

Horizon Europe – Cluster 6: Food, Bioeconomy, Natural Resources, Agriculture and Environment

What is Horizon Europe?

Horizon Europe is the EU's key funding programme for research and innovation (R&I) with a budget of €95.5 billion for the period 2021-2027. It tackles climate change, helps to achieve the UN's Sustainable Development Goals (SDGs) and boosts Europe's competitiveness and growth.

The programme facilitates collaboration and strengthens the impact of R&I in developing, supporting and implementing EU policies while tackling global challenges. It supports the creation and better sharing of knowledge and technologies.

It also creates jobs, fully engages Europe's talent pool, boosts economic growth, promotes industrial competitiveness and optimises investment impact within a strengthened European Research Area.

For information on UK participation in the programme see UKRO's dedicated factsheet.

What are Clusters in Horizon Europe?

The Global Challenges and European Industrial Competitiveness pillar of Horizon Europe (or Pillar II) will take forward the current societal challenges and industrial technologies in a more 'top-down' approach, addressing EU and global policy challenges.

These challenges and opportunities will be integrated into six Clusters – each with a number of specific intervention areas – designed to incentivise **cross-disciplinary**, **cross-sectoral**, **cross-policy** and **international collaboration**. In terms of addressing global political priorities, each Cluster will contribute towards several SDGs and many SDGs will be supported by more than one Cluster.

The Clusters and their intervention areas are expected to achieve a greater impact by cutting across classical boundaries between disciplines and address different types of challenges. The integrated Clusters of activities will derive from the <u>First Strategic Plan for Horizon Europe 2021-24</u> and <u>Second Strategic Plan for Horizon Europe 2025-27</u> and will form the basis for support to collaborative R&I projects under Pillar II.

What is funded under Cluster 6?

Cluster 6 has an overall budget of approximately €8.952 billion. With this funding, this Cluster will focus on funding activities aimed at enhancing and balancing environmental, social and economic goals and to set a path towards sustainability for human economic activities, on land and sea.

All funded projects will support efforts for ecosystem integrity as well as territorially balanced and sustainable development and human well-being, including water, food and nutrition security.

Areas of intervention are set out in Horizon Europe legislation to give Cluster 6 a legal remit to cover:

- Environmental observation
- Biodiversity and natural capital
- Agriculture, forestry and rural areas
- Seas, oceans and inland waters
- Food systems
- Bio-based innovation systems
- Circular systems



Cluster 6 contributes to the expected impacts set out in the 2025-2027 Strategic Plan, which are reflected in the **seven destinations** described below:



Biodiversity and ecosystem services

• Funding for biodiversity research, including preserving and sustainably restoring ecosystems and their services on land, inland water and at sea



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

•Funding for R&I for the transition at national, EU and global levels towards sustainable, healthy and inclusive food systems from farm to fork, thereby ensuring food security for all within planetary boundaries.



Circular economy and bioeconomy sectors

•Funding to support climate-neutral circular and bioeconomy transitions in the wider economy at both territorial and sectoral levels. Less waste by extending the lifetime and retaining the value of products and materials.



Clean environment and zero pollution

• Funding seeking to halt and prevent pollution in fresh and marine waters, soils & air. Also focused on environmental performance and sustainability of processes in biobased systems.



Land, ocean and water for climate action

• Funding for R&I to better understand who, where or which activities are exposed and sensitive to climate change; furthermore, to assess the underlying vulnerability, associated costs and adaptive capacity of these exposures.



Resilient, inclusive, healthy and green rural, coastal and urban communities

•Funding for R&I that enhances communities' resilience and their capacity to contribute to and benefit from the upcoming transitions towards sustainability.



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

• Funding for experiments with new ways to govern and provide insights into institutional barriers to transition processes while remaining resilient to shocks such as the COVID-19 pandemic.



Call timings and requirements

The 2023 and 2024 calls have now closed.

The deadlines for the **one-stage** 2025 calls are 16 September 2025, 17 September 2025, and 24 September 2025.

The deadlines for the **two-stage** 2025 calls are 04 September 2025 (first stage) and 18 February 2026 (second stage).

All deadlines are at 5pm Brussels time.

Please note that some topics have specific eligibility criteria, listed under eligibility and admissibility conditions, such as the obligation to include legal entities established in the target country/region. Applicants are advised to check the work programme for details relating to their topics of interest.

The **UK National Contact Points (NCPs)** can provide further advice and guidance to potential applicants.

Relevant EU policy areas and developments

Horizon Europe Cluster 6 will serve the new Commission 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". The Cluster 6 Work Programme includes many call topics which require applicants and grantees to directly contribute towards achieving these policy targets and transformations through their activities.

The Horizon Europe mandate for Cluster 6 aims to provide R&I opportunities to strengthen and balance environmental, social and economic goals and to set human economic activities on a path towards sustainability.



The Commission's <u>Biodiversity Strategy for 2030</u> sets out to protect nature and reverse the degradation of ecosystems. In the post-COVID-19 context, improved protection of nature also aims to build societies' resilience to future threats posed by climate change, disease outbreaks or food insecurity. The Biodiversity Strategy is aligned with multi-lateral efforts, most recently the <u>global biodiversity agreement deal</u>

<u>announced at COP15</u>. Two key ecosystems for biodiversity and sustainable use as a natural resource are forests and seas. As a result, the EC has a <u>Forest Strategy</u> and an <u>approach to transforming</u> the Blue Economy.



Food-related topics are an aspect of the European Green Deal and the basis for one of the Cluster 6 Destinations, in particular through the relevance of R&I in the <u>Farm to Fork Strategy</u>. This strategy is about the systemic transition of how Europe grows, supplies and consumes food towards sustainable practices and produce. It aligns with an ongoing R&I-specific policy <u>Food 2030 Pathways to Action</u> which sets targets for transforming

food systems and ensuring everyone has enough affordable, nutritious food to lead a healthy life. R&l is identified as a key driver of this transition in the Farm to Fork Strategy, which can "help develop and test solutions, overcome barriers and uncover new market opportunities." The EC's food policies also embed a significant number of Cluster 6 calls with scopes that expect a project methodology with interplay of R&I sectors with agricultural sectors and other stakeholders through the multi-actor approach, facilitated by the EIP Agri platform and project outcomes that address priorities like the digitisation of the agricultural sector.

A significant policy debate in this area, with an impact on European law-making and broader society, is on the regulation of **New Genomic Techniques** – a debate sparked by advances in R&I that are increasingly used for food production outside Europe which led to the Commission announcing it would revisit the EU's 2001 legislation on GMOs. Geopolitical events such as the war in Ukraine have also

raised the stakes for food security, so EU policy has responded with <u>safeguarding measures</u> and actions on the availability and affordability of fertilisers in the EU and globally.



Beyond matters of ecosystems and farms, EU policy also seeks to transform the human industry. The <u>Circular Economy Action Plan</u> (CEAP) is a crucial policy for the third destination listed above but is also linked to all other Destinations in Cluster 6. To carry out this plan the Commission sets out <u>35 specific actions</u> related to topics such as carbon farming, integrating biodiversity in circular economic activity or developing bio-

based services, products or materials for circular economic models. In 2022 the EU held a **Bioeconomy Conference** to discuss progress made since the **EU Bioeconomy Strategy** was launched in 2018 with a wide range of stakeholders, including young researchers who can fill skills and technology gaps so that the transition is viable. Horizon Europe's **Circular Bio-based Europe Joint Undertaking** (CBE JU) has opportunities between R&I and industry that complements other bioeconomy-related calls in Cluster 6. Some specific industrial sectors have their own EC policy for transformation into a bioeconomy, including **Textiles** and **ecodesign requirements for sustainable products**, both of which also have notable relevance to social sciences, arts and humanities R&I disciplines.



Whereas biodiversity, sustainable food and bioeconomy are the positive policy plans the EU has to transition towards becoming a green society, there are also issues caused by continuing damage made to the current socio-economic system to the environment. To understand, halt and reverse these damages, the Commission has adopted the **Zero Pollution Action Plan** and **Plastics Strategy**. Pollution is also

included in most of the recent strategies and target plans linked to Cluster 6. Longer-standing EU policies such as the Water Framework Directive are also cited in the Cluster 6 Work Programme.



Out on the oceans and seas are call topics Cluster 6 that have gained more prominence, although arguably they do not yet reach the level of priority attributed to issues on land. This development is linked to growing awareness of the importance of oceans and polar regions as an integral part of the Earth's climate system and policies designed to better ensure the integrity and resilience of these ecosystems. For researchers, these policies

have driven manifests themselves in initiatives like the <u>European Partnership for a climate-neutral</u>, <u>sustainable and productive Blue Economy</u>, as well as the <u>All-Atlantic Ocean R&I Declaration</u> signed in 2022 by the EC with seven Atlantic Partners.

The <u>EU Soil Strategy</u> was announced in 2021 after the Biodiversity and Farm to Fork strategies which both came out in 2020. Certainly, this third strategy knits these preceding two together, although it should be said that the Soil Strategy is common ground for most Cluster 6 policies. The need for healthy soils and threats of degradation feed into each of the Work Programme Destinations above. The importance of soil is further highlighted by the <u>European Soil Observatory</u> and the <u>Horizon Europe Mission on Soil Health and Food</u>, both of which need R&I involvement and are frequently cited in the Cluster 6 Work Programme.

There are five Horizon Europe Missions in total, each of which has relevance to the policy and research needs grouped in Cluster 6 to some degree. Further information on the novel concept of 'Missions' under Horizon Europe is available in a dedicated **UKRO Missions factsheet**.



The needs of communities in society differ according to where they live and work, whether they are in rural, coastal or urban settings. The EU has some policies that are directed at communities in specific settings, one example is the **Long-term vision for rural areas**. Any setting-based policies that are relevant to a Cluster 6 call will be cited

in the call topic description. The European Green Deal intersects with communities and their livelihoods through the political objective of a **Just Transition**. The policy commits more support and to funding for efforts to understand social and economic effects for communities that are vulnerable or that need to change more than others as part of the overall, systemic transition to sustainability.





Governance concerning Cluster 6 is about providing different stakeholders from different sectors and walks of life the opportunity to participate in decision-making to address challenges and shape the benefits from the planned transition to sustainability. Governance plays a part in R&I of different forms and topics covered in Cluster 6. For example, space science and initiatives like the **Global Earth Observation System of**

Systems (GEOSS) need to feed into the governance of society and be disseminated widely to citizens. R&I can also contribute to developing evidence-based governance. In the European agricultural context, these are focused on the governance integrated into the **Common Agricultural Policy** which seeks to develop the practice of agricultural knowledge and innovation systems (AKIS), as reflected by the multi-actor approach for R&I funding calls.

International cooperation

As the EU's biodiversity policies are designed to align with UN-led multilateral agreements, Cluster 6 is particularly well suited to the policy of funding <u>International Research and Innovation with Development Goals</u>. Under this destination there is a substantial need for more fundamental research and therefore there is a majority of Research and Innovation Actions (RIAs).

International cooperation is strongly sought across the Cluster. Calls within this Cluster also encourage synergies with relevant EU financial programmes and initiatives including the Knowledge and Innovation Communities (KICs) of the European Institute of Innovation and Technology (EIT), in particular EIT Food, and international cooperation programmes (e.g., DeSIRA).

Relevant topics under this Cluster will often require the integration of **Social Sciences and Humanities (SSH)** to apply a human-centred approach to R&I, and support social innovation at regional and local level to meet needs and co-create solutions for specific challenges.

Cluster 6 topic areas are also included in many high-level agreements for R&I cooperation like the <u>EU-AU Innovation Agenda</u>. Out of the 24 calls that will receive an additional €500.5 million under the <u>Africa III Initiative</u>, 8 are part of the Cluster 6 Work Programme:

- HORIZON-CL6-2025-01-BIODIV-01: <u>Additional activities for the European Biodiversity</u>
 <u>Partnership: Biodiversa+</u>
- HORIZON-CL6-2025-02-COMMUNITIES-03: <u>Innovative solutions for resilient and climate-adapted coastal communities in the Atlantic</u>
- HORIZON-CL6-2025-02-CLIMATE-05: <u>Additional activities for the European Partnership</u>
 <u>Water Security for the Planet (Water4AII)</u>
- HORIZON-CL6-2025-02-FARM2FORK-03: Overcoming the barriers for scaling up circular water management in agriculture
- HORIZON-CL6-2025-02-FARM2FORK-05: <u>Developing innovative phytosanitary measures</u> for plant health focus on systems approach for pest risk management
- HORIZON-CL6-2025-02-FARM2FORK-05-two-stage: <u>Developing agroecology living labs</u> and <u>lighthouses for climate action under the Food and Nutrition Security and</u> <u>Sustainable Agriculture (FNSSA) partnership</u>
- HORIZON-CL6-2025-02-FARM2FORK-16: <u>Developing a joint AU-EU Agricultural</u> Knowledge and Innovation System (AKIS) supporting the Food and Nutrition Security and Sustainable Agriculture (FNSSA) partnership
- HORIZON-CL6-2025-02-FARM2FORK-17: <u>Nutrition in emergency situations Ready-to-use Supplementary Food (RUSF) and Ready-to-use Therapeutic Food (RUTF)</u>



More information

- Horizon Europe website and Cluster 6 website
- 2023-2025 Work Programme for Cluster 6
- 2025 Work Programme for Cluster 6
- European Commission Cluster 6 info day recorded webinar

Horizon Europe's legal basis

- Regulation establishing Horizon Europe
- Decision establishing the Specific Programme of Horizon Europe
- First Strategic Plan for Horizon Europe (2021-2024)
- Second Strategic Plan for Horizon Europe (2025-2027)

UKRO Portal

UKRO Portal

UK resources

- UK National Contact Point (NCP) support services
- Cluster 6 information on the KTN-Innovate Network