young innovators.
- Urban and peri-urban communities can access affordable, healthier, nutritious and environmental-friendly food, and benefit from a systemic approach reducing the societal divide across the urban-rural interface as well as enhanced local and regional governance and local competitive and resilient solutions.
- Coastal communities are resilient, inclusive, healthy and green through fostering of human-nature interface, in aquatic environments, by encouraging marine citizenship and ocean connectedness, and by promoting nature-based solutions and blue-green infrastructure.

### Main expected outcomes

To achieve the above-mentioned impacts, the following expected outcomes will be pursued:

- Rural economies have enhanced their competitiveness and supported young innovators through the fostering of innovation ecosystems, the creation of jobs and high-value careers, and educational opportunities.
- Rural communities are resilient to shocks and are empowered to assess social, economic and environmental risks;
- Creative approaches are applied fostering local-level food system entrepreneurship and decentralized local capacities and solutions;

- Vulnerable coastal communities, such as waterfront cities and small islands, achieve
  increased resilience to climate change and sea-level rise through better access to ocean
  knowledge, as well as through innovative solutions and preparedness and protection
  measures based on a deeper understanding of environmental, socio-economic,
  behavioural, cultural, and demographic drivers of change.
- Coastal communities and coastal sector actors (e.g. tourism, recreational, fishing) are empowered to make evidence-based decisions in response to climate change and other environmental challenges, considering environmental and socio-economic effects of their activities, and to innovate through socio-ecological approaches and digital tools such as the EU Digital Twin of the Ocean.
- Coordinated activities on marine and maritime research and innovation with Atlantic Ocean stakeholders have increased in alignment with the priorities of the All-Atlantic Ocean Research and Innovation Alliance (AAORIA) Declaration and across the Mediterranean Sea countries to support policy initiatives like the new Mediterranean Pact.

### First topic ideas

# HORIZON-CL6-2026-2027-01-COMMUNITIES-0X: Boosting sustainable competitiveness in rural areas through innovation

Specific conditions		
Type of Action	RIA	

#### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- A better understanding of sustainable competitiveness in rural areas is achieved;
- Young entrepreneurs are supported and sustainable economic growth in rural areas is fostered.

### Scope:

### Proposals should:

- Improve the understanding of competitiveness in the contexts of societal failures and propose indicators that incorporate social and environmental performance to measure sustainable competitiveness;
- Identify and support innovative business models led by young entrepreneurs.

# HORIZON-CL6-2026-2027-01-COMMUNITIES-0X: Strengthening rural communities' resilience to shocks

Specific conditions	
Type of Action	RIA

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Rural communities are more resilient to shocks;
- Local governance is strengthened, with active involvement of young people in responding to shocks, climate action, and disaster response."

### Scope:

Proposals should:

- Improve capacity of communities to anticipate, prepare for, and recover from environmental and socio-economic shocks;
- Strengthen local governance, involving also young people, for responding to shocks, climate action, disaster response.

# HORIZON-CL6-2026-2027-01-COMMUNITIES-0X: Empowering local food systems entrepreneurship and innovation

Specific conditions	
Type of Action	IA

# **Expected Outcomes:**

Projects results are expected to contribute to all of the following expected outcomes:

- enhanced local food system entrepreneurship and start-ups by improving access to mentorship and business development, boosting innovation capacities and thereby fostering the creation of a European-wide innovative and competitive urban food systems.
- strengthened collaborative governance across Europe in urban food systems by empowering and mentoring local actors to support entrepreneurship and start-ups in food systems.

# Scope:

### Proposals should:

- develop and pilot decentralized local capacities and solutions, such as food innovation hubs, incubators, and accelerators, integrating tailored mentorship programs to stimulate entrepreneurship and start-ups in urban food systems. Scale successful models across EU urban areas to maximize knowledge-sharing and training, cross-country collaboration, and market uptake, supporting the EU Startup and Scaleup Strategy.
- facilitate participatory co-creation of place-based collaborative food policies and sustainable business models, utilizing the networks and solutions developed through the local capacities. Leverage these pilot implementations to accelerate urban food system transformation and scalability, ensuring market replication potential across diverse EU contexts.

# **HORIZON-CL6-2026-2027-01-COMMUNITIES-0X:** Supporting All-Atlantic Communities

Specific conditions				
Type of Action	CSA			

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Coordinated marine and maritime research and innovation activities with Atlantic Ocean stakeholders, integrating the North and South Atlantic dimension, aligned with the priorities identified in the 2022 All-Atlantic Ocean Research and Innovation Alliance (AAORIA) Declaration,
- All Atlantic Intergenerational Programme, connecting, empowering and strengthening the future All Atlantic Leaders and Stewards to make strategic investments, take difficult decisions and facilitate community acceptance.

### Scope:

The actions should aim at supporting a wider understanding of the opportunities and promoting a sustainable management of the Atlantic Ocean as a whole, involving both the northern and the southern parts of this ocean, and its interlinks with the adjacent polar areas. To achieve this, it will be necessary to bring together and systematically connect scientists, a wide range of public and private stakeholders, including civil society and youth, with data, knowledge, expertise, capacities, infrastructures and resources.

In particular, the proposals should:

• Consolidate and support existing and new AAORIA initiatives, support the organization, monitoring, communication, and outreach activities of the Alliance, link

with relevant international bodies, and facilitate dialogue and synergies with other EU instruments.

Develop an All-Atlantic Intergenerational Programmes to build bridges across
generations, cultures and geographies, to ensure open access to knowledge and
infrastructures, appropriate knowledge transfer, and having engaged stakeholders and
communities. This intergenerational programme should support summer schools,
organising annual intergenerational events and high-level dialogues (The "Davos" of
the Atlantic cooperation), etc.

# HORIZON-CL6-2026-2027-01-COMMUNITIES-0X: Digitally assisted green transition, restoration and resilience of the Mediterranean area

Specific conditions			
Type of Action	RIA/IA		

### **Expected Outcome:**

The climate change impact on terrestrial and marine ecosystems of the Mediterranean, including European and North African countries calls for a new initiative bringing together knowledge, innovation and demonstration to ensure sustainable prosperity, security, and resilience for the Mediterranean macro-region.

Project results are expected to contribute to all of the following expected outcomes:

- Increased cooperation in marine and maritime research and innovation activities in the Mediterranean Member-States and riverain countries, specifically targeting knowledge gaps and investments for economic stability, jobs, energy, transport, security, and other areas of mutual interest, including climate change,
- Increased preparedness, protection, resilience and empowerment of coastal economic sectors and their related communities which are particularly vulnerable to changing environments (climate, environment, biodiversity, economic).

### Scope:

# Proposals should:

develop green transition systems and decision support tools integrating digital
technologies, including digital twin of the ocean tools, to tackle climate change,
pollution, biodiversity loss, security and ocean health nexus, focusing in particular on
the restoration of terrestrial and marine ecosystems, enhancing coastal communities'
capabilities for natural disaster management and risk reduction, as well as addressing
challenges of coastal economic sectors and their related communities (tourism, small
fishing fleets, ports, etc), while reinforcing synergies with EU financial instruments and

national or regional programmes notably EMFF/EMFAF, LIFE, ERDF, ESF+, JTF, CEF Inland Waterways or Maritime and InvestEU, as well as private funds.

support policy initiatives like the new Mediterranean Pact, building on and engaging
with EU funded programmes and partnerships like PRIMA, SBEP, WESTMED,
Mission Ocean and Waters to foster solutions, investments, knowledge and
demonstration tailored to local needs and involve communities from other sea basins
where the knowledge and solution developed by the proposal could be replicated and
cross-fertilised.

# Destination - Innovative governance, environmental observations and digital solutions in support of the Green Deal

# **Revised orientations**

# Addressing main policy priorities

This destination will support the EU Commission priorities 'Sustaining our quality of life: food security, water and nature' and 'A new plan for Europe's sustainable prosperity and competitiveness', which require innovative and agile governance models and tools to support transformative change within planetary boundaries.

R&I supporting decision-making is a key enabler for the Vision for Agriculture and Food that aims to secure the long-term competitiveness and sustainability of the EU's farming and food systems within the boundaries of our planet.

Besides, the R&I supporting the bioeconomy, with a focus on bio-based solutions and the role of biotechnology, needs to be further strengthened, in line with the EU Bioeconomy Strategy and its expected update, the Communication on Biotechnology and Biomanufacturing and the upcoming Life Science Strategy.

There is also a need to unlock the potential of applied digital and data technologies to support sectors covered by this cluster in becoming more competitive, sustainable, resilient and inclusive in line with the evolving EU policies on cyber, data and data technologies and digital services, notably the European Data Strategy, the Europe's Digital Decade Policy Programme, the AI innovation package and [the upcoming an EU digital strategy for agriculture]. This destination will contribute to the development, support and take up of digital and data-based solutions to implement the European Green Deal, while fostering innovation and supporting start-ups.

The destination supports the European Ocean Pact, aiming at bringing coherence across all EU policy areas linked to the ocean, supporting a resilient and healthy ocean and coastal areas and promoting the sustainable blue economy.

In line with the global approach on R&I, this Destination will foster and support regional and international initiatives, encourage international cooperation, contribute substantially to the implementation of key international treaties and to the work of various international bodies, assessments and other initiatives, and help achieve international commitments, notably under

the Paris Agreement, the Global Biodiversity Framework, and the Biodiversity Beyond National Jurisdiction (BBNJ) Agreement.

Knowledge and advice are key to improving competitiveness, sustainability and resilience. R&I actions under this destination will support effective Agriculture Knowledge and Innovation Systems (AKIS) that are at the heart of the 2023-2027 CAP's cross-cutting objective as a key mean to bridge the gap between science and practice. Synergies with the the EU-CAP Network, and in particular the EIP-AGRI Operational Groups supported by the CAP, will be further exploited.

The European Research Area is further integrated and the global efforts are well-coordinated for impact-oriented science on food, bioeconomy, natural resources, agriculture, aquaculture and fisheries, and environment.

## Draft expected impacts

<u>Strategic Plan 2025-2027 – Expected Impact 32</u>: Developing innovative governance models and tools enabling sustainability and resilience.

Proposals for topic under this destination should set out credible pathways to **developing innovative governance models and tools enabling sustainability and resilience**, and more specifically to one or several of the following **impacts**:

- improved evidence-based knowledge, tools and science-society-policy interfaces support effective policy mixes and multi-level governance that are capable of anticipating a changing world, enabling a just sustainable transition for all, engaging society at large and balancing economic, social and environmental goals;
- competitiveness, sustainability and resilience of the economy are supported by more accessible and interoperable environmental observations and improved Earth Intelligence;
- productivity is boosted and transformative changes required by the European Green Deal are facilitated, leaving no one behind, thanks to enhanced digital and data technologies, flows of existing and new knowledge, solutions and skills among actors and communities, as well as maximised synergies between initiatives

### Main expected outcomes

To achieve the above-mentioned impacts, the following **expected outcomes** will be pursued:

- new knowledge and innovative solutions improve the capacity of farmers and other agrifood value chain operators to prevent, cope with and manage diverse risks and crises and their impacts, in an integrated way;
- decision-makers are better equipped for developing and implementing effective policies and business strategies for thanks to improved understanding and analytical capacity of the sustainable competitiveness and social performance of agriculture;

- the global dimension of sustainable bioeconomy, with a focus on circular bio-based solutions and approaches as well as biotechnology, is further strengthened within the International Bioeconomy Forum and with Organisation for Economic Co-operation and Development partners;
- aligned European research and innovation investments further structure marine research
  communities to support a just and inclusive transition to a sustainable regenerative,
  carbon-neutral and circular blue economy and to foster knowledge exchange and cocreation of actions with regulators, policymakers and businesses (continuation of the
  Sustainable Blue Economy Partnership, in coordination with the Mission Ocean);
- the 7 Outcomes of the Ocean Decade<sup>10</sup> are achieved leading to long-term services for ocean management thanks to substantial European contribution to key global efforts, including capacity development, such as those undertaken through Ocean Decade Programmes, Actions, Collaborative Centres and Coordination Offices and the future International Platform for Ocean Sustainability (IPOS);
- coordinated European support for implementing environmental policies and sustainable development goals, based on observations, modelling and derived insights, in cooperation with international initiatives, including EuroGEO, and GEO; sustainability in different sectors and policy domains is enabled by Earth Intelligence;
- ocean and waters observation and monitoring are improved and harmonised at European level, and a more competitive EU market of cost-effective monitoring technologies is developed, including data handling/analyses systems, unified regional and/or international marine dataspaces meeting the FAIR data principles, and modelling and observing system (simulation) experiments;
- improved availability and use of data, and generative AI solutions for consumers and food service professionals, lead to enhanced the productivity and sustainability of food purchasing, preservation and preparation, and their impact on health;
- competitiveness, sustainability and resilience of the agriculture sector is improved building on environmental observation as well as trustworthy digital and data technologies (continuation of the Cluster 6 co-funded Partnership 'Agriculture of Data');
- knowledge flows among AKIS actors and the widespread uptake of innovation by farmers, foresters and rural communities are fostered leading improved agricultural competitiveness, sustainability and resilience, thanks to AI-based solutions, EU thematic knowledge hubs, enhanced peer-to-peer learning, effective implementation of multiactor approach and exploitation of synergies, in particular the EIP-AGRI operational groups;

Ocean Decade – The Science We Need For The Ocean We Want

• attractive, high-quality advice suited to the evolving skills demand of the new generation attracts young, talented farm entrepreneurs and leads to a new wave of innovative agricultural businesses.

### First topic ideas

### Innovating with governance models and supporting policies

Proposals are invited against the following topic(s):

# HORIZON-CL6-2026-2027-01-GOVERNANCE-0X: Additional activities for the European Partnership of Agriculture of Data

<b>Specific conditions</b>		
Type of Action	Co-fund	

### **Expected Outcome:**

The successful proposal is expected to further contribute to the expected outcomes specified in topic HORIZON-CL6-2024-GOVERNANCE-02-01: European Partnership of Agriculture of Data, for continuation of the activities in line with already agreed outcomes.

### Scope:

### Proposals should:

- Support to the European Partnership of Agriculture of Data identified in the Horizon Europe Strategic Plan 2021-2024 and first implemented under the topic HORIZON-CL6-2024-GOVERNANCE-02-01: European Partnership of Agriculture of Data, and in particular to fund additional activities (which may also be undertaken by additional partners) in view of its intended scope and duration.
- Align with the partnership's co-created strategic research and innovation agenda. This
  includes a balanced proportion of financial support to third parties and of internal
  activities, including research projects, integrative activities, networking, training or
  other activities. Relevant activities should give rise to ready-to-use solutions, seek
  uptake of results and provide science-based policy advisory activities.

# HORIZON-CL6-2026-2027-01-GOVERNANCE-0X: Additional activities for the Sustainable Blue Economy Partnership (SBEP)

Specific conditions	
Type of Action	COFUND

### **Expected Outcome:**

This topic is for the continuation of the Sustainable Blue Economy Partnership (SBEP), i.e. EU contribution in WP 2026. The third instalment of the partnership is expected to contribute to expected outcomes specified in topic HORIZON-CL6-2022-GOVERNANCE-01-02 and HORIZON-CL6-2024-GOVERNANCE-01-1.

### Scope:

The scope of the application for this call on the Sustainable Blue Economy Partnership should focus on the 2023-27 programmes according to the partnership's co-created strategic research and innovation agenda for seven years. It should pursue alignment, cooperation and structuring of research and innovation efforts across the EU and national levels, focusing on regional seas and on the objectives of the EU Mission Restore our Ocean and Waters and of the Ocean Pact, to support a just and inclusive transition to a regenerative, carbon-neutral and circular blue economy and to foster knowledge exchange and co-creation of actions with regulators, policymakers and businesses. It should also continue or expand the priority areas identified in the Strategic Research & Innovation Agenda, promoting R&I alignments across national, regional, and EU levels, and fostering integration across science, industry, governance, and society. The partnership will focus on multiple strategic areas like ocean health, sustainable blue economy, and citizen well-being, while aligning with EU policies such as the European Green Deal and other directives. The Partnership should propose new structuring activities aiming at promoting Blue Economy Innovations, at sustaining and coordinating cross-border ocean and coastal observations programmes, at increasing the availability of FAIR data for environmental, climate and blue economy purposes, at exploiting the opportunities offered by Artificial Intelligence and other cutting-edge technologies, etc.

# HORIZON-CL6-2026-2027-01-GOVERNANCE-0X: Strengthening the resilience of EU farmers through improved capacity in coping with risks and crises

<b>Specific conditions</b>	
Type of Action	Research and Innovation Action

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- The capacity of farmers and other agri-food supply chain agents to prevent, cope with and manage diverse risks and crises and their impacts, in an integrated way, is improved.
- Society as a whole benefits from more resilient farming systems.

# Scope:

### Proposals should:

• Improve understanding of farmers' current options, strategies, behaviour and decision-making regarding uncertainties, risk and crisis management. Assess the anticipation and coping capacities of farms, costs and benefits of action vs non action, and the

interactions between risk management, crisis management and the adoption of preventive practices on farms.

 Take into account compound and amplifier effects of climate change on other types of risks and crises, improve and develop integrated risk and crisis management strategies.
 Propose measures to improve fair risk sharing along the supply chain and for derisking.

Successful proposals under this topic should support the EU Vision for Agriculture and Food, and the Common Agricultural Policy.

# HORIZON-CL6-2026-2027-01-GOVERNANCE-0X: Improving analytical capacity of social drivers and social performance in agriculture

<b>Specific conditions</b>		
Type of Action	RIA	

### Expected Outcome:

Project results are expected to contribute to all of the following expected outcomes:

- The research community benefits from improved analytical capacity on social dimensions of agriculture.
- Policymakers are better equipped to design evidence-based policies.

### Scope:

### Proposals should:

- Address gaps on social dimensions in current analytical tools and models and propose new evidence, data and indicators to better assess social performance and social sustainability of agriculture in farming and rural communities.
- Provide recommendations on how to improve the social sustainability of the agricultural sector.

# HORIZON-CL6-2026-2027-01-GOVERNANCE-0X: Improving analytical capacity of sustainable competitiveness of the agricultural sector

<b>Specific conditions</b>	
Type of Action	RIA

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Farmers and other decision makers of the agri-food supply chains have a better understanding of the determinants of competitiveness, and the interactions with the sustainability dimensions (economic, social, environmental)
- Policy makers are better equipped to develop evidence-based policies.

### Scope:

### Proposals should:

- Address analytical gaps on competitiveness to better account for their various drivers, components and impacts (economic, environmental and social). Consider various sectors and farming systems in different regions. This activity should adopt an interdisciplinary approach.
- Propose new or improved indicators and metrics to measure performance, sustainability, productivity and competitiveness. Conduct productivity and competitiveness analyses and provide evidence in relation to their social and environmental factors, synergies, trade-offs between the sustainability dimensions, at different stage of the value chain as well as spatial (local to global) and time scales (short to long term).

Successful proposals under this topic should support the EU Vision for Agriculture and Food, and the Common Agricultural Policy.

# HORIZON-CL6-2026-2027-01-GOVERNANCE-0X: International dimension of the circular bio-based economy: seeking win-win opportunities

Specific conditions	
Type of Action	CSA

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Improved multi-level governance capable of anticipating a changing world and enabling a just sustainable transition for all, as related to the potential of bio-based innovation and industry in the global bioeconomy
- Improved stakeholder engagement and trust, related to the global dimension of sustainable bioeconomy, with a focus on circular bio-based solutions and approaches as well as biotechnology, and biorefining,

Scope:	

Proposals should:

- Analyse bottlenecks and opportunities of the international cooperation in sustainable and fair/just bio-based circular innovation, identifying key interested players active in this area, including the European circular bio-based industry, international organisations (e.g. OECD, FAO, GBS), civil society actors, to be followed by research actions in selected key areas (including, but not limited to biorefining, biotechnology, biomanufacturing, environmental applications, international biomass trade analysis etc).
- Develop a roadmap/platform for stakeholder engagement, with focus on governance actors, provide recommendations, trust-building measures (e.g. co-creation, sharing of best practice), considering the global common challenges and need to find win-win solutions, with impact on sustainable economic development, climate and biodiversity.

This is in line with the following policy priorities: Commission communication on: Building the future with nature: Boosting Biotechnology and Biomanufacturing in the EU, the Life Science Strategy, the EU Biotech Act, Clean Industrial Deal and the policies related to the fair green transition (objective of leaving no one behind). A synergy with activities under the CBE JU and International Bioeconomy Forum as well as Global Bioeconomy Summit is encouraged.

# HORIZON-CL6-2026-2027-01-GOVERNANCE-0X: Empowering the UN Decade of Ocean Science for Sustainable Development – OPEN TOPIC

Specific conditions	
Type of Action	RIA

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- one or more of the 7 outcomes of the ocean Decade (1- A clean ocean, 2-A healthy and resilient ocean, 3-A productive ocean, 4-A predicted ocean, 5-A safe ocean, 6-An accessible ocean, 7-An inspiring and engaging ocean).
- Structural and long-lasting changes as per how ocean science is supported and performed globally.

#### Scope:

### Proposals should:

 Provide substantial contribution to key global efforts, including capacity development and international coordination, undertaken through existing Ocean Decade Programmes, Actions, Decade Collaborative Centres and Decade Coordination Offices;

• Chose the scope of activities in alignment with one or several of the priorities indicated in the EC-RTD roadmap for Cooperation on the UN Decade of Ocean Science, 11 namely the EU Mission Restore our Ocean and Waters, the All-Atlantic Ocean Research and Innovation Alliance, making marine data, knowledge and R&I solutions readily available, or the future International Platform for Ocean Sustainability (IPOS).

# Deploying and adding value to environmental observations

HORIZON-CL6-2026-2027-01-GOVERNANCE-0X: Advancing ocean and waters observation: enhancing technologies and observing systems design for a sustainable future

Specific conditions		
Type of Action	RIA	

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Advanced ocean and waters observation technologies and observing systems design leading to more comprehensive, accurate, efficient, effective, and harmonised at EU level, monitoring of the health of the Ocean and/or of the freshwaters, enhancing decision-making at multiple governance levels;
- A competitive European market for cost-effective monitoring technologies is developed.

### Scope:

- Proposals should:
  - Develop and validate innovative, cost-effective technologies designed for large-scale deployment to monitor oceanic and freshwater environments. These technologies should address climate and/or biodiversity variables, in support to the effective implementation of EU and national policies and/or legislation (Nature Restoration Regulation, Marine Strategic Framework Directive, Water Framework Directive, ...).
  - Perform observing system experiments (OSEs) and observing system simulation experiments (OSSEs), to design the most reliable, sustained and cost-effective European Ocean and Waters Observing Systems (coverage, resolution, accuracy, and data redundancy) and to optimise data assimilation and modelling strategies.
  - Ensure data flows, including (near) real-time, to the appropriate data systems for integration into long-term monitoring frameworks, and ensure all data management

https://research-and-innovation.ec.europa.eu/document/download/2e5f29fb-cb0c-4d0d-8840-97ce0ee9730c en?filename=ec rtd roadmap-cooperation-un-decade-ocean-science.pdf

processes align with the FAIR (Findable, Accessible, Interoperable, and Reusable) data principles.

# HORIZON-CL6-2026-2027-01-GOVERNANCE-0X: Earth Intelligence for sustainable prosperity (2026)

<b>Specific conditions</b>	
Type of Action	RIA

### Expected outcome

Project results are expected to contribute to all of the following expected outcomes:

- Demonstrators for Earth Intelligence tools based on EO-trained foundational model, supporting evidence-based decision making in a number of use cases and based on user requirements.
- Policy support addressing EU Policy requirements described by the KCEO as well as in Global conventions (like Paris Agreement, incl. adaptation).

### Scope:

# Proposals should:

- engage in pre-training foundational models with EO data, including from the
  Destination Earth initiative, unique data assets (including output data from its Digital
  Twins), Copernicus Data Space Ecosystem (CDSE) and other data sources, from in-situ
  systems (incl. from EMODnet and European Research Infrastructures), as well as socioeconomic data.
- address European and global environmental and climate policy needs by responding to emerging questions identified through the EU Knowledge Centre on Earth Observations (KCEO) and provide data-driven decision support tools with relevant research-based assessments and options.
- Downstream AI applications supporting sustainable and competitive operations should be demonstrated in selected areas for policy applications and the provision of Earth Intelligence, e.g. in the frame of GEO initiatives. Projects should address explainability and robustness of AI outcomes. Projects are encouraged to include start-up and scaleups and seek to develop business models for successful commercialisation of products.

# HORIZON-CL6-2026-2027-01-GOVERNANCE-0X: A services and business incubator for geospatial open-source developments

Specific conditions
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Type of Action	CSA
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# Expected outcome

Project results are expected to contribute to all of the following expected outcomes:

- Strategic autonomy of the European open geospatial developer and geospatial start-up community with a more sustainable business perspective.
- A strengthened pathway for critical geospatial open-source innovation and scientific assets towards operationalization of services and sustained open-source businesses in Europe.
- Strengthened European leadership in open-source geospatial, including compute capabilities, software and algorithms for a global user community, facilitating the integration of Earth observations and other geospatial data, models and software (incl. E.g. Destination Earth and Copernicus) into sustained business opportunities.

### Scope:

### Proposals should:

- Foster a single-entry responsive business incubation service, supporting Europe's cumulative capacity of innovation through existing open-source communities and developments in particular for geospatial, through small developer grants, business relevant education and training, development of product-market fit strategies and legal support services tailored to the open-source geospatial community.
- Contribute to a sustainable, interoperable open-source geospatial and environmental observation software and data ecosystem that fosters innovation, and supports start-ups, through improved industrial collaboration, long-term sustainability of core open-source software components, and harmonization of accessible solutions..
- Focus on addressing key challenges in the open-source geospatial and environmental observation ecosystem, including sustainability, harmonization, maintenance, and accessibility of open-source tools and their communities.
- Create pathways for open-source geospatial software to partake in viable business opportunities in Europe, fostering innovation and entrepreneurial growth within the ecosystem and working towards long-term sustainability of critical open-source software (such as gdal, pangeo, python/julia/R stack...).

# **HORIZON-CL6-2026-2027-01-GOVERNANCE-0X:** Interconnect Earth Observation research for addressing environmental policies

Type of Action
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# Expected outcome

Project results are expected to contribute to all of the following expected outcomes:

- A strengthened EuroGEO EO Community building on the competences of its Action Groups and the Member States' uptake actions (e.g. as through the FPCUP initiative or the new Copernicus Collaboration Programme) offering to its members services reflecting Europe's EO vision for Earth Intelligence in the post-2025 global GEO.
- The preparation, in collaboration with the KCEO, ESA, the Copernicus Entrusted Entities<sup>12</sup>, and other key actors of a policy driven Earth observation R&I Roadmap for next Multiannual Financial Framework (Strategic Research and Innovation Agenda).

# Scope:

### Proposals should:

- Link Europe's cumulative capacity for EO science in particular from EU-funded R&I
  projects, constituted by EuroGEO and enabled by Copernicus and interconnected Earth
  Observation research across Europe, supporting and enhancing the ambition of national,
  European and international research activities and use and access to infrastructures and
  data, incl. space-based ones.
- Support the development and operationalisation of EO applications, addressing European policy implementation, e.g. in the area of Climate action, disaster risk reduction,
- Support the evolution of the long-term strategic research agenda for earth observation.

# HORIZON-CL6-2026-2027-01-GOVERNANCE-0X: Coordinated European contribution to the WMO Global Greenhouse Gas Watch and its international governance

Specific conditions	
Type of Action	CSA

### Expected outcome

Project results are expected to contribute to all of the following expected outcomes:

 Strategic data autonomy, decision making sovereignty, and global benchmarking of EU Greenhouse Gas observations and monitoring;

These entities are not expected to be part of the consortium.

• Coordinated EU contribution to global GHG monitoring, reporting and verification and effective EU climate diplomacy on the global scene.

# Scope:

Activities are expected to consolidate the EU contributions to global GHG efforts through resilient and competitive environmental observing network capabilities, strong international data exchange cooperation towards state-of-the-art and sustained GHG monitoring capabilities. Projects are encouraged to develop and promote innovative AI-based digital solutions which can facilitate inversions, automate monitoring, reporting and verification obligations and the overall operationalization of GHG monitoring.

Actions should focus on new global, regional, national and local GHG products, based on improved methods using all relevant EO data (including New Space satellites, GAW, research infrastructures like ICOS, etc.) supporting international intercomparison and benchmarking (e.g. uncertainty characterization) efforts. Pilot applications and services addressing hot spot emission monitoring are particularly welcome. Proposals should outline clear plans for global cooperation, transition into operational services, policy uptake, knowledge exchange and capacity building activities.

International cooperation is central to this topic.

The proposal supports the EU in addressing its international commitments under the UNFCCC and the Paris Agreement.

# Digital and data technologies as key enablers

# HORIZON-CL6-2026-2027-01-GOVERNANCE-0X: AI supporting informed advice for farmers and foresters to improve competitiveness and sustainability

Specific conditions		
Type of Action	RIA/IA	

# **Expected Outcome**:

Project results are expected to contribute to all of the following expected outcomes:

- Innovative AI-based solutions provide advisors, farmers and foresters with comprehensive, tailored and impartial advice to farmers and foresters on the use of innovative solutions, boosting the competitiveness, sustainability and resilience of the EU agriculture and forestry sectors;
- Use of existing data relevant for the decision-making for the optimized management of operations on farms and in forests is increased.

#### Scope:

### Proposals should:

- Develop and pilot cost-effective AI-based solutions (e.g. generative AI chatbot technology) that make use of the various existing reliable and trustable knowledge reservoirs and provide contextual, effective and impartial advice for advisors, farmers and foresters.
- Involve advisors, farmers and foresters' from across the EU in the co-development, testing and validation of the AI-based solutions; and improve end users' awareness, understanding and competences on the use of the developed AI-based solutions in view of improving the competitiveness and sustainability of EU agriculture and forestry.
- Ensure wide dissemination and uptake including by demonstrating tangible benefits and added value compared to existing solutions for farmers, forester and their advisors.

# HORIZON-CL6-2026-2027-01-GOVERNANCE-0X: Boosting data availability and AI solutions in food for consumers and food service professionals

Specific condition	S		
Type of Action	IA		

# **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- Generative AI solutions for consumers and food service professionals have significantly scaled-up and improved the productivity and sustainability of food purchasing, preservation and preparation, and their impact on health.
- Digital datasets for food products, and data driven consumer and food service applications incentivize businesses at every stage of the food supply chain to capture data and optimize data reuse to increase productivity, sustainability and health. Data sovereignty is ensured, including for consumers and farmers.

### Scope:

### Proposals should:

• Deploy human-centric, generative AI solutions for consumers and food service professionals, at scale, to support them in the processes of food purchasing, preservation and preparation, with a view to increase nutritional health, sustainability (lower GHG, energy & water footprint; lower food waste, and packaging waste) and productivity. Support start-ups and innovators working on generative AI solutions in food. The proposals will support to increase EU competitiveness and to make a success of the green and digital transitions.

• Advance trustworthy digital product data in food. Improve the availability, sovereignty and quality of priority data sets, collected from different data sources (in-situ data, model data, sensor data, device data, remote sensing, personal data) across the computing continuum, from primary production, over food processing to consumption and disposal. Federate, optimise and complete tools, capacities and infrastructures created under the Digital Europe Program (incl. European Data Spaces, EDIHs) and under Horizon Europe projects and partnerships (incl. Partnerships Agriculture of Data & FutureFoods).

Strengthening agricultural knowledge and innovation systems (AKIS)

HORIZON-CL6-2026-2027-01-GOVERNANCE-0X: Increasing knowledge flows to practice within AKIS via EU thematic knowledge hubs (2026)

Specific conditions		
Type of Action	CSA	

# **Expected Outcome**:

Project results are expected to contribute to all of the following expected outcomes:

- research findings, innovative solutions, practical knowledge and best practices, are well known, widely shared and used in practice by farmers and/or foresters and/or rural communities;
- advisors are better integrated into the Agricultural Knowledge and Innovation Systems (AKIS) and equipped with the up-to-date, practice-oriented knowledge that enables them to provide farmers with high quality and impartial advice.

#### Scope:

### Proposals should:

- compile all up-to-date scientific and practical knowledge, best practices and innovative solutions, which are effective and ready for use in practice, but not commonly known and/or used by the end-users;
- develop and widely share an extensive range of useful, applicable and appealing informative materials and training courses using the most effective approaches, formats, tools (including audio-visual) and channels to reach as many end-users and their advisors as possible;
- intertwine advisors into the EU thematic knowledge hubs and mobilise also other relevant AKIS actors (including the AKIS coordination bodies) and actions at EU/national/regional and European levels to support the implementation of the knowledge and solutions in practice across the EU.

# HORIZON-CL6-2026-2027-01-GOVERNANCE-0X: Increasing knowledge flows to practice within AKIS via EU thematic knowledge hubs (2027)

Specific conditions	
Type of Action	CSA

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- research findings, innovative solutions, practical knowledge and best practices, are well known, widely shared and used in practice by farmers and/or foresters and/or rural communities;
- advisors are better integrated into the Agricultural Knowledge and Innovation Systems (AKIS) and equipped with the up-to-date, practice-oriented knowledge that enables them to provide farmers with high quality and impartial advice.

### Scope:

### Proposals should:

- compile all up-to-date scientific and practical knowledge, best practices and innovative solutions, which are effective and ready for use in practice, but not commonly known and/or used by the end-users;
- develop and widely share an extensive range of useful, applicable and appealing
  informative materials and training courses using the most effective approaches, formats,
  tools (including audio-visual) and channels to reach as many end-users and their advisors
  as possible;
- intertwine advisors into the EU thematic knowledge hubs and mobilise also other relevant AKIS actors (including the AKIS coordination bodies) and actions at EU/national/regional and European levels to support the implementation of the knowledge and solutions in practice across the EU.

# HORIZON-CL6-2026-2027-01-GOVERNANCE-0X: Embracing innovation in agriculture by peer-to-peer learning

Specific conditions	
Type of Action	RIA/IA

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- enhanced peer-to-peer learning leads to widespread sharing and uptake of the innovative solutions by farmers across the EU, thereby improving competitiveness, sustainability and resilience of the agricultural sector;
- the costs and benefits of applying innovative solutions in real context are better understood by farmers, advisors and other AKIS actors across the EU.

### Scope:

### Proposals should:

- screen and select practice-oriented innovative solutions developed by successful research and innovation projects funded under Horizon 2020 and/or Horizon Europe in the area of agriculture;
- test, validate and showcase the innovative solutions in real conditions directly on farms and thoroughly analyse their costs and benefits for the practitioners;
- develop and widely share learning materials and courses; and incentivise peer-to-peer learning by organising, e.g., cross-border field visits and farmer-led webinars presenting the most effective innovative solutions to farmers and advisors across the EU.

The proposals should support the cross-cutting objective of the common agricultural policy (CAP) by bridging the gap between innovative solution generated by research and innovation projects and practical agricultural application.

# HORIZON-CL6-2026-2027-01-GOVERNANCE-0X: Fostering generational renewal in agriculture via EU advisory network

<b>Specific conditions</b>	
Type of Action	CSA

### **Expected Outcome:**

Project results are expected to contribute to all of the following expected outcomes:

- advisors are better equipped with the up-to-date knowledge, skills and tools to support young generation in entering into and successfully running the farming business;
- attractive, high-quality training offer and advice suited to the evolving skills demand of
  the new generation attracts young, talented farm entrepreneurs and leads to a new wave
  of innovative agricultural businesses.

### Scope:

Proposals should:

- foster in-depth exchange of knowledge and experiences among advisors across the EU on the needs of the young farmers and new entrants to successfully enter and run an agricultural business in the long-term;
- develop and widely share diverse useful resources, tools and approaches, including learning materials and courses, new business strategies/plans, cross-border visits, internships and other initiatives that will empower advisors to effectively support young farmers in addressing the identified needs for taking over / entering and staying in the farming sector;
- involve advisors in an innovative EU-wide communication and awareness-rising campaigns to reposition farming as an attractive and rewarding career choice for the young generation.

# Other actions not subject to calls for proposals

# **Enhancing Economic and Financial Resilience to Nature-Related Risks**

<b>Specific conditions</b>	
Type of Action	Direct Action Grant (JRC)

Recent analysis has revealed that the euro area economy and financial system are critically dependent on nature and the ecosystem services it provides<sup>13</sup>. The rapid decline of ecosystem services, biodiversity loss, and environmental degradation linked to climate change present increasing challenges to economic growth and financial stability by affecting economic activities and disrupting supply chains. In order to protect European productivity and competitiveness, this action should support research to integrate ecosystem considerations into financial and economic assessments and help to develop tools and methodologies that enhance resilience and sustainability.

The research should explore the broader economic and financial implications of nature-related risks, including their impact on market stability, corporate resilience, and resource dependencies. It should contribute to a deeper understanding of how environmental challenges influence financial systems and economic decision-making. By leveraging advanced methods, the action should enhance risk assessment methodologies, providing valuable insights to financial institutions, businesses, and policymakers for more informed and sustainable strategies. Collaboration with internal and external data partners across disciplinary domains should strengthen economic analyses, supporting a more comprehensive approach to financial and economic resilience and equitable economic transitions.

 $<sup>\</sup>frac{\text{https://www.ecb.europa.eu/press/economic-bulletin/articles/2024/html/ecb.ebart202406\_02}{\text{-ae87ac450e.en.html\#footnote.}18}$ 

### **Knowledge Centre for Bioeconomy support action**

The main outcome of the action is the continuous improvement of the current system of strategic intelligence on bioeconomy related solutions. The Bioeconomy Knowledge Centre presents the state of advancement of a systematic policy, market and science and technology analysis and monitoring.

Research activities conducted under the action might include identifying indicators to monitor economic, social and environmental development of the EU bioeconomy, further development and application of bioeconomy modelling approaches. Other activities might relate to disseminating the above-mentioned knowledge and monitoring outputs and further knowledge syntheses.

Form of Funding: Direct action grants

Type of Action: Provision of technical/scientific services by the Joint Research Centre

Indicative timetable: First half of 2026

Indicative budget: EUR XX million from 2026 budget