





# Cluster 6 opportunities in Horizon Europe in 2024

Food, Bioeconomy, Natural Resources, Agriculture and Environment

2024

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#### Horizon Europe: overview

Cluster 6 (2024 indicative budget: 734 million euros)



12/10/2021







#### **Policy context: The European Green Deal**

#### **Objectives:**

Climate change and environmental degradation are an existential threat to Europe and the world. To overcome these challenges, the European Green Deal will transform the EU into a modern, resource-efficient and competitive economy, ensuring:

- no net emissions of greenhouse gases by 2050
- economic growth decoupled from resource use
- no person and no place left behind









#### **Introduction to Cluster 6 using keywords**

Biodiversity	Environment / Zero pollution	Primary production	Sustainable agriculture, aquaculture and fisheries	Environmental observations	Forests	Blue bioeconomy
Ecosystemic services	Water, soil, sea, ocean	Sustainable products and processes	Inclusive, healthy and sustainable food systems	Bioeconomy	Circular economy	Digital solutions for the Green Deal
	Governance	Climate action	Bio-based value chains	Rural, urban and coastal areas	Transition	







#### The 7 Cluster 6 destinations (chapters)

**Biodiversity and Ecosystem** Innovative **Services** governance, **Systèmes** environmental **Alimentaires** observations justes, sains and digital et durables solutions Food, Bioeconomy, **Natural Resources,** Resilient, inclusive, **Agriculture and** healthy and Circular **Environment** green rural. economy coastal and and urban bioeconomy communities sectors Land, ocean Clean and water environment for and zero climate pollution action

#### **Destination 1: Biodiversity and Ecosystem Services (BIODIV)**

- > Understand biodiversity decline
- Assess and restore biodiversity
- > Biodiversity management in primary production
- > Transforming biodiversity

#### Destination 2: Fair, healthy and environment-friendly food systems from primary production to consumption (FARM2FORK)

- > Transition towards a sustainable agriculture
- > Sustainable aquaculture and fisheries
- > Make the food systems healthy, sustainable and inclusive
- > Focus on international cooperation

#### **Destination 3: Circular economy and bioeconomy sectors** (CIRCBIO)

- Transition towards more circular systems
- > Innovate in biobased systems and bioeconomy
- Protect the versatility of European forests
- ➤ Innovate in Blue economy and biotechnology







#### The 7 Cluster 6 destinations (chapters)

**Biodiversity and Ecosystem** Innovative Services governance, **Systèmes** environmental **Alimentaires** observations justes, sains and digital et durables solutions Food, Bioeconomy, Resilient, **Natural Resources,** inclusive, **Agriculture and** healthy and Circular **Environment** green rural. economy coastal and and urban bioeconomy communities sectors Land, ocean Clean and water environment for and zero climate pollution action

#### Destination 4: Clean environment and zero pollution (ZEROPOLLUTION)

- > Stop the emission of pollutants in soil and water
- > Protect drinking water and manageurban water pollution
- > Fight against sea and water pollution

#### **Destination 5: Land, ocean and water for climate action (CLIMATE)**

- Understand and reinforce the potential of ecosystems based on sustainable management of natural ressources
- Develop advanced science to support the adaptation and resilience of natural ecosystems
- > Evaluate and prepare efficient projections regarding climate change
- Improve adaptability and nature based solutions

#### Destination 6: Resilient, inclusive, healthy and green rural, coastal and urban communities (COMMUNITIES)

- ➤ Get a better understanding of behaviors and cultural drivers towards change in rural, coastal and urban communities
- Promote actions towards climate neutrality, including vulnerable populations
- > Increase universal access to innovation and digital solutions

#### Destination 7: Innovative governance, environmental observations and digital solutions (GOVERNANCE)

- Innovate with governance schemes and supports to policies
- Déploiement et valeur ajoutée des observations environnementales Deployment and added value of environmental observations
- Digital tools and data sciences as catalysers
- Reinforce Agricultural Knowledge Innovation Systems 6







# International cooperation in Cluster 6 of Horizon Europe







#### Relevance for Cluster 6



#### Transnational challenges, to be solved on a global level:

- Climate change,
- agriculture (ex. global trade),
- Erosion of biodiversity,
- pollution (ex. plastic in Ocean),
- Circular economy (ex. waste transporation), etc.

To achieve the international cooperation objectives, and given the global dimension of agroecology, collaboration with strategic third country partners with proven added-value in the

Given the global dimension of ocean policy, membership and other modalities of participation

To achieve the international cooperation objectives, and given the global dimension, not least of animal health, collaboration with strategic third country partners with proven added-value in







#### 2 types of international cooperation in Cluster 6



Specific targeted chapters in the Work Programme

Mandatory

Targeted international cooperation

Only mentioned in the text of the calls
Usually isn't mandatory, often highly
encouraged

In order to achieve the expected outcomes, international cooperation is mandatory. Consortia







#### Recognise topics with international cooperation

- International cooperation is mentioned explicitely.
- The wording can however be diverse.

International cooperation	Level of cooperation.	Targeted stakeholders/countries
<ul> <li>« International cooperation »</li> <li>« Global cooperation »</li> <li>« International cooperation options »</li> <li>« Cooperation with »</li> <li>« Collaboration with »</li> <li>« Borders », « Boundaries », « in</li> <li>EU and beyond » (implicite)</li> </ul>	« May be considered »     « Is encouraged »     « Is highly encouraged »     « Is strongly encouraged »     « Is mandatory »	« In particular with » « Non-associated third countries » « Third country partners » « International organisations »

- If cooperation is **mandatory**, it is mentioned in the **eligibility conditions** of the topics.
- Even if the cooperation is not mentioned, it does not mean that it is forbidden, unless it is explicitly mentioned. Low/middle income countries are eligible for funding in all topics of Cluster 6.







# Cluster 6 Work Programme

2024

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#### 2024 Call calendar

2024	2024 Two-stages
Opening: 17 Oct 2023	Opening: 17 Oct 2023
Deadline(s): 22 Feb 2024	Deadline(s): 22 Feb 2024 (First Stage),
	17 Sep 2024 (Second Stage)

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## **Destination 1: BIODIV**





2024 Cluster 6 Topics : BIODIV, 1 stage

HORIZON-CL6-2024-BIODIV-01-1: Invasive alien species

IA - 12 M€ (2 projects) - TRL 6-7

**HORIZON-CL6-2024-BIODIV-01-2: Digital for nature** 

IA - 16 M€ (2 projects) - TRL 6-7

HORIZON-CL6-2024-BIODIV-01-3: Dependence of society and the economy on pollinators RIA - 13 M€ (2 projects)

HORIZON-CL6-2024-BIODIV-01-4: Biodiversity, economics and finance: Understanding macrofinancial risks associated with biodiversity loss RIA - 5 M€ (1 project)

HORIZON-CL6-2024-BIODIV-01-5: Transformative action of policy mixes, governance and digitalisation addressing biodiversity loss RIA − 4 M€ (2 projects)

HORIZON-CL6-2024-BIODIV-01-6: Promoting pollinator friendly farming systems RIA- 6M€ (1 projet)

HORIZON-CL6-2024-BIODIV-01-7: Reintroduction of landscape features in intensive agricultural areas RIA – 5M€ (1 projet)

HORIZON-CL6-2024-BIODIV-01-8: Conservation and protection of carbon-rich and biodiversity-rich forest ecosystems RIA – 12M€ (2 projets)

HORIZON-CL6-2024-BIODIV-01-9: Selective breeding programme for organic aquaculture RIA – 3M€ (1 projet)







2024 Cluster 6 Topics : BIODIV, 2 stage

HORIZON-CL6-2024-BIODIV-02-3-two-stage: Demonstrating Nature-based Solutions for the sustainable management of water resources in a changing climate, with special attention to reducing the impacts of extreme droughts IA- 16M€ (2 projects)

HORIZON-CL6-2024-BIODIV-02-3-two-stage: Demonstrating the potential of Naturebased Solutions and the New European Bauhaus to contribute to sustainable, inclusive and resilient living spaces and communities IA- 10M€ (2 projects)

HORIZON-CL6-2024-BIODIV-02-3-two-stage: Promoting minor crops in farming systems RIA-10M€ (2 projets)







#### **Destination 2: FARM2FORK**







2024 Cluster 6 Topics : FARM2FORK, 1 stage

HORIZON-CL6-2024-FARM2FORK-01-1: Agro-pastoral/outdoor livestock systems and wildlife management RIA - 5 M€ (1 project)

HORIZON-CL6-2024-FARM2FORK-01-2: New healthy and sustainable food products and processes RIA - 10 M€ (2 projects)

HORIZON-CL6-2024-FARM2FORK-01-3: Thematic network tackling food fraud by translating research and innovation into practice CSA - 2 M€ (1 project)

HORIZON-CL6-2024-FARM2FORK-01-4: Climate change and food safety: effects of climate change on food safety across food systems RIA - 8 M€ (2 projects)

HORIZON-CL6-2024-FARM2FORK-01-5: Creating smart and attractive tools to enhance healthy and sustainable food provision, eating and treating of food at home IA - 6 M€ (2 projects)

HORIZON-CL6-2024-FARM2FORK-01-6: Citizens' science as an opportunity to foster the transition to sustainable food systems RIA - 10 M€ (2 projects)

HORIZON-CL6-2024-FARM2FORK-01-7: Impact of the development of novel foods based on alternative sources of proteins RIA - 9 M€ (2 projects)







2024 Cluster 6 Topics : FARM2FORK, 1 stage

HORIZON-CL6-2024-FARM2FORK-01-8: Preventing and reducing food waste to reduce environmental impacts and to help reach 2030 climate targets RIA - 9 M€ (2 projects)

HORIZON-CL6-2024-FARM2FORK-01-9: Microbiome for flavour and texture in the organoleptic dietary shift IA - 9 M€ (2 projects)

HORIZON-CL6-2024-FARM2FORK-01-10: EU-African Union cooperation on agroforestry management for climate change adaptation and mitigation RIA - 8 M€ (3 projects)

HORIZON-CL6-2024-FARM2FORK-01-11: EU-African Union – towards climate-neutral, social just fair trade food systems RIA - 9 M€ (2 projects)







2024 Cluster 6 Topics : FARM2FORK, 2 stage

HORIZON-CL6-2024-FARM2FORK-02-1-two-stage: Increasing the availability and use of non-contentious inputs in organic farming IA - 12 M€ (2 projects)

HORIZON-CL6-2024-FARM2FORK-02-2-two-stage: Sustainable organic food innovation labs: reinforcing the entire value chain IA - 11 M€ (2 projects)

HORIZON-CL6-2024-FARM2FORK-02-3-two-stage: Tools to increase the effectiveness of EU import controls for plant health IA - 8 M€ (2 projects)

HORIZON-CL6-2024-FARM2FORK-02-4-two-stage: Tackling outbreaks of plant pests RIA – 13 M€ (2 projects)

HORIZON-CL6-2024-FARM2FORK-02-5-two-stage: Animal nutritional requirements and nutritional value of feed under different production management conditions RIA -7 M€ (1 project)







## **Destination 3: CIRCBIO**







2024 Cluster 6 Topics : CIRCBIO, 1 stage

HORIZON-CL6-2024-CircBio-01-1: Circular Cities and Regions Initiative's project development assistance (CCRI-PDA) (CSA, 6, 3 projects, lump sum funding)

HORIZON-CL6-2024-CircBio-01-2: Circular solutions for textile value chains based on extended producer responsibility (IA, 14, 2 projects)

HORIZON-CL6-2024-CircBio-01-3: Innovative circular solutions for furniture (IA, 10, 2 projects)

HORIZON-CL6-2024-CircBio-01-4: Systemic circular solutions for a sustainable tourism (IA, 10, 2 projects)

HORIZON-CL6-2024-CircBio-01-5: Programmed biodegradation capability of bio-based materials and products, validated in specific environments (RIA, 8, 2 projects, lump sum )

HORIZON-CL6-2024-CircBio-01-6: Digital information systems for bio-based products (RIA, 6, 2 projects)

HORIZON-CL6-2024-CircBio-01-7: Demonstrating the fair and just transition from GHG-intensive economies facing challenges towards circular bioeconomy model regions (IA, 6, 1 project)







#### 2024 Cluster 6 Topics : CIRCBIO, 1 stage

HORIZON-CL6-2024-CircBio-01-8 Bioeconomy project development assistance (CSA, 3, 1 project, lump Sum)

HORIZON-CL6-2024-CIRCBIO-01-9: Circular bioeconomy start-up villages (CSA, 2,5, 3 projects, lump sum )

HORIZON-CL6-2024-CircBio-01-10: Targeting aquatic extremophiles for sourcing novel enzymes, drugs, metabolites and chemicals (RIA, 9, 2 projects)







2024 Cluster 6 Topics : CIRCBIO, 2 stage

HORIZON-CL6-2024-CircBio-02-1-two-stage: Circular solutions for textile value chains through innovative sorting, recycling, and design for recycling (RIA, 15, 3 projects, TRL 5-6) HORIZON-CL6-2024-CircBio-02-2-two-stage: Increasing the circularity in plastics value chains (IA, 10, 2 projects, TRL 6-8)

HORIZON-CL6-2024-CircBio-02-3-two-stage: Increasing the circularity in electronics value chains (IA, 10, 2 projects, TRL 6-8)

HORIZON-CL6-2024-CircBio-02-4-two-stage: New circular solutions and decentralised approaches for water and wastewater management (IA, 15, 3 projects, TRL 6-8)

HORIZON-CL6-2024-CircBio-02-5-two-stage: Circular design of bio-based processes and products (RIA, 8, 2 projects, TRL 5)

HORIZON-CL6-2024-CircBio-02-6-two-stage: From silos to diversity – small-scale bio-based demonstration pilots (IA, 15, 3 projects)







#### **Destination 4: ZEROPOLLUTION**







2024 Cluster 6 Topics: ZEROPOLLUTION

HORIZON-CL6-2024-ZEROPOLLUTION-01-1: Demonstrating how regions can operate within safe ecological and regional nitrogen and phosphorus boundaries IA - 27 M€ (3 projects)

HORIZON-CL6-2024-ZEROPOLLUTION-01-2: Best available techniques to recover or recycle fertilising products from secondary raw materials CSA - 4 M€ (2 projects)

HORIZON-CL6-2024-ZEROPOLLUTION-01-3: Environmental impacts of food systems RIA- 7M€ (1 project)

HORIZON-CL6-2024-ZEROPOLLUTION-02-1-two-stage: Innovative technologies for zero pollution, zero-waste biorefineries IA - 15M€ (3 projects)

HORIZON-CL6-2024-ZEROPOLLUTION-02-2-two-stage: Innovative technologies for zero pollution, zero-waste biorefineries RIA - 8M€ (2 projects)







## **Destination 5 : CLIMATE**







2024 Cluster 6 Topics : CLIMATE

HORIZON-CL6-2024-CLIMATE-01-1: Improving irrigation practices and technologies in agriculture (IA, 10M€, 2 projets, TRL 6-7)

HORIZON-CL6-2024-CLIMATE-01-2: Socio-economic, climate and environmental aspects of paludiculture (RIA, 5M€)

HORIZON-CL6-2024-CLIMATE-01-3: Paludiculture: large-scale demonstrations (IA, 20M€, 2 projets)

HORIZON-CL6-2024-CLIMATE-01-4: Land use change and local / regional climate (RIA, 12M€, 2 projets)

HORIZON-CL6-2024-CLIMATE-01-5: Climate-smart use of wood in the construction sector to support the New European Bauhaus (RIA, 14M€, 2 projets)

HORIZON-CL6-2024-CLIMATE-01-6: Ocean models for seasonal to decadal regional climate impacts and feedbacks (RIA, 9M€, 2 projets)

HORIZON-CL6-2024-CLIMATE-01-7: EU-China international cooperation on improving monitoring for better integrated climate and biodiversity approaches, using environmental and Earth observation (RIA, 5M€, 1 projet)







## **Destination 6 : COMMUNITIES**







2024 Cluster 6 Topics : COMMUNITIES

HORIZON-CL6-2024-COMMUNITIES-01-1: Unlock the potential of the New European Bauhaus in urban food system transformation (IA, 6, 2 projects)

HORIZON-CL6-2024-COMMUNITIES-01-2: Societal perceptions and benefits of rural life and jobs: will COVID generate a long-lasting shift? (RIA, 6, 1 project)

HORIZON-CL6-2024-COMMUNITIES-01-3: Participation and empowerment of Arctic coastal, local, and indigenous communities in environmental decision-making (RIA, 3, 1 project)

HORIZON-CL6-2024-COMMUNITIES-02-1-two-stage: Innovating for climate-neutral rural communities by 2050 (IA, 10, 2 projects)

HORIZON-CL6-2024-COMMUNITIES-02-2-two-stage: New sustainable business and production models for farmers and rural communities (IA, 12, 2 projects)







#### **Destination 7: GOVERNANCE**







2024 Cluster 6 Topics : GOVERNANCE

HORIZON-CL6-2024-GOVERNANCE-01-1: Additional activities for the European Partnership for a climate neutral, sustainable and productive Blue Economy (Cofunded partnership, 60 millions, 1 project)

HORIZON-CL6-2024-GOVERNANCE-01-2: Regional ecosystems of innovation to foster food system transformation (CSA, 3,5 millions, 1 project)

HORIZON-CL6-2024-GOVERNANCE-01-3: The role of mainstream media, social media and marketing in fostering healthy and sustainable consumption patterns and how to encourage good practices (CSA, 3 millions, 1 project)

HORIZON-CL6-2024-GOVERNANCE-01-4: Supporting the All-Atlantic Ocean Research and Innovation Alliance and Declaration (CSA, 4 millions, 1 project)

HORIZON-CL6-2024-GOVERNANCE-01-5: Customisation/pre-operationalisation of prototypes end-user services in the area Climate Change Adaptation and Mitigation (Pre-commercial Procurement, 19 millions, 1 project)

HORIZON-CL6-2024-GOVERNANCE-01-6: Develop innovative applications to support the European Green Deal, building on meteorological satellite data

(RIA, 8 millions, 1 project)







2024 Cluster 6 Topics : GOVERNANCE

HORIZON-CL6-2024-GOVERNANCE-01-7: Enhancing working conditions and strengthening the work force through digital and data technologies – the potential of robotics and augmented reality in agriculture RIA - 15 M€ (3 projets)

HORIZON-CL6-2024-GOVERNANCE-01-8: Broaden EIP Operational Group outcomes across borders by means of thematic networks to compile and share knowledge ready for practice CSA - 4 M€ (2 projets)

HORIZON-CL6-2024-GOVERNANCE-01-9: Thematic networks to compile and share knowledge ready for practice CSA - 6 M€ (2 projets)

HORIZON-CL6-2024-GOVERNANCE-01-10: Organic farming thematic networks to compile and share knowledge ready for practice CSA - 4 M€ (1 projet)

HORIZON-CL6-2024-GOVERNANCE-01-11: Biodiversity thematic networks to compile and share knowledge ready for practice CSA - 3 M€ (1 projet)

HORIZON-CL6-2024-GOVERNANCE-01-12: Developing EU advisory networks on forestry CSA - 4 M€ (1 projet)

HORIZON-CL6-2024-GOVERNANCE-01-13: Developing EU advisory networks on sustainable livestock systems CSA - 4 M€ (1 projet)







# **Get Support : CARE4BIO**



CARE4BIO: Network of Cluster 6 National Contact Points



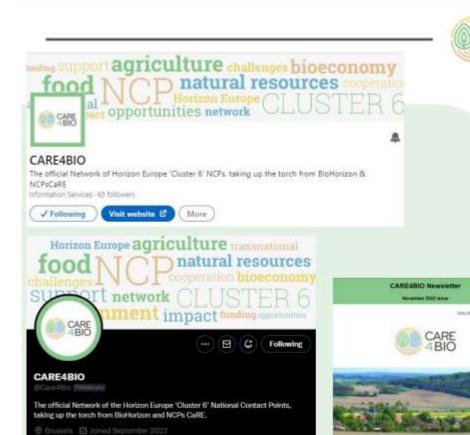


# Support to Cluster 6 Applicants



#### Activities dedicated to Cluster 6 applicants

- Widening strategies
  - Development of recommendations to lower the entrance barriers of the target groups (widening/newcomers/less active countries)
- Brokerage events/ Matchmaking activities
  - Organisation of 5 annual Brussels-based international brokerage events with up to 250 participants
- Trainings for applicants
  - Training curriculum for applicants
  - 2 training activities (one online and one physically) per year
- Online awareness raising events for applicants
  - 3 informative sessions per year



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Newsletter: https://geform.tc.cz/CARE4BIO\_project

Website: www.care4bio.eu

CARE

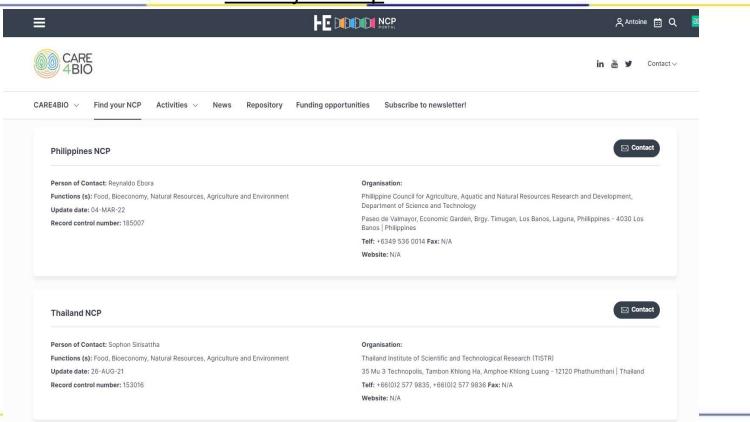
Social media accounts: LinkedIn, Twitter, YouTube







# Find your local NCP : <a href="https://horizoneuropencpportal.eu/ncp-networks/cluster-6/find-your-ncp">https://horizoneuropencpportal.eu/ncp-networks/cluster-6/find-your-ncp</a>









# Thank you for listening!