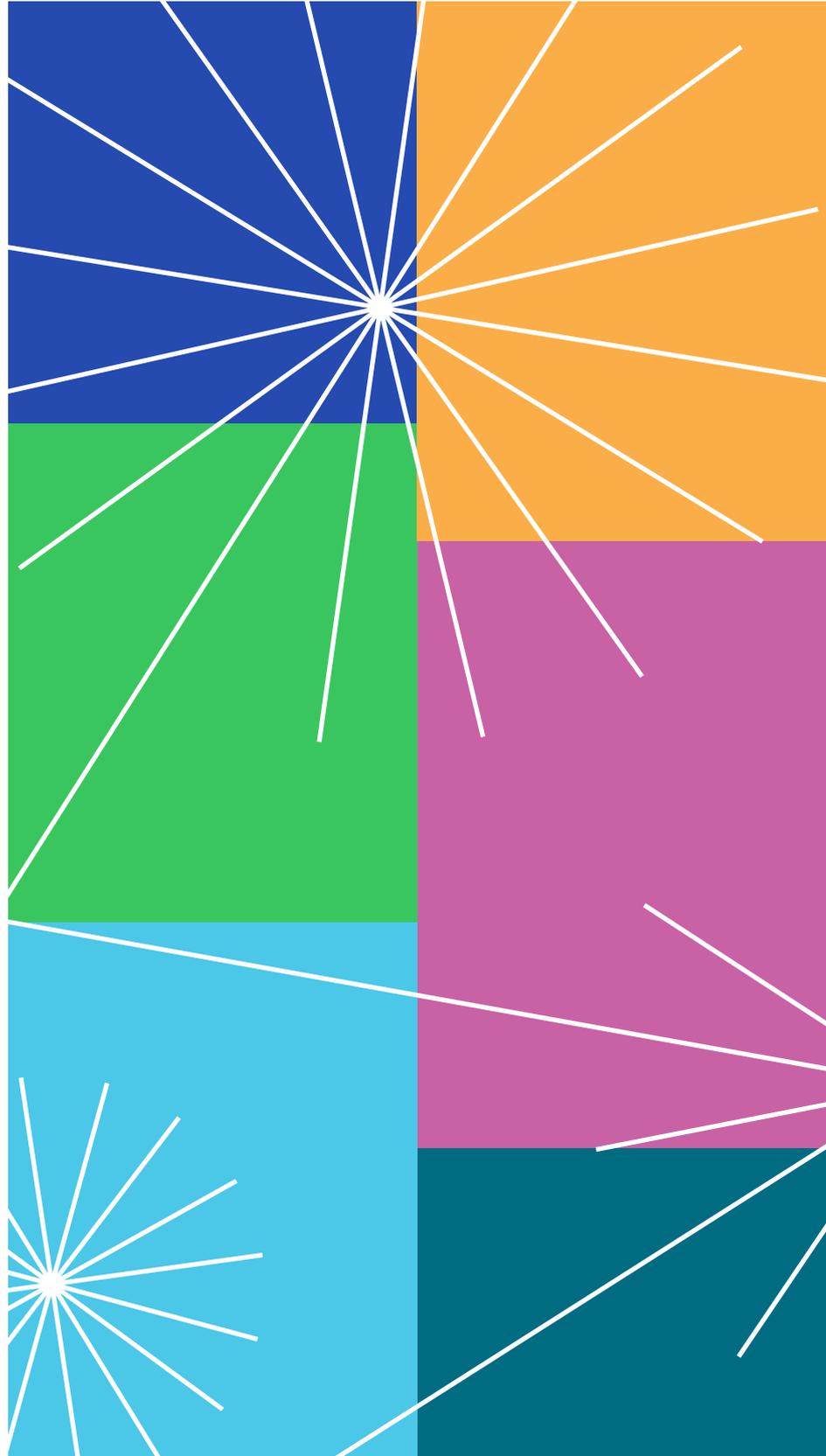


ERA Opportunities

GUIDEBOOK

1.0



Funded by
the European Union

Introduction

This *ERA Opportunities Guidebook* is a summary of ERA related funding opportunities in Horizon Europe, beyond the ERA part, for the ERA community and stakeholders' potential applicants, and for NCPs. The *ERA Opportunities Guidebook* provides an overview, including a direct link to the topic on the Funding and Tenders portal, of funding

opportunities regarding gender equality, open science, citizen science, public engagement, science education and ethics/research integrity in various topics, across the different thematic programmes, under Pillar II “Global Challenges and European Industrial Competitiveness” of Horizon Europe. This version focuses on 2023 calls.

ERA in Horizon Europe

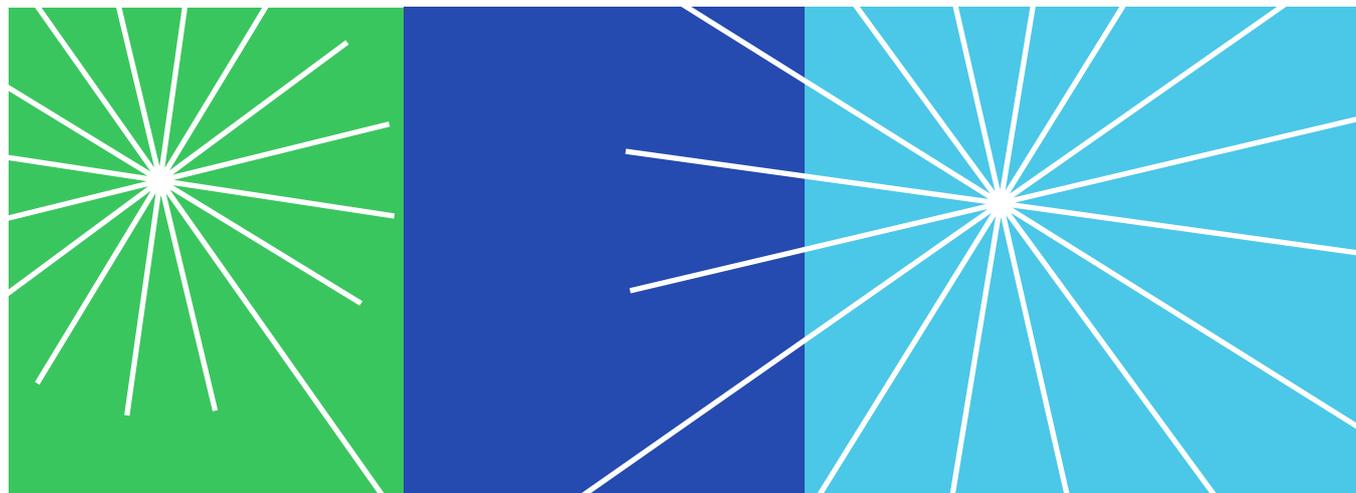
ERA aspects are researched and advanced under the “Reforming and enhancing the EU research and innovation” destination under “Widening participation and strengthening the European Research Area” programme. At the same time, they are integrated in the thematic clusters of Horizon Europe, including the missions.

Horizon Europe has moved to an impact-driven programme, to maximise the impact of the European Union’s research and innovation funding for European science, the economy and the wider society. Therefore ERA aspects are integrated in the various clusters and programmes under Horizon

Europe, as a cross-cutting issue, in particular in the clusters under Pillar II “Global Challenges and European Industrial Competitiveness”.

Integration of ERA aspects in the various thematic clusters, encourages interdisciplinary consortia of the relevant thematic scientific and technology communities and the relevant ERA aspects communities to collaborate, aiming at maximising the impact for the economy and the society.

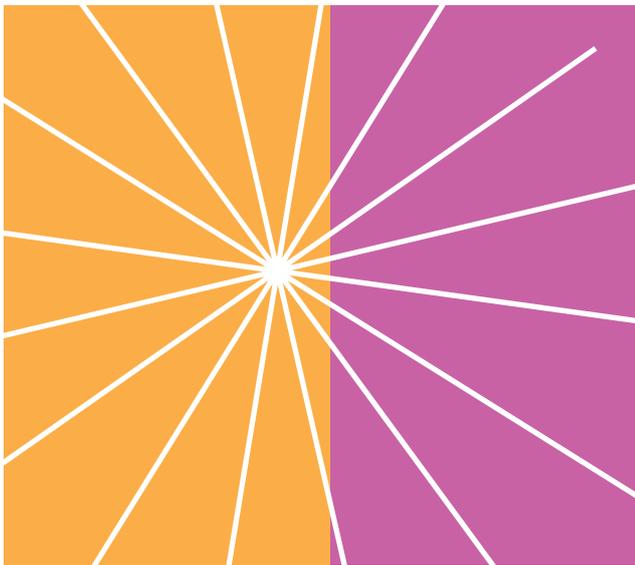
The main ERA aspects which are integrated in the various clusters are: gender equality, open science, citizen science, public engagement, science education and ethics/research integrity.



The document structure

This document is divided to six chapters by the different ERA aspects:

- **Gender equality**
- **Open science**
- **Citizen science**
- **Public engagement**
- **Science education**
- **Ethics/research integrity**



In each chapter, a summarised information on various topics under the six thematic clusters including the missions is presented, focusing on the relevant opportunities for the specific ERA community.

The summary includes:

- Topic ID
- Topic title
- Link to the specific topic on the Funding & Tender opportunities Portal (ensuring easy and quick access to the latest information and updates on the call)
- The topic budget
- The project's expected funding
- Number of expected funded project(s)
- A short description of the topic
- A short description of the integrated ERA aspect

In this structure, a specific topic may appear under a few different chapters, in each of them, only the relevant information to the specific ERA community is presented.

Disclaimer

This document includes information on open topics for 2023 calls, besides three two stages calls under cluster HEALTH, with publication date and 1st date closure in 2023.

NCP_WIDERA.NET did its best to ensure the accuracy and reliability of the summarised information in this document. However, as the information is summarised, potential applicants are strongly encouraged to extend and deepen their understanding on the topic directly on the Funding & Tender opportunities Portal.

NCP_WIDERA.NET does not accept any responsibility or liability for the accuracy, content, completeness, legality, or reliability of the information contained in this document.



Gender equality

Evidence-based interventions for promotion of mental and physical health in changing working environments (post-pandemic workplaces)

HORIZON-HLTH-2023-DISEASE-03-07

RIA

HEALTH

OPENING
12/01/2023

DEADLINE
13/04/2023

Per topic: **30.00 M€**

Per project: **5.00-6.00 M€**

Up to 5 projects

Research actions under this topic should provide adequate and robust data on the impact (positive and negative) that the ongoing changes in the workplace are having on the mental and physical health of different categories of workers and working sectors (e.g. teleworkers, cross-border commuters,

gig economy workers, and vulnerable groups such as women, migrants and young and older workers with increased demonstrated risk for MSDs), including gender and intersectional analyses, where appropriate;

→ Provide adequate and robust data on the impact (positive and negative) that the ongoing changes in the workplace are having on the mental and physical health of different categories of workers and working sectors (e.g. teleworkers, cross-border commuters, gig economy workers, and vulnerable groups such as women, migrants and young and older workers with increased demonstrated risk for MSDs), including gender and intersectional analyses, where appropriate.

Resilience and mental wellbeing of the health and care workforce

HORIZON-CL2-2023-HERITAGE-01-08

RIA

HEALTH

OPENING
12/01/2022

DEADLINE
13/04/2023



Proposals under this topic should aim at Health and care workers receive support (including mental health support), access to tools and guidance that enhances their wellbeing and ability to adapt to changing working conditions; Decision- and policymakers, employers and social partners in the health and care sectors to promote knowledge of the specific risks

Per topic: **20.00 M€**

Per project: **4.00-6.00 M€**

Up to 4 projects

for the resilience, mental health and wellbeing of health and care professionals and informal carers; Funders of health and care provision have access to evidence, novel approaches and cost-effective recommendations for interventions supporting the mental health and wellbeing of health and care workers at individual, organisation and sector levels.

→ With women making up over 70% of EU health care professionals and employees in the care sector and a great part of informal carers, an appropriate gender approach is essential in research and policy interventions, to prevent or mitigate workplace inequalities and imbalances. Researchers and policymakers should also take into account the inclusion dimension, as a significant share of health professionals or care workers typically come from minority groups, whether through declared or undeclared work.

Clinical trials of combined Advanced Therapy Medicinal Products (ATMPs)

HORIZON-CL2-2023-HERITAGE-01-08

RIA

HEALTH

OPENING
12/01/2023

DEADLINE
13/04/2023



The subjects of this topic are combined ATMPs (Advanced Therapy Medicinal Products) according to the definition of the ATMP-regulation (EU 1394/2007, Article 2d). Such combined ATMPs are composed of an ATMP and one or more medical

Per topic: **50.00 M€**

Per project: **8.00-10.00 M€**

Up to 1 project

devices or one or more active implantable medical devices, and their cellular or tissue part must either contain viable cells or tissues, or non-viable cells or tissues liable for exerting the primary action on the human body..

→ Sex and gender aspects, age, socio-economic, lifestyle and behavioural factors and any other non-health related individual attributes should be taken into consideration

Integrated, multi-scale computational models of patient pathophysiology ('virtual twins') for personalised disease management

HORIZON-HLTH-2023-TOOL-05-03

RIA

HEALTH

OPENING
12/01/2022

DEADLINE
13/04/2023



This topic will contribute to the consolidation of existing virtual twin models and support research to move towards a more integrated human virtual twin, with the aim to accelerate translational research towards cost-effective development of new health technologies. Furthermore, 'virtual twin' patient models hold the potential of transforming

Per topic: **20.00 M€**

Per project: **4.00-6.00 M€**

Up to 4 projects

clinical processes and healthcare with longitudinal monitoring, making personalised medicine, disease prevention and individualised patient management a reality.

→ special attention should be paid to systematically assess for bias and/or discrimination (sex/gender, ethnic, minority and vulnerable groups aspects).

Harnessing the potential of real-time data analysis and secure Point-of-Care computing for the benefit of person-centred health and care delivery

HORIZON-HLTH-2023-TOOL-05-05

RIA

HEALTH

OPENING
12/01/2022

DEADLINE
13/04/2023



The proposals are expected to develop and test innovative tools, devices and systems for point-of-care applications, including but not limited to robotics, photonics, bio-sensing, artificial intelligence etc. These would provide clinicians with real-time imaging, data analysis and interactive visual

Per topic: **40.00 M€**

Per project: **5.00-7.00 M€**

Up to 4 projects

presentation for understanding and diagnosing diseases, facilitating risk assessment, prevention, and carrying out medical interventions with improved patient safety.

→ Design should take gender specificities into account.

Pandemic preparedness and response: In vitro diagnostic devices to tackle cross-border health threats

HORIZON-HLTH-2023-TOOL-05-08

RIA

HEALTH

OPENING
12/01/2022

DEADLINE
13/04/2023



New cross-border health threats are expected to emerge in the coming years and therefore it is essential to promote advanced research of medical countermeasures that can be used to detect, prevent and treat in case of a new health threats. Proposals should develop and advance on new in vitro diagnostics

Per topic: **40.00 M€**

Per project: **6.00-7.00 M€**

Up to 6 projects

relevant for detecting and characterising cross-border health threats and develop novel approaches to the development of medical countermeasures targeting threats identified by HERA.

→ Attention should be paid to critical social factors such as sex, gender, age, socio-economic factors, ethnicity/migration, and disability.

Detecting, analysing and countering foreign information manipulation and interference

HORIZON-CL2-2023-HERITAGE-01-08

RIA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING
14/12/2022

DEADLINE
14/03/2023



Protect democratic processes in the EU from Information Manipulation and Interference by foreign actors as well as preserve the fundamental rights and freedoms underlying these processes.

Per topic: **9.00 M€**

Per project: **2.00-3.00 M€**

Up to 3 projects

Better understanding of the Tactics, Techniques, and Procedures (TTPs) involved in attempts o harm the integrity of our democratic processes.

→ The research should look at how Foreign Information Manipulation and Interference campaigns may target individual policymakers and/or social groups in attempts to influence decision-making processes in politics, economy or societal affairs, taking into account relevant characteristics of the targeted groups (e.g. gender, socioeconomic background, ethnicity).



Cultural and creative approaches for gender-responsive STEAM education

HORIZON-CL2-2023-HERITAGE-01-08

CSA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING
14/12/2022

DEADLINE
14/03/2023

Per topic: **3.00 M€**

Per project: **2.00-3.00 M€**

Up to 3 projects

The action should establish a coordination network between the CCIs, technological enterprises, SMEs, secondary and higher education institutions, and other relevant organisations, including digital citizen

platforms to develop a better understanding of the potential benefits of cultural and artistic approaches in traditional STEAM education, research and innovation.

- Increased understanding about the benefits of integrating artistic, cultural and social science approaches in STEAM education, research and innovation and its impact on competitiveness, gender equality and career perspectives;
- STEAM skills development and increased interest in new technologies, including those applied to cultural value chains and cultural heritage, to bridge the gender gap;
- Certain cultural and creative sectors which demand more digital and technological skills, such as the gaming and filming industry, still see a stark underrepresentation of women in these fields, as well as persisting gender stereotypes in the content that is produced;
- By highlighting the social impact and market relevance of research and innovation, the interdisciplinary STEAM approach can strengthen the appeal of scientific and technological careers, and make new products, including from the cultural and creative industries, more gender sensitive;
- Examining the effects of such approaches on competitiveness, gender equality, and talent recruitment and retention in STEM-driven innovation, including in CCIs, where women are underrepresented;
- Offer decision-makers and persons in leadership positions training on the aspects that hinder the presence and promotion of women in STE(A)M, including stereotypes and double standards, gender-based violence (including sexual harassment), as well as successful strategies in preventing and overcoming these occurrences;
- Develop a pilot for an “EU STEAM week for future women innovators” and these activities should be open to all genders and the participation of girls from minority, socially disadvantaged and rural backgrounds is particularly encouraged.

Remote working arrangements and their economic, social and spatial effects

HORIZON-CL2-2023-TRANSFORMATIONS-01-01

CSA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING
14/12/2022

DEADLINE
14/03/2023

Per topic: **9.00 M€**
Per project: **2.00-3.00 M€**
Up to 3 projects



Better understanding of the spatial implications of increased remote working and its challenges for different regions, the impact of remote working arrangements on the living and working conditions, the possible consequences to communal life and society.

- The interlinkages of remote working with care duties can possibly accentuate existing gender gaps;
- Research activities should evaluate the consequences of remote working on already existing inequalities, including gender inequality.

Bridging the migration research to policy gap

HORIZON-CL2-2023-TRANSFORMATIONS-01-01

CSA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING
14/12/2022

DEADLINE
14/03/2023

Per topic: **4.00 M€**
Per project: **2.00-3.00 M€**
Up to 1 project



Strengthen EU migration governance by developing methodology and network to share research outputs with decision-makers and practitioners.

- Proposals should build a rigorous method to bridge science to policy relations on migration, building from existing literature not exclusive to migration policy, including on decision-making, organisational studies, behavioural insights, human rights, gender and intersecting aspects (e.g. socioeconomic background, ethnic/minority background, disability) and public policy literature.

Tackling European skills and labour shortages

HORIZON-CL2-2023-TRANSFORMATIONS-01-07

CSA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING
14/12/2022

DEADLINE
14/03/2023

○—————○
Research activities are expected to take stock, also building on existing literature and studies, of the current labour shortages across Europe, by sectors and occupational groups, based on a sound methodology and ensuring that data is comparable

Per topic: **9.00 M€**
Per project: **2.00-3.00 M€**
Up to 3 projects

across countries. Afterwards, proposals should identify the main causes of the labour shortages, with a particular focus on skills needs and skills gaps.

→ The proposals may explore the “determinants” of education choice and training choice: e.g., family background, local labour market, individual risk propensity, welfare, gender, etc.

Integrated care solutions leading to better quality, person-centred long-term care and overcoming territorial inequalities in their provision

HORIZON-CL2-2023-TRANSFORMATIONS-01-07

RIA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING
14/12/2022

DEADLINE
14/03/2023

○—————○
Projects should contribute to all of the following expected outcomes:
- increased understanding of integrated care and support solutions to enhance the quality of the LTC services,

Per topic: **9.00 M€**
Per project: **2.00-3.00 M€**
Up to 3 projects

- promising policy practices in LTC,
- policymakers at EU/national/local level are provided with evidence on territorial inequalities (e.g. rural-urban) and interdependencies.

→ Projects should provide policymakers at EU/national/local level with evidence on territorial inequalities (e.g. rural-urban) and interdependencies, particularly in relation to gender in the need and provision of the long-term care (LTC) and the main drivers contributing to the challenge of regional and intersectional gaps between supply of and demand for formal LTC services.

Addressing housing inequalities in a sustainable, inclusive and affordable way

HORIZON-CL2-2023-TRANSFORMATIONS-01-01

RIA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING
14/12/2022

DEADLINE
14/03/2023

Per topic: **9.00 M€**

Per project: **2.00-3.00 M€**

Up to 3 projects

○ ————— ○
Better understanding of the spatial implications of increased remote working and its challenges for different regions, the impact of remote working

arrangements on the living and working conditions, the possible consequences to communal life and society.

→ Research should make a granular assessment of indicated issues for different geographical areas, degrees of urbanisation, tenure statuses and different household's compositions. The gender and intergenerational dimensions are essential.

Tackling inequalities in the green and digital transitions

HORIZON-CL2-2023-TRANSFORMATIONS-01-01

RIA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING
14/12/2022

DEADLINE
14/03/2023

Per topic: **9.00 M€**

Per project: **2.00-3.00 M€**

Up to 3 projects

○ ————— ○
Policymakers need to both recognise existing inequalities and vulnerabilities and take duly into account the possible distributional impacts of new/ revised policies (e.g. the Green Deal and its Fit for 55 Package), against (updated) baseline scenarios. They

(at EU/national/local level) should be provided with a comprehensive view of the risks of widening existing inequalities or create new ones as a result of the twin green and digital transition as well as with policy options that could address existing inequalities.

→ Research under this action should put dedicated focus on gender, the age distribution, spatial aspects, education and skill proficiencies, migration backgrounds, income, labour.



The climate imperative and its impact on democratic governance

HORIZON-CL2-2023-DEMOCRACY-01-05

RIA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING
14/12/2022

DEADLINE
14/03/2023



Proposals under this topic should help reinvigorate democratic governance by suggesting pathways for improved effectiveness of rule-of-law based institutions and policies, notably pathways for open government practices that enable active civic participation throughout the policymaking process. They should help strengthen social and

Per topic: **9.00 M€**

Per project: **2.00-3.00 M€**

Up to 3 projects

economic resilience and sustainability through a better understanding of the relationship between democratic governance and the climate imperative.

→ The proposals may explore the “determinants” of education choice and training choice: e.g., family background, local labour market, individual risk propensity, welfare, gender, etc.

Pilots for an innovative human-centric industry

HORIZON-CL4-2023-HUMAN-01-51

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING
08/12/2022

DEADLINE
29/03/2023



Improve understanding of the socio-technical and ethical implications of advanced technologies for workers and work organisation across industrial sectors;

Make best use of the possibilities of advanced technologies and the human capabilities and creative potential in a synergistic manner through learning environments and work models

Per topic: **10.00 M€**

Per project: **10.00 M€**

Up to 1 projects

Empowered skilled and creative industry workforce through and in control of advanced technologies that are aligned with European social and ethical values

→ The proposals should consider the intersectional gender dimension in the content of the proposed research and innovation, in order to deliver scientific quality and societal relevance of the produced knowledge and innovation.

Broadening the range of policy options in transition pathway analysis

HORIZON-CL5-2023-D1-01-06

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING
13/12/2022

DEADLINE
18/04/2023

Per topic: **10.00 M€**

Per project: **5.00 M€**

Up to 2 projects



Advance knowledge on the feasibility of the green growth paradigm in the context of transition to climate neutrality, including improved understanding of

underlying challenges and opportunities, by building on the latest scientific evidence.

→ Effective contribution of SSH disciplines (e.g. sociology, economics, behavioural sciences, gender studies, etc.) and the involvement of SSH experts, institutions as well as the inclusion of relevant SSH expertise.

Behavioural change and governance for systemic transformations towards climate resilience

HORIZON-CL5-2023-D1-01-09

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING
14/12/2022

DEADLINE
14/03/2023

Per topic: **9.00 M€**

Per project: **2.00-3.00 M€**

Up to 3 projects



Proposals under this topic should help reinvigorate democratic governance by suggesting pathways for improved effectiveness of rule-of-law based institutions and policies, notably pathways for open government practices that enable active civic participation throughout the policymaking process. They should help strengthen social and

economic resilience and sustainability through a better understanding of the relationship between democratic governance and the climate imperative.

→ Reach a better understanding on behavioural change and on how it could be scaled up and connected to the governance of the various drivers of and/or barriers to climate-friendly/ climate-resilient behaviour (including EU, national and local policies) to reach the goal of climate neutrality and resilience by 2050.

Digital tools for enhancing the uptake of digital services in the energy market

HORIZON-CL5-2023-D3-03-04

IA

CLIMATE, ENERGY AND MOBILITY

OPENING
04/05/2023

DEADLINE
10/10/2023

Per topic: **11.00 M€**
Per project: **3.00-4.00 M€**
Up to 3 projects



Find ways to benefits of new digital services and users experience to overcome the expected friction of end-consumer on boarding, developing innovative tools for engagement and literacy.

→ Take into account gender, demographic, geographic and socio-economic aspects, in the selection of the three pilots for the developed cross-sector services.

User-centric development of vehicle technologies and solutions to optimise the on-board experience and ensure inclusiveness (CCAM Partnership)

HORIZON-CL5-2023-D6-01-01

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING
04/05/2023

DEADLINE
05/09/2023

Per topic: **8.00 M€**
Per project: **4.00 M€**
Up to 2 projects



Optimising the on-board experience and overall satisfaction of users is paramount for high social buy-in and widespread adoption of CCAM-based mobility solutions.

- Depending on gender, age, disability, size, weight etc. while developing technologies and solutions for individual and shared automated vehicles that meet the demands of all.
- Effective contribution of SSH disciplines including ethics and gender and the involvement of SSH experts, institutions as well as the inclusion of relevant SSH expertise

Integrating European diversity in the design, development and implementation of CCAM solutions to support mobility equity (CCAM Partnership)

HORIZON-CL5-2023-D6-01-04

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING
04/05/2023

DEADLINE
18/03/2023

Per topic: **8.00 M€**

Per project: **3.00-4.00M€**

Up to 2 projects

Provide a geographical and cultural understanding of CCAM uptake and use, with the aim of contributing to a more integrated, diverse and people centric approach

to the design, development and implementation of CCAM supporting mobility equity.

→ Intersecting social factors, such as gender, age, social origin and income level should be taken into account, where relevant.

CCAM effects on jobs and education, plans for skills that match the CCAM development, and prerequisites for employment growth (CCAM Partnership)

HORIZON-CL5-2023-D6-01-05

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING
04/05/2023

DEADLINE
05/09/2023

Per topic: **10.00 M€**

Per project: **5.00 M€**

Up to 1 project

Anticipate and mitigate the impacts and rebound effects on jobs due to the deployment of road based Cooperative, connected and automated mobility (CCAM) systems and services, as well as boost

innovation capabilities through the availability and upscaling of CCAM-specific professional skills.

- Identify and assess short to long-term demands for updated skills (as well as skills and gender gaps) and enhanced knowledge regarding the full range of CCAM-related professions along its entire value chain, both for the mobility of persons and delivery of goods.
- Design schemes for the development and enhancement of skills to support future CCAM jobs and innovations, covering young persons, gender, private and public sector, passenger mobility and freight.

Zero-emission e-commerce and freight delivery and return choices by retailers, consumers and local authorities

HORIZON-CL5-2023-D6-01-06

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING
04/05/2023

DEADLINE
05/09/2023

Per topic: **6.00 M€**
Per project: **3.00 M€**
Up to 2 projects



Develop co-created actions able to increase transparency and consumers' awareness of greenhouse gas emissions and other impacts (considering also socio-economic ones) of e-commerce, deliveries and returns.

→ Integrate an intersectional analysis of consumers' gender, age, and socioeconomic status to account better for the customers' variety of expectations and motivations and develop solutions which cater for all social groups.

Support for dissemination events in the field of Transport Research

HORIZON-CL5-2023-D6-01-13

CSA

CLIMATE, ENERGY AND MOBILITY

OPENING
04/05/2023

DEADLINE
05/09/2023

Per topic: **1.50 M€**
Per project: **1.50 M€**
Up to 1 project



Prepare and provide support to the Transport Research Arena conference (TRA) to be organised in 2026 gathering transport stakeholders for discussing political, industrial and research issues on a European and global level, as well as organise two competitions for transport research and innovation awards covering all transport modes and cross-cutting issues (technological, socio-economic and

behavioural aspects) in line with the EU policy objectives for climate-neutral and environmentally friendly mobility.

→ The competition is expected to give particular attention to gender issues.

Biodiversity loss and enhancing ecosystem services in urban and peri-urban areas

HORIZON-CL6-2023-BIODIV-01-11

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/03/2023

Per topic: **5.00 M€**
Per project: **5.00 M€**
Up to 1 project



Develop a replicable methodology for cities and urban areas across Europe to co-design pathways, a shared long-term vision, an integrated strategy with policies and an action plan (e.g., with responsibilities, timeline and financing) towards the urban ecosystem restoration targets as formulated in the Commission proposal for a nature restoration law.

- Identify the skills and building capacity needs at the local and regional levels, the potential for job creation as well as existing capacity building programmes, with an eye at the inclusion of marginalised communities and at the gender dimension

Optimising the sustainable production of wood and non-wood products in small forest properties and development of new forest-based value chains

HORIZON-CL6-2023-CircBio-01-12

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/03/2023

Per topic: **12.00 M€**
Per project: **6.00 M€**
Up to 2 projects



sustainable production potentials with a view to securing and promoting small-scale forest management for the sustainable use of wood and non-wood products, while fully respecting the cascading

use principle and contributing to biodiversity objectives, including forest ecosystem restoration and protection.

- Assess and develop innovative and tailored support structures, programmes and instruments, covering traditional and non-traditional owner types, considering size, geographical, professional and personal backgrounds, value orientations, age, gender, etc.

One hundred circular model households: making European households sustainable through inclusive circular practices

HORIZON-CL6-2023-CircBio-01-2

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/03/2023

Per topic: **18.00 M€**

Per project: **6.00 M€**

Up to 3 projects



Develop co-created actions able to increase transparency and consumers' awareness of greenhouse gas emissions and other impacts

(considering also socio-economic ones) of e-commerce, deliveries and returns.

→ Although technology can contribute, the overall goal of reducing the environmental footprint of households can only be achieved through behavioral change, thus social and gender aspects are relevant.

Bio-based solutions for humanitarian applications

HORIZON-CL5-2023-D6-01-13

CSA

CLIMATE, ENERGY AND MOBILITY

OPENING
22/12/2022

DEADLINE
28/03/2023

Per topic: **3.00 M€**

Per project: **1.50 M€**

Up to 2 projects



Examining on how bio-based products and systems could contribute to managing environmental

challenges relevant to waste in humanitarian contexts.

→ Consideration of gender-related aspects while evaluating socio-economic/governance aspects and while developing guidelines and recommendations to policy makers, bio-based sector actors as well as humanitarian aid operators/practitioners (e.g., NGOs).



Enhancing social inclusion in rural areas: focus on people in a vulnerable situation and social economy

HORIZON-CL6-2023-COMMUNITIES-01-1

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
12/04/2023

Per topic: **10.00 M€**

Per project: **5.00 M€**

Up to 2 projects



Develop a replicable methodology for cities and urban areas across Europe to co-design pathways, a shared long-term vision, an integrated strategy with policies and an action plan (e.g., with responsibilities, timeline and financing) towards the urban ecosystem restoration targets as formulated in the Commission proposal for a nature restoration law.

→ Covering 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.

Assessing urban farming impacts

HORIZON-CL6-2023-CircBio-01-12

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
12/04/2023

Per topic: **5.00 M€**

Per project: **5.00 M€**

Up to 1 project



Assess current and future (foresight) contribution of various 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 and Support the discussion on rationale for policy interventions in the EU context.

→ Assess current and future contribution of various forms of urban farming to 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.

European partnership on accelerating farming systems transition – agroecology living labs and research infrastructures

HORIZON-CL6-2023-FARM2FORK-01-1

COFUND

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
12/04/2023

Per topic: **60.00 M€**

Per project: **60.00 M€**

Up to 1 project

○—————○
Develop co-created actions able to increase transparency and consumers' awareness of greenhouse gas emissions and other impacts (considering also socio-economic ones) of

e-commerce, deliveries and returns.

- Improve the sharing and access to knowledge and innovation on agroecology, and improve the capacities of farmers and actors of the agri-food chain to take up agroecology innovations, as well as reinforce the agricultural knowledge and innovation systems for agroecology across Europe, considering culture, gender, and youth aspects.

Eradicate micronutrient deficiencies in the EU

HORIZON-CL6-2023-FARM2FORK-01-10

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING
22/12/2022

DEADLINE
28/03/2023

Per topic: **3.00 M€**

Per project: **1.50 M€**

Up to 2 projects

○—————○
Contribute to the eradication of micronutrient deficiencies and reduction of nutrition inequalities across EU and Associated Countries at different levels (e.g. countries, regions, urban/rural/coastal areas) and for different communities of vulnerable groups such as infants, elderly, pregnant women,

people with food intolerances/allergies, people with metabolic disorders on the one hand, and migrants and low income groups on the other hand.

- Develop innovative and effective tools to improve education, communication and training on healthy nutrition and diets which are adapted to various socio-economic groups of the populations in respect of cultures, ages, gender, needs at different level (e.g. public authorities, health care providers, education systems).
- Proposals must take into account sex and gender analysis.

Developing an interdisciplinary and inclusive pan-European academic network for food system science

HORIZON-CL6-2023-GOVERNANCE-01-4

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
23/03/2023

Per topic: **6.00 M€**

Per project: **9.00M€**

Up to 1 project

○—————○
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.

→ Support the training, mobility, mutual learning and knowledge sharing amongst researchers 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).

Revitalisation of European local (rural / peri-urban) communities with innovative bio-based business models and social innovation

HORIZON-CL6-2023-GOVERNANCE-01-5

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2023

DEADLINE
23/03/2023

Per topic: **5.00 M€**

Per project: **5.00 M€**

Up to 1 project

○—————○
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.

→ Exploring intersectionality approaches and considering 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.

Addressing poorly-understood tumour-host interactions to enhance immune system-centred treatment and care interventions in childhood, adolescent, adult and elderly cancer patients

HORIZON-MISS-2023-CANCER-01-01

RIA

MISSION: CANCER

OPENING
12/01/2022

DEADLINE
12/04/2023

○————○
Despite important progress and recent successes with understanding of tumour-host interactions in cancer patients remains incomplete. Challenges include uncovering which patients benefit from interventions or risk potentially debilitating side-effects, as well as ensuring affordability of interventions across Europe,

Per topic: **36.68 M€**

Per project: **7.00-12.00 M€**

Up to 4 projects

across all age groups. This requires a new dimension and level of investment in innovative research with a view to intercept disease. It also requires investing in high-risk, high-reward research projects to deliver a proof-of-concept of potentially disruptive new approaches.

→ Improve the sharing and access to knowledge and innovation on agroecology, and improve the capacities of farmers and actors of the agri-food chain to take up agroecology innovations, as well as reinforce the agricultural knowledge and innovation systems for agroecology across Europe, considering culture, gender, and youth aspects.

Enhance primary cancer prevention through sustainable behavioural change

HORIZON-MISS-2023-CANCER-01-02

RIA

MISSION: CANCER

OPENING
12/01/2022

DEADLINE
12/04/2023

○————○
Achieving sustainable behavioural change can play a major role in enhancing the impact of health promotion and preventive measures and thus contribute to reducing the number of preventable cancer cases. Despite having access to peer-reviewed existing evidence and recommendations on cancer

Per topic: **25.00 M€**

Per project: **4.00-6.00 M€**

Up to 5 projects

prevention, widely accepted by policymakers across the EU, their uptake to effectively change behaviour needs to be enhanced. A systemic approach involving all the main actors at different levels who can facilitate sustainable behavioural change is required.

→ Identify and address specific bottlenecks and barriers that prevent the uptake of sustainable behavioural change for different target populations, taking into account sectorial, socio-economic, cultural and geographical⁶¹ conditions as well as gender and age;

- In addition, attention should be paid to health determinants, including occupational and environmental factors (e.g. pollution). Furthermore, education, socio-economic status, gender, age, and inequalities to access prevention programmes, which affects for example elderly people, people with disabilities, or minorities and people living in rural areas should be taken into consideration.
- The effective contribution of SSH disciplines and the involvement of SSH experts, institutions as well as the inclusion of relevant SSH expertise is required.

Pragmatic clinical trials on minimally invasive diagnostics

HORIZON-MISS-2023-CANCER-01-02

RIA

MISSION: CANCER

OPENING
12/01/2022

DEADLINE
12/04/2023

Per topic: **43.00 M€**

Per project: **6.00-8.00 M€**

Up to 7 projects

While cancer research and innovation have generated novel treatment options, cancer patients across Europe need access to minimally-invasive, patient-centred diagnostic interventions which keep up with

increasing demand in a complex and fragmented oncology healthcare landscape with increasing healthcare costs.

- Design and conduct randomised or cluster-randomised academic investigator-initiated pragmatic clinical trials to deliver effective and evidence-based diagnostic interventions for implementation by healthcare systems at the level of local communities, European regions, Member States and Associated Countries, taking into account stratification, such as biology, molecular features, sex, gender, cancer stage, and age.
- In all instances, sex- and gender-related issues must be taken into account. All data should be disaggregated by sex, gender, age and other relevant variables, such as by measures of socio-economic status or ethnicity.
- The effective contribution of SSH disciplines and the involvement of SSH experts, institutions as well as the inclusion of relevant SSH expertise is required.



Establish best practices and tools to improve the quality of life for childhood cancer patients, survivors and their families in European regions

HORIZON-MISS-2023-CANCER-01-04

IA MISSION: CANCER

OPENING
12/01/2022

DEADLINE
12/04/2023

Per topic: **6.00 M€**
Per project: **6.00 M€**
Up to 1 project



Best practices and tools to improve the quality of life for survivors of childhood cancer exist at national, regional and local level. These practices and tools should be scaled up or deployed in regions in at

least three different Member States or Associated Countries in order to serve as demonstrators for wider uptake.

- Attention should be paid to social and health determinants, including sex, gender, age and other relevant variables, such as socio-economic status, living in rural or remote areas and education.
- The effective contribution of SSH disciplines and the involvement of SSH experts, institutions as well as the inclusion of relevant SSH expertise is required.

European Blue Parks – Protection and restoration of marine habitats

HORIZON-MISS-2023-OCEAN-01-01

IA MISSION: RESTORE OUR OCEAN AND WATERS BY 2030

OPENING
17/01/2022

DEADLINE
20/09/2023

Per topic: **8.80 M€**
Per project: **8.80 M€**
Up to 1 project



Proposals under this topic will develop and demonstrate protection and restoration solutions to address the degradation of coastal and marine ecosystems. Proposals should significantly improve the management of marine protected areas in particular through definition of clear science-based

conservation objectives and implementation of the necessary conservation measures to achieve those objectives.

- Citizen engagement related activities should also be gender-responsive and socially inclusive.

Co-designed smart systems and services for usercentred shared zero-emission mobility of people and freight in urban areas (2Zero, CCAM and Cities' Mission)

HORIZON-MISS-2023-CIT-01-01

IA

MISSION: 100 CLIMATE-NEUTRAL AND SMART CITIES BY 2030

OPENING
10/01/2022

DEADLINE
27/04/2023

Per topic: **2.00 M€**
Per project: **2.00 M€**
Up to 1 project



Proposals are expected to develop, test and demonstrate innovative solutions for mobility of

people and freight exploiting the combined potential of electrification, automation and connectivity.

→ Inclusiveness of vulnerable populations (older people, children) as well as gender perspectives in mobility should be considered.

Urban greening and re-naturing for urban regeneration, resilience and climate neutrality

HORIZON-MISS-2023-CLIMA-CITIES-01-01

IA

MISSION: 100 CLIMATE-NEUTRAL AND SMART CITIES BY 2030

OPENING
10/01/2022

DEADLINE
27/04/2023

Per topic: **40.00 M€**
Per project: **10.00-12.00 M€**
Up to 4 projects



The objective of this topic is to explore and demonstrate how to operationalize collaborative climate mitigation and adaptation urban planning approaches deploying “greening” and re-naturing solutions for regeneration,

re-purposing, rehabilitation and pollution abatement purposes. The co-created plans should be in line with the guiding principles of the European Green Deal and the New European Bauhaus initiative.

→ Set-up in each participating city collaborative platforms (such as living labs) depicting multi-level, and multi-disciplinary governance structures and engaging local authorities, citizens, stakeholders and relevant actors and expertise (Such as planning, design, ICT sector, social sciences and humanities, behavioural and citizens sciences, gender, ecology etc.) for the co-design, testing and demonstration of co-created urban rehabilitation, regeneration, re-purposing or (re)conversion plans deploying greening and re-naturing approaches to foster more climate neutral, resilient, liveable, sustainable and functional cities with thriving nature, communities and economic activities.



Open science

Integrated, multi-scale computational models of patient pathophysiology ('virtual twins') for personalised disease management

HORIZON-HLTH-2023-TOOL-05-03

RIA

HEALTH

OPENING
12/01/2023

DEADLINE
13/04/2023

Per topic: **50.00 M€**
Per project: **8.00-10.00 M€**
Up to 5 projects

This topic will contribute to the consolidation of existing virtual twin models and support research to move towards a more integrated human virtual twin, with the aim to accelerate translational research towards cost-effective development of new health technologies. Furthermore, 'virtual twin'

patient models hold the potential of transforming clinical processes and healthcare with longitudinal monitoring, making personalised medicine, disease prevention and individualised patient management a reality.

→ The proposals should adhere to the FAIR data principles and adopt data quality standards, GDPR-compliant data sharing, access and data integration procedures based on good practices developed by the European research infrastructures.

Better integration and use of health-related realworld and research data, including genomics, for improved clinical outcomes

HORIZON-HLTH-2023-TOOL-05-04

RIA

HEALTH

OPENING
12/01/2023

DEADLINE
13/04/2023



Per topic: **35.00 M€**

Per project: **8.00-10.00 M€**

Up to 4 projects

This topic aims to support proposals focusing on the integration of health data from multiple sources (e.g. electronic health records, genomics, medical imaging, laboratory and diagnostic results, pathogen data, public health registries and other clinical research data) by linking real-world and clinical research data. The data integration should be

exemplified in several use-cases, i.e. well-justified groups of diseases (excluding cancer), within and/or across medical domains, and pave the way towards improved health outcomes. At least one of those use cases should build on the use of whole genome sequence data.

→ Citizens' trust in the sharing and re-use of health data for research and healthcare increases due to the application of advanced technologies and data governance preserving data privacy and security. New approaches to assemble large, easily findable and lawfully accessible high-quality datasets integrating multiple types of health data leading to improved clinical outcomes (e.g. new care solutions, personalised disease management, advanced diagnostic tools), taking into account data FAIRification and inter-operability needs.





Modelling and simulation to address regulatory needs in the development of orphan and paediatric medicines

HORIZON-HLTH-2023-IND-06-04

RIA

HEALTH

OPENING
12/01/2023

DEADLINE
13/04/2023



Per topic: **25.00 M€**

Per project: **4.00-6.00 M€**

Up to 5 projects

This topic aims at supporting activities that are enabling or contributing to one or several expected impacts of destination 6 “Maintaining an innovative, sustainable and globally competitive health industry”. To that end, proposals under this topic should aim to deliver results that are directed, tailored towards and contributing to all of the following expected outcomes:

- Developers and regulators have access to robust modelling and simulation tools to accelerate the effective development of orphan and/or paediatric medicinal products.
- Clinical researchers, developers and regulators use accurate computational models to improve the statistical robustness in clinical trials intended for

small populations and guide cost-effective clinical trial design.

- Clinical researchers and regulators have access to accurate in-silico tools for assessing the actionable use of real-world data and for successfully estimating the risk-benefit effects in clinical trials for small populations.

- Regulators develop guidance for the use of validated computational models to support a robust extrapolation framework and facilitate the safety and efficacy assessment in the process of regulatory appraisal of orphan and/or paediatric medicinal products.

- The proposals should adhere to the FAIR data principles, adopt data quality standards, data integration operating procedures and GDPR-compliant data sharing/access good practices developed by the European research infrastructures, where relevant.
- Data intensive proposals, particularly those using data from patient registries, should take stock of the tools and services provided by the European Platform on Rare Disease Registration.

Mapping the hurdles for the clinical applications of Advanced Therapy Medicinal Products (ATMPs)

HORIZON-HLTH-2023-IND-06-05

CSA

HEALTH

OPENING
12/01/2023

DEADLINE
13/04/2023



Per topic: **3.00 M€**
Per project: **3.00 M€**
Up to 1 project

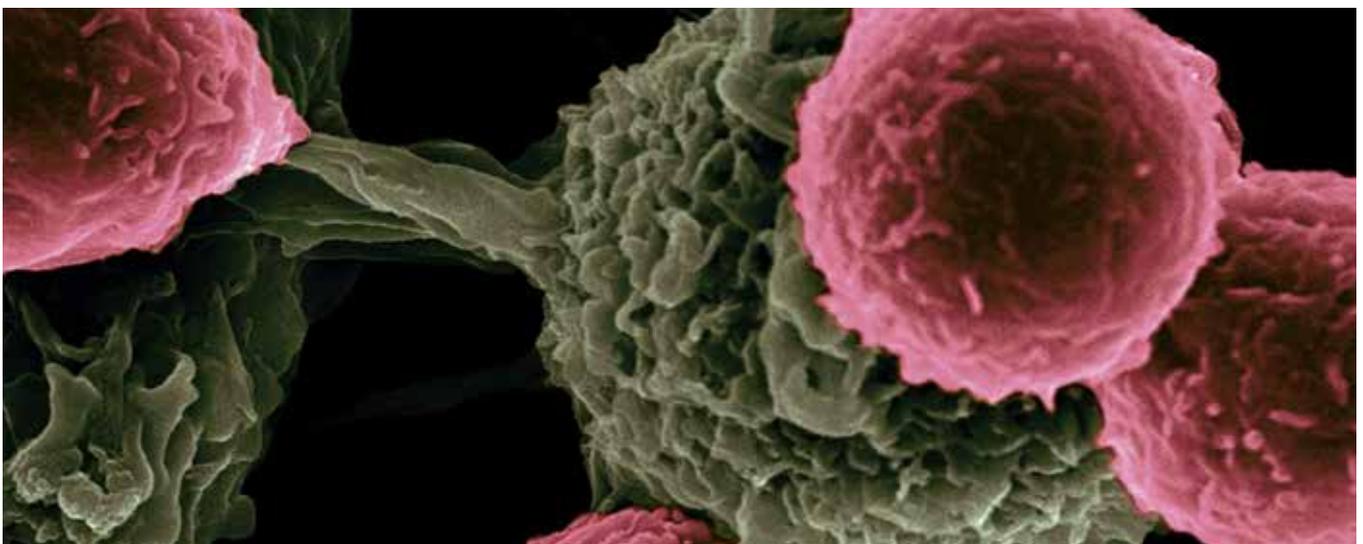
This topic aims at supporting activities that are enabling or contributing to one or several expected impacts of destination 6 “Maintaining an innovative, sustainable and globally competitive health industry”. To that end, proposals under this topic should aim to deliver results that are directed towards and contributing to all of the following expected outcomes:

- Challenging aspects of regulation, policy, safety, efficacy, manufacturing, organisation, infrastructure, decision-making, and commercialisation are identified for speeding up the equitable clinical applications of ATMPs.
- European regulatory frameworks are adapted to novel scientific progress, especially those related

to platform approaches, genome editing, interface with medical devices, artificial intelligence.

- Competent authorities in the Member States can propose adapted pricing and reimbursement schemes that allow European citizens to benefit from novel ATMPs.
- Academic and SME developers and manufacturers of ATMPs have an increased knowledge of the regulatory aspects.
- The decentralised manufacturing of ATMPs is consistent across health care centres.

→ Develop an open access European repository for evaluation methods, studies, results and evidence of digital health technologies and services.



Integration of data life cycle, architectures and standards for complex data cycles and/or human factors, language (AI, data and robotics partnership)

HORIZON-CL4-2023-DATA-01-02

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING
08/12/2022

DEADLINE
29/03/2023

Per topic: **45.00 M€**

Per project: **9.00 M€**

Up to 5 projects



Address the entire data life cycle from data generation/collection to the final use and disposal/deletion of data (especially when required by applicable legislation, eg General Data Protection Regulation (GDPR)). Build on existing and emerging standards, models and architectures and complement/expand them as necessary in view of interoperability of systems and portability of data,

especially between sectors, between private and public sectors and between different communities/constituencies of actors, including consideration of cybersecurity issues and analysing the use and re-use potential, especially in view of use of data across sectors.

→ improve data access (in line with the FAIR principles).

Cognitive Computing Continuum: Intelligence and automation for more efficient data processing (AI, data and robotics partnership)

HORIZON-CL4-2023-DATA-01-04

AI, DATA AND ROBOTICS PARTNERSHIP | RIA

DIGITAL, INDUSTRY AND SPACE

OPENING
08/12/2022

DEADLINE
29/03/2023

Per topic: **28.00 M€**

Per project: **4.00-6.00 M€**

Up to 6 projects



The Cloud-Edge Continuum must provide seamless management schemes to allow services and data to

be processed across various providers, connectivity types and network zones.

→ Expected outcome:

→ Paving the way to strategic industrial cooperation in data processing required to support future hyper-distributed applications by building open platforms, underpinning an emerging industrial open edge ecosystem.

- In addition:
- Interoperability approaches (based on open standards, interoperability models and open platforms) should be considered where appropriate.
- Destination:
- In line with the FAIR principles (Findable, Accessible, Interoperable and Reusable), the overall objective is to make Europe the most successful area in the world in terms of data sharing and data re-use while respecting the legal framework relating to security and privacy and fostering collaboration and building on existing initiatives.

Quantum Photonic Integrated Circuit technologies

HORIZON-CL4-2023-DIGITAL-EMERGING-01-40

AI, DATA AND ROBOTICS PARTNERSHIP | RIA

DIGITAL, INDUSTRY AND SPACE

OPENING
08/12/2022

DEADLINE
29/03/2023

Per topic: **12.00 M€**

Per project: **4.00-6.00 M€**

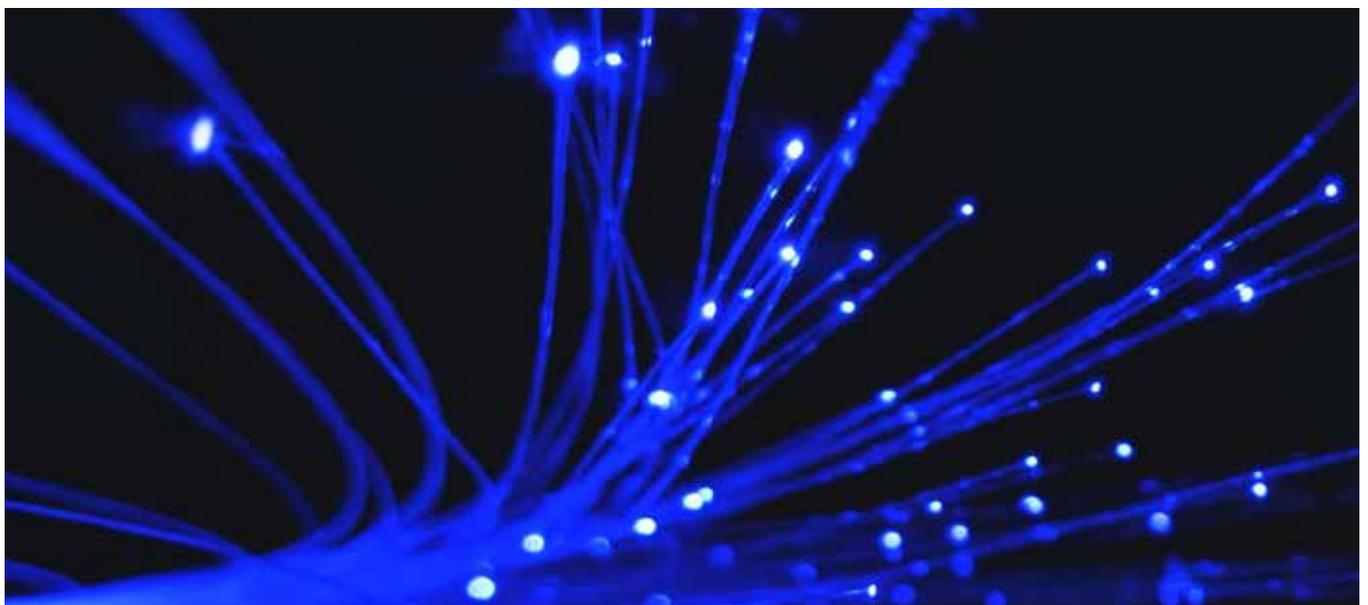
Up to 3 projects



Proposals should test and evaluate the developed Quantum PIC technologies in the context of such specific applications through trials at systems level

in a representative laboratory or an operational environment.

- Developing open source alternatives to enable the physical use of emerging processors in cloud and edge server systems. Such modules include basic input/output systems, pre-boot execution environments, power-on authentication, etc., supporting heterogeneity.



Pre-normative research and standardisation in industrial ecosystems

HORIZON-CL4-2023-HUMAN-01-64

CSA

DIGITAL, INDUSTRY AND SPACE

OPENING
08/12/2022

DEADLINE
29/03/2023



Contribute to the achievement of the European industrial policy objectives (green, digital transitions, circular economy) and the implementation of the ERA industrial technology roadmap for low carbon technologies in energy-intensive industries where relevant;

Bring together the research world with supply chains and stakeholders within industrial ecosystems to

Per topic: **8.00 M€**

Per project: **0.50-1.00 M€**

Up to 8 projects

define standardisation needs and priorities

Define roadmaps for pre-standardisation activities in emerging domains not yet covered by ongoing work;

Establish a platform for the deployment of education and training in standardisation in the framework of the identified industrial sectors

→ Within the standardisation processes particular attention should be dedicated on establishing interoperability standards for data sharing within and across the ecosystems, through the implementation of the FAIR data principles and leveraging on already adopted practices especially those in the relevant European common data spaces and in the European Research infrastructures.

Innovative methods for safety and sustainability assessments of chemicals and materials

HORIZON-CL4-2023-RESILIENCE-01-21

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING
08/12/2022

DEADLINE
20/04/2023



Develop new methods, or improve existing methods, to support the improvement of safety and sustainability assessment in line with Commission initiative for Safe and Sustainable by Design (SSbD) that sets a framework for assessing the safety and sustainability of chemicals and materials, which

Per topic: **15.00 M€**

Per project: **3.00-4.00 M€**

Up to 4 projects

should be considered as a reference for project proposals.

→ Delivery of FAIR data and methodologies including results obtained from applying the methodologies to allow for further testing of the methodologies, enhance acceptance and their wider applications.

Integrated approach for impact assessment of safe and sustainable chemicals and materials

HORIZON-CL4-2023-RESILIENCE-01-22

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING
08/12/2022

DEADLINE
29/03/2023

Per topic: **15.00 M€**
Per project: **6.00-8.00 M€**
Up to 4 projects

Develop integrated approaches for the assessment of health and environmental impacts together with the social and economic sustainability aspects of a chemical or material, all along their life-cycle.

Proposal should consider as a reference the Commission initiative for Safe and Sustainable by Design sets a framework for assessing safety and sustainability of chemicals and materials

→ Delivery of FAIR data and methodologies including results obtained from applying the methodologies to allow for further testing of the methodologies, enhance acceptance and their wider applications.

Computational models for the development of safe and sustainable by design chemicals and materials

HORIZON-CL4-2023-RESILIENCE-01-23

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING
08/12/2022

DEADLINE
20/04/2023

Per topic: **29.00 M€**
Per project: **6.00-8.00 M€**
Up to 4 projects

For an effective substitution of substances of concern it is crucial that the developed alternatives provide the functionality that is required of those that are replaced (e.g., water or dirt repellent properties, insulation, etc.), and have an improved safety and

sustainability performance. The integration by computational modelling of the chemicals and materials functionality with the Safe and Sustainable by Design framework will have a key role in the green and digital transition of the European industry.

→ Apply FAIR data principles.

Advanced (nano and bio-based) materials for sustainable agriculture

HORIZON-CL4-2023-RESILIENCE-01-34

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING

DEADLINES

12/08/2022

1st stage

07/03/2023

2nd stage

05/11/2023



Per topic: **31.00 M€**

Per project: **6.00-8.00 M€**

Up to 4 projects

This topic refers to the innovation market for sustainable agriculture. The next generation of fertilisers, biocides and plant protection products for agriculture should need to be based on new delivery systems made from advanced (nano) materials (nanosubstances and nanoformulations

of conventional substances) or and/or bio-based materials, to enable targetspecific, precise and slow release of the product, reduction of load of active substances, ease of application, reduced risk for non-target organisms and operator exposure, reduced washoff, reduced costs for farmers, etc.

→ Data produced during the development of new agrochemicals should be FAIR and the FAIRness should also be demonstrated and shared through available platforms (e.g., IPCHEM, e-NanoMapper, etc.).

Affordable Housing District Demonstrator

HORIZON-CL4-2023-RESILIENCE-01-44

IA

DIGITAL, INDUSTRY AND SPACE

OPENING

08/12/2022

DEADLINE

20/04/2023



Per topic: **10.00 M€**

Per project: **5.00 M€**

Up to 2 projects

Industrial symbiosis to be fostered amongst most relevant partners engaged in construction and renovation of social housing facilities. The local and regional dimension is important since local energy and utility networks, adjacent industrial

infrastructures and available by-products and services in such districts needs to be considered in a holistic and integrated approach.

→ limited to model-based, knowledge-based and data-based methods, artificial intelligence.

Copernicus for Atmosphere and Climate Change, including CO2

HORIZON-CL4-2023-SPACE-01-31

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING
22/12/2022

DEADLINE
28/03/2023



Develop new and advanced modelling and data assimilation in CAMS global and regional systems in order to keep modelling and data assimilation aspects at the international state-of-the-art and

Per topic: **8.60 M€**

Per project: **2.00-3.00 M€**

Up to 4 projects

benefit fully from ground-based and satellite observations

- Additionally, the transfer of research results to operations should receive active attention during the project to strengthen the readiness for an operational deployment in the future. Appropriate interaction with the relevant Entrusted Entity of the Copernicus services, the conditions for making available, for re-using and exploiting the results (including IPR) by the said entities must be addressed during the project implementation. Software should be open licensed.

Copernicus for Emergency Management

HORIZON-CL4-2023-SPACE-01-32

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING
22/12/2022

DEADLINE
28/03/2023



Innovative methods and technologies for emergency related applications to derive advanced products and open new opportunities for an operational

Per topic: **3.00 M€**

Per project: **3.00 M€**

Up to 1 project

deployment addressing the needs of the Copernicus Emergency Management Service

- Automated characterisation of building height and building use (e.g. residential, industrial, commercial, public, population density, vulnerability) through integration of different sensor types (e.g. optical, radar, night-time lights) and/or open source non-EO data.
- Proposals should build, where possible and relevant, on free and open-source models, tools and datasets already used or produced by CEMS and the software developed should be open licensed.

Copernicus in-situ component

HORIZON-CL4-2023-SPACE-01-33

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING
22/12/2022

DEADLINE
28/03/2023

Per topic: **2.00 M€**
Per project: **2.00 M€**
Up to 1 project



In the selection of the topical scope of new-approaches to in-situ data and ground-based data collection, policy data needs should be considered, e.g. data needed for Green Deal monitoring, such as landscape features or parameters providing information on carbon farming.

→ Appropriate interaction with the relevant Entrusted Entity of the Copernicus services, the conditions for making available, for re-using and exploiting the results (including IPR) by the said entities must be addressed during the project implementation. Developed software and collected observations should be open licensed.

Copernicus for Marine Environment Monitoring

HORIZON-CL4-2023-SPACE-01-34

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING
22/12/2022

DEADLINE
28/03/2023

Per topic: **5.00 M€**
Per project: **5.00 M€**
Up to 1 project



Appropriate interaction with the relevant Entrusted Entity of the Copernicus services, the conditions for making available, for re-using and exploiting the

results (including IPR) by the said entities must be addressed during the project implementation. Software should be open licensed.

→ Appropriate interaction with the relevant Entrusted Entity of the Copernicus services, the conditions for making available, for re-using and exploiting the results (including IPR) by the said entities must be addressed during the project implementation. Software should be open licensed.

Factory-level and value chain approaches for remanufacturing (Made in Europe Partnership)

HORIZON-CL4-2023-TWIN-TRANSITION-01-04

IA

DIGITAL, INDUSTRY AND SPACE

OPENING
08/12/2022

DEADLINE
20/04/2023



Per topic: **5.00 M€**
Per project: **5.00 M€**
Up to 1 project

Remanufacturing is an industrial process in which at least one change is made to waste products or components affecting their safety, performance, purpose or type.

Remanufacturing aims to retain the usefulness of both products and components and is an essential step in achieving full industrial circularity without implying deterioration of the product.

→ Interoperability for data sharing must be addressed, leveraging on existing ontologies and metadata and through the implementation of the FAIR data principles.

Circular economy in process industries: Upcycling large volumes of secondary resources (Processes4Planet partnership)

HORIZON-CL4-2023-TWIN-TRANSITION-01-42

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING
08/12/2022

DEADLINE
20/04/2023



Per topic: **37.60 M€**
Per project: **6.00-8.00 M€**
Up to 4 projects

The focus of this topic is the upcycling of secondary resources that must lead to the same quality and diversity of products as those obtained when using primary resources. The innovation needed will depend on the addressed waste category. However,

even if the upcycling technologies may be sector specific, the cross-sectorial elements are important and should deserve due attention.

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



Further climate knowledge through advanced science and technologies for analysing Earth observation and Earth system model data

HORIZON-CL5-2023-D1-01-01

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING
13/12/2022

DEADLINE
18/04/2023

Per topic: **16.00 M€**

Per project: **8.00 M€**

Up to 2 projects

Spurring the exploitation of the data collected by the Earth Observation (EO) actions, through advanced data technologies.

→ In order to fulfill the actions' target, beneficiaries will be subjected to open science practices.

Climate-related tipping points

HORIZON-CL5-2023-D1-01-02

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING
13/12/2022

DEADLINE
18/04/2023

Per topic: **14.00 M€**

Per project: **7.00 M€**

Up to 2 projects

Design new or improved models of climate prediction or projections, for better assessment of the probability and impact of tipping points.

→ In order to fulfill the actions' target, beneficiaries will be subjected to open science practices.

Improved knowledge in cloud-aerosol interaction

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING
13/12/2022

DEADLINE
18/04/2023

Per topic: **16.00 M€**Per project: **8.00 M€**

Up to 2 projects



Improve the representation of cloud life cycle, aerosol-cloud interactions and chemistry, cloud vertical structures, and the radiative properties of the various aerosol and cloud types that is the largest source of uncertainty in today's climate models. In addition, represent an important knowledge gap in Earth system and climate science, and in the Earth radiation budget in particular.

→ In order to fulfill the actions' target, beneficiaries will be subjected to open science practices.

Science for successful, high-integrity voluntary climate initiatives

HORIZON-CL5-2023-D1-01-05

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING
13/12/2022

DEADLINE
18/04/2023

Per topic: **5.50 M€**Per project: **5.50 M€**

Up to 1 project



In order to fulfill the actions' target, beneficiaries will be subjected to open science practices.

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

Broadening the range of policy options in transition pathway analysis

HORIZON-CL5-2023-D1-01-06

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING
13/12/2022

DEADLINE
18/04/2023

Per topic: **10.00 M€**

Per project: **5.00 M€**

Up to 2 projects



Advance knowledge on the feasibility of the green growth paradigm in the context of transition to climate neutrality, including improved understanding of underlying challenges and opportunities, by building on the latest scientific evidence.

→ In order to fulfill the actions' target, beneficiaries will be subjected to open science practices.

Digital twin for forecasting of power production to wind energy demand

HORIZON-CL5-2023-D3-02-14

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING
04/05/2022

DEADLINE
05/09/2023

Per topic: **12.00 M€**

Per project: **6.00 M€**

Up to 2 projects



Develop new digital twins to optimise the exploitation of individual wind farms (onshore, bottom-fixed offshore and floating offshore) as well as wind farm clusters, in view of transforming them into virtual power plants delivering a more reliable and secure electricity system.

→ Data may be shared with other projects on reciprocal terms, preferably leveraging on the tools and services provided by the European Open Science Cloud (EOSC) and exploring workflows that can provide "FAIR-by-design" data, i.e., data that is FAIR from its generation, and with EU-based researchers having a legitimate interest.

Measuring Road transport results towards 2ZERO KPIs (2ZERO Partnership)

HORIZON-CL5-2023-D5-01-05

CSA

CLIMATE, ENERGY AND MOBILITY

OPENING
13/12/2022

DEADLINE
18/04/2023

Per topic: **1.00 M€**
Per project: **1.00 M€**
Up to 1 project



Conducting a common framework for monitoring and assessment of the results of the different funded projects to the achievements of the 2ZERO partnership objectives.

- Open Science practices should be taken into account.
- Project's results will be enacted in line with FAIR principles for data.

Interdisciplinary assessment of changes affecting terrestrial and freshwater ecosystems, building on observation programmes

HORIZON-CL5-2023-D1-01-05

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/04/2023

Per topic: **4.0 M€**
Per project: **4.0 M€**
Up to 1 project



Foster a collective effort in the EU Member States and Horizon Europe Associated Countries to assess the status of terrestrial, freshwater, and transitional (land to sea) ecosystems and prioritise conservation and restoration actions of these ecosystems.

- Cross-articulation with the other data spaces, and notably with the European Open Science Cloud should be foreseen, exploiting synergies and complementarities of the different approaches.

Analysing fossil-energy dependence in agriculture to increase resilience against input price fluctuations

HORIZON-CL6-2023-CLIMATE-01-6

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
12/04/2023

Per topic: **5.00 M€**
Per project: **5.00 M€**
Up to 1 project

○—————○
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, as well as improve the methods of assessment.

→ In order to fulfill the actions' target, beneficiaries will be subjected to open science practices.

Closing the research gaps on Essential Ocean Variables (EOVs) in support of global assessments

HORIZON-CL6-2023-CLIMATE-01-8

IA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
12/04/2023

Per topic: **17.00 M€**
Per project: **5.00-6.00 M€**
Up to 3 projects

○—————○
Developing innovative approaches to improve the monitoring, understanding, reporting (Essential Variables) and projections of essential physical/ biogeochemical/ biological and ecosystem oceanic processes related to climate and changes over time,

as well as the production of related Essential Ocean Variables and indicators, at regional or sea basin scale (physical/ biogeochemical: TRL 7-8; biological and ecosystem: TRL 5-6).

→ 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.

Improving rural future through better territorial governance and rural-urban synergies

HORIZON-CL6-2023-COMMUNITIES-01-2

IA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
12/04/2023

Per topic: **11.00 M€**
Per project: **5.50 M€**
Up to 2 projects



Enhance the well-being of rural and urban people, increase resilience and favour a more synergistic/interlinked/networked development of rural and urban areas.

- Open Science practices should be taken into account.
- Project's results will be enacted in line with FAIR principles for data.

European partnership on accelerating farming systems transition – agroecology living labs and research infrastructures

HORIZON-CL6-2023-FARM2FORK-01-1

COFUND

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
12/04/2023

Per topic: **60.0 M€**
Per project: **60.0 M€**
Up to 1 project



Coordinate research and innovation programmes on agroecology between the EU and its Member States and Associated Countries and trigger combined actions, that will boost fundamental research on agroecology through to applied research.

- Cross-articulation with the other data spaces, and notably with the European Open Science Cloud should be foreseen, exploiting synergies and complementarities of the different approaches.

European partnership on animal health and welfare

HORIZON-CL6-2023-FARM2FORK-01-2

COFUND

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
12/04/2023

Per topic: **60.00 M€**
Per project: **60.00 M€**
Up to 1 project



Coordinate research programmes and activities on animal health and welfare between the EU and its Member States and Associated Countries and trigger combined action.

→ Cross-articulation with the other data spaces, and notably with the European Open Science Cloud should be foreseen, exploiting synergies and complementarities of the different approaches.

Empowering citizens to monitor, report and act in partnership with relevant public authorities to protect their environment in the context of environmental compliance assurance

HORIZON-CL6-2023-GOVERNANCE-01-12

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
23/04/2023

Per topic: **7.00 M€**
Per project: **7.00 M€**
Up to 1 project



Support citizen engagement in particular by encouraging the validation and uptake of citizen observations by relevant public authorities 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, and when possible Create synergies with the European Open Science Cloud (EOSC) European Partnership.

Data-driven solutions to foster industry's contribution to inclusive and sustainable food systems

HORIZON-CL6-2023-GOVERNANCE-01-17

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
23/03/2023

Per topic: **8.00 M€**
Per project: **4.00 M€**
Up to 2 projects



Enhance the sustainability performance and competitiveness in the domains covered by Cluster

6 through further deployment of digital and data technologies as key enablers.

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

Developing an interdisciplinary and inclusive pan-European academic network for food system science

HORIZON-CL6-2023-GOVERNANCE-01-4

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
23/03/2023

Per topic: **6.0 M€**
Per project: **6.0 M€**
Up to 1 project



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.

- Support the training, mobility, mutual learning and knowledge sharing amongst researchers and foster open science approaches, including the sharing of FAIR and open digital research or educational output.
- The network will develop open access educational material/curricula to be used by Higher Education Institutes to help strengthen their existing food systemsrelated teaching and research with an inter- and transdisciplinary systems dimension.
- 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).

Integrated assessment and monitoring of emerging pollutants in the marine environment

HORIZON-CL6-2023-ZEROPOLLUTION-01-2

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/03/2023

Per topic: **12.50 M€**

Per project: **6.25 M€**

Up to 2 projects



Develop and test integrated assessment and effect-based monitoring of impacts of contaminants of emerging concern on marine environment, ecosystems and biodiversity, including testing methods that are aligned with the relevant OECD guidance, and where relevant develop new contaminant thresholds.

→ Build on, and widen, the data availability in European Research Infrastructures federated under the European Open Science Cloud.

Biosensors and user-friendly diagnostic tools for environmental services

HORIZON-CL6-2023-ZEROPOLLUTION-01-6

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/03/2023

Per topic: **8.00 M€**

Per project: **4.00 M€**

Up to 2 projects



Development of high-resolution biosensors for environmental monitoring and detection.

→ Ensure that the data produced in the context of this project is FAIR (Findable, Accessible, Interoperable and Re-usable).

→ Projects shall further build on, and widen, the data availability in European Research Infrastructures federated under the European Open Science Cloud.

Soil pollution processes – modelling and inclusion in advanced digital decision-support tools

HORIZON-MISS-2023-SOIL-01-02

RIA

MISSION: A SOIL DEAL FOR EUROPE

OPENING
17/01/2022

DEADLINE
20/09/2023

○—————○
The capacity to carry out a comprehensive scenario analysis at EU level on the impact of key drivers on soil pollution (e.g. societal behaviour, changes in emissions, climate, land management practices) is currently lacking. Soil-oriented fate and transport models exist for certain pollutants (e.g. pesticides, radionuclides, nutrients, metals)

Per topic: **14.00 M€**

Per project: **7.00 M€**

Up to 2 projects

but they are generally not integrated with each other, often lack a temporal capacity, and do not always provide a quantification of actual risk to human and environmental health. Models that address the extent, fate, and transport, of emerging contaminants (e.g. microplastics, pharmaceuticals, PFAS).

→ Projects funded under this topic should demonstrate a route towards open access, longevity, sustainability and interoperability of knowledge and project outputs through close collaboration with the Joint Research Centre and its EU Soil Observatory.

Innovations to prevent and combat desertification

HORIZON-MISS-2023-SOIL-01-04

IA

MISSION: A SOIL DEAL FOR EUROPE

OPENING
17/01/2023

DEADLINE
20/09/2023

○—————○
In 2017, 25% of land in Southern, Central and Eastern Europe was estimated to be at high or very high risk of desertification. The risk is likely to have further increased since then, and to continue increasing because of accelerating climate change and continued pressures from land use and land-use change. Desertification leads to loss of biodiversity, of organic

Per topic: **14.00 M€**

Per project: **7.00 M€**

Up to 2 projects

carbon and of other land-based ecosystem services, including reduced agricultural and forest productivity. Desertification further amplifies global warming through the release of CO₂ and other greenhouse gases linked with the decrease in vegetation cover. Thus, it has severe environmental, social and economic consequences which need to be urgently tackled.

→ Proposals should demonstrate a route towards open access, longevity, sustainability and interoperability of knowledge and outputs through close collaboration with the Joint Research Centre's EU Soil Observatory (EUSO) and with other projects to be funded under the Soil Mission.

Soil-friendly practices in horticulture, including alternative growing media

HORIZON-MISS-2023-SOIL-01-05

IA

MISSION: A SOIL DEAL FOR EUROPE

OPENING
17/01/2023

DEADLINE
20/09/2023



Per topic: **13.00 M€**

Per project: **6.50 M€**

Up to 2 projects

Identify, develop and promote horticultural practices and production systems that conserve or improve soil health.

Demonstrate the feasibility and economic viability of the newly developed alternatives to the use of peat in horticulture.

Generate data to support improved environmental, social, health and safety performance of alternative

growing media in a life-cycle perspective and taking into account potential trade-offs and indirect consequences, including outside of the EU, where relevant.

Develop and/or improve sustainable management practices in horticulture to reduce the use of inputs such as plant protection products, fertilizers and water in horticultural crops.

→ Proposals should demonstrate a route towards open access, longevity, sustainability and interoperability of knowledge and outputs through close collaboration with the EU Soil Observatory and other projects funded under the Mission 'A Soil Deal for Europe'.

Back to earth: bringing communities and citizens closer to soil

HORIZON-MISS-2023-SOIL-01-07

RIA

MISSION: A SOIL DEAL FOR EUROPE

OPENING
17/01/2023

DEADLINE
20/09/2023



Per topic: **6.00 M€**

Per project: **6.00 M€**

Up to 1 project

CCIs, artists and civil society organisations can play a significant role in promoting a green transition by engaging people and giving visibility to environmental issues. Working together with soil experts, they can

contribute to increasing soil literacy by mobilising the population in the protection and restoration of soil health as well as by tackling soil challenges through creative activities.

→ Proposals are encouraged to demonstrate a route towards open access, longevity, sustainability and interoperability of knowledge and outputs through close collaboration with the European Soil Observatory (EUSO).

Co-creating solutions for soil health in Living Labs

HORIZON-MISS-2023-SOIL-01-08

RIA

MISSION: A SOIL DEAL FOR EUROPE

OPENING
17/01/2022

DEADLINE
20/09/2023

Per topic: **36.00 M€**
Per project: **12.00 M€**
Up to 3 projects



The Mission 'A Soil Deal for Europe' proposes a novel approach to research and innovation in the area of soil health, including the implementation of living labs. Living labs have the potential to empower a

green transition towards healthy soils by developing solutions in a co-creative manner and involving actors in real life settings at territorial level to achieve large-scale impact.

→ Proposals are encouraged to demonstrate a route towards open access, longevity, sustainability and interoperability of knowledge and outputs through close collaboration with the European Soil Observatory (EUSO).





Citizen science

Developing a Data Quality and Utility Label for the European Health Data Space

HORIZON-HLTH-2023-TOOL-05-09

CSA

HEALTH

OPENING
12/01/2023

DEADLINE
13/04/2023

Per topic: **4.00 M€**
Per project: **4.00 M€**
Up to 1 project

A vast quantity of health datasets exist across Europe, from multiple sources (individual care, medical registries, social, environmental behavioural, wellbeing, clinical trials, research, administrative, etc.), and of varying quality. This represents a

tremendous opportunity for the reuse of this data for purposes other than for the one for which they were originally collected and spur the development of better prevention strategies, diagnoses, treatments and care plans.

→ To support data users in the discovery and selection of datasets for their purposes, there is a growing need to develop a data quality and utility framework to articulate the characteristics and the potential usefulness of datasets.

Improving the evidence base regarding the impact of sustainability and climate change education and related learning outcomes

HORIZON-CL5-2023-D1-01-10

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING
13/12/2022

DEADLINE
18/04/2023

Per topic: **5.00 M€**
Per project: **5.00 M€**
Up to 1 project

Better understanding and providing recommendations on how to measure what learners actually learn and how this influences mind-set

and actions on sustainability at the individual and collective level.

→ Better understanding and providing recommendations on how to measure what learners actually learn and how this influences mind-set and actions on sustainability at the individual and collective level.

Advanced transport emissions monitoring networks

HORIZON-CL5-2023-D5-01-18

IA

CLIMATE, ENERGY AND MOBILITY

OPENING
13/12/2022

DEADLINE
20/04/2023

Per topic: **10.00 M€**
Per project: **5.00 M€**
Up to 2 projects

Install monitoring stations around ports and airports, allowing for instance to monitor and enforce the respect of fuel use mandates, correct noise

abatement procedures, aircraft type limitations, etc. Projects should achieve synergies between the monitored cities, ports and airports.

→ Stimulate citizen awareness and engagement in the Zero Pollution strategy (also through citizen science approach)

→ Design, testing and demonstration of applications to monitor some of the emissions will be developed in cooperation with the involved cities, citizen associations, and authorities, to achieve the best use of monitoring data, using Citizen science approach.



Biodiversity loss and enhancing ecosystem services in urban and peri-urban areas

HORIZON-CL6-2023-BIODIV-01-11

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/03/2023



Develop a replicable methodology for cities and urban areas across Europe to co-design pathways, a shared long-term vision, an integrated strategy with policies and an action plan (e.g., with responsibilities,

Per topic: **5.00 M€**
Per project: **5.00 M€**
Up to 1 project

timeline and financing) towards the urban ecosystem restoration targets as formulated in the Commission proposal for a nature restoration law.

→ Engage in the testing cities with different departments of local authorities, local research and technical organisations, big urban/ land managers or users, including farmers, citizen, including vulnerable groups, SMEs such as nature-based enterprises, etc. Citizen science approach could be used for this purpose.

Impact of light and noise pollution on biodiversity

HORIZON-CL6-2023-BIODIV-01-2

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/03/2023



Better understand the overall impact of light and noise pollution of emerging concern on biodiversity, in particular how the conservation status of species

Per topic: **7.00 M€**
Per project: **3.50 M€**
Up to 2 projects

and habitats is affected, mechanisms at stake and how to monitor and mitigate adverse effects.

→ Participatory approaches, such as citizen science, could be appropriate model of research for this action, for better investigating how the noise and light pollution affect the conservation status of species and habitats.

Interdisciplinary assessment of changes affecting terrestrial and freshwater ecosystems, building on observation programmes

HORIZON-CL6-2023-BIODIV-01-3

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/03/2023

Per topic: **6.00 M€**
Per project: **6.00 M€**
Up to 1 project



Foster a collective effort in the EU Member States and Horizon Europe Associated Countries to assess the status of terrestrial, freshwater, and transitional (land to sea) ecosystems and prioritise conservation and restoration actions of these ecosystems.

→ Extensive use of ground based and/or airborne in-situ observation using, as appropriate, existing networks, novel observing systems, or citizen science, together with satellite data for assessing the impact of the main natural and anthropogenic pressures on the ecological processes of natural ecosystems, and on their dynamics and functioning (i.e., addressing individual and cumulative effects of multiple stressors), including in exploiting available high-resolution remote-sensing data.

Circular Cities and Regions Initiative (CCRI)'s circular systemic solutions

HORIZON-CL6-2023-CircBio-02-1-two-stage

IA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING

DEADLINES

22/12/2022

1st stage
28/03/2023

2nd stage
28/09/2023

Per topic: **58.00 M€**
Per project: **9.00 - 10.00 M€**
Up to 6 projects



Implement and demonstrate at large scale circular systemic solutions for the deployment of the circular

economy (including the circular bioeconomy) in cities and regions or their groupings.

→ Since Circular systemic solutions should identify, analyse and, when feasible, quantify the economic, social and environmental benefits and trade-offs/challenges related to their implementation and demonstration, Citizen science could be appropriate mode of research to increased practices and participation of citizens in circular systemic solutions.

European partnership on accelerating farming systems transition – agroecology living labs and research infrastructures

HORIZON-CL6-2023-FARM2FORK-01-1

COFUND

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
12/04/2023

Per topic: **60.00 M€**
Per project: **60.00 M€**
Up to 1 project



Coordinate research and innovation programmes on agroecology between the EU and its Member States and Associated Countries and trigger combined actions, that will boost fundamental research on agroecology through to applied research.

→ Empowering citizens to contribute to the co-design/co-creation/co-assessment of research and innovation agendas/contents/outcomes, in order to enhance the societal impact of the activities.

Reducing observation gaps in the land-sea interface area

HORIZON-CL6-2023-GOVERNANCE-01-11

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/03/2023

Per topic: **6.00 M€**
Per project: **6.00 M€**
Up to 1 project



Assessment of current in-situ observing capabilities and protocols of the terrestrial and marine domains and 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.

→ Extensive use of ground based and/or airborne in-situ observation using, as appropriate, existing networks, novel observing systems, or citizen science, together with satellite data for assessing the impact of the main natural and anthropogenic pressures on the ecological processes of natural ecosystems, and on their dynamics and functioning (i.e., addressing individual and cumulative effects of multiple stressors), including in exploiting available high-resolution remote-sensing data.

Circular Cities and Regions Initiative (CCRI)'s circular systemic solutions

HORIZON-CL5-2023-D5-01-18

IA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
13/12/2022

DEADLINE
20/04/2023

Per topic: **10.00 M€**

Per project: **5.00 M€**

Up to 2 projects



Install monitoring stations around ports and airports, allowing for instance to monitor and enforce the respect of fuel use mandates, correct noise abatement procedures, aircraft type limitations, etc. Projects should achieve synergies between the monitored cities, ports and airports.

- Stimulate citizen awareness and engagement in the Zero Pollution strategy (also through citizen science approach)
- Design, testing and demonstration of applications to monitor some of the emissions will be developed in cooperation with the involved cities, citizen associations, and authorities, to achieve the best use of monitoring data, using Citizen science approach.

European partnership on accelerating farming systems transition – agroecology living labs and research infrastructures

HORIZON-CL6-2023-FARM2FORK-01-1

COFUND

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
12/04/2023

Per topic: **60.00 M€**

Per project: **60.00 M€**

Up to 1 project



Implement and demonstrate at large scale circular systemic solutions for the deployment of the circular

economy (including the circular bioeconomy) in cities and regions or their groupings.

- Coordinate research and innovation programmes on agroecology between the EU and its Member States and Associated Countries and trigger combined actions, that will boost fundamental research on agroecology through to applied research.

Reducing observation gaps in the land-sea interface area

HORIZON-CL6-2023-GOVERNANCE-01-11

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
23/03/2023

Per topic: **9.00 M€**
Per project: **9.00 M€**
Up to 1 project



Assessment of current in-situ observing capabilities and protocols of the terrestrial and marine domains and 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.

→ 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.

Empowering citizens to monitor, report and act in partnership with relevant public authorities to protect their environment in the context of environmental compliance assurance

HORIZON-CL5-2023-D5-01-18

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
23/03/2023

Per topic: **7.00 M€**
Per project: **7.00 M€**
Up to 1 project



Support citizen engagement in particular by encouraging the validation and uptake of citizen

observations by relevant public authorities for environmental compliance assurance.

→ Creating synergies with the citizen science development efforts of the destination Earth initiative, by 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.).

Digital technologies supporting plant health early detection, territory surveillance and phytosanitary measures

HORIZON-CL6-2023-GOVERNANCE-01-16

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
23/03/2023

Per topic: **10.00 M€**

Per project: **5.00 M€**

Up to 2 projects



Develop more cost-effective approaches to detect and discriminate infested plants, including trees,

at large spatial scales and within reasonable time frames.

→ 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.

Tackling human and climate change induced pollution in the Arctic - building resilient socio-ecological systems

HORIZON-CL6-2023-ZEROPOLLUTION-01-3

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/03/2023

Per topic: **12.00 M€**

Per project: **6.00 M€**

Up to 2 projects



Developing innovative approaches to address only one of the following options:

1. Identify, assess, and analyse major impacts and risks of remote and local sources of pollution on the health, well-being and food security of Arctic societies and ecosystems and beyond, and propose

adaptation and resilience strategies.

2. Address and analyse the adverse effects and pollution risks linked to permafrost thaw, infrastructure degradation and failure, and other associated risks for the environment and human health and well-being.

→ Adopt a transdisciplinary approach, with simultaneous analysis of environmental, societal, climatic and biodiversity impacts, their relationships and interlinkages, and positive and negative feedbacks. Therefore, participation of technical sciences, citizen sciences and humanities disciplines is important for addressing the complex challenges of this topic, as well as engaging local communities in the research process.

→ Contribute to the Assessment and monitoring tools developed for pollution impacts, using participatory approaches, citizen science and involving local and indigenous communities.

Biosensors and user-friendly diagnostic tools for environmental services

HORIZON-CL6-2023-ZEROPOLLUTION-01-6

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/03/2023

Per topic: **8.00 M€**
Per project: **4.00 M€**
Up to 2 projects



Development of high-resolution biosensors for environmental monitoring and detection.

→ Increase of the awareness and understanding of the underpinning technologies by participatory approaches such as citizen engagement.

Strategies to prevent and reduce plastic packaging pollution from the food system

HORIZON-CL6-2023-ZEROPOLLUTION-01-7

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
23/03/2023

Per topic: **8.00 M€**
Per project: **4.00 M€**
Up to 2 projects



Develop innovative business strategies, design and production models that improve the prevention,

reduction and reuse of plastic food packaging.

→ Provide a comprehensive and evidenced based analysis of the negative impacts and externalities of littered plastic food packaging in the different ecosystems, collected by multiple sources, including citizen science tools.

European natural lakes: demonstration of integrated approaches for protection and restoration of natural lake ecosystems and their biodiversity

HORIZON-MISS-2023-OCEAN-01-04

IA

MISSION: RESTORE OUR OCEAN AND WATERS BY 2032

OPENING
17/01/2023

DEADLINE
20/09/2023

Per topic: **12.00 M€**
Per project: **4.00 M€**
Up to 3 projects



The proposals should design and demonstrate integrated and replicable approaches to protect and restore natural lake ecosystems and their biodiversity that result in a significantly improved ecological and chemical status and maintain it in the long-term. The integrated approaches should cover physical and

biochemical elements and address in an integrated way all main pressures on the lake ecosystem, (e.g.: water level regulation, water extraction, agriculture, soil pollution etc.). Proposals should also consider threats and risks associated to climate change and pressures on biodiversity.

→ Local actors, including where appropriate, the European Solidarity Corps and Mission Citizen Assemblies, should be involved in ecosystem restoration and protection activities and any actions for social and economic transitions towards sustainable inclusive and long-term management of the restored ecosystems, using activities like citizen science to encourage involvement and stewardship of lakes and their catchments.

Mission Climate adaptation, Mission Ocean & waters and Mission Soil Deal for Europe – Joint demonstration of an integrated approach to increasing landscape water retention capacity at regional scale

HORIZON-MISS-2023-CLIMA-OCEAN-SOIL-01-01

IA

MISSIONS' JOINT CALLS

OPENING
17/01/2023

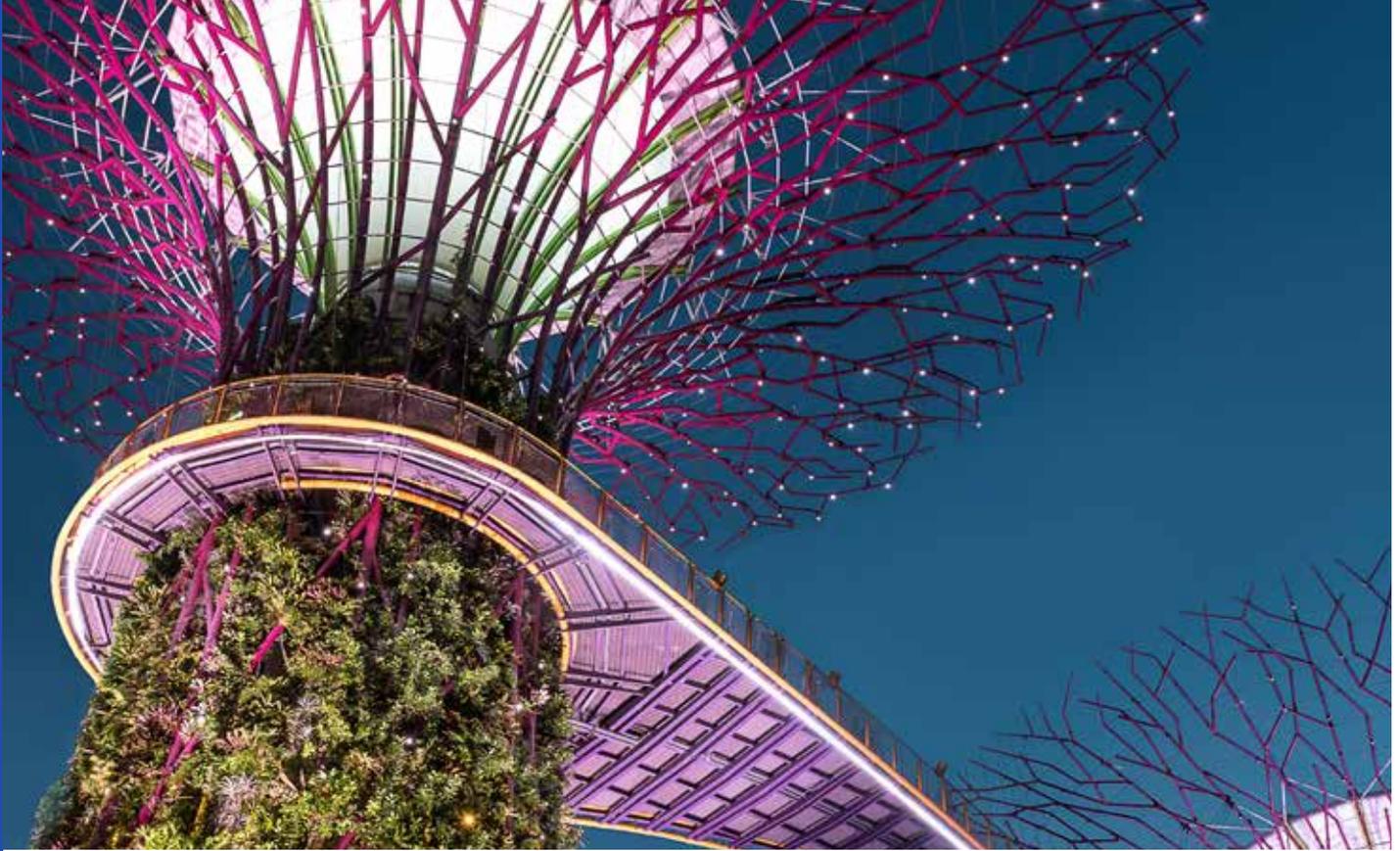
DEADLINE
20/09/2023

Per topic: **16.00 M€**
Per project: **8.00 M€**
Up to 2 projects

Projects should demonstrate socio-ecological approaches and nature-based solutions to increase landscape and soil water retention capacity, leading to improvement of quality and quantity of ground and surface waters in the area where they are deployed, and boosting resilience to climate change impacts.

A combination of nature-based measures with hybrid solutions and relevant Blue-Green engineering may be considered, provided these combined solutions are sustainable and provide adequate social and environmental safeguards.

→ Planning, implementation and management of effective measures to increase landscape water retention capacity requires involvement of various stakeholders and their expertise, such as land, owners, spatial planning and other local and regional authorities, soil protection and management experts, water management and planning bodies, landscape planning experts, farmers and forest managers. Local authorities and local communities should be involved in the design and implementation of the solutions, to ensure that these are well suited for local needs and conditions and are “owned” by the local communities. Activities should, therefore, promote the involvement of local communities as well as the relevant authorities, to consider with them the impact of intended actions, and to co-create measures while taking local communities’ needs and values on board. The proposals should involve citizens, including where appropriate European Solidarity Corps, and relevant citizen science activities.



Science Education

Relationship between infections and non-communicable diseases

HORIZON-HLTH-2023-DISEASE-03-07

RIA

HEALTH

OPENING
12/01/2023

DEADLINE
13/04/2023

Per topic: **30.00 M€**

Per project: **6.00-7.00 M€**

Up to 5 projects

Increasing evidence suggests that several infections might influence the development of many non-communicable diseases (e.g. multiple sclerosis, Alzheimer, post-covid-19 condition¹⁴³), or that NCD may be influenced by concurrent presence in the same individual of one (or more) infections. On the other hand, NCDs might represent risk factors for IDs. The proposals are expected to elucidate and provide a better understanding of causative links between infections and non-communicable diseases onsets, and/or the impact of infections

on the exacerbation of existing NCDs or vice versa, in children and/or adults. The analysis of genetics, immune status, immune or inflammatory responses, microbiome, lifestyle and/or other relevant factors (e.g. differences in age, sex/gender, vaccination status, ethnicity) should be integrated to get information for prevention, early diagnosis, risk factors, and to better understand causative links as well as the progression of those non-communicable diseases.

→ Development of training courses on pollution and health impacts to inform professionals impacting our daily lives e.g. medical personnel, engineers, teachers, urban planners.

Cultural and creative approaches for gender-responsive STEAM education

HORIZON-CL2-2023-HERITAGE-01-08

CSA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING
14/12/2022

DEADLINE
14/03/2023

Per topic: **30.00 M€**

Per project: **2.00-3.00 M€**

Up to 1 project



The action should establish a coordination network between the CCIs, technological enterprises, SMEs, secondary and higher education institutions, and other relevant organisations, including digital

citizen platforms to develop a better understanding of the potential benefits of cultural and artistic approaches in traditional STEM education, research and innovation.

Projects should contribute to all of the following expected outcomes:

- A coordination network between organisations from the cultural and creative industries (CCIs), civil society, technological enterprises, secondary and higher education institutions and digital citizen platforms to foster the uptake of artistic, cultural and social science approaches in STEM education, research and innovation.
- Increased understanding about the benefits of integrating artistic, cultural and social science approaches in STEM education, research and innovation and its impact on competitiveness, gender equality and career perspectives.
- Pilot for the first European Union “STE(A)M week for future women innovators” together with science and technology museums, technological enterprises, secondary and higher education institutions, CCIs and relevant civil society organisations, engaging at least 4000 students in STEM educational activities through cultural and creative approaches.
- STEAM skills development and increased interest in new technologies, including those applied to cultural value chains and cultural heritage, to bridge the gender gap.



The climate imperative and its impact on democratic governance

HORIZON-CL2-2023-DEMOCRACY-01-05

CSA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING
12/01/2023

DEADLINE
13/04/2023

Per topic: **30.00 M€**

Per project: **6.00-7.00 M€**

Up to 1 project



Proposals under this topic should help reinvigorate democratic governance by suggesting pathways for improved effectiveness of rule-of-law based institutions and policies, notably pathways for open government practices that enable active

civic participation throughout the policymaking process. They should help strengthen social and economic resilience and sustainability through a better understanding of the relationship between democratic governance and the climate imperative.

→ Improve policymaking approaches at all levels of government through recommendations to address the climate imperative in a democratic manner supported by citizens, balancing it with other policy imperatives, including the role of education in fostering climate literacy.

Promoting cultural literacy through arts education to foster social inclusion

HORIZON-CL2-2023-HERITAGE-01-07

CSA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING
12/01/2023

DEADLINE
13/04/2023

Per topic: **30.00 M€**

Per project: **6.00-7.00 M€**

Up to 5 projects



Projects should contribute to all of the following expected outcomes:

- increase understanding of the value of cultural literacy on social cohesion and the increase of tolerance on cultural diversity,
- provide innovative policy solutions that will increase cultural literacy in Europe through formal and non-formal education, as well as ways to integrate them into the education policies,
- foster cultural literacy around European cultures.

- Research proposals should first analyse the role of arts in the different stages of education (primary, secondary and/or higher education), including in non-formal education (especially in cases when non-formal education methods are integrated in formal education curricula) as well as how arts education can enhance/promote cultural literacy, aiming to develop prosperous, inclusive, and sustainable societies.
- This analysis should include an indicative/representative examination of educational systems where cultural literacy education is well integrated as well as systems where it is less integrated or even absent (vis a vis indicators on multicultural competence).
- The research proposals should examine the implementation/development of cultural literacy in Europe in the different stages of education including in non-formal education (taking also into consideration digital experiences) and identify the main barriers and needs for the integration of cultural literacy in education policies.
- Therefore, the proposals under this topic should develop innovative policy solutions/ recommendations to increase cultural literacy to positively affect society and provide ways that those solutions could be integrated into the education policies in Europe.

The climate imperative and its impact on democratic governance

HORIZON-CL4-2023-HUMAN-01-54

CSA

DIGITAL, INDUSTRY AND SPACE

OPENING
12/01/2023

DEADLINE
13/04/2023

Per topic: **30.00 M€**

Per project: **6.00-7.00 M€**

Up to 1 project



Reduce skills gaps that hold back the green and digital transitions (skills development programmes/training modules)

Support collective action on skills development by companies and providers of education and training, support deep-tech innovation and contribute to the European Year of Skills 2023

Support the training of advanced ICT-specialist skills or other key digital technologies' skills that would contribute to industrial leadership and strategic autonomy and rely on advanced specialised know-how, and to reaching the digital decade targets

- Develop deep tech skills and training programmes in the fields critical for the green and digital transitions, such as circularity, raw and advanced materials, energy-intensive and manufacturing industries, clean-tech, and digital technologies.

Green and digital skills and training needs for a just transition

HORIZON-CL4-2023-HUMAN-01-54

CSA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING
12/01/2023

DEADLINE
13/04/2023



Per topic: **30.00 M€**

Per project: **6.00-7.00 M€**

Up to 1 project

Reduce skills gaps that hold back the green and digital transitions (skills development programmes/training modules)

Support collective action on skills development by companies and providers of education and training, support deep-tech innovation and contribute to the

European Year of Skills 2023

Support the training of advanced ICT-specialist skills or other key digital technologies' skills that would contribute to industrial leadership and strategic autonomy and rely on advanced specialised know-how, and to reaching the digital decade targets

→ Develop deep tech skills and training programmes in the fields critical for the green and digital transitions, such as circularity, raw and advanced materials, energy-intensive and manufacturing industries, clean-tech, and digital technologies.

Coordination and knowledge sharing across materials development communities

HORIZON-CL4-2023-RESILIENCE-01-39

CSA

DIGITAL, INDUSTRY AND SPACE

OPENING
12/01/2023

DEADLINE
13/04/2023



Per topic: **30.00 M€**

Per project: **6.00-7.00 M€**

Up to 5 projects

Need to integrate and unify digital and materials competences and resources, including data, ontologies, characterisation and modelling, as well as robotics and machine learning, to accelerate the design, development, production and application of advanced materials with the desired manufacturing

processes, properties, durability, and end of life. The lack of integration is a major challenge for the advanced materials design and development serving the innovation markets, including the related value chains.

→ Establish training schemes to facilitate skills development, reskilling and upskilling in the relevant methodologies, with particular emphasis on digital skills for all interested stakeholders.

Factory-level and value chain approaches for remanufacturing (Made in Europe Partnership)

HORIZON-CL4-2023-TWIN-TRANSITION-01-04:

CSA

DIGITAL, INDUSTRY AND SPACE

OPENING
12/01/2023

DEADLINE
13/04/2023

Per topic: **30.00 M€**

Per project: **6.00-7.00 M€**

Up to 1 project



Remanufacturing is an industrial process in which at least one change is made to waste products or components affecting their safety, performance, purpose or type.

Remanufacturing aims to retain the usefulness of both products and components and is an essential step in achieving full industrial circularity without implying deterioration of the product.

→ Skills and education capabilities for remanufacturing.

Circular economy in process industries: Upcycling large volumes of secondary resources (Processes4Planet partnership)

HORIZON-CL4-2023-HUMAN-01-54

CSA

DIGITAL, INDUSTRY AND SPACE

OPENING
12/01/2023

DEADLINE
13/04/2023

Per topic: **30.00 M€**

Per project: **6.00-7.00 M€**

Up to 1 project



The focus of this topic is the upcycling of secondary resources that must lead to the same quality and diversity of products as those obtained when using primary resources. The innovation needed will depend on the addressed waste category. However,

even if the upcycling technologies may be sector specific, the cross-sectorial elements are important and should deserve due attention.

→ Particular attention should be given to the cooperation with existing initiatives that have developed education and skills activities and outcomes in this area.

Improving the evidence base regarding the impact of sustainability and climate change education and related learning outcomes

HORIZON-CL5-2023-D1-01-10

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING
13/12/2022

DEADLINE
18/04/2023

Per topic: **5.00 M€**
Per project: **5.00 M€**
Up to 1 project



Better understanding and providing recommendations on how to measure what learners actually learn and how this influences mind-set

and actions on sustainability at the individual and collective level.

- Assessment and monitoring the impact that sustainability-related education has, for effective policy-making, including development and revision of curricula and study programmes.
- Improved methods for measuring impact and implementation of sustainability and climate-related education.
- Better feedback-loops between improved output-oriented monitoring of sustainability and climate-related education and education policy-related decision-making, to ensure that policy and programmes remain relevant and effective.
- Develop a methodology tailored for conducting impact assessments and evaluations of policies on learning for sustainability, addressed to and adaptable to different education and training approaches and levels in a life-long learning context (i.e. early childhood education and care, school, vocational education and training (VET) and higher education, citizen science, non-formal learning).

CCAM effects on jobs and education, plans for skills that match the CCAM development, and prerequisites for employment growth (CCAM Partnership)

HORIZON-CL5-2023-D6-01-05

CSA

CLIMATE, ENERGY AND MOBILITY

OPENING
04/12/2023

DEADLINE
05/09/2023

Per topic: **2.00 M€**
Per project: **3.00 M€**
Up to 1 project



Anticipate and mitigate the impacts and rebound effects on jobs due to the deployment of road based Cooperative, connected and automated mobility

(CCAM) systems and services, as well as boost innovation capabilities through the availability and upscaling of CCAM-specific professional skills.

- Develop networking and collaboration schemes on higher education curricula and programmes on NBS (nature-based solutions), as well as researcher mobility initiatives.
- Develop and disseminate concrete guidance for higher education institutions.
- Support and promote the teaching of NBS co-design and co-creation (considering biodiversity and ecosystem services as their fundamental building blocks) as part of high education degrees and further education qualifications. Explore ways of raising awareness and teaching the importance of biodiversity, including genetic, functional and taxonomic diversity, and ecosystem services, including carbon sequestration, climate resilience and pollution reduction, especially in those academic fields where this is still greatly lacking (e.g., economics, engineering, etc).

Harnessing the innovation potential and market uptake of successful circular economy water related projects

[HORIZON-CL6-2023-CircBio-01-3](#)

CSA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/03/2023

Per topic: **2.00 M€**

Per project: **2.0 M€**

Up to 1 project



Contribute achieving sustainable and circular management and use of water resources, as well as prevention and removal of pollution, in particular the expected impact of the Destination 'Circular

economy and bioeconomy sectors' to 'Accelerate transitions towards a sustainable, regenerative, inclusive, just and clean circular economy based on enhanced knowledge and understanding of science'.

- Develop new education and training programmes to upskill young professionals in relevant sectors in relation to the circular use of water along the water cycle.

Thematic network ensuring food safety by translating research and innovation into practice

[HORIZON-CL6-2023-FARM2FORK-01-12](#)

CSA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
12/04/2023

Per topic: **2.00 M€**

Per project: **2.0 M€**

Up to 1 project



Contribute to the creation of a thematic network in the area of food safety.

- Improved skills and long-term availability of training and education material and on-line communities for end-users on how to ensure food safety.
- Creation of an on-line collaborative space that remain active in the long-term including the availability of materials for training and education.

Empowering citizens to monitor, report and act in partnership with relevant public authorities to protect their environment in the context of environmental compliance assurance

HORIZON-CL6-2023-GOVERNANCE-01-12

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
23/03/2023

Per topic: **7.00 M€**
Per project: **7.00 M€**
Up to 1 project



Support citizen engagement in particular by encouraging the validation and uptake of citizen

observations by relevant public authorities for environmental compliance assurance.

- Organize awareness raising activities on environmental compliance assurance.

Broaden EIP Operational Group outcomes across borders by means of thematic networks to compile and share knowledge ready for practice

HORIZON-CL6-2023-GOVERNANCE-01-18

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
23/03/2023

Per topic: **4.00 M€**
Per project: **2.00 M€**
Up to 2 projects



Focus on knowledge sharing in a language that is easy to understand and targeted to farmers and foresters.

- 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.

Thematic networks to compile and share knowledge ready for practice

HORIZON-CL6-2023-GOVERNANCE-01-18

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
23/03/2023

Per topic: **6.00 M€**
Per project: **3.00 M€**
Up to 2 projects



Focus on knowledge sharing in a language that is easy to understand and targeted to farmers and foresters.

- 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.

Developing an EU advisory network on organic agriculture

HORIZON-CL6-2023-GOVERNANCE-01-18

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
23/03/2023

Per topic: **6.00 M€**
Per project: **3.00 M€**
Up to 2 projects



Set up an EU advisory network dedicated to organic farming, covering both organic plant production systems and organic animal husbandry.

- 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.
- 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.

Developing EU advisory networks to reduce the use of pesticides

HORIZON-CL6-2023-GOVERNANCE-01-21

CSA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
23/03/2023

Per topic: **4.00 M€**
Per project: **4.00 M€**
Up to 1 project



Focus 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.

- 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.
- Creating added value by better linking research, education, advisors and farming practice and encouraging the wider use of available knowledge across the EU.

Developing EU advisory networks on the optimal fertiliser use

HORIZON-CL6-2023-GOVERNANCE-01-22

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
23/03/2023

Per topic: **4.00 M€**
Per project: **4.00 M€**
Up to 1 project



Focus on the important role advisors can play in relation to the soaring fertilizer prices and the ambition of the 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

- 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.
- Creating added value by better linking research, education, advisors and farming practice and encouraging the wider use of available knowledge across the EU.

Developing an interdisciplinary and inclusive pan-European academic network for food system science

HORIZON-CL6-2023-GOVERNANCE-01-18

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
23/03/2023

Per topic: **6.00 M€**
Per project: **3.00 M€**
Up to 1 project



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.

- 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.

Mobilising BIOEAST networks for the development of national bioeconomy action programmes in support of the European Green Deal

HORIZON-CL6-2023-GOVERNANCE-01-18

CSA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
23/03/2023

Per topic: **3.50 M€**
Per project: **3.50 M€**
Up to 2 projects



Support R&I to strengthen the national bioeconomy networks in BIOEAST (The Central-Eastern European Initiative for Knowledge-based Agriculture, Aquaculture and Forestry in

the Bioeconomy) countries for the development of national bioeconomy action programmes and engage relevant stakeholders in the development of the action plans.

- 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.
- 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.

Testing and demonstrating transformative solutions to build resilience towards health risks caused by the effects of climate change

HORIZON-MISS-2023-CLIMA-01-03

IA

MISSION: ADAPTATION TO CLIMATE CHANGE

OPENING
10/01/2022

DEADLINE
20/09/2023

Per topic: **18.00 M€**

Per project: **4.50-6.00 M€**

Up to 3 projects



Test and demonstrate solutions that address the two aspects 1. improve prevention (i.e. Strengthening comprehensive and user friendly epidemiological surveillance and modelling and forecasting tools)

and policy-making and 2. improve preparedness of health systems (i.e. Development of innovative solutions to reduce impact of climate change on human health and wellbeing).

- The selected proposal should help citizens to make responsible choices in relation to the seasonality of fishes and to fish population decline and, when relevant, to the sustainability of fishing techniques. The campaign should be performed by using the most effective and creative media, tools and types of initiatives to ensure a broad outreach targeting different segments of consumers, including children.
- Activities under this topic should also increase awareness and encourage consumption and purchase of seasonal and local seafood and aquaculture products, as well as awareness on health benefits and nutritional value of aquatic food.

Choose your fish: a campaign for responsible consumption of products from the sea

HORIZON-MISS-2023-OCEAN-01-10

CSA

MISSION: RESTORE OUR OCEAN AND WATERS BY 2030

OPENING
17/01/2022

DEADLINE
20/09/2023

Per topic: **2.00 M€**

Per project: **2.00 M€**

Up to 1 project



Consumers can play a key role in realising the vision of “living well within the limits of our planet”, and can drive sustainable and responsible patterns, including the responsible consumption of seafood and aquaculture products. The selected proposal

should help citizens to make responsible choices in relation to the seasonality of fishes and to fish population decline and, when relevant, to the sustainability of fishing techniques. The campaign

should be performed by using the most effective and creative media, tools and types of initiatives to ensure a broad outreach targeting different

segments of consumers, including children.

- The selected proposal should help citizens to make responsible choices in relation to the seasonality of fishes and to fish population decline and, when relevant, to the sustainability of fishing techniques. The campaign should be performed by using the most effective and creative media, tools and types of initiatives to ensure a broad outreach targeting different segments of consumers, including children.
- Activities under this topic should also increase awareness and encourage consumption and purchase of seasonal and local seafood and aquaculture products, as well as awareness on health benefits and nutritional value of aquatic food.

Ocean & water and arts: the contribution of creative sectors to Mission Ocean and waters

HORIZON-MISS-2023-OCEAN-01-11

CSA

MISSION: RESTORE OUR OCEAN AND WATERS BY 2030

OPENING
17/01/2023

DEADLINE
20/09/2023



Art and creative sectors can play an important role in the mobilisation of citizens, stakeholders and civil society actors, such as NGOs and the philanthropic community, for the protection and restoration of the ocean and inland waters, their biodiversity, aesthetic and cultural heritage. Creative activities can also play an important role in addressing the challenges

Per topic: **50.00 M€**
Per project: **25.00 M€**
Up to 2 projects

of coastal areas. In this context, this action should bring together citizens, museums, aquaria, research institutions, engineers, architects, the civil society and citizens with artists and other creative sectors to foster interdisciplinary experimentation and entrepreneurship.

- Mobilisation of artistic communities (e.g. visual arts, literary arts, performing arts, architects) and creative sectors (e.g., entities and associations operating in cultural, artistic, educational fields) for the protection and restoration of ocean, seas and inland waters and their biodiversity and for and empowerment of these communities and citizens to act against pollution and destruction of marine and freshwater ecosystems.
- Strong and innovative ocean and water literacy activities aimed at the general public designed with the participation of the relevant scientific and research communities, as well as civil society actors.

Soil-friendly practices in horticulture, including alternative growing media

HORIZON-MISS-2023-SOIL-01-05

IA

MISSION: A SOIL DEAL FOR EUROPE

OPENING
17/01/2022

DEADLINE
20/09/2023



Per topic: **13.00 M€**

Per project: **6.50 M€**

Up to 2 projects

Identify, develop and promote horticultural practices and production systems that conserve or improve soil health.

Demonstrate the feasibility and economic viability of the newly developed alternatives to the use of peat in horticulture.

Generate data to support improved environmental, social, health and safety performance of alternative

growing media in a life-cycle perspective and taking into account potential trade-offs and indirect consequences, including outside of the EU, where relevant.

Develop and/or improve sustainable management practices in horticulture to reduce the use of inputs such as plant protection products, fertilizers and water in horticultural crops.

→ Develop and test material for awareness raising, dissemination and training to promote the uptake of soil-friendly horticultural practices. This material should be used by agricultural advisory services, in vocational training and other relevant contexts.

Back to earth: bringing communities and citizens closer to soil

HORIZON-MISS-2023-SOIL-01-07

RIA

MISSION: A SOIL DEAL FOR EUROPE

OPENING
17/01/2022

DEADLINE
20/09/2023



Per topic: **6.00 M€**

Per project: **6.00 M€**

Up to 1 project

CCIs, artists and civil society organisations can play a significant role in promoting a green transition by engaging people and giving visibility to environmental issues. Working together with soil experts, they can contribute to increasing soil literacy by mobilising

the population in the protection and restoration of soil health as well as by tackling soil challenges through creative activities.

- Cultural and creative industries (CCIs), artists and civil society organisations are mobilised and work together alongside with universities, research institutes and public institutions and citizens to increase soil literacy in society.
- Various and innovative methodologies and tools to increase citizens' awareness and engagement should be tested in different contexts to reach and involve a large number of people with the overall scope of increasing soil literacy across society.
- Organise regular festivals (at least two) open to the public with the participation of the projects and initiatives financed through the financial support to third parties to present activities aimed at increasing soil literacy across society to a broader audience. The festival should give visibility to exemplary projects in particular areas, for example (but not exclusively) through awards.

Mission Ocean and Waters and Mission A Soil Deal for Europe – Joint demonstration of approaches and solutions to address nutrient pollution in the landscape-river-sea system in the Mediterranean sea basin

[HORIZON-MISS-2023-OCEAN-SOIL-01-01](#)

IA

MISSION'S JOINT CALLS

OPENING
17/01/2023

DEADLINE
20/09/2023

Per topic: **15.00 M€**
Per project: **15.00 M€**
Up to 1 project

Proposals should demonstrate scalable breakthrough innovations in the landscape-river catchment-sea system, including coastal ecosystems, in the Mediterranean Sea basin addressing all following issues: Upstream prevention and reduction of nutrient losses from soil, and of soil and water pollution from excess nutrients, such as through reduction in the use of traditional/mineral fertilisers and/or their sustainable substitution with bio-based fertilisers, improved nutrient retention in soil and slower release to crops, improved nutrient use efficiency, integrated landscape and soil management, reduction of nutrient losses

from rural and urban communities; Prevention of entry of nutrients in river catchment areas and their reduction, for example through improved wastewater treatment, use of green filters and other measures for reducing the flow of nutrients through the river system and prevention and reduction of their entry into the estuary/sea; Measures to reduce/eliminate excess nutrients in/from the estuary/sea to reduce or eliminate the risk of eutrophication.

- Include dedicated training and communication activities taking place in the demonstration sites, for dissemination and accelerated adoption by other potential users of the approaches demonstrated in the project, as well as for citizen engagement and soil, water and ocean literacy improvement (including for advisory services).



Ethics/Research Integrity

Resilience and mental wellbeing of the health and care workforce

HORIZON-HLTH-2023-CARE-04-02

RIA

HEALTH

OPENING
12/01/2023

DEADLINE
13/04/2023

Per topic: **20.00 M€**

Per project: **4.00-6.00 M€**

Up to 4 projects

Proposals under this topic should aim at Health and care workers receive support (including mental health support), access to tools and guidance that enhances their wellbeing and ability to adapt to changing working conditions; Decision- and policymakers, employers and social partners in the health and care sectors to promote knowledge of the specific risks for the resilience, mental health

and wellbeing of health and care professionals and informal carers; Funders of health and care provision have access to evidence, novel approaches and cost-effective recommendations for interventions supporting the mental health and wellbeing of health and care workers at individual, organisation and sector levels.

→ Applicants envisaging to include clinical studies should provide details of their clinical studies in the dedicated annex using the template provided in the submission system. See definition of clinical studies in the introduction to this work programme part.

Environmentally sustainable and climate neutral health and care systems

HORIZON-HLTH-2023-CARE-04-03

RIA

HEALTH

OPENING
14/12/2022

DEADLINE
14/03/2023



Per topic: **20.00 M€**
Per project: **4.00-6.00 M€**
Up to 4 projects

Proposals under this topic should aim for Policy and decision makers, providers of health and care, health and care workers and citizens have increased knowledge on how today's health and care systems are not environmentally sustainable,

what the possible costs of that are (today and future) and where improvements are possible with maintained or improved quality of care (optimal patient safety not being jeopardised) and possible investments needed.

→ Applicants envisaging to include clinical studies should provide details of their clinical studies in the dedicated annex using the template provided in the submission system. See definition of clinical studies in the introduction to this work programme part.

Clinical trials of combined Advanced Therapy Medicinal Products (ATMPs)

HORIZON-HLTH-2023-CARE-04-03

RIA

HEALTH

OPENING
12/01/2023

DEADLINE
13/04/2023



Per topic: **50.00 M€**
Per project: **8.00-10.00 M€**
Up to 5 projects

The subjects of this topic are combined ATMPs (Advanced Therapy Medicinal Products) according to the definition of the ATMP-regulation (EU 1394/2007, Article 2d). Such combined ATMPs are composed of an ATMP and one or more medical

devices or one or more active implantable medical devices, and their cellular or tissue part must either contain viable cells or tissues, or non-viable cells or tissues liable for exerting the primary action on the human body.

→ Applicants envisaging to include clinical studies should provide details of their clinical studies in the dedicated annex using the template provided in the submission system. See definition of clinical studies in the introduction to this work programme part.

Integrated, multi-scale computational models of patient pathophysiology ('virtual twins') for personalised disease management

HORIZON-HLTH-2023-TOOL-05-03

RIA

HEALTH

OPENING

DEADLINE
13/04/2023

Per topic: **50.00 M€**

Per project: **8.00-10.00 M€**

Up to 5 projects



This topic will contribute to the consolidation of existing virtual twin models and support research to move towards a more integrated human virtual twin, with the aim to accelerate translational research towards cost-effective development of new health technologies. Furthermore, 'virtual twin'

patient models hold the potential of transforming clinical processes and healthcare with longitudinal monitoring, making personalised medicine, disease prevention and individualised patient management a reality.

- Integration of citizen-generated data with medical and other longitudinal health data, and benefit from early detection of disease onset, prediction of disease progression and treatment options, and effective disease management.
- Applicants envisaging to include clinical studies should provide details of their clinical studies in the dedicated annex using the template provided in the submission system. See definition of clinical studies in the introduction to this work programme part.

Better integration and use of health-related realworld and research data, including genomics, for improved clinical outcomes

HORIZON-HLTH-2023-TOOL-05-04

RIA

HEALTH

OPENING
12/01/2023

DEADLINE
13/04/2023

Per topic: **35.00 M€**

Per project: **8.00-10.00 M€**

Up to 4 projects



This topic aims to support proposals focusing on the integration of health data from multiple sources (e.g. electronic health records, genomics, medical imaging, laboratory and diagnostic results, pathogen data, public health registries and other clinical research data) by linking real-world and clinical research data. The data integration should be

exemplified in several use-cases, i.e. well-justified groups of diseases (excluding cancer), within and/or across medical domains, and pave the way towards improved health outcomes. At least one of those use cases should build on the use of whole genome sequence data.

- New techniques, support tools, mechanisms and modalities to enable GDPR compliant access to sensitive personal data, including genomics, allowing for their re-use across borders and integration of different types of data relevant to human health.
- Data management approaches for cross-border distributed data storage and processing, enabling remote collaboration, electronic consent management, data provenance tracking, and scalability of data management resources, ensuring data privacy and security, and resulting in robust support to advanced, innovative clinical workflows.
- Joint data governance is expected to be piloted among several clinical centres across Europe.

Harnessing the potential of real-time data analysis and secure Point-of-Care computing for the benefit of person-centred health and care delivery

[HORIZON-HLTH-2023-TOOL-05-05](#)

IA

HEALTH

OPENING
12/01/2023

DEADLINE
13/04/2023



Per topic: **35.00 M€**

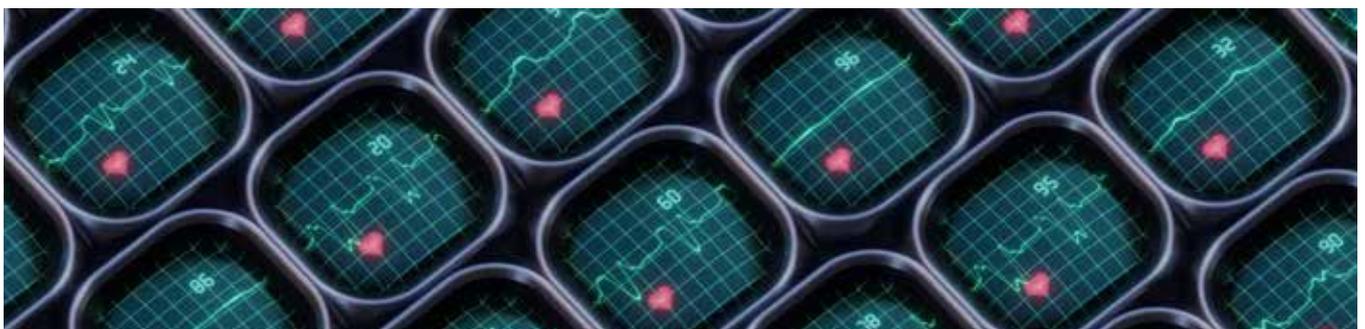
Per project: **8.00-10.00 M€**

Up to 4 projects

The proposals are expected to develop and test innovative tools, devices and systems for point-of-care applications, including but not limited to robotics, photonics, bio-sensing, artificial intelligence etc. These would provide clinicians with

real-time imaging, data analysis and interactive visual presentation for understanding and diagnosing diseases, facilitating riskassessment, prevention, and carrying out medical interventions with improved patient safety.

- Applicants envisaging to include clinical studies should provide details of their clinical studies in the dedicated annex using the template provided in the submission system. See definition of clinical studies in the introduction to this work programme part.



Innovative non-animal human-based tools and strategies for biomedical research

HORIZON-HLTH-2024-TOOL-05-06-two-stage

RIA

HEALTH

OPENING

DEADLINES

30/03/2022

1st stage

19/09/2023

2nd stage

11/04/2024



Per topic: **25.00 M€**

Per project: **4.00-8.00 M€**

Up to 4 projects

The proposals should develop and/or use tools and strategies that address critical areas of biomedical research where animal-models are currently used but are of limited translational value for investigation and development of prevention and treatment. Such advanced tools and strategies should aim at a better understanding of the pathogenesis of disorders that feature a high impact on public health and exhibit a high rate of animal use or severe animal suffering, and enable to develop biomedical concepts with

increased translational value, thereby ultimately leading to improved disease prediction, prevention and treatment.

→ Applicants invited to the second stage and envisaging to include clinical studies should provide details of their clinical studies in the dedicated annex using the template provided in the submission system.

Pandemic preparedness and response: In vitro diagnostic devices to tackle cross-border health threats

HORIZON-HLTH-2023-TOOL-05-08

IA

HEALTH

OPENING

12/01/2023

DEADLINE

13/04/2023



Per topic: **40.00 M€**

Per project: **5.00-7.00 M€**

Up to 6 projects

New cross-border health threats are expected to emerge in the coming years and therefore it is essential to promote advanced research of medical countermeasures that can be used to detect, prevent and treat in case of a new health threats. Proposals should develop and advance on

new in vitro diagnostics relevant for detecting and characterising cross-border health threats and develop novel approaches to the development of medical countermeasures targeting threats identified by HERA.

→ Data Users (researchers, innovators, regulators, policymakers, clinicians) are able to identify the most relevant datasets that meet their specific needs through a label describing accurately and in a standard way the quality and utility dimensions of the datasets, as proposed in the legal provisions of the European Health Data Space.

Expanding the European Electronic Health Record exchange Format to improve interoperability within the European Health Data Space

HORIZON-HLTH-2023-IND-06-02

IA

HEALTH

OPENING
12/01/2023

DEADLINE
13/04/2023



Per topic: **8.00 M€**

Per project: **3.00-5.00 M€**

Up to 2 projects

Proposals aim to deliver results that are directed, tailored towards and contributing to all of the following expected outcomes, and provide appropriate qualitative and quantitative indicators to measure their progress and specific impact: European Health Record (EHR) stakeholders (e.g. developers, suppliers, integrators, and operators) have at their disposal and use fit-for-purpose standards, guidelines, and toolsets for prioritised health information domains to address interoperability of EHRs in line with the principles set in the EEHRxF Recommendation, contributing also to security and privacy.

- Stakeholders have at their disposal better quality and better integrated health datasets within the European Health Data Space, to foster innovations in the health sector and leverage the potential of new analytics solutions such as AI and big data, get new insights and detect trends from aggregated data, including for cross-border health threats.

- Citizens are provided with an expanded access to their health data, also across borders, and innovative digital services for high-quality health and care across the EU.

→ Research need to develop and validate harmonised interoperability formats for sharing data in specific priority health information domains that should be selected with reference to the EU policies and priorities.

Mapping the hurdles for the clinical applications of Advanced Therapy Medicinal Products (ATMPs)

HORIZON-HLTH-2023-IND-06-05

CSA

HEALTH

OPENING
12/01/2023

DEADLINE
13/04/2023



Per topic: **3.00 M€**
Per project: **3.00 M€**
Up to 1 project

This topic aims at supporting activities that are enabling or contributing to one or several expected impacts of destination 6 “Maintaining an innovative, sustainable and globally competitive health industry”. To that end, proposals under this topic should aim to deliver results that are directed towards and contributing to all of the following expected outcomes:

- Challenging aspects of regulation, policy, safety, efficacy, manufacturing, organisation, infrastructure, decision-making, and commercialisation are identified for speeding up the equitable clinical applications of ATMPs.
- European regulatory frameworks are adapted to

novel scientific progress, especially those related to platform approaches, genome editing, interface with medical devices, artificial intelligence.

- Competent authorities in the Member States can propose adapted pricing and reimbursement schemes that allow European citizens to benefit from novel ATMPs.
- Academic and SME developers and manufacturers of ATMPs have an increased knowledge of the regulatory aspects.
- The decentralised manufacturing of ATMPs is consistent across health care centres.

→ Involve regulatory authorities, Health Technology Agencies (HTA), clinicians, ethics committees, and patients, with the aim to ensure higher clinical use of ATMPs. The findings of the project will be available to competent authorities, ATMP developers and manufacturers as well as to national/regional funding agencies.



Development and harmonisation of methodologies for assessing digital health technologies in Europe

HORIZON-HLTH-2023-IND-06-02

IA

HEALTH

OPENING
12/01/2023

DEADLINE
13/04/2023



Per topic: **15.00 M€**

Per project: **7.00-8.00 M€**

Up to 2 projects

This topic aims at addressing digital transition challenges through supporting activities that are enabling or contributing to one or several expected impacts of destination 6 “Maintaining an innovative, sustainable and globally competitive health industry”. More specifically, this topic aims at supporting activities that are contributing to the following impact area: “High quality digital services for all”. To that end, proposals under this topic should aim to deliver results that are directed towards and contributing to all of the following expected outcomes:

- Policymakers in the EU have at their disposal a methodological framework and standardised approaches for assessing digital health technologies, that helps them make evidence-based decisions regarding the introduction of digital health technologies in their health and care systems with added value for patients and society.
- Regulators have access to robust, scientifically underpinned evaluation methodologies.
- EU citizens gain faster access to safe and well-performing person-centred digital technologies and are empowered through these tools.
- Health technology developers are better informed and dispose of more guidance on the evidence needed to demonstrate the added value of digital health technologies and have better insights on market predictability.

- (Digital) Health Industry/digital health technology developers and HTA bodies can contribute to the development of EU harmonised Health Technology Assessment (HTA) rules based on common principles.

- Improved cross-border use and interoperability of digital health tools and services throughout the EU and Associated Countries.

- Increased trust in digital health technologies and better integration of digital health tools and services in health and care systems.

→ Applicants envisaging to include clinical studies should provide details of their clinical studies in the dedicated annex using the template provided in the submission system. See definition of clinical studies in the introduction to this work programme part.

Personalised prevention of noncommunicable diseases - addressing areas of unmet needs using multiple data sources

HORIZON-HLTH-2024-STAYHLTH-01-05-two-stage

RIA

HEALTH

OPENING

DEADLINES

30/03/2023

1st stage
19/09/2023

2nd stage
11/04/2024



Per topic: **50.00 M€**

Per project: **8.00-12.00 M€**

Up to 5 projects

Proposals under this topic should aim at Citizens access to and use effective personalised prevention schemes and health counselling (including through digital means); Health professionals use effective, tried and tested tools; National and regional programmes make better use of funds, data

infrastructure and personnel in health promotion and disease prevention, primary and secondary healthcare; Companies generate opportunities for new product and service developments to cater to the needs of the healthcare service and individuals.

→ Applicants invited to the second stage and envisaging to include clinical studies should provide details of their clinical studies in the dedicated annex using the template provided in the submission system. See definition of clinical studies in the introduction to this work programme part.

Remote working arrangements and their economic, social and spatial effects

HORIZON-CL2-2023-TRANSFORMATIONS-01-01

RIA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING

14/12/2022

DEADLINE

14/03/2023



Per topic: **9.00 M€**

Per project: **2.00-3.00 M€**

Up to 3 projects

Better understanding of the spatial implications of increased remote working and its challenges for different regions, the impact of remote working

arrangements on the living and working conditions, the possible consequences to communal life and society.

→ Research should investigate how remote working arrangements can affect different spaces, focusing on the urban and rural divide and its impacts on the local communities, including on ethical and social aspects, employment, as well as on administration and infrastructures.

Novel paradigms and approaches, towards AI-driven autonomous robots

[HORIZON-CL4-2023-DIGITAL-EMERGING-01-01](#)

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING
08/12/2022

DEADLINE
29/03/2023

Per topic: **30.00 M€**

Per project: **8.00 M€**

Up to 3 projects

Make and exploit major advances in science and technology, to maintain Europe's scientific excellence

and ensure sovereignty of key technologies in robotics and autonomous systems

→ Contribute to making AI and robotics solutions meet the requirements of Trustworthy AI, based on the respect of the ethical principles, the fundamental rights including critical aspects such as robustness, safety, reliability, in line with the European Approach to AI. Ethics principles needs to be adopted from early stages of development and design.

Industrial leadership in AI, Data and Robotics – advanced human robot interaction

[HORIZON-CL4-2023-DIGITAL-EMERGING-01-0](#)

IA

DIGITAL, INDUSTRY AND SPACE

OPENING
08/12/2022

DEADLINE
29/03/2023

Per topic: **30.00 M€**

Per project: **10.00 M€**

Up to 3 projects

Demonstrate the added value of integrating AI, Data and Robotics technologies through large-scale validation scenarios reaching critical mass and mobilising the user industry. Proposals should target sectors and application domains with wide-scale

deployment potential and maximum contribution to the European economy.

→ Proposals should contribute to making human robot interactions using AI and robotics solutions meet the requirements of Trustworthy AI, based on the respect of the ethical principles, the fundamental rights including critical aspects such as robustness, safety, reliability, in line with the European Approach to AI.

Solar Radiation Modification: governance of research

HORIZON-CL5-2023-D1-01-08

CSA

CLIMATE, ENERGY AND MOBILITY

OPENING
13/12/2022

DEADLINE
18/04/2023

Per topic: **3.00 M€**
Per project: **3.00 M€**
Up to 1 project



Explore conditions that could lead to the development of a possible governance framework for experimental research in the area of solar

radiation modification (SRM), which is to be done on a case-by-case basis.

- Decision-making processes and ethical considerations (e.g. Who gets to decide? Procedural aspects such as how to ensure broad, informed stakeholder consultation).
- Where relevant, explore synergies with other initiatives in Europe and beyond investigating Solar Radiation Modification from a technological, regulatory and/or ethical perspective.

New Approaches to Develop Enhanced Safety Materials for Gen 3 Li-Ion Batteries for Mobility Applications (Batt4EU Partnership)

HORIZON-CL5-2023-D2-02-02

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING
04/05/2022

DEADLINE
05/09/2023

Per topic: **10.00 M€**
Per project: **5.00 M€**
Up to 2 projects



Developing safer materials for high-performing cells by targeted modification in main cell components, namely the cathode, anode, separator and electrolyte.

- A defined concept for demonstrable, highly sustainable, circular manufacturing for the selected advanced materials at Gigafactory scale, with sustainability measured in terms of recognised economic, environmental, social and ethical metrics.

User-centric development of vehicle technologies and solutions to optimise the on-board experience and ensure inclusiveness (CCAM Partnership)

[HORIZON-CL5-2023-D6-01-01](#)

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING
04/05/2022

DEADLINE
05/09/2023

Per topic: **8.00 M€**

Per project: **4.00 M€**

Up to 2 projects



Optimising the on-board experience and overall satisfaction of users is paramount for high social buy-in and widespread adoption of CCAM-based mobility solutions.

→ Effective contribution of SSH disciplines including ethics and gender and the involvement of SSH experts, institutions as well as the inclusion of relevant SSH expertise.

Integrating European diversity in the design, development and implementation of CCAM solutions to support mobility equity (CCAM Partnership)

[HORIZON-CL5-2023-D6-01-04](#)

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING
04/05/2023

DEADLINE
05/09/2023

Per topic: **8.00 M€**

Per project: **3.00-4.00 M€**

Up to 2 projects



Provide a geographical and cultural understanding of CCAM uptake and use, with the aim of contributing to a more integrated, diverse and people centric approach to the design, development and implementation of CCAM supporting mobility equity.

→ Applying an HI (Hybrid Intelligence) approach will allow CCAM technologies to integrate human expertise and intentionality into its decision-making in order to generate meaningful and appropriate actions that are aligned with ethical, legal and societal values.

CCAM effects on jobs and education, plans for skills that match the CCAM development, and prerequisites for employment growth (CCAM Partnership)

HORIZON-CL5-2023-D6-01-05

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING
04/05/2023

DEADLINE
05/09/2023

Per topic: **2.00 M€**
Per project: **2.00 M€**
Up to 1 project



Anticipate and mitigate the impacts and rebound effects on jobs due to the deployment of road based Cooperative, connected and automated mobility

(CCAM) systems and services, as well as boost innovation capabilities through the availability and upscaling of CCAM-specific professional skills.

→ Effective contribution of SSH disciplines including ethics, gender and the involvement of SSH experts, institutions as well as the inclusion of relevant SSH expertise.

Cultured meat and cultured seafood – state of play and future prospects in the EU

HORIZON-CL6-2023-FARM2FORK-01-13

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
12/04/2023

Per topic: **7.00 M€**
Per project: **7.00 M€**
Up to 1 project



Study the social, economic and environmental aspects related to cultured meat and seafood, study

it's technical problems, as well as Identify new sources of ingredients.



- Full understanding and up-to-date knowledge provided to food system actors on environmental, economic and social aspects of cultured meat and cultured seafood, including on ethics.
- 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).

- Study the social aspects related to cultured meat and cultured seafood (potential benefits and risks): including the consumers' perception on cultured meat and cultured seafood, animal welfare, religious and ethical aspects, health aspects beyond safety risks eventually assessed by EFSA, etc.

Fostering resilient European food systems in a changing world

[HORIZON-CL6-2023-FARM2FORK-01-15](#)

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
12/04/2023

Per topic: **8.00 M€**
Per project: **8.00 M€**
Up to 1 project

Point to some serious vulnerabilities, (inter)dependencies and critical infrastructure of the food systems, and also offer indications for policymakers

and businesses about where to direct efforts and investments to improve resilience.

- 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).

Developing an interdisciplinary and inclusive pan-European academic network for food system science

[HORIZON-CL6-2023-GOVERNANCE-01-4](#)

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
23/03/2023

Per topic: **6.00 M€**
Per project: **6.00 M€**
Up to 1 project

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.

- 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).



Public engagement

Planetary health: understanding the links between environmental degradation and health impacts

HORIZON-HLTH-2023-ENVHLTH-02-01

RIA

HEALTH

OPENING
12/01/2023

DEADLINE
13/04/2023



Per topic: **30.00 M€**

Per project: **5.00-6.00 M€**

Up to 5 projects

Applicants are invited to submit proposals providing actionable evidence for policymakers to take preventive actions to protect the human health and wellbeing by exploring the links between human health and environmental degradation in

an integrated and comprehensive manner. More fragmented contributions focused on less studied aspects such as the links between climate change and health and, between biodiversity and health, will also be considered.

- Public authorities rely on indicators about the impacts on human health of changes or degradation of natural systems to support adaptation and mitigation strategies to natural hazards.
- Policymakers have better tools to improve the predictive capability and preparedness as well as to envision prevention strategies to deal with the impacts on human health of changes or degradation of ecosystems.
- Citizens are engaged and informed about the impact of natural systems' degradation on human health and behaviours aiming at the conservation of ecosystems are promoted.

Health impacts of endocrine-disrupting chemicals: bridging science-policy gaps by addressing persistent scientific uncertainties

HORIZON-HLTH-2023-ENVHLTH-02-03

RIA

HEALTH

OPENING
12/01/2023

DEADLINE
13/04/2023

Per topic: **40.00 M€**

Per project: **6.00-7.00 M€**

Up to 7 projects

Proposals should bring together, inter alia, (molecular) epidemiologists, exposure scientists, toxicologists, endocrinologists, health care practitioners and risk assessors, research actions under this topic should focus on the understanding of the impact of exposures at critical life stages as regards development of diseases later in life, focusing

on the several health endpoints for which there is currently less information available. Advantage should be taken of existing biobanks and disease registries and/or cohorts, with carefully planned measurement strategies and clearly worked-out hypotheses.

→ Citizens are engaged and informed about the health impact of exposures to endocrine disruptors and risk-preventing behaviours are promoted.

Global coordination of exposome research

HORIZON-HLTH-2023-ENVHLTH-02-04

CSA

DIGITAL, INDUSTRY AND SPACE

OPENING
12/01/2023

DEADLINE
13/04/2023

Per topic: **3.00 M€**

Per project: **3.00 M€**

Up to 1 project

The concept of the exposome refers to the totality of environmental exposures from conception onwards, including its external (e.g. diet, lifestyle, occupational and environmental factors) and internal components (e.g. epigenomics, metabolomics). Developing a comprehensive Human Exposome Project would

present a fundamental shift in looking at health, by moving research away from 'one exposure, one disease' understanding to a more complex picture upon which to build solid, cost-effective preventive actions and policies.

→ Cooperation between population and patient cohorts, integrating a large number of variables and comprehensive environmental datasets, and biobanks, also covering the perinatal period.

Resilience and mental wellbeing of the health and care workforce

HORIZON-HLTH-2023-CARE-04-02

RIA

HEALTH

OPENING
12/01/2023

DEADLINE
13/04/2023



Per topic: **20.00 M€**

Per project: **4.00-6.00 M€**

Up to 4 projects

Proposals under this topic should aim at Health and care workers receive support (including mental health support), access to tools and guidance that enhances their wellbeing and ability to adapt to changing working conditions; Decision- and policymakers, employers and social partners in the health and care sectors to promote knowledge of the specific risks for the resilience, mental health and wellbeing of health and care professionals and informal carers; Funders of health and care provision

have access to evidence, novel approaches and cost-effective recommendations for interventions supporting the mental health and wellbeing of health and care workers at individual, organisation and sector levels.

→ Proposals can identify one or more worker groups or informal carers as target of R&I activities, based on credible scientific criteria.

Integrated, multi-scale computational models of patient pathophysiology ('virtual twins') for personalised disease management

HORIZON-HLTH-2023-TOOL-05-03

RIA

HEALTH

OPENING
12/01/2023

DEADLINE
13/04/2023



Per topic: **50.00 M€**

Per project: **8.00-10.00 M€**

Up to 5 projects

Citizens and patients have access to validated 'virtual twin' models enabling the integration of citizen-generated data with medical and other longitudinal health data, and benefit from early detection of disease onset, prediction of disease progression and treatment options, and effective disease management. SME(s)

participation is encouraged with the aim to strengthen the scientific and technological

basis of SME(s) and valorise their innovations towards citizen and patient benefit

- Citizens and patients have access to validated ‘virtual twin’ models enabling the integration of citizen-generated data with medical and other longitudinal health data, and benefit from early detection of disease onset, prediction of disease progression and treatment options, and effective disease management. SME(s) participation is encouraged with the aim to strengthen the scientific and technological basis of SME(s) and valorise their innovations towards citizen and patient benefit.

Better integration and use of health-related realworld and research data, including genomics, for improved clinical outcomes

HORIZON-HLTH-2023-TOOL-05-04

RIA

HEALTH

OPENING
12/01/2023

DEADLINE
13/04/2023

Per topic: **35.00 M€**

Per project: **8.00-10.00 M€**

Up to 4 projects

This topic aims to support proposals focusing on the integration of health data from multiple sources (e.g. electronic health records, genomics, medical imaging, laboratory and diagnostic results, pathogen data, public health registries and another clinical research data) by linking real-world and clinical research data. The data integration should be exemplified in several use-cases, i.e. well-justified groups of diseases (excluding cancer), within and/or

across medical domains, and pave the way towards improved health outcomes. At least one of those use cases should build on the use of whole genome sequence data.

- Citizens can be offered data-driven patient-focused health interventions, resulting in improved disease prevention, diagnosis, treatment and monitoring towards better patient outcomes and well-being.



Harnessing the potential of real-time data analysis and secure Point-of-Care computing for the benefit of person-centred health and care delivery

HORIZON-HLTH-2023-TOOL-05-05

IA

HEALTH

OPENING
12/01/2023

DEADLINE
13/04/2023

The proposals are expected to develop and test innovative tools, devices and systems for point-of-care applications, including but not limited to robotics, photonics, bio-sensing, artificial intelligence etc. These would provide clinicians with

Per topic: **35.00 M€**

Per project: **8.00-10.00 M€**

Up to 4 projects

real-time imaging, data analysis and interactive visual presentation for understanding and diagnosing diseases, facilitating riskassessment, prevention, and carrying out medical interventions with improved patient safety.

→ This topic requires the effective contribution of social sciences and humanities (SSH) disciplines and the involvement of SSH experts, institutions as well as the inclusion of relevant SSH expertise.

Innovative non-animal human-based tools and strategies for biomedical research

HORIZON-HLTH-2024-TOOL-05-06-two-stage

RIA

HEALTH

OPENING

DEADLINES

30/03/2023

1st stage

19/09/2023

2nd stage

11/04/2024

Per topic: **25.00 M€**

Per project: **4.00-8.00 M€**

Up to 4 projects

The proposals should develop and/or use tools and strategies that address critical areas of biomedical research where animal-models are currently used but are of limited translational value for investigation and development of prevention and treatment. Such advanced tools and strategies should aim at a better understanding of the pathogenesis of disorders that feature a high impact on public health and exhibit a high rate of animal use or severe animal suffering,

and enable to develop biomedical concepts with increased translational value, thereby ultimately leading to improved disease prediction, prevention and treatment.

→ The public may become aware of novel biomedical concepts with increased translational value for certain diseases of public interest. This topic requires the effective contribution of social sciences and humanities (SSH) disciplines and the involvement of SSH experts, institutions as well as the inclusion of relevant SSH expertise.

Pandemic preparedness and response: In vitro diagnostic devices to tackle cross-border health threats

HORIZON-HLTH-2023-TOOL-05-08

IA

HEALTH

OPENING
12/01/2023

DEADLINE
13/04/2023

Per topic: **40.00 M€**

Per project: **5.00-7.00 M€**

Up to 6 projects

New cross-border health threats are expected to emerge in the coming years and therefore it is essential to promote advanced research of medical countermeasures that can be used to detect, prevent and treat in case of a new health threats. Proposals should develop and advance on

new in vitro diagnostics relevant for detecting and characterising cross-border health threats and develop novel approaches to the development of medical countermeasures targeting threats identified by HERA.

→ This topic requires the effective contribution of social sciences and humanities (SSH) disciplines and the involvement of SSH experts, institutions as well as the inclusion of relevant SSH expertise.



Mapping the hurdles for the clinical applications of Advanced Therapy Medicinal Products (ATMPs)

HORIZON-HLTH-2023-IND-06-05

CSA

HEALTH

OPENING
12/01/2023

DEADLINE
13/04/2023



This topic aims at supporting activities that are enabling or contributing to one or several expected impacts of destination 6 “Maintaining an innovative, sustainable and globally competitive health industry”. To that end, proposals under this topic should aim to deliver results that are directed towards and contributing to all of the following expected outcomes:

- Challenging aspects of regulation, policy, safety, efficacy, manufacturing, organisation, infrastructure, decision-making, and commercialisation are identified for speeding up the equitable clinical applications of ATMPs.

Per topic: **3.00 M€**

Per project: **3.00 M€**

Up to 1 projects

- European regulatory frameworks are adapted to novel scientific progress, especially those related to platform approaches, genome editing, interface with medical devices, artificial intelligence.

- Competent authorities in the Member States can propose adapted pricing and reimbursement schemes that allow European citizens to benefit from novel ATMPs.

- Academic and SME developers and manufacturers of ATMPs have an increased knowledge of the regulatory aspects.

- The decentralised manufacturing of ATMPs is consistent across health care centres.

→ Include end-users of digital health technologies (be it professionals, care users or citizens).

Towards a holistic support to children and adolescents’ health and care provisions in an increasingly digital society

HORIZON-HLTH-2024-STAYHLTH-01-02-two-stage

RIA

HEALTH

OPENING

DEADLINES

30/03/2023

1st stage

19/09/2023

2nd stage

11/04/2024



This topic aims at supporting activities that are enabling or contributing following expected outcomes:

- Children, adolescents and their parents/carers are

Per topic: **30.00 M€**

Per project: **8.00-10.00 M€**

Up to 3 projects

educated and empowered in prevention strategies involving personalised approaches and solutions (also through the use of digital tools) to manage, maintain and improve children’s and adolescents’

own health, physical activity, nutrition habits, leisure needs, mental and social well-being, in full respect of the privacy of individuals.

- Children and adolescents, including those from vulnerable contexts, monitor their health risks, adopt healthy lifestyles at home, at school and in the community and interact with their doctors and carers (receiving and providing feedback), also through the means of digitally enabled solutions, better health literacy, training and critical thinking.

- Thanks to better co-creation, training, digital and health literacy, children, adolescents, parents and carers across Europe access and use person-centred, widely available solutions for children and adolescents' health, care and wellbeing, appropriate to a rapidly changing and increasingly digitalised society, also considering the risk of digital addiction.

The proposals should provide appropriate indicators to measure the progress towards the relevant expected outcomes.

→ This topic requires the effective contribution of social sciences and humanities (SSH) disciplines and the involvement of SSH experts, institutions as well as the inclusion of relevant SSH expertise and the involvement of youth throughout the project in order to produce meaningful and significant effects enhancing the societal impact of the related research activities.

→ The topic encourages the participation of small and medium-sized enterprises (SMEs), as well as of European, national and regional authorities and civil society, in order to strengthen the scientific and technological expertise of SMEs in the health and care domain to promote the uptake of innovative health and care solutions in Europe.

Towards a holistic support to children and adolescents' health and care provisions in an increasingly digital society

HORIZON-CL2-2023-DEMOCRACY-01-01

RIA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING
14/12/2022

DEADLINE
14/03/2023



Protect democratic processes in the EU from Information Manipulation and Interference by foreign actors as well as preserve the fundamental rights and freedoms underlying these processes.

Per topic: **9.00 M€**

Per project: **2.00-3.00 M€**

Up to 3 projects

Better understanding of the Tactics, Techniques, and Procedures (TTPs) involved in attempts to harm the integrity of our democratic processes.

- Develop and extend the solution-space for policymakers, private stakeholders, and civil society actors to counter FIMI and raise resilience to it.
- Based on these insights and research, response options should be proposed to give policymakers, but also stakeholders from civil society and private industry, solutions and options to implement as appropriate.

Detecting, analysing and countering foreign information manipulation and interference

HORIZON-CL2-2023-DEMOCRACY-01-01

RIA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING
14/12/2022

DEADLINE
14/03/2023



Per topic: **9.00 M€**

Per project: **2.00-3.00 M€**

Up to 3 projects

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Cultural and creative approaches for gender-responsive STEAM education

HORIZON-CL2-2023-HERITAGE-01-08

CSA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING
14/12/2022

DEADLINE
14/03/2023



Per topic: **3.00 M€**

Per project: **2.00-3.00 M€**

Up to 1 project

The action should establish a coordination network between the CCIs, technological enterprises, SMEs, secondary and higher education institutions, and other relevant organisations, including digital

citizen platforms to develop a better understanding of the potential benefits of cultural and artistic approaches in traditional STEM education, research and innovation.

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The climate imperative and its impact on democratic governance

HORIZON-CL2-2023-DEMOCRACY-01-05

RIA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING
14/12/2022

DEADLINE
14/03/2023

Per topic: **9.00 M€**

Per project: **2.00-3.00 M€**

Up to 3 projects

Proposals under this topic should help reinvigorate democratic governance by suggesting pathways for improved effectiveness of rule-of-law based institutions and policies, notably pathways for open government practices that enable active civic participation throughout the policymaking

process. They should help strengthen social and economic resilience and sustainability through a better understanding of the relationship between democratic governance and the climate imperative.

- Encourage international cooperation through better understanding of the supranational challenges of the climate crisis, and of the consequences of climate crisis scenarios on demand for democratic structures, international politics and citizen engagement.
- Improve policymaking approaches at all levels of government through recommendations to address the climate imperative in a democratic manner supported by citizens, balancing it with other policy imperatives, including the role of education in fostering climate literacy.
- Gender and intersectional aspects (e.g. ethnicity, socioeconomic background) should be considered, particularly regarding citizen engagement, civic participation, and climate literacy.
- At the same time, the climate imperative also opens up avenues for innovative civic participation in an existential policy area.
- Thus, proposals under this topic should help reinvigorate democratic governance by suggesting pathways for improved effectiveness of rule-of-law based institutions and policies, notably pathways for open government practices that enable active civic participation throughout the policymaking process.

Intersectionality and equality in deliberative and participatory democratic spaces

HORIZON-CL2-2023-DEMOCRACY-01-07

RIA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING
14/12/2022

DEADLINE
14/03/2023

Per topic: **9.00 M€**

Per project: **2.00-3.00 M€**

Up to 3 projects



Proposals should offer both conceptual and practical insights into designing, implementing and evaluating

more inclusive participatory processes.

- Develop and pilot innovative designs for citizen engagement that consider intersectionality and allow for other types of participation and deliberation, and enhancing democracy, by addressing political inequality in such participatory spaces....
- Proposals are encouraged to collaborate with the JRC Competence Centre on Participatory and Deliberative Democracy, particularly with respect to the design and evaluation of innovative and inclusive participatory processes, including concepts, frameworks and implementation thereof as part of alternative models of participatory democratic practices.
- Proposals should offer both conceptual and practical insights into designing, implementing and evaluating more inclusive participatory processes.
- Proposals should contribute to reinvigorating democracy and enhancing citizen participation by designing, envisioning and piloting processes of democratic innovation where overcoming the accumulation and intersection of discrimination or stigmatisation is a core part of the process.

Towards sustainable economic policy paradigms

HORIZON-CL2-2023-TRANSFORMATIONS-01-02

CSA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING
14/12/2022

DEADLINE
14/03/2023

Per topic: **4.00 M€**

Per project: **2.00-3.00 M€**



The goal of the proposals should be to help in particular policymakers and stakeholders, who are not familiar with beyond GDP policy frameworks and well-being indicators, but want to learn how to better incorporate well-being considerations into

their work. The proposals should design concrete co-creation tools that support policymakers at the national, regional, local and city levels to develop and analyse policies and programmes with a well-being lens.

- An established network of relevant policymakers, academic experts, international organisations, non-governmental organisations, civil society organisations, fora and networks working on beyond GDP policy frameworks and measurement of multidimensional well-being, including National Statistical Offices (NSOs) or other national authorities in charge.

Political perspectives for the Eastern Neighbourhood and the Western Balkans

HORIZON-CL2-2023-DEMOCRACY-01-08

RIA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING
14/12/2022

DEADLINE
14/03/2023

Per topic: **9.00 M€**

Per project: **2.00-3.00 M€**

Up to 3 projects



Projects should contribute to all of the following expected outcomes:

- improvement of the European Union's neighbourhood policy and accession process,
- forecast and scenarios of the geopolitical ambitions of Russia, China and other countries towards the countries of the Eastern Neighbourhood and accession candidates,

- strengthened resilience and foreign policy arsenal of the European Union against military threats on the European continent thanks to policy recommendations.

- Proposals are strongly encouraged to involve stakeholders, including non-state actors and citizens, from the countries in the topic scope.



Integration of data life cycle, architectures and standards for complex data cycles and/or human factors, language (AI, data and robotics partnership)

HORIZON-CL4-2023-DATA-01-02

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING
08/12/2022

DEADLINE
29/03/2023



Per topic: **45.00 M€**

Per project: **9.00 M€**

Up to 5 projects

Address the entire data life cycle from data generation/collection to the final use and disposal/deletion of data (especially when required by applicable legislation, eg General Data Protection Regulation (GDPR)). Build on existing and emerging standards, models and architectures and complement/expand them as necessary in view of interoperability of systems and portability of data,

especially between sectors, between private and public sectors and between different communities/constituencies of actors, including consideration of cybersecurity issues and analysing the use and re-use potential, especially in view of use of data across sectors.

→ Projects are expected to contribute to successful deployment of data spaces involving several sectors of economy or society

Localised and Urban Manufacturing, supporting creativity and the New European Bauhaus

HORIZON-CL4-2023-HUMAN-01-53

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING
08/12/2022

DEADLINE
29/03/2023



Per topic: **10.00 M€**

Per project: **1.50-2.50 M€**

Up to 4 projects

Manufacturing industry, as well as customers, consumers and wider communities, should benefit

from the following outcomes, applying the New European Bauhaus concept

→ Activities for developing skills and creativity; participatory design strategies; inclusiveness, possibly including unemployed workforce and marginalised groups; and engaging citizens in the definition of challenges and solutions.

Provide for a strong and sustainable pool of experts for European Standardisation: attract the students of university/HEI

HORIZON-CL4-2023-HUMAN-01-63

CSA

DIGITAL, INDUSTRY AND SPACE

OPENING
08/12/2022

DEADLINE
29/03/2023



Inclusion of standardisation knowledge in curricula of university/Higher Education Institutions (HEI) to educate students about standardisation in order to attract them (tomorrow's professionals), to contribute to standardization
Increase visibility of standardisation in European universities/HEI (and through "Academic

Per topic: **3.00 M€**

Per project: **2.50-3.00 M€**

Up to 1 project

Standardisation Days" and setting-up of a Students' Standardisation Association)

More standardisation-competent university/HEI education leavers forming the pool of professionals ready to contribute to and defending EU's interest in standardisation

→ KSO D, Creating a more resilient, inclusive and democratic European society, prepared and responsive to threats and disasters, addressing inequalities and providing high-quality health care, and empowering all citizens to act in the green and digital transitions.

R&I cooperation with Sub-Saharan Africa

HORIZON-CL4-2023-HUMAN-01-92

CSA

DIGITAL, INDUSTRY AND SPACE

OPENING
08/12/2022

DEADLINE
29/03/2023



Strengthen strategic partnerships, support digital dialogues with countries in sub Saharan Africa

Support to trade and industrial policy aspects by promoting European technologies in African markets, and vice-versa.

Contribute to Africa's economic growth and job creation, and to the Sustainable Development Goals

Promote EU values for a human-centric digital transformation

Per topic: **2.00 M€**

Per project: **2.00 M€**

Up to 1 project

Support EU's international priorities, as set out in Europe's Digital Decade and Global Gateway.

Build synergies and prepare an enabling environment for research and investment for the EU.

→ KSO D, Creating a more resilient, inclusive and democratic European society, prepared and responsive to threats and disasters, addressing inequalities and providing high-quality health care, and empowering all citizens to act in the green and digital transitions.

Expert network on Critical raw materials

HORIZON-CL4-2023-RESILIENCE-01-07

CSA

DIGITAL, INDUSTRY AND SPACE

OPENING
08/12/2022

DEADLINE
29/03/2023

Per topic: **3.00 M€**
Per project: **3.00 M€**
Up to 1 project



Projects outcomes will enable achieving the expected impacts of the destination by increasing access to primary raw materials and secondary raw

materials, in particular critical raw materials (CRM) for EU industrial value chains and strategic sectors.

→ Improving awareness of society across the EU about importance of the critical raw materials and other relevant materials for strategic value chains in support of the implementation of the green and digital transitions.

Bioinspired and biomimetic materials for sustainable textiles

HORIZON-CL4-2023-RESILIENCE-01-32

IA

DIGITAL, INDUSTRY AND SPACE

OPENING

DEADLINES

12/03/2022

1st stage

07/03/2023

2nd stage

05/10/2023



Per topic: **31.00 M€**
Per project: **6.00-8.00 M€**
Up to 4 projects

Address activities for: bio-inspired and biomimetic polymers for use as smart textile materials, molecular functionalities of natural polymers, and their macromolecular structures and properties and biodegradability and recyclability of polymers

Prove scalability of biomimetic materials for the manufacturing process of smart fabrics and sustainable textiles. Enable a fast development of new advanced materials, digital tools.

→ This topic refers to the innovation market for Sustainable Textiles and will support citizens and their needs. Europe's textile sector, its technology providers and research community are world leading.

Smart sensors for the Electronic Appliances market

HORIZON-CL4-2023-RESILIENCE-01-33

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING

DEADLINES

12/08/2022

1st stage

07/03/2023

2nd stage

05/10/2023



Per topic: **31.00 M€**

Per project: **6.00-8.00 M€**

Up to 4 projects

This topic refers to the innovation market for Sustainable Textiles and will support citizens and their needs. Europe's textile sector, its technology providers and research community are world leading.

→ 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, to produce meaningful and significant effects enhancing the societal impact of the related research activities. An early involvement of end users could be essential.

Advanced (nano and bio-based) materials for sustainable agriculture

HORIZON-CL4-2023-RESILIENCE-01-34

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING

DEADLINES

12/08/2022

1st stage

07/03/2023

2nd stage

05/10/2023



Per topic: **31.00 M€**

Per project: **6.00-8.00 M€**

Up to 4 projects

This topic refers to the innovation market for sustainable agriculture. The next generation of fertilisers, biocides and plant protection products for agriculture should need to be based on new delivery systems made from advanced (nano)materials (nanosubstances and nanoformulations of conventional substances) or

and/or bio-based materials, to enable target-specific, precise and slow release of the product, reduction of load of active substances, ease of application, reduced risk for non-target organisms and operator exposure, reduced washoff, reduced costs for farmers, etc.

→ This topic requires the effective contribution of Social Sciences and Humanities (SSH) disciplines and the involvement of SSH experts, institutions as well as the inclusion of relevant SSH expertise in particular in social and economic assessments, to produce meaningful and significant effects enhancing the societal impact of the related research activities. An early involvement of end users could be essential.

Advanced materials for magnets in applications for the New Energies Market

HORIZON-CL4-2023-RESILIENCE-01-37

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING

DEADLINES

12/08/2022

1st stage

07/03/2023

2nd stage

05/10/2023



This topic refers to the innovation markets for New Energy and for Sustainable Transportation. Several materials specifications and related innovation needs will support this topic such as renewable energy and efficiency, renewable and recyclable materials, sustainable additives and catalysts, advanced

Per topic: **31.00 M€**

Per project: **6.00-8.00 M€**

Up to 4 projects

surfaces, design for circularity. Several key policies of the European Union such as Circular Economy Action Plan, Zero Pollution Action Plan, A New Industrial Strategy for Europe also in view of critical and strategic raw materials for energy storage and conversion need to be addressed.

→ An early involvement of SSH research and of end users appears essential.

Affordable Housing District Demonstrator

HORIZON-CL4-2023-RESILIENCE-01-44

IA

DIGITAL, INDUSTRY AND SPACE

OPENING

08/12/2022

DEADLINE

20/04/2023



Industrial symbiosis to be fostered amongst most relevant partners engaged in construction and renovation of social housing facilities. The local and regional dimension is important since local energy and utility networks, adjacent industrial

Per topic: **10.00 M€**

Per project: **5.00 M€**

Up to 2 projects

infrastructures and available by-products and services in such districts needs to be considered in a holistic and integrated approach.

→ Proposals should include the development of an ambitious, mission-oriented, quality co-design process, based on citizens' and stakeholders' participation and multidisciplinary and multilevel collaboration.

→ Equally engaging other non SME stakeholders such as residents, social and public housing associations, civil society actors, public authorities will be key to boost tailor-made and fit for purpose innovation.

- Innovative partnership and engagement models: project, financial, investment and business models based on inclusivity and cooperation, as well as partnership models improving stakeholders' involvement in the construction process.
- Involvement in the testing of the innovation actions within the demonstrators with international experts.
- A detailed roadmap for implementation, with a sustainable financial plan identifying potential and substantial additional investment based on involvement and partnerships with different actors (national, regional, local, public and private sources).

Modelling industry transition to climate neutrality, sustainability and circularity (Processes4Planet partnership)

HORIZON-CL4-2023-TWIN-TRANSITION-01-36

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING
08/12/2022

DEADLINE
20/04/2023

Per topic: **13.00 M€**

Per project: **6.00-7.00 M€**

Up to 2 projects



Develop/enhance existing model/modeling tools towards understanding the pathways for industry, and Energy Intensive Industries Model scenarios of possible pathways of how industry, and Energy Intensive Industries in particular, can become climate neutral

Facilitate future EU and national industry, climate and energy policy assessments

Set the climate neutrality transition pathways for process industries in an open and transparent manner via design, modelling, and assessment of pathways
Enhance the knowledge about climate neutrality pathways for industry and academia

- The proposals as a part of its validation and stakeholders' involvement will enable to participate in peer-review processes, scientific conferences and publish in scientific journals and create possibilities for a feedback loop from stakeholders.

Hubs for circularity for near zero emissions regions applying industrial symbiosis and cooperative approach to heavy industrialized clusters and surrounding ecosystems (Processes4Planet partnership)

HORIZON-CL4-2023-TWIN-TRANSITION-01-37

IA

DIGITAL, INDUSTRY AND SPACE

OPENING
08/12/2022

DEADLINE
20/04/2023

Per topic: **40.00 M€**

Per project: **15.00-20.00 M€**

Up to 2 projects

Industrial symbiosis, near commercial scale demonstrator, hub to integrate infrastructures (e.g., industrial waste, digital infrastructure), and energy networks and grids (e.g., smart operations scheduling, district heat integration). Boost among others industries' resource efficiency, use of

hydrogen as an energy carrier, and/or support the implementation of CCU locally or prepare for CCS logistics. Demonstrator should comprehensively show how symbiosis and cross-sectorial cooperation can trigger the green transition by sharing resources and infrastructure investments.

→ Implement a social innovation action involving at least one of the local community actors and, additional actions to facilitate relations and engage with the local community actors e.g., exchanging knowledge with the educational establishments and developing flexible learning resources.

Circular economy in process industries: Upcycling large volumes of secondary resources (Processes4Planet partnership)

HORIZON-CL4-2023-TWIN-TRANSITION-01-42

IA

DIGITAL, INDUSTRY AND SPACE

OPENING
08/12/2022

DEADLINE
20/04/2023

Per topic: **30.00 M€**

Per project: **10.00-12.00 M€**

Up to 3 projects

The focus of this topic is the upcycling of secondary resources that must lead to the same quality and diversity of products as those obtained when using primary resources. The innovation needed will

depend on the addressed waste category. However, even if the upcycling technologies may be sector specific, the cross-sectorial elements are important and should deserve due attention.

→ Proposals should actively pursue the involvement of all the actors in the value chain from the process industry to formulators, recyclers, public authorities, and standardisation actors.

Broadening the range of policy options in transition pathway analysis

HORIZON-CL5-2023-D1-01-06

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING
13/12/2022

DEADLINE
18/04/2023

Per topic: **10.00 M€**
Per project: **5.00 M€**
Up to 2 projects

Advance knowledge on the feasibility of the green growth paradigm in the context of transition to climate neutrality, including improved understanding

of underlying challenges and opportunities, by building on the latest scientific evidence.

→ Investigate how alternative economic approaches could be explained to and accepted by citizens and businesses concerned about both climate and their livelihoods/operating conditions.

Modelling for local resilience - Developments in support of local adaptation assessments and plans

HORIZON-CL5-2023-D1-01-07

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING
13/12/2022

DEADLINE
18/04/2023

Per topic: **12.00 M€**
Per project: **12.00 M€**
Up to 2 projects

Increase the availability, reliability, accessibility and resolution of climate information, in combination with non-climatic natural and anthropogenic

drivers, at local and regional scale considering local specificities.

→ Involve citizens and societal actors, to address the socio-economic, decision-making and local governance aspects of this topic.

Behavioural change and governance for systemic transformations towards climate resilience

HORIZON-CL5-2023-D1-01-09

IA

CLIMATE, ENERGY AND MOBILITY

OPENING
13/12/2022

DEADLINE
18/04/2023

Per topic: **8.00 M€**
Per project: **4.00 M€**
Up to 2 projects



Reach a better understanding on behavioural change and on how it could be scaled up and connected to the governance of the various drivers of and/or barriers to climate-friendly/climate-resilient

behaviour (including EU, national and local policies) to reach the goal of climate neutrality and resilience by 2050.

- To better understand the conditions and capacities that would allow individual behaviour to fundamentally change the system in which they operate so that the system further accelerate new learning feedbacks and changes in individual behaviour, e.g. via experimentation and requiring further access to relevant knowledge and information or opportunities to engage in transformative decision-making.
- Participatory co-creation approaches at policy making, community, and individual levels, including direct involvement of citizens, new sustainability-oriented business organisations and societal actors where relevant considering social innovation.

Improving the evidence base regarding the impact of sustainability and climate change education and related learning outcomes

HORIZON-CL5-2023-D1-01-10

IA

CLIMATE, ENERGY AND MOBILITY

OPENING
13/12/2022

DEADLINE
18/04/2023

Per topic: **5.00 M€**
Per project: **5.00 M€**
Up to 1 projects



Better understanding and providing recommendations on how to measure what learners actually learn and how this influences mind-set and actions on sustainability at the individual and collective level.

- Develop a definition of suitable areas for assessment of the impact of education policies/ interventions (e.g. measurement of skills/competence of learners, educators; investment in green education; link between education and engagement in sustainability and climate action; effective communication strategies; training of professionals).

Needs-based adaptation to climate change in Africa

HORIZON-CL5-2023-D1-01-11

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING
13/12/2022

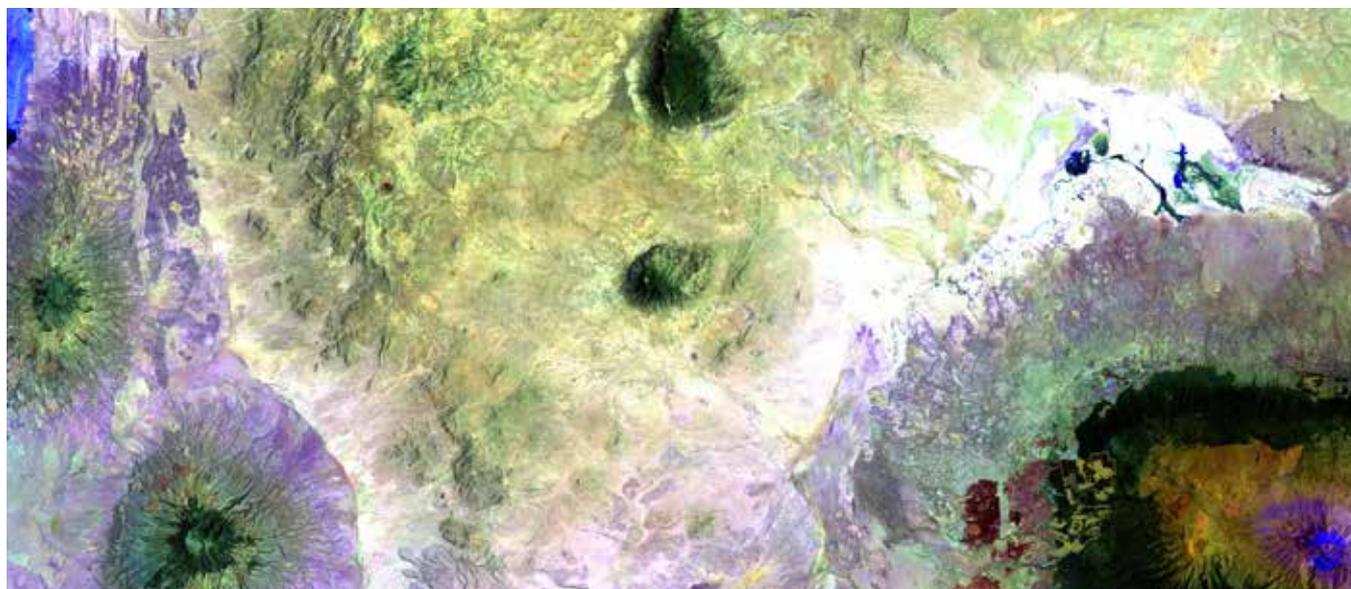
DEADLINE
18/04/2023

Per topic: **10.00 M€**
Per project: **5.00 M€**
Up to 2 projects

Improve the understanding of current and future climate related threats (and opportunities) in Africa in the context of socio-demographic developments, identify key adaptation challenges, needs and gaps

in the broader socio-economic context and Enhance planning, implementation and evaluation of climate adaptation strategies and measures.

- Actions should pursue active engagement and consultation with relevant stakeholders such as African government agencies, civil society organisations and citizen groups to harness local knowledge and to better account for end-user needs This should include research on co-production of climate information and user engagement models themselves to define which approaches are most suitable for adaptation purposes.



EU-China international cooperation on data and model development for pathways to carbon neutrality: focusing on decarbonisation, energy efficiency and socio-economic implications of the transition

HORIZON-CL5-2023-D1-02-01

IA

CLIMATE, ENERGY AND MOBILITY

OPENING
13/12/2022

DEADLINE
18/04/2023

Per topic: **5.00 M€**
Per project: **2.50 M€**
Up to 2 projects



include joint work by European and Chinese experts aimed at informing the achievement of each country's long-term decarbonisation goal. Actions

under this call should consider deep reductions and pathways to net zero incorporating mitigation of both CO₂ and other greenhouse gas emissions.

- Include stakeholder engagement activities aimed at linking the vision set out in pathways with the actions needed to achieve them, in particular with groups whose actions will be key to implementing and achieving the transition.

Driving Urban Transition Co-funded Partnership

HORIZON-CL5-2023-D2-01-08

PARTNERSHIP COFUND

CLIMATE, ENERGY AND MOBILITY

OPENING
13/12/2022

DEADLINE
18/04/2023

Per topic: **37.00 M€**
Per project: **37.00 M€**
Up to 1 project



Capitalise upon new collaboration opportunities offered by the Association Agreements to Horizon Europe, the "Climate neutral and smart cities" mission and the global Urban Transitions Mission

(UTM) mission of Mission Innovation to enhance its expertise, capacities, critical mass and broaden its geographical coverage and outreach capacity.

Expected outcomes:

- Innovative, cross-sectoral and inclusive urban governance, policy and decision-making harnessing the full potential of social science and citizens' engagement in the city making process.
- Local authorities, municipalities, business, social partners, civil society, knowledge institutions and citizens empowered with necessary capacity, knowledge, skills and tools to actively engage in sustainability and climate-neutrality transitions.

Creating a digital passport to track battery materials, optimize battery performance and life, validate recycling, and promote a new business model based on data sharing (Batt4EU Partnership)

HORIZON-CL5-2023-D2-02-03

IA

CLIMATE, ENERGY AND MOBILITY

OPENING
04/05/2023

DEADLINE
05/09/2023

Per topic: **8.00 M€**
Per project: **8.00 M€**
Up to 1 project



Promote the adoption of a downstream development and implementation of a battery pack Digital Product Passport (DPP) at minimum subset design system level addressing raw materials (at least anode and cathode critical raw materials), cells and modules, which is both scalable and energy efficient.

→ Engage a variety of stakeholders along the whole battery value chain to assure the continuous traceability and assure that accountability will not be lost from raw or recycled raw material to first and second life and recycling.

Renewable Energy Valleys to increase energy security while accelerating the green transition in Europe

HORIZON-CL5-2023-D3-01-01

IA

CLIMATE, ENERGY AND MOBILITY

OPENING
13/05/2023

DEADLINE
30/03/2023

Per topic: **40.00 M€**
Per project: **20.00 M€**
Up to 2 projects



Renewable energy valleys are understood as decentralised renewable energy systems that offer a viable and efficient solution to the challenges mentioned above.

→ Providing support to the participation of citizens in the design, implementation and exploitation of renewable energy, in order to increase acceptability.

Support action to the SET Plan IWG on HVDC & DC Technologies

HORIZON-CL5-2023-D3-01-16

CSA

CLIMATE, ENERGY AND MOBILITY

OPENING
13/12/2022

DEADLINE
18/04/2023

Per topic: **0.60 M€**
Per project: **0.60 M€**
Up to 1 project



The activities of the IWG range from the support to the development of DC Technologies and Systems to the fostering of the collaboration and coordination within the SET Plan countries to ensure their active involvement.

→ Development and implementation of robust outreach approaches and societal engagement actions to span across the EU and Associated Countries.

Development of CO2 transport and storage demo projects

HORIZON-CL5-2023-D3-01-17

IA

CLIMATE, ENERGY AND MOBILITY

OPENING
13/12/2022

DEADLINE
30/03/2023

Per topic: **40.00 M€**
Per project: **20.00 M€**
Up to 2 projects



development of new demonstration projects connecting CO2 sources with potential storage sites. Proposals are expected to include a sound assessment of their environmental challenges and risks and feasibility studies focusing on the possible synergies between related projects.

→ For CO2 transport and geological storage, in particular onshore, public acceptability is paramount. Therefore, projects are expected to identify and engage relevant end users and societal stakeholders (such as civil society organisations, non-governmental organisations, and local associations) in deliberative activities, so as to analyse their concerns and needs using appropriate techniques and methods from the social sciences and humanities.

Clean Energy Transition Co-funded Partnership

HORIZON-CL5-2023-D3-01-18

CO-FUND

CLIMATE, ENERGY AND MOBILITY

OPENING
13/12/2022

DEADLINE
30/03/2023

Per topic: **68.00 M€**

Per project: **68.00 M€**

Up to 1 project



empowering the energy transition and contribute to the EU's goal of becoming the first climate-neutral continent by 2050, by pooling national and regional R&I funding for a broad variety of technologies and system solutions required to make the transition.

→ Increased engagement of consumers and prosumers and in appropriate demand-response mechanisms and its integration in the energy system.

Advanced exploration technologies for geothermal resources in a wide range of geological settings

HORIZON-CL5-2023-D3-02-05

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING
04/05/2023

DEADLINE
05/09/2023

Per topic: **8.00 M€**

Per project: **4.00 M€**

Up to 2 projects



Ensure a reliable pre-drilling assessment of shallow and/or deep geothermal resources and reservoirs, high resolution reservoir characterisation and exploration methods and approaches are essential to minimize exploration and production risks.

→ Increased region, city, and citizen engagement for geothermal energy.

Digital twin for forecasting of power production to wind energy demand

HORIZON-CL5-2023-D3-02-14

ria

CLIMATE, ENERGY AND MOBILITY

OPENING
04/05/2023

DEADLINE
05/09/2023

Per topic: **12.00 M€**
Per project: **6.00 M€**
Up to 2 projects



Develop new digital twins to optimise the exploitation of individual wind farms (onshore, bottom-fixed offshore and floating offshore) as well as wind farm

clusters, in view of transforming them into virtual power plants delivering a more reliable and secure electricity system.

→ Increased region, city, and citizen engagement for geothermal energy.

Digital tools for enhancing the uptake of digital services in the energy market

HORIZON-CL5-2023-D3-03-04

IA

CLIMATE, ENERGY AND MOBILITY

OPENING
04/05/2023

DEADLINE
10/10/2023

Per topic: **11.00 M€**
Per project: **3.00-4.00 M€**
Up to 3 projects



Find ways to benefits of new digital services and users experience to overcome the expected friction of end-consumer on boarding, developing innovative tools for engagement and literacy.

- Social innovation tools and multi-disciplinary approaches and engagement of policy makers at various levels, the private sector, civil society and citizens at large are required.
- Projects are expected to take into account the outcomes of the work of the Citizens and Consumers Engagement Working Group and data coming from the Consumers Empowerment Benchmark developed by the European Commission.

Creation of a standardised and open-source peer-to-peer energy sharing platform architecture for the energy sector

HORIZON-CL5-2023-D3-03-05

IA

CLIMATE, ENERGY AND MOBILITY

OPENING
04/05/2023

DEADLINE
10/10/2023



Per topic: **5.00 M€**
Per project: **5.00 M€**
Up to 1 project

Develop an independent, EU-validated flexibility and peer-to-peer trading solution for consumers willing to engage in such operations, to the benefit of the integration of Distributed Energy Resources (such as solar panels, batteries and electric vehicles, but

also demand-response and flexible heat pumps and heaters considered as a resource) within the electricity network.

→ Increase consumer engagement and tool's acceptability.

Interoperable solutions for positive energy districts (PEDs), including a better integration of local renewables and local excess heat sources

HORIZON-CL5-2023-D4-01-03

IA

CLIMATE, ENERGY AND MOBILITY

OPENING
13/12/2022

DEADLINE
20/04/2023



Per topic: **8.00 M€**
Per project: **4.00 M€**
Up to 2 projects

Demonstrating fully interoperable solutions that include improved energy efficiency coupled with a better integration of local renewables and local excess heat sources within the district.

system in which they are embedded, through effective solutions that will allow interaction and integration between buildings, the users and the regional energy, mobility and ICT systems.

Enhancing the interoperability of positive energy districts with the urban and renewable energy

→ Increased social entrepreneurship and citizen participation and engagement in energy communities.

Demonstrate built-environment decarbonisation pathways through bottom-up technological, social and policy innovation for adaptive integrated sustainable renovation solutions (Built4People Partnership)

HORIZON-CL5-2023-D4-02-03

iA

CLIMATE, ENERGY AND MOBILITY

OPENING
04/05/2023

DEADLINE
05/09/2023

Per topic: **12.00 M€**
Per project: **6.00 M€**
Up to 2 projects

Develop and apply integrated approaches that demonstrate, in practice, achievable pathways for decarbonisation of the building stock through a

whole life carbon approach, including temporary carbon storage in built works (e.g. thanks to wood-based products).

→ Enhanced engagement amongst communities, businesses, local and regional governments, and the extended construction value chain, e.g. materials and equipment, manufacturers, construction companies.

Fast-tracking and promoting built environment construction and renovation innovation with local value chains (Built4People Partnership)

HORIZON-CL5-2023-D4-02-04

CSA

CLIMATE, ENERGY AND MOBILITY

OPENING
04/05/2023

DEADLINE
05/09/2023

Per topic: **2.00 M€**
Per project: **2.00 M€**
Up to 2 projects

Strengthen multi-disciplinary networking and collaboration amongst all actors of local and regional construction ecosystems and reinforce European value chains.

→ Enhanced engagement amongst communities, businesses, local and regional governments, and the construction industries and associated supply chain.

Advanced transport emissions monitoring networks

HORIZON-CL5-2023-D5-01-18

IA

CLIMATE, ENERGY AND MOBILITY

OPENING
13/12/2022

DEADLINE
20/04/2023

Per topic: **10.00 M€**
Per project: **5.00 M€**
Up to 2 projects



Install monitoring stations around ports and airports, allowing for instance to monitor and enforce the respect of fuel use mandates, correct noise abatement procedures, aircraft type limitations,

etc. Projects should achieve synergies between the monitored cities, ports and airports.

→ Stimulate citizen awareness and engagement in the Zero Pollution strategy (also through citizen science approach).

Infrastructure-enabled solutions for improving the continuity or extension of Operational Design Domains (ODDs) (CCAM Partnership)

HORIZON-CL5-2023-D6-01-03

IA

CLIMATE, ENERGY AND MOBILITY

OPENING
04/05/2023

DEADLINE
05/09/2023

Per topic: **12.00 M€**
Per project: **6.00 M€**
Up to 2 projects



Infrastructure-enabled or -supported solutions can help automated vehicles to overcome the limitation and fragmentation of ODDs (Operational Design Domains).

→ Close cross-sectoral collaboration will be necessary, including social innovation (development of new products, methods, and services for and with society to meet societal needs involving citizens, public authorities, business and industry, social partners and academia—the “Quadruple Helix”—in their design, development, and implementation).

CCAM effects on jobs and education, plans for skills that match the CCAM development, and prerequisites for employment growth (CCAM Partnership)

HORIZON-CL5-2023-D6-01-05

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING
04/05/2023

DEADLINE
05/09/2023

Per topic: **2.00 M€**
Per project: **2.00 M€**
Up to 1 project



Anticipate and mitigate the impacts and rebound effects on jobs due to the deployment of road based Cooperative, connected and automated mobility

(CCAM) systems and services, as well as boost innovation capabilities through the availability and upscaling of CCAM-specific professional skills.

- Use Social innovation to define and assess how expectations for job growth enabled by CCAM development and deployment can be achieved. Identify mechanisms and options to enhance innovation capabilities to develop competitive solutions.
- (Social innovation concerns the development of new products, methods, and services for and with society to meet societal needs involving citizens, public authorities, business and industry, social partners and academia—the “Quadruple Helix”—in their design, development, and implementation to drive social change and market uptake).

Interlinkages between biodiversity loss and degradation of ecosystems and the emergence of zoonotic diseases

HORIZON-CL6-2023-BIODIV-01-17

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/03/2023

Per topic: **12.00 M€**
Per project: **4.00 M€**
Up to 3 projects



Develop knowledge on the links between the degradation of ecosystems with its associated

biodiversity loss and the exposure to, emergence and spread of zoonotic diseases to humans.

- create a knowledge platform for a) sharing information on relevant research activities and results concerning the prevention of zoonotic disease emergence in relation to biodiversity; and b) reinforcing the communication and coordination between academics, innovators, end-users, researchers, public health and environmental authorities and citizens in order to create the strong system needed for the prevention of the emergence of zoonotic diseases.

Understanding and reducing bycatch of protected species

HORIZON-CL6-2023-BIODIV-01-5

IA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/03/2023

Per topic: **10.00 M€**

Per project: **5.00 M€**

Up to 2 projects



Contribute to the conservation of whales, whose role in carbon sequestration in the ocean is now thought

to be important, therefore this topic will indirectly contribute to carbon sequestration.

→ Stimulate citizen awareness and engagement in the Zero Pollution strategy (also through citizen science approach).

Addressing biodiversity decline and promoting Nature-based Solutions in higher education

HORIZON-CL6-2023-BIODIV-01-8

CSA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/03/2023

Per topic: **3.00 M€**

Per project: **3.00 M€**

Up to 1 project



This topic aims to contribute to education, skills development and awareness raising about biodiversity loss, and how this can be addressed,

notably with Nature-based Solutions (NBS), in the higher education sector.

- Explore innovative ways of involving higher education institutions, their students and staff in tackling the biodiversity crisis, together with the climate crisis (e.g., through documentaries, awards, art interventions, campus improvements).
- Outreach and cooperation activities between higher education institutions and citizens, the local and regional communities, businesses, research centres, or museums, supporting challenge-based and experiential learning with real-life applications, promoting nature-based thinking, public debate and a change of behaviour.

Biodiversity, economics and finance: unlocking financial flows towards reversing of biodiversity loss

HORIZON-CL6-2023-BIODIV-01-9

RiA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/03/2023

Per topic: **3.00 M€**
Per project: **3.00 M€**
Up to 1 project



Unlock financial flows needed for reversing biodiversity loss and help better implement the sustainable finance taxonomy, thus contributing to mainstream biodiversity, ecosystem services and natural capital in the society and economy and

to build approaches for enabling transformative changes to face societal challenges, including through the deployment of nature-based solutions (NBS).

→ Building on the existing community's engagement in relevant Horizon 2020 and LIFE projects, engage the relevant stakeholders from the financial and biodiversity and NBS community involved in the implementation of the regulations in this analysis, and in the exploration and co-development of solutions in order to close the implementation gaps

Build up of knowledge on Nature Positive Economy and supporting its scale-up

HORIZON-CL6-2023-BIODIV-01-10

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/03/2023

Per topic: **5.00 M€**
Per project: **5.00 M€**
Up to 1 project



Support the development of policies and market conditions to scale up and accelerate the implementation of nature positive economic activities with particular focus on Nature-based

Solutions (NBS). It will promote mainstreaming of biodiversity, ecosystem services and natural capital valuation in the society and economy.

→ Support the engagement of the relevant communities (including the communities engaged in the relevant Horizon 2020, Horizon Europe and LIFE projects) in contributing to the development of sector-specific standards and/or certification schemes.

Biodiversity loss and enhancing ecosystem services in urban and peri-urban areas

HORIZON-CL6-2023-BIODIV-01-11

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/03/2023



Per topic: **5.00 M€**
Per project: **5.00 M€**
Up to 1 projects

Develop a replicable methodology for cities and urban areas across Europe to co-design pathways, a shared long-term vision, an integrated strategy with policies and an action plan (e.g., with

responsibilities, timeline and financing) towards the urban ecosystem restoration targets as formulated in the Commission proposal for a nature restoration law

→ Engage in the testing cities different departments of local authorities, local research and technical organisations, big urban/ land managers or users, including farmers, citizen, including vulnerable groups, SMEs such as nature-based enterprises, etc. Citizen science approach could be used for this purpose.

Valorisation of ecosystem services provided by legume crops

HORIZON-CL6-2023-BIODIV-01-1

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/03/2023



Per topic: **10.00 M€**
Per project: **5.00 M€**
Up to 2 projects

Increase knowledge on the different and complementary benefits from the use of legume crops (both annual and perennials) in the provision of ecosystem and environmental services, such as the value of the nitrogen transfer to succeeding or companion crops (including in grassland systems),

the efficiency of different legume varieties to fix nitrogen in the soil in function of specific conditions (e.g., soil type, established rhizobia consortia), the role of legume crops for wind protection, water runoff or other erosion control strategies.

→ Promote the engagement of downstream actors in new value chains based on crop diversification. This should facilitate the market penetration of leguminous crops, linked to market outlets and consumers demand and influence the transition towards more sustainable and healthy food and feed systems.

Harnessing the innovation potential and market uptake of successful circular economy water related projects

HORIZON-CL6-2023-CircBio-01-3

CSA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/03/2023

Per topic: **2.00 M€**
Per project: **2.00 M€**
Up to 1 project



Create a critical mass for knowledge exchange, to further promote the dissemination and exploitation of EU funded research results, analyse relevant results and experiences and provide guidance related to the transition pathways that would

enable water management authorities and utilities to navigate through water, material and energy pathways.

→ Stakeholder and business engagement on the use of recovered products (water, nutrients, other resources) is crucial for overcoming social barriers and other regulatory ones as well as for enabling policy developments.

Land-based bioprospecting and production of bioactive compounds and functional materials for multiple bio-based value chains

HORIZON-CL6-2023-CircBio-01-4

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/03/2023

Per topic: **4.00 M€**
Per project: **4.00 M€**
Up to 1 project



contribute to all Destination 'Circular economy and bioeconomy sectors' impacts related to consumers and industry, in particular to development of innovative and sustainable value-chains in the bio-based sectors and of European industrial

sustainability, competitiveness and EU resource independence / strategic autonomy. It will also contribute via research on biotechnology and other enabling technologies, as a prerequisite and driver of future solutions for the bioeconomy transition.

→ This calls for close cooperation between industrial and academic partners, with due consideration for health/safety and environmental legislation, and informed public engagement.

Symbiosis in the bio-based industrial ecosystems

HORIZON-CL6-2023-CircBio-01-7

CSA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/03/2023

Per topic: **3.00 M€**

Per project: **1.5 M€**

Up to 2 projects



Developing industrial symbiosis and circularity while ensure sustainability of sourcing and production

process, while guaranteeing safety and positive user experience.

→ Engage with stakeholders, including local authorities and communities to disseminate the social and economic benefits from innovation in industrial symbiosis, bio-based industries, universities or other educational institutions to facilitate the training of circular practitioners.

Eco-friendly consumer products – low-toxicity/zero pollution construction bio-based materials

HORIZON-CL6-2023-CircBio-01-8

IA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/03/2023

Per topic: **10.00 M€**

Per project: **5.00 M€**

Up to 2 projects



Increase knowledge on the different and complementary benefits from the use of legume Identification and upscaling of bio-based materials suitable for the construction sector, understood as bio-based feedstocks and Innovating in terms of bio-based production improvements (e.g., additive bio-based manufacturing, nature-based solutions, or composite materials with added functionalities), leading to new construction-oriented consumer applications

of ecosystem and environmental services, such as the value of the nitrogen transfer to succeeding or companion crops (including in grassland systems), the efficiency of different legume varieties to fix nitrogen in the soil in function of specific conditions (e.g., soil type, established rhizobia consortia), the role of legume crops for wind protection, water runoff or other erosion control strategies.

→ Improved societal innovation and creativity, with inclusive engagement of all societal actors, especially professional bodies, policymakers, designers, architects, consumers and end-users, for the bio-based construction product segments. This is expected to contribute, e.g., by developing recommendations or guidelines, or public engagement/dialogue, to the policy-feedback on innovative construction materials, and to resolving related regulatory bottlenecks.

Supporting the fair and just transition from GHG-intensive economies facing challenges towards circular bioeconomy model regions

HORIZON-CL6-2023-CircBio-01-10

CSA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/03/2023

Per topic: **2.00 M€**
Per project: **2.00 M€**
Up to 1 project



Identify just and fair bioeconomy solutions in regions that face difficulties in the green transition to leave no person and no place behind, establish a network structure for European / Associated Countries regions to exchange views, best practices and align

their work to overcome common challenges and identify new bioeconomy structures that generate local green growth in regions currently relying on carbon-intensive economic activities

→ Achieve better-informed decision-making processes, social engagement and innovation.

Monitoring the multi-functionality of European forests

HORIZON-CL6-2023-CircBio-01-14

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/03/2023

Per topic: **4.00 M€**
Per project: **4.00 M€**
Up to 1 project



Design of a comprehensive forest information system that aligns information on forest state, ecosystem services (including biomass) provision and socio-economic ecosystem services demand.

→ Engage in a structured dialogue with institutions and stakeholders, including the European Commission, national competent authorities, representatives of the forest-sector, as well as data providers to align the needs and possibilities of data collection, provision, and use.

One hundred circular model households: making European households sustainable through inclusive circular practices

HORIZON-CL6-2023-CircBio-01-2

IA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/03/2023

Per topic: **18.00 M€**

Per project: **6.00 M€**

Up to 3 projects



Contribute to accelerate regional, rural, local/urban and consumer-based transition, as well as to improve on consumer and citizen benefits.

- Demonstrating how sustainable products and/or services can better meet the real needs of citizens with regard to entertainment, communication, mobility, housing, etc., and how in return this will positively influence consumer behaviour.
- Complementing the envisaged circular and biobased transition activities in cities and regions at a micro level, as it aims to target individual households.

Non-plant biomass feedstock for industrial applications: technologies and processes to convert non-lignocellulosic biomass and waste into bio-based chemicals, materials and products, improving the cascading valorisation of biomass

HORIZON-CL6-2023-CircBio-02-3-two-stage

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING

DEADLINES

22/12/2022

1st stage

28/03/2023

2nd stage

26/09/2023

Per topic: **8.00 M€**

Per project: **4.00 M€**

Up to 2 projects



Identification and optimization of suitable NLBM (Non-Lignocellulosic Biomass) feedstock, with focus on higher resources efficiency and circularity, while respecting the waste hierarchy principles.

- SMEs engagement, including the regional dimension, for skilled jobs creation.

Improve the reliability and effectiveness of alternative water resources supply systems and technologies

HORIZON-CL6-2023-CLIMATE-01-2

IA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
12/04/2023

Per topic: **10.00 M€**

Per project: **3.3 M€**

Up to 3 projects



Improve the sustainability of various alternative water supply resources in the context of climate change and water scarcity adaptation.

→ This action should bring together relevant researchers, technology providers, water utilities, business representatives, investors, policy makers and other water users and citizens. The active participation and engagement of different stakeholders should span the entire project development and implementation to ensure performance and sustainability and maximise the final impact.

Demonstration network on climate-smart farming – linking research stations

HORIZON-CL6-2023-CLIMATE-01-4

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
12/04/2023

Per topic: **20.00 M€**

Per project: **20.00 M€**

Up to 1 project



A wide adoption of practices contributing to mitigation of climate change and enhanced carbon storage by farmers.

→ 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”).

Enhancing the sustainable production of renewable energy at farm-level

HORIZON-CL6-2023-CLIMATE-01-7

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
12/04/2023

Per topic: **5.00 M€**
Per project: **5.0 M€**
Up to 1 project



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.

→ 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.

International benchmarking of rural and territorial policies and delivery mechanisms

HORIZON-CL6-2023-COMMUNITIES-01-3

CSA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
12/04/2023

Per topic: **3.00 M€**
Per project: **3.00 M€**
Up to 1 project



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.

→ Analyse also rural and territorial policies that were developed with and for rural communities and identify effective citizen engagement methods.

European partnership on accelerating farming systems transition – agroecology living labs and research infrastructures

HORIZON-CL6-2023-FARM2FORK-01-1

COFUND

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
12/04/2023

Per topic: **60.00 M€**
Per project: **60.00 M€**
Up to 1 project



Coordinate research and innovation programmes on agroecology between the EU and its Member States and Associated Countries and trigger combined

actions, that will boost fundamental research on agroecology through to applied research.

→ Design and implement communication, knowledge sharing and dissemination activities to improve stakeholder and wider public engagement in agroecology transition.

Improving yields in organic cropping systems

HORIZON-CL6-2023-FARM2FORK-01-3

CSA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
12/04/2023

Per topic: **8.00 M€**
Per project: **4.00 M€**
Up to 2 projects



Promoting the use of more sustainable farming practices is a EU policy objective enshrined in the European Green Deal and its related strategies. Boosting organic farming, one of the objectives of the farm to fork and of the EU biodiversity strategies, can greatly contribute to achieving this ambition.

Moreover, the Communication ‘Safeguarding food security and reinforcing the resilience of food systems’ highlights the role that organic farming can play in reducing EU’s dependence on external inputs.

→ Organise and implement advisory activities, exchange of knowledge and best practices as well as dissemination of results, including the development of practical guidelines and decision-support tools for farmers. These activities should also engage farmers involved in low-input farming, agro-ecological or circular farming, to facilitate cross-fertilisation and mutual learning.

European partnership on sustainable food systems for people, planet and climate

HORIZON-CL6-2023-FARM2FORK-01-9

COFUND

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
12/04/2023



contribute to the European Green Deal priorities, especially to the farm to fork strategy, and will deliver co-benefits on each of the Food 2030 priorities: nutrition for sustainable healthy diets, climate and environment, circularity and resource efficiency, innovation and empowering communities. The Partnership will also contribute to the common

Per topic: **45.00 M€**
Per project: **45.0 M€**
Up to 1 project

agricultural policy / common fisheries policy, circular economy action plan / blue economy, sustainable aquaculture, single market for green products, Europe's digital decade, 2030 climate target plan, Waste Framework Directive, bioeconomy strategy and action plan, and the EU zero pollution action plan.

→ Citizen engagement and consumer trust in reoriented food systems; and changes in the way we govern food systems: Leverage points for local, national, EU and global transition pathways – incentives, boundary settings and co-creation.

Towards CAP post 2027: evidence on nudging farmers to leverage more sustainable practices and behaviours

HORIZON-CL6-2023-GOVERNANCE-01-3

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
23/03/2023



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

Per topic: **3.00 M€**
Per project: **3.00 M€**
Up to 1 project

EU policies (in particular the CAP) and the European Green Deal initiatives with particular focus on farm to fork, biodiversity strategies and climate action.

→ 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.

Empowering citizens to monitor, report and act in partnership with relevant public authorities to protect their environment in the context of environmental compliance assurance

HORIZON-CL6-2023-GOVERNANCE-01-12

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
23/03/2023

Per topic: **7.00 M€**
Per project: **7.00 M€**
Up to 1 project



Support citizen engagement in particular by encouraging the validation and uptake of citizen observations by relevant public authorities for environmental compliance assurance.

→ 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 solutions) as well as Living Labs established in Missions, Partnerships and other initiatives .

Digital technologies supporting plant health early detection, territory surveillance and phytosanitary measures

HORIZON-CL6-2023-GOVERNANCE-01-16

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
23/03/2023

Per topic: **10.00 M€**
Per project: **5.00 M€**
Up to 2 projects



Develop more cost-effective approaches to detect and discriminate infested plants, including trees, at large spatial scales and within reasonable time frames.

→ 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.

Data-driven solutions to foster industry's contribution to inclusive and sustainable food systems

HORIZON-CL6-2023-GOVERNANCE-01-17

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
23/03/2023

Per topic: **8.00 M€**
Per project: **4.00 M€**
Up to 2 projects



Enhance the sustainability performance and competitiveness in the domains covered by Cluster 6 through further deployment of digital and data technologies as key enablers.

→ Achieve better informed decision-making processes, social engagement, governance, and innovation.

Broaden EIP Operational Group outcomes across borders by means of thematic networks to compile and share knowledge ready for practice

HORIZON-CL6-2023-GOVERNANCE-01-18

CSA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
23/03/2023

Per topic: **4.00 M€**
Per project: **2.00 M€**
Up to 2 projects



Focus on knowledge sharing in a language that is easy to understand and targeted to farmers and foresters.

→ 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.

Thematic networks to compile and share knowledge ready for practice

HORIZON-CL6-2023-GOVERNANCE-01-19

CSA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
23/03/2023

Per topic: **6.00 M€**
Per project: **3.00 M€**
Up to 2 projects



Focus on knowledge sharing in a language that is easy to understand and targeted to farmers and foresters.

→ 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.

Developing an interdisciplinary and inclusive pan-European academic network for food system science

HORIZON-CL6-2023-GOVERNANCE-01-4

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
23/03/2023

Per topic: **6.00 M€**
Per project: **6.00 M€**
Up to 1 project



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.

→ 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.

Revitalisation of European local (rural / peri-urban) communities with innovative bio-based business models and social innovation

HORIZON-CL6-2023-GOVERNANCE-01-5

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
23/03/2023

Per topic: **5.00 M€**
Per project: **5.00 M€**
Up to 1 project



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.

→ Higher level of innovation at local scale and inclusive engagement of all actors (especially focusing on the 'social enterprise' model relevant for vulnerable populations).

Co-creation and trust-building measures for biotechnology and bio-based innovation systems

HORIZON-CL6-2023-GOVERNANCE-01-6

CSA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
23/03/2023

Per topic: **1.50 M€**
Per project: **1.50 M€**
Up to 1 project



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.

- Proposals will benefit from social creativity and engagement.
- Proposals will seek complementarities with related actions on governance of bio-based innovation and ensure inclusiveness and engagement of all actors.

Mobilising BIOEAST networks for the development of national bioeconomy action programmes in support of the European Green Deal

HORIZON-CL6-2023-GOVERNANCE-01-8

CSA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
23/03/2023



Per topic: **3.50 M€**

Per project: **3.50 M€**

Up to 1 project

Focus on knowledge sharing in a language that is easy to understand and targeted to farmers and Support R&I to strengthen the national bioeconomy networks in BIOEAST (The Central-Eastern European Initiative for Knowledge-based Agriculture, Aquaculture

and Forestry in the Bioeconomy) countries for the development of national bioeconomy action programmes and engage relevant stakeholders in the development of the action plans.

→ Connecting experts and policy makers in national bioeconomy networks for better engagement of stakeholders.

Industrial biotechnology approaches for improved sustainability and output of industrial bio-based processes

HORIZON-CL6-2023-ZEROPOLLUTION-01-5

IA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/03/2023



Per topic: **10.00 M€**

Per project: **5.00 M€**

Up to 2 projects

developing scalable, flexible and robust multi-product manufacturing, responding to current trends in the industrial biotechnology (e.g., on-demand production, small-volume outputs, lower capital expenditure, digital / artificial intelligence (AI) solutions, lower/

minimal dependence on scarce natural resources, especially in terms of biological feedstocks), ensuring links to EU / Associated Countries industrial ecosystems (SMEs, EU Partnerships such as Circular Bio-based Europe JU).

→ Clear communication and dissemination activities are an essential element, including awareness raising, engagement of societal actors (NGOs, consumer organisations, professional organisations). Proposals should include a dedicated task, appropriate resources and a plan on how they will collaborate with other projects funded under this topic and other relevant topics.

Biosensors and user-friendly diagnostic tools for environmental services

HORIZON-CL6-2023-ZEROPOLLUTION-01-6

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING
22/12/2022

DEADLINE
28/03/2023

Per topic: **8.00 M€**
Per project: **4.00 M€**
Up to 2 projects



Development of high-resolution biosensors for environmental monitoring and detection.

- Increasing engagement and competitiveness of the European environmental services sector, such as the SMEs and industry operators, including the digital sector actors, supporting the convergence between bio-based and digital sectors (including the role of artificial intelligence (AI) solutions). Increasing the awareness and understanding of the underpinning technologies by the civil society, including NGOs and consumer organisations, as well as participatory approaches such as citizen engagement, including citizen science, in environmental observation and monitoring.

European Blue Parks – Protection and restoration of marine habitats

HORIZON-MISS-2023-OCEAN-01-01

IA

MISSION: RESTORE OUR OCEAN AND WATERS BY 2030

OPENING
17/01/2023

DEADLINE
20/09/2023

Per topic: **8.00 M€**
Per project: **8.00 M€**
Up to 1 project



Proposals under this topic will develop and demonstrate protection and restoration solutions to address the degradation of coastal and marine ecosystems. Proposals should significantly improve the management of marine protected areas in

particular through definition of clear science-based conservation objectives and implementation of the necessary conservation measures to achieve those objectives.

- Citizen engagement is a pillar concept for the Mission and a key element in relation to conservation and restoration actions. Activities should, therefore, use innovative participatory management practices, citizen-science initiatives and awarenessraising actions to promote a proactive involvement of local communities including scientists, land and sea use planners, marine protected area managers, and other stakeholders, to enable co-creation of solutions. Awareness raising actions to inspire and generate co-ownership for protection of local habitat and biodiversity should be included as well as collaboration with existing initiatives.

Atlantic and Arctic sea basin lighthouse – Addressing climate change and human activities threats to marine biodiversity

HORIZON-MISS-2023-OCEAN-01-03

IA

MISSION: RESTORE OUR OCEAN AND WATERS BY 2030

OPENING
17/01/2022

DEADLINE
20/03/2023

Per topic: **16.00 M€**

Per project: **8.00 M€**

Up to 2 projects



Proposals will focus on developing and demonstrating ecosystem-based conservation measures and approaches for reducing cumulative

pressure from human activities to address marine biodiversity loss at basin/regional level.

→ Citizen engagement is a pillar concept for the Mission. Proposals may involve coastal communities with important biodiversity hotspots, including islands and the EU Outermost Regions in the co-creation of measures that meet the Mission's aims while granting due consideration to local communities' needs and values. Proposals are expected to involve where appropriate European Solidarity Corps and citizens science activities in the restoration efforts.

European natural lakes: demonstration of integrated approaches for protection and restoration of natural lake ecosystems and their biodiversity

HORIZON-MISS-2023-OCEAN-01-04

IA

MISSION: RESTORE OUR OCEAN AND WATERS BY 2030

OPENING
17/01/2023

DEADLINE
20/09/2023

Per topic: **12.00 M€**

Per project: **4.00 M€**

Up to 3 projects



The proposals should design and demonstrate integrated and replicable approaches to protect and restore natural lake ecosystems and their biodiversity that result in a significantly improved ecological and chemical status and maintain it in the long-term. The integrated approaches should cover physical and biochemical elements and address in an integrated way all main pressures on the lake

ecosystem, (e.g.: water level regulation, water extraction, agriculture, soil pollution etc.). Proposals should also consider threats and risks associated to climate change and pressures on biodiversity.

- Local actors, including where appropriate, the European Solidarity Corps and Mission Citizen Assemblies, should be involved in ecosystem restoration and protection activities and any actions for social and economic transitions towards sustainable inclusive and long-term management of the restored ecosystems, using activities like citizen science to encourage involvement and stewardship of lakes and their catchments.

Co-creating solutions for soil health in Living Labs

HORIZON-MISS-2023-SOIL-01-08

RIA

MISSION: A SOIL DEAL FOR EUROPE

OPENING
17/01/2023

DEADLINE
20/09/2023



The Mission 'A Soil Deal for Europe' proposes a novel approach to research and innovation in the area of soil health, including the implementation of living labs. Living labs have the potential to

Per topic: **36.00 M€**
Per project: **12.00 M€**
Up to 3 projects

empower a green transition towards healthy soils by developing solutions in a co-creative manner and involving actors in real life settings at territorial level to achieve large-scale impact.

- In line with the nature of living labs, proposals must implement the multi-actor approach. The list of stakeholders will vary depending on features specific to each living lab and can involve different types of actors such as researchers, land owners or land managers, industry (e.g. SMEs), public administrations, representatives of civil society (e.g. consumers, environmental NGOs). Care should be taken to describe the capabilities and roles of the different partners involved in the project, depending on their area of expertise. For example, while some partners may lead the conceptual work and coordinate the work within and across living labs, others may focus on carrying-out experiments, providing advice, testing and validating innovative solutions, or be involved in outreach activities.

Carbon farming in living labs

HORIZON-MISS-2023-SOIL-01-09

RIA

MISSION: A SOIL DEAL FOR EUROPE

OPENING
17/01/2023

DEADLINE
20/09/2023



More research is still needed to increase removals of carbon from the atmosphere and achieve the EU's legally binding commitment to become climate neutral by 2050, as well as to close the gap

Per topic: **12.00 M€**
Per project: **12.00 M€**
Up to 1 project

between science and practice, between knowledge and implementation. The Mission 'A Soil Deal for Europe' proposes a novel approach to research and innovation in the area of soil health, including

the implementation of living labs. Living labs have the potential to empower a green transition towards healthy soils by developing solutions in

a co-creative manner, involving actors in real-life settings at territorial level to achieve large-scale impacts.

→ In line with the nature of living labs, proposals must implement the multi-actor approach. The list of stakeholders will vary depending on features specific to each living lab and can involve different types of actors such as researchers, land owners or land managers, industry (e.g. SMEs), public administrations, representatives of civil society (e.g. consumers, environmental NGOs). Care should be taken to describe the capabilities and roles of the different partners involved in the project, depending on their area of expertise. For example, while some partners may lead the conceptual work and coordinate the work within and across living labs, others may focus on carrying-out experiments, providing advice, testing and validating innovative solutions, or be involved in outreach activities.

Urban greening and re-naturing for urban regeneration, resilience and climate neutrality

HORIZON-MISS-2023-CLIMA-CITIES-01-01

IA

MISSIONS' JOINT CALLS

OPENING
10/01/2023

DEADLINE
27/04/2023



Per topic: **40.00 M€**

Per project: **10.00-12.00 M€**

Up to 4 projects

The objective of this topic is to explore and demonstrate how to operationalize collaborative climate mitigation and adaptation urban planning approaches deploying “greening” and re-naturing solutions for regeneration, re-purposing, rehabilitation and pollution abatement purposes.

The co-created plans should be in line with the guiding principles of the European Green Deal and the New European Bauhaus initiative.

→ Set-up in each participating city collaborative platforms (such as living labs) depicting multi-level, and multi-disciplinary governance structures and engaging local authorities, citizens, stakeholders and relevant actors and expertise (Such as planning, design, ICT sector, social sciences and humanities, behavioural and citizens sciences, gender, ecology etc.) for the co-design, testing and demonstration of co-created urban rehabilitation, regeneration, re-purposing or (re)conversion plans deploying greening and re-naturing approaches to foster more climate neutral, resilient, liveable, sustainable and functional cities with thriving nature, communities and economic activities.

Mission Climate adaptation, Mission Ocean & waters and Mission Soil Deal for Europe – Joint demonstration of an integrated approach to increasing landscape water retention capacity at regional scale

HORIZON-MISS-2023-CLIMA-OCEAN-SOIL-01-01

IA

MISSIONS' JOINT CALLS

OPENING
17/01/2023

DEADLINE
20/09/2023

Per topic: **16.00 M€**
Per project: **8.00 M€**
Up to 2 projects



Projects should demonstrate socio-ecological approaches and nature-based solutions to increase landscape and soil water retention capacity, leading to improvement of quality and quantity of ground and surface waters in the area where they are deployed, and boosting resilience to climate change impacts.

A combination of nature-based measures with hybrid solutions and relevant Blue-Green engineering may be considered, provided these combined solutions are sustainable and provide adequate social and environmental safeguards.

- Planning, implementation and management of effective measures to increase landscape water retention capacity requires involvement of various stakeholders and their expertise, such as land, owners, spatial planning and other local and regional authorities, soil protection and management experts, water management and planning bodies, landscape planning experts, farmers and forest managers.
- Local authorities and local communities should be involved in the design and implementation of the solutions, to ensure that these are well suited for local needs and conditions and are “owned” by the local communities. Activities should, therefore, promote the involvement of local communities as well as the relevant authorities, to consider with them the impact of intended actions, and to co-create measures while taking local communities’ needs and values on board. The proposals should involve citizens, including where appropriate European Solidarity Corps, and relevant citizen science activities.



Mission Ocean and Waters and Mission A Soil Deal for Europe – Joint demonstration of approaches and solutions to address nutrient pollution in the landscape-river-sea system in the Mediterranean sea basin

HORIZON-MISS-2023-OCEAN-SOIL-01-01

IA

MISSIONS' JOINT CALLS

OPENING
17/01/2023

DEADLINE
20/09/2023

Per topic: **15.00 M€**
Per project: **15.00 M€**
Up to 1 project

Proposals should demonstrate scalable breakthrough innovations in the landscape-river catchment-sea system, including coastal ecosystems, in the Mediterranean Sea basin addressing all following issues: Upstream prevention and reduction of nutrient losses from soil, and of soil and water pollution from excess nutrients, such as through reduction in the use of traditional/mineral fertilisers and/or their sustainable substitution with bio-based fertilisers, improved nutrient retention in soil and slower release to crops, improved nutrient use efficiency, integrated landscape and

soil management, reduction of nutrient losses from rural and urban communities; Prevention of entry of nutrients in river catchment areas and their reduction, for example through improved wastewater treatment, use of green filters and other measures for reducing the flow of nutrients through the river system and prevention and reduction of their entry into the estuary/sea; Measures to reduce/eliminate excess nutrients in/from the estuary/sea to reduce or eliminate the risk of eutrophication.

- Include dedicated training and communication activities taking place in the demonstration sites, for dissemination and accelerated adoption by other potential users of the approaches demonstrated in the project, as well as for citizen engagement and soil, water and ocean literacy improvement (including for advisory services).



Contributors:



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