

<i>conditions</i>	exceptions apply: The following additional eligibility criteria apply: the proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this work programme part.
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Expected Outcome: Project results are expected to contribute to all of the following expected outcomes:

- The knowledge base of climate-related farming practices is expanded, resulting in increased application of climate-neutral approaches;
- Different methods of climate-smart agriculture in plant and animal production are assessed and evaluated with all relevant actors involved; with all relevant actors involved;
- The involvement of and adoption by farmers of innovative / smart farming practices that mitigate emissions of greenhouse gases (GHGs) and that foster adaptation of the sector to climate change is accelerated. In the long-term, this will support a more substantial contribution of the farming sector to mitigation of GHG emissions and to carbon storage;
- Implementation of the EU carbon farming initiative, as presented in the communication on “Sustainable Carbon Cycles”³⁵⁹ is supported;
- The involvement of Member States’ and Associated Countries’ agricultural knowledge and innovation systems (AKIS) in climate-related farming issues is increased, including through linking to national, regional and local projects under the European Innovation Partnership "Agricultural productivity and sustainability" (EIP-AGRI) and to research stations, with a view to wider dissemination and enhanced interaction within and across the Member States and Associated Countries.

Scope: The conservation and enhancement of Earth’s natural terrestrial carbon sinks such as soils and plants, forests, farmed lands and wetlands is crucial. The European Green Deal gives research and innovation (R&I) a significant role to play in supporting the design and implementation of policies that will ensure the achievement of the EU’s climate objectives. Project implementation is expected to contribute to mitigation of and adaptation to climate change and help achieve climate-neutrality.

A wide adoption of practices contributing to mitigation of climate change and enhanced carbon storage by farmers is a priority to ensure that the EU reaches GHG mitigation objectives by 2030 and climate-neutrality for land use by 2035 and for the overall economy by 2050. Farming is also vulnerable to impacts of climate change; hence adaptation is of utmost importance. Mainstreaming the use of climate-smart practices has been recognised as a priority at the global level, including by the G-20.

³⁵⁹ COM(2021) 800, 15.12.2021, https://ec.europa.eu/clima/eu-action/forests-and-agriculture/sustainable-carbon-cycles_en

The overall aim is to establish a three-level network in a phased manner over Cluster 6 work programmes 2021/2022 and 2023/2024. The first level is a network which engages front-runner farmers introducing on-farm trials and demonstration of innovations, using existing knowledge both in the EU and in Associated Countries (project “Climate Farm Demo”). The second level is a network to connect to all advisors on the subject in the Member States, building on achievements of Horizon 2020 projects and EIP-AGRI operational groups and the development of Member States’ AKIS, to ensure the provision of targeted advice. The third level of the network – the present topic – will engage and strengthen the capacity of experimental research stations on climate issues.

Proposals should:

- Network existing research stations involved in adaptation to or mitigation of climate change in agriculture, to create an EU network including all Member States and where possible Associated Countries and to stimulate effective cross-fertilisation among them;
- Exploit existing solutions and develop new ones through practice-oriented on-farm testing and demonstration in a co-creative approach with pilot farmers and their advisors;
- Collect and compare tool-kits for assessing GHG balances at farm level, monitoring of performance in reducing emission, decision-support tools, climate services, etc. for possible use also on average farms;
- Explore carbon farming techniques (as defined in the Communication on “Sustainable Carbon Cycles”) and their outcomes, also in terms of better farm management; analyse costs of carbon farming management practices and revenue possibilities as well as related risk and challenges; develop and/or test monitoring, reporting and verification systems; facilitate knowledge exchange and support tailored training and advisory services;
- Foster knowledge exchange within and among Member States and regions and establish links with the EIP-AGRI and Member States’ AKIS networks and coordination bodies;
- Include a task to collaborate with the project “Climate Farm Demo” funded under topic HORIZON-CL6-2021-CLIMATE-01-04 and with the project funded under topic HORIZON-CL6-2022-CLIMATE-01-03 “Demonstration network on climate-smart farming – boosting the role of advisory services”.

The project should operate for at least five years and build on the outcomes of the climate-related projects from various funding sources. The project must implement the multi-actor approach and may involve social innovation.

In this topic the integration of the gender dimension (sex and gender analysis) in research and innovation content is not a mandatory requirement.

HORIZON-CL6-2023-CLIMATE-01-5: Pilot network of climate-positive organic farms

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 5.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 5.00 million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: the proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this work programme part.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025). ³⁶⁰ .

Expected Outcome: This topic should contribute to mitigation of and adaptation to climate change and help achieve climate-neutrality by 2035 (in the land-use sector) and 2050 (across the EU economy). It will also contribute to meeting the target of the farm to fork strategy of having 25% of the EU’s agricultural land under organic farming by 2030, as well as to implementing concrete actions of the action plan for the development of organic production³⁶¹.

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

- The capacity of organic holdings to mitigate and adapt to climate change is enhanced, with co-benefits for biodiversity, water, soil and air;

³⁶⁰ This [decision](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under ‘Simplified costs decisions’ or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

³⁶¹ COM(2021) 141, 10.4.2021, https://agriculture.ec.europa.eu/farming/organic-farming/organic-action-plan_en

- Qualitative and quantitative data on the climate-related and other (co-)benefits and impacts of organic production are made more easily accessible, contributing to building the knowledge base for EU policy design and implementation and to increasing consumer awareness of the benefits of organic production;
- Carbon farming practices (as described in the Communication on “Sustainable Carbon Cycles”³⁶²) are further developed in the organic farming sector;
- Agricultural knowledge and innovation systems (AKIS) and decision-support systems in the organic sector are strengthened, in particular with regard to climate adaptation and mitigation.

Scope: The conservation and enhancement of Earth’s natural terrestrial carbon sinks such as soils and plants, forests, farmed lands and wetlands is crucial. The European Green Deal gives research and innovation (R&I) a significant role to play in supporting the design and implementation of policies that will ensure the achievement of the EU’s climate objectives. Organic farming relies on management practices that contribute to climate change mitigation, with additional benefits for the environment and biodiversity. The organic sector also has a role to play in the implementation of the EU carbon farming initiative as developed in the 2021 Communication on “Sustainable Carbon Cycles”.

Proposals should:

- Establish a pilot network of existing and newly converted commercial certified organic farms and research stations representative of the main organic farming production systems (both plant and animal production) and regions in the EU.
- Provide for the collection at farm and landscape level of data relevant to organic farming and to climate change and other environmental objectives;
- Implement carbon farming techniques and analyse their outcomes, also in terms of better farm management; analyse costs of carbon farming management practices and revenue possibilities as well as related risk and challenges; develop and/or test monitoring, reporting and verification systems;
- Enhance sharing of knowledge and best practice on adaptation to and mitigation of climate change in the organic sector, including with regard to carbon farming, with attention also to regions where the organic sector is less developed, and support tailored training and advisory services;
- Ensure that project outcomes are made available also beyond the organic farming sector, including to other farmers who focus on low-input farming, circular agriculture and agroecology;

³⁶² COM(2021) 800, 15.12.2021, https://ec.europa.eu/clima/eu-action/forests-and-agriculture/sustainable-carbon-cycles_en

- Establish links with projects under the topics on a demonstration network for climate-smart farming (HORIZON-CL6-2021-CLIMATE-01-04 – project “Climate Farm Demo”, and HORIZON-CL6-2022-CLIMATE-01-03), on agroecological approaches for climate change mitigation, resilient agricultural production and enhanced biodiversity (HORIZON-CL6-2021-CLIMATE-01-05), and on improving yields in organic cropping systems (HORIZON-CL6-2023-FARM2FORK-01-3), as well as with the planned partnership on agro-ecology living labs and the Mission “A Soil Deal for Europe”.

This topic should involve the effective contribution of SSH disciplines.

HORIZON-CL6-2023-CLIMATE-01-6: Analysing fossil-energy dependence in agriculture to increase resilience against input price fluctuations

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 5.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 5.00 million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The Joint Research Centre (JRC) may participate as member of the consortium selected for funding.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025). ³⁶³ .

Expected Outcome: In supporting the implementation of the European Green Deal, in particular the European Climate Law, the farm to fork strategy and the common agricultural policy, R&I is expected to support agriculture pathways towards reduced greenhouse gas emissions and better use of inputs, while improving the incomes of primary producers.

³⁶³ This [decision](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under ‘Simplified costs decisions’ or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

Relevant inputs include in particular fossil fuels and fertilisers produced from non-renewable resources. The topic will contribute to the Destination's expected impact of "foster[ing] climate change mitigation in the primary sectors, including by the reduction of their GHG emissions and other pollutants".

Successful proposals are expected to contribute to all of the following expected outcomes:

- Better analytical tools and capacity to integrate the use of fossil energy and energy-intensive inputs in modelling and in socio-economic analysis more broadly;
- Improved decision-making by farmers in relation to the consumption of energy and energy-intensive inputs, in particular mineral fertilisers;
- Better capacity of the farming sector to cope with variations in the price of energy and energy-intensive inputs;
- Direct and indirect dependence of the sector on hydrocarbons is reduced.

Scope: Proposals should:

- Use foresight methods to elaborate scenarios of fossil energy and mineral fertiliser use evolution and dependence. Where available, reference scenarios of the European Commission (DG ENER) should be used to advance the state of the art;
- Improve the capacity of models to take into account direct and indirect energy uses and prices;
- Cover both macro and micro levels in the analysis. At the micro-economic level linkages should be established with the Farm Sustainability Data Network (FSDN) under development by the European Commission;
- Develop tools to support farmers' decision-making for optimal use of energy and mineral fertiliser, to improve economic, environmental and climate performance of farming systems.

This topic should involve the effective contribution of SSH disciplines.

Projects shall leverage the data and services available through European Research Infrastructures federated under the European Open Science Cloud, as well as data from relevant Data Spaces in the data-driven analyses.

The possible participation of the JRC in the project would ensure that the approach proposed is compatible with and improves the tools used at the European Commission.

HORIZON-CL6-2023-CLIMATE-01-7: Enhancing the sustainable production of renewable energy at farm-level

Specific conditions

<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 5.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 5.00 million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: the proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this work programme part.

Expected Outcome: This topic supports the implementation of the EU bioeconomy strategy by creating opportunities for new cooperation in production, sales and distribution of renewable energy, which can provide agricultural communities (conventional and organic sectors) with an extra source of income, while contributing to clean energy supply for society without harming the environment.

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

- Development of sustainable solutions and business models to reduce greenhouse gas emissions by at least 55% by 2030 in the EU and ultimately achieve net-zero greenhouse gas emissions by 2050.
- Identification of technical, economic, societal, environmental and regulatory barriers hampering further scale-up of renewable energy at farm-level
- Development of suitable and sustainable solutions to produce co-benefits (e.g. energy production, higher productivity, less water use, further pollination) and increase their up-take in practice.
- Recommendations for improved and targeted guidance, incentives and policies at regional, national and EU-level to reduce environmental impacts and financial risks for farmers.
- Diversification and enhancement of agricultural incomes (organic and conventional farming).

Scope: Many different forms of renewable energy are produced in rural areas, ranging from wind, solar (including agri-voltaics) and geothermal sources to different forms of bioenergy. Between these renewable energy sources and the environment, there can be trade-offs (e.g. land use change, biodiversity loss, air pollution) but also synergies. Small and medium scale installations can provide opportunities for new cooperation in production, sales and distribution of renewable energy, and thus, can provide agricultural communities

(conventional and organic sectors) with an extra source of income, while contributing to clean energy supply for society. If well planned and implemented, such installations can be deployed without harming the environment, or even with positive impacts, for example preserving soils quality, contributing to water retention, avoiding methane emissions or supporting pollination.

However, the variety of options also result in complex considerations, as the potential, performance and impacts of renewable energy technologies depend on natural conditions, size and type of farm, approaches designed and implemented, management techniques, degree of mechanization, geographic location, and socio-economic factors, such as awareness ,about technologies and their implementation, investment and advice support for farmers, as well as the surrounding energy system and energy infrastructure.

Proposals will:

- Analyse the different options to deploy renewable energy installations on farms, thereby assessing their environmental impacts (on climate change, biodiversity loss, pollution and natural resources depletion) and identifying the best options to mitigate trade-offs and supporting synergies in light of the sustainable management of agricultural land coupled with production of food and feed.
- Assess the opportunities for and barriers (e.g., financial risks and incentives/policies to overcome them) to combine agricultural production and different sustainable renewable energy technologies.
- Engage with relevant stakeholders and develop innovative business models for farmers producing sustainable renewable energy, including self-consumption, energy communities or direct feed into the electricity or gas grid or collective sales approaches that could potentially enhance profitability for farms.
- Analyse the potential of smart energy systems in rural areas and consider economically viable energy storage and transformation solutions for combined production of biogas/ biomethane, solar and wind as well as smart battery and energy solutions, including power to gas (hydrogen), thermal energy storage for self-use and grid stabilisation.
- Address the nutrient recovery and minimisation of negative environmental impacts, or even co-benefits, in the context of good agricultural practices and possible sanitary implications.
- Promote bioeconomy-related interventions in the new CAP and provide advice and technical guidance for Member States.

Proposals are expected to cooperate with other relevant EU-funded research projects, in particular ongoing projects under Cluster 5 of Horizon Europe.

Proposals must apply the concept of the 'multi-actor approach' and ensure adequate involvement of the farming sector, and actors active in rural areas.

HORIZON-CL6-2023-CLIMATE-01-8: Closing the research gaps on Essential Ocean Variables (EOVs) in support of global assessments

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of between EUR 5.00 and 6.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 17.00 million.
<i>Type of Action</i>	Innovation Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: If projects use satellite-based earth observation, positioning, navigation and/or related timing data and services, beneficiaries must make use of Copernicus and/or Galileo/EGNOS (other data and services may additionally be used).
<i>Technology Readiness Level</i>	Activities are expected to achieve TRL 5-6 by the end of the project (Option C) – see General Annex B. Activities are expected to achieve TRL 7-8 by the end of the project (Option B) – see General Annex B. Activities are expected to achieve TRL 7-8 by the end of the project (Option A) – see General Annex B.
<i>Procedure</i>	The procedure is described in General Annex F. The following exceptions apply: To ensure a balanced portfolio covering the Essential Ocean Variables (EOVs), grants will be awarded to applications not only in order of ranking but at least also to those that are the highest ranked within each of the three options (A, B or C) set under “scope”, provided that the applications attain all thresholds.

Expected Outcome: In line with the European Green Deal and, in particular with the objectives of the European Climate Law, the EU climate adaptation and mitigation strategies, the EU biodiversity strategy for 2030, the EU proposal for a nature restoration law³⁶⁴, the Marine Strategy Framework Directive (MSFD), successful proposals should further the European efforts in achieving climate-neutrality by advancing the understanding and science to support adaptation and resilience of natural and managed ecosystems in the context of a

³⁶⁴ Proposal for a Regulation of the European Parliament and of the Council on nature restoration, COM(2022) 304 final, 22.06.2022

changing climate and biodiversity loss and by efficiently monitoring, assessment and projections related to climate change impacts, mitigation, and adaptation potential to deliver solutions for tackling emerging threats and support decision-making at regional, European and global levels.

Successful proposal results are expected to contribute to all of the following expected outcomes:

- Further developed key ocean monitoring indicators, Essential Climate Variables (ECVs from GCOS), Essential Ocean Variables (EOVs from GOOS) in compliance with international programmes (IPCC, WOA, IPBES, CMIP, CLIVAR, Ocean Health Index, UN Decade, ARGO) that support international global assessments and foster the development of a regional approach to ocean climate monitoring and reporting, overcoming current limitations and gaps;
- Further improved Earth System Models (ESMs) representing key physical, biogeochemical and biological processes in the ocean with reduced uncertainty of climate change projections at regional scales, and reduced biases (i.e. in the WCRP Coupled Model Intercomparison Project (CMIP7) models for ocean and polar regions);
- Better understood links between ocean physical, biogeochemical and biodiversity (including microbes and macro-organisms) variability over time, and the impacts of environmental stressors (e.g., warming, extreme events, ocean deoxygenation, and acidification) on ocean health, GHG sources and sinks, biology and ecosystems, as well as advanced understanding and science in support of adaptation and resilience of natural and managed marine and polar ecosystems in the context of a changing climate, including its interaction with other natural or anthropogenic stressors like pollutants;
- Strengthened development of common, agreed standards for climate records content, format, quality and validation methodology;
- Enabled evidence-based decision-making (e.g., developing early warning ocean climate indicators); Sustained European leadership in ocean-climate-biodiversity science nexus supporting EU programmes e.g., the Copernicus climate service, marine service, EEA / JRC reporting and complementing other relevant European programmes (e.g., science programme of the European Space Agency); Significant contribution to the implementation of the European Green Deal and its climate and biodiversity objectives, the EU maritime strategy, to the development of the European Digital Twin of the Ocean³⁶⁵ (both data and models components), and to global scientific assessments, such as the IPCC, IPBES and WOA, as well as to the UNFCCC Ocean and Climate Change Dialogue, UN Decade of Ocean Science and UN SDGs 13 and 14.

Scope: To be able to deliver ocean forecasts and early warnings, climate projections and assessments and protect ocean health and its benefits, it is vital to measure Essential Ocean

³⁶⁵ [European Digital Twin of the Ocean \(European DTO\) | European Commission \(europa.eu\)](https://european-council.europa.eu/media/en/press-communications/infographic/infographic-digital-twin-of-the-ocean-2023-09-14-1000x500.pdf).

Variables (EOVs). The Essential Climate Variables and Essential Ocean Variables form the basis of the Global Climate Indicators that contain key information for the most relevant areas of climate change. The physics, chemistry, biology and biodiversity (including microbes and macro-organisms) of the ocean system are irrevocably interlinked. Ocean ecosystems are subject to a multitude of stressors, including changes in ocean physics and biogeochemistry, and direct anthropogenic influences. Implementation of protective and adaptive measures for ocean ecosystems sustainable management and conservation requires a combination of ocean observations with analysis and prediction tools that can guide assessments of the current state of ocean ecosystems, elucidate ongoing trends and shifts, anticipate impacts of climate change and management policies and provide decision makers and the public with the necessary information to assess the impact of policy decisions. In physical oceanography, essential variables have been collected globally in a standardized manner providing valuable input to the IPCC. Expansion of biogeochemical and ecological observation systems should allow for significant advances in the development and application of analysis and prediction tools for ocean biogeochemistry and ecosystems, production of biodiversity essential variables and associated climate records, with multiple societal benefits. This requires further standardisation and improved utilisation of existing sensors, as well as exploration and development of new sensor technology, suitable for ships, mooring and autonomous platforms, increased use of emerging remote sensing technologies at higher resolution.

One of the major roles of the research conducted under this topic should be to deliver [integrated multidisciplinary ocean science](#) by means of the physical, biogeochemical and biological/ecosystem research communities coming together and joining forces for development of Essential Ocean Variables, integration of observations from the different oceanographic disciplines into models for multidisciplinary analysis and reporting.

Actions should aim at developing innovative approaches to address only one following options:

- **Option A:** Improving the monitoring, understanding, reporting (Essential Variables) and projections of essential **physical** oceanic processes related to climate and changes over time, and production of related Essential Ocean Variables and indicators, at regional or sea basin scale (sea state, ocean surface stress, sea ice, ocean surface heat fluxes, sea surface and subsurface salinity, sea surface height, sea surface and subsurface temperature, ocean circulation and surface and subsurface currents, ocean layering and density gradient, upwelling) (including GHG fluxes) (TRL 7-8).

The research action is expected to further develop essential physical ocean monitoring indicators, EOVs, ECVs, improve their performances (e.g. resolution, uncertainties) and support their integration in climate models in order to improve the understanding of important feedbacks (e.g., cryosphere–ocean interactions such as: permafrost thawing–ocean feedbacks, ocean–ice sheet coupling, wind– and wave–ice coupling and sea ice formation, carbon–climate feedbacks). The activity should improve monitoring and reporting in specific ocean areas such as at depth and in marginal areas, over the continental shelf slopes, coastal zones and polar areas. The action should combine observation analyses and models over different

time scales (by making use of instrumental and proxy data), benefiting from latest advances in satellite measurements and in-situ, to improve the scientific understanding of the change and variability of ocean circulation and ocean heat content change, sea surface and subsurface conditions (temperature, salinity, sea ice, currents, deep convection), and the short- and long-term variability, as well as improve projections at regional scales.

The action should advance the scientific understanding of the projected decrease of Antarctic ice and Arctic sea ice and contribute to improving model projections of future changes, particularly at the regional level; of the potential connections between Arctic polar warming and sea ice loss and mid-latitude atmospheric variability; and the understanding and sea level long term prediction better considering the response of the ice sheets on multi-decadal to centennial timescales.

The action should advance in improving the characterisation of ice sheets and glaciers contribution in sea level monitoring, and projections, and advance our understanding and prediction of the multi-decadal reversibility. The action should contribute to the development of a more quantitative understanding and predictability of the processes that cause and maintain ocean extremes, and the conditions that are conducive for the generation of extremes.

- **Option B:** Improving the monitoring, understanding, reporting (Essential Variables) and projections of essential **biogeochemical** oceanic processes related to climate and changes over time at regional or sea basin scale (oxygen, nutrients, inorganic carbon, transient tracers, nitrous oxide, ocean colour, particulate matter, dissolved organic carbon, elemental and isotopic tracers, stable carbon isotopes, marine debris) (TRL 7-8).

The action should further develop essential biogeochemical ocean monitoring indicators, EOVs and ocean ECVs. The action should support the development of the ocean component of climate models through a better representation of essential biogeochemical processes, microbe biomass and diversity and enable a better understanding of the links between ocean physical and biogeochemical variability. The action should combine GHG measurements in regions especially critical for GHG fluxes (the polar oceans, main open-ocean convection areas like the North Atlantic, southern hemisphere, coastal and marginal seas, or coastal upwelling zones) with relevant biogeochemical measurements (e.g., oxygen, nutrients, carbon) to support GHG data analyses and model simulations. The action should improve the understanding of ocean biogeochemical fluxes and turnover of carbon and nitrogen in the ocean using state of the art autonomous observation technology combined with remote-sensing. This includes quantifying fluxes between basins/regimes (e.g. Arctic to North Atlantic, or coastal to oceanic) and across boundaries (air-sea, water-sediment), as well as between chemical phases (such as inorganic to organic, particulate to dissolved). Focus should be on quantifying GHG reservoir size and change, and potential subsequent impact on GHG fluxes, ocean productivity, carbon sequestration, oxygen demand and carbonate system.

The action should further inform models and improve predictions of the Earth system response to ocean acidification and to the ocean biological pump, including the long-term trends in ocean chemistry, beyond the observational record (paleo-ocean acidification), for a

better understanding of the multi-decadal reversibility or the hysteresis of ocean processes (like the AMOC). Links should be made with ocean stratification that acts as barrier for water mixing or carbon sequestration.

The action should improve observations for the interplay between carbonate chemistry and a variety of biogeochemical and physical processes, including eutrophication and freshwater inflow and outflow in coastal zones, and increase the robustness of future assessments of ocean acidification. The action should improve our understanding of changes in water mass ventilation associated with climate change and variability to gain further insights into future trends in ocean acidification.

The action should further research the net response of natural ocean CH₄ and N₂O sources to future warming, including permafrost, and predict the magnitude and timing of the responses of each individual process.

The action should make use of the recent developments, such as the [Biogeochemical ARGO](#), to investigate extreme conditions, and extreme or compound events below the surface of the ocean, and their link to biogeochemical processes.

The action should further contribute towards the integration of more biogeochemical parameters, assimilation techniques, models and assessment strategies into ESMs.

- **Option C:** Improving the monitoring, understanding, reporting (Essential Variables) and projections of essential **biological and ecosystem** oceanic processes related to climate and changes over time at regional or sea basin scale (marine habitat properties, calcifying organisms, phytoplankton, zooplankton, fish, nekton migration, marine turtles, birds and mammals, hard coral, seagrass, mangrove, macroalgal canopy, microbe, invertebrate, ocean sound) (TRL 5-6).

The research action should further develop the essential biological and ecosystem ocean monitoring variables and indicators, and the development of early warning systems based on biological indicators (like marine calcifying organisms, coral reefs or plankton lifecycle).

The action should develop the integration (e.g., forcing, assimilation of boundary conditions, coupling, etc.) between climate models (physics and biogeochemistry) and ecosystem/marine habitat models to support ocean biodiversity variables and ECV development, in particular, quantifying the sensitivity of regional ecosystems responses to poorly-resolved, global, physical & biogeochemical inputs at model boundaries. The action should also identify & quantify the propagation of non-linear errors through the ecosystem models (from physics through biogeochemistry and to the highest trophic levels), including through better integration of numerical & statistical approaches allowing improved forecasting.

The action should further develop observation processing for biological and ecosystem EOVs and ECVs production, and assess needs for additional observations in support of biological EOVs and ECV development and validation. The action should support the development of common approaches and standards for the development of biological and ecosystem variables and ECVs for the oceans by strengthening the use of observation networks and relevant

biogeochemistry, biological and ecological measurements; an increase use of high-resolution remote sensing technologies, and the development of inter-calibrated protocols, notably for macroalgae, coral reefs, mangroves, tidal marshes, saltmarshes and seagrass. Particularly, it should extend the physical, biogeochemical, and ecological data records needed to develop, initialize, and validate marine ecosystem forecasts.

The action should assess the integration of the whole model chain (ESM + biology) on some specific test cases to evaluate uncertainties and potential use of such a modelling capacity for climate scenarios development and policy - management: e.g., evaluation of impacts of overshoot on ecosystems due to extreme climate change scenarios, perturbation of the biological carbon pump in a changing ocean or tipping point effect, surpassing the physiological tolerance limits beyond which the resilience of the ecosystem is compromised.

Particular attention should be paid to impacts of warming and acidity, or changes in the frequency and intensity of disturbance regimes, as they may lead to the collapse or transition of ecosystems to a new ecological state, with a loss or altered biodiversity and ecosystem services. The action should advance our scientific understanding of how extremes affect organisms and ecosystems, in particular for the effect of dual- or triple-compound events, by better understanding the cumulative effects on biota of the multifaceted characteristics—from abruptness to recurrence—associated with individual extremes; and the role of the compounding effect of the different hazards, leading to a complex matrix of often new conditions. Furthermore, advances should be made with regard to closing gaps in our understanding of the factors controlling biological, genetic and functional diversity, food-web interactions and relationships between different ecosystem constituents (trophic links, symbiosis, parasitism, etc.), and, also with regard to the physiological states and trophic modes (mixotrophy) of populations, before these models can be made operational in future forecasting and impact projection applications.

The action should establish protocols for the scientific validation of forecasts to validate results and build trust in forecasts, and ensure forecasts have the necessary spatiotemporal resolution for analysis and application to marine resource management, or to force downscaled regional forecasts.

The action should contribute towards the integration of more ecosystem parameters, assimilation techniques, models and assessment strategies into ESMs.

For **all three options (A, B & C)**, actions should result in better scientific understanding and quantification of tipping points and abrupt system changes, and associated impacts, including aspects of irreversibility and compound events. Actions should support a regional approach to ECVs, EOVs, ocean monitoring indicators and climate change / ocean health assessment, taking into account sea basin specificities. The action should result in spatially and temporally explicit information about physical, biological, and chemical properties of the ocean. Actions should also advance the understanding of the impacts caused by the crossing of tipping elements and develop early warning indicators. Where appropriate, the combination of multiple drivers and/or hazards that contribute to societal and/or environmental risk should be assessed. Actions should identify safe operating spaces for the ocean to provide life-support

systems for humanity, accompanied – where relevant – with long-term strategies for preventing or mitigating impacts. To better monitor significant changes in physical and biogeochemical environments and their impacts on ecosystems and society, actions should enable further integration of multidisciplinary observation systems (in-situ, airborne, satellite) and improved models. The assessments of cumulative effects should look at existing and past activities in the marine environment but should also allow for foresight in order to inform planning of future activities and support management that is adaptive to future conditions and sustains ecosystems and human well-being.

The actions funded under this topic should have a strong collaboration element and mechanism in order to ensure that the topic delivers on its key research priorities and help characterize the interplay and dependence between the biological, chemical, and physical properties of the ocean environment. The actions should build on existing observing platforms, Copernicus, and strengthen and expand the current capacities in a multidisciplinary and ecosystem-based approach. This multidisciplinary approach is key to comprehensively understand the variety of effects of global change on the ocean and its ecosystems. This topic provides for the opportunity to strengthen the interaction between biological and physical and biogeochemical platforms and research communities. To this end, proposals should include a dedicated task, appropriate resources and a plan on how they will collaborate with the other projects funded under this topic, and ensure synergy with relevant activities carried out under other initiatives in Horizon Europe. Relevant activities of the plan will be set out and carried out in close cooperation with relevant Commission services, ensuring coherence with related policy initiatives.

International cooperation will be essential in integrating and coordinating these different scaled approaches. A strong linkage should be ensured with the ongoing activities under the All-Atlantic Ocean Research and Innovation Alliance, UN Decade of Ocean Science, and GOOS bio-eco panel. Actions under this topic will build upon and link with Horizon projects (COMFORT, PolarRES, CrIceS, EuroSea, AtlantOS, EPOC, OCEAN ICE, OceanICU, Jetzon, DOOS, etc.), the Copernicus marine service, GOOS, the Ocean Biogeographic Information System (OBIS), MBON of GEOBON, ICOS, GCOS, and other relevant international Ocean Observing Initiatives. All in-situ data collected through actions funded from this call should follow INSPIRE principles and be available through open access repositories supported by the European Commission (Copernicus, GEOSS, and EMODnet).

This topic is part of a coordination initiative between the European Space Agency and the European Commission on Earth System Science. Under the initiative, both institutions aim at coordinating efforts to support complementarities between the Horizon Europe and the European Space Agency FutureEO programmes, and their projects. Proposals under this topic should address networking and collaborative research activities with relevant European Space Agency actions. In particular, the European Space Agency will contribute to this topic with existing and planned projects focused on enhancing the observation capacity and

understanding from satellite EO technology of the relevant ocean processes³⁶⁶. Relevant European Space Agency activities will be implemented under the A) Ocean Science Clusters (eo4society.esa.int/communities/scientists/esa-ocean-science-cluster), B) the Biodiversity Science Clusters (eo4society.esa.int/) and C) the Polar Science Cluster (eo4society.esa.int/communities/scientists/esa-polar-science-cluster). Proposals should address the collaboration with ongoing or future ESA projects, including those that will be funded through dedicated coordinated invitations to tender, and should towards this end include sufficient means and resources for effective coordination. Applicants are encouraged to contact ESA to organise the joint European Commission-European Space Agency work.

Projects shall leverage the data and services available through European Research Infrastructures federated under the European Open Science Cloud, Copernicus, as well as data from relevant Data Spaces in the data-driven analyses. Projects could additionally benefit from access to infrastructure and relevant FAIR data by collaborating with projects funded under the topics HORIZON-INFRA-2022-EOSC-01-03: FAIR and open data sharing in support of healthy oceans, seas, coastal and inland waters and HORIZON-INFRA-2024-EOSC-01-01: FAIR and open data sharing in support of the mission adaptation to climate change.

Collaboration with the relevant existing European Research Infrastructures is encouraged.

Synergies and complementarities: HORIZON-CL6-2024-CLIMATE-01-6: Ocean models for seasonal to decadal and local to regional climate predictions, and Cluster 5 topics: HORIZON-CL5-2024-D1-01-02: Inland ice, including snow cover, glaciers, ice sheets and permafrost, and their interaction with climate change, HORIZON-CL5-2024-D1-01-01: Enhanced quantification and understanding of natural and anthropogenic methane emissions and sinks, and HORIZON-CL5-2023-D1-01-02: Climate-related tipping points.

Call - Land, oceans and water for climate action

HORIZON-CL6-2024-CLIMATE-01

Conditions for the Call

Indicative budget(s)³⁶⁷

Topics	Type of	Budgets (EUR	Expected EU contribution per	Indicative number
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³⁶⁶ Dedicated ESA invitation to tenders to be launched in 2023 and 2024 for each of the clusters will be published in the ESA-STAR Tender publication system (<https://esastar-publication-ext.sso.esa.int>).

³⁶⁷ The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.

The Director-General responsible may delay the deadline(s) by up to two months.

All deadlines are at 17.00.00 Brussels local time.

The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for years 2023 and 2024.

Horizon Europe - Work Programme 2023-2024
Food, Bioeconomy, Natural Resources, Agriculture and Environment

	Action	million)	project (EUR million) ³⁶⁸	of projects expected to be funded
		2024		
Opening: 17 Oct 2023 Deadline(s): 22 Feb 2024				
HORIZON-CL6-2024-CLIMATE-01-1	IA	10.00	Around 5.00	2
HORIZON-CL6-2024-CLIMATE-01-2	RIA	5.00	Around 5.00	1
HORIZON-CL6-2024-CLIMATE-01-3	IA	20.00	Around 10.00	2
HORIZON-CL6-2024-CLIMATE-01-4	RIA	12.00	Around 6.00	2
HORIZON-CL6-2024-CLIMATE-01-5	RIA	14.00	Around 7.00	2
HORIZON-CL6-2024-CLIMATE-01-6	RIA	9.00	Around 4.50	2
HORIZON-CL6-2024-CLIMATE-01-7	RIA	5.00	Around 5.00	1
Overall indicative budget		75.00		

General conditions relating to this call	
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Documents</i>	The documents are described in General Annex E.
<i>Procedure</i>	The procedure is described in General Annex F.
<i>Legal and financial set-up of the Grant</i>	The rules are described in General Annex G.

³⁶⁸ Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.

<i>Agreements</i>	
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Proposals are invited against the following topic(s):

HORIZON-CL6-2024-CLIMATE-01-1: Improving irrigation practices and technologies in agriculture

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 5.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 10.00 million.
<i>Type of Action</i>	Innovation Actions
<i>Eligibility conditions</i>	<p>The conditions are described in General Annex B. The following exceptions apply:</p> <p>The Joint Research Centre (JRC) may participate as member of the consortium selected for funding.</p> <p>The following additional eligibility criteria apply: The proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this work programme part.</p>
<i>Technology Readiness Level</i>	Activities are expected to achieve TRL 6-7 by the end of the project – see General Annex B.
<i>Legal and financial set-up of the Grant Agreements</i>	<p>The rules are described in General Annex G. The following exceptions apply:</p> <p>Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025).³⁶⁹.</p>

Expected Outcome: In line with the European Green Deal’s farm to fork strategy, EU water-related policies (notably the Water Framework Directive), and the work done and data made available by the European Environmental Agency (EEA), successful proposals will contribute

³⁶⁹ This [decision](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under ‘Simplified costs decisions’ or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

to increasing the resilience of agriculture to drought with innovative irrigation systems that increase efficiency in water management.

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

- Solutions and prevention tools for improving water management in particular in areas experiencing recurrent or permanent water scarcity to anticipate solutions for current and future challenges in water management.
- Support available for end-users seeking to take up innovative solutions in irrigation technologies.
- Unlocking the potential of recycled sewage sludge and other biowaste streams as alternative, safe water and nutrient supply resources for agriculture.
- Increased socio-economic and environmental potential of alternative irrigation practices such as fog harvesting.
- Reduced agricultural water demand, as a result of optimized irrigation systems, including new opportunities for alternative water supplies, and expected innovations from the transition towards more sustainable farming systems, including agroecology.

Scope: Proposals should address the following:

- Improve the understanding of the composition, potential for irrigation in terms of efficiency, reliability and cost-effectiveness of sewage sludge and other biowaste streams, on condition that a safe use of these recycled products is possible, without a negative impact on the environment, ensuring high agronomic efficiency of the nutrients they contain.
- Integration and upscaling of the on-farm water management practices and results at the catchment level by quantifying the impacts of water recycling in the whole basin water balance, optimizing catchment-based agriculture production, reducing runoff patterns and possible changes in hydrological cycles linked to climate conditions.
- New or improved tools for an efficient combined use of water and fertilizers via irrigation for different agricultural systems, including agroecology, organic production, as well as conventional, intensive or urban agriculture.
- New, innovative forms of alternative water for agriculture (e.g., superabsorbent polymers/‘solid water’), including evaluation of their socio-economic, environmental and health impacts.
- Improve practices and solutions in small and large-scale farms to deal with the effects of water abundance (rapid showers, floods) and/or water scarcity.
- Identification of societal and regulatory barriers hampering upscaling of recycled water-use and development of suitable solutions to increase the uptake in practice.

- Recommendations for improved and targeted incentives and policies at regional, national and EU-level to reduce financial risks for early adopters of practices developed in the project.

Proposals must implement the ‘multi-actor approach’ and ensure adequate participation of the main stakeholders involved in irrigation practices and technologies in agriculture. Proposals should build and expand on the achievements of past and current Horizon 2020 and Horizon Europe research and innovation projects, including as part of the Horizon 2020 art. 185 PRIMA partnership. Proposals should include a dedicated task, appropriate resources and a plan on how they will collaborate with other projects funded under this topic as well under HORIZON-CL6-2023-ZEROPOLLUTION-01-01: Knowledge and innovative solutions in agriculture for water availability and quality and HORIZON-CL6-2024-BIODIV-02-01-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.

The possible participation of the JRC in the selected project would ensure that the approach proposed can be integrated as a scenario in the tool used at the European Commission for the estimation of water availability.

HORIZON-CL6-2024-CLIMATE-01-2: Socio-economic, climate and environmental aspects of paludiculture

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 5.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 5.00 million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025). ³⁷⁰ .

³⁷⁰ This [decision](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under ‘Simplified costs decisions’ or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

Expected Outcome: This topic will support the European Green Deal, notably its climate objectives and the EU proposal for a nature restoration law³⁷¹ of the EU biodiversity strategy for 2030. Earth's natural terrestrial carbon sinks, in particular peatlands and wetlands, are expected to play a crucial role in reaching EU climate objectives thanks to the conservation and restoration of ecosystems with large potential for carbon sequestration. To reach climate goals, rewetting of 500 000 hectares will be necessary in Europe. By looking into the potential of such areas when used for paludiculture, the topic will contribute to the following impact of the Destination: "Efficient monitoring, assessment, modelling, data-driven decision-making support systems and projections related to climate change impacts, mitigation and adaptation potential in order to derive solutions for tackling emerging threats and support decision-making in climate change mitigation and adaptation policies at European and global levels, including the use of AI and other digital solutions."

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

- Paludiculture systems and their potential to provide jobs and income, while addressing climate mitigation, environmental objectives (notably water quality) and nature conservation, are better understood;
- The EU approach to carbon farming regarding wetlands and peatlands and their restoration, with the aim of reducing oxidation of the existing carbon stock and increasing the potential for carbon sequestration, is supported³⁷²;
- Innovative solutions to facilitate the development of paludiculture are explored.

Scope: Proposals should:

- Take stock of the main socio-economic variables relevant for the paludiculture sector, including options for marketing of its products, and carry out socio-economic analyses, including projections and foresight;
- Estimate the potential for degraded peatlands and wetlands, currently used for conventional agriculture or forestry (with drainage), to be converted to paludiculture;
- Establish an observatory and databases for analytical purposes, covering the whole supply chain;
- Analyse positive and negative incentives and trade-offs, including with regard to carbon farming, in particular those that relate to the policy environment and to the attitudes and values of farmers and other actors;
- Explore solutions to lift possible lock-ins and speed up the development of paludiculture including with social innovation;

³⁷¹ Proposal for a Regulation of the European Parliament and of the Council on nature restoration, COM(2022) 304 final, 22.06.2022

³⁷² The approach is described in the Communication on "Sustainable Carbon Cycles", COM(2021) 800, 15.12.2021, https://ec.europa.eu/clima/eu-action/forests-and-agriculture/sustainable-carbon-cycles_en.

- Support the establishment of a network of researchers and practitioners involved in paludiculture at European and global level;
- Include a dedicated task, appropriate resources and a plan on how the project(s) will collaborate with project(s) supported through topic “HORIZON-CL6-2024-CLIMATE-01-3: Paludiculture: large-scale demonstrations”.

Proposals under this topic should build on the results of the project(s) funded under the topic “HORIZON-CL5-2021-D1-01-08: Restoration of natural wetlands, peatlands and floodplains as a strategy for fast mitigation benefits; pathways, trade-offs and co-benefit”. They should also build links with relevant projects funded under Mission ‘Restore our ocean and waters by 2030’ Horizon Europe Work Programme, in particular topics HORIZON-MISS-OCEAN-2022-01-02 “Danube river basin lighthouse: Protection and restoration of wetlands, flood plains, coastal wetlands and salt marshes and their biodiversity”, and under HORIZON-MISS-OCEAN-2021-02-04 “Danube river basin lighthouse – coordination activities” as well as with the Mission implementation monitoring system that will be part of the Mission Implementation Support Platform for reporting, monitoring and coordination of all relevant implementation activities.

This topic should involve the effective contribution of SSH disciplines.

HORIZON-CL6-2024-CLIMATE-01-3: Paludiculture: large-scale demonstrations

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 10.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 20.00 million.
<i>Type of Action</i>	Innovation Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: The proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this work programme part.

Expected Outcome: This topic will support the European Green Deal, notably its climate objectives and the EU proposal for a nature restoration law³⁷³ of the EU biodiversity strategy for 2030. Earth’s natural terrestrial carbon sinks, in particular peatlands and wetlands, are

³⁷³ Proposal for a Regulation of the European Parliament and of the Council on nature restoration, COM(2022) 304 final, 22.06.2022

expected to play a crucial role in reaching EU climate objectives thanks to the conservation and restoration of ecosystems with large potential for carbon sequestration.

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

- Practical options for the development of paludiculture and pathways for the conversion of degraded organic agricultural and forest soils to paludiculture are demonstrated.
- Recommendations for the approach to be taken towards large-scale deployment of paludiculture are developed.
- The carbon sequestration potential of paludiculture is quantified, including an assessment of its potential contribution to the achievement of EU targets.

Scope: Project activities should:

- Establish large-scale paludiculture demonstration in three areas of at least 50 hectares each;
- Involve all relevant actors (farmers/foresters, scientists, advisors, local/regional public authorities, industry, etc.) throughout the different stages of project development and implementation;
- Consider the potential for activities demonstrated in the project(s) to be replicated and scaled up, and to this end develop recommendations for policymakers and land managers;
- Include a dedicated task, appropriate resources and a plan on how the project(s) will collaborate with other projects funded under this topic and with project(s) supported through topic “HORIZON-CL6-2024-CLIMATE-01-2: Socio-economic aspects of paludiculture”.
- Where relevant, build links with projects funded under Horizon Europe Missions, in particular the Missions “A Soil Deal for Europe”, “Adaptation to Climate Change”, and “Restore our ocean and waters by 2030”. Relevant topics from the Mission work programmes include HORIZON-MISS-OCEAN-2022-01-02 “Danube river basin lighthouse: Protection and restoration of wetlands, flood plains, coastal wetlands and salt marshes and their biodiversity” and HORIZON-MISS-OCEAN-2021-02-04 “Danube river basin lighthouse – coordination activities”, as well as the Mission implementation monitoring system that will be part of the Mission Implementation Support Platform for reporting, monitoring and coordination of all relevant implementation activities.

HORIZON-CL6-2024-CLIMATE-01-4: Land use change and local / regional climate

Specific conditions	
<i>Expected EU</i>	The Commission estimates that an EU contribution of around EUR 6.00

<i>contribution per project</i>	million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 12.00 million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Eligibility conditions</i>	<p>The conditions are described in General Annex B. The following exceptions apply:</p> <p>If projects use satellite-based earth observation, positioning, navigation and/or related timing data and services, beneficiaries must make use of Copernicus and/or Galileo/EGNOS (other data and services may additionally be used).</p> <p>The following additional eligibility criteria apply: The proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this work programme part.</p>

Expected Outcome: Project implementation is expected to contribute to mitigation of and adaptation to climate change and to help achieve climate-neutrality in the land-use sector by 2035 (combining net removals from Land Use, Land Use Change and Forestry with biogenic emissions from agriculture) and climate neutrality of all sectors by 2050.

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

- Solutions are made available for understanding, modelling and optimising the relationships between net removals from Land Use, Land Use Change and Forestry (LULUCF) and biogenic emissions from the agriculture sector at local / regional level;
- Strategies are developed at local and regional level to deal with impacts of climate change and to maximise co-benefits for other objectives, including biodiversity protection.

Scope: The conservation and enhancement of Earth’s natural terrestrial carbon sinks such as soils and plants in forests, on farmed lands as well as peatlands and wetlands is crucial. The European Green Deal and EU sectoral policies such as the common agricultural policy give research and innovation (R&I) a significant role to play in supporting the design and implementation of policies that will ensure the achievement of the EU’s climate objectives.

Project activities should:

- Analyse, model and project impact of past, present and future land use and land use change on the local and regional evolution of the climate, including as appropriate the use of remote sensing technologies (Copernicus) combined with innovative processing and AI;

- Develop strategies for policy-making to mitigate adverse evolutions of climate at the regional/landscape level, including with regard to trade-offs between different objectives (climate change mitigation and adaptation, food and biomass production, biodiversity protection);
- Propose solutions for improved land management, making use of afforestation, integrated land use change and management practices (e.g. hedges, agro-forestry), extensification and rewetting of organic soils, improved forest management and better use of biomass for long-lasting wood products, more efficient use of fertilisers, dietary changes, etc.;
- Include dedicated tasks and appropriate resources to collaborate with other projects financed under this topic as well as with projects under Destination 1, “Climate sciences and responses for the transformation towards climate neutrality”, of Horizon Europe Cluster 5, “Climate, Energy and Mobility”, and with relevant projects under the Missions “Adaptation to Climate Change” and “A Soil Deal for Europe”.

In this topic the integration of the gender dimension (sex and gender analysis) in research and innovation content is not a mandatory requirement.

HORIZON-CL6-2024-CLIMATE-01-5: Climate-smart use of wood in the construction sector to support the New European Bauhaus

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 7.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 14.00 million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: The proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this work programme part.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G. The following exceptions apply: Beneficiaries may provide financial support to third parties. The support to third parties can only be provided in the form of grants. The maximum amount to be granted to each third party is EUR 60 000. Eligible costs will take the form of a lump sum as defined in the

	Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025). ³⁷⁴ .
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Expected Outcome: This topic will support the New European Bauhaus initiative and the implementation of the new EU forest strategy by making the construction sector more renewable and circular especially for existing buildings, which includes the use of currently underused timber such as hardwoods, salvage wood and post-consumer wood for traditional and newly emerging innovative woody biomass-based applications, while including circularity as part of a broader system and design loop.

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

- Enhanced contribution of the forest-based sector with respect to climate change mitigation and adaptation, a toxic-free environment and rural development objectives.
- Pathways for an efficient conversion of solid biomass into forms of long-term carbon storage.
- Enhanced contribution of the forest-based sector to decarbonisation strategies for buildings, both in terms of operational emissions, embodied emissions, and carbon removals, in relation to the Energy Performance of Buildings Directive, the renovation wave strategy, the Construction Products Regulation and other EU policies on buildings.
- Contribute to a robust and transparent methodology to quantify the climate benefits of wood construction products and other building materials, reflecting the most advanced dynamic life-cycle analyses and in view of contributing to the carbon farming initiative and carbon removal certification.
- Increased resource efficiency and minimisation of environmental footprint of wood products used in construction works.
- Better knowledge about the quantitative limits of global wood supply and the limits of wood as a resource.

Scope: Wood materials remain considerably under-utilised in the construction sector despite their durability and appreciation by end users. At the same time, there is a need for making the construction sector more renewable and circular, which includes the use of currently underused timber such as hardwoods, damage wood and post-consumer wood, while including circularity as part of a broader system and design loop. This requires new raw

³⁷⁴ This [decision](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under ‘Simplified costs decisions’ or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

material sources and secondary material, technologies, and designs for wood components, specified products and for wooden buildings. Buildings need also to be adapted to climate change, including as regards summer and winter thermic performance.

Proposals will:

- Analyse the potential market and new technologies (such as the use of AI, IoT sensors or robotics) as well as processes for the utilisation of hardwoods, low quality, damage, and post-consumer wood in the construction sector, including for the refurbishment of buildings.
- Explore the potential of zero-waste concepts by developing solutions for each source type to turn into viable products as elements and as whole buildings in the wood construction sector.
- Design wood building blueprints based on these products and other underutilised bio-based materials, taking into account the reuse, adaptability and healthy living environment (e.g. avoidance of hazardous substances) into the design.
- Study and integrate human health and wellbeing aspects, as well as the cultural traditions of local crafts and design languages, as integral elements of the built space.
- Analyse and propose systems to overcome technical, logistical, legal, business, political, economic, knowledge and social barriers, challenges and opportunities and derive integrated policy recommendations and business strategies for enlarging the wood construction sector in Europe.
- Include the reuse, recycling, renovation and deconstructivity into product and building design concepts.
- Develop robust, transparent and cost-effective methodologies to quantify the carbon removal benefits of key wood construction products and other building materials.
- Develop roadmaps to mainstreaming multi-story wood buildings in Europe, which are the main market segment in living and commercial/office spaces in cities.
- Engage with relevant stakeholder in co-creation processes (e.g., the New European Bauhaus Community of Partners, policy, architects, business, insurance, investment, society, public and private sector).
- Link with other selected proposals and the NEB Lab and establish an open-access wood construction observatory in Europe, to monitor and update progress, statistics, good practice guidelines and solutions on wood construction.
- Address policy frameworks and standards that are still hindering innovation and further market development, as well international production norms and standards for assessing the ecological effects, climate adaptation and climate footprint of buildings which do not account for all benefits of wood.

The project must implement the multi-actor approach and ensure an adequate involvement of the primary production sector and the wider forest-based value chain

This topic should involve the effective contribution of SSH disciplines and capitalise on previous research results (e.g., BASAJAUN³⁷⁵, Build-in-Wood³⁷⁶, etc.), as well as the results of the LIFE Strategic Projects from the LIFE Circular Economy and LIFE Quality and Climate Action Sub-programmes.

Proposals are encouraged to/should consider social innovation when the solutions is at the socio-technical interface and requires social change, new social practices, social ownership or market uptake.

Proposals may involve financial support to third parties e.g. to primary producers, academic researchers, start-ups, SMEs, and other multidisciplinary actors, to, for instance, develop, test or validate developed applications. Consortia need to define the selection process of organisations, for which financial support may be granted. Maximum 20% of the EU funding can be allocated to this purpose.

In this topic the integration of the gender dimension (sex and gender analysis) in research and innovation content is not a mandatory requirement.

HORIZON-CL6-2024-CLIMATE-01-6: Ocean models for seasonal to decadal regional climate impacts and feedbacks

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 4.50 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 9.00 million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: If projects use satellite-based earth observation, positioning, navigation and/or related timing data and services, beneficiaries must make use of Copernicus and/or Galileo/EGNOS (other data and services may additionally be used).
<i>Technology Readiness Level</i>	Activities are expected to achieve TRL 3-5 by the end of the project – see General Annex B.

³⁷⁵ <https://cordis.europa.eu/project/id/862942>

³⁷⁶ <https://cordis.europa.eu/project/id/862820>

Expected Outcome: Successful proposals will contribute to the European Green Deal, addressing resilience to climate change (mitigation and adaptation) in coastal areas. Improved ocean models for 21st century climate projections, from regional to coastal scales, and from seasonal to decadal timeframes, will support the sustainability of the blue economy and the protection of ocean health and coastal landscapes.

The proposals will support the Digital and Green Transitions and will directly support Destination Earth³⁷⁷ and the development of the Digital Twins, and the Digital Twin Ocean³⁷⁸ in particular. They should contribute to the improvement of marine information services provided by European programmes like Copernicus, and their uptake at local, coastal and EU regional levels.

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

- Demonstration of the fit for purpose and configuration of ocean models, for climate change impact assessment in European sea basins and coastal areas, in particular on marine ecosystems;
- Demonstration of EU basin scale to coastal ocean climate services that support policy implementation and the development of climate adaptation strategies and of a carbon-neutral blue economy (e.g., ocean climate risk services);
- Development and publication of indicators on ocean status and health, targeted towards territorial decision-makers, complementary to current Global Climate Observing System (GCOS) Essential Climate Variables³⁷⁹ or Copernicus Ocean State Reports³⁸⁰;
- Integration of the developments in the digital perspective, interoperable and/or integrable with Destination Earth and the Digital Twin Ocean;
- Fostered collaboration between the climate science community and operational oceanography communities (operating ocean services on a sustained way).

Scope: A current limitation to climate change projections for EU-basin scale to coastal use comes from an insufficient representation and resolution of basin and coastal ocean dynamics and from an unsatisfactory understanding of the oceanic biogeochemical cycle. Most climate models include the ocean dimension that stops at the regional scale as defined by meteorology and climatology like in CORDEX In parallel, operational oceanography centres develop and operate ocean models (physics, biogeochemistry, sea-ice) for daily ocean forecasting and reanalysis that represent more exhaustively the full ocean dynamics. Methods should help close the gap between current climate projections (global, centennial) on the one hand and existing Copernicus Marine physics and biogeochemical models used for daily ocean forecasting.

³⁷⁷ [Destination Earth | Shaping Europe's digital future \(europa.eu\)](https://european-council.europa.eu/media/en/press-communications/infographic/infographic_destination-earth_en.pdf)

³⁷⁸ [European Digital Twin of the Ocean \(European DTO\) | European Commission \(europa.eu\)](https://european-council.europa.eu/media/en/press-communications/infographic/infographic_digital-twin-ocean_en.pdf)

³⁷⁹ [GCOS | WMO](https://www.wmo.int/essential-climate-variables)

³⁸⁰ [Ocean State Reports | CMEMS \(copernicus.eu\)](https://marine.copernicus.eu/ocean-state-reports)

Proposals are expected to focus on:

- Developing capabilities for producing decadal to long-term (multi-decadal to centennial) refined predictions of the ocean state, at the scale of European regional seas including the coastal zones, where climate change risk is considered to be particularly high;
- Improving the representation of ocean processes (and dynamics, especially at regional to coastal scale) that can be integrated in climate models;
- Developing capabilities for producing decadal to long-term EU basin scale predictions of biogeochemistry models to support feedback into global/regional marine ecosystem models and climate models;
- Validating the approach by performing historical runs and comparing corresponding model results to observations, proxy information, and / or reanalyses over an instrumental multi-decadal period, up to centennial scales, with characterized uncertainties;
- Investigating and assessing the quality of coastal models or ecosystem models of the low to mid trophic food web levels, over European seas and their coastal zones, with characterized uncertainties.

Methodology and developments should be benchmarked with two relevant use cases, to be showcased in three different European regional seas and coastal areas involving both scientists and end users:

- Development and demonstration of regional ocean climate risk services in coastal areas, due to sea level rise, waves, surges, or any other extreme event;
- Development and demonstration of regional ocean climate services in coastal areas supporting the blue economy (e.g. aquaculture, marine renewable energies, tourism).

Proposals shall demonstrate that the targeted scientific framework, ocean models integrated into EU basin scale climate models and resulting in basin scale ocean services for the marine and maritime sectors can be replicable to all EU regional seas. Proposals should plan resources for coordination and networking activities with related projects, in particular those funded under the Missions “Restore our Ocean and waters by 2030” and “Adaptation to Climate Change”, as well as with relevant projects funded under Cluster 4 – Space addressing Copernicus services (marine, land, emergency, climate), Cluster 5 Destination “Climate sciences and responses for the transformation towards climate neutrality”, and Cluster 6, as appropriate. These networking and joint activities could, for example, involve the participation in joint workshops, the exchange of knowledge, the development and adoption of best practices, or joint communication activities to break the silos between science communities.

The proposal should favour open data, open source, and public-use models and algorithms with open source licensing and integrable in the Digital Twin of the Ocean. Proposals should

leverage the data and services available through European Research Infrastructures federated under the European Open Science Cloud, as well as data from relevant Data Spaces in the data-driven analyses. Projects could additionally benefit from access to infrastructure and relevant FAIR data by collaborating with projects funded under the topics HORIZON-INFRA-2022-EOSC-01-03: FAIR and open data sharing in support of healthy oceans, seas, coastal and inland waters and HORIZON-INFRA-2024-EOSC-01-01: FAIR and open data sharing in support of the mission adaptation to climate change.

Synergies and complementarities: HORIZON-CL6-2023-CLIMATE-01-08: Closing the research gaps on ocean Essential Climate Variables (ECVs) in support of global assessments, relevant EU Research Infrastructures.

In this topic the integration of the gender dimension (sex and gender analysis) in research and innovation content is not a mandatory requirement.

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

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 5.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 5.00 million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Eligibility conditions</i>	<p>The conditions are described in General Annex B. The following exceptions apply:</p> <p>In order to achieve the expected outcomes and to implement the Climate Change and Biodiversity Flagship in compliance with the provisions of the Administrative Arrangement between the European Commission and the Ministry of Science and Technology of the People’s Republic of China (MOST), on a Co-funding Mechanism for the period 2021-2024 to support Collaborative Research and Innovation projects under the “Food, Agriculture and Biotechnologies”, and the “Climate Change and Biodiversity” Joint Flagship Initiatives”, and in accordance with the requirements of the Inter-governmental Science and Technology Innovation (STI) Cooperation Special Programme of MOST:</p> <ol style="list-style-type: none"> 1. Consortia must also include as associated partners at least three independent legal entities established in China; and 2. Legal entities established in China can only participate as

	<p>associated partners; and</p> <p>3. Chinese participants must be awarded co-funding by MOST*</p> <p>*This condition will not be fulfilled if, at the time of grant agreement signature, the Chinese participants have not concluded a grant agreement with MOST.</p> <p>If projects use satellite-based earth observation, positioning, navigation and/or related timing data and services, beneficiaries must make use of Copernicus and/or Galileo/EGNOS (other data and services may additionally be used).</p>
<p><i>Legal and financial set-up of the Grant Agreements</i></p>	<p>The rules are described in General Annex G. The following exceptions apply:</p> <p>Grants awarded under this topic will be linked to the specific grants awarded by the Ministry of Science and Technology, China (MOST) to the Chinese partners. The respective options of the Model Grant Agreement will be applied.</p>

Expected Outcome: The successful proposal is aiming to improve terrestrial monitoring as well as maximising synergies with biodiversity conservation and climate mitigation and adaptation, by using or acquiring environmental data, particularly geographically explicit data such as ground-based observation and remote sensed Earth observation data. This with a view to contribute to the objectives of climate-neutrality, adaptation to climate change and reversing biodiversity loss at global levels, with a focus on the EU and China. Synergetic solutions, including nature-based solutions such as the protection, the restoration and the sustainable management of terrestrial land, can contribute to enhancing carbon dioxide removals from the atmosphere, while reducing vulnerability and increasing resilience to climate change impacts, and contributing to biodiversity conservation and restoration.

The successful proposal will furthermore contribute to an advanced understanding of science to support integrated climate and biodiversity actions on natural and managed ecosystems and associated economic sectors. It will do so by advancing solutions for monitoring, assessment and projections to support decision-making in better integrated climate and biodiversity policies in terrestrial ecosystems generally.

The successful proposal is expected to contribute to all of the following outcomes:

- Protect biodiversity and maximize synergetic benefits of biodiversity conservation, climate mitigation and adaptation based on both remote sensing and ground-based observation;
- Development and exchange of best practices in using ground-based observation and Earth observation data and information, and establish standard and indicator system for biodiversity measurement for better integrated approaches in order to deliver increased synergies between mitigation, adaptation and conservation.

- Geographically-explicit monitoring on regions that has been identified high biodiversity value and/or subject to biodiversity protection and restoration provisions due to high climate risk;
- Strengthen scientific research in supporting of the synergies between the monitoring and reporting frameworks under the United Nations Framework Convention on Climate Change (UNFCCC) and the United Nations Convention on Biological Diversity (CBD), including on the impacts of climate change on biodiversity, for better implementation and progress assessment of the post-2020 global biodiversity framework.

Scope: The EU and China face similar challenges as a result of climate change where it comes to biodiversity related aspects, while reaching climate neutrality will require critical contributions from terrestrial land, including through enhancing net carbon dioxide removals. Similar challenges could benefit from similar actions and defining best practices in improving monitoring of terrestrial ecosystems in order to design better approaches integrating climate change adaptation and mitigation, and biodiversity conservation.

The successful project should provide improvements in biodiversity monitoring infrastructures in support of integrated approaches able to deliver better synergies between mitigation, adaptation and conservation. Such integrated approaches can include a wide range of mitigation options, such as protection and restoring natural ecosystems, sustainable land management practices, sustainable forest and grassland management. Such options, based on a smart use of natural ecological processes and improved technologies, contribute to improving the quality, diversity and resilience of ecosystems, all of which have substantial benefits for biodiversity.

Most monitoring instruments for climate and biodiversity indicators on terrestrial land are carried out in a non-integrated manner and are based on statistical inventories without explicit geographical resolution. Earth observation (including satellite and near surface remote sensing as well as ground based methods), alongside analysis tools such as Geographic Information Systems, can be combined as multiple geographically-explicit data sets. Data acquisition, processing, cross-referencing and coherent integration on terrestrial land require substantial research and innovation investments.

Improving ground-based monitoring for better integrated approaches should assess or set up a strategy to assess the potential of natural and managed terrestrial ecosystems to contribute to:

- climate mitigation, including enhancing net carbon removals,
- climate adaptation, including resilience and disaster risk prevention, and
- protection, conservation and restoration of biodiversity.

Improving existing monitoring, including through designing new datasets and methods to set up a geographically-explicit monitoring of climate and biodiversity aspects fits within the scope of this topic.

The successful proposal should contribute to a strengthened cooperation between the EU and China, also in the context of a better cooperation under the Group on Earth Observations initiatives, building on the climate and biodiversity monitoring networks in China and the EU.

This topic is part of the EU-China flagship initiative on Climate Change and Biodiversity, which will promote substantial coordinated and balanced cooperation between the EU and China and is within the scope of the Administrative Arrangement between the European Commission and the Ministry of Science and Technology of the People's Republic of China on a Co-funding Mechanism for the period 2021-2024 to support collaborative research projects under the Food, Agriculture and Biotechnologies (FAB) and the Climate Change and Biodiversity (CCB) flagship initiatives.

The use of existing data and information coming from e.g. Copernicus and GEOSS is encouraged. Interaction with other actions developed under the EU-China Climate Change and Biodiversity (CCB) Research Flagship and/or the Flagship on Food, Agriculture and Biotechnologies is encouraged, as well as related topics within Cluster 5 and 6 and existing cooperation between the EU and China on land, including soils.

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

Places and people matter when it comes achieving of a more sustainable Europe. The Sustainable Development Goals and the ecological and digital transitions brought forward by the European Green Deal with its farm to fork and biodiversity strategies, zero pollution action plan, common fisheries policy (CFP)³⁸¹, along with the recent pandemic, bring challenges and opportunities that vary for different places and people. Rural (including mountains and sparsely populated areas) and coastal areas, play a key role in protecting, managing, and using natural resources. The provision of both private and public goods from these areas depends on the resilience and attractiveness of communities there and the capacity of people living and working there to enjoy an adequate level of well-being, which should be guaranteed by, e.g. the access to good quality services. The COVID-19 pandemic has highlighted deficiencies in digital infrastructures and economic opportunities that hamper resilience. It also highlighted the importance of high-quality and biodiverse green and blue spaces for the health and well-being of local communities, in primis, but also for that of visitors of these areas.

Innovation is a key enabler of the long-term vision for the EU's rural areas (LTVRA)³⁸² that aims to overcome the challenges outlined above and make rural areas stronger, connected, resilient and prosperous by 2040. Urban communities generally offer better access to many services but are also more vulnerable to supply-chain disruptions, as shown during the COVID-19 pandemic. Furthermore, they have a key role to play in fostering sustainable production and consumption as major demand drivers. The New European Bauhaus initiative³⁸³ offers possibilities to redesign living spaces to improve sustainability, inclusiveness, and aesthetics, setting out a path to a more resilient, inclusive, healthy and green (built) environment. In all communities, social, cultural and behavioural drivers play an important role in either enabling or slowing down transitions. Knowledge and innovative solutions need to be developed to strengthen every community's resilience and capacity to contribute to and benefit from the upcoming transitions in an economy that works for all territories and ensures a fair and just transition leaving no one behind.

Under this destination, transdisciplinary R&I with a strong social, behavioural and humanities sciences dimension (SSH), which pay and attention to gender aspects, will enable a sustainable, balanced, equitable and inclusive development and management of rural, coastal and urban areas in three different ways.

Firstly, it will aim to **increase our understanding** of the different ways of climate, environmental, socio-economic and demographic changes affect rural, coastal and urban areas in order to identify ways to turn these changes into equal, and, when needed equitable,

³⁸¹ Common Fishery Policy https://oceans-and-fisheries.ec.europa.eu/policy/common-fisheries-policy-cfp_en.

³⁸² Long Term Vision for Rural Areas, https://ec.europa.eu/info/strategy/priorities-2019-2024/new-push-european-democracy/long-term-vision-rural-areas_en.

³⁸³ https://ec.europa.eu/commission/presscorner/detail/en/qanda_21_4627.

opportunities for people wherever they live. This would strengthen territorial cohesion and enable a just transition. Secondly, it will **explore innovative ways to tailor policy responses** to the place-based challenges and needs identified at various levels of governance. Thirdly, it will **support bottom-up community-led innovation** to empower communities to develop, test and upscale solutions that answer global challenges in locally adapted ways. Achieving policy goals require providing people with more equitable access to the knowledge and skills needed to make informed choices and ensure they are actively engaged in the conservation. It also requires natural resources to be managed in a sustainable and circular manner, from production or service provision to consumption, in the spirit of the EU competence framework for sustainability. Rural, coastal and urban communities need improved labour conditions, quality of life and long-term socio-economic prospects in the context of major transitions and rising threats to climate, resources and health. This is particularly the case for women, young people older people, people with disabilities, people in vulnerable situations (e.g. income falling below the poverty line, or at risk of poverty), migrants, ethnic minorities and indigenous people and those hit the hardest by the COVID-19 pandemic. Their capacity to drive community-led innovations and their resilience must be increased across the diverse European territories including remote and peripheral places such as mountains, forests, archipelagos, sparsely populated areas, as well as the Arctic. The necessary changes will be facilitated and resilient, smart, and climate friendly production and lifestyles will be supported through mobilising the forces of i) digital transformation, ii) upgraded innovation ecosystems, iii) cultural and natural heritage, iv) nature-based solutions, more sustainable and regenerative tourism as well as social and policy innovation will facilitate necessary changes and support resilient, smart, and climate friendly production and lifestyles.

This destination will in particular:

- Address the spatial and socio-economic or behavioural drivers of the **European Green Deal** (including farm to fork, biodiversity and sustainable and smart mobility strategies), especially its just transition component.
- It will make a key contribution to the **flagship initiative ‘R&I for rural communities’** and to the four areas of work under the **long-term vision for the EU’s rural areas**: making areas stronger, connected, resilient, prosperous. It will in particular help achieve to climate targets by putting the focus on the climate-neutrality of rural communities that have specific needs and are often neglected by climate action.
- It will complement the **New European Bauhaus (NEB) initiative** that connects the European Green Deal to our living and public spaces; The NEB aims to achieve deep transformation of these spaces, closely involving the public, and integrating the core NEB values of sustainability, inclusion and aesthetics. It will make a key contribution to improving **social inclusion** in Europe in line with the principles of the **European pillar for social rights**, the **EU social economy action plan** and contributing to the **strategy for the rights of persons with disabilities for 2021-2030**.

- It will contribute to the: i) implementation of the **new joint communication on the Arctic** (adopted on 13 October 2021), ii) the fourth Arctic Science Ministerial Joint Statement³⁸⁴ and iii) to the All- Atlantic Ocean Research Alliance.
- It will contribute to the: i) implementation of the **competence framework for sustainability** prepared by the Commission³⁸⁵ and the Council Recommendation on education for environmental sustainability for learners of all ages and at all levels of education (part of the EU biodiversity strategy for 2030)³⁸⁶.
- It will help implement the **EU agenda for tourism** (expected in late 2022).
- It will contribute and link to the **just, green and digital transitions** called for by the European Green Deal, the European industrial strategy, the circular economy action plan and the updated bioeconomy strategy, by exploiting the potential of digital technologies (e.g., using local digital twins for participatory urban planning and evidence-based policy-making).

The following outcomes are expected.

- Policy makers and the public will have a better citizens understanding of **social inclusion challenges**, the circumstances of **people in vulnerable situations in rural and coastal areas** and how to strengthen **social resilience**, including in relation to ecosystem services, biodiversity and natural heritage for coastal areas.
- Policy makers will have a better understanding of the **behavioural and structural drivers of people's lifestyle choices and people's perceptions of rural life** in the aftermath of COVID-19 and of the long-term trends and opportunities for rural areas.
- A **sustainable post-COVID recovery will be enabled in urban, rural and coastal communities** through biodiversity-friendly actions, and valorisation of natural and cultural heritage for sustainable recovery, professional, collective and personal attitudes.
- There will be an improvement **connections, strategies and governance arrangements that enable synergistic development of rural, coastal and urban areas** and more integrated territorial policies and interventions in a growing number of localities and across several sectors.
- **Rural, urban and coastal actors will be engaged in a just and green transition. They will be** equipped with strategies and innovations to contribute to the EU's climate-neutrality by 2050 and benefit from a climate-neutral economy.

³⁸⁴ The Commission has signed the Joint statement of the third Arctic science ministerial and committed to further support Arctic science, including integrating traditional and indigenous knowledge.

³⁸⁵ <https://ec.europa.eu/jrc/en/greencomp>.

³⁸⁶ https://education.ec.europa.eu/sites/default/files/2022-01/proposal-council-recommendation-learning-environmental-sustainability_0.pdf.

- Prosperity will increase thanks to the deployment of business models that are fit for the future and greater job opportunities will be provided for rural and coastal people, particularly in relation to territorial and marine economies and critical resources (soil, water, biodiversity). This is in line with the objectives of the EU Missions ‘A Soil Deal for Europe’, ‘Restore our Ocean and Waters’, and ‘Adaptation to climate change’.
- More **innovative and integrated policy framework will be upgraded and developed**, capitalising on international knowledge exchange, including indigenous, traditional and local knowledge³⁸⁷ and cultural heritage in a bottom-up approach.
- Knowledge on the costs and benefits of **urban farming** and improved policy frameworks will be strengthened to maximise its benefits for European society at large across all dimensions of sustainability.
- More **diverse and systemic approaches and innovative solutions** (digital, nature-based, social and community-led) will be developed **with and for local communities** and there is an increase in the number of local actors with improved capacity to sustain these innovative processes and take up these solutions.
- Connections between food provision and multi-functional nature-based solutions for the benefit and well-being of people will be increased. Resilience (climate adaptation mechanisms) will also increase through the combination of the vision of the **New European Bauhaus initiative** to ‘*call on all Europeans to imagine and build together a sustainable and inclusive future that is beautiful for our eyes, minds, and souls*’ with a sustainable food systems approach and make use of Novel sources of inspiration will be put to best use.
- **Understanding, support and engagement will increase** among young people, professionals, authorities, decision makers and the public **for all dimensions of sustainability**.
- Local, coastal and policy communities will use coastal and nature-based heritage, culture and ecosystem services as a basis for potentially year-round diversified sustainable eco-tourism activities.
- A framework will be developed to measure communities’ well-being beyond economic indicators (e.g. social, environmental) and use both to create collaborative community management models, including for sustainable and/or regenerative tourism.

Expected impact

Proposals for topics under this destination should set out a credible pathway to achieving **resilient, inclusive, just, healthy and green rural, coastal and urban communities** and more specifically one or several of the following expected impacts:

³⁸⁷ Reference for using this expression is UNESCO work: <https://en.unesco.org/links>.

- **Rural, coastal and urban areas are developed in a sustainable, balanced, equitable and inclusive manner** thanks to a better understanding of the i) environmental, socio-economic, behavioural, cultural, architectural and demographic structures, ii) needs and drivers of change and their interconnections, and iii) how digital, nature-based, social and community-led innovations are deployed.
- **Rural, coastal and urban communities are empowered to i) act for change**, ii) be better prepared to achieve climate-neutrality and adapt to climate change, and iii) use the digital and green transitions to increase resilience and provide positive long-term prospects.
- **Rural communities are equipped with upgraded innovation ecosystems and innovative and smarter circular solutions** that i) increase access to services and job opportunities, including for women, young people in vulnerable situations, ii) increase their attractiveness and iii) reduce the feeling of being left behind, even in remote locations like mountains and outermost regions.
- **Sustainable development of coastal areas**, including coastal protection and resilience, is enhanced, reaping the benefits of social, digital and community-led innovations, to deliver nature-based and scientifically validated solutions to current coastal socio-economic and environmental threats.
- **Urban and peri-urban communities** – including people in vulnerable situations – can access, afford and choose healthy, nutritious and environmental-friendly food.

Communities in natural and coastal areas can offer sustainable, quality, environmentally and socially friendly tourism, recreational and leisure activities.

Proposals are invited against the following topic(s):

The following call(s) in this work programme contribute to this destination:

Call	Budgets (EUR million)		Deadline(s)
	2023	2024	
HORIZON-CL6-2023-COMMUNITIES-01	38.50		12 Apr 2023
HORIZON-CL6-2024-COMMUNITIES-01		15.00	22 Feb 2024
HORIZON-CL6-2024-COMMUNITIES-02		22.00	22 Feb 2024 (First Stage) 17 Sep 2024 (Second Stage)

Horizon Europe - Work Programme 2023-2024
Food, Bioeconomy, Natural Resources, Agriculture and Environment

Overall indicative budget	38.50	37.00	
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DRAFT

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

HORIZON-CL6-2023-COMMUNITIES-01

Conditions for the Call

Indicative budget(s)³⁸⁸

Topics	Type of Action	Budgets (EUR million)	Expected EU contribution per project (EUR million) ³⁸⁹	Indicative number of projects expected to be funded
		2023		
Opening: 22 Dec 2022 Deadline(s): 12 Apr 2023				
HORIZON-CL6-2023-COMMUNITIES-01-1	RIA	10.00	Around 5.00	2
HORIZON-CL6-2023-COMMUNITIES-01-2	IA	11.00	Around 5.50	2
HORIZON-CL6-2023-COMMUNITIES-01-3	CSA	3.00	Around 3.00	1
HORIZON-CL6-2023-COMMUNITIES-01-4	RIA	3.00	Around 3.00	1
HORIZON-CL6-2023-COMMUNITIES-01-5	RIA	5.00	Around 5.00	1
HORIZON-CL6-2023-COMMUNITIES-01-6	RIA	6.50	Around 6.50	1
Overall indicative budget		38.50		

General conditions relating to this call

<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General

³⁸⁸ The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.

The Director-General responsible may delay the deadline(s) by up to two months.

All deadlines are at 17.00.00 Brussels local time.

The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for years 2023 and 2024.

³⁸⁹ Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.

	Annex B.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Documents</i>	The documents are described in General Annex E.
<i>Procedure</i>	The procedure is described in General Annex F.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G.

Proposals are invited against the following topic(s):

HORIZON-CL6-2023-COMMUNITIES-01-1: Enhancing social inclusion in rural areas: focus on people in a vulnerable situation and social economy

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 5.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 10.00 million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: The proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this work programme part.

Expected Outcome: The successful proposals will contribute to fostering a sustainable, balanced, equitable and inclusive development of rural areas, supporting the implementation of the following Commission's priorities: the European Green Deal, in particular its fair and just transition component; an economy that works for people as well as to the European pillar of social rights, the EU social economy action plan; and a new push for European democracy, notably to the long-term vision for the EU's rural areas objectives (in particular contributing to rural areas' resilience), and the strategy for the rights of persons with disabilities 2021-2030.

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

- Improved understanding of policy makers at different levels (European, national, regional and local) and citizens regarding the challenges to address disparities and marginalisation in rural areas, the various needs of people in a vulnerable situation, and how to enhance social inclusion, social resilience and well-being;
- Improved policies and governance frameworks for social inclusion and social economy in rural areas;
- Increased economic opportunities and development of social entrepreneurship in rural areas;
- Improved social integration and access to adequate services for people in a vulnerable situation in rural areas and to rural dwellers more in general.

Scope: Projects funded under this topic will contribute to build more inclusive, social resilient and prosperous European rural areas by improving the understanding of social inclusion and social economy challenges in rural areas, by taking stock of existing policies responses, and solutions for the provision of adequate services to the population in a vulnerable situation and for enhancing social economy and entrepreneurship.

Projects will also address these challenges by piloting innovative solutions that foster social economy and improve social inclusion of people in a situation of vulnerability.

Proposals are expected to:

- Identify and analyse the drivers of social exclusion and the challenges to address disparities and marginalisation in various rural areas in Europe, (e.g., remote rural areas, rural areas in the EU's outermost regions (defined in article 349 TFEU), coastal and mountain areas, rural areas close to towns and cities);
- Gain a better understanding of the needs of and challenges faced by people in a vulnerable situation in various rural areas of Europe, the possible ways to address economic and demographic challenges, including ageing, disability, and vulnerability of young people where relevant (in particular those not in employment, education or training NEET), and accessibility to adequate services (e.g. considering also universal design), including social ones (e.g. for people with mental or physical disabilities);
- Benchmark policies, services, including social ones, and initiatives developed at various levels to empower people in a vulnerable situation to full and effective participation and inclusion in society, including social economy and entrepreneurship (e.g., social farming, itinerant services and mobility, multishops), pooling of services and creation of meeting places to enhance social interaction (e.g., multidisciplinary health houses, associative cafés), public-private partnerships, and rural-urban linkages. Assess the quality, strengths and weaknesses of these services and to what extent they are used by/reach the target groups;

- Explore the role, potential and limitations of social economy and social enterprises in supporting the population in a vulnerable situation in rural areas, including for the provision of basic and adequate social services;
- Make policy recommendations on how to improve service delivery and other relevant measures in order to meet the needs of people in a vulnerable situation, as well as on how to create an enabling framework for the upscale of social economy in rural areas;
- Accompany pilot innovation actions supporting people in a vulnerable situation and social entrepreneurship to draw additional knowledge from concrete examples.

Proposals should be innovation-oriented and must implement the multi-actor approach, bringing together multiple science fields, in particular the social sciences and humanities (SSH) (e.g., sociology, behavioural sciences, psychology, economics, etc.), and actors with complementary roles and experiences (e.g., representatives of people in a vulnerable situation, service providers, health services, associations, public authorities, universal designers, etc.).

Proposals should cover a representative variety of European rural areas, consider various types of vulnerability (including gender and intersectionality when relevant), and take stock of and experiment a variety of social economy and service provision examples.

Projects should build on existing results, findings and good practices. For instance they could explore activities undertaken by Horizon Europe projects funded under the topics HORIZON-CL2-2022-TRANSFORMATIONS-01-02 and HORIZON-CL2-2021-TRANSFORMATIONS-01-03.

Finally, projects funded under this topic should coordinate activities between them to avoid overlaps and benefit from synergies. Proposals should allocate appropriate budget and resources to implement this task.

HORIZON-CL6-2023-COMMUNITIES-01-2: Improving rural future through better territorial governance and rural-urban synergies

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 5.50 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 11.00 million.
<i>Type of Action</i>	Innovation Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: The proposals must

	use the multi-actor approach. See definition of the multi-actor approach in the introduction to this work programme part.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G. The following exceptions apply: Beneficiaries may provide financial support to third parties. The support to third parties can only be provided in the form of grants. The maximum amount to be granted to each third party is EUR 60 000.

Expected Outcome: The successful proposal will contribute to fostering a sustainable, balanced equitable and inclusive development of rural areas, supporting the implementation of the European Green Deal, in particular to the farm to fork and the biodiversity strategies, the organic action plan, the common agricultural policy (CAP), the long-term vision for the EU’s rural areas and its objectives (contributing to make rural areas stronger, connected, resilient and prosperous) and to its flagship initiative “Research and innovation for rural communities”, and the EU territorial agenda for 2030.

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

- Improved connections, strategies and governance arrangements that foster synergistic development and just transition of rural and urban areas and more integrated territorial policies and strategies in a growing number of localities;
- Improved business and innovation opportunities thanks to a more proximate, circular and green economy and renewed vitality of rural places through a better connectivity, improved valorisation of cultural and natural heritage, and stronger innovation ecosystems;
- Improved mutual access of rural and urban actors to services provided by either type of areas;
- Improved social connectivity, social capital, resilience, and capacity to face changes as well as of innovating, and increased understanding of the cultural connections between rural and urban communities and strengthened sense of territorial identity.

Scope: Rural and urban areas are interdependent and can mutually benefit from a territorial planning that takes into consideration their interactive relationship.

People, goods, services, information, financial capitals, energy, etc. flow between these areas, but these linkages are often neglected by policy makers that tend to deal with rural and urban issues separately. Proposals should aim at improving rural-urban cooperation, connections and planning for an integrated territorial development that adopts equitable measures to respond to socio-environmental disparities and foster sustainable growth.

Proposals are expected to support specific projects for developing rural-urban territorial partnerships to enhance the well-being of rural and urban people, increase resilience and favour a more synergistic/interlinked/networked development of rural and urban areas.

Proposal should also prioritise experimentation and innovation in domains that have been demonstrated to favour bi-directional urban-rural synergies and the development of a well-being economy: proximity (shortening distances/value chains including in the agri-food sector with particular attention to organic production), greener economy/society (e.g. ecosystem services and protection and restoration of biodiversity and natural capital, including nature-based solution – NBS), circularity (closing loops/ flows), services (improving social connectivity, new ways of working and living, pooling of and/or itinerant services), culture, landscape and heritage (building territorial identities as well as improving access to a valorised cultural heritage and cultural life) and mobility (sustainable and affordable mobility alternatives for rural residents).

Projects financed under this topic should capitalise on lessons learnt to further upgrade and future-proof policy frameworks and enabling environments.

Proposals should pay attention to the ecological and digital transitions, the potential of digital technologies as well as social inclusiveness, environmental knowledge and access of rural communities to good quality services and opportunities. In addition, they should analyse the impact caused by COVID 19 pandemic on integrated territorial development and address challenges that resulted from it.

Proposals must implement the multi-actor approach and bring together multiple science fields, in particular the social sciences and humanities (SSH) (e.g., economics, human geography, political science, cultural studies, etc.), and actors with complementary roles and experiences (e.g., service providers, transport services, public authorities, associations, innovators, small and medium enterprises -SMEs - etc.).

Proposals should cover a representative variety of European rural areas (e.g. rural-costal areas, mountains areas, remote rural areas) and build on results of relevant Horizon 2020 projects such as RURBAN, ROBUST (e.g., rural-urban learning hub), COASTAL, RURITAGE, RURALURE, SmartCulTour, TExTOUR, and FOODSHIFT 2030 and seek to improve/uptake governance and role models they have identified as promising.

Projects financed under this topic should create synergies with the New European Bauhaus (NEB) projects, facilitating ideas flows from urban to rural settings and vice-versa. For instance, some NEB projects could inspire good practices on the reuse of buildings in rural areas that can function as innovation hubs or build links between urban and rural areas. Proposals should allocate adequate budget and resources to implement this task.

This topic is open to financial support to third parties as an option either to select pilots for developing partnerships or innovative solutions aiming at contributing to integrated territorial development.

Finally, proposals are encouraged to leverage the data and services available through European Research Infrastructures federated under the European Open Science Cloud, as well as data from relevant Data Spaces.

HORIZON-CL6-2023-COMMUNITIES-01-3: International benchmarking of rural and territorial policies and delivery mechanisms

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 3.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 3.00 million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Eligibility conditions</i>	<p>The conditions are described in General Annex B. The following exceptions apply:</p> <p>Due to the scope of this topic, legal entities established in third countries are exceptionally eligible for Union funding.</p> <p>If eligible for funding, legal entities established in non-associated third countries/name specific countries may exceptionally participate in this Coordination and support action as a beneficiary or affiliated entity.</p>
<i>Legal and financial set-up of the Grant Agreements</i>	<p>The rules are described in General Annex G. The following exceptions apply:</p> <p>Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025).³⁹⁰.</p>

Expected Outcome: The successful proposal will contribute to fostering a sustainable, balanced, equitable and inclusive development of rural areas, supporting the implementation of the long-term vision for the EU’s rural areas objectives (contributing to make rural areas stronger, connected, resilient and prosperous), the rural pact, the European Rural Observatory, the European territorial agenda for 2030, and to the European Green Deal more in general, and in particular to the EU climate adaptation strategy.

³⁹⁰ This [decision](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under ‘Simplified costs decisions’ or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

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

- Improved understanding of rural development and territorial policies existing across the world, as well as delivery mechanisms by policy makers at different levels (e.g. international, national, regional and local).
- Upgraded and more innovative and integrated rural policy frameworks (e.g. for rural revitalisation and attractiveness, for improving rural innovation ecosystems, for urban-rural linkages, for improved adaptation strategies, plans and measures that aims at addressing climate change in a systemic manner) at different levels (e.g. international, national, regional, local) capitalising on international knowledge exchange to increase inclusive and sustainable rural well-being;
- Enhanced uptake of a positive narrative on the future of rural areas at international level by policymakers.

Scope: The study and implementation of rural policies is unequally advanced across the world. The project funded under this topic should contribute to increase policymakers' understanding of rural challenges and strengthen their capacities to implement adequate policy responses to these challenges in order to increase inclusive and sustainable well-being in rural areas, considering also climate change mitigation and adaptation. Proposals are expected to work by adopting a holistic vision to rural development and/or revitalisation, avoiding a sectorial approach (e.g. rural development should not be limited to agricultural development, but overarch several aspects of the rural life).

Proposals are expected to:

- Perform international benchmarking of rural policies within the EU and third countries who appear as best practice examples of science-society-policy exchange activities, global dialogue on rural policies and capacity building for policymakers working at different levels (e.g., international, national, regional, and local);
- Analyse delivery mechanisms (decentralised vs centralised, quality of multi-level governance, role of politics, etc.) and ways to measure impact combining both quantitative and qualitative methods;
- Focus on multi-dimensional policies (e.g. coordination among different policies and different policy level, from local to international) that address several needs and challenges in an integrated manner;
- Analyse also rural and territorial policies that were developed with and for rural communities and identify effective citizen engagement methods;
- Identify and analyse also successful policy measures aimed at creating opportunities for young people in rural areas;

- Enhance peer-to-peer learning among international, national, regional and local policy makers by experimenting different mechanisms and tools for effective knowledge exchange, even among different levels, on best practices and lessons learnt about rural and territorial policies and delivery mechanisms;
- Provide recommendations to policy makers at different levels (e.g. international, national, regional and local) on how to best address rural needs and challenges and foster sustainable balanced, equitable and inclusive development of rural areas.
- Provide recommendations to policy makers at different levels, in particular regional and local, on how to best access and make use of existing funds.
- Projects should provide relevant results, in particular develop a framework to measure communities' well-being beyond economic indicators (including social, health-related, environmental) to measure policy impacts in rural areas that can be linked with the work of the upcoming EU Rural Observatory.

This topic should involve the effective contribution of social sciences and humanities (SSH) disciplines (e.g., economics, international studies, development studies, political science, citizen engagement studies, and human geography).

In order to achieve the expected outcomes, international cooperation is strongly encouraged.

Legal entities from third countries can take part in the project as associated partner or beneficiary.

HORIZON-CL6-2023-COMMUNITIES-01-4: Investigating the contribution of geographical indications (GIs) to sustainable development and optimising support for newly established schemes

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 3.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 3.00 million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the

	Research and Training Programme of the European Atomic Energy Community (2021-2025). ³⁹¹ .
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Expected Outcome: The successful proposal should support the objectives of the farm to fork strategy for sustainable food as well as to strengthen the contribution of the system of geographical indications (GIs) to support those objectives.

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

- Better understanding of the contribution of GIs schemes to sustainable development and in particular to achieve the objectives of the farm to fork strategy.
- Sustainability attributes in GI schemes are widely implemented by the producers and recognized and correctly interpreted and understood by consumers.
- Better design and implementation of GIs policy to foster their delivery of sustainable agriculture, aquaculture and fishery, healthy and sustainable diets and sustainable food systems.

Scope: The EU is renowned for its high quality food products having specific characteristics or farming attributes that distinguish them in the marketplace, and particularly those labelled under registered geographical indications (GIs). The quality and diversity of the Union's food production is one of its important strengths giving a competitive advantage to its producers and making a major contribution to its living cultural and gastronomic heritage.

Quality schemes can benefit the rural and coastal economy. This is particularly the case in disadvantaged areas, in mountain areas and in the most remote regions where the farming sector already takes a significant part of the economy and production costs are high. They can create value for local communities through products that are deeply rooted in tradition, culture and geography.³⁹²

Building on the state-of-the-art in particular, but not limited to, on results of the Strength2Food project³⁹³, the proposals are expected to focus on GIs schemes.

Proposals are expected to:

- Provide a sound analysis of the state-of the art in research on the impacts of GIs schemes in terms of all aspects of sustainability;

³⁹¹ This [decision](#) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

³⁹² https://ec.europa.eu/info/sites/default/files/food-farming-fisheries/key_policies/documents/cap-specific-objectives-brief-3-farmer-position-in-value-chains_en.pdf

³⁹³ <https://www.strength2food.eu/>

- Assess sustainability impacts of all GIs products (>3000) in all three dimensions, i.e., economic, social and environmental (including use of natural resources, cultural heritage preservation, public health);
- Comprehensively map the practices in GIs production systems and identify those that minimise the negative environmental and social impacts and at the same time balance the economic dimension of sustainability;
- Investigate how to better valorise the sustainable deliverables of GIs, including the type and characteristics of public goods generated by the GI production and the benefits for local areas and society at large;
- Identify synergies among different intervention schemes in order to increase the participation of farmers and fishermen;
- Explore consumers' perception of GIs, including the demand for valorising GIs as a qualifier of shorter food supply chain, and how to better promote GIs that are aligned with healthy and sustainable diets to increase demand and willingness to pay for GI products.
- Explore and benchmark the approaches/policy followed by the different Member States and Associated Countries when it comes to GIs and sustainability;
- Formulate best practices, decision tools, recommendations to be used by producers and policy makers to improve sustainability of the GIs schemes and optimise the support for newly established GI schemes that are aligned with healthy and sustainable diets;

An adequate representation of consumers' interests by bodies that are knowledgeable of policy issues involved needs to be ensured, at least for those aspects of the project that involve consumers, consumers' information and perception.

HORIZON-CL6-2023-COMMUNITIES-01-5: Assessing urban farming impacts

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 5.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 5.00 million.
<i>Type of Action</i>	Research and Innovation Actions

Expected Outcome: The successful proposals will support the European Green Deal, farm to fork strategy and impact assessment for the post-2027 common agricultural policy (CAP).

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

- Improved knowledge on impacts and risks of various types of urban farming from the economic, environmental and social perspective, with a particular focus on spill-over effects into rural and peri-urban areas;
- Improved awareness of policy makers helping them adjust policy and legal frameworks to foster benefits and mitigate risks associated to the development of various forms of urban farming and related technologies.

Scope: Proposals are expected to:

- Assess current and future (foresight) contribution of various forms of urban farming to:
 - o Overall food supply, food security and resilience mainly for urban citizens but also addressing potential food security impacts on rural populations, factoring in megatrends and potential risks around key inputs or conditions enabling urban farming;
 - o Evolution of farm income in urban and rural areas, the distribution of value added in the supply chain and possible effects on the bargaining power of supply chain actors;
 - o The provision of ecosystem services in urban and rural areas against the evolution of environment and climate conditions (including water and nutrient use and cycling, biodiversity protection, energy use, soils including soil health, regulation of the urban heat island effect etc.), in relation with European Green Deal objectives;
 - o The provision of social benefits (e.g., access of new and/or young farmers, gender equity, place-based/community development) and improvement of social capital (e.g., values, networks, governance) and community cohesion in urban and rural areas. Social Sciences and Humanities (SSH) aspects should be an integral part of the proposal;
 - o The demand for new skills, training and educational offer also taking into account the technological or social dimensions of different forms of urban farming.
- Compare the conditions under which various types of urban, peri-urban or rural farmers operate in order to identify the challenges that may justify targeted regulatory or policy initiatives. Conditions are to be understood in a broad sense, including e.g., initial investments, production, quality control, labelling, marketing and retail as well as the legal and enabling environment in which they operate.
- Support the discussion on rationale for policy interventions in the EU context.

Proposals should build links and capitalise on the results of past and ongoing relevant projects, e.g., Horizon 2020 EFUA and the New European Bauhaus (NEB) in urban food system transformation.

Proposals should describe a credible pathway from their project results and outcomes towards the expected impact of this Destination.

HORIZON-CL6-2023-COMMUNITIES-01-6: Inclusive and smart ways to communicate sustainability of food

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 6.50 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 6.50 million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Eligibility conditions</i>	<p>The conditions are described in General Annex B. The following exceptions apply:</p> <p>The Joint Research Centre (JRC) may participate as member of the consortium selected for funding.</p> <p>The following additional eligibility criteria apply: The proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this work programme part.</p>

Expected Outcome: This topic is in line with the European Green Deal priorities and the farm to fork strategy for a fair, healthy and environmentally friendly food system, as well as of the EU's climate ambition for 2030 and 2050. This will contribute to the Food 2030 priorities: nutrition for sustainable healthy diets, climate, biodiversity and environment, circularity and resource efficiency, innovation and empowering communities and thriving businesses.

This topic contributes to creating a sustainable food labelling framework to empower consumers to make sustainable food choices as part of the farm to fork strategy.

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

- Enhanced understanding of the status of consumer information expectations/needs (conscious and unconscious) related to all three dimensions of sustainability and its drivers and challenges, including the influence of external factors and socio-cultural aspects;
- Identified best means of transmission and presentations of sustainability related information to guide and change consumer behaviour.

Scope: The sustainability food labelling framework can help consumers in making sustainable food choices. An improved understanding of the drivers of food choices and the role of sustainability can support in using EU and national policy makers and government actions and

funds most efficiently and using the best approaches³⁹⁴. Information itself may not be enough to change citizens' perception and actions, it should be addressed "in the right way" (emotional cues...etc.) and consider their current knowledge and information needs. Citizens' food choices, although frequently characterized as a matter of personal choice, are subjective largely by food environments³⁹⁵ and there is a need to understand the influence of marketing and media as part of the environment, sometimes creating adverse effects³⁹⁶.

Proposals are expected to address the following:

- Analyse the impact of different influential factors, such as norms/beliefs/cultural environments as well as medias and their way of communicating on the consumer understanding of sustainability, emotional beliefs and response to sustainability information including issues of trust and reliability;
- Analyse the status of consumer information expectations/needs (conscious and unconscious) related to sustainability and understand how sustainability related information expectations/needs can be increased/developed as well as their drivers and challenges;
- Test different means of transmission (including different actors sharing information (private vs public)) and presentations of sustainability related information to guide and change consumer behaviour best (including increased willingness to pay for sustainable products and services);
- Test the response of the public to information related to at least two dimensions of sustainability, including aspects that cover the whole food chain, such as for example biodiversity, packaging or composting, locally produced products;
- Proposals should include a dedicated task, appropriate resources and a plan on how they will collaborate with other projects under the topic 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 practice or incentives”;

Proposals are encouraged to cooperate with actors such as the European Commission's Joint Research Centre (JRC). The JRC may provide expertise on how to strengthen the relationship between scientists and European policy makers and to promote research and collaboration on food systems science.

³⁹⁴ Placzek, O., "Socio-economic and demographic aspects of food security and nutrition", OECD Food, Agriculture and Fisheries Papers, No. 150, OECD Publishing, Paris, <https://doi.org/10.1787/49d7059f-en>, 2021.

³⁹⁵ European Public Health Alliance (2019) "Food environments are the physical, economic, political and socio-cultural contexts in which people engage with the food system to make their decisions about acquiring, preparing and consuming food" at <https://epha.org/what-are-food-environments/>.

³⁹⁶ World Health Organisation "Tackling food marketing to children in a digital world: trans-disciplinary perspectives", https://www.euro.who.int/data/assets/pdf_file/0017/322226/Tackling-food-marketing-children-digital-world-trans-disciplinary-perspectives-en.pdf, 2016.

Proposals must implement the 'multi-actor approach' and ensure adequate involvement of citizens and civil society, together with social innovators, planners, social scientists, communication and marketing experts and public authorities to develop new methods and approaches to innovation. This topic should involve the effective contribution of SSH disciplines.

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

HORIZON-CL6-2024-COMMUNITIES-01

Conditions for the Call

Indicative budget(s)³⁹⁷

Topics	Type of Action	Budgets (EUR million)	Expected EU contribution per project (EUR million) ³⁹⁸	Indicative number of projects expected to be funded
		2024		
Opening: 17 Oct 2023 Deadline(s): 22 Feb 2024				
HORIZON-CL6-2024-COMMUNITIES-01-1	IA	6.00	Around 3.00	2
HORIZON-CL6-2024-COMMUNITIES-01-2	RIA	6.00	Around 6.00	1
HORIZON-CL6-2024-COMMUNITIES-01-3	RIA	3.00	Around 3.00	1
Overall indicative budget		15.00		

General conditions relating to this call

<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.

³⁹⁷ The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.
The Director-General responsible may delay the deadline(s) by up to two months.
All deadlines are at 17.00.00 Brussels local time.
The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for years 2023 and 2024.

³⁹⁸ Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.

<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Documents</i>	The documents are described in General Annex E.
<i>Procedure</i>	The procedure is described in General Annex F.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G.

Proposals are invited against the following topic(s):

HORIZON-CL6-2024-COMMUNITIES-01-1: Unlock the potential of the New European Bauhaus in urban food system transformation

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 3.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 6.00 million.
<i>Type of Action</i>	Innovation Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: the proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this work programme part.
<i>Evaluation Procedure</i>	To ensure a balanced portfolio covering demonstration activities in diverse geographical areas of the European Union and Associated Countries, grants will be awarded first to the highest ranked application according to the standard procedure described in Horizon Europe General Annexes D and F, followed by other applications that are the highest ranked among those that ensure the most complementary geographical coverage, provided that the applications attain all thresholds. When assessing geographical coverage, the evaluation will take into account the location of the application's demonstration activities, not the location of the application's

	participants/beneficiaries.
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Expected Outcome: In line with the European Green Deal priorities and the farm to fork strategy for a fair, healthy and environmentally friendly food system, as well as of the EU's climate ambition for 2030 and 2050 and the EU biodiversity strategy for 2030, the successful proposal will support the development of policies, business models and market conditions contributing to the sustainable, balanced and inclusive development of urban and peri-urban areas and to the empowerment and resilience of their communities, who can access, afford and choose healthier, nutritious and environmental-friendly food. The successful proposal will also contribute to the Food 2030 priorities: nutrition for sustainable healthy diets, climate, biodiversity and environment, circularity and resource efficiency, innovation and empowering communities.

The overall aim of this topic and associated R&I activities is to leverage the New European Bauhaus³⁹⁹ values for urban and peri-urban food system transformation by positively transforming the food environment⁴⁰⁰ to enable sustainable, inclusive, and aesthetic ways of food system transformation.

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

- Positively transformed food environments that enhance sustainable food system transformation by applying the vision of New European Bauhaus (NEB) to “call on all Europeans to imagine and build together a sustainable and inclusive future that is beautiful for our eyes, minds, and souls”;
- Reconnected and engaged citizens with nature and healthy and sustainable food for their well-being and health while providing multifunctional benefits, such as biodiversity.

Scope: Sustainable food systems can be an integral part of our living spaces including urban gardens, rooftop gardens and other nature-based solutions and positively transform our food environments. Exploiting the vision of New European Bauhaus and providing inclusive access, education and capacity building can provide multi-functional benefits and help transforming food systems especially in urban and peri-urban areas.

Proposals are expected to address the following:

- Involve all three core values of NEB: 1) sustainability, 2) aesthetics/quality of experience, 3) inclusion, for transforming food environments and contribute to a green and sustainable infrastructure;
- Expand food environments by using architecture/local place-based approaches for innovative solutions, including art, for current and future needs linked to sustainable food environments and stronger citizen connection to food and empowered self-

³⁹⁹ https://europa.eu/new-european-bauhaus/index_en

⁴⁰⁰ European Public Health Alliance (2019) “Food environments are the physical, economic, political and socio-cultural contexts in which people engage with the food system to make their decisions about acquiring, preparing and consuming food.” <https://epha.org/what-are-food-environments/>

provisioning communities with multi-functional nature-based solutions (e.g., urban gardens connected to parks, edible trees and bushes, edible green infrastructure...etc.);

- Use and demonstrate place-based solutions with considering its specific resource pool and place, e.g., connect food to local cultural values and if possible, to indigenous communities and/or urban citizens' movements and make use of local plants and herbs, also supporting local ecological resilience;
- Apply and demonstrate community-based solutions with strong citizen engagement (especially youth) to simultaneously drive human needs and environmental benefits;
- Connect rural and urban/peri-urban areas and communities for co-benefits and enhanced inclusive experience, by also using data and technology⁶;
- Develop appropriate models to multiply innovations across the EU while considering different types of urban/peri-urban areas (different city size, different countries);
- Proposals should include a dedicated task, appropriate resources and a plan on how they will collaborate with other projects funded under this topic as well as to interact with the New European Bauhaus community, NEBLab and other relevant actions under NEB, e.g. by participating in activities, workshops, as well as common communication and dissemination activities, and connect with learnings from other initiatives such as the "Year of Greener Cities" and "Year of youth";

Proposals must implement the 'multi-actor approach' and ensure adequate involvement of citizens and civil society, together with urban designers, design thinkers, social innovators, start-ups, planners, social scientists and public authorities to strengthen relationships between urban planning and food choices and to develop new methods and approaches to innovation. This topic should involve the effective contribution of SSH disciplines.

In the context of this topic, geographical areas of the European Union and Associated Countries are NUTS level 1 regions of European Union Member States and of Associated Countries for which they are defined. In the case of Associated Countries without NUTS classification, the country as a whole is to be considered as one geographical area:

- List of Associated Countries not defined by NUTS level 1: Armenia; Bosnia and Herzegovina; Faroe Islands; Georgia; Kosovo⁴⁰¹; Israel; Moldova; Tunisia; Ukraine.
- List of countries not defined by NUTS level 1 with which association negotiations are being processed or where association is imminent: Morocco.

⁴⁰¹ This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

HORIZON-CL6-2024-COMMUNITIES-01-2: Societal perceptions and benefits of rural life and jobs: will COVID 19 generate a long-lasting shift?

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 6.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 6.00 million.
<i>Type of Action</i>	Research and Innovation Actions

Expected Outcome: The successful proposal will contribute to fostering a sustainable, balanced, equitable and inclusive development of rural areas, supporting the implementation of the long-term vision for the EU’s rural areas⁴⁰² and its objectives that sees EU rural areas stronger, connected, resilient and prosperous by 2040, and the EU territorial agenda for 2030⁴⁰³.

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

- Improved understanding by policy makers at different levels (European, national, regional and local) of the behavioural drivers of people’s lifestyle choices and rural and urban dwellers’ perceptions of rural life in the aftermath of COVID 19;
- Improve understanding of policy makers at different levels (European, national, regional and local) of the behavioural and structural drivers of people’s lifestyle choices and people’s perceptions of rural life in the aftermath of COVID 19 and of the long-term trends and opportunities for rural areas;
- Improved policy-response to rural areas challenges and needs in the light of the COVID 19 impact;

Improved narrative of rural and farming lives.

Scope: Rural areas are often described by the challenges they face: depopulation, demographic change, low income levels, limited access to services, low connectivity, discontent caused by the feeling of being overlooked and limited resilience. However, rural areas can be places of opportunities⁴⁰⁴. For instance, they are key for green-energy production and for ecosystem services; they have the potential of developing the bio and circular economy; they are also an integral part of the ecological and digital transitions; they can also

⁴⁰² A long-term vision for the EU's rural areas - Towards stronger, connected, resilient and prosperous rural areas by 2040, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021DC0345>

⁴⁰³ Territorial Agenda 2030, https://ec.europa.eu/regional_policy/sources/docgener/brochure/territorial_agenda_2030_en.pdf

⁴⁰⁴ OECD, Rural well-being, geography of opportunities, <https://www.oecd.org/regional/rural-well-being-d25cef80-en.htm>

be places rich in terms of cultural heritage and have the potential to develop cultural initiatives.

Overall, there are increasing demands from the society that are putting pressure on rural areas and the Covid-19 crisis showed how important it is to keep essential services, e.g. the agri-food production that is an important part of the rural economies, active.

To better respond to rural areas needs and challenges, and to revert the negative trends that affect the well-being of rural communities, it is important to better understand how rural life is perceived by urban and rural dwellers and to build a new narrative, based on facts, that highlight the opportunities of these places.

Projects funded under this topic are expected to:

- undertake sociological, behavioural, social psychology, social science, history, geographical, cultural, gender, economic studies on societal perception of rural areas and rural lifestyles, including, but not limiting to, societal perception of farming in a variety of places across Europe;
- increase understanding of the drivers of the attractiveness of rural and farming lives and of corresponding criticisms and biases, including the social composition of flows (e.g. age, gender, nationality, economic status, etc.), a geography of departure and destination zones, distinguishing between perceptions and facts, and both from rural people and urban people (including perception of various farming sectors and practices);
- analyse how these drivers have been affected by COVID 19 and are likely to evolve, in the short to long-term (2050) (e.g. economic and trade evolution, new ways of working, multi-local living and second homes, zero pollution, health risks etc.);
- analyse social relations and possible conflicts between new populations and residents, the possible decomposition of social segregation or social mixing;
- identify the policy and financial consequences for local jurisdictions of both new arrivals and depopulation in terms for instance, of public infrastructures sizing (e.g., water treatment, waste management), real estate markets and housing, public services, etc.
- analyse initiatives aiming at shifting perceptions of both urban and rural dwellers on rural and farming lives and pilot new initiatives (e.g. on rural attractiveness for young people also beyond agriculture) in different localities across Europe;
- use foresight (e.g., scenarios, build on trend analysis and disruptive factors, weak signals) to develop adequate strategies to mitigate threats and seize opportunities;
- contribute to build a positive narrative of rural and farming lives based on facts.

This topic should involve the effective contribution of social science and humanities (SSH) disciplines (e.g., sociology, history, human geography behavioural sciences, gender studies, etc.).

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

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 3.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 3.00 million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: the proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this work programme part.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025). ⁴⁰⁵

Expected Outcome: Proposals should contribute to the sustainable and inclusive development of Arctic coastal, local and indigenous communities, supporting the implementation of the European Green Deal and the EU policy for a peaceful, sustainable and prosperous Arctic, incorporating a better understanding of the environmental, socio-economic, cultural and demographic drivers of change in the Arctic region.

Activities are expected to empower Arctic coastal, local and indigenous people to act for change through capacity building and education actions, leading to positive long-term prospects for all, including women, young people and vulnerable groups.

The research should explore and document traditional environmental knowledge (TEK) of Arctic coastal, local and indigenous peoples, contributing thus to safeguarding and valuing the cultural identity of the Arctic; explore interactions between local and indigenous knowledge

⁴⁰⁵ This [decision](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under ‘Simplified costs decisions’ or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

holders and scientists and develop innovative ways to mobilise this knowledge for climate change adaptation, ecosystem restoration and socio-economic goals.

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

- Better understanding of how different types of knowledge, including traditional environmental knowledge (TEK)⁴⁰⁶, are being mobilised; how scientists and local and indigenous knowledge holders cooperate and dialogue in this context;
- Empowerment of Arctic coastal, local and indigenous people and sectors to innovate⁴⁰⁷ for the ecological transition and feel part of it, through participatory methodologies (i.e. a multi-actor approach); to engage in decision-making about their environment and livelihoods;
- Explore, with different actors, and recommend ways to bring traditional, local, and scientific knowledge into the collective effort of solving matters of concern, including (choose at least 2 from the items below):

-Adaptation and mitigation to climate change, ecosystem restoration and environment protection;

-Socio-economic changes in the Arctic, ranging from local level (subsistence economies, local livelihoods) to circular economy, fishing, international trade, shipping routes, tourism, and the socio-economic impact of climate change;

-Health and well-being, taking a One Health approach⁴⁰⁸;

-Gender aspects, in the context of current economic and social development and future challenges, inter alia relating to climate and environmental issues.

Scope: Addressing ongoing Arctic environmental and societal changes requires that all relevant knowledge, indigenous/traditional and scientific knowledge alike, is mobilised to respond and govern the challenges posed by those changes, and communities empowered to take part in environmental decision-making.

Proposals are expected to contribute to sustainable and inclusive development, incorporating a better understanding of the environmental, socio-economic, cultural and demographic drivers of change. They will investigate the participation of indigenous and local communities in the

⁴⁰⁶ A definition is proposed in the JRC Report, Arctic Knowledge: Echoes from the North, European Commission, 2021: Traditional/indigenous/local knowledge refers to the knowledge owned by indigenous and local people and communities. It is a living and dynamic knowledge focused on interconnections in the ecosystem. The knowledge is based on a holistic approach and is systematically resilient. Its practice is closely related to land and sea and the lived experience in an environment. It has its own validation methods which are constantly evolving over generations, within communities and families. It is embedded in cultural upbringings and framed within particular worldviews which shape interactions with the environment, all living beings and the management of resources.

⁴⁰⁷ More on social innovation can be found here: www.siceurope.eu

⁴⁰⁸ The term “One Health” describes a multidisciplinary approach to health risks in humans, animals, plants, and the environment.

governance of their livelihoods and environmental decision-making. Proposals should explore how different ways of knowing, worldviews and perspectives can be brought in dialogue, to enhance understanding and to better respond to the impacts of climate, environmental and related socio-economic changes on Arctic people's livelihoods and the environment. Furthermore, how coastal, local, and indigenous communities could be empowered via participatory research processes, to get involved in environmental decision-making. Proposals should identify opportunities for partnerships and co-production of knowledge based on indigenous and scientific ways of knowing.

Proposals should explore how different ways of knowing, worldviews and perspectives can be brought in dialogue, to enhance understanding and to better respond to the impacts of climate, environmental and related socio-economic changes on Arctic people's livelihoods and the environment. Furthermore, how coastal, local, and indigenous communities could be empowered via participatory research processes, to get involved in environmental decision-making. Proposals should identify opportunities for partnerships and co-production of knowledge based on indigenous and scientific ways of knowing.

Several potential coastal sectors can be addressed, however the proposal will ensure inclusion of marine protection, food security, climate adaptation and resilience strategies, but also other activities such as leisure activities and eco-socio-compatible tourism development in coastal areas.

Projects should include representation from multiple disciplines of research, including environmental, marine, social, cultural, health, design.

Attention should be given to different capacity building and social learning arrangements as well as to innovative governance mechanisms at various levels, and their potential implications for social innovation.

This topic is expected to involve the effective contribution of SSH disciplines. The proposals should adopt a responsible and solidary approach where Arctic local and indigenous communities are seen as research partners, using participatory methods and bottom-up co-creation. Participation of Arctic indigenous partners in the project is encouraged, to be involved from the outset in the co-development of the research proposal. Engaging with local authorities during the project would help increase implementation of the project outcomes and support further uptake.

Projects should build on existing knowledge and integrate results from multiple origins, including other EU, international or national projects. Some cooperation activities with projects financed under Destination 'Biodiversity and ecosystem services' and topics of the European Green Deal Call could be included, as well as with relevant projects from other EU programmes, for example the Horizon Europe Missions Ocean, seas and waters and Adaptation to Climate Change.

International cooperation is encouraged, with a strong linkage with the ongoing activities under the All-Atlantic Ocean Research and Innovation Alliance and encouraging participation from countries that take part in the Arctic Science Ministerial meetings.

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

HORIZON-CL6-2024-COMMUNITIES-02

Conditions for the Call

Indicative budget(s)⁴⁰⁹

Topics	Type of Action	Budgets (EUR million)	Expected EU contribution per project (EUR million) ⁴¹⁰	Indicative number of projects expected to be funded
		2024		
Opening: 17 Oct 2023				
Deadline(s): 22 Feb 2024 (First Stage), 17 Sep 2024 (Second Stage)				
HORIZON-CL6-2024-COMMUNITIES-02-1-two-stage	IA	10.00	Around 5.00	2
HORIZON-CL6-2024-COMMUNITIES-02-2-two-stage	RIA	12.00	Around 6.00	2
Overall indicative budget		22.00		

General conditions relating to this call

<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Financial and operational capacity and</i>	The criteria are described in General Annex

⁴⁰⁹ The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.

The Director-General responsible may delay the deadline(s) by up to two months.

All deadlines are at 17.00.00 Brussels local time.

The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for years 2023 and 2024.

⁴¹⁰ Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.

<i>exclusion</i>	C.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Documents</i>	The documents are described in General Annex E.
<i>Procedure</i>	The procedure is described in General Annex F.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G.

Proposals are invited against the following topic(s):

HORIZON-CL6-2024-COMMUNITIES-02-1-two-stage: Innovating for climate-neutral rural communities by 2050

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 5.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 10.00 million.
<i>Type of Action</i>	Innovation Actions
<i>Admissibility conditions</i>	The conditions are described in General Annex A. The following exceptions apply: Applicants submitting a proposal under the blind evaluation pilot (see General Annex F) must not disclose their organisation names, acronyms, logos, nor names of personnel in Part B of their first stage application (see General Annex E).
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: The proposals must use the multi-actor approach. See the definition of the multi-actor approach in the introduction to this work programme part.
<i>Procedure</i>	The procedure is described in General Annex F. The following exceptions apply: This topic is part of the blind evaluation pilot under which first stage

	proposals will be evaluated blindly.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025). ⁴¹¹ .

Expected Outcome: The successful proposal will contribute to fostering a sustainable, balanced, equitable and inclusive development of rural areas, supporting the implementation of the long-term vision for the EU’s rural areas and its objectives (in particular contributing to stronger and resilient rural areas) and to its flagship initiative “Research and innovation for rural communities”, the European Green Deal, in particular the climate pact, the fit for 55 package, the forest and biodiversity strategies, and the new soil strategy as well as the territorial agenda 2030, the common agricultural policy (CAP) and the REPowerEU plan. In addition, proposals will complement the EU Mission Climate-Neutral and Smart Cities, covering sparsely populated areas, and contribute to the objectives of the EU Mission ‘A Soil Deal for Europe’.

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

- rural communities are empowered and engaged in the green transition and equipped with strategies and innovative solutions to contribute to EU’s climate-neutrality objectives (by 2035 and 2050) and benefit from a climate-neutral economy;
- rural communities take advantage of data, interoperable platforms and digital technologies available to help them meet climate-neutrality objectives, such as dashboards, data visualisation techniques, modelling, digital twins of entire rural communities and tools contributing to spatial planning;
- policy makers are better informed about policy and regulatory frameworks, conditions and processes that are likely to encourage rural areas’ climate-neutrality while sustaining an adequate social welfare and well-being and avoiding negative social, economic and environmental externalities;
- a stronger rural innovation ecosystem is in place bringing together public and private players and making rural areas an attractive place for innovators to work and live.

⁴¹¹ This [decision](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under ‘Simplified costs decisions’ or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

Scope: The EU aims to be climate-neutral by 2050 – an economy with net-zero greenhouse gas emissions. This objective is in line with the EU’s commitment to global climate action under the Paris Agreement and it is reflected in the European Green Deal objectives. Considering that approximately one third of EU citizens live in rural areas, which represent 83% of the EU territory, it is key to empower rural communities to transit towards sustainability by fostering innovation in key areas such as environment and sustainable management of resources (air, soil, water), energy, transport, agriculture, industry, bioeconomy, and finance and ensure that no one is left behind.

Projects funded under this topic are expected to:

- design, prototype and test concrete innovations (technical, social, organisational) supporting climate-neutrality, zero pollution and biodiversity enhancement in rural communities, possibly including initiatives such as nature-based solutions (NBS), circularity and bioeconomy, bio-based solutions, community-energy systems, climate-neutral mobility, fire-prevention, etc. Innovations should be co-created with rural stakeholders to respond to their needs and tested for their feasibility for the territorial development opportunities or drawbacks that they bring;
- include training and capacity building for local administrations and rural stakeholders in order to create and maintain a rural innovation ecosystem and enable them to make use or benefit from the successful innovations developed and from existing funding opportunities for the green and digital transitions;
- boost networking and enhance peer-to-peer learning between communities and capitalise on lessons learnt making them available as recommendations for policy makers at various levels (European, national, regional and local);

Proposals are encouraged to fully exploit and build complementarities with the ongoing work regarding the establishment of the European Open Science Cloud and interact with relevant projects developing metadata standards and added value tools to ensure interoperability within and across fields of study.

This topic should involve the effective contribution of social sciences and humanities (SSH), (e.g., for expertise in behavioural change, etc.) and must implement the multi-actor approach by involving relevant stakeholders from an early stage (e.g. rural communities representatives, small-medium enterprises -SMEs, etc., end-users, local authorities, etc.).

Proposals should cover various biogeographical regions with a balanced coverage reflecting the various pedo-climatic zones in Europe in a representative way.

Proposals are expected to build on the preliminary results of the Horizon Europe projects GRANULAR and RUSTIK, in particular its framework and indicators on climate-neutrality of rural communities.

Proposals should also create synergies and coordinate activities with the other project funded under this topic and should allocate appropriate budget for this task. Proposals are also encouraged to build synergies with relevant projects that will be financed under this call.

HORIZON-CL6-2024-COMMUNITIES-02-2-two-stage: New sustainable business and production models for farmers and rural communities

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 6.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 12.00 million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Admissibility conditions</i>	The conditions are described in General Annex A. The following exceptions apply: Applicants submitting a proposal under the blind evaluation pilot (see General Annex F) must not disclose their organisation names, acronyms, logos, nor names of personnel in Part B of their first stage application (see General Annex E).
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: The proposals must use the multi-actor approach. See the definition of the multi-actor approach in the introduction to this work programme part.
<i>Procedure</i>	The procedure is described in General Annex F. The following exceptions apply: Proposals are expected to clearly address only one of the areas: area A or area B. To ensure a balanced portfolio covering both area A and area B, grants will be awarded to applications not only in order of ranking but at least also to one project that is the highest ranked within area A or B, provided that the applications attain all thresholds. This will allow to fund at least one project under area A and one under area B. This topic is part of the blind evaluation pilot under which first stage proposals will be evaluated blindly.

Expected Outcome: The successful proposal should support the European Green Deal initiatives notably the farm to fork, the forest, biodiversity and bioeconomy strategies, the common agricultural policy (CAP), the communication on sustainable carbon cycles, the EU

mission “A Soil Deal for Europe”, and the long-term vision for the EU’s rural areas (contributing to make rural areas stronger, connected, resilient and prosperous) and its research and innovation flagship initiative by developing innovative business and production models (i.e. but not limited to, smart farming, social farming, indoor plant factory, aquaponics, unattended horticulture, livestock and fish farms, e-commerce, tourism, cultural and natural heritage management, service delivery) that are fit for the future and foster improved economic outcomes, cooperation, inclusiveness and fairness for farmers and/or rural communities, and at the same time achieve high sustainability, contribute to climate neutrality and meet societal expectations, in particular with regards to local economies and protection and restoration of nature and resources (e.g. water, soil and air).

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

- Farmers and/or other rural actors widely adopt innovative inclusive and sustainable business and production models that enhance and remunerate climate action (i.e. increase carbon removals), biodiversity protection and restoration, and the reduction of emissions or concentrations of air pollutants in a variety of farming and rural contexts;
- Farmers and/or rural actors position in value chains is improved thanks to more inclusiveness, fairness and financial sustainability of trading relationships between the various actors in the upstream/downstream agri and rural business;
- It is possible to measure and track the economic, social and environmental sustainability of different farming systems and rural businesses thanks to the development and use of innovative technologies, including but not limiting to digital ones.
- Increased prosperity of farmers and/or in rural areas thanks to the creation of new jobs opportunities resulted from innovative and sustainable production and business models.

Scope: EU agri-food value chains are diverse and dynamic, enabling them to meet the various consumers’ expectations, potentially helping producers increase value added. Farming and other sectors in rural areas provide large numbers of jobs, yet rural communities often face challenges, such as a shrinking and ageing population, a lack of high qualified workers, a lack of good quality services and connectivity, which limit the economic attractiveness of these places.

At the same time agriculture is characterised by a stagnant and low share of value added in the value chain due to: high input costs, structure of the food value chains (concentration upstream and downstream), variation in production and incorporation of new services. Pressure on natural resources and climate change threats make all of the above-mentioned problems weigh more heavily. In an era of very tense discussions on climate change, global warming, air, water and soil pollution the EU stands firmly as a front-runner and targets the very ambitious goal of becoming a climate-neutral continent by 2050. This target seems very

challenging when looking at where we stand today and the pace at which expected changes across different sectors are taking place.⁴¹²

Therefore, rural communities as well as farmers are under increasing pressure to adopt sustainable business and production models that consider not only economic but also both social and environmental aspects. Moving towards more sustainable business and production systems requires adequate tools and measurement methods to assess and monitor the multi-performance of farms and rural businesses under different conditions.

Successful proposals are expected to clearly address only one of the following areas: area A or area B.

Area A

Proposals should:

- Design, test and upscale bottom-up community-led innovative business, cooperation and production models to improve farmers' position in different value chains and enable them to transition to sustainable agriculture and answer global challenges in locally adapted ways. They should cover a wide diversity of pedoclimatic, technical, organisational and economic conditions, including the complexity and dynamics in various production systems and structure of food value chains (additional sustainability requirements for farmers might lead to further unbalances in market power in the food chain).
- Investigate ways to monitor and verify improved social, environmental and climate performance and translate it into economic profit and competitive advantage for farmers. They should consider existing, emerging and potential markets and platforms, take into consideration sound cost-effective business, cooperation among different actors and production methods, sustainability and profitability.
- Investigate the trends in adoption of innovation in farms and how farmers innovate their business, cooperation or production models when they introduce new products and engage in new business activities.

Aim to connect citizens, private companies and public organisations with farmers to increase demand for sustainable agriculture and create a market for new business, cooperation and production models including for, but not limited to, e-commerce, smart farming, indoor plant factory, aquaponics, unattended horticulture, livestock and fish farms. Traceability for products and standards for safety and quality should also be taken into account.

- Create and widely share via an open access platform practical innovations, tools, best practices and guidelines to successfully develop and implement novel inclusive and sustainable business, cooperation and production models.

⁴¹² https://eic.ec.europa.eu/documents-0_en#ecl-inpage-1107

- Investigate and support the wide-spread applications of highly scalable business models for modern agricultural purposes including aspects of platform, circular and bio-based economies.
- Consideration should be given to innovative approaches in the development of production technologies, the circularity of the processes with the objective of zero waste, cascading of resources and consider public health as well as consumers' concerns and demands.

Area B

Proposals are expected to:

- Pilot innovative sustainable business and cooperation models to foster wealth and well-being of rural communities and villages while taking advantage of the green transition through the deployment of demonstrators. These demonstrators should be implemented in various sectors (i.e. but not limited to energy, transport, social services, tourism, culture, digital, etc.) responding to rural communities' needs.
- Investigate the potential of social economy, cooperatives (or other producer organisations) and of innovative forms of business aggregation and develop at least one of these demonstrators that support local economy by actively involving people in a vulnerable situation.
- Explore and take advantage of cross-sectoral and cross-territory linkages adopting a territorial perspective that aims at improving connectivity of rural areas with surrounding intermediate and urban areas.
- Examine the impacts of different kind of innovation on the development and revitalisation of rural areas and the quality of life and living standards of their residents.
- Identify barriers, as well as drivers (including policies) and enabling conditions for the creation and development of sustainable business models in rural areas.
- Provide recommendations to policy makers, at the local, regional, national and international levels for supporting the creation of sustainable business models fit for the future with the aim to increase quality public services, to make better use of various resources and reduce negative impact on the environment, and that provide new opportunities for rural value chains through different models of innovation.
- Create and widely share via an open access platform practical innovations, tools, best practices and guidelines to successfully develop and implement novel inclusive and sustainable business models.
- Proposals should cover a representative variety of rural areas.

All proposals (independent of the selected focus A or B) should explore social innovation and innovative forms of cooperation. Proposals must implement the 'multi-actor approach' and ensure adequate involvement of relevant actors of the value chain.

This topic should involve the effective contribution of social sciences and humanities (SSH) disciplines. Proposals should build on previous and ongoing Horizon 2020 relevant projects (i.e. but not limited to SMARTCHAIN, NEWBIE, agroBRIDGES, CO-FRESH, RUBIZMO, LIVERUR, etc.). They should include a dedicated task, appropriate resources and a plan on how they will collaborate with the other project funded under this and other relevant topics in Horizon Europe and ensure synergy with relevant activities carried out under other initiatives (i.e. but not limited to EIT Knowledge and Innovation Communities, Enterprise Europe Network, Circular Bio-based Europe public-private partnership, etc.).

Beyond open access to scientific publications and research data, open access to software, models, workflows, etc. is required to ensure accelerated uptake of innovation, increase research transparency, support immediate and extensive re-use of research materials, and support collaborative and interdisciplinary work, among others.

Due to the scope of this topic, international cooperation is strongly encouraged, in particular with China. This topic is within the scope of the Administrative Arrangement between the European Commission and the Ministry of Science and Technology of the People's Republic of China on a Co-funding Mechanism for the period 2021-2024 to support collaborative research projects under the Food, Agriculture and Biotechnologies (FAB) and the Climate Change and Biodiversity (CCB) flagship initiatives.

Actions will contribute to implementing the EU-China Food, Agriculture and Biotechnology (FAB) flagship initiative, which aims to ensure sustainability of agri-food systems, catering for the needs of a growing population, the reduction of food and agricultural losses and waste, and the provision of safe and healthy foodstuffs. Interaction with other actions developed under the EU-China Climate Change and Biodiversity (CCB) Research Flagship and the Flagship on Food, Agriculture and Biotechnologies (FAB) is encouraged if relevant.

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

Taking advantage of the use, uptake, and deployment of environmental observations as well as digital and data-based green solutions, assessed through the European Green Deal's 'do no harm' principle, is key for innovative governance models and for designing, implementing and monitoring science-based policy. To maximise impacts of R&I on the ground and spark behavioural and socio-economic change, the knowledge and innovation produced throughout the whole cluster should be widely disseminated to and exchanged between the key stakeholders and end users. In particular, the Agricultural Knowledge and Innovation Systems (AKIS) need to be strengthened in line with the 2023-2027 CAP to accelerate the required transformative changes.

Innovating with governance models and supporting policies

Transformative changes such as those required within the European Green Deal are dynamic processes that require appropriate governance. At the same time, to ensure coordination and for collaborative and informed decision-making, governance requires multiple channels and networks that provide readily available and robust data and information from different sources.

R&I activities under this destination aim to both: experiment with new ways to govern the transition process and strengthen the governance, in particular by ensuring i) appropriate and inclusive engagement with stakeholders, e.g. civil society and regional and local actors, ii) environmental observations coverage, and iii) that information and knowledge is made available and accessible. R&I for governance to support the European Green Deal should provide insights into the opportunities to overcome potential institutional barriers such as lock-ins, path dependency, political and cultural inertia, power imbalances and the ways to strengthen the effectiveness and efficiency of regulatory pathways. It should also help create synergies and linkages between different policy instruments and funding opportunities.

Innovative governance supporting the European Green Deal objectives needs to recognise, cope with and promote resilience and inclusiveness in the face of on-going shocks and disruptions across Europe and the world, whether these be climatic, ecological, economic, social, geopolitical or related to agricultural inputs and resources, food, health, bio-based sectors or the wider bioeconomy. The creation of networks with the public (citizen engagement) and researchers, including also through digital technologies, can step up transformation and enhance resilience in different areas, such as food. Critical risk assessment and reduction strategies need to be incorporated, including the diversification of infrastructures, resources and knowledge through more self-sufficiency and autonomy. Innovative governance will: i) support social innovation in the bioeconomy and bio-based systems (e.g. revitalisation of local communities with innovative bio-based business models and social innovation, or with co-creation and trust-building measures for biotechnology and bio-based innovation systems); ii) assess existing and emerging trade-offs of land and

biomass; and iii) strengthen the national bioeconomy networks in countries taking part in the Central-Eastern European Initiative for Knowledge-Based Agriculture, Aquaculture and Forestry in the Bioeconomy (BIOEAST Initiative)⁴¹³.

The new **partnership ‘Agriculture of Data’** will help improve the sustainability performance of agricultural production and strengthen policy monitoring and evaluation capacities through using the full potential of Earth and environmental observation and data technologies. It will address public and private sector interests in a synergetic way. This will be done through responsible R&I delivering data-based green solutions and through establishing governance structures which allow for systemic approaches to capitalising and using data. The **partnership for a ‘Climate-neutral, sustainable and productive Blue Economy’** will enable a just and inclusive transition to a climate-neutral, sustainable and productive blue economy providing for a healthy ocean, people’s wellbeing, and a blue economy that is in harmony with nature and whose benefits are distributed fairly.

Deploying and adding value to environmental observations

Data and information obtained through environmental observation is of great value when assessing the state of the planet and is crucial to supporting the European Green Deal and the climate and ecological transitions. Integrating this information from different sources (space-based, airborne including drones, in-situ and citizens observations) with other relevant data and knowledge while ensuring (better) accessible, interoperable or deployable information, provides the information necessary for shaping the direction of policy development in the broad context of Cluster 6A strong link to Copernicus, the European Earth observation and monitoring part of the EU Space programme (in Cluster 4 - Digital, Industry and Space) and the European Space Agency’s (ESA) Earth observation programme, as well as support to the Group on Earth Observation (GEO), its European regional initiative (EuroGEO), the Global Earth Observation System of Systems (GEOSS) and the European Commission initiative *DestinationEarth*⁴¹⁴, is foreseen for topics on environmental observations under this destination. R&I activities relevant to the ocean, seas and coastal waters will complement and support the UN Decade of Ocean Science for Sustainable Development and the UN Decade on Ecosystem Restoration, the G7 Future of the Seas and Oceans Initiative, the European Global Ocean Observing System (EOOS) and the GOOS 2030 strategy.

Digital and data technologies as key enablers

Digital and data-based innovation, in complementarity with activities supported by Cluster 4 and the Digital Europe Programme, should bring benefits for citizens, businesses, researchers, the environment, society at large and policymakers. The potential of the ongoing digital transformation, and its wider impacts – both positive and negative – need to be better understood and monitored in view of future policy design and implementation, governance, and solution development. The potential for digital and data technologies, including AI-, IoT-, and augmented reality-based solutions, to increase the sustainability and resilience of

⁴¹³ <https://bioeast.eu/>.

⁴¹⁴ <https://digital-strategy.ec.europa.eu/en/policies/destination-earth>.

production and consumption systems, as well as industry and services, in sectors covered by this Cluster will be exploited. This destination will contribute to the development, support and take up of innovative digital and data-based solutions to support communities, economic sectors relevant for this cluster and society at large to achieve sustainability objectives. The focus is on overall sustainable solutions tailored to the needs of end-users and/or the systems. More specifically, R&I activities will contribute to economic circularity by promoting reuse of materials and waste reduction, adding value to existing knowledge and increasing cost-effectiveness, safety and trustworthiness of innovative environmentally-friendly technologies in and across primary production sectors, food systems, bio-based sectors, bioeconomy, and sectors related to the oceans and biodiversity.

It will also increase attention given to precision and collaborative technologies and contribute to the human-centric twin green and digital transitions. This is a key policy objective that is also supported by the cross-cutting objective pursued by the CAP, the EU digital strategy, the European industrial strategy, the circular economy action plan, the SME strategy and the European data strategy.

Strengthening agricultural knowledge and innovation systems (AKIS)⁴¹⁵

Knowledge and advice to all actors relevant to this cluster are key to improving sustainability. For instance, primary producers have a particular need for impartial and tailored advice on sustainable management choices. Agriculture Knowledge and Innovation Systems (AKIS, which are at the heart of the 2023-2027 CAP's cross-cutting objective, go beyond agriculture, farming and rural activities and cover environment, climate, biodiversity, landscape, bioeconomy, consumers and citizens, i.e. all food and bio-based systems including value chains up to the consumer. R&I actions under this destination will support effective AKIS as a key driver to bridge the gap between science and practice and to enhance co-creation. This will speed up innovation and the take-up of results needed to achieve the European Green Deal objectives and targets.

This includes promoting interactive innovation and co-ownership of results by users as well as strengthening synergies with other EU funds, especially the CAP, boosting the multi-actor approach and setting up structural networking within national/regional/local AKIS. In addition, social innovation also has the potential to achieve the objectives set in this destination, as it strengthens the resilience of communities, increases the relevance, acceptance and uptake of innovation, and helps bring about lasting changes in social practices, therefore acting as a system changer.

Where appropriate, proposals are encouraged to cooperate with the European Commission Knowledge Centre on Earth Observation (KCEO)⁴¹⁶, in order to e.g. disseminate and exploit results.

Expected impact

⁴¹⁵ AKIS refers to the organisation and knowledge flows between persons, organisations and institutions who use and produce knowledge for agriculture and interrelated fields.

⁴¹⁶ https://knowledge4policy.ec.europa.eu/earthobservation_en.

Proposals for topics under this destination should set out a credible pathway contributing to innovative governance and sound decision-making on policies for the green transition and more specifically to one or more of the following impacts:

- innovative governance models enabling sustainability and resilience notably to achieve better informed decision-making processes, societal engagement and innovation;
- areas related to the European Green Deal benefit from further deployment and exploitation of environmental observation data, products and “green” solutions;
- a strengthened Global Earth Observation System of Systems (GEOSS)⁴¹⁷;
- sustainability performance and competitiveness in the areas covered by Cluster 6 are improved through further deployment of digital and data technologies as key enablers;
- stakeholders and end users including primary producers and consumers are better informed and engaged thanks to effective platforms such as AKIS;
- strengthened EU and international science-policy interfaces to achieve the Sustainable Development Goals.

When considering their impact, proposals also need to assess their compliance with the “Do No Significant Harm” principle according to which the project’s R&I activities should not support or carry out activities that cause a significant harm to any of the six environmental objectives of the EU Taxonomy Regulation⁴¹⁸.

Topics under this destination will have impacts in the following areas:

- “Climate change mitigation and adaptation”;
- “Clean and healthy air, water and soil”;
- “Enhancing ecosystems and biodiversity on land and in water”;
- “Sustainable food systems from farm to fork on land and sea”;
- “High quality digital services for all”;
- “A Competitive and secure data-economy”.

Social innovation is recommended when the solution is at the socio-technical interface and requires social change, new social practices, social ownership or market uptake. In this cluster, it is envisaged that topics will be coordinated with European Space Agency (ESA)

⁴¹⁷ The European Commission is a member and co-chair of the Group on Earth Observations (GEO), as such the European Commission adopted the [GEO Canberra Declaration](#) and Commission Decision C(2019)7337/F1, and committed to contribute to the GEO objectives, including to the Global Earth Observation System of Systems (GEOSS).

⁴¹⁸ As per Article 17 of Regulation (EU) No 2020/852 on the establishment of a framework to facilitate sustainable investment (EU Taxonomy Regulation).

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actions so that ESA space data and science can be proactively integrated into the relevant research actions of the WP.

The following call(s) in this work programme contribute to this destination:

Call	Budgets (EUR million)		Deadline(s)
	2023	2024	
HORIZON-CL6-2023- GOVERNANCE-01	130.00	20.00	23 Mar 2023
HORIZON-CL6-2024- GOVERNANCE-01		137.50	28 Feb 2024
Overall indicative budget	130.00	157.50	

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

HORIZON-CL6-2023-GOVERNANCE-01

Conditions for the Call

Indicative budget(s)⁴¹⁹

Topics	Type of Action	Budgets (EUR million)		Expected EU contribution per project (EUR million) ⁴²⁰	Indicative number of projects expected to be funded
		2023	2024		
Opening: 22 Dec 2022 Deadline(s): 23 Mar 2023					
HORIZON-CL6-2023-GOVERNANCE-01-1	COFUND	20.00	20.00	Around 40.00	1
HORIZON-CL6-2023-GOVERNANCE-01-10	CSA	2.00		Around 2.00	1
HORIZON-CL6-2023-GOVERNANCE-01-11	RIA	9.00		Around 9.00	1
HORIZON-CL6-2023-GOVERNANCE-01-12	RIA	7.00		Around 7.00	1
HORIZON-CL6-2023-GOVERNANCE-01-13	RIA	10.00		Around 5.00	2
HORIZON-CL6-2023-GOVERNANCE-01-14	CSA	5.00		Around 5.00	1
HORIZON-CL6-2023-	RIA	5.00		Around	1

⁴¹⁹ The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.

The Director-General responsible may delay the deadline(s) by up to two months.

All deadlines are at 17.00.00 Brussels local time.

The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for years 2023 and 2024.

⁴²⁰ Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.

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GOVERNANCE-01-15				5.00	
HORIZON-CL6-2023- GOVERNANCE-01-16	RIA	10.00		Around 5.00	2
HORIZON-CL6-2023- GOVERNANCE-01-17	RIA	8.00		Around 4.00	2
HORIZON-CL6-2023- GOVERNANCE-01-18	CSA	4.00		Around 2.00	2
HORIZON-CL6-2023- GOVERNANCE-01-19	CSA	6.00		Around 3.00	2
HORIZON-CL6-2023- GOVERNANCE-01-2	RIA	6.00		Around 6.00	1
HORIZON-CL6-2023- GOVERNANCE-01-20	CSA	5.00		Around 5.00	1
HORIZON-CL6-2023- GOVERNANCE-01-21	CSA	4.00		Around 4.00	1
HORIZON-CL6-2023- GOVERNANCE-01-22	CSA	4.00		Around 4.00	1
HORIZON-CL6-2023- GOVERNANCE-01-3	RIA	3.00		Around 3.00	1
HORIZON-CL6-2023- GOVERNANCE-01-4	RIA	6.00		Around 6.00	1
HORIZON-CL6-2023- GOVERNANCE-01-5	RIA	5.00		Around 5.00	1
HORIZON-CL6-2023- GOVERNANCE-01-6	CSA	1.50		Around 1.50	1
HORIZON-CL6-2023- GOVERNANCE-01-7	RIA	4.00		Around 4.00	1
HORIZON-CL6-2023- GOVERNANCE-01-8	CSA	3.50		Around 3.50	1
HORIZON-CL6-2023- GOVERNANCE-01-9	CSA	2.00		Around 2.00	1
Overall indicative budget		130.00	20.00		

General conditions relating to this call	
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Documents</i>	The documents are described in General Annex E.
<i>Procedure</i>	The procedure is described in General Annex F.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G.

Innovating with governance models and supporting policies

Proposals are invited against the following topic(s):

HORIZON-CL6-2023-GOVERNANCE-01-1: European partnership of Agriculture of Data

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 40.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 40.00 million.
<i>Type of Action</i>	Programme Co-fund Action
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: If projects use satellite-based earth observation, positioning, navigation and/or related timing data and services, beneficiaries must make use of Copernicus and/or Galileo/EGNOS (other data and services may additionally be used).

<i>Legal and financial set-up of the Grant Agreements</i>	<p>The rules are described in General Annex G. The following exceptions apply:</p> <p>The funding rate is 30% of the eligible costs.</p> <p>Beneficiaries may provide financial support to third parties. The support to third parties can only be provided in the form of grants. As financial support provided by the participants to third parties is one of the primary activities of this action in order to be able to achieve its objectives, the 60 000 EUR threshold provided for in Article 204 (a) of the Financial Regulation No 2018/1046 does not apply. The maximum amount to be granted to each third party is EUR 10 000 000 for the whole duration of Horizon Europe.</p>
<i>Total indicative budget</i>	<p>The total indicative budget for the duration of the partnership is EUR 100 million.</p>

Expected Outcome: A successful proposal will contribute to the objectives of the Agriculture of Data partnership proposal including the strategic research and innovation agenda. This partnership aims to enhance climate, environmental and socio-economic sustainability and productivity of agriculture and to strengthen policy monitoring and evaluation capacities through exploiting the potential of Earth and environmental observation and other data, in combination with data technologies.

Proposals are expected to contribute to all of the following outcomes (as listed in the partnership document⁴²¹):

- Increased sharing and harmonisation of data across different actors (e.g. scientists, technicians, policymakers, practitioners, businesses, farmers, end users) and countries based to the extent possible on FAIR⁴²² data principles, and exploitation of synergies through better integration of the digital Earth, environmental observation, space observation and agricultural communities within Europe, transforming both the R&I and economic systems to deliver more and better data-based solutions to the end users;
- Increased environmental, climate and socio-economical sustainability performance of the agriculture sector;
- Enhanced contribution from the agriculture sector to the important need for protecting the environment, halting and, if possible, reversing biodiversity loss in Europe and globally, as well as to the reduction of greenhouse gas emissions from agriculture;
- Enabling the sector and strengthen its capacity to adapt to climate change and to meet the objectives set by sustainability-related policies, considering e.g. risk analyses/indicators, such as environmental, technical, economic or social risks;

⁴²¹ https://ec.europa.eu/info/sites/default/files/research_and_innovation/funding/documents/ec_rtd_he-partnership-agriculture-data.pdf

⁴²² <https://www.go-fair.org/fair-principles/>

- Contribution to creating structures and/or its concept under the umbrella of the partnership Agriculture of Data that includes data infrastructure needed to provide data-based solutions for both policy-making and the agriculture sector (including to strengthening the sector's economic performance);
- Strengthened capacities to evaluate the effectiveness of policies (with reference to agriculture, environmental- and market-related policies and the combined potential effects of them).

Scope: Sustainable agricultural production and policy monitoring needs can be supported through the provision of tailored data and data-based solutions; especially, through Earth/environmental observation and in combination with other data and data technologies. At the same time, the agricultural sector at farm level produces data during digitalised farming practises, as also does the public administration. This data can be capitalised to strengthen capacities of the agricultural sector in the public and the private domains. Integrating different sources of data, for instance Copernicus⁴²³ data, precision farming data, Integrated Administration Control System (IACS⁴²⁴)-data and other reference data, would lead to even more relevant information in this context and provide scope for the development, delivery and uptake of agri-digitalisation products and services, such as decision-making support systems.

Proposals should pool the necessary financial resources from the participating national (or regional) research programmes with a view to implementing joint calls for transnational proposals resulting in grants to third parties.

The successful proposal should:

- Exploit the potential of public and private data, including in the combination with data technologies (including AI) for the agricultural sector in the public and private domain;
- Build on results of existing (ongoing or finished) initiatives and projects;
- Foster EU-wide solutions, scaling up⁴²⁵ of use-cases and applications close to deployment stage;
- Develop data-based solutions and digital applications in support of achieving the expected impacts of the partnership;
- Consider the necessary technical systemic elements related to e.g. digital and data infrastructure and interoperability;
- Demonstrate how the expected result contribute to the European Green Deal objectives and the ambition of better policy-making⁴²⁶;

⁴²³ <https://www.copernicus.eu/en>

⁴²⁴ https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/financing-cap/financial-assurance/managing-payments_en

⁴²⁵ Scaling up should be considered as both the scaling up in TRL or scaling up in geographical outreach

- Demonstrate how it will align to the ongoing work of the Horizon Europe partnership on Agriculture of Data and the projects granted under call HORIZON-CL6-2022-GOVERNANCE-01-11: Upscaling (real-time) sensor data for EU-wide monitoring of production and agri-environmental conditions⁴²⁷.

A successful proposal is expected to explore the potential for achieving synergies with relevant topics/ projects, partnerships and/ or missions particularly within Cluster 6 and Cluster 4 of the Horizon Europe programme, as well as with the digital Europe programme, the EU space programme and the common agricultural policy.

The strategic research and innovation agenda for the partnership on agriculture of data will give further guidance on possible specific elements to be addressed within the proposal.

The Commission envisages to include new actions in its future work programmes to provide continued support to the partnership for the duration of Horizon Europe.

HORIZON-CL6-2023-GOVERNANCE-01-2: Advancing analytical capacity and tools to support EU agri-food policies post 2027

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 6.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 6.00 million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The Joint Research Centre (JRC) may participate as member of the consortium selected for funding.

Expected Outcome: In line with the European Green Deal, the European Commission aims at more sustainable food systems that reduce their negative impact on climate change and biodiversity loss, while ensuring that farmers and consumers can benefit from it and our long-term food security and public health. Successful proposals will advance analytical capacity and tools to support future evidence-based policies to accelerate the transition to sustainable food systems. While the focus is on agri-food policies, European Green Deal actions relating to climate and environment should also be integrated in the assessment/approaches where relevant.

⁴²⁶ https://ec.europa.eu/info/law/law-making-process/planning-and-proposing-law/better-regulation-why-and-how_en

⁴²⁷ <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-cl6-2022-governance-01-11>

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

- Improved analytical capacity and tools (including models) to assess short-term and long-term impacts of future EU agri-food policies on food systems (and on their actors);
- Enhanced evidence-based knowledge supporting analysis and design of agri-food policies.

Scope: Various studies recently published, analysed the possible effects of some elements of the farm to fork and biodiversity strategies on EU agriculture⁴²⁸. The studies provide both the scientific community and policymakers with a valuable insight on the choice of policy tools to minimize trade-offs and maximise synergies between the impacts. However, the models used in the studies all have their limitations. They do not comprehensively address all the components of the European Green Deal in order to adequately support policy analysis. In view of that, the proposals should address these limitations and:

- Build and/or advance analytical capacity to support the quantitative assessment of impacts of future agri-food policies on economic, social (including health), environmental and climate sustainability of food systems;
- Address the modelling gaps that were not taken into account in previous studies¹⁸⁴ to enable analyses of the effects of the agri-food policies on sustainability (including public health) of food systems under diverse scenarios, with particular attention to trade-offs and synergies that they may entail in order to improve policy coherence;
- Further develop, expand and improve the models covered under iMAP, also by exploiting linkages and integrations with other models. New approaches should be developed for further advancing the state of the art by modelling, e.g., input use and costs, uptake of new knowledge, practices and innovations, supply chains, consumer behavioural changes, circular economy, health care system, public health, etc.
- Particular attention should be given to capturing shifts in supply and demand, and feedback loops throughout the food system – upstream and downstream of agriculture. Further advancing the state of the art by modelling, e.g., input use and costs, uptake of new knowledge, practices and innovations, supply chains, consumer behavioural changes, circular economy, etc. Linkages between economic and bio-physical models should be improved.
- Moreover, alternative quantitative approaches to modelling should be developed, especially for improving the capacity to assess:
 - o interrelations (e.g., absence of pure and perfect competition) and impacts on different actors across the food systems, e.g., farmers, SMEs, consumer, food supply chains, etc.;

⁴²⁸ European Green Deal targets for 2030 and agricultural production studies (February 2022).
https://ec.europa.eu/info/sites/default/files/food-farming-fisheries/key_policies/documents/factsheet-farmtofork-comparison-table_en.pdf

- o nature-based approaches, cost of no action, biomass balance, etc.
- Collaborate and complement the projects funded under Horizon 2020 (e.g., SFS-49-2017: SUPREMA⁴²⁹; RUR-03-2018: CONSOLE, Contract2.0 and EFFECT; RUR 04-2018-2019: Mind Step, BESTMAP, AGRICORE and BATModel) and Horizon Europe (e.g., BrightSpace and LAMASUS).
- Guide long-term model developments, identify new potential interesting models, preserve and build stable bridges between models, integrate models and enable improved multi-disciplinary research related to the European Green Deal or other relevant future policy initiatives.
- Ensure consistency with modelling tools used to monitor and evaluate environmental and climate policies in related fields (e.g. emissions and removals in LULUCF and agriculture sectors for greenhouse gas inventories).

This project requires a multi-disciplinary approach/teams encompassing economics, environment and climate, health and other social policies.

It is key also to establish a regular dialogue with the European Commission regarding objectives, timeline and main deliverables with the goal to provide analytical tools and evidence-based knowledge to support implementation and future developments of agri-food policies, notably the common agricultural policy (CAP) post 2027 and the future EU legal framework for sustainable food systems.

Collaboration with the JRC is strongly encouraged. The possible participation of the JRC in the project will ensure that the approach proposed will advance jointly the state of the art, and be compatible and effectively integrated with the tools used at the European Commission. Project duration should not be shorter than four years.

HORIZON-CL6-2023-GOVERNANCE-01-3: Towards CAP post 2027: evidence on nudging farmers to leverage more sustainable practices and behaviours

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 3.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 3.00 million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Eligibility</i>	The conditions are described in General Annex B. The following

⁴²⁹ <https://www.suprema-project.eu/images/RoadMap-Conclusions-PolicyBrief1.pdf>

<i>conditions</i>	exceptions apply: The Joint Research Centre (JRC) may participate as member of the consortium selected for funding. The following additional eligibility criteria apply: The proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this Work Programme part.
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Expected Outcome: In line with the European Green Deal, notably the farm to fork and EU biodiversity strategies, the fit for 55 legislative package, the EU action plan: 'towards zero pollution for air, water and soil' and the common agricultural policy (CAP), the successful proposals should support the development of policies, business models and market conditions that enable sustainable, productive and climate-neutral agricultural systems. The farming systems should provide consumers with healthy and sustainable food affordable for all, improving public health, minimising pressure on and enhancing biodiversity and ecosystem services, contributing to climate neutrality, and generating fair economic returns for farmers.

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

- Innovative green nudges efficiently contribute to move farmers and foresters towards more sustainable practices that enhance climate action (i.e. reduce greenhouse gas emissions and increase carbon removals), biodiversity protection and restoration, and the reduction of emissions or concentrations of air pollutants;
- Models of social innovation and innovative co-operation along the value chains which nudge farmers and foresters towards more sustainable behaviours;
- New effective nudging solutions are provided to policymakers to better address sustainability goals;
- Green nudges are used to complement environmental, food and bioeconomy policies towards more sustainable and circular production systems;
- New policies are designed taking into account farmers' environmental attitudes, risk aversion, inequality aversion, cognitive strategies and the importance of non-monetary benefits.

Scope: According to the prediction of the Food and Agriculture Organization, food supply must increase by almost 70% by 2050, with tremendous consequences in terms of land depletion, natural capital and resource use, and greenhouse gas emissions. The current agri-food system is inadequate to the need to cope with this increased demand while also preserving the environment.⁴³⁰ Although the EU has made strides in improving the sustainability of agriculture, substantial efforts are still needed to achieve the ambitious targets of the European Green Deal, in particular the bioeconomy strategy, EU farm to fork

⁴³⁰ [Can nudging improve the environmental impact of food supply chain? A systematic review - ScienceDirect.](#)

and biodiversity strategies 2030, the communication on sustainable carbon cycles, farm to fork strategy, circular economy action plan (CEAP) and the objectives of the 2023-2027 CAP. The common agricultural policy is a key tool to achieve a sustainable transformation, and it puts farmers at the core of its actions. We currently know very little about the role of behavioural factors in determining farmers choices and whether non-pecuniary mechanism, such as policy nudge⁴³¹, can be used effectively in policy design. Evidence about the adoption of nudging tools in promoting environmentally sustainable practices along the food supply chain, including the role of circular bio-based options⁴³², are still relatively sparse. In particular, nudges that have been proved to work efficiently on the consumer side (e.g., default nudges, social norm nudges, choice architecture) do not translate well to farmers, and farmers may respond to nudges in a heterogeneous manner, based on their specificities⁴³³.

An in-depth understanding of farmers' nudges is key to spurring large-scale and lasting shifts to sustainable farming systems.

Proposals should take a comprehensive behavioural approach and investigate proximal and distal factors to better understand farmers' behaviour in decision-making, in order to inform the design and implementation of EU policies (in particular the CAP) and the European Green Deal initiatives with particular focus on farm to fork, biodiversity strategies and climate action.

Proposals should:

- Investigate whether green nudges are able to generate robust and durable behavioural change in farmers and foresters and look into existing and efficient nudging practices in agriculture and forestry sectors to create best practices and develop recommendations for EU policymakers on nudging in public policies of concern for farmers and foresters.
- Investigate, identify and test innovative nudging practices to help farmers and foresters move into sustainable farming systems, also considering behavioural factors that could influence farmers/foresters deciding or not to engage in these practices.
- Investigate these behavioural factors and identify innovative tools to enlarge knowledge in this field and to improve farmers and foresters' self-regulatory capacity. Test appropriate policy mechanisms for incorporating the perception of farmers and foresters in decision-making and assess the potential for upscaling innovative nudging practices.
- Create policy recommendations to the decision-makers, including to the AKIS Coordination Bodies in member States, to adapt and tailor CAP AKIS interventions accordingly.

⁴³¹ Nudges is defined as an intervention which leads to a predictable change in behaviour by reinforcing the intentions to act in a sustainable way or by indirectly suggesting adoption of new practices that are easy to implement and do not fundamentally change the incentives of individuals or groups of individuals.

⁴³² Complementary to the topic HORIZON-CL6-2023-GOVERNANCE-XX: Revitalisation of European local (rural / peri-urban) communities with innovative bio-based business models and social innovation

⁴³³ <https://publications.jrc.ec.europa.eu/repository/handle/JRC122308>.

Proposals should explore social innovation and innovative forms of cooperation, including multi-stakeholder/multi-actor partnerships along the value chains, as well as how interactions within value chains/sectors contribute to or hinder the adoption of relevant sustainability-oriented innovations. The proposals are expected to use the multi actor approach. See definition of the multi-actor approach in the introduction to this Work Programme part.

The JRC participation could involve contributing to the investigation, identification and design of nudging practices and eventually participate in the testing phase in one country.

Proposals should include a dedicated task, appropriate resources and a plan on how they will collaborate with other projects funded under this or other topics (i.e. but not limited to projects funded under topic HORIZON-CL6-2021-FARM2FORK-01-08)

Beyond open access to scientific publications and research data, open access to software, models, workflows, etc. is required to ensure accelerated uptake of innovation, increase research transparency, support immediate and extensive re-use of research materials, and support collaborative and interdisciplinary work, among others.

HORIZON-CL6-2023-GOVERNANCE-01-4: Developing an interdisciplinary and inclusive pan-European academic network for food system science

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 6.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 6.00 million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Eligibility conditions</i>	<p>The conditions are described in General Annex B. The following exceptions apply:</p> <p>The Joint Research Centre (JRC) may participate as member of the consortium selected for funding.</p> <p>The following additional eligibility criteria apply: the proposals must establish a pan-European network and carry out inter- and transdisciplinary research, as well as policy research, support education and outreach.</p>

Expected Outcome: In line with the objectives of the European Green Deal, the farm to fork strategy for a fair, healthy and environment-friendly food system, the Food 2030 priorities and the EU’s climate ambition for 2030 and 2050, the successful proposal will contribute to the transformation and sustainability of EU food systems by supporting the establishment of

innovative governance models notably to achieve better-informed decision-making processes and facilitate inter- and transdisciplinary research methods.

Successful proposals will develop an interdisciplinary and inclusive pan-European academic network for food system science that integrates the social sciences and humanities (SSH), design, engineering and natural and applied sciences. Central to the work of the academic network is the concept of Responsible Research and Innovation (RRI). In particular, successful proposals will set out how the network and its members can work to improve and/or develop: new methods and tools, data access and knowledge sharing, inter- and transdisciplinary research and the assessment of impacts in complex and interconnected food systems. The network will act as a European building block in fostering improved food system governance at all scales and will connect with related key international fora. By deepening engagement amongst researchers, scientific disciplines and science performers, this initiative will build capacity to strengthen the role of science and knowledge for sustainable food systems transition in Europe and beyond.

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

- Establish a broad pan-European interdisciplinary academic network.
- Foster inter-, transdisciplinary, participatory, policy and regulatory research to develop new insights, findings, models, methods and tools to assess and manage the full systemic complexity of food systems.
- A strengthened European Research Area for sustainable food systems transformation for co-benefits, which federates a wide diversity of scientific actors across Europe, promotes gender equality in research, attracts young talents and fosters inclusiveness and cooperation across scientific disciplines, and promotes education and outreach.
- Contribution to the farm to fork objectives and Food 2030 priorities: nutrition for sustainable healthy diets, climate, biodiversity and environment, circularity and resource efficiency, innovation and empowering communities (e.g., meeting the needs, values and expectations of society in a responsible and ethical way).

Scope: Food systems face the triple challenge of providing food security and nutrition for a growing global population, and livelihoods to farmers (OECD, 2021).⁴³⁴ To meet these challenges, a food system transformation is needed to make the EU food system future-proof, in line with the farm to fork strategy and the European Commission's food 2030 initiative.

The project will build an interdisciplinary and inclusive pan-European academic network for food system science, that will integrate the social sciences and humanities, design, engineering and natural and applied sciences. The aim of the network is to federate research performers including universities, national science academies and research centres, academics and researchers across Europe to work together on sustainable food systems transition by

⁴³⁴ OECD (2021), *Making Better Policies for Food Systems*, OECD Publishing, Paris, <https://doi.org/10.1787/dfba4de-en>.

carrying out inter- and transdisciplinary research, developing and applying new methods, models and tools, improving data and knowledge sharing, fostering debate and providing advice to policy makers for improved decision-making at all levels – from global to local, as needed.

Proposed activities should cover all of the following aspects:

- Establish a broad pan-European interdisciplinary network of researchers, scientists, and research performers including national science academies, universities and research centres representing diverse and interconnected food systems-related disciplines.
- The network will conduct different types of research: inter-, transdisciplinary and participatory research, as well as policy/regulatory research.
- Interdisciplinary research activities will develop new systems science insights, models, methods and tools to assess and manage the full systemic complexity of food systems, their multiple drivers and dynamics, with the aim of providing research outcomes that deliver co-benefits and minimise adverse effects. The research will also increase understanding of how food systems interact with other bioeconomy demands on biological resources (e.g., energy system, bio-based industry, climate mitigation and adaptation, supply of ecosystem services, etc.).
- Transdisciplinary and participatory research activities will foster collaboration with different food systems stakeholders (e.g., public authorities, local and regional communities, civil society organisations, the private sector, consumers, etc.) to identify knowledge gaps, high priority research needs, and collaborative responses to them. This may include the organization of iterative stakeholder workshops, interviews, questionnaires and the collaboration with existing or future food policy/living labs.
- Policy and regulatory research activities will be designed to provide evidence to support systemic policy and decision making, as needed. In this respect, research is welcome on how to transition to a true cost of food that adequately embeds social and environmental externalities at all levels (global to local).
- Building on the RTD/2020/SC/022 study “Promote education, training and skills across the bioeconomy”, the network will develop open access educational material/curricula to be used by Higher Education Institutes to help strengthen their existing food systems-related teaching and research with an inter- and transdisciplinary systems dimension.
- Support the training, mobility, mutual learning and knowledge sharing amongst researchers (including masters to post-doc levels) and foster open science approaches that also accelerate gender equality, attract young talents, foster inclusiveness and reuse of research knowledge (including the sharing of FAIR and open digital research or educational output). This will also include the organization of a high-level annual summer camp/school providing inter- and transdisciplinary food systems and bioeconomy science training open to youth from all over Europe.

- Organise an international bi-annual conference dedicated to advancing integrated food systems science. In this context special attention will be placed on awarding excellence amongst young researchers, including young women researchers.
- Establish a high-level liaison with EU and relevant international initiatives acting at the science-policy interface for improved food systems governance.
- Proposals are encouraged to cooperate with actors such as the European Commission’s Joint Research Centre (JRC). The JRC may provide expertise on how to strengthen the relationship between scientists and European policy makers and to promote research and collaboration on food systems science.

Proposals should include a dedicated task, appropriate resources and a plan on how they will collaborate with the projects funded under the work programme from WP2021-2022, namely HORIZON-CL6-2021-GOVERNANCE-01-02 (FOSTER, Fostering food system transformation by integrating heterogeneous perspectives in knowledge and innovation within the ERA) and with the living labs and lighthouses foreseen under the Horizon Europe Mission ‘A Soil Deal for Europe’. Projects should also build on the findings of the European Commission’s High Level Expert Group (HLEG) that addressed needs and options to strengthen the international science policy interface for improved global food system governance.

Collaboration and complementary with the European Partnership on “Sustainable Food Systems for People, Plant and Climate” is encouraged. In order to achieve the expected outcomes, international cooperation is encouraged.

Efforts shall be made to ensure that the data and the educational output produced in the context of this topic is FAIR (Findable, Accessible, Interoperable and Re-usable).

HORIZON-CL6-2023-GOVERNANCE-01-5: Revitalisation of European local (rural / peri-urban) communities with innovative bio-based business models and social innovation

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 5.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 5.00 million.
<i>Type of Action</i>	Research and Innovation Actions

Expected Outcome: Successful proposals will contribute to the expected impacts of Destination ‘Innovative governance, environmental observations and digital solutions in support of the Green Deal, and the European policies it supports, by supporting the

establishment of the innovative governance models notably to achieve better-informed decision-making processes, social engagement and innovation. Furthermore, it will contribute to strengthened EU and international science-policy interfaces to achieve the Sustainable Development Goals.

Proposal results are expected to contribute to all following expected outcomes:

- Higher impact of bio-based innovation to accelerate the transition from a linear fossil-based economy, which leads to overuse and depletion of natural resources, into a resource-efficient and circular bio-based systems operating within safe planetary boundaries.
- Improved and informed public awareness, governance and especially social innovation contributing to reduced resource consumption and increased innovation capacity of all actors, in respect to circular bio-based sectors, reduced risk of leaving anyone behind, particularly in the areas and communities in need of revitalization (focus on rural and peri-urban areas).
- Higher level of innovation at local scale and inclusive engagement of all actors (especially focusing on the ‘social enterprise’ model relevant for vulnerable populations).

Scope:

- Proposals will benefit from social creativity and economic opportunities at local/regional scale unleashed for bio-based systems, taking care of their high environmental performances, in terms of local bio-based feedstock, resources, processes, skills, materials and products. Impacts and trade-offs, such as lower carbon footprint and environmental impacts of the whole value chains shall be part of the assessment of the bio-based systems.
- Communication and dissemination activities need to take into account the inclusive nature of engagement of local actors (e.g., use of languages, mutual learning process, trust building measures), to achieve exchange of best practice at European level, and connection to appropriate local governance structure.
- Integration of regional, local, or macro-regional policy makers is considered essential, as is the involvement of civil society (NGOs, consumer organisations, etc). This should include the assessment of robustness of existing governance schemes, to allow replication across Europe (taking into account the issues such as the income generation for all stakeholders, labour conditions, environmental indicators, social engagement, innovation parameters etc).
- The development of novel bio-based models shall involve economic actors, primarily SMEs, but also rural entrepreneurial structures (e.g., cooperatives, professional associations). Digital solutions to connect and inform all stakeholders, including consumers, shall be given due consideration.

- Projects should build on past or parallel activities, e.g., Horizon 2020 projects Power4Bio, BE-Rural or the projects funded under the call HORIZON-CL6-2021-GOVERNANCE-01-09: Revitalisation of European local communities with innovative bio-based business models and social innovation, as well as the past/on-going projects under the Bio-based Industries Joint Undertaking (BBI JU), seeking synergies and links with upcoming activities of the Circular Bio-based Europe Partnership⁴³⁵, as well as Horizon Europe calls⁴³⁶.
- In order to avoid the risk of duplication of efforts and to limit the focus to rural and peri-urban actions, the present topic excludes blue (marine and maritime) bio-based activities from its scope.
- International cooperation should be considered, aiming at exchange of best practice.
- Social innovation is recommended when the solution is at the socio-technical interface and requires social change, new social practices, social ownership or market uptake. Proposal should explore intersectionality approaches and consider aspects like gender, ethnicity, migrant or refugee status, social class, sexual orientation and disability to ensure inclusion of marginalised groups in citizen engagement and the development of tools and guidelines.
- This topic requires the effective contribution of SSH disciplines and the involvement of SSH experts, institutions as well as the inclusion of relevant SSH expertise, in order to produce meaningful and significant effects enhancing the societal impact of the related research activities.

HORIZON-CL6-2023-GOVERNANCE-01-6: Co-creation and trust-building measures for biotechnology and bio-based innovation systems

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 1.50 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 1.50 million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Legal and financial set-up of the Grant</i>	The rules are described in General Annex G. The following exceptions apply:

⁴³⁵ www.bbi.europa.eu/about/circular-bio-based-europe-joint-undertaking-cbe-ju.

⁴³⁶ E.g., under the Destination – Resilient, inclusive, healthy and green rural, coastal and urban communities e.g., see topic HORIZON-CL6-2024-COMMUNITIES-02-1-two-stage: Innovating for climate-neutral rural communities by 2050.

<i>Agreements</i>	Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025). ⁴³⁷ .
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Expected Outcome: Successful proposal will contribute to the expected impacts of Destination ‘Innovative governance, environmental observations and digital solutions in support of the Green Deal’, and the European policies it supports, by supporting the establishment of the innovative governance models notably to achieve better-informed decision-making processes, social engagement and innovation.

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

- Developing a co-creation programme and guidelines on improved knowledge exchange and awareness raising for biotechnology with focus on bio-based innovation.
- Improvement of innovation uptake for modern and emerging key enabling technologies, in particular (industrial) biotechnology and related bio-based value chains across the EU, supporting the EU Bioeconomy Strategy Action Plan⁴³⁸ and the Industrial Strategy.
- Creation of the forum to foster an inclusive, science-oriented mutual learning platform, engaging all actors, especially those in the advisory capacity, policy makers at all levels, the civil society and the biotechnology sector.
- Reinforcing the evidence-based understanding of potential positive (benefits) and negative impacts of biotechnology.
- Development of the transparent and inclusive trust building measures for the implementation of industrial biotechnology, and bio-based innovation according to the UN Sustainable Development Goals.

Scope:

- Transparent and informed governance and innovation, such as industrial- and other types of biotechnology, based on evidence and underpinned by public trust, could contribute to improved resource efficiency, limit the wastage, enable an increased innovation capacity of all actors, and contribute to industrial competitiveness with new products and services.

⁴³⁷ This [decision](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under ‘Simplified costs decisions’ or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

⁴³⁸ Action 3.1.3. Study and analysis of enablers and bottlenecks and provide voluntary guidance to the deployment of bio-based innovations.

- The key priorities in this regard are the consumer and environmental safety, both in terms of respecting the planetary boundaries (e.g., limiting the potential higher resource consumption), and a capacity to transparently address the risks through the risk analysis framework, while taking into account diverse social attitudes and understanding especially regarding environmental (e.g., biodiversity) considerations.
- Proposals will benefit from social creativity and engagement and will seek to support the improved understanding at all scales to unleash the innovation for bio-based systems, taking care to address their potential advantages in terms of feedstock, resources, processes, materials and products. Impacts and trade-offs, such as resource efficiency, carbon and biodiversity footprint and potential negative health and environmental effects of the whole value chains shall be considered⁴³⁹.
- The proposals will seek complementarities with related actions on governance of bio-based innovation and ensure inclusiveness and engagement of all actors⁴⁴⁰.
- International cooperation is encouraged, aiming at exchange of best practice at global level.
- This topic requires the effective contribution of SSH disciplines and the involvement of SSH experts, institutions as well as the inclusion of relevant SSH expertise, in order to produce meaningful and significant effects enhancing the societal impact of the related research activities.

HORIZON-CL6-2023-GOVERNANCE-01-7: Integrated assessment of land use and biomass demands to contribute to a sustainable healthy and fair bioeconomy

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 4.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 4.00 million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The Joint Research Centre (JRC) may participate as member of the consortium selected for funding.

⁴³⁹ See parallel topic HORIZON-CL6-2023-ZEROPOLLUTION-01-5: Industrial biotechnology approaches for improved sustainability and output of industrial processes.

⁴⁴⁰ E.g., see parallel topic HORIZON-CL6-2024-CircBio-01-9: Bioeconomy project development assistance, other topics in this Destination and activities of the Circular Bio-based Europe JU.

	The following additional eligibility criteria apply: The proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this Work Programme part.
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Expected Outcome: In line with the European Green Deal priorities, the EU's climate ambition for 2030 and 2050 and the bioeconomy strategy vision of an economic system that acts within environmental and social boundaries, the successful proposal will aim to develop or improve land use models and tools, enabling sustainability assessments to support better-informed policy- and decision-making processes, particularly on a national and regional level. European Green Deal related policy domains will benefit from further deployment and exploitation of this Environmental Observation data.

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

- Better understanding, methods and tools for determining the potential and limits of land and biomass to contribute to the climate, biodiversity, environmental, as well as social and economic objectives of the European Green Deal.
- Enhanced knowledge on the policy pathways for maximising the climate benefit of bioeconomy solutions within ecological boundaries and improved decision-making for ensuring policy coherence on the national and regional level.

Scope:

- Improve understanding of direct and indirect implications of current and future regional, national or EU policies and targets on land and biomass use, including an assessment of existing and emerging trade-offs, using and improving existing databases with high resolution data.
- Develop methodologies as well as tools for national and regional policy- and decision-makers to carry out integrated bioeconomy assessments of land and biomass use. The assessments will integrate existing and future EU, national and regional climate, environmental and food policies with projections on industrial biomass demand, and assess their implications on land and biomass use, taking into account trade-offs and synergies.
- Using the methodologies, quantify and project the land and biomass use and its climate mitigation potential, including the substitution effect of bio-based products and land impacts of diets, in at least four case study regions covering different socio-economic situations and climate/ecological zones in the EU and Associated Countries. The data should also cover, but not be excluded to, land use intensity and management types and their respective areas as well as biomass stocks and flows.
- Take into account biophysical and as far as possible, legal and socioeconomic constraints determining possible land use and biomass potentials.

- Seek to understand and identify factors determining land management practices and enabling nature-based solutions that maximise the co-production of ecosystem services, biodiversity restoration and preservation, enhanced climate mitigation and net primary production.
- Seek to understand and identify optimum/sustainable land-dependent and land-independent food supply for healthy, safe and sustainable diets.

The proposals must use the multi-actor approach by involving a wide diversity of bioeconomy actors and conducting trans-disciplinary research.

Where relevant, activities should build and expand on the results of past and ongoing research projects. The project requires an active collaboration with the JRC on the development of the necessary methods and approaches for the activities described in the scope of the topic.

HORIZON-CL6-2023-GOVERNANCE-01-8: Mobilising BIOEAST networks for the development of national bioeconomy action programmes in support of the European Green Deal

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 3.50 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 3.50 million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: The proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this Work Programme part.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025). ⁴⁴¹ .

⁴⁴¹ This [decision](#) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under ‘Simplified costs decisions’ or through this link:

Expected Outcome: In line with the European Green Deal priorities, the EU's climate ambition for 2030 and 2050 and the bioeconomy strategy vision of an economic system that acts within environmental and social boundaries, the successful proposal will support R&I to strengthen the national bioeconomy networks in BIOEAST⁴⁴² countries for the development of national bioeconomy action programmes and engage relevant stakeholders in the development of the action plans. The successful proposal will contribute to the expected impacts of Destination 'Innovative governance, environmental observations and digital solutions in support of the Green Deal', and the European policies it supports, by supporting the establishment of the innovative governance models notably to achieve better informed decision-making processes, social engagement and innovation.

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

- Strengthened human capacity and competitiveness of the BIOEAST public administrative bodies (ministries, research funding organisations, research institutions etc.) for attracting professionals to ensure an adequate number of experts working on bioeconomy issues/coordinating bioeconomy policy development in each Member State.
- Connecting experts and policy makers in national bioeconomy networks for better engagement of stakeholders (ministries, regional authorities, research funding organisations, research organisations, civil society, NGOs and others) and BIOEAST thematic working groups, raising awareness and facilitating communication at the regional, national, macro-regional and EU level.
- Mobilisation and increased linkages of national and regional capacities to leverage investments in education, research, innovation, and the development of bioeconomy programmes.
- Facilitating the development of inclusive national bioeconomy action programmes, such as dedicated bioeconomy programmes in education, national bioeconomy research and innovation framework programmes, national bioeconomy development operational programmes.
- Increased participation and innovation capacity of the BIOEAST Member States and stakeholders in the EU framework programmes and structural funds to leverage their full R&I potential in support of the European Green Deal.
- Improved coherence of policies to build a sustainable bioeconomy within ecological boundaries, contributing in particular to climate and biodiversity policies and targets.

https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

⁴⁴² www.bioeast.eu The Central-Eastern European Initiative for Knowledge-based Agriculture, Aquaculture and Forestry in the Bioeconomy – BIOEAST – offers a common political commitment and shared strategic research and innovation framework for working towards sustainable bioeconomies in the Central and Eastern European (CEE) countries (Czech Republic, Hungary, Poland, Slovakia, Bulgaria, Croatia, Latvia, Lithuania, Estonia, Romania, Slovenia).

Scope:

- Engage with policy makers and address specific barriers to improve the continuity and coordination of bioeconomy policy development in BIOEAST countries. Bring together national stakeholders in deploying and fostering the bioeconomy-related research and development sector by engaging local actors in macro-regional and European thematic networks and towards building the common European Research Area.
- Better integration of stakeholders into national bioeconomy hubs with the aim of providing a framework and assuring compliance with the EU policy objectives. The proposal should strengthen the role of young generations and start-ups in bioeconomy.
- Provide advisory support for the development of inclusive national bioeconomy action programmes in support of the European Green Deal, ensuring a transparent and inclusive stakeholder engagement at all levels.
- Identify the possibilities to increase national investment in research and development sector and in education related to bioeconomy, e.g. by targeting political commitment, attracting private investors and entrepreneurs and fostering cooperation within countries and across the macro-region.
- This action is expected to contribute to the implementation of the BIOEAST Initiative vision paper with its related action plan. Proposals will cooperate with and support the BIOEAST Initiative.
- Proposals should include a dedicated task, appropriate resources and a plan on how they will collaborate with the BIOEASTsUP project developed under Horizon 2020, and ensure synergy with relevant activities carried out under other initiatives in Horizon Europe⁴⁴³, seek complementarities with related actions and past projects on bioeconomy governance and ensure inclusiveness and engagement of all actors.⁴⁴⁴ It is also relevant to cooperate and establish links with the Circular Bio-based Europe (CBE) JU.
- The proposal should include all 11 BIOEAST Member States' and, if possible, the main⁴⁴⁵ bioeconomy coordinating bodies. BIOEAST countries not participating as beneficiaries of the action should benefit from the activities carried out by the project.
- Social innovation is recommended when the solution is at the socio-technical interface and requires social change, new social practices, social ownership or market uptake.

⁴⁴³ HORIZON-CL6-2021-GOVERNANCE-01-10: Raising awareness of circular and sustainable bioeconomy in support of Member States to develop bioeconomy strategies and/or action plans.

⁴⁴⁴ Taking into account the results and activities of relevant Horizon 2020 projects, in particular Bioeconomy Policy Support Facility, BIOEASTSUP, POWER4BIO and BE-RURAL, and/or projects funded under call HORIZON-CL6-2021-GOVERNANCE-01-10: Raising awareness of circular and sustainable bioeconomy in support of Member States to develop bioeconomy strategies and/or action plans, or call HORIZON-CL6-2021-GOVERNANCE-01-08: Improving understanding of and engagement in bio-based systems with training and skills development, as well as the activities of the Circular Bio-based Europe (CBE) JU.

⁴⁴⁵ <https://cordis.europa.eu/project/id/862699>.

- The proposals must use the multi-actor approach by involving a wide diversity of bioeconomy actors and conducting trans-disciplinary research.
- This topic requires the effective contribution of SSH disciplines.

Deploying and adding value to environmental observations

Proposals are invited against the following topic(s):

HORIZON-CL6-2023-GOVERNANCE-01-9: Coordination and supporting action to increase synergies in the dissemination and exploitation of climate observations by World Meteorological Organization and its affiliated bodies

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 2.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 2.00 million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Eligibility conditions</i>	<p>The conditions are described in General Annex B. The following exceptions apply:</p> <p>The Joint Research Centre (JRC) may participate as member of the consortium selected for funding.</p> <p>The following additional eligibility criteria apply: International organisations with headquarters in a Member State or an Associated Country are exceptionally eligible for funding.</p>
<i>Legal and financial set-up of the Grant Agreements</i>	<p>The rules are described in General Annex G. The following exceptions apply:</p> <p>Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025).⁴⁴⁶.</p>

⁴⁴⁶ This [decision](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under ‘Simplified costs decisions’ or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

Expected Outcome: A successful proposal will be contributing to the further deployment, uptake and exploitation of Environmental Observation data and products in the context of the European Green Deal.

Proposals are expected to contribute to all of the following outcomes:

- Strengthened collaboration and complementarity between the World Meteorological Organization (WMO), the Group on Earth Observations (GEO), the Intergovernmental Panel on Climate Change (IPCC) and the Global Climate Observing System (GCOS) on climate observations.
- Analysis, streamlining and creation of synergies between Work Programmes of above-mentioned bodies and with the objectives of the European Green Deal.
- Promotion of the collection, improvement, dissemination, and exploitation of observations on climate, climate change and its impacts from operational and research observational networks.

Scope: WMO hosts the GEO, IPCC, and GCOS secretariat which are organisations and Joint Programmes whose activities are crucial for the delivery of climate actions under the European Green Deal – in particular the Horizon Europe Mission on Climate Adaptation and Copernicus⁴⁴⁷ – and in this context it is becoming utmost important that the EU can rely on and benefit from well-articulated actions between those organisations.

This coordination and supporting action (CSA) is intended to support WMO, its affiliated bodies GCOS and IPCC, together with GEO in their common endeavours to establish a global system for standardised, open and interoperable climate observations and to exploit them so that they become available as services to the societies and citizens of the world to support their actions to adapt to climate change. The activities of WMO, and its affiliated bodies such as IPCC or GCOS in collaboration with GEO should also contribute to delivering the required information needed in the relevant services of the European Commission to implement its climate related policies.

The CSA should contribute to promoting the development, implementation, and improvement of climate services as per Article 7 of the Paris Agreement, including initiatives such as the Global Framework for Climate Services (GFCS), the Copernicus Climate Change Service (C3S), the Emergency Management Service (CEMS) and the Marine Service (CMEMS), as well as the Global Earth Observation System of Systems and through the prominent contributions to GCOS and the Architecture for Climate Monitoring from Space, by the Copernicus Programme, and the Climate Change engagement priority of GEO. In particular, the CSA should demonstrate the respective strengths and complementarity of the individual organisations and programmes on specific aspects of global climate observations and support the exploitation of synergies.

⁴⁴⁷ <https://www.copernicus.eu/en>.

The successful consortium should collaborate on scientific inputs to high-level climate-related policy processes, including on high-impact events and their associated loss and damage and measures to avert them, the state of the climate and atmosphere, the emerging Ocean and Climate Change Dialogue in UNFCCC and science-based adaptation and mitigation strategies.

The CSA should in a first phase:

- Do the necessary mapping of the respective work programmes and initiatives of the GFCS, C3S, CEMS, CMEMS, GCOS and GEO;
- Identify cross cutting priorities, areas for further collaboration and potential duplications;
- Organise at least one synthesis workshop, associating all the partners and external experts.

The CSA should in a second phase:

- Develop a concrete action plan in collaboration with the respective secretariats of the entities mentioned above;
- Organise a high-level leadership workshop where decisions and firm commitments are to be taken. This second & final workshop should be organised back-to-back with the GEO Plenary meeting.

HORIZON-CL6-2023-GOVERNANCE-01-10: Support to EuroGEO initiative coordination/establishing a EuroGEO secretariat

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 2.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 2.00 million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The Joint Research Centre (JRC) may participate as member of the consortium selected for funding.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the

	Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025). ⁴⁴⁸ .
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Expected Outcome: The successful proposal will be strengthening GEO-related coordination mechanisms at European and national levels. The focus will be on supporting increased innovation, space application development and the reinforcement of a space data ecosystem concept within Europe, whilst pursuing international cooperation to help stimulate the market and promote European technology and services. The successful proposal will be contributing to the European Green Deal objectives by further deploying and exploiting the use of environmental observations⁴⁴⁹ and to a strengthened Global Earth Observation System of Systems (GEOSS)⁴⁵⁰.

Proposals are expected to contribute to all of the following outcomes:

- Support to the EuroGEO⁴⁵¹ community, including supporting and cooperating with the EuroGEO Action Groups, on innovation and services and where possible link with existing and future the GEO/EuroGEO infrastructure components;
- Establishment of organisational support, e.g., coordination of EuroGEO communication activities and events. This includes the increase of synergies among EU funded projects in the context of environmental observations and other topics related to EuroGEO, providing a solid base for evidence-informed allocation of EU research funding through sound monitoring of ongoing research funding activities in Europe and beyond;
- A more developed and better monitored execution of the EuroGEO Implementation Plan in the GEO Work Programme and visibility and exposure to European lead Flagships and Initiatives in the global GEO WP - linking their thematic products and services to relevant European Policy priorities. This includes support to preparing the contribution of EuroGEO to the next GEO Strategic Plan covering the period post-2025;
- Assistance to the development of a sustainability concept for the EuroGEO initiative;
- Further developed research policies, guidelines and where possible standards in close relation with the EC Knowledge Centre on Earth Observation⁴⁵²;

⁴⁴⁸ This [decision](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under ‘Simplified costs decisions’ or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

⁴⁴⁹ The capacity to observe the environment, including space-based, in-situ-based (air, sea, land) observation, and citizen observations.

⁴⁵⁰ <https://www.earthobservations.org/geoss.php>.

⁴⁵¹ https://ec.europa.eu/info/research-and-innovation/knowledge-publications-tools-and-data/knowledge-centres-and-data-portals/eurogeo_en.

⁴⁵² https://knowledge4policy.ec.europa.eu/earthobservation_en.

Scope: This action aims to prepare the transition of the existing EuroGEO initiative into a sustainable endeavour, by setting up a secretariat.

The successful proposal should propose actions for the secretariat to:

- Further strengthen and promote the three EuroGEO priorities: combining, cooperating and coordinating;
- Serve as the basis for evidence-informed allocation of research funding by monitoring ongoing research funding activities in Europe and beyond;
- Provide professional support in organising EuroGEO events and meetings of EuroGEO bodies (Coordination Group and Action Groups);
- Guide the dialogue with relevant stakeholders and initiatives and (further) build connections, including raising awareness of and interest in the EuroGEO initiative.

The successful proposal should carry out an in-depth investigation resulting into a sustainability plan offering options for the long-term operationalisation and sustainability of the EuroGEO initiative, with the GEO Member States and GEO Participating Organisations of Europe.

The proposed sustainability plan should include a suggested pathway towards implementation, such as the implementation of a European Digital Infrastructure Consortium (EDIC)⁴⁵³.

The organisational and logistical support of a secretariat should maximise the unique and long-term impact of EuroGEO by strengthening Europe's leading role in the successful deployment of Earth Observation applications in the global context.

The maximum duration of the funded project is 24 months.

HORIZON-CL6-2023-GOVERNANCE-01-11: Reducing observation gaps in the land-sea interface area

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 9.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 9.00 million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Eligibility</i>	The conditions are described in General Annex B. The following

⁴⁵³ <https://digital-strategy.ec.europa.eu/en/policies/europes-digital-decade>.

<i>conditions</i>	exceptions apply: If projects use satellite-based earth observation, positioning, navigation and/or related timing data and services, beneficiaries must make use of Copernicus and/or Galileo/EGNOS (other data and services may additionally be used).
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Expected Outcome: The successful proposal will be contributing to the European Green Deal objectives including the need to address climate change mitigation and adaptation, pollution and biodiversity loss, through up-taking, integrating, further deploying and exploiting environmental observations.

The successful proposal will be contributing to the European strategy for data, the European digital strategy and support Destination Earth with the development of Digital Twins. It will also be contributing to a strengthened Global Earth Observation System of Systems (GEOSS)⁴⁵⁴ and improvement of data and modelling services provided by European programmes such as Copernicus⁴⁵⁵ - marine, climate, land, and emergency services and the European Marine Observation and Data network (EMODnet)⁴⁵⁶ - and ensure enhanced coordination with ESA relevant activities as part of the EC-ESA Earth System Science Initiative⁴⁵⁷ and in particular with the activities of the ESA Ocean Science Cluster (oceansciencecluster.esa.int).

The successful proposal is expected to contribute to all of the following outcomes:

- Increased availability of integrated in-situ observations at the land-sea interface, with particular emphasis on river mouths, estuaries and deltas in Europe;
- Improved hydrological, biogeochemical, ecological and coastal modelling based on the integration and combination of these new sources of in-situ observations remote sensing data and their combination at the land-sea interface;
- Enhanced networking between the relevant observation communities (in-situ, airborne, satellite, citizen science, etc.) and training of the citizen science community in the approach to the observation of the land-sea interface making use of newly developed low-cost instrumentation;
- Strengthened coordination between Earth observation communities in the land and marine domains, including hydrology, and between the in-situ data collection and satellite ocean communities (e.g., ESA Ocean Science cluster activities), and better integration of observation and modelling science communities working on applications close to shore, to ensure consistency and cross-validation of different types of observations and foster complementarity and enhanced integration into advanced products and multisource information.

⁴⁵⁴ <https://www.earthobservations.org/geoss.php>.

⁴⁵⁵ <https://www.copernicus.eu/en>.

⁴⁵⁶ <https://emodnet.ec.europa.eu/en>.

⁴⁵⁷ <https://eo4society.esa.int/communities/scientists/ec-esa-joint-initiative-on-earth-system-science/>.

Scope: Fit for purpose in-situ Earth observations are essential for understanding environmental systems and assessing feedback loops/impacts in important interfaces, as is the land-sea interface at the coastal zones. Especially through the contribution of satellite data, there are still important gaps to be addressed to integrate in-situ Earth observations from the terrestrial and marine domains. There is a need for increased capacity to assess trans-domain impacts, develop and validate detailed models and forecasting applications in the land-sea interface. In the framework of the Digital Twin Ocean (DTO) and Destination Earth (DestinE)⁴⁵⁸, the development of integrated observation capacities between land and sea, in the coastal zones and beyond, is necessary to address priorities. These can include the decrease of pollution, protection and conservation of biodiversity and prediction/adaptation to climate change effects related to e.g., erosion, to the loss of land and ecosystems, land and coastal marine heatwaves, acidification, storm surges, floods and salinization. Specific attention should be given to the sea effect on coastal lands (loss of land, habitat, soil salinisation, etc.), the lateral flux of carbon from terrestrial to coastal ecosystems and marine carbon stocks at the coast, observations gaps and integration (suitability of land observations to measure impact at sea and vice versa).

Proposals should address the following:

- Assessment of current in-situ observing capabilities and protocols of the terrestrial and marine domains, including hydrology, with emphasis on the coastal zones and focus on terrestrial/hydrological input to the sea (delta's, river input, agricultural and other run-off, etc.), including issues of spatial and temporal resolution, identification of important gaps and proposals for viable, long-term approaches to address them;
- Development of methods, tools, technologies and processes to fill the identified gaps following the assessment and to increase integrated observing capacity in the coastal zones and in the land-sea interface (including hydrological inputs). These developments should also contribute to upgrading, enhancing and interconnecting the existing observing networks, developing new capacity when necessary;
- Development of interoperability standards between terrestrial and marine data and coordination of existing observation services and networks (EMODnet, Copernicus, GEOSS, WISE, LUCAS, INSPIRE etc.) to promote freely available and uninhibited flows of FAIR⁴⁵⁹ data and to support the creation of data products in the land-sea interface; combination of in-situ observation from land and sea with satellite observation to fill otherwise unaddressed gaps;
- Advance forecasting and modelling capacity in the coastal zones, including for predicting hazardous events, addressing habitat and biodiversity loss, assessing lateral carbon fluxes across the land ocean continuum, addressing shoreline issues such as erosion, detecting/quantifying/managing the impacts of human activity and extreme events due to climate change, and the better integration of river runoffs into marine-

⁴⁵⁸ <https://digital-strategy.ec.europa.eu/en/policies/destination-earth>.

⁴⁵⁹ <https://www.go-fair.org/fair-principles/>.

related predictions (including the inflow of plastic and nutrient loads through rivers and estuaries);

- Developing close coordination and collaboration across scientific communities (e.g., in-situ data, satellite base observations) ensuring data consistency, cross-fertilisation and enhanced data integration.

This topic is part of a coordination initiative between ESA and the EC on Earth System Science. The EC-ESA Earth System Science Initiative enables EC and ESA to support complementary collaborative projects funded on the EC side through Horizon Europe and on the ESA side through the FutureEO programme ⁴⁶⁰.

The applicants under this topic shall enter into contact with the ESA Ocean Science Cluster⁴⁶¹ of the FutureEO programme, and include in their proposals activities to ensure coordination with ESA relevant actions.

Collaboration with the relevant existing European Research Infrastructures (such as JERICO or Danubius-RI) is highly recommended.

A strong cooperation, through e.g. networking and exchanges of information with relevant projects ⁴⁶² and HORIZON-MISSION-2021: “EU Public Infrastructure for the European Digital Twin Ocean and HORIZON-MISSION-2021-05-01: “Underlying models for the European Digital Twin Ocean” is expected.

HORIZON-CL6-2023-GOVERNANCE-01-12: Empowering citizens to monitor, report and act in partnership with relevant public authorities to protect their environment in the context of environmental compliance assurance

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 7.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 7.00 million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply:

⁴⁶⁰ https://www.esa.int/Applications/Observing_the_Earth/FutureEO.

⁴⁶¹ <https://eo4society.esa.int/communities/scientists/esa-ocean-science-cluster>.

⁴⁶² In particular HORIZON-CL6-2021-BIODIV-01-03 (Understanding and valuing coastal and marine biodiversity and ecosystems services); HORIZON-CL6-2021-BIODIV-01-04 (Assess and predict integrated impacts of cumulative direct and indirect stressors on coastal and marine biodiversity, ecosystems and their services) and HORIZON-CL6-2022-BIODIV-01-01: Observing and mapping biodiversity and ecosystems, with particular focus on coastal and marine ecosystems”.

	<p>The Joint Research Centre (JRC) may participate as member of the consortium selected for funding.</p> <p>If projects use satellite-based earth observation, positioning, navigation and/or related timing data and services, beneficiaries must make use of Copernicus and/or Galileo/EGNOS (other data and services may additionally be used).</p>
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Expected Outcome: A successful proposal will be contributing to the wide deployment of, and adding value to, environmental observations for ‘environmental compliance assurance’^{463, 464} by empowering citizens⁴⁶⁵ to promote, monitor, and act in partnership with relevant public authorities, thus contributing to the European Green Deal objectives (in particular to zero-pollution, protecting biodiversity and preventing deforestation).

Proposals are expected to contribute to all of the following outcomes:

- An increase in empowered citizens, communities and intermediaries that are equipped with guidance and tools to act on protecting their environment and increase awareness among citizens of environmental compliance;
- More relevant (*in-situ*) datasets and information, to be used in the context of policy shaping and the use of geospatial intelligence⁴⁶⁶ for environmental compliance assurance;
- Tested FAIR data governance and management mechanisms that enable the sharing, community validation and use of citizen generated data and information in combination with authoritative data and information as part of the European Green Deal Data Space;
- Better/larger engagement of citizens and communities with regional and local authorities to develop local actions for green and digital transformation (e.g., via the Living Labs for green digital solutions⁴⁶⁷) as well as Living Labs established in Missions, Partnerships and other initiatives⁴⁶⁸.

Scope: Successful proposals are expected to support citizen engagement in particular by encouraging the validation and uptake of citizen observations by relevant public authorities for environmental compliance assurance. This includes the establishment of trusted data governance approaches in the context of the European Green Deal Data Space and, where

⁴⁶³ https://ec.europa.eu/environment/legal/compliance_en.htm.

⁴⁶⁴ The three principal components of a compliance assurance system: compliance promotion, compliance monitoring, and enforcement against violations, Source: [ENSURING ENVIRONMENTAL COMPLIANCE – ISBN 978-92-64-05958-0 – © OECD 2009](#).

⁴⁶⁵ [Understanding the Citizen Science Landscape for European Environmental Policy: An Assessment and Recommendations](#).

⁴⁶⁶ Action 5. Being smart – using geo-spatial intelligence of the “[Endorsed work programme 2020-2022 to improve environmental compliance and governance](#)”, Environmental Compliance and Governance Forum.

⁴⁶⁷ [Join us in building the European way of Digital Transformation for 300 million Europeans | Living in EU \(living-in.eu\)](#).

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possible, creating synergies with the citizen science development efforts of the Destination Earth initiative, and with the European Open Science Cloud (EOSC) European Partnership.

Capacity building for citizens, communities and intermediaries (training the trainer) to collect data and monitor their environment in addition to the data and information collected by other means of observation (statutory reporting, space-based, airborne, etc.), should be part of the proposal (e.g., through online or local learning and training modules), as well as awareness raising activities on environmental compliance assurance.

Digital and data technologies as key enablers

Proposals are invited against the following topic(s):

HORIZON-CL6-2023-GOVERNANCE-01-13: Open source solutions for edge, cloud and mixed model applications to strengthen production and administrative capacities in agriculture

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 5.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 10.00 million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Eligibility conditions</i>	<p>The conditions are described in General Annex B. The following exceptions apply:</p> <p>The following additional eligibility criteria apply: Due to the scope of this topic, legal entities established in non-associated third countries and/or regions are exceptionally eligible for Union funding.</p> <p>The following additional eligibility criteria apply: The proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this Work Programme part.</p>
<i>Technology Readiness Level</i>	Activities are expected to achieve TRL 5-7 (according to the activity) by the end of the project – see General Annex B.
<i>Legal and financial set-up of the Grant Agreements</i>	<p>The rules are described in General Annex G. The following exceptions apply:</p> <p>Beneficiaries may provide financial support to third parties. The support to third parties can only be provided in the form of grants. The maximum amount to be granted to each third party is EUR 60 000.</p>

Expected Outcome: In line with the farm to fork strategy, the common agricultural policy post 2022, and the headline ambition of a digital age, the European strategy for data⁴⁶⁹ in particular, a successful proposal will contribute to transition to a fair, healthy and resilient agriculture. It will direct and/ or indirectly contribute to the enhancement of the sustainability performance of the sector and competitiveness in agriculture through supporting the further deployment of digital and data technologies as key enablers through research and innovation.

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

- Enhanced sustainability performance and competitiveness of the sector, and a strengthened position of producers through tailored open-source digital solutions;
- Increased and enhanced use of digital tools in areas with weak connectivity;
- Improved energy balance of data-based solutions used in agricultural production;
- New approaches towards the development of software for the agriculture contributing to improving operational effectiveness and efficiency in the sector through real-time data processing;
- Facilitated deployment of digital applications for farmers and actors related to the agricultural sector;
- Decision-making support, particularly for policymakers, farm advisors, farmers, and public administration.

Scope: Digital and data technologies can improve the sustainability performance and competitiveness of the agricultural sector. There are still a number of factors hampering the uptake of digital technologies by farmers, including a lack of affordability of digital tools, a lack of digital skills and trust in data sharing, scepticism towards the “black box phenomenon” of digital applications and the lacking transparency in the development of algorithms, and the risk of vendor lock-ins. Digital solutions following the open-source principle can lead to reduced prices for digital applications and enhance transparency in production advice based on digital applications.

One frequent challenge to the use of certain digital technologies in agriculture, especially in remote areas, is weak connectivity, which hampers the full exploitation of their potential. Edge solutions may facilitate real-time applications also in areas with weak connectivity; they may, however, be run with less and/or other input data potentially resulting in another performance than cloud-based solutions or solutions following a mixed model of edge and cloud components. As data storage, processing and transfer goes along with energy consumption, the overall environmental performance of the different models for digital applications also varies and is also influenced by the number of users of a certain application.

⁴⁶⁹ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - A European strategy for data ([EUR-Lex - 52020DC0066 - EN - EUR-Lex \(europa.eu\)](#))

This factor may influence the choice and or support for a certain digital application in agriculture.

Proposals should address the following:

- Development of open-source based digital applications for farmers following a dual and comparative approach with edge, cloud and mixed solutions under consideration of the potential of advanced Internet of Things (IoT) solutions; whereby the focus is on (remote) outdoor production processes, where frequently weak connectivity is given, as well as on reducing administrative burden for producers (TRL 5-7).
- Development of software solutions following an open-source principle involving (semi-professional) close-to-practice IT experts/ farmers and advisors with advanced digital skills to capitalise daily-work experiences and enhance user-orientation and increase digital capacities in the sector (TRL 5-7).
- Comparison of the performance of edge and cloud solutions in their effectiveness, efficiency and energy performance under consideration of various biogeographic and socio-economic framing conditions at farm and farm community level at regional and national scale.
- Development of a decision-making support tool, particularly targeting policymakers, farm advisors, farmers, and the public administration facilitating the comparing the performance of edge-, cloud-, and mixed model-based open source solutions for agriculture along several socio-economic and environmental parameters, including administrative capacities needed for their deployment, at the level of the farm, and the farm community at regional national scale.

Proposals must implement the ‘multi-actor approach’ including a range of actors to ensure that knowledge and needs from various stakeholder groups, including farmers, farm advisors, IT experts and scientists are well reflected. Proposals should involve the effective contribution of social sciences and humanities (SSH) disciplines. This is required in particular to achieve a high level of user-friendliness of the developed applications and to develop accompanying training material for the different targeted user groups. Proposals are expected to take into consideration the results of other related Horizon 2020/ Europe projects as well as of other relevant EU funded projects and initiatives. When exploring opportunities to reduce administrative burdens for farmers, proposals should consider possibilities to facilitate reporting obligations and use production data for other processes along the value chain, e.g. marketing. Proposals are strongly encouraged to consider (evolving) technical solutions and (forthcoming) requirements⁴⁷⁰ in the field of data interoperability and switchability and to contribute to enhanced interoperability. In order to benefit from the experiences gained in the development of digital applications focused on within this topic and to foster the upscaling of

⁴⁷⁰ (Forthcoming) requirements in the fields of data interoperability and switchability may concern horizontal/ cross-sectoral or sector-specific provisions as well as legislation or voluntary regimes, such as code of conducts. For instance, the proposal for a Data Act, brought forward by the European Commission early 2022 may lead to requirements in those fields.

the outreach of the use of the developed digital applications, international cooperation is encouraged.

Proposals may involve financial support to third parties e.g. to academic researchers, hi-tech start-ups, SMEs, and other multidisciplinary actors, to, for instance, develop, test or validate developed applications. Consortia need to define the selection process of organisations, for which financial support may be granted. A maximum of 20% of the EU funding can be allocated to this purpose.

HORIZON-CL6-2023-GOVERNANCE-01-14: Digital and data technologies for livestock tracking

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 5.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 5.00 million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025). ⁴⁷¹ .

Expected Outcome: In line with the farm to fork strategy, the headline ambition of a Digital Age – the EU data strategy strategy⁴⁷² in particular - and the common agricultural policy (CAP), a successful proposal will support capacities to understand, develop and demonstrate the potential of digital and data technologies for livestock tracking in the public and private domains. It is therefore expected to indirectly support the enhancement of the sustainability performance and competitiveness in agriculture, the development of innovative governance models, and strengthened capacities for implementing, monitoring and evaluating common

⁴⁷¹ This [decision](#) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under ‘Simplified costs decisions’ or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

⁴⁷² COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS - A European strategy for data (see: [EUR-Lex - 52020DC0066 - EN - EUR-Lex \(europa.eu\)](#)).

policies through research and innovation and through interlinking actors and relevant initiatives.

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

- Strengthened sustainable livestock production through increased capabilities for the generation of livestock related data sets (including in the field on animal health and disease prevention);
- Strengthened the resilience and transparency of supply chains through the use of digital technologies;
- Enhanced capacities in policy monitoring and evaluation in the field of agriculture, environment, climate, and sustainable finance.

Scope: Data and digital technologies are currently used for many purposes in and for livestock farming, both in the public and private domains. Livestock and its attributes are tracked for instance in the context of implementing the CAP, for disease prevention and mitigation, as well as to facilitate production and the management of supply chains. Sensors, for instance, allow for collecting multiple information, e.g. on health conditions or medical treatments of livestock, location and environmental conditions. They may facilitate, e.g. more tailored and precise treatment of animals and to reduce inputs, of e.g. antibiotics, and costs. Livestock tracking may also e.g. support climate mitigation by assessing livestock density against land carrying capacity and reduce soil disturbance and compaction. It may also facilitate the provision of information to consumers on the products offered and enhance transparency along the supply chain and offer a means to against legal commitments of livestock densities, e.g. in the context of CAP strategic plans.

Frequently (public) registers are not interlinked and approaches towards data collection on livestock across Member States vary. Private sector efforts in livestock tracking are frequently not systemised and not scaled up. The potential for synergies between public and private sector initiatives in livestock tracking appears not to be fully explored and exploited.

Proposals should address the following:

- Elaborate on the potential for the generation of data sets through the development and applications of digital solutions to track livestock.
- Elaborate the opportunities of linking tracking efforts to sensor information providing information on animal health (and welfare) using the potential of innovative technologies;⁴⁷³
- Develop concepts for data-based solutions for the private and public sector to track livestock and its conditions (including geospatial information) under consideration of multiple possible application cases, such as administrative purposes and legal

⁴⁷³ A successful proposal may take advantage of the opportunity to integrate new phenotypes issued from tracking and sensors in certain breeding programmes.

commitments, labelling, predator and pest prevention; this activity should include an assessment of possible socio-economic and environmental effects, including the potential for reducing administrative costs and for policy monitoring, which could be achieved through the use of the data sets.

- Highlight the potential of and elaborate concepts for upscaling of data-based digital solutions for livestock tracking to EU (and international) level.
- Bring together key stakeholders from the public and private domain to explore – among others - opportunities to implement identified data-based and digital solutions, as well as to share data.

Proposals should consider existing and forthcoming data bases/ registers related to livestock as well as (forthcoming) sector-specific and horizontal legal requirements in the EU, including in the field of digital and data technologies. Proposals are expected to take stock of livestock tracking initiatives in the private domain, including in third countries and to draw lessons learnt, as well as of digital tracking technologies used in other sectors/ domains. Proposals are encouraged to explore interlinks with other innovative technologies, such as genomics, and application cases, such as recording breeding traits. Proposals are encouraged to reflect on the aspect of affordability of digital technologies as well as on the potential effects of livestock tracking for producers, food processors, and consumers. Proposals are encouraged to involve representatives of the public administration from all EU Member States and of relevant EU institutions,⁴⁷⁴ as well as to link up to/ exchange with relevant EU funded projects, including projects funded under Horizon Europe and the Digital Europe Programme.

In this topic, the integration of the gender dimension (sex and gender analysis) in research and innovation content is not a mandatory requirement.

HORIZON-CL6-2023-GOVERNANCE-01-15: Digitalisation in agriculture and forestry: markets for data, and digital technologies and infrastructure – state of play and foresight in a fast changing regulatory, trade and technical environment

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 5.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 5.00 million.
<i>Type of Action</i>	Research and Innovation Actions

⁴⁷⁴ Here, the involvement of representatives of all EU Member States and relevant EU institutions does not refer to the formation of the consortium but to the involvement of those actors in the work of the project. The European Commission can support a selected proposal in establishing contact to relevant EU institutions.

<i>Technology Readiness Level</i>	Activities are expected to achieve TRL 3-5 by the end of the project – see General Annex B.
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Expected Outcome: In line with the European Green Deal, the farm to fork strategy in particular, and the headline ambition of a Digital Age, a successful proposal will support the capacities to understand and forecast the development of markets and the use of data and digital technologies in agriculture and forestry, particularly through the development of innovative assessment and modelling approaches. It will therefore support decreasing the risk of investing into digital infrastructure, and indirectly contribute to the enhancement of the sustainability performance and competitiveness in agriculture through further deployment of digital and data technologies as key enablers, and to the development of innovative governance models.

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

- Analyses of global markets through innovative approaches including trends, potential barriers and risks associated with investments in data, digital and data technologies in the agriculture and forestry sectors.
- Increased transparency in data sharing and in the markets for digital and data technologies in the agricultural and forestry sectors in support of healthy competition.
- Contribution to an increased uptake of digital and data technologies in agriculture and forestry including through reduced investment risks; this is expected to indirectly contribute to an increase in environmental and economic performance of the sectors through increased and enhanced used of data, and digital and data technologies.
- Strengthened policy-making and -monitoring and foresight capacities.

Scope: The potential of digital and data technologies in the agricultural and forestry sectors to enhance their sustainability and economic performance and working conditions has been acknowledged. The uptake of digital technologies in the sectors and the development of supplementing data- and data-technology-based solutions in the EU are increasing. However, there is hardly comprehensive, independently collected data about the actual uptake and use of digital technologies by farmers and foresters, about the trade of sector-related data and digital technologies, and about the extent and structure of the provision of digital and data services in the agricultural and forestry supply chains, which are of global outreach.

At the same time, policies and the regulatory framework directly or indirectly influencing the deployment of digital and data technologies in the EU are evolving in a fast pace and will continue to do so.⁴⁷⁵ Also trade regimes are continuously changing. For stakeholder in the agricultural, forestry and the digital sectors to invest in digital and data technologies, it is important to be able to assess the possible implications of changing regulatory and market conditions on the development, purchase and use of data, and digital and data technologies.

⁴⁷⁵ See, e.g. the announcements in the Digital package published by the European Commission in February 2020: <https://ec.europa.eu/digital-single-market/en/policies/building-european-data-economy>.

This is also supported by an increase in information on markets and related actor networks, and information on the storage and the flows of goods and data, through increased transparency and a strengthened position of users and consumers. Such information as well as capacities in modelling and in carrying out foresight analyses for the development of markets and of the situation in the agricultural sector is also one pre-requisite for tailored policy-making.

Fostering the provision of insights into markets of data, and digital and data technologies in the agricultural and forestry sectors, the proposals should address the following:

- Development of innovative approaches to assess the uptake of digital technologies and digital infrastructure (incl. platforms) in the agricultural, and forestry sectors globally with special attention to the situation in the EU and Associated Countries.
- Development of innovative approaches to forecast the markets of data, digital technologies and digital infrastructure (including platforms) and the uptake of digital technologies globally with special attention to the situation in the EU under consideration of fast-changing regulatory framing conditions in the fields of data-, digital and machinery technologies and of agricultural and forestry policies.
- Demonstration of the qualitative and quantitative implications of market and technology trends in the fields of data, digital technologies and digital infrastructure for the use of digital and data technologies by farmers, foresters and other actors along the supply chains in a way that demonstration results can be steadily adapted to changing framing conditions. Demonstrations should allow for the reflection of scenarios and provide input to policy-making.

Project(s) are expected to consider innovation in digital technologies brought onto the market during the life-time of the project. It is expected that the project(s) are working with targeted stakeholders, including farmers, foresters, agri-businesses, farm advisors, policy-makers etc. to test demonstration and communication tools.

For the assessment of the uptake of digital technologies by farmers and foresters, statistical approaches evolving in the EU are to be considered, if applicable; assessment approaches may vary between continents.

In this topic, the integration of the gender dimension (sex and gender analysis) in research and innovation content is not a mandatory requirement.

HORIZON-CL6-2023-GOVERNANCE-01-16: Digital technologies supporting plant health early detection, territory surveillance and phytosanitary measures

Specific conditions	
<i>Expected EU contribution per</i>	The Commission estimates that an EU contribution of around EUR 5.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a

<i>project</i>	proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 10.00 million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Eligibility conditions</i>	<p>The conditions are described in General Annex B. The following exceptions apply:</p> <p>If projects use satellite-based earth observation, positioning, navigation and/or related timing data and services, beneficiaries must make use of Copernicus and/or Galileo/EGNOS (other data and services may additionally be used).</p> <p>The following additional eligibility criteria apply: The proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this Work Programme part.</p>

Expected Outcome: In line with the objectives of the biodiversity and farm to fork strategies, a successful proposal will contribute to transition to fair, healthy and resilient agriculture and forestry, notably the target to reduce by 50% the overall use and risk of chemical pesticides. Proposals will support Regulation (EU) 2016/2031⁴⁷⁶ on protective measures against plant pests.

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

- Increase the availability of large-scale and robust plant scanning methods to monitor plant pests, to assist territorial surveillance and help with timely eradication or optimisation of containment measures;
- Enhance innovative and cost-efficient integration of methods, including remote sensing and networks of traps that are available for surveillance of EU regulated plant pests affecting agriculture, forestry, other activities and areas (e.g., urban areas);
- Strengthen capacities to prevent entry and spread and to monitor EU regulated plant pests and support plant health territorial surveillance;
- Foster transdisciplinary cooperation in the fields of plant health, environmental sciences and earth observation.
- Support relevant EU and Associated Countries' plant health policies.

Scope: Pest monitoring is typically performed through costly and time-consuming on-site visits, resulting in certain cases in limited spatial and temporal resolution. Consequently, there is a need for more cost-effective approaches to detect and discriminate infested plants, including trees, at large spatial scales and within reasonable time frames. The advent of new

⁴⁷⁶ Regulation (EU) n. 2016/2031 (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32016R2031>) and Regulation (EU) n. 2019/2072 (https://eur-lex.europa.eu/eli/reg_impl/2019/2072/oj).

technology in remote sensing, sensor technologies, robotics, remotely piloted aerial systems (RPAS), the internet of things (IoT), and artificial intelligence (AI), opens opportunities for monitoring continuously, more widely, and remotely. These technologies have the potential to guide and help to target on site surveillance and early detection activities and other phytosanitary measures.

Proposals should:

- Develop and test early detection strategies by exploiting digital technologies, e.g., networks of sensors and remote sensing, to improve the surveillance efforts and the delimitation of affected areas by regulated pests allowing a regular and rapid monitoring of large areas that might be difficult to reach;
- Enhance and optimize the use of insect traps in a network setting for an IoT approach;
- Develop user-friendly and accessible tools or methods, including through the use of robotics to monitor a suite of known stress-processes in plants (chlorosis, changes in fluorescence, loss of transportation, etc.) that can be used in plant pest detection and/or to monitor occurrence of pests;
- Contribute to disentangle biotic and abiotic stresses, enabling the early detection of pests, by pushing further the current (and the new generation of satellite missions, e.g., FLEX⁴⁷⁷) capabilities of remote sensing (measurements taken by hand-held, towers, drones, and satellite data), AI, and other digital strategies;
- Collect standardised and comprehensive data (e.g., field observations, laboratory measurements, remotely sensed data, etc.) that contribute to monitor plant health and pests and to develop an early warning surveillance system;
- Assess the cost-benefits of the proposed methods;
- Integrate citizen science as a tool to monitor pests, developing robust methods to use its data for systematic analysis, and increasing public and stakeholder engagement.

Proposals should identify common standards and common indicators to collect data, as well as interoperability and metadata standards. Proposals should develop recommendations on how to make the best use and scale up digital technologies for plant pests early detection and territorial surveillance applications.

Proposals must implement the ‘multi-actor approach’ including a range of actors to ensure that knowledge and needs from various sectors such as research, plant health services, farming/forestry sectors, other relevant authorities, and industry are brought together.

Proposals should build on the results of relevant projects funded under Horizon 2020. Proposals should specify how they plan to collaborate with other proposals selected under this

⁴⁷⁷ <https://earth.esa.int/eogateway/missions/flex>.

and, if feasible, with other relevant topics⁴⁷⁸, e.g., by undertaking joint activities, workshops or common communication and dissemination activities. Proposals should allocate the necessary resources to cover these activities.

If projects use satellite-based earth observation, positioning, navigation and/or related timing data and services, beneficiaries must make use of Copernicus and/or Galileo/EGNOS. Other data and services may be used in addition. All in-situ data collected through actions funded from this call should follow INSPIRE principles and be available through open access repositories supported by the European Commission (Copernicus, GEOSS).

This topic is part of a coordination initiative between ESA FutureEO programme for agriculture⁴⁷⁹ and the EC on Earth System Science. Applicants are encouraged to coordinate with the relevant ESA projects and in particular those of the ESA Agriculture Science Cluster Activities (agriculturesciencecluster.esa.int) in their proposals. Where relevant, creating links and using the information and data of the European Earth observation programme Copernicus are encouraged.

In this topic the integration of the gender dimension (sex and gender analysis) in research and innovation content is not a mandatory requirement.

HORIZON-CL6-2023-GOVERNANCE-01-17: Data-driven solutions to foster industry’s contribution to inclusive and sustainable food systems

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 4.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 8.00 million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: The proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this Work Programme part.

Expected Outcome: This topic will enhance the sustainability performance and competitiveness in the domains covered by Cluster 6 through further deployment of digital and data technologies as key enablers. It will help to achieve better informed decision-making

⁴⁷⁸ HORIZON-CL6-2024-FARM2FORK-02-3-two-stage: Tools to increase the effectiveness of EU import controls for plant health

⁴⁷⁹ More details about relevant existing and planned ESA activities and projects can be found in <https://agriculturesciencecluster.esa.int>.

processes, social engagement, governance, and innovation. It will help deliver solutions to advance the European Green Deal priorities, the EU's climate targets for 2030 and 2050 and the farm to fork strategy for a fair, healthy and environmentally friendly food system. It will contribute to the food 2030 priorities: nutrition for sustainable healthy diets, climate, environment, circularity and resource efficiency, innovation and empowering communities and improving the data economy for food systems and enhance transparency.

There is already commitment in the private sector to drive change towards more sustainable food systems. One example is the “EU Code of Conduct on Responsible Food Business and Marketing Practices⁴⁸⁰”, an integral part of the farm to fork strategy. Many businesses have already signed the voluntary agreement⁴⁸¹. This commitment also includes an R&I dimension that can be expanded to the respective topic.

Data-driven solutions in food systems also may support the European open data directive to share public data⁴⁸² and foreseen data spaces⁴⁸³ as well as provide a base of Artificial Intelligence (AI) deployment as enablers of the European Green Deal objectives.

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

- Increased insights into the potential benefits and feasibility of data and technology employed by the private sector together with public stakeholders to drive sustainable food system transformation while respecting the relevant legal and policy frameworks;
- Enhanced transition towards sustainable healthy diets for all by using data driven solutions in the food sector.

Scope: Data are key to drive citizens’ sustainability practices. Several actors in the private food sector have access to valuable sustainability-related data, for example grocery retail, food processing and delivery services with huge potential to be used to foster the transition to sustainable food systems. At the same time, there is potential in mapping possible beneficial data not yet tested and a vision of a new spectrum of data overcoming availability bias. Data can be used to foster citizens’ sustainability practices, for example as a contributor to positively influence and monitor dietary changes. Industry contribution to the transition to sustainable food systems by engaging citizens in such transition can be very impactful while keeping the integrity of private intellectual property of the businesses. By democratizing data, private actors might gain a competitive advantage and activate other players to fulfil the need of transparency and proof of sustainability efforts for citizens.

Proposals are expected to address the following:

⁴⁸⁰ EU Code of Conduct on Responsible Food Business and Marketing Practices [f2f_sfpd_coc_final_en.pdf \(europa.eu\)](#), 2021.

⁴⁸¹ https://single-market-economy.ec.europa.eu/news/farm-fork-strategy-65-companies-and-associations-sign-eu-code-conduct-responsible-food-business-and-2021-07-05_en.

⁴⁸² <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019L1024&from=EN>

⁴⁸³ [Digital Europe Work Programme 2021-2022](#).

- Analyse current systems of private data sharing in the food system (monetary incentives, actors involved...etc.);
- Initiate first tests of potential data sharing, also with SMEs and potentially start-ups, to identify potential impacts and benefits and serve as a lighthouse;
- Explore ‘new’ types of data and identify relevant data within the food system by also ‘unconventional players’ to tap into unused data sources, point out the main value pool for data sharing, outline potential needs of data gathering/harmonisation and map out an enhanced data framework and data collection strategy including needed technology (AI, Robotics, IoT) to drive sustainable food system transformation;
- Make use of analytics, forecast and AI to identify influential factors for making sustainable choices;
- Analyse the impacts on the sustainability of food systems of the proposed solutions considering the entire food supply chain and the different dimensions of sustainability;
- Define ways to use data to inform and guide consumer choices at the point of purchase in line with EU food law and policies;
- Set-up a potential framework for sharing non-competitive data that defines principles and collect good practices to foster sustainable food system objectives that ensures the protection of private data and sensitive business data and explore how this data can be integrated in the ‘Smart communities data space’⁵;
- Proposals must implement the 'multi-actor approach' and ensure adequate involvement of relevant stakeholders also in the health domain, such as doctors and nurses, and SMEs and start-ups;
- Proposals should include a dedicated task, appropriate resources and a plan on how they will collaborate with other projects funded under this topic and under the topic 2022-GOVERNANCE-10 “Piloting approaches and tools to empower citizens to exercise their “data rights” in food and nutrition” and HORIZON-CL6-2024-FARM2FORK-01-8 “Preventing and reducing food waste to reduce environmental impacts and to help reach 2030 climate targets”;
- Include social innovation as the solution is at the socio-technical interface and requires social change, new social practices and social ownership;
- This topic should involve the effective contribution of SSH disciplines.

Strengthening agricultural knowledge and innovation systems (AKIS)

Proposals are invited against the following topic(s):

HORIZON-CL6-2023-GOVERNANCE-01-18: Broaden EIP Operational Group outcomes across borders by means of thematic networks to compile and share knowledge ready for practice

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 2.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 4.00 million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: The proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this Work Programme part.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025). ⁴⁸⁴ .

Expected Outcome: In support of the European Green Deal, the EU climate policy, the common agricultural policy (CAP) and the farm to fork strategy objectives and targets, the successful proposals will focus on knowledge sharing in a language that is easy to understand and targeted to farmers and foresters. They will address the necessity of primary producers for impartial and tailored knowledge on the management choices related to the needs, challenges or opportunities they experience. They will also speed up innovation and the uptake of results, and will be key to improving sustainability.

They will contribute to effective Agriculture Knowledge and Innovation Systems (AKIS⁴⁸⁵), thereby adding value to the knowledge and cost-effectiveness of innovative practices and

⁴⁸⁴ This [decision](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under ‘Simplified costs decisions’ or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

⁴⁸⁵ AKIS means the organisation and knowledge flows between persons, organisations and institutions who use and produce knowledge for agriculture and interrelated fields (Agricultural Knowledge and Innovation).

techniques in and across primary production sectors, food and bioeconomy systems, and lead to more informed and engaged stakeholders and users of project results.

Despite the continued funding of scientific projects, new knowledge, innovative ideas and methods from practice are not sufficiently captured and spread. The research findings are often not integrated into agricultural and forestry practice. The proposals, acting at EU level to remedy this, are essential because national and sectoral agricultural knowledge and innovation systems (AKISs) are insufficiently connected and organised to fully meet the challenge of intensifying thematic cooperation between researchers, advisors and farmers/foresters. This exchange of knowledge will foster economically viable and sustainable agriculture and forestry and build trust between the main AKIS actors. It will scale local solutions up to the EU level and may even influence policy design wherever useful.

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

- Contribution to the cross-cutting objective of the CAP on modernising the sector by fostering and sharing of knowledge, innovation and digitalisation in agriculture and rural areas, and encouraging their uptake⁴⁸⁶, as well as to the European Green Deal and farm to fork Strategy objectives and targets.
- Collection and distribution of easily accessible practice-oriented knowledge on the thematic area chosen, in particular the existing innovative solutions, best practices and research findings that are ready to be put into practice, but not sufficiently known or used by practitioners.
- Maintenance of practical knowledge in the long-term – beyond the project period – in particular by using the main trusted dissemination channels which farmers/foresters most often consult.
- Increased flow of practical information between farmers/foresters in the EU in a geographically balanced way, creating spill-overs and taking account of the differences between territories.
- Greater user acceptance of collected solutions and a more intensive dissemination of existing knowledge, by connecting actors, policies, projects and instruments to speed up innovation and promote the faster and wider co-creation and transposition of innovative solutions into practice.

Scope: Proposals should address the following activities:

- Build on the experiences and outcomes of at least 5 EIP-AGRI Operational Groups of at least 3 Member States and choose a common theme related to the themes of the 5 Operational Group projects.

⁴⁸⁶ Art 5 CAP post 2020 proposal.

- Tackle the most urgent needs of farmers and foresters. Collect, summarise, share and translate the existing knowledge from science and practice, resulting from the EIP operational Groups and beyond, in an easy-to-understand language for practitioners.
- Compile a comprehensive description of the state of current farming practices on the chosen theme to explain the added value of the proposal and the relevance of the theme. Proposals must focus on the cost/benefit aspects of the practices collected and summarised, and clarify how the project avoids duplication with ongoing or completed projects and networks.
- Deliver an extensive range of useful, applicable and appealing end-user material for farmers and foresters. This info should be easy to access and understand, and feed into the existing dissemination channels most consulted by farmers and foresters in the countries.
- Deliver as much audio-visual material and as many “practice abstracts” in the common EIP-AGRI format as possible, also including education and training materials.
- All materials should also be provided to the European Innovation Partnership (EIP-AGRI) 'Agricultural Productivity and Sustainability' in the common 'practice abstract' format, as well as to national/regional/local AKIS channels and to the EU wide interactive knowledge reservoir (HORIZON-CL6-2021-GOVERNANCE-01-24) in the requested formats.
- In addition to giving the details on the EIP Operational Groups whose involvement is strongly recommended⁴⁸⁷, wherever possible and relevant to the chosen theme, provide also details on how further synergies will be built with future EIP Operational Groups and interactive innovation groups operating in the context of the EIP-AGRI.
- Proposals must implement the 'multi-actor approach', with a consortium based on a balanced mix of actors with complementary knowledge clearly activating farmers/foresters, farmers' groups and advisors and run for a minimum of 3 years.
- In order to better reach and capture knowledge from the targeted farmers/foresters, the networks may organise 'cross-fertilisation' through sub-networks covering, for example, a region, a language or a production system.

HORIZON-CL6-2023-GOVERNANCE-01-19: Thematic networks to compile and share knowledge ready for practice

Specific conditions	
<i>Expected EU contribution per</i>	The Commission estimates that an EU contribution of around EUR 3.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a

⁴⁸⁷ According to the requirements of the multi-actor approach.

<i>project</i>	proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 6.00 million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: The proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this Work Programme part.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025). ⁴⁸⁸ .

Expected Outcome: In support of the European Green Deal, the EU climate policy, the common agricultural policy (CAP) and the farm to fork strategy objectives and targets, the successful proposals will focus on knowledge sharing in a language that is easy to understand and targeted to farmers and foresters. They will address the necessity of primary producers for impartial and tailored knowledge on the management choices related to the needs, challenges or opportunities they experience.

They will also speed up innovation and the uptake of results, and will be key to improving sustainability. They will contribute to effective Agriculture Knowledge and Innovation Systems (AKIS⁴⁸⁹), thereby adding value to the knowledge and cost-effectiveness of innovative practices and techniques in and across primary production sectors, food and bioeconomy systems, and lead to more informed and engaged stakeholders and users of project results.

Despite the continued funding of scientific projects, new knowledge, innovative ideas and methods from practice are not sufficiently captured and spread. The research findings are often not integrated into agricultural and forestry practice. Proposals, acting at EU level to remedy this situation, are essential because national and sectoral AKISs are insufficiently

⁴⁸⁸ This [decision](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under ‘Simplified costs decisions’ or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

⁴⁸⁹ AKIS means the organisation and knowledge flows between persons, organisations and institutions who use and produce knowledge for agriculture and interrelated fields (Agricultural Knowledge and Innovation).

connected and organised to fully meet the challenge of intensifying thematic cooperation between researchers, advisors and farmers/foresters. This exchange of knowledge will foster economically viable and sustainable agriculture and forestry and build trust between the main AKIS actors.

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

- Contribution to the cross-cutting objective of modernising the sector by fostering and sharing knowledge, innovation and digitalisation in agriculture and rural areas, and encouraging their uptake⁴⁹⁰, as well as to the European Green Deal, including climate change mitigation or adaptation, and farm to fork strategy objectives and targets.
- Collection and distribution of easily accessible practice-oriented knowledge on the thematic area chosen, in particular the existing innovative solutions, best practices and research findings that are ready to be put into practice, but not sufficiently known or used by practitioners.
- Maintenance of practical knowledge in the long-term – beyond the project period – in particular by using the main trusted dissemination channels that farmers/foresters most often consult.
- Increased flow of practical information between farmers/foresters in the EU in a geographically balanced way, creating spill-overs and taking account of the differences between territories.
- Greater user acceptance of collected solutions and a more intensive dissemination of existing knowledge, by connecting actors, policies, projects and instruments to speed up innovation and promote the faster and wider co-creation and transposition of innovative solutions into practice.

Scope: Proposals should address the following activities:

- Tackle the most urgent farmers' or foresters' needs by summarising, sharing and presenting – in a language that is easy to understand and is targeted to farmers and foresters – the existing best practices and research findings that are ready to be put into practice, but not sufficiently known or used by practitioners. The specific themes of the networks can be chosen in a 'bottom-up' way on the condition that they contribute to the relevant EU policy objectives, including climate mitigation and adaptation.
- Compile a comprehensive description of the state of current farming/forestry practices on the chosen theme to explain the added value of the proposal and the relevance of the theme. Proposals must focus on the cost/benefit aspects of the practices collected and summarised, and clarify how the project avoids duplication with ongoing or completed projects and networks.

⁴⁹⁰ Art 5 of the post 2020 CAP regulation.

- Deliver an extensive range of useful, applicable and appealing end-user material for farmers and foresters. This info should be easy to access and understand, making use of audio-visual material wherever possible, including also materials serving education and training and automatic translation services that allow dissemination beyond language barriers;
- This range of material should feed into the existing dissemination channels most consulted by farmers and foresters in the countries.
- As many “practice abstracts” in the common EIP-AGRI format as possible, as well as other types of materials should be provided to the European Innovation Partnership (EIP-AGRI) 'Agricultural Productivity and Sustainability', as well as to national/regional/local AKIS channels and to the EU-wide interactive knowledge reservoir (HORIZON-CL6-2021-GOVERNANCE-01-24);
- Besides giving the details on the EIP Operational Groups whose involvement is strongly recommended⁴⁹¹, wherever possible and relevant to the chosen theme, provide also details on how further synergies will be built with future EIP Operational Groups and interactive innovation groups operating in the context of the EIP-AGRI.
- Proposals must implement the 'multi-actor approach', with a consortium based on a balanced mix of actors with complementary knowledge clearly activating farmers/foresters, farmers' groups and advisors; and run for a minimum of 3 years.
- In order to better reach and capture knowledge from the targeted farmers/foresters, the networks may organise 'cross-fertilisation' through sub-networks covering, for example, a region, a language or a production system.

HORIZON-CL6-2023-GOVERNANCE-01-20: Developing an EU advisory network on organic agriculture

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 5.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 5.00 million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: The proposals must

⁴⁹¹ According to the requirements of the multi-actor approach.

	use the multi-actor approach. See definition of the multi-actor approach in the introduction to this Work Programme part.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025). ⁴⁹² .

Expected Outcome: A successful proposal will support the objectives of the European Green Deal, and notably its farm to fork and biodiversity strategies, and the sustainable carbon cycle communication, to transition to fair, healthy, climate and environmentally-friendly food systems from primary production to consumption, in particular the objective to promote organic farming in Europe. Activities will support the implementation of the action plan on the development of organic production⁴⁹³ and of the common agricultural policy (CAP).

The successful proposal will focus on exchanges between farm advisors across the EU in order to increase the speed of knowledge creation and sharing, capacity building, demonstration of innovative solutions in organic farming, as well as helping to bring them into practice in order to accelerate adoption of these solutions.

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

- Accelerated progress towards achieving the policy objectives linked to the farm to fork strategy’s target on organic farming, and in particular those identified under the Action Plan on the Development of Organic Production, as well as the new CAP;
- Supported implementation in Member States of the CAP’s cross-cutting objective of modernising the sector by fostering and sharing of knowledge, innovation and digitalisation in agriculture and rural areas, and encouraging their uptake⁴⁹⁴;
- Enhanced interactions among advisors and other relevant actors in the EU and Associated Countries conducive to a strengthened research and innovation ecosystem for organic farming;
- Increased provision of supporting services and materials that facilitate the conversion to and upscaling of organic farming;

⁴⁹² This [decision](#) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under ‘Simplified costs decisions’ or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

⁴⁹³ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021DC0141R%2801%29>

⁴⁹⁴ Art 5 CAP post 2020 proposal.

- Accelerated introduction, spread and implementation in practice of innovative solutions related to organic farming leading to improved production methods of organic farms.

Scope: Agricultural Knowledge and Innovation Systems (AKIS)⁴⁹⁵, in which advisors play a central role, are key drivers to speed up innovation and the uptake of research results by farmers. Transformative changes such as the ones called for by the farm to fork strategy, are dynamic and knowledge-intensive processes that require appropriate governance of AKIS actors. Advisors play a key role in steering and influencing farmers' decisions. A novelty in the post-2020 CAP plans⁴⁹⁶ is that advisors must be integrated within the Member States' AKIS, and that the scope of their actions has become much broader. Advisors must be able to cover the economic, environmental and social domains, as well as being up-to-date on scientific and innovation developments. They should be able to translate this knowledge into concrete opportunities for the end users, and adapt those to specific local circumstances.

This topic focuses on the important role that advisors can play in relation to boosting organic farming towards reaching the target of at least 25% of the EU's agricultural land under organic farming by 2030. In particular, advisors can play a key role in encouraging conversion to organic farming and in facilitating this process to farmers, and overall in tackling the challenges of organic farming. In this context, advisors are in a good position to provide hands-on training to organic farmers, to inspire new and incoming farmers or farms at the cross-roads of intergenerational renewal, to connect with education and ensure broad communication, to support peer-to-peer consulting, and to develop on-farm demonstrations.

Proposals should set up an EU advisory network dedicated to organic farming, covering both organic plant production systems and organic animal husbandry. The network should involve participants from at least 20 EU Member States, including countries in which the organic sector is more developed and less developed. In this context, proposals should:

- Connect farm advisors across the EU , with a view to sharing experiences on how to best tackle the main issues of the sector.
- Undertake knowledge, best practice and innovation exchange activities that support Member States in making the best use of the possibilities offered by the new CAP to support their national organic sector.
- Fill gaps on emerging advisory topics beyond the classical sectorial advice, in particular in view of the new obligation for Member States to integrate advisors within their AKIS.
- Serve as a platform to bring stakeholders together to discuss challenges and solutions to practical organic farming problems, such as bottlenecks, lock-ins, power imbalances, normative aspects, lack of consumer buy-in or trust, inequalities between Member States, etc.;

⁴⁹⁵ AKIS means the organisation and knowledge flows between persons, organisations and institutions who use and produce knowledge for agriculture and interrelated fields (Agricultural Knowledge and Innovation).

⁴⁹⁶ Art 13(2) of the post 2020 CAP regulation.

- Provide overall support related to knowledge creation, organisation and sharing. This could include peer-to-peer counselling, master classes, (digital) advice modules, communication and education materials, etc.
- Promote the sharing of effective and novel approaches that are sustainable in terms of economic, environmental and social aspects.
- Create added value by ensuring stronger links between research, education, advisors and farming practice and encouraging the wider use of available knowledge across the EU.
- Spread ready-to-use innovative solutions to practitioners and ensuring communication to the scientific community of research needs from practice.
- Taking strong account of cost-benefit elements, collect and document good examples of connecting farmers, intermediates and consumers in Member States to be able to take into account financial aspects and local conditions. Select the best practices, and extract lessons about the key success factors, possible quick wins and make them available for (local) exploitation.
- Promote the integration of the advisors of the EU advisory network on organic farming into their Member State's AKIS.
- Explore if the activities of the EU advisory network on organic farming can be up scaled at the level of a number of Member States under a cooperative format. Seek if common tools can be created to incentivise the implementation of the learnings from this project.
- Organise training activities for new advisors to be integrated in the network during the course of the project.
- In the EU advisory network, use local AKIS connections which can more accurately interpret the national/regional contexts to help develop the best solutions for that Member State or region. Use the support of the Member States' knowledge and innovation experts of the SCAR-AKIS Strategic Working Group and of the SCAR Agroecology Strategic Working Group⁴⁹⁷ to discuss project strategy and progress in the various stages of the project.

Outcomes should be spread beyond the organic farming communities and reach also farmers involved in conventional, carbon, low-input, circular agriculture or agroecology. Proposals must implement the multi-actor approach, with a majority of partners being organic farming advisors with solid field experience. Proposals should capitalise and build on the outputs of relevant EIP-AGRI Operational Groups and EIP-AGRI networking activities, as well as those of the Horizon 2020 Thematic Networks related to organic farming. Proposals should dedicate a task, appropriate resources and a plan on how they will ensure synergy with and take into consideration the results of other initiatives under Horizon Europe, including the projects selected under the topics HORIZON-CL6-2021-FARM2FORK-01-01: 'Reaching the farm to

⁴⁹⁷ <https://scar-europe.org/agroecology-mission-and-aims>

fork target: R&I scenarios for boosting organic farming and organic aquaculture in Europe’, and HORIZON-CL6-2021-BIODIV-01-14: ‘Fostering organic crop breeding’ in the Horizon Europe Work Programme 2021-2022. Proposals should also dedicate appropriate resources to ensure synergies with the activities carried out by projects selected under the following topics in this work programme: HORIZON-CL6-2024-FARM2FORK-02-1-two-stage: ‘Increasing the availability and use of non-contentious inputs in organic farming’, and HORIZON-CL6-2023-FARM2FORK: ‘Improving yields in organic cropping systems’, HORIZON-CL6-2023-CLIMATE-01-5: ‘Pilot network of climate-positive organic farms’, as well as coherence and synergies with the activities of the future partnership ‘Accelerating farming systems transition: agroecology living labs and research infrastructures’. Proposals should provide all outcomes and materials to the European Innovation Partnership 'Agricultural Productivity and Sustainability' (EIP-AGRI), including in the common 'practice abstract' format for EU wide dissemination, as well as to national/regional/local AKIS channels and to the EU-wide interactive knowledge reservoir (HORIZON-CL6-2021-GOVERNANCE-01-24) in the requested formats.

HORIZON-CL6-2023-GOVERNANCE-01-21: Developing EU advisory networks to reduce the use of pesticides

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 4.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 4.00 million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: The proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this Work Programme part.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the

	Research and Training Programme of the European Atomic Energy Community (2021-2025). ⁴⁹⁸ .
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Expected Outcome: In support of the European Green Deal, common agricultural policy (CAP), farm to fork and biodiversity strategies', the zero pollution action plan objectives and targets, and the sustainable carbon cycles communication, the successful proposal will focus on advisor exchanges across the EU in order to increase the speed of knowledge creation and sharing, capacity building, demonstration of innovative solutions, as well as helping to bring them into practice, which accelerates the needed transitions. Agricultural Knowledge and Innovation Systems (AKIS), in which advisors play a central role, are key drivers to speed up innovation and the uptake of research results by farmers.

Transformative changes such as the changes required within the European Green Deal are dynamic processes that require appropriate governance of AKIS actors. Advisors are key actors with a strong role in guiding and with a big influence on producers' decisions. A novelty in the post-2020 CAP plans⁴⁹⁹ is that advisors must now be integrated within the Member States' AKIS, and that the scope of their actions has become much broader. They must be able to cover economic, environmental and social domains, as well as be up-to-date on science and innovation. They should be able to translate this knowledge into opportunities, and use and adapt this knowledge to specific local circumstances. This specific topic focuses on the important role advisors can play in relation to reducing pesticide use and risks to reach the associated target of the farm to fork and biodiversity strategies by promoting, for example, more sustainable farming techniques (e.g., integrated pest management and agroecology), carbon farming practices, and the use of non-chemical or biological methods for pest control.

Project results are expected to contribute to the following outcomes:

- Progress towards the most urgent policy objectives linked to Cluster 6, as well as the European Green Deal, and in particular the farm to fork strategy, the new CAP, and the sustainable carbon cycles communication, with a view to increasing the sustainability of farming, helping to raise awareness and tackling societal challenges, including climate change, and helping to reduce pesticide risks and use;
- Support to the CAP cross-cutting objective of modernising the sector by fostering and sharing knowledge, innovation and digitalisation in agriculture and rural areas, and encouraging their uptake⁵⁰⁰;
- Development of interaction with regional policymakers and of a potential EU network to discuss institutional challenges to the reduction of pesticide use and the associated risks

⁴⁹⁸ This [decision](#) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

⁴⁹⁹

Art 13(2) of the post 2020 CAP regulation.

⁵⁰⁰

Art 5 CAP post 2020 proposal.

in practice, such as bottlenecks, lock-ins, political inertia, ambiguous regulations, inequality between Member States and power imbalances;

- Production of supporting services and materials to facilitate the reduction of pesticide use and risk, including knowledge networks and peer-to-peer counselling, master classes, advice modules, communication and education materials, effective business models for farm management with less pesticides, and other risk mitigation tools and measures, etc.;
- Speed up of the introduction, spread and implementation in practice of innovative solutions related to pesticide use and measures to reduce risks and pollution overall, in particular by:
 - a. creating added value by better linking research, education, advisors and farming practice and encouraging the wider use of available knowledge across the EU;
 - b. learning from innovation actors and projects, resulting in faster sharing and implementation of ready-to-use innovative solutions, spreading them to practitioners and communicating to the scientific community the bottom-up research needs of practice.

Scope: Proposals should address the following activities:

- Connect advisors possessing a broad and extensive network of farmers across all EU Member States in an EU advisory network dedicated to pesticide use and risk reduction, including farming techniques which support pesticide use and risk reduction, with a view to sharing experiences on how to best tackle the issues, building on the outcomes of the EIP-AGRI Focus Groups and Workshops as well as the Horizon 2020 Thematic networks related to pesticide use and risks reduction;
- Share effective and novel approaches among the EU advisory network on pesticide use and risk reduction, which are sustainable in terms of economic, environmental and social aspects;
- Fill gaps on emerging advisory topics beyond the classical sectoral advice, which is useful in particular in relation with the new obligation for Member States to integrate advisors within their AKIS and their obligation to cover a much broader scope than in the past;
- Provide overall support related to knowledge creation, organisation and sharing;
- Take strong account of cost-benefit elements. Collect and document good examples in this regard, connecting with farmers, intermediates and consumers in Member States to be able to take into account financial aspects and local conditions. Select the best practices, learn about the key success factors, possible quick wins and make them available for (local) exploitation, to ensure financial win-wins for producers, citizens and intermediate actors;

- Integrate the advisors within the EU pesticide use and risk reduction network into their MS AKIS as much as possible. As innovation brokers they should encourage innovative projects on organic and other low-input sustainable farming systems in EIP Operational Groups. They should give hands-on training to farmers and local advisors, lead national thematic and learning networks on the subject, deliver and implement action plans to make farming systems with a reduced use of chemical pesticides, more efficient, reduce farmers' yield losses, inspire new and incoming farmers or farms at the cross-roads of intergenerational renewal, connect with education and ensure broad communication, support peer-to-peer consulting, develop on-farm demonstrations and demo films distributed widely via social media, and provide specific back-office support for generalist advisors within the national/regional AKIS;
- Explore if the activities of the EU advisory network on pesticide use and risk reduction can be scaled up at the level of a number of Member States under a cooperative format. Wherever possible, develop digital advisory tools for common use across the EU. Determine whether common tools can be created to incentivise the implementation of the learnings from this project;
- Include all 27 EU Member States in the EU advisory network, using local AKIS connections which can more accurately interpret the national/regional contexts to help develop the best solutions for that Member State or region. Use the support of the Member States' knowledge and innovation experts of the SCAR-AKIS Strategic Working Group to discuss project strategy and progress in the various stages of the 2 projects;
- Projects should run at least 5 years. They must implement the multi-actor approach, with a majority of partners being farming advisors with solid field experience;

Proposals must implement the multi-actor approach, with a majority of partners being farming advisors active in pesticide use and with substantial field expertise. Proposals should capitalise and build on the outputs of relevant EIP-AGRI Operational Groups, EIP-AGRI Focus Groups and EIP-AGRI networking activities, as well as those of the Horizon 2020 Thematic Networks related to plant health and pesticide use. Proposals should also build on the results of past/ongoing research projects and thematic networks.

Proposals should also ensure synergies with the activities carried out by projects selected under the following topics in this work programme: 'HORIZON-CL6-2023-BIODIV-01-14: Biodiversity friendly practices in agriculture – breeding for Integrated Pest Management (IPM)', 'HORIZON-CL6-2023-FARM2FORK-01-7: Innovations in plant protection: alternatives to reduce the use of pesticides focusing on candidates for substitution', and 'HORIZON-CL6-2023-GOVERNANCE-01-20: Developing an EU advisory network on organic agriculture' as well as coherence and synergies with the activities of the future partnership 'Accelerating farming systems transition: agroecology living labs and research infrastructures'. Proposals should provide all outcomes and materials to the European Innovation Partnership 'Agricultural Productivity and Sustainability' (EIP-AGRI), including in

the common 'practice abstract' format for EU wide dissemination, as well as to national/regional/local AKIS channels and to the EU-wide interactive knowledge reservoir (HORIZON-CL6-2021-GOVERNANCE-01-24) in the requested formats.

HORIZON-CL6-2023-GOVERNANCE-01-22: Developing EU advisory networks on the optimal fertiliser use

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 4.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 4.00 million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: The proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this Work Programme part.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025). ⁵⁰¹ .

Expected Outcome: In support of the European Green Deal, common agricultural policy (CAP), and biodiversity strategies', the zero pollution action plan objectives and targets, and the sustainable carbon cycles communication, the successful proposal will focus on advisor exchanges across the EU in order to increase the speed of knowledge creation and sharing, capacity building, demonstration of innovative solutions, as well as helping to bring them into practice, which accelerates the needed transitions. Agricultural Knowledge and Innovation Systems (AKIS), in which advisors play a central role, are key drivers to speed up innovation and the uptake of research results by farmers.

⁵⁰¹ This [decision](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

Transformative changes such as the changes required within the European Green Deal are dynamic processes that require appropriate governance of AKIS actors. Advisors are key actors with a strong role in guiding and with a big influence on producers' decisions. A novelty in the post-2020 CAP plans⁵⁰² is that advisors must now be integrated within the Member States' AKIS, and that the scope of their actions has become much broader. They must be able to cover economic, environmental and social domains, as well as be up-to-date on science and innovation. They should be able to translate this knowledge into opportunities, and use and adapt this knowledge to specific local circumstances. This specific topic focuses on the important role advisors can play in relation to the soaring fertilizer prices and the ambition of the farm to fork and biodiversity strategies for 2030 to reduce nutrient losses to the environment from both organic and mineral fertilizers by at least 50%; and hence reduce the use of fertilisers by at least 20%, while ensuring no deterioration in soil fertility.

Project results are expected to contribute to the following outcomes:

- Progress towards the most urgent policy objectives linked to Cluster 6, as well as the European Green Deal, and in particular the farm to fork strategy, the new CAP, the sustainable carbon cycles communication, with a view to increasing the sustainability of farming, helping to raise awareness and tackling societal challenges, including climate change, and helping to reduce nutrient losses and thereby the use of fertilisers;
- Substitution of mineral fertilisers with sustainable, affordable high-quality bio-based alternatives from different residue and waste streams;
- Support to the CAP cross-cutting objective of modernising the sector by fostering and sharing knowledge, innovation and digitalisation in agriculture and rural areas, and encouraging their uptake⁵⁰³;
- Development of interaction with regional policymakers and of a potential EU network to discuss institutional challenges to the reduction of nutrient losses and the use of fertilisers in practice, such as bottlenecks, lock-ins, political inertia, ambiguous regulations, inequality between Member States and power imbalances;
- Production of supporting services and materials to facilitate the reduction of nutrient losses and the use of fertilisers, including knowledge networks and peer-to-peer counselling, master classes, advice modules, communication and education materials, effective business models for farm management with less fertilisers, and other risk mitigation tools and measures, etc.;
- Speed up of the introduction, spread and implementation in practice of innovative solutions related to fertiliser use and measures to reduce nutrient losses overall, in particular by:

⁵⁰² Art 13(2) of the post 2020 CAP regulation.

⁵⁰³ Art 5 CAP post 2020 proposal.

- a. creating added value by better linking research, education, advisors and farming practice and encouraging the wider use of available knowledge across the EU;
- b. learning from innovation actors and projects, resulting in faster sharing and implementation of ready-to-use innovative solutions, spreading them to practitioners and communicating to the scientific community the bottom-up research needs of practice.

Scope: Proposals should address the following activities:

- Connect advisors possessing a broad and extensive network of farmers across all EU Member States in an EU advisory network dedicated to the reduction of nutrient losses and optimal use of fertilisers, including bio-based fertilisers and farming techniques which support a sustainable nutrient management, including carbon farming, with a view to sharing experiences on how to best tackle the issues, building on the outcomes of the related EIP-AGRI focus groups and workshops as well as the Horizon 2020 projects and thematic networks.
- Share among the EU advisory network effective and novel approaches to the reduction of nutrient losses and the use of fertilisers, which are sustainable in terms of economic, environmental and social aspects.
- Fill gaps on emerging advisory topics beyond the classical sectoral advice, which is useful in particular in relation with the new obligation for Member States to integrate advisors within their AKIS and their obligation to cover a much broader scope than in the past.
- Provide overall support related to knowledge creation, organisation and sharing.
- Take strong account of cost-benefit elements. Collect and document good examples in this regard, connecting with farmers, intermediates and consumers in Member States to be able to take into account financial aspects and local conditions. Select the best practices, learn about the key success factors, possible quick wins and make them available for (local) exploitation, to ensure financial win-wins for producers, citizens and intermediate actors.
- Integrate the advisors within the EU network on the reduction of nutrient losses and the use of fertilisers into their MS AKIS as much as possible. As innovation brokers they should encourage innovative projects on low-input sustainable farming systems in EIP Operational Groups. They should give hands-on training to farmers and local advisors, lead national thematic and learning networks on the subject, deliver and implement action plans to make farming activities more efficient, reduce farmers' yield losses, inspire new and incoming farmers or farms at the cross-roads of intergenerational renewal, connect with education and ensure broad communication, support peer-to-peer consulting, develop on-farm demonstrations and demo films distributed widely via social media, and provide specific back-office support for generalist advisors within the national/regional AKIS.

- Explore if the activities of the EU advisory network on the reduction of nutrient losses and use of fertilisers can be scaled up at the level of a number of Member States under a cooperative format. Wherever possible, develop digital advisory tools for common use across the EU. Determine whether common tools can be created to incentivise the implementation of the learnings from this project.
- Include all 27 EU Member States in the EU advisory network, using local AKIS connections which can more accurately interpret the national/regional contexts to help develop the best solutions for that Member State or region. Use the support of the Member States' knowledge and innovation experts of the SCAR-AKIS Strategic Working Group to discuss project strategy and progress in the various stages of the 2 projects.
- Projects should run at least 5 years. They must implement the multi-actor approach, with a majority of partners being farming advisors with solid field experience.
- Provide all outcomes and materials to the European Innovation Partnership 'Agricultural Productivity and Sustainability' (EIP-AGRI), including in the common 'practice abstract' format for EU wide dissemination, as well as to national/regional/local AKIS channels and to the EU-wide interactive knowledge reservoir (HORIZON-CL6-2021-GOVERNANCE-01-24) in the requested formats.

Proposals must implement the multi-actor approach, with a majority of partners being farming advisors active in fertiliser use and with frequent field expertise. Proposals should capitalise and build on the outputs of relevant EIP-AGRI Operational Groups, EIP-AGRI Focus Groups and EIP-AGRI networking activities, as well as those of the Horizon 2020 Thematic Networks related to the reduction of nutrient losses and the use of fertilisers. Proposals should also build on the results of past/ongoing research projects and thematic networks.

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

HORIZON-CL6-2024-GOVERNANCE-01

Conditions for the Call

Indicative budget(s)⁵⁰⁴

Topics	Type of Action	Budgets (EUR million)	Expected EU contribution	Indicative number of

⁵⁰⁴ The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.
The Director-General responsible may delay the deadline(s) by up to two months.
All deadlines are at 17.00.00 Brussels local time.
The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for years 2023 and 2024.

Horizon Europe - Work Programme 2023-2024
Food, Bioeconomy, Natural Resources, Agriculture and Environment

		2024	per project (EUR million) ⁵⁰⁵	projects expected to be funded
Opening: 17 Oct 2023 Deadline(s): 28 Feb 2024				
HORIZON-CL6-2024-GOVERNANCE-01-1	COFUND	60.00	Around 60.00	1
HORIZON-CL6-2024-GOVERNANCE-01-10	CSA	4.00	Around 4.00	1
HORIZON-CL6-2024-GOVERNANCE-01-11	CSA	3.00	Around 3.00	1
HORIZON-CL6-2024-GOVERNANCE-01-12	CSA	4.00	Around 4.00	1
HORIZON-CL6-2024-GOVERNANCE-01-13	CSA	4.00	Around 4.00	1
HORIZON-CL6-2024-GOVERNANCE-01-2	CSA	3.50	Around 3.50	1
HORIZON-CL6-2024-GOVERNANCE-01-3	CSA	3.00	Around 3.00	1
HORIZON-CL6-2024-GOVERNANCE-01-4	CSA	4.00	Around 4.00	1
HORIZON-CL6-2024-GOVERNANCE-01-5	PCP	19.00	Around 19.00	1
HORIZON-CL6-2024-GOVERNANCE-01-6	RIA	8.00	Around 4.00	2
HORIZON-CL6-2024-GOVERNANCE-01-7	RIA	15.00	Around 5.00	3
HORIZON-CL6-2024-GOVERNANCE-01-8	CSA	4.00	Around 2.00	2
HORIZON-CL6-2024-GOVERNANCE-01-9	CSA	6.00	Around 3.00	2

⁵⁰⁵ Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.

Horizon Europe - Work Programme 2023-2024
Food, Bioeconomy, Natural Resources, Agriculture and Environment

Overall indicative budget		137.50		
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General conditions relating to this call	
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Documents</i>	The documents are described in General Annex E.
<i>Procedure</i>	The procedure is described in General Annex F.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G.

Innovating with governance models and supporting policies

Proposals are invited against the following topic(s):

HORIZON-CL6-2024-GOVERNANCE-01-1: Additional activities for the European Partnership for a climate neutral, sustainable and productive Blue Economy

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 60.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 60.00 million.
<i>Type of Action</i>	Programme Co-fund Action
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The proposal must be submitted by the coordinator of the consortium funded under HORIZON-CL6-2022-GOVERNANCE-01-02: European

	<p>Partnership for a climate neutral, sustainable and productive Blue Economy. This eligibility condition is without prejudice to the possibility to include additional partners.</p> <p>If projects use satellite-based earth observation, positioning, navigation and/or related timing data and services, beneficiaries must make use of Copernicus and/or Galileo/EGNOS (other data and services may additionally be used).</p> <p>The following additional eligibility criteria apply: The proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this Work Programme part.</p> <p>The following additional eligibility criteria apply: Proposals focusing on one type of activity or sector are out of scope.</p>
<p><i>Procedure</i></p>	<p>The procedure is described in General Annex F. The following exceptions apply:</p> <p>The evaluation committee will be composed partially by representatives of EU institutions.</p> <p>If the proposal is successful, the next stage of the procedure will be grant agreement amendment preparations.</p> <p>If the outcome of amendment preparations is an award decision, the coordinator of the consortium funded under HORIZON-CL6-2022-GOVERNANCE-01-02: European Partnership for a climate neutral, sustainable and productive Blue Economy will be invited to submit an amendment to the grant agreement, on behalf of the beneficiaries.</p>
<p><i>Legal and financial set-up of the Grant Agreements</i></p>	<p>This action is intended to be implemented in the form of an amendment of the grant agreement concluded pursuant to topic HORIZON-CL6-2022-GOVERNANCE-01-02.</p> <p>For additional activities covered by this action:</p> <ul style="list-style-type: none"> • The funding rate is 30% of eligible costs. • Beneficiaries may provide financial support to third parties (FSTP). The support to third parties can only be provided in the form of grants. • Financial support provided by the participants to third parties is one of the primary activities of this action in order to be able to achieve its objectives. The 60 000 EUR threshold provided for in Article 204 (a) of the Financial Regulation No 2018/1046 does not apply. • The maximum amount of FSTP to be granted to each third party is

	<p>EUR 10 000 000. This amount is justified since the provision of FSTP is one of the primary activities of this action and it is based on extensive experience under predecessors of this partnership.</p> <ul style="list-style-type: none"> • The starting date of grants awarded under this topic may be as of the submission date of the application. Applicants must justify the need for a retroactive starting date in their application. Costs incurred from the starting date of the action may be considered eligible (and will be reflected in the entry into force date of the amendment to the grant agreement).
<i>Total indicative budget</i>	The total indicative budget for the duration of the partnership is EUR 150 million.

Expected Outcome: This topic is for the continuation of the Sustainable Blue Economy Partnership (SBEP), i.e. EU contribution in WP 2023-2024.

The second instalment of the partnership is expected to contribute to all expected outcomes specified in topic HORIZON-CL6-2022-GOVERNANCE-01-02: European Partnership for a climate-neutral, sustainable and productive Blue Economy, for continuation and new development of activities.

Scope: The objective of this action is to continue to provide support to the European Partnership for a climate-neutral, sustainable and productive Blue Economy (SBEP) identified in the Horizon Europe Strategic Plan 2021-2024 and first implemented under the topic HORIZON-CL6-2022-GOVERNANCE-01-02: European Partnership for a climate neutral, sustainable and productive Blue Economy, and in particular to fund additional activities (which may also be undertaken by additional partners) in view of its intended scope and duration, and in accordance with Article 24(2) of the Horizon Europe Regulation.

The consortium which applied to and received funding under HORIZON-CL6-2022-GOVERNANCE-01-02 is uniquely placed to submit a proposal to continue the envisioned partnership. Not only did this consortium submit the proposal leading to the identification of the partnership in the Horizon Europe strategic planning 2021-2024, it has also implemented the partnership through co-funded calls in year 2022 based on this planning and further to topic HORIZON-CL6-2022-GOVERNANCE-01-02. In this context, the current consortium has particular expertise in relation to the objectives of the Partnership, the activities to be implemented, in particular FSTP calls or other calls/scope of calls clearly required/envisioned pursuant to initial proposal/partnership, and other relevant aspects of the action. In practice, another consortium could not continue the activities of the Partnership underway without significant disruption to the ongoing activities, if at all.

The scope of the application for this call on the European partnership for a climate neutral, sustainable and productive Blue Economy should focus on duly justified continuation or

additional priority areas, additional activities and additional partners, including from additional countries, delivering knowledge and solutions to make the blue economy sustainable and ensure that its benefits are distributed fairly, by aligning national, regional and EU R&I priorities and bringing together science, industry, governance and society.

Responding to national and EU policy goals (e.g., European Green Deal, Marine Strategy and Water Framework Directive, Natura and Maritime Spatial Planning Directives), the partnership's continued and/or additional priority areas should aim to achieve a healthy ocean, a sustainable and productive blue economy and the well-being of citizens, for which the long-term vision for the EU's rural areas and its objectives (in particular contributing to stronger and resilient rural (coastal) areas) should also be considered, with its flagship initiative "Research and innovation for rural (coastal) communities".

The partnership is expected to continue to organise joint calls as part of the additional activities and therefore it should factor ample time to run the co-funded projects. The partnership should further promote technological, nature-based, social, economic and cultural innovation and experiment with new planning, governance, business and finance models.

The partnership's additional activities are expected to be designed and described in such a way that it is clear how they will increase scientific contributions, applicable in a legal/regulatory context, and how they will facilitate the use of scientific knowledge by regulators and policymakers, contributing to the EU biodiversity strategy for 2030, the farm to fork strategy, the mission "Restore our Ocean and Waters by 2030", the circular economy action plan, the zero pollution ambition and the transformation of Europe's blue economy towards climate-neutral status by 2050, as also reflected in the communication on a new approach for a sustainable blue economy in the EU "Transforming the EU's Blue Economy for a Sustainable Future".

The partnership is also expected to have a structuring function with regard to European integrated ocean observing systems and data analyses. The partnership is expected to put specific emphasis on how to contribute to the future EU initiative on ocean observation, to have a key role in the implementation of the European Ocean Observing System (EOOS), including research infrastructures, in the development of a common European ocean data space connected to the European Open Science Cloud (EOSC) and European Green Deal data spaces, and contribute to the development of Digital Twin Ocean. All quality-controlled data collected through actions funded from this co-fund call should follow FAIR principles and be made available through open access data systems supported by the European Commission (such as Copernicus, GEOSS, EMODnet).

The partnership's additional activities should put the emphasis on the development of basin- or Europe-wide holistic, integrated, systemic and cross-sectoral approaches and foster co-creation processes involving all relevant stakeholders and actors, while remaining operationally manageable and taking into account the recommendations from additional support offered by the European Commission in 2022. The additional activities are expected to be implemented through the 'multi-actor approach' and ensure adequate involvement of researchers from different disciplines, advisors, local, regional and national authorities,

government representatives, industry and businesses, including SMEs, knowledge institutions and citizens, civil society organisations including NGOs, and other relevant actors of the value chain, supported through Open Science and an inclusive governance, policy and decision-making. It should harness the full potential of social sciences and humanities (SSH), social innovation and citizen engagement to deliver portfolios of solutions, measures and tools and facilitate their replication, and upscaling. In particular, the effective contribution of SSH disciplines and expertise is expected to produce meaningful and significant effects enhancing the societal impact of the related research and innovation activities.

Additional activities should contribute to improve the health and quality of life and long-term socio-economic prospects of coastal communities, including women, youth and the most vulnerable groups like indigenous people, in the context of major transitions and rising threats to climate, resources and health, including by increasing their resilience to crises like the COVID-19 pandemic. In line with the European Commission's political vision of leaving no one behind, the wide diversity and heterogeneity in levels of socio-economic, technological, institutional, innovation and skills potential should be taken into account.

The partnership is expected to include partners from additional countries, including Associated Countries, in its consortium, as it should cover the Atlantic, the Baltic Sea, the North Sea, the Mediterranean and the Black Sea to the maximum extent possible. It is expected to include and be open to all relevant public marine/maritime funding organisations and ministries from EU Member States and Associated Countries as core members, in close cooperation with the private sector, including SMEs and foundations. Appropriate links to other relevant ministries and organisations, including civil society, should be established.

Given the global dimension of ocean policy, membership and other modalities of participation from organisations and institutions in Non-Associated Third Countries is expected, in particular key partners bordering the different EU sea basins. In line with the Europe's global approach to cooperation in research and innovation, international cooperation should contribute to align strategies and research agendas, strengthen data collection, monitoring and sharing, as well as access to research infrastructures, promote good practice for maritime policies, promote the exchange and export of key technologies and gradually open up cooperation with new countries outside of Europe.

Through the additional activities and new partners, the partnership should support the EU's strong commitment to the UN Decade of Ocean Science for Sustainable Development, the UN Decade of Ecosystem Restoration, the G7 Future of the Seas and Oceans Initiative, the All-Atlantic Ocean Research and Innovation Alliance, the BLUEMED Initiative, the Black Sea Synergy and other international initiatives.

Partners are expected to continue to provide contributions for the governance structure, the joint calls and other dedicated implementation actions and efforts for national coordination. The partnership is expected to mobilise EU, national and regional capacities to leverage investments, including from the private sector, increase up-scalability and market accessibility for the developed solutions and thus increase the return to investments.

To ensure the coherence and complementarity of activities, and to leverage knowledge investment possibilities, the partnership is expected to foster close cooperation and ensure synergies with other relevant European Partnerships, in place and proposed, notably “Rescuing biodiversity to safeguard life on Earth”, “Sustainable food systems for people, planet and climate”, “Water security for the planet (Water4All)”, and related actions for coordinating and supporting the combined activities of Member States and Associated Countries towards the objectives of the “Zero-emission waterborne transport” (ZEWT) Partnership, “Clean Energy Transition”, “Artificial intelligence, Data and Robotics”, the European Open Science Cloud (EOSC) and others where relevant, as well as the EIT Climate KIC, the EIT FOOD and the “European Open Science Cloud (EOSC)”. The partnership will also be linked to the relevant objectives of the mission “Restore our Ocean and Waters by 2030”. Proposers are expected to describe in details the way to plan and implement such collaborations through dedicated tasks and appropriate resources.

Engaging with managing authorities of European Structural and Investment Funds, as well as others like LIFE, the Recovery and Resilience Facility, the Instrument for Pre-Accession Assistance (IPA III) and Neighbourhood, Development and International Cooperation Instrument (NDICI), during partnership implementation would help increase the implementation of the project outcomes and support and facilitate further uptake.

While the award of a grant to continue the Partnership in accordance with this call should be based on a proposal submitted by the coordinator of the consortium funded under HORIZON-CL6-2022-GOVERNANCE-01-02: European Partnership for a climate neutral, sustainable and productive Blue Economy and the additional activities (which may include additional partners) to be funded by the grant should be subject to an evaluation, this evaluation should take into account the existing context and the scope of the initial evaluation as relevant, and related obligations enshrined in the grant agreement.

Taking into account that the present action is a continuation of topic HORIZON-CL6-2022-GOVERNANCE-01-02 and foresees an amendment to an existing grant agreement, the proposal should also present in a separate document the additional activities and additional partners, if any, to be covered by the award in terms of how they would be reflected in the grant agreement. The proposal should also describe the specific activities foreseen in order to strengthen the synergies with other related Missions and Partnerships.

The Commission envisages to include new actions in future work programme(s) to continue providing support to the partnership for the duration of Horizon Europe.

HORIZON-CL6-2024-GOVERNANCE-01-2: Regional ecosystems of innovation to foster food system transformation

Specific conditions	
<i>Expected EU contribution per</i>	The Commission estimates that an EU contribution of around EUR 3.50 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a

<i>project</i>	proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 3.50 million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: The proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this Work Programme part.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025). ⁵⁰⁶ .

Expected Outcome: In line with the objectives of the European Green Deal, the farm to fork strategy for a fair, healthy and environment-friendly food system, the food 2030 priorities and the EU’s climate ambition for 2030 and 2050, the successful proposal will contribute to the sustainability and resilience of EU food systems by supporting the establishment of innovative governance models notably to achieve better-informed decision-making processes, social engagement and innovation. Successful proposals will boost knowledge sharing, interactions and priority setting in the form of an acceleration agenda between all relevant food systems actors, in particular small and medium-sized enterprises (SMEs) and industrial clusters, start-ups, universities/research centres, public authorities and civil society organisations.

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

- Coherent business-focused analysis of R&I bottlenecks and opportunities for the transition of European food systems in line with the farm to fork strategy objectives, in particular to contribute to the 25% organic food target.
- Improved coordination of existing European and national platforms with regional innovation ecosystems actors at EU level.
- Strengthened European regions (NUTS 2 level) and their regional actors.

⁵⁰⁶ This [decision](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under ‘Simplified costs decisions’ or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

- Contribution to the farm to fork objectives and food 2030 priorities: nutrition for sustainable healthy diets, climate, biodiversity and environment, circularity and resource efficiency, innovation and empowering communities (e.g., meeting the needs, values and expectations of society in a responsible and ethical way).

Scope: Collaboration between innovation actors across Europe is necessary to accelerate and master the innovative solutions needed for the food system transformation and the implementation of sustainable solutions. Innovation ecosystems can be found in many locations in Europe, but too few places can be seen as regional ecosystems of innovation. Moreover, the strength and depth of interconnections, information flows and knowledge transfers inside innovation ecosystems and between actors vary widely.

Strong and well-connected food systems actors, in particular small and medium-sized enterprises (SMEs) and industrial clusters, start-ups, universities/research centres, public authorities and civil society organisations, have the potential to become ecosystems of innovation facilitating coordination and multi-stakeholder engagement, to create an effective framework for action to support the food system transition in the EU and Associated Countries. The framework is expected to allow pooling of resources, coordinating efforts, and facilitating and promoting the multi-actor approach. Relevant capacities to foster the necessary R&I in the short, medium, and long term will be developed, giving a specific focus to the objective to boost the organic food sector.

Proposed activities should cover all of the following aspects:

- Strengthen existing ecosystems of innovation to broaden their scope and take on a “food systems approach” that delivers on the Food 2030 co-benefits (nutrition, public health, climate, circularity and communities) by: (a) deploying a quadruple helix model (that fully engages the four major actors in the innovation system: small and medium-sized enterprises and industrial clusters, universities/research centres, public authorities, and civil society organisations); and (b) delivering solutions that empower regional actors and their regional innovation ecosystems through an acceleration agenda.
- Devise an acceleration agenda connected with existing research and innovation agendas that align to target mutual objectives and cross regional collaborations, in particular by identifying and creating links to regions with priorities relevant for sustainable food systems identified in their local smart specialisation strategies, as well as relevant smart specialisation partnerships and platforms (such as the Thematic Smart Specialisation Platform on Agri-food).
- Provide technical assistance, encourage “mutual learning” and stimulate “new” ecosystems of innovation in parts of Europe that are less well integrated, for example with the objectives of the BIOEAST Food Systems Thematic Working Group (e.g., to catalyse future reflections and discussions at regional level regarding the need to work together to tackle food system transformations).

- Explore how the existing Responsible Research and Innovation (RRI) approach can help regional actors to implement farm to fork relevant objectives, in particular for societally relevant market solutions that contribute to public health objectives and environmental businesses such that they contribute to the “EU Code of Conduct on Responsible Food Business and Marketing Practice”.
- Take a systemic view to help industries built up around the European food systems related businesses, to innovate and cooperate, thereby proposing solutions of regional relevance.
- Identify and facilitate synergies with other financing and capacity building instruments to enable progress along the whole innovation pipeline, including the Interregional Innovation Investments (I3), a new funding instrument under the European Regional Development Fund (ERDF).

Proposals must implement the 'multi-actor approach' and ensure adequate involvement of small and medium-sized enterprises (SMEs) and industrial clusters, start-ups, universities/research centres, public authorities and civil society organisations and other relevant actors of the value chain.

Proposals should include a dedicated task, appropriate resources and a plan on how they will collaborate with other projects funded under in the work programme from 2018-2020 and 2021-2022, namely CE-FNR-07-2020: “FOOD 2030 - Empowering cities as agents of food system transformation” and HORIZON-CL6-2021-GOVERNANCE-01-07 “Regional governance models in the bioeconomy”.

Collaboration and complementary with the European Partnership on “Sustainable Food Systems for People, Plant and Climate” is encouraged. This topic should involve the effective contribution of SSH disciplines, as it involves the quadruple helix to deliver innovative locally-based and bottom-up solutions, engaging citizens and leading to behavioural changes. In order to achieve the expected outcomes, international cooperation is encouraged.

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

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 3.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 3.00 million.
<i>Type of Action</i>	Coordination and Support Actions

<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: The proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this Work Programme part.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025). ⁵⁰⁷ .

Expected Outcome: In line with the objectives of the European Green Deal, Europe’s beating cancer plan, the farm to fork strategy for a fair, healthy and environment-friendly food system, the food 2030 priorities and the EU’s climate ambition for 2030 and 2050, the successful proposal will facilitate the transition towards healthy and sustainable dietary behaviour by supporting the establishment of innovative governance models notably to achieve better-informed decision-making processes, social engagement and innovation. The main objective of this topic is to better understand factors influencing dietary behaviour and to advance the understanding of the role of mainstream media, social media and digital marketing in fostering (un-)healthy and (un-)sustainable consumption patterns and to encourage good practices.

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

- Improved knowledge and understanding of how mainstream media, social media and marketing is affecting the dietary behaviour of different target groups (in particular vulnerable groups) across Europe, including barriers and constraints, as well as how to detect incorrect or misleading information.
- Better understanding of the different media and marketing (both linear and non-linear) approaches and channels used by different food system operators and actors.
- Enabling consumers to make informed food choices.
- Informed policies and business strategies aimed at fostering healthy and sustainable food environments, consumption patterns and at encouraging or incentivizing good practices.

⁵⁰⁷ This [decision](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under ‘Simplified costs decisions’ or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

- Contribution to the farm to fork objectives and food 2030 priorities: nutrition for sustainable healthy diets, climate, biodiversity and environment, circularity and resource efficiency, innovation and empowering communities (e.g., meeting the needs, values and expectations of society in a responsible and ethical way).

Scope: Food consumption cannot be considered the sole responsibility of citizens or a problem of demand only since it is a result of a choice that is influenced by culture, social and economic factors and where the food environment plays an important role. In today's interconnected world, the impacts of mainstream media, social media and digital marketing are amplified, with food influencers, NGOs and social platforms making citizens think differently about food. As studies show, since eating habits are also influenced by what consumers see, being virtually surrounded by healthy eaters may encourage consumers to eat healthier. However, the reverse is also true.

In addition, differences in media and marketing (both linear and non-linear) approaches of national/regional/local governments, civil society, and the private sector, can lead to differences in consumption patterns and food choices across different socio-economic and cultural groups. Moreover, television viewing and internet use has led to a more inactive, sedentary lifestyle, as well as more exposure to the marketing of products high in fat, sugar and/or salt among adults and children. Greater levels of TV viewing and internet use is associated with harmful effects on the eating habits of children. This includes higher consumption levels of products high in fat, sugar and/or salt. An improved understanding of these differences and drivers of food choices can support all food systems operators and actors to develop innovative and effective communication strategies (and related policy and regulatory frameworks) that would benefit all parts of the society and support a shift towards healthy and sustainable diets for all.

Proposed activities should cover all of the following aspects:

- Identify the various techniques and vehicles for spreading information and influence behaviour using different mainstream and social media channels (such as apps, websites, virtual consumer clubs and platforms), in particular mapping of new communication tools, algorithms and machine learning principles where citizens make food choices or are consciously or unconsciously influenced to change the consumption behaviour.
- Compare the different media and marketing (both linear and non-linear) approaches of national/regional/local governments, civil society, and the private sector, and assess how these different types of approaches and channels affect consumption patterns and food choices across different socio-economic and cultural groups, with a particular emphasis on vulnerable groups such as persons with low socio/economic status, infants and children or their parents responsible for their diets, respectively.
- Explore the impact of negative news (e.g., information on food safety risks, information on impacts on biodiversity and ecosystems) as compared with messages promoting positive outcomes of food choices (e.g., information on nutritional and health benefits) by, for example, conducting surveys or employing sentiment analyses. Assess whether

parental control can be considered an effective strategy given the real-world context and levels of independent exposure of children to linear and non-linear media. Also explore the effects of misinformation (intentional or not), and how this propagates through different media.

- Identify innovative and effective tools to improve communication on sustainable healthy nutrition and diets, and more generally on sustainable food systems, thereby ensuring that all parts of the society are benefitting from access to information that foster uptake of healthy and sustainable diets and lead to the transformation of food systems, while respecting the EU and national legal framework and policies, national educational policies and advice on nutrition and food.
- Compile strategies and best practices – in compliance with the Best Practice Portal Protocols – for all food systems operators and actors for communication and outreach efforts to foster healthy, sustainable, and alternative consumption patterns and to encourage good practices, while respecting the EU and national legal framework and policies, national educational policies and advice on nutrition and food.
- Clearly explain how results will deliver co-benefits on Europe’s Beating Cancer Plan, the farm to fork strategy and on each of the food 2030 priorities: nutrition for sustainable healthy diets, climate and environment, circularity and resource efficiency, innovation and empowering communities (e.g., meeting the needs, values and expectations of society in a responsible and ethical way).

Proposals must implement the 'multi-actor approach' and ensure adequate involvement of public authorities and civil society organisations, consumers, the private sector and other relevant actors of the value chain.

Where relevant, activities should build and expand on the recent studies carried out in this area (such as the study on the exposure of children to online marketing of foods high in fat, salt or sugar),⁵⁰⁸ on the results of past and ongoing EU joint actions (such as Best-ReMaP on diet and nutrition with a special focus on children) and EU research projects (such as the topics HORIZON-CL6-2021-FARM2FORK-01-15 and HORIZON-CL6-2023-COMMUNITIES), e.g. by participating in joint activities, workshops, as well as common communication and dissemination activities.

Proposals should bring together multiple types of scientific expertise in health and natural sciences, and social sciences and humanities (SSH). This topic should involve the effective contribution of SSH disciplines (e.g., economics, sociology, human geography, management science, political science, citizen engagement studies, cultural studies, gender studies, etc.).

Efforts should be made to ensure that the data and the output produced in the context of this topic is FAIR (Findable, Accessible, Interoperable and Re-usable).

⁵⁰⁸ European Commission, Directorate-General for Health and Food Safety (2021) Study on the exposure of children to linear, non-linear and online marketing of foods high in fat, salt or sugar: Final report, Publications Office, <https://data.europa.eu/doi/10.2875/928620>.

HORIZON-CL6-2024-GOVERNANCE-01-4: Supporting the All-Atlantic Ocean Research and Innovation Alliance and Declaration

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 4.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 4.00 million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Eligibility conditions</i>	<p>The conditions are described in General Annex B. The following exceptions apply:</p> <p>Due to the scope of this topic, legal entities established in Brazil are exceptionally eligible for Union funding.</p> <p>The following additional eligibility criteria apply: In order to achieve the expected outcomes of the action, namely the European contribution to the implementation of the All-Atlantic Ocean Research & Innovation Alliance, the consortium must include at least three entities from the following countries: Argentina, Brazil, Canada, Cape Verde, Morocco, United States of America, South Africa.</p> <p>Legal entities established in non-associated third countries may exceptionally participate in this Coordination and support action in a capacity other than as an associated partner.</p>
<i>Legal and financial set-up of the Grant Agreements</i>	<p>The rules are described in General Annex G. The following exceptions apply:</p> <p>Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025).⁵⁰⁹.</p>

Expected Outcome: Proposals are expected to contribute to all of the following expected outcomes:

⁵⁰⁹ This [decision](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under ‘Simplified costs decisions’ or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

- Support the coordination of 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, with the aim of facilitating knowledge exchange, structure its integration as well as stimulating all forms of innovation, in view of providing benefit to local communities;
- Consolidated integration of partners and newcomers to the All-Atlantic Ocean Research and Innovation Alliance and enhanced visibility to the activities through targeted communication actions and coordination of visual identity;
- Support to the governance, implementation and reporting of the All-Atlantic Ocean Research and Innovation Alliance;
- Forged links and coordination with other important EU and international activities such as the European Mission Restore Our Ocean and Waters by 2030, and in particular its Atlantic-Arctic Lighthouse, the Horizon Europe Partnership for a Sustainable Blue Economy, and organisations in charge of protection of the marine and coastal environment in the Atlantic, such as the OSPAR and Abidjan Conventions, in delivering coordinated activities in the Atlantic Sea Basin, while ensuring its interlinks with the adjacent polar areas;
- Foster active contribution from the All-Atlantic Ocean Research and Innovation Alliance to achieving the goals of the UN Decade of Ocean Science for Sustainable Development 2021-2030, the UN Decade on Ecosystem Restoration, the Convention on Biological Diversity, to Marine Biodiversity of Areas Beyond National Jurisdiction (BBNJ), as well as G7 and G20 related activities;
- Facilitated synergies in youth and gender programmes and capacity development for early career professionals; educational and inter-generational activities in favour of youth and communities living on the shores of the Atlantic Ocean.

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, through a large-scale basin effort 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.

Building on the pre-existing cooperative efforts under the Galway and Belém Statements and the existing and future bilateral administrative arrangements between the EU and Atlantic partner countries, this cooperation can continue to converge towards the implementation of a systemic approach by linking and jointly tackling the climate-food-ocean challenges, including extreme events and sea level rise. Overall, activities should contribute to upscaling cooperation along and across the Atlantic Ocean, including the specific on-going and future

activities and initiatives related to the Arctic and Antarctica. They should include upscaling of long-term partnerships building also on on-going initiatives such as the All-Atlantic Ocean Youth Ambassadors, joint actions, working groups, pledging platform, etc, for the benefit of the All-Atlantic local communities. This action is expected to bring research and innovation results for their benefit and to also empower for and link early career professional to all these activities.

The action should:

- Contribute with professional support to the organization, monitoring, communication, and outreach activities of the All-Atlantic Ocean Research and Innovation Alliance and Innovation work, in particular to the annual All-Atlantic Ocean Research and Innovation Alliance Forum, and any other major relevant events;
- Consolidate existing initiatives (All-Atlantic Ocean Youth Ambassadors, joint actions, working groups, etc.) building on the outcomes of the 2022 AAORIA Fora. Continue providing basic support for joint activities (in particular in their initial phase) in the priority areas identified in the 2022 All-Atlantic Ocean Research and Innovation Alliance Declaration, ensuring their long-term self-sustainability;
- Facilitate a structured dialogue and coordination between the All-Atlantic Ocean Research and Innovation Alliance and relevant national and regional stakeholders, such as the Benguela Current Commission, the Abidjan Convention, indigenous communities, as well as networks and initiatives operating in the polar seas;
- Link with relevant international bodies, supporting the All-Atlantic contributions to the UN Decade of Ocean Science, and facilitating dialogue and synergies with other EU instruments (e.g., Mission Restore our Ocean and Waters, Mission Adaptation to Climate Change, and the Sustainable Blue Economy Partnership) relevant for the All-Atlantic work, is part of the activities to be undertaken under this action.

Proposals should include a strong involvement of citizens/civil society, together with academia/research, industry/SMEs and government/public authorities.

In order to achieve the expected outcomes, international cooperation is mandatory. Consortia submitting proposals to this topic are encouraged to include in particular participants from countries endorsing the All-Atlantic Ocean Research and Innovation Alliance Declaration.

Deploying and adding value to Environmental Observations

Proposals are invited against the following topic(s):

HORIZON-CL6-2024-GOVERNANCE-01-5: Customisation/pre-operationalisation of prototypes end-user services in the area Climate Change Adaptation and Mitigation

Specific conditions

<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 19.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 19.00 million.
<i>Type of Action</i>	Pre-commercial Procurement
<i>Eligibility conditions</i>	<p>The conditions are described in General Annex B. The following exceptions apply:</p> <p>If projects use satellite-based earth observation, positioning, navigation and/or related timing data and services, beneficiaries must make use of Copernicus and/or Galileo/EGNOS (other data and services may additionally be used).</p> <p>The following additional eligibility criteria apply: Project(s) should have a maximum duration of 3 years.</p>
<i>Legal and financial set-up of the Grant Agreements</i>	<p>The rules are described in General Annex G. The following exceptions apply:</p> <p>The specific conditions are described in General Annex H.</p> <p>PCP/PPI procurement costs are eligible.</p>

Expected Outcome: The successful proposal will be contributing to the European Green Deal related domains benefiting from further deployment, uptake and exploitation of Environmental Observation data and products. It will furthermore be contributing to fit-for-purpose Environmental Observation Systems and a strengthened Global Earth Observation System of Systems (GEOSS)⁵¹⁰.

Proposals are expected to contribute to all of the following outcomes:

- Customisation/pre-operationalisation of prototypes end-user services in the area Climate Change Adaptation and Mitigation, building on the Copernicus⁵¹¹ Services that respond to the common needs and beyond state-of-the-art performance targets of the buyers group;
- Reduction of fragmentation of demand for innovative solutions by enabling public procurers to collectively implement a Pre-Commercial Procurement (PCP) in the area of climate adaptation and mitigation, which, due to their nature, are better addressed jointly, or which they would not have been able to tackle independently;
- New opportunities for wide market uptake and economies of scale for the supply side through the use of joint specifications, wide publication of results and – where relevant –

⁵¹⁰ <https://www.earthobservations.org/geoss.php>.

⁵¹¹ <https://www.copernicus.eu/en>.

contribution to standardization, regulation or certification to remove barriers for introduction of innovations into the market and creation of new products, processes and/or services ready for market uptake, leading to viable new businesses, jobs and sustainable economic growth.

Scope: This PCP – i.e. a joint procurement of research and development services - is launched to reinforce public demand driven innovation in end-user services in the area of climate adaptation and mitigation. PCP has the potential to be an effective demand side innovation action and a useful tool to close the gap between supply and demand for innovative solutions.

The PCP should deliver successful innovative and fully tested product(s) and/or service(s) that meet the common needs of a buyers' group (consortium of procurers) to procure research, develop innovative marketable solutions, speed up the time-to-market and provide best value for money.

Activities shall include:

- Preparation of the relevant documentation needed to launch and implement the procurement procedure;
- Joint research activities relating to the customisation/pre-operationalisation of prototypes end-user services in the area of climate change adaptation and mitigation validating the PCP strategy;
- Activities for the follow-up of the joint procurement, such as activities for awareness raising, networking, training, evaluation, validation and dissemination of results.

The proposal is expected to build on the outcomes coming from:

- HORIZON-CL6-2021-GOVERNANCE-01-15: Preparing for pre-commercial procurement (PCP) for end-user services based on environmental observation in the area of climate change adaptation and mitigation. The work done previously under Horizon 2020 and Horizon Europe (e.g., from e-shape, climate service projects and downstream services projects);
- GEOSS initiatives.

The core of the consortium should be a qualified 'buyers group' (public procurement consortium), able to implement the action. Additional partners such as business/SME support organisations, innovation agencies or sectoral organisations may be included to assist procurers in knowing what is available on the market through market consultations.

The proposal should describe the jointly identified challenge, indicating how it fits into the mid-to-long-term innovation plans of the consortium, why solutions currently available on the market or under development are not meeting their needs, and put forward concrete targets for the desired functionality/performance improvement in the quality and efficiency of their public services.

The proposal should explain clearly how the creation of jobs, sustainable economic growth and new businesses will be assessed as an integral part of the successful application.

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

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 4.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 8.00 million.
<i>Type of Action</i>	Research and Innovation Actions

Expected Outcome: A successful proposal will be delivering new environmental information through the exploitation of Earth observations and promote application development and pre-operational European services through cloud infrastructures, supporting the GEO engagement priorities and the objectives of the European Green Deal.

They should be in line with the European strategy for data and Europe’s Digital Decade, thus developing new advanced products, adding value to safety and healthy critical applications of environmental observations and contributing to a strengthened Global Earth Observation System of Systems (GEOSS)⁵¹² and complementing or enhancing the Copernicus⁵¹³ services.

Proposals are expected to contribute to all of the following outcomes:

- Uptake of the newly available environmental information and data at global and regional scale delivered through the Copernicus Sentinels and the EUMETSAT⁵¹⁴ “Meteosat Third Generation (MTG)” and “EUMETSAT Polar System Second Generation (EPS SG)”;
- Preparation and implementation of high-quality (novel) satellite data products and applications using the next generation EUMETSAT and Copernicus instruments for the exploitation by advanced physical/chemical/biochemical models, and integrating in-situ data, to improve the implementation and operationalisation of new and advanced services and applications;
- Demonstrated use of these applications for Earth Systems predictions, long-term climate monitoring (i.e., re-analysis within the Copernicus climate services context) and disaster risk prediction and reduction (e.g., within the framework of the Copernicus Emergency Management service);

⁵¹² <https://www.earthobservations.org/geoss.php>.

⁵¹³ <https://www.copernicus.eu/en>.

⁵¹⁴ <https://www.eumetsat.int/>.

- Exploitation of the European cloud systems (e.g. Copernicus DIAS⁵¹⁵, European Open Science Cloud⁵¹⁶, European Weather Cloud) and a contribution to the Destination Earth initiative⁵¹⁷;
- Demonstrated use of satellite derived environmental information to advance and improve seamless climate-weather and environmental services in Europe, and potentially beyond.

Scope: The successful applications should take up and enhance the development of new environmental information based on the Meteosat Third Generation (MTG) and EUMETSAT Polar System Second Generation (EPS SG)⁵¹⁸. They should explore pre-operational European services through the exploitation of new Earth Observation (EO), digital infrastructures and modelling capabilities.

In the coming years, the MTG and EPS SG satellites will provide an unprecedented view of the Earth System offering opportunities for developing weather, climate, air-quality and marine applications. Copernicus Sentinels 4 and 5 will be collocated within the MTG and EPS-SG payloads, offering an important opportunity to develop synergetic products.

Ongoing Copernicus and EUMETSAT missions will complement this observational framework. EUMETSAT will facilitate the access to these data to the successful applications under this topic.

Proposals should build on these and other missions (e.g., Sentinel), designing new methods and data products to exploit the synergies across instruments and platforms and showcase pilot services for public and private users. They should turn existing and future EO measurements into new environmental information. Co-registration of measurements should allow for optimising the information extraction, as for example the life cycle of extreme weather events through lightning, hyperspectral and other instruments hosted by geostationary payloads.

Synergies should be considered for across-payloads (geostationary and polar orbiting systems) measurements, and through the use of advanced algorithms, machine learning/artificial intelligence, data assimilation techniques and atmospheric models and artificial intelligence/machine learning techniques. This should contribute to the design of new products exploiting the full spectrum of possibilities (as for example integrating chemistry and water cycle observations into new products/ knowledge). The tools and services developed under the successful applications should be made available for future integration in the Copernicus programme and in the common topical European open infrastructure, Destination Earth. Open-source data/information requires open access to data that is associated with important benefits for the society and economy when reused. They

⁵¹⁵ <https://www.copernicus.eu/en/access-data/dias>.

⁵¹⁶ https://ec.europa.eu/info/research-and-innovation/strategy/strategy-2020-2024/our-digital-future/open-science/european-open-science-cloud-eosc_en

⁵¹⁷ <https://digital-strategy.ec.europa.eu/en/policies/destination-earth>.

⁵¹⁸ These satellites have a specific focus on greenhouse gases, air quality, ocean and land biodiversity, high-impact weather events and climate extremes.

should furthermore ensure the collaboration with EuroGEO⁵¹⁹ and the relevant EuroGEO projects as well as ESA initiatives (such as EO4SD⁵²⁰).

Successful applications should also develop applications using the new environmental data/information within key domains (e.g., urban and coastal management, air quality and health, disaster risk reduction, sustainable blue economy and climate adaptation/mitigation), as enhancements of already available services.

Attention should be given the sustained uptake of data/services or these satellites by the European commercial sector.

Digital and data technologies as key enablers

Proposals are invited against the following topic(s):

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

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 5.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 15.00 million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: The proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this Work Programme part.
<i>Technology Readiness Level</i>	Activities are expected to achieve TRL 7-8 (according to the activity) by the end of the project – see General Annex B.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G. The following exceptions apply: Beneficiaries may provide financial support to third parties. The

⁵¹⁹ https://ec.europa.eu/info/research-and-innovation/knowledge-publications-tools-and-data/knowledge-centres-and-data-portals/eurogeo_en.

⁵²⁰ <https://eo4sd.esa.int/?msclkid=27bf6922c7a311ec9cd2c915ab1af722>.

	support to third parties can only be provided in the form of grants. The maximum amount to be granted to each third party is EUR 60 000.
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Expected Outcome: In line with the farm to fork strategy, the common agricultural policy post 2022, and the headline ambition of a Digital Age, a successful proposal will contribute to transition to a fair, healthy and resilient agriculture. It will therefore also directly and/ or indirectly contribute to the enhancement of the sustainability performance of the sector, including social sustainability, and competitiveness in agriculture through research and innovation which will support the further deployment of digital and data technologies as key enablers.

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

- Enhanced working conditions in agriculture (including increased safety of workers and reduced drudgery) through innovative digital solutions exploiting the potential of augmented reality.
- Lowered environmental impacts and productions costs and increased product quality in and through the use of digital technologies, through robotics and augmented reality in particular⁵²¹.
- Reduced share of risky or unattractive actions/tasks to be performed by workers through automation-based solutions.
- Mitigated shortage of work force in agriculture in some sub-sectors through automation-based solutions.

Scope: Digital and data technologies can facilitate the work in agriculture, enhance working conditions⁵²² and mitigate the challenge of a lack of work force, by which some branches and regions are affected. They have the potential of making farm-related jobs more attractive, including for younger generations, and to make them safer. Digital and data technologies can increase the effectiveness and efficiency of applications, including for instance through a higher level of precision, and thus increase the sustainability and competitiveness of the sector. Automation is increasingly used in agriculture; frequently, the cost-effectiveness of innovative digital and data technologies still presents a bottleneck to their use in the sector, particularly in fields where their application is not primarily relevant for increasing process efficiency and effectiveness. Technical solutions based on augmented reality approaches offer many opportunities to facilitate and enhance the use of digital technologies in agriculture, to

⁵²¹ Innovative solutions developed to address this point may foster both, robotics and augmented reality, or only on robotics or augmented reality.

⁵²² The enhancement of working conditions is of cross-sectoral relevance. In agriculture, under the CAP post 2022 more attention will be dedicated to working conditions and social conditionality: CAP payments will be linked to the respect of certain EU labour standards and beneficiaries will be incentivised to improve working conditions on farms.

enhance the performance of digital tools, and to provide remote assistance, which is important for remote businesses, particularly in rural areas.

Proposals should address the following:

- Development of augmented-reality based solutions to improve working conditions, safety and failure avoidance, and to further increase robotic performance.
- Development of robotic solutions to improve unhealthy working conditions, where applicable. Robotics tasks to be fostered might be directly related to agricultural production, such as harvesting, weeding, crop monitoring, animal husbandry or indirectly related, such as logistics/ farm management (TRL 7-8).
- Development of robotic solutions for tasks, for which there is a high interest/ need to support and/ or replace the human work force, not only because of an interest to improve productivity, but to ensure production in an environmentally and socially sustainable way (TRL 7-8).
- Strengthening AI capabilities for agro-robotics in the fields of applications fostered by the proposals including through the use of (scalable) platforms to further increase robotics performance (TRL 7-8).
- Development of business models for the use of the developed innovative technologies under consideration of various farm structures and inter-farm linkages as well as of various biogeographic and socio-economic framing conditions.
- Development of a tool for system analyses of the consequences for farmers and rural communities of enhancing working conditions through automation and augmented reality and of replacing human work force with robotic systems.

The development of such technologies should take into account relevant (forthcoming) EU legislation, in particular linked to the horizontal Act on AI, as well as the legislation related to liability and machinery. Projects are encouraged - when reflecting on the effects of automation and augmented reality - to dedicate particular attention to youth/ younger generation, women and persons with disabilities as well as to the affordability of digital solutions. Projects are expected to develop training material allowing the targeted end users and multipliers to easily deploy and promote the new technologies.

Proposals must implement the ‘multi-actor approach’ including a range of actors to ensure that knowledge and needs from various stakeholder groups, including farmers, farm workers, farm advisors and scientists are taken into consideration. This topic should involve the effective contribution of social sciences and humanities (SSH) disciplines.

Projects are expected to take into consideration the results of other related Horizon 2020/ Europe projects as well as of other relevant EU-funded projects and initiatives.

Proposals may involve financial support to third parties, e.g. to academic researchers, hi-tech start-ups, SMEs, and other multidisciplinary actors, to for instance, develop, test or validate developed approaches, tools and applications or to provide other contributions to achieve the project objectives. Consortia need to define the selection process of organisations, for which financial support may be granted. A maximum of 20% of the EU funding can be allocated to this purpose.

A project duration of 60 months might be envisaged.

Strengthening agricultural knowledge and innovation systems (AKIS)

Proposals are invited against the following topic(s):

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

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 2.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 4.00 million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: The proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this Work Programme part.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025). ⁵²³ .

⁵²³ This [decision](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under ‘Simplified costs decisions’ or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

Expected Outcome: In support of the European Green Deal, the EU climate policy, the common agricultural policy (CAP) and the farm to fork strategy objectives and targets, the successful proposals will focus on knowledge sharing in a language that is easy to understand and targeted to farmers and foresters. They will address the necessity of primary producers for impartial and tailored knowledge on the management choices related to the needs, challenges or opportunities they experience. They will also speed up innovation and the uptake of results, and will be key to improving sustainability.

They will contribute to effective Agriculture Knowledge and Innovation Systems (AKIS⁵²⁴), thereby adding value to the knowledge and cost-effectiveness of innovative practices and techniques in and across primary production sectors, food and bioeconomy systems, and lead to more informed and engaged stakeholders and users of project results.

Despite the continued funding of scientific projects, new knowledge, innovative ideas and methods from practice are not sufficiently captured and spread. The research findings are often not integrated into agricultural and forestry practice. The proposals, acting at EU level to remedy this, are essential because national and sectoral agricultural knowledge and innovation systems (AKISs) are insufficiently connected and organised to fully meet the challenge of intensifying thematic cooperation between researchers, advisors and farmers/foresters. This exchange of knowledge will foster economically viable and sustainable agriculture and forestry and build trust between the main AKIS actors. It will scale local solutions up to the EU level and may even influence policy design wherever useful.

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

- Contribution to the cross-cutting objective of the CAP on modernising the sector by fostering and sharing of knowledge, innovation and digitalisation in agriculture and rural areas, and encouraging their uptake⁵²⁵, as well as to the European Green Deal and farm to fork strategy objectives and targets, including climate change and carbon farming.
- Collection and distribution of easily accessible practice-oriented knowledge on the thematic area chosen, in particular the existing innovative solutions, best practices and research findings that are ready to be put into practice, but not sufficiently known or used by practitioners.
- Maintenance of practical knowledge in the long-term – beyond the project period – in particular by using the main trusted dissemination channels which farmers/foresters most often consult.
- Increased flow of practical information between farmers/foresters in the EU in a geographically balanced way, creating spill-overs and taking account of the differences between territories.

⁵²⁴ AKIS means the organisation and knowledge flows between persons, organisations and institutions who use and produce knowledge for agriculture and interrelated fields (Agricultural Knowledge and Innovation).

⁵²⁵ Art 5 CAP post 2020 proposal.

- Greater user acceptance of collected solutions and a more intensive dissemination of existing knowledge, by connecting actors, policies, projects and instruments to speed up innovation and promote the faster and wider co-creation and transposition of innovative solutions into practice.

Scope: Proposals should address the following activities:

- Build on the experiences and outcomes of at least 5 EIP-AGRI Operational Groups of at least 3 Member States and choose a common theme related to the themes of the 5 Operational Group projects.
- Tackle the most urgent needs of farmers and foresters. Collect, summarise, share and translate the existing knowledge from science and practice, resulting from the EIP operational Groups and beyond, in an easy-to-understand language for practitioners.
- Compile a comprehensive description of the state of current farming practices on the chosen theme to explain the added value of the proposal and the relevance of the theme. Proposals should focus on the cost/benefit aspects of the practices collected and summarised, and clarify how the project avoids duplication with ongoing or completed projects and networks.
- Deliver an extensive range of useful, applicable and appealing end-user material for farmers and foresters. This info should be easy to access and understand, and feed into the existing dissemination channels most consulted by farmers and foresters in the countries.
- Deliver as much audio-visual material and as many “practice abstracts” in the common EIP-AGRI format as possible, also including education and training materials.
- All materials should also be provided to the European Innovation Partnership (EIP-AGRI) 'Agricultural Productivity and Sustainability' in the common 'practice abstract' format, as well as to national/regional/local AKIS channels and to the EU wide interactive knowledge reservoir (HORIZON-CL6-2021-GOVERNANCE-01-24) in the requested formats.
- In addition to giving the details on the EIP Operational Groups whose involvement is strongly recommended⁵²⁶, wherever possible and relevant to the chosen theme, provide also details on how further synergies will be built with future EIP Operational Groups and interactive innovation groups operating in the context of the EIP-AGRI.
- Proposals must implement the 'multi-actor approach', with a consortium based on a balanced mix of actors with complementary knowledge clearly activating farmers/foresters, farmers' groups and advisors and run for a minimum of 3 years.

⁵²⁶ According to the requirements of the multi-actor approach.

- In order to better reach and capture knowledge from the targeted farmers/foresters, the networks may organise 'cross-fertilisation' through sub-networks covering, for example, a region, a language or a production system.

HORIZON-CL6-2024-GOVERNANCE-01-9: Thematic networks to compile and share knowledge ready for practice

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 3.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 6.00 million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: The proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this Work Programme part.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025). ⁵²⁷ .

Expected Outcome: In support of the European Green Deal, the EU climate policy, the common agricultural policy (CAP) and the farm to fork strategy objectives and targets, the successful proposals will focus on knowledge sharing in a language that is easy to understand and targeted to farmers and foresters. They will address the necessity of primary producers for impartial and tailored knowledge on the management choices related to the needs, challenges or opportunities they experience.

They will also speed up innovation and the uptake of results, and will be key to improving sustainability. They will contribute to effective Agriculture Knowledge and Innovation

⁵²⁷ This [decision](#) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

Systems (AKIS⁵²⁸), thereby adding value to the knowledge and cost-effectiveness of innovative practices and techniques in and across primary production sectors, food and bioeconomy systems, and lead to more informed and engaged stakeholders and users of project results.

Despite the continued funding of scientific projects, new knowledge, innovative ideas and methods from practice are not sufficiently captured and spread. The research findings are often not integrated into agricultural and forestry practice. Proposals, acting at EU level to remedy this situation, are essential because national and sectoral AKISs are insufficiently connected and organised to fully meet the challenge of intensifying thematic cooperation between researchers, advisors and farmers/foresters. This exchange of knowledge will foster economically viable and sustainable agriculture and forestry and build trust between the main AKIS actors.

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

- Contribution to the cross-cutting objective of modernising the sector by fostering and sharing knowledge, innovation and digitalisation in agriculture and rural areas, and encouraging their uptake⁵²⁹, as well as to the European Green Deal, including climate change, and farm to fork strategy objectives and targets.
- Collection and distribution of easily accessible practice-oriented knowledge on the thematic area chosen, in particular the existing innovative solutions, best practices and research findings that are ready to be put into practice, but not sufficiently known or used by practitioners.
- Maintenance of practical knowledge in the long-term – beyond the project period – in particular by using the main trusted dissemination channels that farmers/foresters most often consult.
- Increased flow of practical information between farmers/foresters in the EU in a geographically balanced way, creating spill-overs and taking account of the differences between territories.
- Greater user acceptance of collected solutions and a more intensive dissemination of existing knowledge, by connecting actors, policies, projects and instruments to speed up innovation and promote the faster and wider co-creation and transposition of innovative solutions into practice.

Scope: Proposals should address the following activities:

- Tackle the most urgent farmers' or foresters' needs by summarising, sharing and presenting – in a language that is easy to understand and is targeted to farmers and

⁵²⁸ AKIS means the organisation and knowledge flows between persons, organisations and institutions who use and produce knowledge for agriculture and interrelated fields (Agricultural Knowledge and Innovation).

⁵²⁹ Art 5 of the post 2020 CAP regulation.

foresters – the existing best practices and research findings that are ready to be put into practice, but not sufficiently known or used by practitioners. The specific themes of the networks can be chosen in a 'bottom-up' way on the condition that they contribute to the relevant EU policy objectives, including climate change mitigation or adaptation;

- Compile a comprehensive description of the state of current farming/forestry practices on the chosen theme to explain the added-value of the proposal and the relevance of the theme. Proposals should focus on the cost/benefit aspects of the practices collected and summarised, and clarify how the project avoids duplication with ongoing or completed projects and networks;
- Deliver an extensive range of useful, applicable and appealing end-user material for farmers and foresters. This info should be easy to access and understand, making use of audio-visual material wherever possible, including also materials serving education and training and automatic translation services that allow dissemination beyond language barriers;
- This range of material should feed into the existing dissemination channels most consulted by farmers and foresters in the countries;
- As many “practice abstracts” in the common EIP-AGRI format as possible, as well as other types of materials should be provided to the European Innovation Partnership (EIP-AGRI) 'Agricultural Productivity and Sustainability', as well as to national/regional/local AKIS channels and to the EU-wide interactive knowledge reservoir (HORIZON-CL6-2021-GOVERNANCE-01-24);
- Besides giving the details on the EIP Operational Groups whose involvement is strongly recommended⁵³⁰, wherever possible and relevant to the chosen theme, provide also details on how further synergies will be built with future EIP Operational Groups and interactive innovation groups operating in the context of the EIP-AGRI;
- Proposals must implement the 'multi-actor approach', with a consortium based on a balanced mix of actors with complementary knowledge clearly activating farmers/foresters, farmers' groups and advisors; and run for a minimum of 3 years;
- In order to better reach and capture knowledge from the targeted farmers/foresters, the networks may organise 'cross-fertilisation' through sub-networks covering, for example, a region, a language or a production system.

HORIZON-CL6-2024-GOVERNANCE-01-10: Organic farming thematic networks to compile and share knowledge ready for practice

Specific conditions	
<i>Expected EU</i>	The Commission estimates that an EU contribution of around EUR 4.00

⁵³⁰ According to the requirements of the multi-actor approach.

<i>contribution per project</i>	million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 4.00 million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: The proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this Work Programme part.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025). ⁵³¹ .

Expected Outcome: Successful proposals will support the objectives of the European Green Deal, including on climate change, of the common agricultural policy (CAP) and of the farm to fork strategy, notably its target to reach at least 25% of the EU’s agricultural land under organic farming by 2030. This topic addresses the necessity of organic farming producers for impartial and tailored knowledge on the management choices related to the needs, challenges or opportunities they experience. Successful proposals will speed up innovation and the uptake of results, and will contribute to effective Agriculture Knowledge and Innovation Systems (AKIS⁵³²).

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

- Support for the implementation of the CAP’s cross-cutting objective of modernising the sector by fostering and sharing of knowledge, innovation and digitalisation in agriculture and rural areas, and encouraging their uptake⁵³³, as well as the objectives of the Action Plan for the Development of Organic Production⁵³⁴ related to the promotion of best

⁵³¹ This [decision](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under ‘Simplified costs decisions’ or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

⁵³² AKIS means the organisation and knowledge flows between persons, organisations and institutions who use and produce knowledge for agriculture and interrelated fields (Agricultural Knowledge and Innovation).

⁵³³ Art 5 of the post 2020 CAP regulation.

⁵³⁴ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021DC0141R%2801%29>.

practices and synergies with EIP-AGRI projects, enhancing knowledge exchange and strengthening AKIS;

- Collection, distribution and dissemination to farmers of easily accessible practice-oriented knowledge focusing on organic farming, in particular the existing best practices and research findings that are ready to be put into practice;
- Increased flow of practical information between farmers in the EU and Associated Countries in a geographically balanced way;
- Greater user acceptance of collected solutions and a more intensive dissemination of existing knowledge.

Scope: Transformative changes, such as the ones called for by the farm to fork strategy and the European Green Deal, are dynamic and complex processes. This is particularly the case of organic farming, a more knowledge-intensive approach compared to more conventional ones. This topic aims at supporting the achievement of the farm to fork strategy target of at least 25% of the EU's agricultural land under organic farming by 2030, for which knowledge and best practice exchange among farmers and across the EU and Associated Countries are fundamental, as it is recognised in the action plan for the development of organic production⁵³⁵. In this respect, it also aims to support climate change mitigation and adaptation, including carbon farming uptake. Despite the continued funding of scientific projects devoted specifically to address the challenges of organic farming, research findings are not sufficiently integrated into agricultural practice. Therefore, new knowledge and innovative ideas are not sufficiently shared with and adopted by organic farmers. Moreover, national and sectoral AKISs are insufficiently connected and organised to fully meet the challenge of intensifying thematic cooperation between researchers, advisors and farmers/foresters. The exchange of knowledge can foster economically viable and sustainable agriculture.

Proposals should focus on knowledge sharing that addresses the most urgent needs of organic farmers, involved in plant production and/or animal husbandry, for impartial and tailored knowledge on the management choices related to the needs, challenges or opportunities they experience in their specific contexts. The specific subthemes of the network should be chosen in a 'bottom-up' way. Proposals should focus on the cost/benefit aspects of the practices identified. End-user material for farmers should include conversion and business plans. The differences between countries/regions/territories should be duly taken into consideration.

In this context, proposals should:

- Describe comprehensively the state of available knowledge of organic farming practices on the chosen theme and justify the added-value and the relevance of the theme, and explaining how duplication with ongoing or completed projects and networks is avoided.

⁵³⁵ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021DC0141R%2801%29>.

- Summarise, share and present – in a language that is easy to understand and is targeted to farmers – the existing best practices and research findings that are ready to be put into practice.
- Deliver an extensive range of useful, applicable and appealing material for organic farmers. This material should be easy to access and understand, making use of audio-visual material wherever possible, including also materials serving education and training. The material should feed into existing dissemination channels most consulted by farmers in the different countries.
- Provide “practice abstracts” in the common EIP-AGRI format, as well as other type of materials, to the European Innovation Partnership (EIP-AGRI) 'Agricultural Productivity and Sustainability', as well as to national/regional/local AKIS channels and to the EU-wide interactive knowledge reservoir (HORIZON-CL6-2021-GOVERNANCE-01-24).
- In addition to giving the details on the EIP Operational Groups which are strongly recommended to be involved⁵³⁶, wherever possible and relevant to organic farming, provide also details on how further synergies will be built with future EIP Operational Groups and interactive innovation groups operating in the context of the EIP-AGRI.
- Ensure the long-term - beyond the project period - availability of the practical knowledge collected.

Proposals must implement the 'multi-actor approach', with a consortium based on a balanced mix of actors with complementary knowledge clearly building on organic farmers, farmers' groups and advisors, and should run for a minimum of 3 years. Proposals may organise 'cross-fertilisation' through sub-networks covering, for example, a region, a language or a production system, in order to better reach and capture knowledge from the targeted farmers and to address context-specific challenges. Outcomes should be widely spread beyond the organic farming community and reach also farmers involved in carbon farming, low-input farming, circular agriculture or agroecology.

Proposals should include a dedicated task, appropriate resources and a plan on how they will ensure synergies with the activities carried out by projects selected under the topic HORIZON-CL6-2023-GOVERNANCE-01-20: 'Developing an EU advisory network on organic agriculture', HORIZON-CL6-2024-FARM2FORK-02-1-two-stage: 'Increasing the availability and use of non-contentious inputs in organic farming', and HORIZON-CL6-2023-FARM2FORK-01-3: 'Improving yields in organic cropping systems' in this Work Programme.

HORIZON-CL6-2024-GOVERNANCE-01-11: Biodiversity thematic networks to compile and share knowledge ready for practice

Specific conditions

⁵³⁶ According to the requirements of the multi-actor approach.

<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 3.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 3.00 million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: The proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this Work Programme part.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025). ⁵³⁷ .

Expected Outcome: In support of the European Green Deal, the EU climate policy, the common agricultural policy (CAP) and the farm to fork strategy objectives and targets, the successful proposals will focus on knowledge sharing in a language that is easy to understand and targeted to farmers and foresters. They will address the necessity of primary producers for impartial and tailored knowledge on the management choices related to the needs, challenges or opportunities they experience. They will also speed up innovation and the uptake of results, and will be key to improving sustainability. They will contribute to effective Agriculture Knowledge and Innovation Systems (AKIS⁵³⁸), thereby adding value to the knowledge and cost-effectiveness of innovative practices and techniques in and across primary production sectors, food and bioeconomy systems, and lead to more informed and engaged stakeholders and users of project results.

Despite the continued funding of scientific projects, new knowledge, innovative ideas and methods from practice are not shared and adopted. Often the research findings are not integrated into agricultural and forestry practice. Proposals, acting at EU level to remedy this

⁵³⁷ This [decision](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under ‘Simplified costs decisions’ or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

⁵³⁸ AKIS means the organisation and knowledge flows between persons, organisations and institutions who use and produce knowledge for agriculture and interrelated fields (Agricultural Knowledge and Innovation).

situation, are essential because national and sectoral AKISs are insufficiently connected and organised to fully meet the challenge of intensifying thematic cooperation between researchers, advisors and farmers/foresters. This exchange of knowledge will foster economically viable and sustainable agriculture and forestry and build trust between the main AKIS actors.

Project results are expected to contribute to the following outcomes:

- Support the implementation of the cross-cutting objective of modernising the sector by fostering and sharing of knowledge, innovation and digitalisation in agriculture and rural areas, and encouraging their uptake⁵³⁹, as well as European Green Deal and farm to fork objectives.
- Collection and distribution of easily accessible practice-oriented knowledge on the thematic area chosen, in particular the existing best practices and research findings that are ready to be put into practice.
- Maintenance of the practical knowledge for the long-term – beyond the project period – in particular by using the main trusted dissemination channels that farmers/foresters most often consult.
- Increased flow of practical information between farmers/foresters in the EU in a geographically balanced way, creating spill-overs and taking account of the differences between territories.
- Greater user acceptance of collected solutions and a more intensive dissemination of existing knowledge, by connecting actors, policies, projects and instruments to speed up innovation and promote the faster and wider co-creation and transposition of innovative solutions into practice.

Scope: Proposals should address the following activities:

- Tackle the most urgent needs of farmers and/or foresters related to biodiversity, including those relevant for climate change mitigation and adaptation, by summarising, sharing and presenting - in a language that is easy to understand and is targeted to farmers and foresters – the existing best practices and research findings that are ready to be put into practice, but not sufficiently known or used by practitioners. The specific objectives of the networks can be chosen in a 'bottom-up' way on condition that they tackle biodiversity issues.
- The network should cover at least the following aspects:
 - o Incentives from farmers and foresters to improve biodiversity on farms/forests or across farms/forests in a collaborative way

⁵³⁹ Art 5 of the post 2020 CAP regulation.

- o EU requirements for biodiversity protection in agricultural and forest areas (Birds and Habitats Directives).
- Compile a comprehensive description of the state of current farming practices on biodiversity, including those relevant for climate mitigation or adaptation, to explain the added value of the proposal and the relevance of the theme.
- Proposals should focus on the cost/benefit aspects of the practices collected and summarised, and clarify how the project avoids duplication with ongoing or completed projects and networks.
- Deliver an extensive range of useful, applicable and appealing end-user material for farmers and foresters. This info should be easy to access and understand, making use of audio-visual material wherever possible, including also materials serving education and training;
- This range of material should feed into the existing dissemination channels most consulted by farmers and foresters in their countries.
- As many “practice abstracts” in the common EIP-AGRI format as possible, as well as other type of materials should be provided to the European Innovation Partnership (EIP-AGRI) 'Agricultural Productivity and Sustainability', as well as to national/regional/local AKIS channels and to the EU-wide interactive knowledge reservoir (HORIZON-CL6-2021-GOVERNANCE-01-24);
- Besides giving the details on the EIP Operational Groups whose involvement is strongly recommended⁵⁴⁰, wherever possible and relevant to biodiversity, provide also details on how further synergies will be built with future EIP Operational Groups and interactive innovation groups operating in the context of the EIP-AGRI.
- Proposals must implement the 'multi-actor approach', with a consortium based on a balanced mix of actors with complementary knowledge clearly building on farmers/foresters, farmers' groups and advisors; and run for a minimum of 3 years.
- In order to better reach and capture knowledge from the targeted farmers/foresters, the networks may organise 'cross-fertilisation' through sub-networks covering, for example, a region, a language or a production system.

HORIZON-CL6-2024-GOVERNANCE-01-12: Developing EU advisory networks on forestry

Specific conditions	
<i>Expected EU contribution per</i>	The Commission estimates that an EU contribution of around EUR 4.00 million would allow these outcomes to be addressed appropriately.

⁵⁴⁰ According to the requirements of the multi-actor approach.

<i>project</i>	Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 4.00 million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: The proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this Work Programme part.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025). ⁵⁴¹ .

Expected Outcome: In support of the European Green Deal, the EU climate policy, the common agricultural policy (CAP) and the EU forest strategy for 2030 objectives, the successful proposal will focus on advisor exchanges across the EU to increase the speed of knowledge creation and sharing, capacity building, of demonstration of innovative solutions, as well as helping to bring them into practice, accelerating the necessary transitions. Agricultural Knowledge and Innovation Systems (AKIS) in which advisors are fully integrated are key drivers to speed up innovation and the uptake of research results by farmers.

Transformative changes such as the changes required within the European Green Deal are dynamic processes that require appropriate governance of AKIS actors. Advisors are key actors with a role in providing strong guidance and with a big influence over producers' decisions. A novelty in the post-2020 CAP plans⁵⁴² is that advisors now must be integrated within the Member States' AKIS, and that the scope of their actions has become much broader. They must now be able to cover economic, environmental and social domains, as well as be up-to-date on science and technology. They should be able to translate this knowledge into opportunities, and use and adapt this knowledge to specific local circumstances. This specific topic focuses on the important role advisors can play related to more sustainable forestry in the future.

⁵⁴¹ This [decision](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

⁵⁴² Art 13(2) of the post 2020 CAP regulation.

Project results are expected to contribute to the following outcomes:

- Progress towards the most urgent policy objectives linked to Cluster 6, as well as the European Green Deal, and in particular the EU Forest Strategy for 2030 and the new CAP, with a view to improve sustainability of forestry, help raise awareness and tackle societal challenges;
- Support to the CAP cross-cutting objective of modernising the sector by fostering and sharing of knowledge, innovation and digitalisation, and encouraging their uptake⁵⁴³;
- Development of interaction with regional policymakers and of a potential EU network to discuss institutional challenges to practical forestry issues, such as bottlenecks, lock-ins, political inertia, ambiguous regulations, inequality between Member States and power imbalances;
- Production of supporting services and materials, including knowledge networks and peer-to-peer counselling, master classes, advice modules, communication and education materials, effective business models, etc. to facilitate the upscaling of sustainable forest management;
- Acceleration of the introduction, spread and implementation in practice of innovative solutions related to forestry, in particular by:
 - creating added value by better linking research, education, advisors and foresters, and encouraging the wider use of available knowledge across the EU;
 - learning from innovation actors and projects, resulting in faster sharing and implementation of ready-to-use innovative solutions, spreading them to practitioners and communicating to the scientific community the bottom-up research needs of practice.

Scope: Proposals should address the following activities:

- Connect advisors possessing a broad and extensive network of foresters across all EU Member States in an EU advisory network dedicated to forestry, including forestry techniques which support a higher level of sustainability, with a view to sharing experiences on how to best tackle the issues, building on the outcomes of the EIP-AGRI Focus Groups and Workshops as well as the Horizon 2020 Thematic Networks related to forestry.
- Share effective and novel approaches among the EU advisory network on forestry, which are sustainable in terms of economic, environmental and social aspects.
- Gather or develop short-, mid- and long-term strategic visions for forests and forestry in the EU, taking into account regional differences, regional policy frameworks, climate change, supply and demand, monitoring needs, etc.

⁵⁴³ Art 5 CAP post 2020 proposal.

- Fill gaps on emerging advisory topics beyond the classical sectoral advice, which is useful in particular in relation with the new obligation for Member States to integrate advisors within their AKIS and who must cover a much broader scope than in the past.
- Provide overall support related to knowledge creation, organisation and sharing.
- Take strong account of cost-benefit elements. Collect and document good examples in this regard, connecting with foresters and other actors across related value chains in Member States to be able to take into account financial aspects and local conditions. Select the best practices, learn about the key success factors, possible quick wins and make them available for (local) exploitation, to ensure financial win-wins for producers, citizens and intermediate actors.
- Integrate the advisors of the EU forestry network into their Member State AKIS as much as possible. They should encourage as innovation brokers innovative projects on forestry in EIP Operational Groups. They should give hands-on training to foresters and local advisors, lead national thematic and learning networks on the subject, deliver and implement action plans to make forestry more sustainable, connect with education and ensure broad communication, support peer-to-peer consulting, develop on-farm demonstrations and demo films distributed widely via social media, and provide specific back-office support for generalist advisors within the national/regional AKIS.
- Explore if the activities of the EU advisory network on forestry can be scaled up at the level of a number of Member States under a cooperative format. Wherever possible, develop digital advisory tools for common use across the EU. Determine whether common tools can be created to incentivise the implementation of the learnings from this project.
- Include all 27 EU Member States in the EU advisory network, using local AKIS connections which can more accurately interpret the national/regional contexts to help develop the best solutions for that Member State or region. Use the support of the Member States' knowledge and innovation experts of the SCAR-AKIS Strategic Working Group to discuss project strategy and progress in the various stages of the 2 projects.
- Projects should run at least 5 years. They must implement the multi-actor approach, with a majority of partners being forestry advisors with frequent field experience.
- Provide all outcomes and materials to the European Innovation Partnership 'Agricultural Productivity and Sustainability' (EIP-AGRI), including in the common 'practice abstract' format for EU wide dissemination, as well as to national/regional/local AKIS channels and to the EU-wide interactive knowledge reservoir (HORIZON-CL6-2021-GOVERNANCE-01-24) in the requested formats.

HORIZON-CL6-2024-GOVERNANCE-01-13: Developing EU advisory networks on sustainable livestock systems

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 4.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 4.00 million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: The proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this Work Programme part.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025). ⁵⁴⁴ .

Expected Outcome: In support of the European Green Deal, organic action plan, the common agricultural policy (CAP), farm to fork and biodiversity strategies, and the sustainable carbon cycles communication’s objectives and targets, the successful proposal will focus on advisor exchanges across the EU in order to increase the speed of knowledge creation and sharing, capacity building, demonstration of innovative solutions, as well as helping to bring them into practice, which accelerates the necessary transitions. Agricultural Knowledge and Innovation Systems (AKIS), in which advisors play a central role, are key drivers to speed up innovation and the uptake of research results by farmers.

Transformative changes such as the changes required within the European Green Deal are dynamic processes that require appropriate governance of AKIS actors. Advisors are key actors with a role in providing strong guidance and with a big influence on producers’

⁵⁴⁴ This [decision](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under ‘Simplified costs decisions’ or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

decisions. A novelty in the post-2020 CAP plans⁵⁴⁵ is that advisors must now be integrated within the Member States' AKIS, and that the scope of their actions has become much broader. They must be able to cover economic, environmental and social domains, as well as be up-to-date on science and innovation. They should be able to translate this knowledge into opportunities, and use and adapt this knowledge to specific local circumstances. This specific topic focuses on the important role that advisors can play in relation to boosting sustainable livestock systems in the future.

Project results are expected to contribute to the following outcomes:

- Progress towards the most urgent policy objectives linked to Cluster 6, as well as the European Green Deal, and in particular the new CAP, with a view to improving the sustainability of livestock management, helping to raise awareness and tackle societal challenges related to sustainable livestock systems, including climate change mitigation and adaptation;
- Support to the CAP cross-cutting objective of modernising the sector by fostering and sharing knowledge, innovation and digitalisation in agriculture and rural areas, and encouraging their uptake⁵⁴⁶;
- Development of interaction with regional policymakers and of a potential EU network to discuss institutional challenges to practical sustainable livestock production systems issues, such as bottlenecks, lock-ins, political inertia, ambiguous regulations, inequality between Member States and power imbalances;
- Production of supporting services and materials, including knowledge networks and peer-to-peer counselling, master classes, advice modules, communication and education materials, effective business models, etc. to facilitate the upscaling of sustainable livestock systems;
- Acceleration of the introduction, spread and implementation in practice of innovative solutions related to sustainable livestock systems, in particular by:
 - creating added value by better linking research, education, advisors and farming practice, and encouraging the wider use of available knowledge across the EU;
 - learning from innovation actors and projects, resulting in faster sharing and implementation of ready-to-use innovative solutions, spreading them to practitioners and communicating to the scientific community the bottom-up research needs of practice.

Scope: Proposals should address the following activities:

- Connect advisors possessing a broad and extensive network of farmers across all EU Member States in an EU advisory network dedicated to sustainable livestock systems, including farming techniques which support sustainable animal production, with a view

⁵⁴⁵ Art 13(2) of the post 2020 CAP regulation.

⁵⁴⁶ Art 5 CAP post 2020 proposal.

to sharing experiences on how to best tackle the issues, building on the outcomes of the EIP-AGRI Focus Groups and Workshops as well as the Horizon 2020 Thematic Networks related to sustainable livestock systems.

- Share effective and novel approaches among the EU advisory network on livestock systems, which are climate-friendly and sustainable in terms of economic, environmental and social aspects.
- Fill gaps on emerging advisory topics beyond the classical sectoral advice, which is useful in particular in relation with the new obligation for Member States to integrate advisors within their AKIS and who must cover a much broader scope than in the past.
- Provide overall support related to knowledge creation, organisation and sharing.
- Take strong account of cost-benefit elements. Collect and document good examples in this regard, connecting with farmers, intermediates and consumers in Member States to be able to take into account financial aspects and local conditions. Select the best practices, learn about the key success factors, possible quick wins and make them available for (local) exploitation, to ensure financial win-wins for producers, citizens and intermediate actors.
- Integrate the advisors of the EU sustainable livestock systems network into their MS AKIS as much as possible. As innovation brokers they should encourage innovative projects on organic farming in EIP Operational Groups. They should give hands-on training to farmers and local advisors, lead national thematic and learning networks on the subject, deliver and implement action plans to make livestock systems more sustainable, climate-friendly, and inspire new and incoming farmers or farms at the cross-roads of intergenerational renewal, connect with education and ensure broad communication, support peer-to-peer consulting, develop on-farm demonstrations and demo films distributed widely via social media, and provide specific back-office support for generalist advisors within the national/regional AKIS.
- Explore if the activities of the EU advisory network on sustainable livestock systems can be up scaled at the level of a number of Member States under a cooperative format. Wherever possible, develop digital advisory tools for common use across the EU. Determine whether common tools can be created to incentivise the implementation of the learnings from this project.
- Include all 27 EU Member States in the EU advisory network, using local AKIS connections which can more accurately interpret the national/regional contexts to help develop the best solutions for that Member State or region. Use the support of the Member States' knowledge and innovation experts of the SCAR-AKIS Strategic Working Group to discuss project strategy and progress in the various stages of the 2 projects.

- Projects should run at least 5 years. They must implement the multi-actor approach, with a majority of partners being advisors with frequent field experience.
- Provide all outcomes and materials to the European Innovation Partnership 'Agricultural Productivity and Sustainability' (EIP-AGRI), including in the common 'practice abstract' format for EU wide dissemination, as well as to national/regional/local AKIS channels and to the EU-wide interactive knowledge reservoir (HORIZON-CL6-2021-GOVERNANCE-01-24) in the requested formats.

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Other actions not subject to calls for proposals

1. Support International Resource Panel (IRP) Secretariat

Expected impacts:

In line with the European Green Deal priorities, the proposal should set out a credible pathway to contributing to all of the following impacts:

- achieving sustainable and circular management and use of natural resources;
- lowering the use of primary non-renewable raw materials and reducing greenhouse gases emissions and other pollutants, achieving an improved environmental footprint (including on biodiversity), enabling climate-neutrality, zero pollution and higher resource efficiency;
- helping to achieve EU policy targets, such as the circular economy action plan, the EU biodiversity strategy for 2030, and the climate adaptation strategy.

Expected outcomes:

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

- improved knowledge of information on the sustainable use and management of resources to shift away from overconsumption, waste and ecological harm;
- improved science-policy dialogue and dissemination of robust and policy-relevant outcomes, contributing to the EU and multilateral policymaking in the field of natural resource management, circular economy and sustainable consumption and production;
- strengthened synergies between the deliverables of EU research and innovation (R&I) framework programmes and the International Resource Panel (IRP).

Scope:

The International Resource Panel (IRP)⁵⁴⁷ is a science-policy interface which aims to build up and share the knowledge needed to improve the use of resources worldwide. The IRP was launched by the European Commission (COM(2005) 670) and set up in cooperation with the United Nations Environment Programme (UNEP). The Commission co-chairs the IRP's Steering Committee, which guides the Panel's strategic direction, ensures policy relevance, helps set the work programme, oversees budgets and provides advice on the Panel's scientific composition. The IRP's findings have been used by the Commission when shaping the European Green Deal and have informed resolutions adopted by the United Nations Environment Assembly⁵⁴⁸. The IRP work is often quoted or is at the basis of G7/G20

⁵⁴⁷ <https://www.resourcepanel.org/>

⁵⁴⁸ <https://www.unep.org/environmentassembly/>

documents and communiqués related to sustainable consumption and production, resource efficiency and the circular economy.

The EU will contribute financially to the IRP to help it implement its 2022-2025 and subsequent work programmes inter alia supporting the preparation and dissemination of IRP reports; facilitating the participation of scientists from the EU, Associated and Third Countries in this process; communicating about IRP deliverables and findings, also using the EU institutions platforms and channels of communication; and to strengthen the synergies between Horizon programmes' outcomes and IRP deliverables. EU financial support to the IRP aims also at providing evidence to policy makers and other relevant stakeholders for timely, high-quality and policy-relevant information and strengthen the science-policy dialogue on sustainable use of resources.

The proposal should inter alia illustrate how the 2022-2025 and subsequent IRP work programme will use new dissemination channels – how it will reach a wider range of target users, etc. It should also describe how relevant results from Horizon Europe and previous EU R&I framework programmes will be used in delivering on the 2022-2025 and subsequent work programmes and, where appropriate, create synergies with ongoing initiatives (collaboration with Horizon experts, use of common events, etc.).

Legal entities:

United Nations Environment Programme (International Resource Panel), UNEP, United Nations Avenue, Gigiri, Nairobi 00100, Kenya

Form of Funding: Indirectly managed actions

Type of Action: Indirectly managed action

Indicative timetable: First quarter of 2023

Indicative budget: EUR 3.75 million from the 2023 budget

2. Coordination and support service for Circular Cities and Regions Initiative (CCRI)

The circular economy concept should be a central component in local and regional economies, which have a suitable scale for closing resources loops, creating sustainable circular ecosystems and designing participatory community-based innovation schemes. An increasing number of cities, regions, industries and businesses are engaging in testing and improving circularity in their territories, economic sectors, value chains and services.

Nevertheless, concrete implementation of systemic solutions for the territorial deployment of the circular economy still needs to be demonstrated and replicated in other areas. In particular, a major challenge is to apply the circular economy concept effectively in urban and regional policy areas beyond traditional resource recovery in waste and water sectors.

The Circular Cities and Regions Initiative (CCRI)⁵⁴⁹ is part of the European circular economy action plan and aims to support circular solutions for the transition towards a sustainable, regenerative, inclusive and just circular economy on a local and regional scale. The aim of the CCRI's activities is to help implement the European Green Deal⁵⁵⁰, the circular economy action plan⁵⁵¹ and the bioeconomy strategy⁵⁵². The CCRI Coordination and Support Office is currently run via a 4-year framework contract (FWC) (from October 2021 until October 2025).

The objective of this new action is to continue and strengthen the coordination and support service for the CCRI's implementation at local and regional level beyond October 2025. It will also ensure the cooperation among the CCRI's projects covered under the Horizon 2020 European Green Deal Call and Horizon Europe and relevant initiatives and stakeholders.

Therefore, this action aims to launch a new 4-year Framework contract (FWC) with an estimated budget ceiling of EUR 6.00 million. No budgetary appropriations will be needed in 2024 as the signature of the FWC is expected in October 2025. The indicative budgets needed for specific contracts to be signed in 2025 and 2026 will be covered in the relevant work programme for those years.

Form of Funding: Procurement

Type of Action: Public procurement

Indicative timetable: Fourth quarter of 2024

3. GEO subscription 2023-2024

The EU will make an annual contribution to activities of the GEO (Group of Earth Observations) Secretariat for 2023-2024, in accordance with Article 239 of the Financial Regulation applicable to the general budget of the European Communities (2018) on making contributions to bodies of which the EU is a member or an observer.

As a full member of the GEO, the Commission will pay a contribution on the EU's behalf to the GEO Trust Fund, which is the budgetary structure agreed by GEO members to fund the GEO Secretariat (hosted by the World Meteorological Organisation in Geneva, Switzerland). This contribution will help ensure the Global Earth Observation System of Systems (GEOSS) is implemented according to its annual work plan and the continuity of the leadership and participation of the EU in the GEO.

Type of Action: Subscription action

Indicative timetable: Second quarter of 2023 and second quarter of 2024

⁵⁴⁹ https://ec.europa.eu/info/research-and-innovation/research-area/environment/circular-economy/circular-cities-and-regions-initiative_en.

⁵⁵⁰ https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en.

⁵⁵¹ https://ec.europa.eu/environment/pdf/circular-economy/new_circular_economy_action_plan.pdf.

⁵⁵² https://ec.europa.eu/info/research-and-innovation_en.

Indicative budget: EUR 1.20 million from the 2023 budget and EUR 1.20 million from the 2024 budget

4. Scientific and technical services by the Joint Research Centre: Leveraging European data-sharing and exploitation practices within GEOSS (Global Earth Observation System of Systems) 2024

The next generation EuroGEOSS initiative will leverage a healthy community of users and providers, combined with an operational legal framework for data through the European data act, data governance act and implementing act for high-value datasets. The initiative will be effectively implementing prominent policy use cases through a technical approach that is fully in line with European values and the legal framework, and makes use of competitive advantages (such as open source technology, open standards, federated data infrastructure).

Using these outcomes as a starting point, in addition to the update of the technological approaches for accommodating ICT developments, in the next work programme (2024 – 2026) specific attention will be put on:

1. scaling the technical approaches to fully embrace private, IoT and personal data;
2. implementing and further developing additional use cases in line with the Commission's priorities and the regional development agenda;
3. expanding the approaches and technological developments of EuroGEOSS to other regions, specifically in Africa and other countries involved in the European Neighbourhood Instrument, within the context of the Global Gateway initiative.

Indicative duration: 36 months.

Form of Funding: Direct action grants

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

Indicative timetable: Fourth quarter of 2024

Indicative budget: EUR 2.60 million from the 2024 budget

5. Service Level Agreement with EEA “Enhancing the access to in situ Earth observation data in support of climate change adaptation policies and activities” 2024

A contribution over three years (2024-2027) to the European Environment Agency (EEA) will help accelerate the implementation of the GEO data sharing and management of relevant in situ Earth observation data in support of environmental and climate sustainability goals.

The contribution will be primarily focused on supporting the accessibility and the integration of in situ data (including from citizen science and Horizon Europe projects) as well as socio-economic data relevant for implementing the “Mission on adaptation to climate change”, the

EU adaptation strategy and the planned Digital Twin on Climate Adaptation⁵⁵³. It will also explore the availability and exploitation of in situ data for enhancing the links between climate change and air pollution, such as, in the context of ozone pollution, peak episodes under changing climate conditions.

As an integral component of the EuroGEO initiative launched by the European Commission, this action will support European activities that contribute to the in-situ data strategy of GEO.

This work will benefit from the EEA's unique role as coordinator of the Copernicus In-Situ Component and of the CLIMATE-ADAPT platform, as well as its role as a lead in the work carried out within GEO on in-Situ Earth Observation data.

Indicative duration: 36 months.

Type of Action: Service Level Agreement

Indicative timetable: First quarter of 2024

Indicative budget: EUR 2.00 million from the 2024 budget

6. Support the clustering of ESA-RTD projects in the domain of Earth System Science (ESS projects)

The ESA-Commission Earth System Science initiative aims at coordinating the Horizon Europe programme with the ESA Future-EO programme, focusing on the following areas: polar systems, ocean systems, biodiversity systems, climate systems, water systems and hazards.

The ambition of the collaboration between ESA and Horizon Europe is to join the forces of space-born Earth observation specialists with the broader R&I community to help bring about major breakthroughs in Earth System Science, hence delivering relevant outcomes in support of the European Green Deal. The initiative will emerge in 2024 as a group of complementary projects pursuing a common objective in the field of Earth System Science. The Commission's projects should support R&I actions eligible under Horizon Europe, while ESA projects should support development and access to novel space assets, ESA science and research, and open science infrastructure.

The overall objective of this action is to create a cluster of ESA-RTD projects to support relevant EU policies and programmes.

The detailed objectives are:

- to develop the clustering modalities and a governance structure needed for organising the cluster with the participation of the ESA and the relevant services of the European Commission;

⁵⁵³ See more detail here: https://ec.europa.eu/commission/presscorner/detail/en/ip_22_1977.

- to enable the interactions between the ESA and Horizon Europe projects to support cooperation and exploitation of synergies between the ESA and Horizon Europe projects;
- to organise joint communication, dissemination and exploitation activities for the cluster of projects toward major stakeholder communities, including policy actors implementing the European Green Deal and the broader public;
- to organise, where relevant, the synergies with the Copernicus programme, Destination Earth, the GEO, the EuroGEO initiative, and the Horizon Europe Missions and Partnerships.
- to organise regular events of the cluster to promote its activities and disseminate outcomes.

Furthermore, this action should examine the cluster's future by delivering a longer plan to prolong the actions of the cluster.

Form of Funding: Direct action grants

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

Indicative timetable: First quarter of 2024

Indicative budget: EUR 1.50 million from the 2024 budget

7. Leveraging and promoting the EU Ocean Observation assets within the GEO Blue Planet and G7 Future of the Seas and Oceans Initiatives

Initiated through the EU Partnership Instrument, EU4OceanObs⁵⁵⁴ is an action on international ocean governance to ensure improved cooperation in collecting and using ocean data for societal benefit on a global scale, running from 2020 until 2022.

EU4OceanObs strengthens the international strategy for and coordination of the global ocean observing system by working with two overarching partnerships: the G7, through its Future of the Seas and Oceans initiative⁵⁵⁵ (FSOI), and the GEO⁵⁵⁶ through its GEO Blue Planet initiative. EU4OceanObs showcases Europe's leading-edge capacities and best practices across the ocean observing value chain in order to increase the impact and uptake of European programmes and products beyond Europe and to increase global cooperation and commitment to ocean observation.

The implementation of EU4OceanObs has been delegated to Mercator Ocean International (MOi), a non-profit company created in 2010, providing ocean science-based services of general interest focused on the conservation and the sustainable use of oceans, seas and marine resources. MOi is in charge of implementing of the EU Copernicus Marine Service

⁵⁵⁴ <https://www.eu4oceanobs.eu/>

⁵⁵⁵ <https://www.g7fsoi.org>

⁵⁵⁶ <https://www.earthobservations.org>

through a delegation/contribution agreement with the European Commission. MOi is a participating organisation within the GEO intergovernmental initiative where it has an active role in the GEO's Blue Planet initiative. Furthermore, it is a member of EuroGOOS, the European component of the Global Ocean Observing System (GOOS) programme. MOi is also a key partner for the implementation of several Horizon 2020 projects in the field of ocean observation and modelling. It has a unique strategic position at the crossroads between ocean observation and forecasting services, research, and international outreach.

In this complex landscape of international programmes and partnerships, and with the EU actions in G7 FSOI and GEO Blue Planet firmly established, this action will deepen and refine the next phase of EU4OceanObs (EU4OceanObs 2.0) for 2023-2026 through the following targets:

- develop the framework for engagement between EU and international initiatives and programmes in the field of ocean observation and ocean forecasting that work across the value-chain 'collect-transform-share-use' and promote synergies through mutually-beneficial activities between them;
- provide support for policy coordination and EU guidance in the G7 FSOI, the G7 Ocean Navigation Plan for the UN Decade of Ocean Science for Sustainable Development (hereafter, the UN Ocean Decade), GOOS, and GEO Blue Planet;
- provide support and visibility to EU initiatives in UN Ocean Decade programmes⁵⁵⁷ such as ForeSea, CoastPredict, DITTO, Marine Life 2030, Ocean Observing Co-Design and Ocean Practices;
- advocate European interest in the scientific steering boards, technical management and awareness actions of GOOS, G7 FSOI and GEO Blue Planet;
- increase programmatic links with international initiatives, providing an essential link between the G7 FSOI and GEO Blue Planet to the ocean observation 'collect-transform-share-use' value-chain;
- help increase efforts to promote EU Ocean Observation products and services in key regions (e.g., Africa, the Arctic) and to improve in situ data collection.

These targets will be developed further through this action that will, in particular, work on:

- global observation requirements based on modelling data assimilation and modelling systems (particularly addressing climate, biogeochemistry/biological / ecosystem variables);
- transformation of user requirements into global ocean observation and ocean prediction strategies and implementation plans;

⁵⁵⁷ <https://www.oceandecade.org/>

- development of use cases that highlight the full knowledge value chain (observation, modelling, services);
- addressing specific gaps in ocean observations such as ocean acidification, and the specific case of under sampled areas, e.g. the Southern Ocean, polar regions and the deep ocean.

Specific objectives for the two programmes over 2023-2026 are:

The G7 FSOI will prioritise strategic activities to enhance ocean observations and data sharing, particularly in relation to:

- global ocean observing governance and funding coordination;
- continued advocacy and support for the implementation of the global BGC Argo array;
- an internationally-agreed surface ocean CO₂ monitoring strategy to monitor ocean uptake of CO₂ and ocean acidification;
- a global strategy for marine life observation and forecasting;
- a global ocean monitoring indicator framework.
- seamless data integration and needs for international cooperation on ocean reanalysis, analysis and forecasting to support the development of a Digital Twin Ocean.
- sharing experiences and best practices in moving towards net zero carbon emissions ocean capabilities.
- establishing an observing system evaluation framework to guide integrated system design and evolution.

Geo Blue Planet will strengthen linkages with stakeholders to promote and co-design tools for informed decision making based on ocean observations for a sustainable governance of the global ocean for the benefit of society, by:

- further developing and creating thematic working groups in areas relevant to the EU and the global GEO community, bridging the gap between scientific knowledge from ocean observations and society (e.g. on climate adaptation and mitigation, on monitoring the impacts of human activities on ocean health or on improving forecast of water-borne disease outbreaks);
- further identifying user needs for information and services based on ocean observations to support EU priority policies, EU programmes and international partners;
- developing strategies to co-design and support interoperable ocean stewardship decision-support tools based on ocean observations, readily adaptable to various themes and regions in line with user needs;

- leveraging the many ocean-relevant GEO actions to support the GEO Member States in their efforts to deliver on the objectives of the UN Ocean Decade;
- providing an over-arching frame for stakeholder engagement of the UN Ocean Decade endorsed actions, based on GEO Blue Planet experience and greater GEO work programme.

Expected results:

The action is expected to contribute to the following outcomes:

- make the EU more visible as a global actor, and promote its interests and strengthen its influence in international decision-making bodies that address ocean observations;
- enable the development of marine and maritime applications, including related user interaction and user-engagement activities, in line with the requirement under the EU Green Deal and Horizon Missions and in support of the 2030 Agenda for Sustainable Development and international ocean governance;
- increase EU contributions and benefits in two overarching and complementary international initiatives and programmes that work across the ocean observations value chain from observation to users:
 1. GEO Blue Planet⁵⁵⁸, the ocean and coastal arm of GEO promoting the sustained development and use of ocean observations for the benefit of society;
 2. The G7 Future of the Seas and Oceans Initiative⁵⁵⁹ Coordination Centre, working in close collaboration with the IOC-WMO-UNEP-ISC Global Ocean Observing System (GOOS) to enhance global observations.

This grant will be awarded without a call for proposals in accordance with Article 195(e) of the Financial Regulation and Article 20 of the Horizon Europe framework programme and rules for participation.

MOi is a non-profit organisation, in the process of being transformed into an intergovernmental organisation, providing ocean science-based services of general interest focused on the conservation and the sustainable use of the oceans, seas and marine resources. After running the European MyOcean projects since 2009, MOi was officially appointed by the European Commission in 2014 to set up the European ocean-monitoring service, the Copernicus Marine Service (CMEMS), which forms part of the European Earth observation programme, Copernicus.

MOi was selected because of the high level of technical expertise needed and because they had already implemented the European Office of the GEO Blue Planet, an initiative launched via an FPI action. The European Commission's Service for Foreign Policy Instruments (FPI)

⁵⁵⁸ <https://geoblueplanet.org/>

⁵⁵⁹ <https://www.g7fsoi.org/>

has initiated a long-term strategy on global international in-situ observation to complement satellite observation, embodied in the Action “International ocean governance: EU component to global observations”. The Action was carried out by the EU4OceanObs project, which was entrusted by the European Commission to MOi. Continuity of services was specifically requested when starting the FPI action.

Legal entities:

MERCATOR OCEAN INTERNATIONAL, Avenue de l’Aérodrome de Montaudran, 31 400 Toulouse, France

Form of Funding: Indirectly managed actions

Type of Action: Indirectly managed action

Indicative timetable: Fourth quarter of 2023

Indicative budget: EUR 3.50 million from the 2023 budget

8. Knowledge Centre for Bioeconomy support action and implementation action of integrated land use assessment

The improvement of the current system of strategic intelligence is needed in order to analyse the knowledge on, and monitor the progress of, the EU bioeconomy. The Bioeconomy Knowledge Centre will present both the state of advancement and the results of a systematic policy-watch, market-watch and science and technology-watch. Special attention will be paid to integrated bioeconomy land-use assessments, presentations and analyses of market developments, national bioeconomy strategies, regional smart specialisation strategies, skills availability and future requirements, infrastructures, services, etc. Research activities conducted under the action might include identifying indicators to monitor economic, social and environmental development, and accounting for ecosystem services of the EU bioeconomy. Other activities might relate to disseminating the above-mentioned knowledge and monitoring outputs.

Form of Funding: Direct action grants

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

Indicative timetable: First half of 2023

Indicative budget: EUR 3.00 million from the 2023 budget

9. Studies, conferences, events and outreach activities

A number of specific contracts will be signed under existing framework contracts to:

- (i) support the dissemination and exploitation of project results;
- (ii) contribute to the definition of future challenge priorities;

- (iii) carry out specific evaluations of programme parts;
- (iv) organise conferences, events and outreach activities.

Should existing framework contracts prove unsuitable or insufficient to support these activities, one or more calls for tender may be launched, as appropriate. The contracts envisaged cover the following subjects: studies, technical assistance, conferences, events and outreach activities.

Form of Funding: Procurement

Type of Action: Public procurement

Indicative timetable: throughout 2023 and 2024

Indicative budget: EUR 0.75 million from the 2023 budget and EUR 0.60 million from the 2024 budget

10. Experts assisting in monitoring of actions (grant agreement, grant decision, public procurement, financial instruments)

This action will support the use of appointed independent experts for the monitoring of running actions (grant agreement, grant decision, public procurement actions, financial instruments) funded under Horizon Europe and previous Framework Programmes for Research and Innovation, and where appropriate include ethics checks, as well as compliance checks regarding the Gender Equality Plan eligibility criterion.

Form of Funding: Other budget implementation instruments

Type of Action: Expert contract action

Indicative budget: EUR 0.50 million from the 2023 budget and EUR 1.50 million from the 2024 budget

Budget⁵⁶⁰

	Budget line(s)	2023 Budget (EUR million)	2024 Budget (EUR million)
Calls			
HORIZON-CL6-2023-BIODIV-01		184.00	30.00
	<i>from</i> 01.020260	184.00	30.00
HORIZON-CL6-2024-BIODIV-01			76.00
	<i>from</i> 01.020260		76.00
HORIZON-CL6-2024-BIODIV-02			36.00
	<i>from</i> 01.020260		36.00
HORIZON-CL6-2023-FARM2FORK-01		196.50	92.50
	<i>from</i> 01.020260	196.50	92.50
HORIZON-CL6-2024-FARM2FORK-01			95.00
	<i>from</i> 01.020260		95.00
HORIZON-CL6-2024-FARM2FORK-02			69.00
	<i>from</i> 01.020260		69.00
HORIZON-CL6-2023-CIRCBIO-01		98.50	
	<i>from</i> 01.020260	98.50	
HORIZON-CL6-2023-CIRCBIO-02		80.00	
	<i>from</i>	80.00	

⁵⁶⁰ The budget figures given in this table are rounded to two decimal places.
The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for years 2023 and 2024.

Horizon Europe - Work Programme 2023-2024
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	<i>01.020260</i>		
HORIZON-CL6-2024-CIRCBIO-01			74.50
	<i>from 01.020260</i>		<i>74.50</i>
HORIZON-CL6-2024-CIRCBIO-02			73.00
	<i>from 01.020260</i>		<i>73.00</i>
HORIZON-CL6-2023-ZEROPOLLUTION-01		64.50	
	<i>from 01.020260</i>	<i>64.50</i>	
HORIZON-CL6-2023-ZEROPOLLUTION-02		15.00	
	<i>from 01.020260</i>	<i>15.00</i>	
HORIZON-CL6-2024-ZEROPOLLUTION-01			38.00
	<i>from 01.020260</i>		<i>38.00</i>
HORIZON-CL6-2024-ZEROPOLLUTION-02			23.00
	<i>from 01.020260</i>		<i>23.00</i>
HORIZON-CL6-2023-CLIMATE-01		90.00	18.00
	<i>from 01.020260</i>	<i>90.00</i>	<i>18.00</i>
HORIZON-CL6-2024-CLIMATE-01			75.00
	<i>from 01.020260</i>		<i>75.00</i>
HORIZON-CL6-2023-COMMUNITIES-01		38.50	
	<i>from 01.020260</i>	<i>38.50</i>	
HORIZON-CL6-2024-COMMUNITIES-01			15.00
	<i>from 01.020260</i>		<i>15.00</i>

Horizon Europe - Work Programme 2023-2024
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HORIZON-CL6-2024-COMMUNITIES-02			22.00
	<i>from</i> <i>01.020260</i>		22.00
HORIZON-CL6-2023-GOVERNANCE-01		130.00	20.00
	<i>from</i> <i>01.020260</i>	130.00	20.00
HORIZON-CL6-2024-GOVERNANCE-01			137.50
	<i>from</i> <i>01.020260</i>		137.50
Contribution from this part to call HORIZON-MISS-2023-CIT-02 under Part 12 of the work programme		0.42	
	<i>from</i> <i>01.020260</i>	0.42	
Contribution from this part to call HORIZON-MISS-2023-CIT-01 under Part 12 of the work programme		3.38	
	<i>from</i> <i>01.020260</i>	3.38	
Contribution from this part to call HORIZON-MISS-2023-CLIMA-CITIES-01 under Part 12 of the work programme		3.83	
	<i>from</i> <i>01.020260</i>	3.83	
Contribution from this part to call HORIZON-MISS-2023-CLIMA-01 under Part 12 of the work programme		8.87	
	<i>from</i> <i>01.020260</i>	8.87	
Contribution from this part to call HORIZON-MISS-2023-OCEAN-SOIL-01 under Part 12 of the work programme		6.95	
	<i>from</i> <i>01.020260</i>	6.95	
Contribution from this part to call HORIZON-MISS-2023-OCEAN-01 under Part 12 of the work programme		3.89	
	<i>from</i> <i>01.020260</i>	3.89	
Contribution from this part to call HORIZON-MISS-2023-CLIMA-OCEAN-SOIL-01 under Part 12 of the work programme		4.88	
	<i>from</i> <i>01.020260</i>	4.88	

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Contribution from this part to call HORIZON-MISS-2023-SOIL-01 under Part 12 of the work programme		103.95	
	<i>from</i> <i>01.020260</i>	<i>103.95</i>	
Other actions			
Indirectly managed action		7.25	
	<i>from</i> <i>01.020260</i>	<i>7.25</i>	
Public procurement		0.75	0.60
	<i>from</i> <i>01.020260</i>	<i>0.75</i>	<i>0.60</i>
Subscription action		1.20	1.20
	<i>from</i> <i>01.020260</i>	<i>1.20</i>	<i>1.20</i>
Provision of technical/scientific services by the Joint Research Centre		3.00	4.10
	<i>from</i> <i>01.020260</i>	<i>3.00</i>	<i>4.10</i>
Service Level Agreement			2.00
	<i>from</i> <i>01.020260</i>		<i>2.00</i>
Expert contract action		0.50	1.50
	<i>from</i> <i>01.020260</i>	<i>0.50</i>	<i>1.50</i>
Contribution from this part to Expert contract action under Part 12 of the work programme		0.34	
	<i>from</i> <i>01.020260</i>	<i>0.34</i>	
Contribution from this part to Specific grant agreement under Part 12 of the work programme		6.02	
	<i>from</i> <i>01.020260</i>	<i>6.02</i>	
Contribution from this part to Indirectly managed action under Part 12 of the work programme		4.15	
	<i>from</i> <i>01.020260</i>	<i>4.15</i>	

Estimated total budget	1056.39	903.90
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