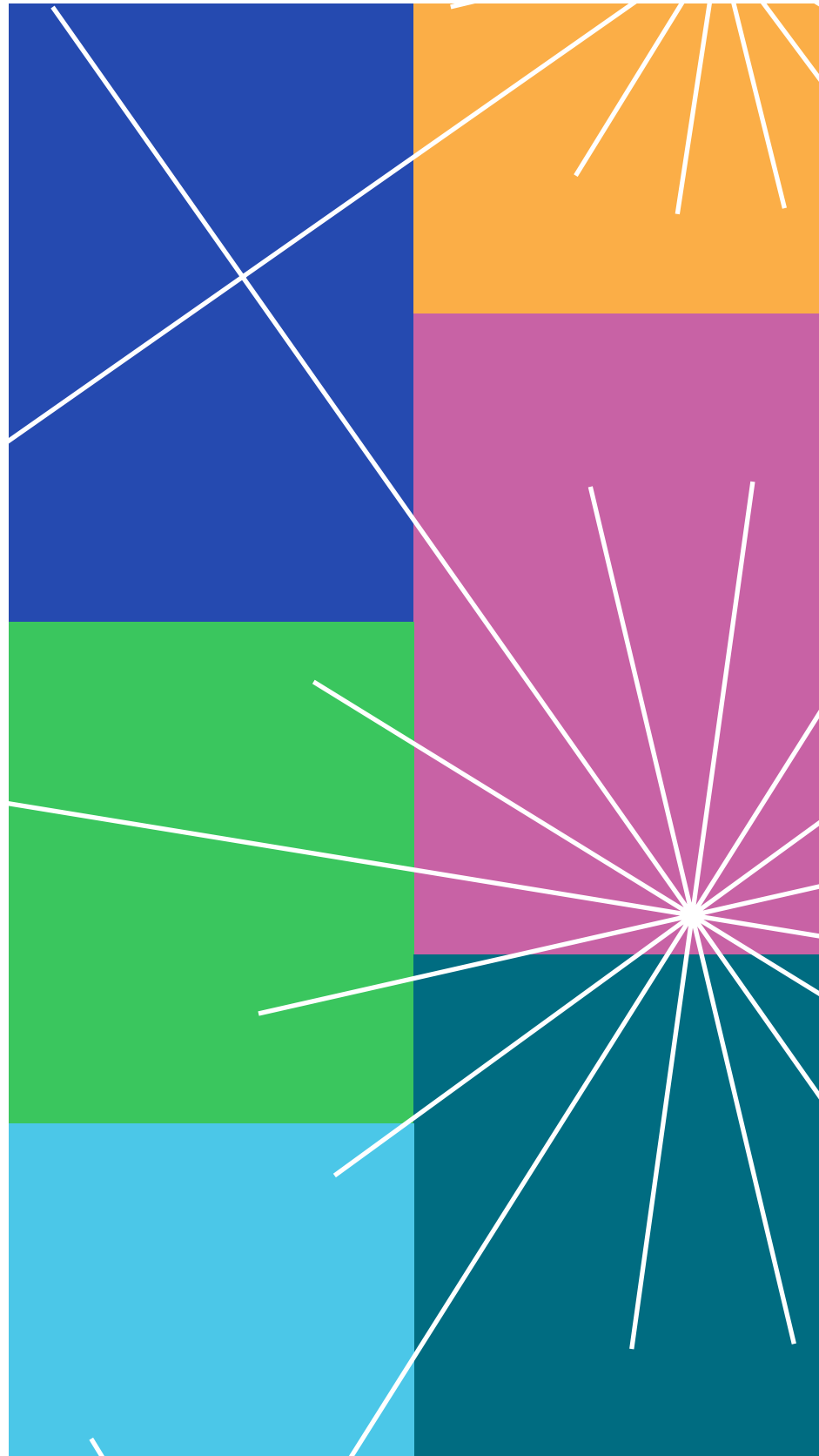


# ERA Opportunities 2024

**GUIDEBOOK**



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 2024 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.

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.

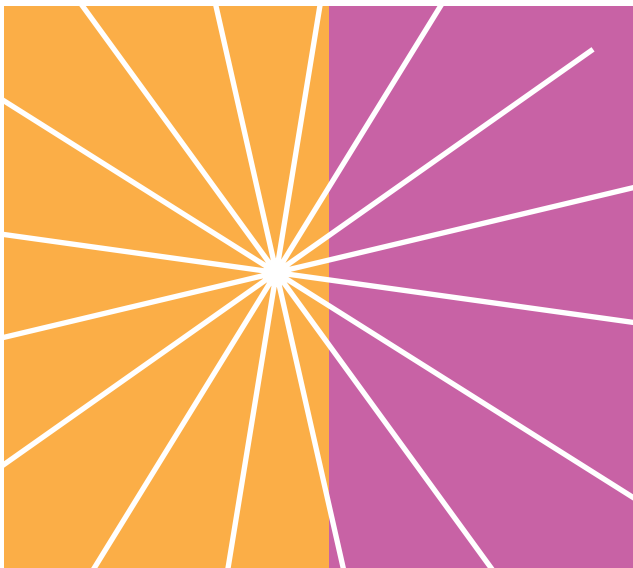
The main ERA aspects which are integrated in the various clusters are: gender equality, open science, citizen science, public engagement, science education and ethics/research integrity.



## 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 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 2024 calls.

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

## Pandemic preparedness and response: Host-pathogen interactions of infectious diseases with epidemic potential

HORIZON-HLTH-2024-DISEASE-08-20

RIA

HEALTH

OPENING  
26/10/2023

DEADLINE  
11/04/2024



As shown by the COVID-19 pandemic, infectious diseases remain a major threat to health and health security in the EU and globally. Viral disease emergence is expected to accelerate due to among other factors, climate change, and thus a proactive approach to the development of vaccines and inhibitors for the cellular uptake of viruses in preparedness for future infectious disease outbreaks is needed. The availability of vaccines and candidates that inhibit cellular uptake of viruses would provide a critical preparedness measure against future health threats, in particular against pathogens with high pandemic potential meeting the criteria identified by

Per topic: **50.00 M€**

Per project: **7.00 - 8.00 M€**

Up to 5 projects

the Health Emergency Preparedness and Response Authority (HERA).

Proposals should follow innovative approaches to characterise host-pathogen interactions with a view to inhibit viral replication, viral proteases, viral exit strategies and to develop therapeutic antibodies and vaccines that target viruses with high epidemic or pandemic potential for the EU (Hendra and Nipah virus, Lassa virus, Crimean Congo haemorrhagic fever virus, Rift Valley fever virus, Ebola and Marburg virus, Dengue virus, Yellow Fever virus, Zika virus, West Nile fever virus and Chikungunya virus).

→ Proposal should take into account sex and gender aspects.

## Bio-printing of living cells for regenerative medicine

HORIZON-HLTH-2024-TOOL-11-02

RIA

HEALTH

OPENING  
26/10/2023

DEADLINE  
11/04/2024

Per topic: **25.00 M€**

Per project: **6.00 - 8.00 M€**

Up to 4 projects



Proposals under this topic should aim for delivering results that are directed towards and contributing to several of the following expected outcomes:

- Biomedical scientists will access entire bio-printing units for regenerating human tissue.
- Availability of larger-scale bio-printed tissues for

biomedical research purposes to both industry and academia.

- Healthcare professionals acquire information on the safe and effective use of advanced therapies.

→ Sex differences at the cellular level should be taken into consideration.

## Protest politics and cultures of opposition in democracy

HORIZON-CL2-2024-DEMOCRACY-01-01

RIA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING  
4/10/2023

DEADLINE  
7/2/2024

Per topic: **9.00 M€**

Per project: **2.00-3.00 M€**

Up to 3 projects



Research proposals under this topic should analyse further the shift towards politics of collective action, and their impact on European democracies, including their role in resisting the rise of authoritarian tendencies and in taking down authoritarian regimes. This could refer to both online and offline forms of collective political action, including artistic forms

of protest (audiovisual art, literature, music, etc.). Proposals should consider drivers and factors that play a role in fostering such forms of politics (emotional, gender, socioeconomic, cultural, historical, generational, geopolitical, geographical etc.), including the role of social media platforms.

→ Proposals should consider drivers and factors that play a role in fostering such forms of politics (emotional, gender, socioeconomic, cultural, historical, generational, geopolitical, geographical etc.), including the role of social media platforms.



## The interrelation between social, cultural and political identities, as well as the sense of belonging, and democracies

HORIZON-CL2-2024-DEMOCRACY-01-04

RIA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING  
4/10/2023

DEADLINE  
7/2/2024

Per topic: **9.00 M€**

Per project: **2.00-3.00 M€**

Up to 3 projects



In the past few years, Europe has arguably experienced an increased fragmentation of identities, given rapid generational, demographic, social, religious and political changes. This has opened up questions about the negative impact that such fragmenting trends might have on democratic life, as well as the barriers that certain groups face to be actively and meaningfully engaged in democratic participation, among these

youths, migrants, and LGBTIQ+ collectives. In this context, proposals should help further investigate the way that democracy and its key tenets such as political representation, participation or trust are interrelated to social, cultural, and political identities and a sense of belonging and identification with different communities.

- Proposals should help further investigate the way that democracy and its key tenets such as political representation, participation or trust are interrelated to social, cultural, and political identities and a sense of belonging and identification with different communities. This includes gender, ethnic, multicultural, multilingual and spatial identities and subjectivities, amongst others, taking into account the cumulative effects of discrimination.
- Proposals should also utilise participatory methods for research, involving academic and non-academic actors, with a focus on community empowerment. They might utilise methodologies that build on disciplines such as political and social psychology, behavioural politics, history, sociology, gender and race theories, religious studies, post-colonial studies, etc.





## Gender-roles in extremist movements and their impact on democracy

HORIZON-CL2-2024-DEMOCRACY-01-05

RIA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING  
4/10/2023

DEADLINE  
7/2/2024

Per topic: **9.00 M€**

Per project: **2.00-3.00 M€**

Up to 3 projects

Proposals should consider the interrelation between top-down hyper-masculinistic leadership styles and bottom-up identitarian, nationalist and other extremist movements developing in online spaces,

and analyse their impact on democratic participation, decision-making and trust in governance. Historical experiences of leadership and politics in crisis situations may also be considered in this regard.

- Develop a critical understanding of the construction and performance of gender roles in extremist, identitarian and nationalist movements and their impact on democracy, EU values and fundamental rights.
- Examine gender roles in political leadership styles and narratives, especially in nationalist and extremist parties, and their impact on democratic participation, decision-making and trust in governance, and propose alternative models for more democratic leadership.
- Proposals should develop strategies and practical solutions for the engagement and deliberation with men involved in reactionary, identitarian, or far-right nationalist online forums, and examine the influence of the online discourse in such platforms on the constitution of extremist movements, as well as their relation to mainstream (online) platforms and political discourse. This includes, but is not limited to, an analysis and engagement with different types of masculinity, how these relate to political violence, gender-based violence, and hate crimes, and perceptions around EU values and socio-political change.
- Proposals are encouraged to build on past EU-funded projects as well as plan to exploit potential synergies with project(s) funded under HORIZON-CL3-2024-FCT-01-04: Radicalisation and gender.

## Digital democracy

HORIZON-CL2-2024-DEMOCRACY-01-07

RIA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING  
4/10/2023

DEADLINE  
7/2/2024

Per topic: **9.00 M€**

Per project: **2.00-3.00 M€**

Up to 3 projects



Proposals should investigate - building on existing literature and data - the most recent developments, especially as regards the pandemic-induced innovative e-democracy and e-participation solutions at all levels of governance (international, EU, national, regional, local). Research should pay particular attention to digital inclusion as a key challenge and

essential element of inclusive citizen participation in public deliberations for a healthy digitally enabled democracy through equal participation irrespective of citizen's income level, education, ethnicity, gender, religion, language used, ability, geographical location, etc., and to the digital divide between generations.

→ Research should pay particular attention to digital inclusion as a key challenge and essential element of inclusive citizen participation in public deliberations for a healthy digitally enabled democracy through equal participation irrespective of citizen's income level, education, ethnicity, gender, religion, language used, ability, geographical location, etc., and to the digital divide between generations.

## Culture, the arts and cultural spaces for democratic participation and political expression, online and offline

HORIZON-CL2-2024-DEMOCRACY-01-08

RIA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING  
4/10/2023

DEADLINE  
7/2/2024

Per topic: **9.00 M€**

Per project: **2.00-3.00 M€**

Up to 3 projects



Proposals are expected to investigate cultural activity and engagement, online and offline, as political expression, civic participation and political

engagement, historically, in contemporary society, and to provide forecasts for the future.

→ Gender, decoloniality and intersectionality should be taken into account.





## Policy recommendations from socio-economic impacts of loneliness in Europe

HORIZON-CL2-2024-TRANSFORMATIONS-01-01

CSA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING  
4/10/2023

DEADLINE  
7/2/2024



This effort should capitalise on available data to identify commonly agreed socio-economic and geographical risk factors, drivers and trends of loneliness within and across Member States including of specific populations (such as teenagers, unemployed, recently retired people, third country nationals who legally reside in the EU and people with disabilities), as well as gender and intersecting

Per topic: **3.00 M€**

Per project: **3.00 M€**

Up to 1 project

aspects (e.g. socioeconomic background, ethnic/minority background) and provide recommendations to design effective loneliness policies as well as develop tools for the long term monitoring of loneliness at the individual and population levels.

→ This effort should capitalise on available data to identify commonly agreed socio-economic and geographical risk factors, drivers and trends of loneliness within and across Member States including of specific populations (such as teenagers, unemployed, recently retired people, third country nationals who legally reside in the EU and people with disabilities), as well as gender and intersecting aspects (e.g. socioeconomic background, ethnic/minority background) and provide recommendations to design effective loneliness policies as well as develop tools for the long term monitoring of loneliness at the individual and population levels.

## Strengthen economic fairness and resilience of active labour market policies and address high unemployment

HORIZON-CL2-2024-TRANSFORMATIONS-01-02

CSA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING  
4/10/2023

DEADLINE  
7/2/2024



More research is needed to survey the different types of active labour market policies enacted by the Member States, especially in the area of skills development during economic downturns, and their effects on people facing economic challenges, e.g. people at risk of poverty or workers whose job is at

Per topic: **10.00 M€**

Per project: **2.00-3.00 M€**

Up to 3 projects

risk of automation or at risk of transformation due to transition to a decarbonised economy. Proposals should focus on the ways in which active labour market policies can be strengthened to provide economic fairness and resilience.

## Beyond the horizon: A human friendly deployment of artificial intelligence and related technologies

HORIZON-CL2-2024-TRANSFORMATIONS-01-06

CSA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING  
4/10/2023

DEADLINE  
7/2/2024



Per topic: **10.00 M€**

Per project: **2.00 - 3.00 M€**

Up to 3 projects

The proposal should cover all the following aspects:

- Decisive contributions to develop a sound European capacity building on the future and long term human and societal implications of AI, building, as appropriate, on previous work of the HLEG-AI, ADRA125 , and current development of the AI Act or other relevant European and national AI initiatives.
- A solid scientific approach, providing an in-depth

analysis of successful existing deployment of AI and the impact they have on European economy and society. Such analysis should also significantly contribute to awareness raising of such deployments, providing a reality check of capabilities/benefits, but also limitations of current AI solutions, and how the latter are currently addressed.

→ There have been many documented case studies where AI-based applications have exhibited undesired gender and racial bias.

## Improving social and societal preparedness for disaster response and health emergencies

HORIZON-CL3-2023-DRS-01-01

RIA

CIVIL SECURITY FOR SOCIETY

OPENING  
29/6/2023

DEADLINE  
23/11/2023



Per topic: **8.00 M€**

Per project: **4.00 M€**

Up to 2 projects

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

- Identification of different factors in inequality and ways to communicate with vulnerable groups, of individual, organisational, and systemic resilience factors and pathways to support these, and of ways to address vulnerabilities in acute crisis as well as during prevention, in order to elaborate

an interconnectedness of resilience and vulnerability;

- Improvement of populations health literacy and basic understanding of how medicine and vaccines work and how they are developed and produced;
- Improved crisis communication through increased awareness and risk perception

regarding bio security, identification of challenges for and limits of communication strategies and interventions regarding different vulnerable groups and approaches to address these, elaborating of ways for resolving barriers for crisis communication: interlinguality, interculturality, intersemiotics;

- Putting the citizen at the centre of the crisis management process (involving where relevant citizen volunteers in demonstrations related to research developments), increasing their capacity to access, read and interpret scientifically sourced information, analysing gender behaviours regarding unpopular measures (e.g., quarantine) and vaccination attitudes and identification and relieving of barriers for vaccination readiness: Trust, risk appraisal, barriers for registration for vaccination, information, collective responsibility;
- Incorporation of information technology and bias-free data into crisis management through improved information processing in transformative governance, illustrating possibilities, challenges, and limits of digitalisation and enabling usage of data for political decision making;
- Incorporation of machine learning and artificial intelligence in governance and political decision making based on interdisciplinary discussions on definitions on problems in compliance with EU law; areas of application; and definition of responsibilities and competences in data governance;
- Validation of novel, smartphone sized or wearable technologies with laboratory-level diagnostics capability (e.g., wearables with integrated digital dosimeters, handheld PCR test devices);
- Strengthening of the One Health approach including not only human physical health but also mental health as well as environmental and animal health, and understanding of the biological risks posed by environmental changes such as climate change and preparedness for impacts on human health;
- Projects should comply with privacy safeguards to ensure that disaster response systems protect EU fundamental rights such as privacy and protection of personal data.

→ This topic requires the effective contribution of SSH disciplines and the involvement of SSH as well as gender experts, institutions as well as the inclusion of relevant SSH and gender expertise, in order to produce meaningful and significant effects enhancing the societal impact of the related research activities.

→ Putting the citizen at the centre of the crisis management process (involving where relevant citizen volunteers in demonstrations related to research developments), increasing their capacity to access, read and interpret scientifically sourced information, analysing gender behaviours regarding unpopular measures (e.g., quarantine) and vaccination attitudes and identification and relieving of barriers for vaccination readiness: Trust, risk appraisal, barriers for registration for vaccination, information, collective responsibility



## Processing of large, complex and unstructured datasets resulting from criminal investigations, while reconciling big data analysis and data protection

HORIZON-CL3-2023-FCT-01-01

IA

CIVIL SECURITY FOR SOCIETY

OPENING  
29/6/2023

DEADLINE  
23/11/2023

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



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

- Improved capabilities of European Police Authorities and other relevant security practitioners for a fast and flexible analysis of huge amounts of heterogeneous data through the application of robust and advanced tools, allowing them to efficiently fight criminals and terrorists who use novel technologies;
- Enhanced and modern analysis of heterogeneous data as well as training curricula that take into account legal and ethical rules of operation, cost-benefit considerations, as

well as fundamental rights such as privacy and protection of personal data, providing reports that can be used in court;

- The work of European Police Authorities in the area of fighting crime and terrorism is supported by big data analysis that is in accordance with data minimisation principles and high privacy standards, with clearly identified challenges, adequate models and scientifically validated technical options for tackling the challenge proposed and solutions developed that meet the challenge.

→ In this topic the integration of the gender dimension (sex and gender analysis) in research and innovation content should be addressed only if relevant in relation to the objectives of the research effort.

## A harmonized European forensics approach on drugs analysis

HORIZON-CL3-2023-FCT-01-02

IA

CIVIL SECURITY FOR SOCIETY

OPENING  
29/6/2023

DEADLINE  
23/11/2023

Per topic: **9.00 M€**  
Per project: **4.50 M€**  
Up to 2 Projects



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

- European Police Authorities, forensic institutes and other relevant security practitioners are equipped by modern means of chemical analysis

(composition) in drugs aimed at facilitating the cross-matching of seized drugs to labs and the establishment of links between cases, including by developing protocols to quickly exchange information on new substances;



- Improved and uniform EU-wide approach for the collection of evidence regarding illicit drugs-related overdoses, that would allow for choosing adequate responses in countering the drug-related problems;
- Improved collection and availability of forensic evidence, that could be used in court by the authorities, in direct violence, kidnapping or human trafficking cases, as well as reinforced prevention of such cases thanks to sensors/kits that are reliable, lawful, fast and easy-to-use;
- Enhanced perception of citizens in public and private spaces that Europe is an area of freedom, justice and security.

→ Gender-related impacts as well as legal and ethical challenges of such solutions should be fully considered in the development process.

## Facilitating strategic cooperation to ensure the provision of essential services

HORIZON-CL3-2023-INFRA-01-01

IA

CIVIL SECURITY FOR SOCIETY

OPENING  
29/6/2023

DEADLINE  
23/11/2023



Per topic: **5.00 M€**

Per project: **5.00 M€**

Up to 1 project

- Projects' results are expected to contribute to all of the following outcomes:
- Tools for EU Member State authorities and operators for the assessment and anticipation of relevant risks to the provisions of essential services are identified;
- The cooperation between authorities of EU Member States is facilitated by providing solutions for data exchange and joint cross-border risk assessments;
- Simulation tools are developed for large-scale exercises to test the resilience of operators and of specific sectors, and related training courses are designed;
- Measures by Member State authorities to facilitate risk assessments by operators are identified, including the assessment of dependencies on different sectors and cross-border interdependencies;
- Provide common European guidance and support for the drafting of their resilience plans in order to meet all the provisions of the proposed CER-Directive: risk analysis, domino effects, cross-sector and cross-border analysis, standardised plans, educational and training tools;
- An all-hazards framework is created to support Member States in ensuring improved concepts and instruments for the anticipation of risks to entities that provide essential services, resulting in an improved preparedness and response against disruptions of key sectors in the EU and enhanced resilience of the EU internal market.

→ In this topic the integration of the gender dimension (sex and gender analysis) in research and innovation content should be addressed only if relevant in relation to the objectives of the research effort.

## Open grounds for pre-commercial procurement of innovative security technologies

HORIZON-CL3-2023-SSRI-01-01

RIA

CIVIL SECURITY FOR SOCIETY

OPENING  
29/6/2023

DEADLINE  
23/11/2023



End-users and public procurers from several countries are invited to submit proposals for a preparatory action that should build the grounds for a future Pre-Commercial Procurement action. Both this preparatory action and the future PCP action are open to proposals oriented to the acquisition

Per topic: **2.00 M€**

Per project: **1.00 M€**

Up to 2 projects

of R&D services for the development of innovative technologies, systems, tools or techniques to enhance border security, to fight against crime and terrorism, to protect infrastructure and public spaces, and/or to make societies more resilient against natural or human-made disasters

→ In this topic the integration of the gender dimension (sex and gender analysis) in research and innovation content should be addressed only if relevant in relation to the objectives of the research effort.

## Mitigating new threats and adapting investigation strategies in the era of Internet of Things

HORIZON-CL3-2024-FCT-01-01

RIA

CIVIL SECURITY FOR SOCIETY

OPENING  
27/6/2024

DEADLINE  
20/11/2024



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

- Increased understanding of Police Authorities regarding the emerging (digital and especially physical) threats of the fast-developing environment of Internet of Things;
- Modern tools to tackle new and emerging forms of crime pertaining to the development of Internet of Things are provided to European Police Authorities and other relevant security practitioners, which take into account legal and

Per topic: **5.00 M€**

Per project: **5.00 M€**

Up to 1 project

ethical rules of operation, EU fundamental rights such as privacy and protection of personal data as well as cost-benefit considerations;

- Lawful access and exploitation of evidence in the environment of the Internet of Things are fortified;
- Best practices (legal, organisational, technical) to access and exploit Internet of Things in the course of investigation are strengthened, including by developing relevant tools and training materials

→ Proposals for this topic should consider the gender aspect.

## CBRN-E detection capacities in small architecture

HORIZON-CL3-2024-FCT-01-07

IA

CIVIL SECURITY FOR SOCIETY

OPENING  
27/6/2024

DEADLINE  
20/11/2024

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



Proposals funded under this topic are expected to engage with the Europol Innovation Lab during the lifetime of the project, including validating the outcomes, with the aim of facilitating future uptake of innovations for the law enforcement community. The successful proposal should build on the publicly

available achievements and findings of related previous national or EU-funded projects, as well as seek to exploit potential synergies with the successful proposal(s) funded under HORIZON-CL3-2024-BM-01-05: Detection and tracking of illegal and trafficked goods.

→ In this topic the integration of the gender dimension (sex and gender analysis) in research and innovation content should be addressed only if relevant in relation to the objectives of the research effort.

## Tracing of cryptocurrencies transactions related to criminal purposes

HORIZON-CL3-2024-FCT-01-08

IA

CIVIL SECURITY FOR SOCIETY

OPENING  
27/6/2024

DEADLINE  
20/11/2024

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



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

- The attractiveness of use of cryptocurrencies by criminals and terrorists is limited, with better tractability of cryptocurrency transactions;
- Lawful tools and methods for Police Authorities to better trace virtual currency transactions related to criminal activities;
- Recommendations are provided for better

- regulation of the cryptocurrencies market as well as for better regulation of the exchange of transnational information on funds transfers, harmonizing and promoting standards to enhance the tracing of money flows in the context of criminal investigations; and
- Modern training curricula for Police Authorities, Prosecutors, as well as judicial actors are developed on tracing, seizing and handling cryptocurrencies in the course of investigation

→ In this topic the integration of the gender dimension (sex and gender analysis) in research and innovation content should be addressed only if relevant in relation to the objectives of the research effort.

## Demand-led innovation through public procurement

HORIZON-CL3-2024-SSRI-01-01

IA CIVIL SECURITY FOR SOCIETY

OPENING  
27/6/2024

DEADLINE  
20/11/2024



Per topic: **6.00 M€**  
Per project: **1.50 M€**  
Up to 4 Projects

The proposals should build on the outcomes of CSA projects funded under previous work programmes aimed at creating stronger grounds for pre-commercial procurement of innovative security technologies [for example, topic HORIZON-CL3-2022-SSRI-01-03: Stronger grounds for pre-commercial procurement

of innovative security technologies.]. The successful proposals could therefore give continuity to the works initiated by those CSA projects.

The proposals are expected to provide clear evidence on a number of aspects in order to justify and de-risk the PCP action

→ In this topic the integration of the gender dimension (sex and gender analysis) in research and innovation content should be addressed only if relevant in relation to the objectives of the research effort.

## Accelerating uptake through open proposals for advanced SME innovation

HORIZON-CL3-2024-SSRI-01-02

IA CIVIL SECURITY FOR SOCIETY

OPENING  
27/6/2024

DEADLINE  
20/11/2024



Per topic: **6.00 M€**  
Per project: **1.50 M€**  
Up to 4 Projects

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

- Development of a mature technological solution addressing EU security policy priorities in the areas addressed by the Cluster 3 work programme;
- Facilitated access to civil security market for small innovators;
- Improved cooperation between public buyers

- and small supply market actors for a swifter uptake of innovation in response to short to mid-term needs;
- Stronger partnerships between small and medium EU security industry and technology actors to ensure the sustainability of the EU innovation capacity in the civil security domain and reduce technological dependencies from non-EU suppliers in critical security areas.

→ In this topic the integration of the gender dimension (sex and gender analysis) in research and innovation content should be addressed only if relevant in relation to the objectives of the research effort.



## Synergy with national and regional initiatives in Europe

HORIZON-CL4-2024-DIGITAL-EMERGING-01-34

CSA

DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024

Per topic: **3 M€**

Per project: **3 M€**

Up to 1 project



Projects are expected to contribute to the following outcomes:

- Well-coordinated European, national and regional initiatives in the field of graphene and two-dimensional materials (2DM);
- Further development of a strong European innovation ecosystem in 2DM-based

technologies. Proposals should support the coordination between relevant national and regional public authorities funding research and innovation in 2DM-based technologies. This coordination should allow them to work synergistically with the goal to strengthen and complement the EU funded activities in the domain.

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

## Explainable and Robust AI (AI Data and Robotics Partnership)

HORIZON-CL4-2024-HUMAN-01-06

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024

Per topic: **30 M€**

Per project: **9 - 10 M€**

Up to 3 projects



Projects are expected to contribute to one of the following outcomes:

- Enhanced robustness, performance and reliability of AI systems, including awareness of the limits of operational robustness of the system;
- Improved explainability and accountability, transparency and autonomy of AI systems, including awareness of the working conditions of the system. All proposals are expected to embed mechanisms to assess and demonstrate

progress (with qualitative and quantitative KPIs, benchmarking and progress monitoring), and share communicable results with the European R&D community, through the AI-on-demand platform or Digital Industrial Platform for Robotics, public community resources, to maximise re-use of results, either by developers, or for uptake, and optimise efficiency of funding; enhancing the European AI, Data and Robotics ecosystem through the sharing of results and best practice.

→ Proposals should involve appropriate expertise in all the relevant disciplines, and where appropriate Social Sciences and Humanities (SSH), including gender and intersectional knowledge to address concerns around gender, racial or other biases. etc.

- Emerging technologies such as virtual reality, eXtended Reality or immersive environments provide numerous opportunities for personalised, innovative, efficient and inclusive learning, for learners of all ages, gender and condition.
- Impact: Increased inclusiveness, by supporting a human-centred approach to technology development that is aligned with European social and ethical values (including gender and intersectional aspects), as well as sustainability.

## Collaborative intelligence – combining the best of machine and human (AI Data and Robotics Partnership)

HORIZON-CL4-2024-HUMAN-01-07

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024

Per topic: **20 M€**  
Per project: **5 M€**  
Up to 4 projects



- Projects are expected to contribute to the following outcomes:
- Demonstrate the value of human-machine collaboration and interaction by improved effectiveness, intuitiveness, efficiency, completeness, limits of knowledge indication and other objective or quantifiable subjective measures.
- Demonstrate how collaborative decision-making improves over human decision-making and that the collaborative decisions cover all stages of reasoning (that they are based on an improved

coverage of data and knowledge sources, on an improved analytic ability to reason from input to output, and on a well-communicated decision).

- Proposals are expected to address at least one of the expected outcomes.
- At least one proposal will be selected with a focus on human-machine collaboration and interaction and at least one with a focus on collaborative decision-making. Proposals should clearly mention which of the two areas they address.

- Ethics principles needs to be adopted from early stages of development and design, and gender-sensitivity should be considered, where relevant.



# Exploration of critical raw materials in deep land deposits

HORIZON-CL4-2024-RESILIENCE-01-01

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING  
19/9/2023

DEADLINE  
7/2/2024



Per topic: **20 M€**

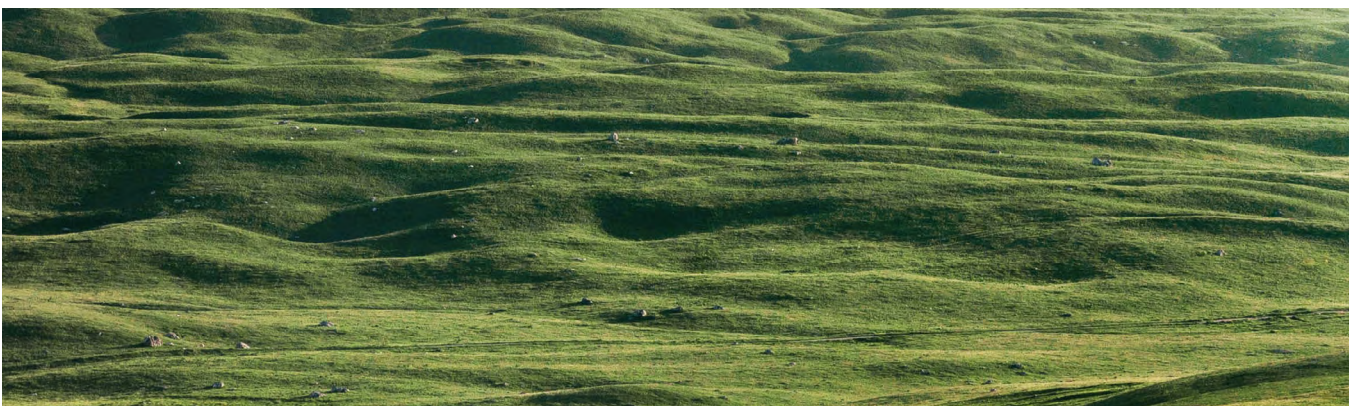
Per project: **around 5 M€**

Up to 4 projects

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 for EU industrial value chains and strategic sectors. Projects are expected to contribute to the following outcomes:

- Develop innovative technologies for exploration of critical raw materials in deep land deposits in the EU and non-EU countries;
  - Increase the resources and reserves of various primary critical raw materials within the EU and non-EU countries;
  - Accelerate development of EU domestic critical raw materials exploration projects integrating innovative technologies;
  - Strengthen EU autonomy and ethical sourcing of raw materials by developing socially and environmentally acceptable means of discovery of primary raw materials;
- Improve responsible supply of raw materials to the EU in line with the EU principles for sustainable raw materials, which are a non-regulatory set of principles based on the EU acquis. They set out requirements for sustainable raw materials and extraction and processing in Europe in terms of social, environmental and economic performance;
  - Promote the utilisation of UNFC (United Nations Framework Classification for Resources) and UNRMS (United Nations Resource Management System) in the raw materials sector.
  - Actions are expected to contribute to the implementation of the EU action plan on Critical Raw Materials.

- Should address following aspect : propose approaches that better integrate mobility policies with policies from other sectors (e.g. energy efficiency, renewables, gender mainstreaming, healthcare, retail and poverty and low income population reduction).
- A 'social optimum' balance should be included to developing research knowledge within new governance models from several perspectives (e.g. socio-economic, environmental, health, accessibility, gender and inclusion, safety and security aspects).



## Technologies for processing and refining of critical raw materials

HORIZON-CL4-2024-RESILIENCE-01-04

IA

DIGITAL, INDUSTRY AND SPACE

OPENING  
19/9/2023

DEADLINE  
7/2/2024

Per topic: 22 M€

Per project: **Around 7.30 M€**

Up to 3 projects

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 for EU industrial value chains and strategic sectors. Projects are expected to contribute to the following outcomes:

- Increase recovery rates of valuable raw materials, particularly critical raw materials from low grade or complex ores and/or from extractive waste;
- Significantly increase economic performance in terms of higher material-, water-, energy- and cost-efficiency and flexibility in minerals processing and metallurgical processes;
- Significantly improve the health, safety and environmental performance of the operations

throughout the whole life cycle which is considered, including a reduction in waste, wastewater and emissions generation and a better recovery of resources from generated waste;

- Improve responsible supply of raw materials to Europe in line with the EU principles for sustainable raw materials, which are a non-regulatory set of principles based on the EU acquis. They set out requirements for sustainable raw materials and extraction and processing in Europe in terms of social, environmental and economic performance. Actions are expected to contribute to the implementation of the EU action plan on Critical Raw Materials.

→ In this topic the integration of the gender dimension (sex and/or gender analysis) in research and innovation content is not a mandatory requirement, however, should the applicant consider it to be of relevance for his specific proposal, he is strongly encouraged to do it.

## Rare Earth and magnets innovation hubs

HORIZON-CL4-2024-RESILIENCE-01-08

IA

DIGITAL, INDUSTRY AND SPACE

OPENING  
19/9/2023

DEADLINE  
7/2/2024

Per topic: 32 M€

Per project: **16 M€**

Up to 2 projects

The action should create an innovation hub that enables the development, demonstration and testing of new processes for production of rare earths and related products, particularly neodymium permanent magnets in the industrial environments.

This hub should connect critical mass of the existing laboratories, industrial pilots and other research facilities and services across different regions in Europe and if duly justified also in third countries.



→ In this topic the integration of the gender dimension (sex and/or gender analysis) in research and innovation content is not a mandatory requirement, however, should the applicant consider it to be of relevance for his specific proposal, he is strongly encouraged to do it.

## Technologies for extraction and processing of critical raw materials

**HORIZON-CL4-2024-RESILIENCE-01-11**

IA

**DIGITAL, INDUSTRY AND SPACE**

OPENING  
19/9/2023

DEADLINE  
7/2/2024

Per topic: **15 M€**  
Per project: **7.50 M€**  
Up to 2 projects



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 for EU industrial value chains and strategic sectors.

Actions are expected to develop and demonstrate extraction and processing technologies to facilitate exploitation of the primary raw critical raw materials (minerals and metals only) for the EU to strengthen the EU supply chains.

→ In this topic the integration of the gender dimension (sex and/or gender analysis) in research and innovation content is not a mandatory requirement, however, should the applicant consider it to be of relevance for his specific proposal, he is strongly encouraged to do it.

## Hubs for circularity for industrialised urban peripheral areas

**HORIZON-CL4-2024-TWIN-TRANSITION-01-38**

IA

**DIGITAL, INDUSTRY AND SPACE**

OPENING  
19/9/2023

DEADLINE  
7/2/2024

Per topic: **40.00 M€**  
Per project: **15.00 - 20.00 M€**  
Up to 2 projects



Projects outcomes will enable achievement of the objectives of Processes4Planet partnership by demonstrating hubs for circularity (H4Cs) concepts, fostering circularity within and beyond process industries and driving the partnership's innovation portfolio towards "First of a kind" demonstrators to de-risk investment for subsequent roll-out.

Projects are expected to contribute to the following outcomes:

- Demonstrate zero urban waste in a near commercial scale environment through systemic resource recovery as alternative material feedstock; a decrease of GHG emissions is also expected by explicitly

addressing the reduced flow of goods (due to geographical proximity);

- Reduce the freshwater consumption of the urban area by 50%, and re-use 90% of the solid waste generated by the water treatment;
- Citizens living in cities will benefit from a healthier environment through industrial/urban symbiosis by lowering emissions through circular and renewable energy sources and waste reduction;

- Use urban/industrial symbiosis and cross-sectorial cooperation to pave the way for achieving the EU Green Deal and “Fit for 55” package objectives: providing recommendations for optimized regional framework conditions by highlighting barriers and suitable innovation-oriented policies and looking for possible synergies with the cities selected by the Cities Mission.

→ Favour participative management with the local community and study the evolution of the social impact of the hub, whilst also considering gender perspective and inclusiveness;

## Market Uptake Measures of renewable energy systems

HORIZON-CL5-2024-D3-02-10

CSA

CLIMATE, ENERGY AND MOBILITY

OPENING  
17/9/2024

DEADLINE  
21/1/2025

Per topic: 8.00 M€

Per project: **2.00 M€**

Up to 4 projects



The proposal is expected to develop solutions either for the entire renewable energy market or focusing on a specific energy sector, such as electricity, heating, cooling or renewable fuels. Expected outcomes, among others include: Facilitate the wider uptake of renewable energy systems (RES) in the energy, industrial and residential sectors, Contribute to provide open source validated tools and methodologies for policy makers and stakeholders, Contribute to the development of markets and

respective financial frameworks, Improve social acceptability of renewable energy facilities and installations. Proposals can also address issues within a specific geographical region such as urban and peri-urban areas. Issues related to acceptability of RES technologies due to ecological, economic and social aspects are expected to be addressed. The proposed solution can be developed to address a local challenge but needs to have wide potential for reapplication.

→ The complexity of these challenges and of the related market uptake barriers may call for multi-disciplinary approaches, which requires contributions from the social sciences and humanities. Where relevant, local, regional specificities, socio-economic, gender-related, spatial and environmental aspects will be considered from a life-cycle perspective.



## Digital solutions to foster participative design, planning and management of buildings, neighbourhoods and urban districts (Built4People Partnership)

HORIZON-CL5-2024-D4-02-05

IA

CLIMATE, ENERGY AND MOBILITY

OPENING  
17/09/2023

DEADLINE  
21/01/2024

Per topic: **10.00 M€**

Per project: **5.00 M€**

Up to 2 projects

This topic focuses on the development of digital solutions for a stronger participation of end users, citizens and other relevant stakeholders in the design, planning and management of the renovation of existing buildings, neighbourhoods and / or districts.

Demonstrate the prototype in at least three real-life urban development projects to apply, evaluate and refine the digital solution and inform its market launch and / or commercialisation strategy.

→ Engage citizens (seeking coverage of different genders and social characteristics).

## Optimising multimodal network and traffic management, harnessing data from infrastructures, mobility of passengers and freight transport

HORIZON-CL5-2024-D6-01-06

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING  
07/05/2024

DEADLINE  
05/09/2024

Per topic: **10.00 M€**

Per project: **4.00 - 5.00 M€**

Up to 2 projects

- Project results are expected to contribute to at least 4 of the following expected outcomes:
- Optimised multimodal transport network and traffic management, for efficient door-to-door mobility of passengers and freight (from producers to last mile deliveries).
- Validated solutions for effective and secure data exchange across all modes of transport, for dynamic and responsive multimodal network and traffic management.

- Validated systems for accurate detection and resolution of network bottlenecks, improving safety, security, resilience and overall performance of the transport network, enabling pro-active mobility management.
- New tools and services for optimising mobility of passengers and freight, in cities and other areas, cutting traffic jams and improving multimodal traffic flows. The proposed solutions should demonstrate (e.g. through

simulations, pilots) the potential to reduce by at least 30% the average travel delay, as well as the overall transport energy consumption and emissions of greenhouse gases and other pollutants in the network.

→ Workable governance arrangements for multimodal transport network and traffic management, in view of further supporting regulatory and policy actions.

→ Assessing and simulating the effects on multimodal network and traffic management of new forms of mobility (e.g. zero-emission, connected and automated vehicles and vessels, car sharing/pooling, active-/micro-mobility, sustainable land/air transport modes and drones), as well as of innovative services (e.g. Mobility/Logistics as a Service), in different urban and rural environments, considering the socio-economic acceptability and different user needs (including vulnerable and gender groups).

## Policies and governance shaping the future transport and mobility systems

HORIZON-CL5-2024-D6-01-09

RIA CLIMATE, ENERGY AND MOBILITY

OPENING  
07/05/2024

DEADLINE  
05/09/2024

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



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

- A better understanding of the effects of governance, policies, and incentives, but also land use and spatial planning, on the choice of individuals, families, or social groups of different kinds to use a specific transport and/or mobility mode.
- Reinforced public engagement in shaping co-created transport and mobility policies.
- Effective policy interventions, co-created with target constituencies and building on high-quality policy; strengthening of research-policy cooperation models to reinforce impact and trust in science.
- More effective and sustainable national, regional and transnational transport and mobility policies toward accepted approaches, based on a system-thinking perspective.
- Better harnessing the potential of digitised mobility data while protecting citizen’s privacy.
- Providing concepts and policy recommendations sustainably integrating passenger and freight transportation in order to create a future proof holistic mobility system.

→ Should address following aspect : propose approaches that better integrate mobility policies with policies from other sectors (e.g. energy efficiency, renewables, gender mainstreaming, healthcare, retail and poverty and low income population reduction).

→ A ‘social optimum’ balance should be included to developing research knowledge within new governance models from several perspectives (e.g. socio-economic, environmental, health, accessibility, gender and inclusion, safety and security aspects).

## A new framework to improve traffic safety culture in the EU

HORIZON-CL5-2024-D6-01-12

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING  
07/05/2024

DEADLINE  
05/09/2024

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

Efforts should therefore be made to complement road safety initiatives by a safety culture perspective, i.e., the values, beliefs, priorities and viewpoints shared among groups of road users and stakeholders

that influence their decisions to behave or act in ways that affect safety, while also considering energy consumption. This concept is already well established in organisational research.

→ Assessing road safety cultures in different national, regional or local systems, groups and organisations is believed to help understanding and explaining different patterns of risk perception and risk taking across communities and countries – and can likewise inform tailored interventions for these (sub-)cultures, which all come with their specific norms, values, beliefs and behaviours (including gender-related behavioural patterns).

## Circular bioeconomy start-up villages

HORIZON-CL6-2024-CircBio-01-9

CSA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING  
17/10/2023

DEADLINE  
22/02/2024

Per topic: **2.50 M€**  
Per project: **0.80 M€**  
Up to 3 projects

- Proposals are expected to contribute to the creation and support of a thematic network of start-up villages based on bioeconomy concepts, including all of the following activities:
- Provide assistance and advisory support for the development and linking of startup villages and raise awareness of the rural innovators on sustainable and circular systemic bioeconomy solutions.
- Develop the Start Up Village Forum initiative through a community of practice to support active engagement of all relevant actors

- (local and regional authorities, entrepreneurs, investors, rural cooperatives, rural communities and others) in the start-up villages and foster knowledge exchange and mutual learning between them, as well as share research, data and analytical findings.
- Develop a list of case studies of local and regional start-up villages focusing on bioeconomy including sustainable food systems and bio-based solutions, identifying and presenting the respective strengths, weaknesses, and opportunities. These case studies could be used for replication and



dissemination across Europe in the context of the Startup Village Forum. Proposals should involve at least three start-up villages from three different Member States / Associated Countries,

ensuring geographical coverage of different regions.

→ Social innovation is relevant for this topic as it contributes to strengthened rural innovation ecosystems and to find solutions for rural communities when the solution is at the socio-technical interface and requires social and behavioural change, new social practices, social ownership or market uptake. Proposal should contribute to improve the quality of life and long-term socio-economic prospects of rural and coastal communities, including women (especially supporting women-led SMEs and start-ups), youth and the most vulnerable groups like indigenous people or minorities and refugees.

## Societal perceptions and benefits of rural life and jobs: will COVID 19 generate a long-lasting shift?

HORIZON-CL6-2024-COMMUNITIES-01-2

RIA FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING  
17/10/2023

DEADLINE  
22/02/2024

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

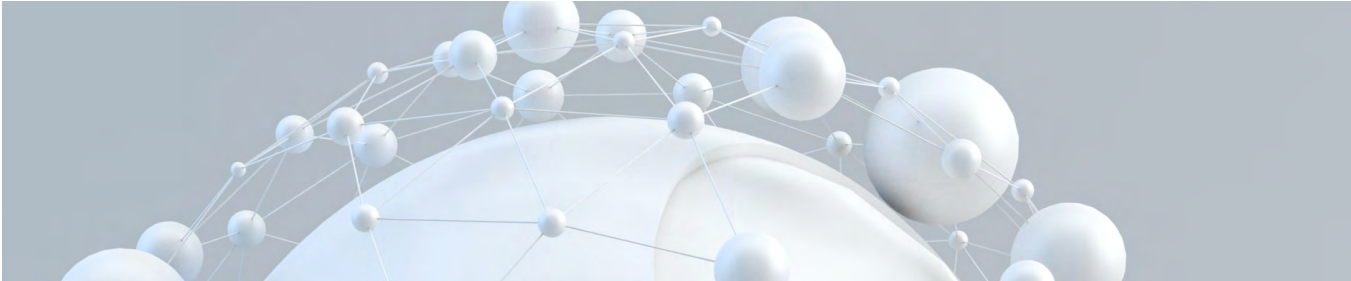


Project results are expected to contribute to all of following expected outcomes:

- Improved understanding by policy makers at different levels (European, national, regional and local) of the behavioural drivers of people’s lifestyle choices and rural and urban dwellers’ perceptions of rural life in the aftermath of COVID 19;
- Improve understanding of policy makers at different levels (European, national, regional and local) of the behavioural and structural drivers of

- people’s lifestyle choices and people’s perceptions of rural life in the aftermath of COVID 19 and of the long-term trends and opportunities for rural areas;
- Improved policy-response to rural areas challenges and needs in the light of the COVID 19 impact;
- This topic should involve the effective contribution of social science and humanities (SSH) disciplines (e.g., sociology, history, human geography behavioural sciences, gender studies, etc.).

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



## Participation and empowerment of Arctic coastal, local, and indigenous communities in environmental decision-making

HORIZON-CL6-2024-COMMUNITIES-01-3

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING  
17/10/2023

DEADLINE  
22/02/2024



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

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

- Better understanding of how different types of knowledge, including traditional environmental knowledge (TEK)[1], are being mobilised; how scientists and local and indigenous knowledge

Per topic: **3.00 M€**

Per project: **3.00 M€**

Up to 1 project

holders cooperate and dialogue in this context;

- Empowerment of Arctic coastal, local and indigenous people and sectors to innovate[2] for the ecological transition and feel part of it, through participatory methodologies (i.e. a multi-actor approach); to engage in decision-making about their environment and livelihoods;
- Explore, with different actors, and recommend ways to bring traditional, local, and scientific knowledge into the collective effort of solving matters of concern.

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

## New healthy and sustainable food products and processes

HORIZON-CL6-2024-FARM2FORK-01-2

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING  
17/10/2023

DEADLINE  
22/02/2024



The successful proposal will support R&I to develop new food products and processes in conventional or organic production systems. These new products should be healthier and overall more sustainable and based on natural ingredients, tasty appealing to the consumer, affordable and minimally processed.

Project results are expected to contribute to all of

Per topic: **10.00 M€**

Per project: **5.00 M€**

Up to 2 projects

the following outcomes:

- New knowledge that the food industry can use in the design of new healthy and sustainable food products and processes to improve health and well-being of EU and Associated Countries citizens and with low impact on the environment/climate.

- Alignment in goals of consumers and food solution providers with more healthy, tasty, minimally processed, affordable and sustainable food.
- New market and job opportunities for sustainable food SMEs and industries.

→ Proposals must implement the ‘multi-actor approach’ and ensure adequate involvement of academia, research-technology organizations, food businesses and other relevant actors of the value chain and take into account sex and gender analysis.

## Impact of the development of novel foods based on alternative sources of proteins

HORIZON-CL6-2024-FARM2FORK-01-7

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING  
17/10/2023

DEADLINE  
22/02/2024

Per topic: **9.00 M€**  
Per project: **4.50 M€**  
Up to 2 projects



The successful proposal will support R&I to promote the production, provision and safe consumption of alternative sources of protein, and dietary shifts towards sustainable healthy nutrition, contributing to the transformation of food systems to deliver co-benefits for climate (mitigation and adaptation), biodiversity, environmental sustainability and circularity, sustainable healthy nutrition and safe food, food poverty reduction, empowerment of communities, and thriving businesses.

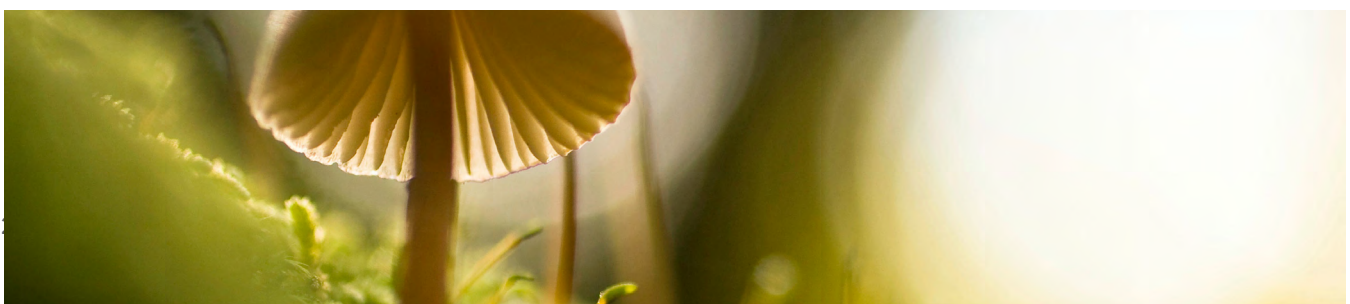
Projects results are expected to contribute to all of the following expected outcomes:

- Better and complete information provided about the impact this specific innovation, i.e.

the development of novel food (e.g., insect protein, micro and macro algae-based products, microbial proteins, food/aquaculture by-products) would have especially for the food system in terms of sustainability (particularly economic and social aspects).

- Solutions that can help achieving the objectives of the European Green Deal, especially the farm to fork strategy, and Food 2030 priorities: nutrition for sustainable healthy diets, climate and environment, zero pollution, circularity and resource efficiency, innovation and empowering communities (e.g., meeting the needs, values and expectations of society in a responsible and ethical way).

→ Assess their social impact (e.g., health aspects, consumer acceptance including considering gender and age aspects, cultural aspects).





# Open science

---

## Computational Social Science approaches in research on democracy

HORIZON-CL2-2024-DEMOCRACY-01-06

RIA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING  
10/4/2023

DEADLINE  
7/2/24

Per topic: **9.00 M€**

Per project: **2.00 - 3.00 M€**

Up to 3 projects



Social sciences have not yet fully embraced the breakthrough of computational science that took place in past years with costs for data transport and data storage ceasing to be a limiting factor for data-driven social science. Developing new crosscutting tools of social and computational science will

indeed contribute to better understanding how the EU society acts. Proposals are therefore expected to propose new strategies and approaches on how to deal with data, and the lack thereof, in a way that fully complies with the EU's notion of privacy and personal data.

→ Concrete efforts should be made to ensure that the data produced in the context of the funded projects is FAIR (Findable, Accessible, Interoperable and Re-usable), particularly in the context of real-time data feeds, exploring workflows that can provide “FAIR-by-design” data, i.e., data that is FAIR from its generation. Proposals should leverage the data and services available through European Research Infrastructures federated under the European Open Science Cloud, as well as data from relevant Data Spaces in the data-driven analyses. Additionally, efforts should be made to increase the data availability in European Research Infrastructures federated under the European Open Science Cloud by depositing generated data in relevant infrastructures

## Policy recommendations from socio-economic impacts of loneliness in Europe

HORIZON-CL2-2024-TRANSFORMATIONS-01-01

CSA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING  
4/10/23

DEADLINE  
7/2/24



This effort should capitalise on available data to identify commonly agreed socio-economic and geographical risk factors, drivers and trends of loneliness within and across Member States including of specific populations (such as teenagers, unemployed, recently retired people, third country nationals who legally reside in the EU and people

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

with disabilities), as well as gender and intersecting aspects (e.g. socioeconomic background, ethnic/minority background) and provide recommendations to design effective loneliness policies as well as develop tools for the long term monitoring of loneliness at the individual and population levels.

→ The approach will be based on a FAIR data-sharing culture and will promote the use of new technologies to quantify and assess the social and economic effects of loneliness in Europe

## Privacy-preserving and identity management technologies

HORIZON-CL3-2023-CS-01-02

IA

CIVIL SECURITY FOR SOCIETY

OPENING  
29/6/2023

DEADLINE  
23/11/2023



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

- Improved scalable and reliable privacy-preserving and identity management technologies for federated and secure sharing and for processing of personal and industrial data and their integration in real-world systems;
- Improving privacy-preserving technologies for cyber threat intelligence and data sharing solutions;
- Privacy by design;

Per topic: **15.70 M€**  
Per project: **2.00 - 4.00 M€**  
Up to 4 projects

- Contribution to promotion of GDPR compliant European data spaces for digital services and research (in synergy with DATA Topics of Horizon Europe Cluster 4). Also, contribution to the promotion of eID Regulation compliant European solutions;
- Research and development of self-sovereign identity management technologies and solutions;
- Provide resource efficient and secure digital identity solutions for Small and medium sized enterprises (SME);



- Strengthened European ecosystem of open-source developers and researchers of privacy-preserving solutions;
- Usability of privacy-preserving and identity management technologies.

- The use of authentication and authorisation infrastructure framework tools developed for data spaces, and notably with the European Open Science Cloud, could be considered.
- Legal expertise should also be added to ensure compliance of the project results with data regulations and the GDPR

## Improving social and societal preparedness for disaster response and health emergencies

**HORIZON-CL3-2023-DRS-01-01**

RIA

**CIVIL SECURITY FOR SOCIETY**

OPENING  
29/6/2023

DEADLINE  
23/11/2023



Per topic: **8.00 M€**

Per project: **4.00 M€**

Up to 2 projects

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

- Identification of different factors in inequality and ways to communicate with vulnerable groups, of individual, organisational, and systemic resilience factors and pathways to support these, and of ways to address vulnerabilities in acute crisis as well as during prevention, in order to elaborate an interconnectedness of resilience and vulnerability;
- Improvement of populations health literacy and basic understanding of how medicine and vaccines work and how they are developed and produced;
- Improved crisis communication through increased awareness and risk perception regarding bio security, identification of challenges for and limits of communication strategies and interventions regarding different vulnerable groups and approaches to address these, elaborating of ways for resolving barriers for crisis communication: interlinguality, interculturality, intersemiotics;
- Putting the citizen at the centre of the crisis management process (involving where relevant citizen volunteers in demonstrations related to research developments), increasing their capacity to access, read and interpret scientifically sourced information, analysing gender behaviours regarding unpopular measures (e.g., quarantine) and vaccination attitudes and identification and relieving of barriers for vaccination readiness: Trust, risk appraisal, barriers for registration for vaccination, information, collective responsibility;
- Incorporation of information technology and bias-free data into crisis management through improved information processing in transformative governance, illustrating possibilities, challenges, and limits of digitalisation and enabling usage of data for political decision making;
- Incorporation of machine learning and artificial intelligence in governance and political

decision making based on interdisciplinary discussions on definitions on problems in compliance with EU law; areas of application; and definition of responsibilities and competences in data governance;

- Validation of novel, smartphone sized or wearable technologies with laboratory-level diagnostics capability (e.g., wearables with integrated digital dosimeters, handheld PCR test devices);
- Strengthening of the One Health approach including not only human physical health but also mental health as well as environmental and animal health, and understanding of

the biological risks posed by environmental changes such as climate change and preparedness for impacts on human health;

- Projects should comply with privacy safeguards to ensure that disaster response systems protect EU fundamental rights such as privacy and protection of personal data.

→ Projects should comply with privacy safeguards to ensure that disaster response systems protect EU fundamental rights such as privacy and protection of personal data.

## AI-driven data operations and compliance technologies (AI, data and robotics partnership)

**HORIZON-CL4-2024-DATA-01-01**

IA **DIGITAL, INDUSTRY AND SPACE**

OPENING  
15/11/2023

DEADLINE  
19/3/2024

Per topic: **38.00 M€**  
Per project: **8.00 - 10.00 M€**  
Up to 4 projects



Projects are expected to contribute to the following outcomes:

- To enable companies and public sector to easily comply with existing and emerging regulation (e.g. GDPR, Data Governance Act, Data Act, Artificial Intelligence Act) and create value on data assets that they possess or that they acquire from the market, and to allow citizens to feel more confident that data-driven systems treat them in a fair, unbiased and compliant way and respect their privacy/ anonymity and other rights, and keep track of the use of personal data in a world where “everything” moves online.
- Define, quantify and measure bias in data sets (especially those used for AI development).

- Shorten the time-to-market and reduce development costs of compliant data solutions.
- Contribute to open, trusted and federated Common European data spaces.
- Quantify and reduce the environmental footprint of data operations which will contribute to the Green Deal target “no net emissions of greenhouse gases by 2050.

- Contribute to open, trusted and federated Common European data spaces.
- The proposed actions should create links and seek synergies, where appropriate, with the Common European Data Spaces and European Digital Innovation Hubs funded under the Digital Europe programme. Interoperability for data sharing should be addressed, where relevant, focusing on open, standardised, and trusted concepts.

## Piloting emerging Smart IoT Platforms and decentralized intelligence

HORIZON-CL4-2024-DATA-01-03

IA

DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024

Per topic: **45.00 M€**

Per project: **20.00 - 25.00 M€**

Up to 2 projects



Projects are expected to contribute to the following outcomes:

- Implementations of edge paradigms in real environments leading to matured and customised IoT and next generation edge computing technologies for adoption in key applications and sectors.
- Paving the way to strategic industrial cooperation in data processing required to support future hyper-distributed applications by building open platforms, agreement on common architectures and standards, critical to establishing a mature European supply chain.
- Open platforms underpinning an emerging open edge ecosystem including midcaps, SMEs and start-ups that foster edge solutions, which represent a modular functional spectrum of executable apps and services critical to establishing a mature European supply chain under challenging and extremely competitive market conditions.
- Demonstrating cross-domain standardisation and up-scaling of edge infrastructure solutions.

- Paving the way to strategic industrial cooperation in data processing required to support future hyper-distributed applications by building open platforms, agreement on common architectures and standards, critical to establishing a mature European supply chain.
- Open platforms underpinning an emerging open edge ecosystem including midcaps, SMEs and start-ups that foster edge solutions, which represent a modular functional spectrum of executable apps and services critical to establishing a mature European supply chain under challenging and extremely competitive market conditions.
- The objective is the development of systems to become open platforms underpinning an emerging open edge ecosystem including midcaps, SMEs and start-ups that foster edge solutions, which represent a modular functional spectrum of executable apps and services critical to establishing a mature European supply chain under challenging and extremely competitive market conditions.

# Open Source for Cloud/Edge to support European Digital Autonomy

HORIZON-CL4-2024-DIGITAL-EMERGING-01-21

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024

Per topic: **20.00 M€**

Per project: **4.00 - 6.00 M€**

Up to 4 projects



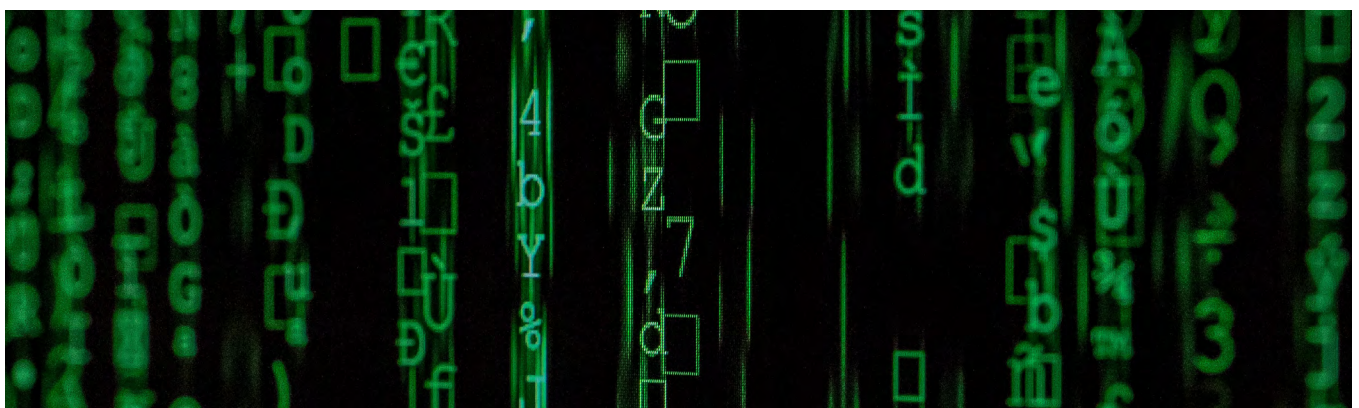
Proposals should facilitate the emergence of a full European Open Cloud and Edge Computing Architecture by:

- 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 heterogeneous processor architectures, and

- Demonstrating actual cloud and edge systems in real life or emulated computing environments exploiting the benefits of an extended open source stack (socket to application) on emerging processor architectures (e.g. RISC-V).

- Prototypes of cloud and edge servers demonstrated in relevant centralised and distributed environments and allowing full computing infrastructure deployments based on European processor technology, thereby establishing a full Open Computing Architecture stack, which supports emerging processing architectures (e.g. RISC-V).
- Standards and best practices consolidating the European Open Computing Architecture, as well as its interfaces to current industry standards.
- Proposals should facilitate the emergence of a full European Open Cloud and Edge Computing Architecture by
  - - 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 heterogeneous processor architectures, and
  - - Demonstrating actual cloud and edge systems in real life or emulated computing environments exploiting the benefits of an extended open source stack (socket to application) on emerging processor architectures (e.g. RISC-V).



## Fundamentals of Software Engineering

HORIZON-CL4-2024-DIGITAL-EMERGING-01-22

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING  
15/11/2023

DEADLINE  
19/3/2024



Per topic: **13.50 M€**

Per project: **4.00 - 6.00 M€**

Up to 4 projects

Proposals are expected to progress state of the art in at least one of these areas:

- Methods, mechanisms and tools that allow smart intelligent system specification, agile system and code development, advanced code analysis, fault prediction and location and self-repair by using emerging techniques, in particular based on AI and data technologies. This may include environments that allow to automatically derive requirements and produce conceptual and architectural models. Tools should support mastering

complex requirements, design-by-contract programming at all levels of integration, semi-automatic creation of pre-conditions, post-conditions and invariants for software modules facilitating automated unit and integration testing.

- Methods and tools for the development of dynamic and resilient software for systems running on multiple processing architectures including cross-compilation, run-time self-adaptation and multi-architecture executables.

- **Projects should provide a dissemination and use strategy. Research and Development should interface with relevant existing standards, where appropriate. Projects are encouraged to deliver results under Open Source licenses.**

## Public recognition scheme for Open Source

HORIZON-CL4-2024-DIGITAL-EMERGING-01-23

CSA

DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024



Per topic: **2 M€**

Per project: **2 M€**

Up to 1 project

- Projects are expected to contribute to both of the following outcomes:
- Establishment of a system of European annual awards that acts as a spotlight stirring up contributions to Open Source Software and Hardware projects.

- Increased interest for the contribution to, integration of and exploitation of Open Source assets.



- The action should first develop a scheme including a list of fields related to Open Source. An indicative but non-exhaustive nor obligatory list of topics could include deep contributions to kernel code, brilliant utilization of open source in companies' new developments.
- Proposals should involve appropriate expertise in Social Sciences and Humanities (SSH), in particular in sociology and human behaviour, to achieve a wider interest in the efficient exploitation of available open source assets. Actions should devote particular attention to openness of the solutions and results, and transparency of the research and innovation process. Open computing architectures at many levels based on Open approaches spanning both software/hardware is thus a pre-requisite for Digital autonomy – notably when it comes to Cloud infrastructures where European players are falling short. Actions under this heading will thus support the next steps of development and adoption of Open technologies on different levels while fostering progress on responsible software engineering fundamentals.

## Pilot line(s) for 2D materials-based devices

HORIZON-CL4-2024-DIGITAL-EMERGING-01-31

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024

Per topic: **33 M€**  
Per project: **33 M€**  
Up to 1 project



Projects are expected to contribute to the following outcomes:

- Broadly accessible pilot line(s) fostering the creation of electronic and photonic devices and systems (co-)integrating two-Dimensional Materials (2DM).
- Significant progress towards the adoption of the 2DM in the silicon and semi-conductor

arena by allowing the production of new (co-) integrated devices and systems in a quality controlled way.

- Actions should devote particular attention to openness of the solutions and results, and transparency of the research and innovation process. To ensure trustworthiness and wide adoption by user communities for the benefit of society, actions should promote high standards of transparency and openness. Open computing architectures at many levels based on Open approaches spanning both software/hardware is thus a pre-requisite for Digital autonomy – notably when it comes to Cloud infrastructures where European players are falling short. Actions under this heading will thus support the next steps of development and adoption of Open technologies on different levels while fostering progress on responsible software engineering fundamentals.

## Synergy with national and regional initiatives in Europe

HORIZON-CL4-2024-DIGITAL-EMERGING-01-34

CSA

DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024

Per topic: **3 M€**

Per project: **3 M€**

Up to 1 project

Projects are expected to contribute to the following outcomes:

- Well-coordinated European, national and regional initiatives in the field of graphene and two-dimensional materials (2DM);
- Further development of a strong European innovation ecosystem in 2DM-based technologies. Proposals should support the

coordination between relevant national and regional public authorities funding research and innovation in 2DM-based technologies. This coordination should allow them to work synergistically with the goal to strengthen and complement the EU funded activities in the domain.

- **Actions should devote particular attention to openness of the solutions and results, and transparency of the research and innovation process. To ensure trustworthiness and wide adoption by user communities for the benefit of society, actions should promote high standards of transparency and openness. Open computing architectures at many levels based on Open approaches spanning both software/hardware is thus a pre-requisite for Digital autonomy – notably when it comes to Cloud infrastructures where European players are falling short. Actions under this heading will thus support the next steps of development and adoption of Open technologies on different levels while fostering progress on responsible software engineering fundamentals.**

## Stimulating transnational research and development of next generation quantum technologies, including basic theories and components

HORIZON-CL4-2024-DIGITAL-EMERGING-01-42

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024

Per topic: **15 M€**

Per project: **15 M€**

Up to 1 project

Support to transnational projects in quantum technologies, fostering synergy between European, national and regional initiatives and promoting

broader partnerships between the European stakeholders in quantum technologies.

- Open strategic autonomy in digital technologies and in future emerging enabling technologies, by strengthening European capacities in key parts of digital and future supply chains, allowing agile responses to urgent needs, and by investing in early discovery and industrial uptake of new technologies.
- Actions should devote particular attention to openness of the solutions and results, and transparency of the research and innovation process. To ensure trustworthiness and wide adoption by user communities for the benefit of society, actions should promote high standards of transparency and openness.
- Open computing architectures at many levels based on Open approaches.
- Actions under this heading will thus support the next steps of development and adoption of Open technologies on different levels while fostering progress on responsible software engineering fundamentals.

## Quantum sensing and metrology for market uptake

HORIZON-CL4-2024-DIGITAL-EMERGING-01-45

IA

DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024

Per topic: **15 M€**  
Per project: **4 - 5 M€**  
Up to 3 projects



Projects are expected to contribute to mature quantum sensing technologies and devices (TRL 6-7) in different application sectors, with the goal of establishing a reliable, efficient supply chain including first standardisation and calibration efforts for rapid market uptake. Proposals should address the development of mature quantum sensing technologies and single or network-operating devices that have the potential to find a broad

range of new applications including but not limited to transportation, precise localisation and timing, navigation, metrology, health, biology, security, telecommunications, Radio Frequency sensing and processing, imaging and recognition, radars energy, electronics industry, construction, mining, prospection, aerospace, materials, automotive, energy transformation etc.

- Expected impact: Open strategic autonomy in digital technologies and in future emerging enabling technologies.
- Actions should devote particular attention to openness of the solutions and results, and transparency of the research and innovation process.
- To ensure trustworthiness and wide adoption by user communities for the benefit of society, actions should promote high standards of transparency and openness.
- Actions under this heading will thus support the next steps of development and adoption of Open technologies on different levels while fostering progress on responsible software engineering fundamentals.

## Quantum sensing and metrology for market uptake

HORIZON-CL4-2024-DIGITAL-EMERGING-01-45

IA

DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024

Per topic: **15 M€**

Per project: **4 - 5 M€**

Up to 3 projects



Projects are expected to contribute to mature quantum sensing technologies and devices (TRL 6-7) in different application sectors, with the goal of establishing a reliable, efficient supply chain including first standardisation and calibration efforts for rapid market uptake. Proposals should address the development of mature quantum sensing technologies and single or network-operating devices that have the potential to find a broad

range of new applications including but not limited to transportation, precise localisation and timing, navigation, metrology, health, biology, security, telecommunications, Radio Frequency sensing and processing, imaging and recognition, radars energy, electronics industry, construction, mining, prospection, aerospace, materials, automotive, energy transformation etc.

- Expected impact: Open strategic autonomy in digital technologies and in future emerging enabling technologies.
- Actions should devote particular attention to openness of the solutions and results, and transparency of the research and innovation process.
- To ensure trustworthiness and wide adoption by user communities for the benefit of society, actions should promote high standards of transparency and openness.
- Actions under this heading will thus support the next steps of development and adoption of Open technologies on different levels while fostering progress on responsible software engineering fundamentals.

## Smart photonics for joint communication & sensing and access everywhere (Photonics Partnership)

HORIZON-CL4-2024-DIGITAL-EMERGING-01-54

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024

Per topic: **18.00 M€**

Per project: **3.00 - 5.00 M€**

Up to 4 projects



Proposals should address at least one of the following activity areas:

- Light-based solutions to let the communication network sense, while transporting data, for example
- To enhance the security and resilience of the network
- To make network resources more energy efficient
- To warn and protect against natural disasters, earthquakes etc.
- To monitor the infrastructure where the fibre is deployed (traffic, stress in bridges...)
- Light-based solutions to bring internet everywhere, with the most relevant access technologies
- Fiber to the home, fiber to the antenna or fiber to the sky (satellite), for example with coherent passive optical networks, free space optics, Lifi or optical beamforming and steering while enabling the integration of all access technologies in one system

→ Actions should devote particular attention to openness of the solutions and results, and transparency of the research and innovation process. To ensure trustworthiness and wide adoption by user communities for the benefit of society, actions should promote high standards of transparency and openness. Actions should ensure that the processes and outcomes of research and innovation align with the needs, values and expectations of society, in line with Responsible Research and Innovation.

## Explainable and Robust AI (AI Data and Robotics Partnership)

HORIZON-CL4-2024-HUMAN-01-06

RIA DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024

Per topic: **30 M€**  
Per project: **9 - 10 M€**  
Up to 3 projects



Projects are expected to contribute to one of the following outcomes:

- Enhanced robustness, performance and reliability of AI systems, including awareness of the limits of operational robustness of the system;
- Improved explainability and accountability, transparency and autonomy of AI systems, including awareness of the working conditions of the system. All proposals are expected to embed mechanisms to assess and demonstrate progress (with qualitative and

quantitative KPIs, benchmarking and progress monitoring), and share communicable results with the European R&D community, through the AI-on-demand platform or Digital Industrial Platform for Robotics, public community resources, to maximise re-use of results, either by developers, or for uptake, and optimise efficiency of funding; enhancing the European AI, Data and Robotics ecosystem through the sharing of results and best practice.



- Actions should devote particular attention to openness of the solutions and results, and transparency of the research process. To ensure trustworthiness, public awareness and support, wide adoption by user communities for the benefit of society, actions should promote the highest standards of transparency and openness.

## Collaborative intelligence – combining the best of machine and human (AI Data and Robotics Partnership)

HORIZON-CL4-2024-HUMAN-01-07

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024

Per topic: **20 M€**

Per project: **5 M€**

Up to 4 projects



Projects are expected to contribute to the following outcomes:

- Demonstrate the value of human-machine collaboration and interaction by improved effectiveness, intuitiveness, efficiency, completeness, limits of knowledge indication and other objective or quantifiable subjective measures.
- Demonstrate how collaborative decision-making improves over human decision-making and that the collaborative decisions cover all stages of reasoning (that they are based on an improved coverage of data and knowledge

sources, on an improved analytic ability to reason from input to output, and on a well-communicated decision).

- Proposals are expected to address at least one of the expected outcomes.

At least one proposal will be selected with a focus on human-machine collaboration and interaction and at least one with a focus on collaborative decision-making. Proposals should clearly mention which of the two areas they address.

- Actions should devote particular attention to openness of the solutions and results, and transparency of the research process.



## Facilitate the engagement in global ICT standardisation development

HORIZON-CL4-2024-HUMAN-01-61

CSA

DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024



Per topic: **6 M€**  
Per project: **6 M€**  
Up to 1 project

This action will contribute to the objectives spelled out in the EU Standardisation Strategy and meeting the objectives of the European Green Deal and Europe’s Digital Decade, in particular to supporting the EU’s leading position in global standards-setting as a forerunner in key technologies and promoting EU core values, by supporting and empowering the participation of European stakeholders in the development of open technical specifications and standards with the aim to strengthen European

competitiveness and sovereignty, promoting European values and ethics, and strengthen the take-up, scalability and cross-sector interoperability of their technological solutions. This action will among the others support the Commission’s effort to address the critical issues related to internet, trusted and secured chips, or data standards as described in the EU Standardisation Strategy.

- Supporting and empowering the participation of European stakeholders in the development of open technical specifications and standards with the aim to strengthen European competitiveness and sovereignty, etc.
- Putting standards into science is very important to anticipate and prepare the standards-development process in future areas.

## Facilitate the engagement in global ICT standardisation development

HORIZON-CL4-2024-HUMAN-01-61

CSA

DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024



Per topic: **6 M€**  
Per project: **6 M€**  
Up to 1 project

This action will contribute to the objectives spelled out in the EU Standardisation Strategy and meeting the objectives of the European Green Deal and Europe’s Digital Decade, in particular to supporting the EU’s leading position in global standards-setting

as a forerunner in key technologies and promoting EU core values, by supporting and empowering the participation of European stakeholders in the development of open technical specifications and standards with the aim to strengthen European

competitiveness and sovereignty, promoting European values and ethics, and strengthen the take-up, scalability and cross-sector interoperability of their technological solutions. This action will among the others support the Commission's effort

to address the critical issues related to internet, trusted and secured chips, or data standards as described in the EU Standardisation Strategy.

- Supporting and empowering the participation of European stakeholders in the development of open technical specifications and standards with the aim to strengthen European competitiveness and sovereignty, etc.
- Putting standards into science is very important to anticipate and prepare the standards-development process in future areas.

## Copernicus for Land and Water

**HORIZON-CL4-2024-SPACE-01-35**

RIA

**DIGITAL, INDUSTRY AND SPACE**

OPENING  
21/11/2023

DEADLINE  
20/2/2024



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

- Enhanced quality and efficiency of the Copernicus Land Monitoring service to respond respectively to several Green Deal policy and/or user requirements
- Development of efficient and reliable integrated products chains, calling with a holistic approach for better land use planning and hydrological monitoring and forecasting, combining and assimilating the current Copernicus service products
- Approach across services, and in the area of hydrological modelling serving the interests of various applications including agriculture,

Per topic: **4.00 M€**

Per project: 1.50 - 2.00 M€

Up to 2 projects

- navigation, energy, flood prevention, and considering also hydrological climate change monitoring, assimilation of hydrological fluxes at the land-sea interface in ocean models, inland water river monitoring and forecasting (short term forecasting and climate monitoring).
- Development of new algorithms and processing chains (e.g. data fusion, combination, assimilation, into monitoring and forecasting models) preparing also for the use of the new types of space observation data (being from new Sentinels or other contributing missions) should also be envisaged allowing the implementation of new products or the improvement of existing products.

- The projects should build, where possible and relevant, on open-source models, tools and datasets already used or produced by the existing Copernicus services.
- 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 Security

HORIZON-CL4-2024-SPACE-01-36

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING  
21/11/2023

DEADLINE  
20/2/2024



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

Project results are expected to contribute to the following objectives:

- Enhanced fitness of the current services to better respond to evolving policy and user requirements.
- Enlargement of current service scope through the inclusion of new, complementary elements and extended communities of users.
- Significant technological enhancement in detection capabilities, timely access to data or delivery of information, narrowing the gap between capabilities and the more stringent security observation requirements.
- Significant improvement in integration of non-space data along end-user intelligence supply

chains, bringing added value at operational level also at regional at local levels, or in support to field campaigns.

- Development of processing chain(s) to handle an increasing volume of satellite data, keeping abreast with technology developments and include new paradigms in data fusion, processing, automation, as well as added-value information access and visualisation.
- Integration of the Geospatial Artificial Intelligence (GeoAI) and Earth Observation data analytics with a variety of other application-specific data sources like data from remote sensors accessed through IOT, as well as crowd-sourced data, high velocity transnational data and social media posts.

→ Resulting products, software in particular, should be open licensed allowing it to be installed, copied and adapted to the operational environment it will be intended for.

## Technologies/solutions to support circularity for manufacturing (Made in Europe Partnership)

HORIZON-CL4-2024-TWIN-TRANSITION-01-05

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING  
19/09/2023

DEADLINE  
7/2/24



Per topic: **30.00 M€**  
Per project: **4.00 - 6.00 M€**  
Up to 5 projects

Proposals should be able to: develop new approaches of Artificial Intelligence to forecasts the environmental impact also considering the

quantity and state of products after their use as well as to develop innovative simulation and modelling software or built on existing solutions fostering new

manufacturing capabilities with a view to a more efficient and more sustainable product design. Digital platforms/ tools will need to be developed build on existing interoperability architectures (such as the Asset Administration Shell), that will enable

the manufacturers to implement the Digital Product Passport initiative. Another important aspect to be addressed is the enhanced involvement of the human factor in the development of the circularity aspects and new technologies.

→ **Research must build on existing standards or contribute to standardisation. Interoperability for data sharing should be addressed, leveraging on existing ontologies and metadata and though the implementation of the FAIR data principles.**

## Enhanced quantification and understanding of natural and anthropogenic methane emissions and sinks

HORIZON-CL5-2024-D1-01-01

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING  
9/12/23

DEADLINE  
3/5/24



Per topic: **15.00 M€**

Per project: **15.00 M€**

Up to 1 project

The challenge of this topic is to further quantify and understand natural and anthropogenic methane emissions based on carefully selected European land sites and European sea sites with unprecedented resolution in space and time that should leverage the latest advances in observations from satellite, ground-based, and airborne, together with advances in reconciling inverse and bottom-up modelling approaches. This activity is expected to foster and enhance collaboration between the modelling and observing (satellite, ground-based, airborne) communities and advance towards an enhanced global and regional assessment of the methane sources and

sinks from land and the ocean, their short and long-term evolution as well as the related natural and anthropogenic processes and impacts on atmospheric chemistry and dynamics and on Earth radiation budgets. The expected outcomes hereafter are complying with the recommendations formulated by the user community during the ESA ATMOS-2021 conference.

→ **Legal & Financial set up of Grant Agreements: Beneficiaries will be subject to the following additional obligations regarding open science practices: Open access to any new modules, models or tools developed from scratch or substantially improved with the use of EU funding under the action must be ensured through documentation, availability of model code and input data developed under the action.**



# Inland ice, including snow cover, glaciers, ice sheets and permafrost, and their interaction with climate change

HORIZON-CL5-2024-D1-01-02

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING  
9/12/23

DEADLINE  
05/03/2024

Per topic: **22.00 M€**

Per project: **6.00-7.50 M€**

Up to 3 projects



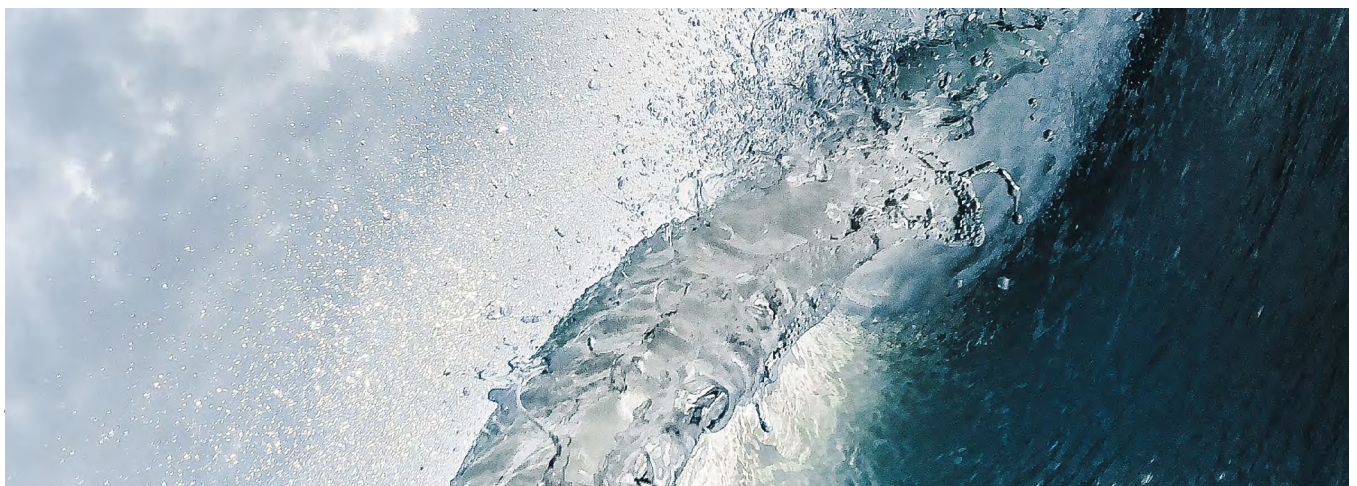
Snow cover, ice sheets and glaciers affect not only the Earth radiation balance and the global climate, but also continental climate systems, the weather of circumpolar regions and their terrestrial and oceanic carbon dynamics, ecosystems, and sea level. Snow and ice cover regulate the properties of the ground underneath and are interlinked with permafrost in areas where average ambient air temperature is below 0°C. The research actions should contribute to observing, modelling, and projecting the characteristics, volume, and dynamic of inland ice and permafrost in relevant regions, impacting regional and global climate, taking inter-seasonal,

annual, decadal, as well as long term (centuries) changes into account.

The actions should enhance the understanding of the ice sheet or glacier dynamics and evaluate reversibility or irreversibility of changes on multi-decadal to centennial timescales.

Furthermore, actions should quantify other impacts caused by the thawing of the inland ice or permafrost at regional or global levels, like the contribution to sea level rise and stratification or impact on biogeochemistry and ocean currents.

- When dealing with models, actions should promote the highest standards of transparency and openness, as much as possible going well beyond documentation and extending to aspects such as assumptions, code and data that is managed in compliance with the FAIR principles.
- In addition, full openness of any new modules, models or tools developed from scratch or substantially improved with the use of EU funding is expected. Projects should take into account, during their lifetime, relevant activities and initiatives for ensuring and improving the quality of scientific software and code, such as those resulting from projects funded under the topic HORIZON-INFRA-2023-EOSC-01-02 on the development of community-based approaches.





## Paleoclimate science for a better understanding of the short- to long-term evolution of the Earth system

HORIZON-CL5-2024-D1-01-03

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING  
9/12/23

DEADLINE  
03/05/2024

Per topic: **15:00 M€**  
Per project: **15:00 M€**  
Up to 1 project

The geological and ice-core records provide long-term information on the conditions and processes that can drive physical, ecological, and social systems during interglacial periods, deglaciations and abrupt climatic events. The challenge of the research under this topic is to test Earth system models over

selected past climate scenarios, outside the range of variability recorded over the past centuries. The projects should rely on paleoclimatic data from scientific drilling campaigns, and other appropriate sources.

→ **Legal and financial set-up of the Grant Agreement: Beneficiaries will be subject to the following additional obligations regarding open science practices: Open access to any new modules, models or tools developed from scratch or substantially improved with the use of EU funding under the action must be ensured through documentation, availability of model code and input data developed under the action.**

## Next generation low-emission, climate-resilient pathways and NDCs for a future aligned with the Paris Agreement

HORIZON-CL5-2024-D1-01-05

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING  
9/12/2023

DEADLINE  
03/05/2024

Per topic: **14.00 M€**  
Per project: **4.50 M€**  
Up to 3 projects

As showcased by various independent assessments, the current Nationally Determined Contributions (NDCs) and climate policies fall short of reaching the long-term goals of the Paris Agreement. Projects should contribute to strengthening of national climate policies, NDCs and long-term strategies, by developing next generation low-emission transformation pathways, with increased sectoral

detail, and fostering more holistic and more integrative approaches that promote synergies and minimise trade-offs between mitigation, adaptation, biodiversity and other policy objectives. They should support the creation of tools that evaluate the existing NDCs and facilitate monitoring processes.

→ **Legal and financial set-up of the Grant Agreements: Beneficiaries will be subject to the following additional obligations regarding open science practices. Beneficiaries are required to publish data and results in open access databases and/or as annexes to publications. Projects should also take into account, during their lifetime, relevant activities and initiatives for ensuring and improving the quality of scientific software and code, such as those resulting from projects funded under the topic HORIZON-INFRA-2023-EOSC-01-02 on the development of community-based approaches.**

## Development of technical and business solutions to optimise the circularity, resilience, and sustainability of the European battery value chain (Batt4EU Partnership)

**HORIZON-CL5-2024-D2-01-03**

RIA

**CLIMATE, ENERGY AND MOBILITY**

OPENING  
12/7/23

DEADLINE  
4/18/24

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

Proposals should cover at least two of three scope categories, such as business models, cross industry tools and sustainable design. They should be contributing to the following outcomes: Advancing circular and sustainable design and business practices relating to advanced batteries

and associated value chains, Improving the life cycle sustainability performance of batteries produced in the EU, Enhancing European strategic independence in terms of battery raw materials, Support the achievement of established EU recycling efficiency targets for 2030 and beyond.

→ **Infrastructure tools for secure remote data access, data analysis and predictive modelling: Develop a FAIR132 data infrastructure for raw and curated experimental and modelling data, which can be accessed remotely and securely by relevant stakeholders, including industry. Develop the software infrastructure required to operate this platform, also with regard to future reproducibility and further exploitation of the results of the research activities.**



## Furthering the development of a materials acceleration platform for sustainable batteries (combining AI, big data, autonomous synthesis robotics, high throughput testing) (Batt4EU Partnership)

HORIZON-CL5-2024-D2-01-05

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING  
12/7/23

DEADLINE  
4/18/24

Per topic: **20.00 M€**  
Per project: **20.00 M€**  
to 1 project



To accelerate the discovery of battery interfaces, materials and new sustainable concepts with high energy and/or power performance there is a need to develop a fully autonomous and chemistry neutral Materials Acceleration Platform (MAP) for battery materials and interfaces. The aim is to integrate advanced multi-scale computational

modelling, materials synthesis, characterisation and testing to perform closed-loop autonomous materials findings and interphase engineering that would accelerate by at least a factor of five the discovery of new battery chemistries with ultra-high performances.

→ Develop a FAIR data infrastructure for raw and curated experimental and modelling data, which can be accessed remotely and securely by relevant stakeholders, including industry. Develop the software infrastructure required to operate this platform, also with regard to future reproducibility and further exploitation of the results of the research activities.

## Smart, low-cost pervasive stationary slow charging and bi-directional solutions synergic with the grid for EV mass deployment (2ZERO Partnership)

HORIZON-CL5-2024-D5-01-01

IA

CLIMATE, ENERGY AND MOBILITY

OPENING  
07/12/2023

DEADLINE  
18/04/2024

Per topic: **15.00 M€**  
Per project: **7.50 M€**  
Up to 2 projects



The scope of the call is to have a legislative proposals within the EU's "Fit for 55" package targeting the reduction of waterborne transport emissions will assess emissions reductions based

on operational data collected within the framework of the EU's MRV regulation.

## Advanced digitalisation and modelling utilizing operational and other data to support zero emission waterborne transport (ZEWTP Partnership)

HORIZON-CL5-2024-D5-01-15

IA

CLIMATE, ENERGY AND MOBILITY

OPENING  
07/12/2023

DEADLINE  
18/04/2024



Per topic: **7.70 M€**  
Per project: **7.70 M€**  
Up to 1 project

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

- Development and demonstration of a platform for Integrated Green Vessel Digital Twins that will provide a basis to continuously improve the environmental performance of vessels over their entire life cycle.

- Improved environmental performance through verifiable KPIs.
- Proven applicability of the platform to a wide variety of vessel operations throughout the vessels' lifetime, by using model-based systems engineering, simulation and hardware in the loop approaches.

→ Expected to address aspect: use open standards, libraries and tools to create generic and reusable solutions applicable to a wide range of waterborne assets.

## Scaling up logistics innovations supporting freight transport decarbonisation in an affordable way

HORIZON-CL5-2024-D6-01-07

IA

CLIMATE, ENERGY AND MOBILITY

OPENING  
07/05/2024

DEADLINE  
05/09/2024



Per topic: **20.00 M€**  
Per project: **10.00 M€**  
Up to 2 projects

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

- Reduced greenhouse gas emissions by 55% by 2030 in the project networks, without reducing the overall performance of the logistics supply chain and taking account of all costs and externalities.
- Gains in terms of operational efficiency and environmental impact from the implementation

of the Physical Internet are clearly identified, demonstrated and measured.

- Logistics concepts speeding up freight decarbonisation and adoption of zero emissions vehicles/vessels and multimodality are developed.

- Demonstrate at least 10 working open standard processes, procedures and services across several logistics nodes providing seamless access to users. Processes, procedures, and services are expected to have an open access definition and scalability aspects need to be addressed.
- Develop and demonstrate scalability of the proposed solutions providing open access mechanisms and low thresholds to the system of logistics networks.

## Invasive alien species

HORIZON-CL6-2024-BIODIV-01-1

IA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING  
17/10/2023

DEADLINE  
22/02/2024

Per topic: **12.00 M€**

Per project: Around 6.00 M€

Up to 2 projects



Successful proposals should:

- Develop models based on dynamic data, accessible to end users, to prioritise species, manage pathways and sites most vulnerable by the introduction of invasive alien species;
- Develop methods for the identification, early detection and surveillance of invasive alien species, such as sensors for biophysical

signals (sounds, ultrasounds, volatile organic compounds, thermal etc.), DNA-based including barcoding and application of environmental DNA, artificial intelligence, sentinel plants in ports, airports, railway stations, and logistics platforms. The use of robotics (both aerial and non-aerial), especially in marine environments, could be considered.

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

## Digital for nature

HORIZON-CL6-2024-BIODIV-01-2

IA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING  
17/10/2023

DEADLINE  
22/02/2024

Per topic: **16.00 M€**

Per project: Around 8.00 M€

Up to 2 projects



Proposals should address Area A or Area B as follows. The Area should be clearly indicated on the application.

- Area A: a project focussing on data harvesting through high-throughput methods (as described in the introduction, e.g. environmental DNA,

sound/image analysis, lidar, spectrometry, usage of mobile platforms, remote-sensing, etc.), analysis and interoperability solutions, with the goal of concentrating the information in a single access point, and lowering the technical hurdle for the biologist and managers of natural sites, offering the best solutions in a ready-to-use form;

→ Area B: a project focussing on new robotic solutions, including mobile, to improve the efficiency of biodiversity related solutions, allowing to improve the performance of the field campaign, with denser information of species and habitats.

→ **Contribute to a web of FAIR data and supporting services that enable an interconnected disciplinary ecosystem that allows stakeholders to share digital objects and build on them in a seamless fashion.**

## Targeting aquatic extremophiles for sourcing novel enzymes, drugs, metabolites and chemicals

HORIZON-CL6-2024-CircBio-01-10

RIA

**FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT**

OPENING  
17/10/2023

DEADLINE  
22/02/2024

Per topic: **9.00 M€**  
Per project: **4.50 M€**  
Up to 2 projects

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

- Contribution to expanding the sustainable exploration of biodiversity hotspot regions, e.g., transitional waters, deep-sea, polar regions;
- Better preparedness to harvest aquatic bioactive substances in the most environmental friendly manner and support to green industrial bioprocessing with more sustainable bio-based products through bio discovery of novel sources and new biotechnology processes and applications;

- Advancement in understanding the ecology of marine or other aquatic ecosystems, including possibly the ones on water surface, in sediments, in the internal cavity of sponges etc.;
- They should disseminate their results in the most efficient and transparent manner considering the risks and ethics related to science & technology in compliance with EU regulations on access to genetic resources and the fair and equitable sharing of benefits arising from their utilisation (ABS) in the EU.

→ **They should disseminate their results in the most efficient and transparent manner considering the risks and ethics related to science & technology in compliance with EU regulations on access to genetic resources and the fair and equitable sharing of benefits arising from their utilisation (ABS) in the EU.**



## Digital information systems for bio-based products

**HORIZON-CL6-2024-CircBio-01-6**

RIA

**FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT**

OPENING  
17/10/2023

DEADLINE  
22/02/2024

Per topic: **6.00 M€**

Per project: **3.00 M€**

Up to 2 projects



Projects are expected to:

- Design solutions for the digitalisation of information from bio-based products and their value chains, e.g., AI-based, such as digital passports, tagging and watermarks, etc. and enable their use;
- Design the information from bio-based

products to improve the societal readiness adaptation in terms of acceptability, and uptake of innovations by society. The information should be easily accessible by customers and consumers and to support them in making responsible and informed choices.

- **Sharing data in an accessible and simple way, according to FAIR principles, to enable easy processing, can provide information back to the society, facilitating the inclusiveness of economic activities. Digital technologies can track and report the journeys of products, components and materials and make the resulting data securely access.**

## Climate-smart use of wood in the construction sector to support the New European Bauhaus.

**HORIZON-CL6-2024-CLIMATE-01-5**

RIA

**FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT**

OPENING  
17/10/2023

DEADLINE  
22/02/2024

Per topic: **14.00 M€**

Per project: **7.00 M€**

Up to 2 projects



This topic will support the New European Bauhaus initiative and the implementation of the new EU forest strategy by making the construction sector more renewable and circular especially for existing buildings, which includes the use of currently

underused timber such as hardwoods, salvage wood and post-consumer wood for traditional and newly emerging innovative woody biomass-based applications, while including circularity as part of a broader system and design loop.

- **Link with other selected proposals and the NEB Lab and establish an open-access wood construction observatory in Europe, to monitor and update progress, statistics, good practice guidelines and solutions on wood construction.**



## Ocean models for seasonal to decadal regional climate impacts and feedbacks.

HORIZON-CL6-2024-CLIMATE-01-6

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING  
17/10/2023

DEADLINE  
22/02/2024

Per topic: **9.00 M€**  
Per project: **4.50 M€**  
Up to 2 projects



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

will support the Digital and Green Transitions and will directly support Destination Earth[1] and the development of the Digital Twins, and the Digital Twin Ocean[2] in particular. They should contribute to the improvement of marine information services provided by European programmes like Copernicus, and their uptake at local, coastal and EU regional levels.

→ The proposal should favour open data, open source, and public-use models and algorithms with open source licensing and integrable in the Digital Twin of the Ocean. Proposals should leverage the data and services available through European Research Infrastructures federated under the European Open Science Cloud, as well as data from relevant Data Spaces in the data-driven analyses. Projects could additionally benefit from access to infrastructure and relevant FAIR data by collaborating with projects funded under the topics HORIZON-INFRA-2022-EOSC-01-03: FAIR and open data sharing in support of healthy oceans, seas, coastal and inland waters and HORIZON-INFRA-2024-EOSC-01-01: FAIR and open data sharing in support of the mission adaptation to climate change.

## Innovating for climate-neutral rural communities by 2050

HORIZON-CL6-2024-COMMUNITIES-02-1-two-stage

IA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING  
17/10/2023

DEADLINE  
22/02/2024

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



Projects funded under this topic are expected to:

- design, prototype and test concrete innovations (technical, social, organisational) supporting climate-neutrality, zero pollution and biodiversity enhancement in rural communities, possibly including initiatives such as nature-based solutions (NBS), circularity and bioeconomy, bio-based solutions, community-energy systems, climate-neutral mobility, fire-prevention, etc. Innovations should be co-created with rural stakeholders to respond to their needs and tested for their feasibility for the territorial development opportunities or drawbacks that they bring;
- include training and capacity building for local administrations and rural stakeholders in order to create and maintain a rural innovation ecosystem and enable them to

make use or benefit from the successful innovations developed and from existing funding opportunities for the green and digital transitions;

- boost networking and enhance peer-to-peer learning between communities and capitalise on lessons learnt making them available as recommendations for policy makers at various levels (European, national, regional and local).

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

## New sustainable business and production models for farmers and rural communities

**HORIZON-CL6-2024-COMMUNITIES-02-2-two-stage**

RIA

**FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT**

OPENING

DEADLINES

17/10/2023

1st stage

22/02/2024

2nd stage

17/09/2024



Per topic: **12.00 M€**

Per project: 6.00 M€

Up to 2 projects

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

- Farmers and/or other rural actors widely adopt innovative inclusive and sustainable business and production models that enhance and remunerate climate action (i.e. increase carbon removals), biodiversity protection and restoration, and the reduction of emissions or concentrations of

air pollutants in a variety of farming and rural contexts;

- Farmers and/or rural actors position in value chains is improved thanks to more inclusiveness, fairness and financial sustainability of trading relationships between the various actors in the upstream/downstream agri and rural business;
- It is possible to measure and track the economic,

social and environmental sustainability of different farming systems and rural businesses thanks to the development and use of innovative technologies, including but not limiting to digital ones.

→ Increased prosperity of farmers and/or in rural areas thanks to the creation of new jobs opportunities resulted from innovative and sustainable production and business models.

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

## Thematic network tackling food fraud by translating research and innovation into practice

HORIZON-CL6-2024-FARM2FORK-01-3

CSA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING  
17/10/2023

DEADLINE  
22/02/2024



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

The successful proposals should therefore facilitate progress to preventing food fraud by translating research and innovation knowledge into practical applications.

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

- Widespread use of existing new knowledge and innovative solutions by end-users/practitioners (official control authorities, food businesses, etc.) on the ground ensuring that food fraud is tackled.
- Improved flow of knowledge and innovative solutions with end-users through more dynamic interactions and new collaboration methodologies to prevent food fraud in the food supply chain.

- Better incorporation of the needs of end-users into the activities of research and innovation communities, which would generate a better targeted and shared food fraud research agenda for innovation-driven research.
- Improved skills and long-term availability of training and education material and on-line communities for end-users on how to tackle food fraud.

→ Cross-articulation with the other data spaces, and notably with the European Open Science Cloud (EOSC) should be foreseen, exploiting synergies and complementarities of the different approaches. Efforts should be made to ensure that the data produced in the context of this topic is FAIR (Findable, Accessible, Interoperable and Re-usable).

# Citizens' science as an opportunity to foster the transition to sustainable food systems

HORIZON-CL6-2024-FARM2FORK-01-6

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING  
17/10/2023

DEADLINE  
22/02/2024

Per topic: **10.00 M€**

Per project: **5.00 M€**

Up to 2 projects

- This will contribute to the Food 2030 priorities: nutrition for sustainable healthy diets, climate, environment, circularity and resource efficiency, innovation and empowering communities, and thriving businesses.
- Data-driven solutions in food systems also benefit the European Open Data Directive to share public data[1] and envisioned data spaces[2] as well as provide a base of AI deployment as enablers of the European Green Deal objectives.
- Projects results are expected to contribute to all the following expected outcomes:
- Better understanding of citizens' food consumption behaviour, the factors influencing choices and drivers that would facilitate changes in behaviour in an inclusive manner towards healthy and sustainable food consumption practices.
- Contribution to positive changes in individual behaviour towards healthy and sustainable food consumption and sustainable food system transformation.

→ Data-driven solutions in food systems also benefit the European Open Data Directive to share public data and envisioned data spaces as well as provide a base of AI deployment as enablers of the European Green Deal objectives.

→ Expected outcome :

→ Make concrete efforts to ensure that the data produced in the context of this project is FAIR (Findable, Accessible, Interoperable and Re-usable), particularly in the context of real-time data feeds, exploring workflows that can provide "FAIR-by-design" data, i.e., data that is FAIR from its generation.

→ Connect personal data on food to other areas, such as mobility and health and identify synergies; projects shall leverage the data and services available through European Research Infrastructures federated under the European Open Science Cloud and, where relevant, establish synergies with the Data Space for smart communities and make use of open standards and technical specifications.



## Increasing the availability and use of non-contentious inputs in organic farming

HORIZON-CL6-2024-FARM2FORK-02-1-two-stage

**IA** **FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT**

OPENING	DEADLINES	
	1st stage	2nd stage
17/10/2023	22/02/2024	17/09/2024

A successful proposal should support the objective of the farm to fork strategy to transition to fair, healthy and environmentally-friendly food systems from primary production to consumption, notably the objective to promote and increase organic farming in Europe, in line with the target of at least 25% of the EU’s agricultural land under organic farming by 2030. Activities will support the implementation of concrete

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

actions in the EU action plan for the development of organic production[1] and of Regulation (EU) 2018/848 on the rules on organic production and labelling of organic products[2]. Activities will also support the farm to fork and biodiversity strategies’ objective to reduce the risk and use of chemical pesticides by 50% and the use of more hazardous pesticides by 50%.

→ Concrete efforts shall be made to ensure that the data produced in the context of this topic is FAIR (Findable, Accessible, Interoperable and Re-usable), particularly in the context of real-time data feeds, exploring workflows that can provide “FAIR-by-design” data, i.e., data that is FAIR from its generation.

## Environmental impacts of food systems

HORIZON-CL6-2024-ZEROPOLLUTION-01-3

**RIA** **FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT**

OPENING	DEADLINE
17/10/2023	22/02/2024

Proposals are expected to:

→ Collect relevant qualitative and quantitative data on environmental and climate impacts related to water, air and soil pollution stemming from the food systems, biodiversity losses, climate change and negative impacts on human health, as well as data on freshwater consumption, soil erosion, resource and energy efficiency of food production and supply practices.

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

→ Increase the accessibility of relevant high quality life cycle inventory data according to FAIR principles and the EU’s open science policy by setting up actions to develop, review and make available existing databases.

→ Implement the multi-actor approach by involving a wide range of food system actors and conducting inter-disciplinary research.

→ Increase the accessibility of relevant high quality life cycle inventory data according to FAIR principles and the EU’s open science policy by setting up actions to develop, review and make available existing databases.





# Citizen science

## Invasive alien species

HORIZON-CL6-2024-BIODIV-01-1

IA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING  
17/10/2023

DEADLINE  
22/02/2024

Per topic: **12.00 M€**

Per project: **Around 6.00 M€**

Up to 2 projects



Successful proposals should:

- Develop models based on dynamic data, accessible to end users, to prioritise species, manage pathways and sites most vulnerable by the introduction of invasive alien species;
- Develop methods for the identification, early detection and surveillance of invasive alien species, such as sensors for biophysical

signals (sounds, ultrasounds, volatile organic compounds, thermal etc.), DNA-based including barcoding and application of environmental DNA, artificial intelligence, sentinel plants in ports, airports, railway stations, and logistics platforms. The use of robotics (both aerial and non-aerial), especially in marine environments, could be considered.

→ Participatory approaches, such as citizen science, could be appropriate modes of research for this action.

# Unlock the potential of the New European Bauhaus in urban food system transformation

**HORIZON-CL6-2024-COMMUNITIES-01-1**

**IA FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT**

OPENING  
17/10/2023

DEADLINE  
22/02/2024

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



Proposals are expected to address the following:

- Involve all three core values of NEB: 1) sustainability, 2) aesthetics/quality of experience, 3) inclusion, for transforming food environments and contribute to a green and sustainable infrastructure;
- Expand food environments by using architecture/local place-based approaches for innovative solutions, including art, for current and future needs linked to sustainable food environments and stronger citizen connection to food and empowered self-provisioning communities with multi-functional nature-based solutions (e.g., urban gardens connected to parks, edible trees and bushes, edible green infrastructure etc.);
- Use and demonstrate place-based solutions with considering its specific resource

pool and place, e.g., connect food to local cultural values and if possible, to indigenous communities and/or urban citizens' movements and make use of local plants and herbs, also supporting local ecological resilience;

- Apply and demonstrate community-based solutions with strong citizen engagement (especially youth) to simultaneously drive human needs and environmental benefits.

→ **Reconnected and engaged citizens with nature and healthy and sustainable food for their well-being and health while providing multifunctional benefits, such as biodiversity.**

# Participation and empowerment of Arctic coastal, local, and indigenous communities in environmental decision-making

**HORIZON-CL6-2024-COMMUNITIES-01-3**

**RIA FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT**

OPENING  
17/10/2023

DEADLINE  
22/02/2024

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



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

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

→ Better understanding of how different types of knowledge, including traditional environmental knowledge (TEK)[1], are being mobilised; how scientists and local and indigenous knowledge

holders cooperate and dialogue in this context;

- Empowerment of Arctic coastal, local and indigenous people and sectors to innovate[2] for the ecological transition and feel part of it, through participatory methodologies (i.e. a multi-actor approach); to engage in decision-making about their environment and livelihoods;
- Explore, with different actors, and recommend ways to bring traditional, local, and scientific knowledge into the collective effort of solving matters of concern.

→ Better understanding of how different types of knowledge, including traditional environmental knowledge (TEK), are being mobilised; how scientists and local and indigenous knowledge holders cooperate and dialogue in this context.

## New sustainable business and production models for farmers and rural communities

**HORIZON-CL6-2024-COMMUNITIES-02-2-two-stage**

RIA

**FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT**

OPENING

DEADLINES

	1st stage	2nd stage
17/10/2023	22/02/2024	17/09/2024
○	○	○

Per topic: **12.00 M€**

Per project: **6.00 M€**

Up to 2 projects

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

- Farmers and/or other rural actors widely adopt innovative inclusive and sustainable business and production models that enhance and remunerate climate action (i.e. increase carbon removals), biodiversity protection and restoration, and the reduction of emissions or concentrations of air pollutants in a variety of farming and rural contexts;
- Farmers and/or rural actors position in value chains is improved thanks to more inclusiveness, fairness and financial

sustainability of trading relationships between the various actors in the upstream/downstream agri and rural business;

- It is possible to measure and track the economic, social and environmental sustainability of different farming systems and rural businesses thanks to the development and use of innovative technologies, including but not limiting to digital ones.
- Increased prosperity of farmers and/or in rural areas thanks to the creation of new jobs opportunities resulted from innovative and sustainable production and business models.



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

## Citizens' science as an opportunity to foster the transition to sustainable food systems

HORIZON-CL6-2024-FARM2FORK-01-6

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING  
17/10/2023

DEADLINE  
22/02/2024

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



This will contribute to the Food 2030 priorities: nutrition for sustainable healthy diets, climate, environment, circularity and resource efficiency, innovation and empowering communities, and thriving businesses.

Data-driven solutions in food systems also benefit the European Open Data Directive to share public data[1] and envisioned data spaces[2] as well as provide a base of AI deployment as enablers of the European Green Deal objectives. Projects results are expected to contribute to all the following expected outcomes:

- Better understanding of citizens' food consumption behaviour, the factors influencing choices and drivers that would facilitate changes in behaviour in an inclusive manner towards healthy and sustainable food consumption practices.
- Contribution to positive changes in individual behaviour towards healthy and sustainable food consumption and sustainable food system transformation.

- **Scope:** Currently, consumers are sceptical to share data, least to the government. As there is a need for more data-driven decision making, engaging citizens in research through the provision of data on their practices, choices and attitudes towards the food system provides potential for a more direct citizen engagement in transforming food systems. The approach allows to exchange ideas, solutions, and opinions to encourage Responsible Research and Innovation (RRI) in driving sustainable food system transformation.

- Proposals are expected to address all the following:

- Explore the potential of 'citizen's science' in the food systems domain by engaging and empowering citizens in using and providing data and technology to ensure inclusive solutions to drive sustainable food system transformation by promoting sustainable food consumption, reducing food waste, and creating a resilient food system.

- Identify the challenges and drivers encouraging citizens to share data to ensure inclusive food system transformation.

- Proposals should include a dedicated task, appropriate resources and a plan on how they will collaborate with other projects funded under this and the topic HORIZON-CL6-2022-GOVERNANCE-01-10 "Piloting approaches and tools to empower citizens to exercise their "data rights" in the area of food and nutrition" and HORIZON-WIDERA-2021-ERA-01-60: "A capacity-building and brokering network to make citizen science an integral part of the European Research Area".



# Science Education

## Protest politics and cultures of opposition in democracy

HORIZON-CL2-2024-DEMOCRACY-01-01

RIA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING  
4/10/23

DEADLINE  
7/2/24



Per topic: **9.00 M€**

Per project: **2.00 - 3.00 M€**

Up to 3 projects

Research proposals under this topic should analyse further the shift towards politics of collective action, and their impact on European democracies, including their role in resisting the rise of authoritarian tendencies and in taking down authoritarian regimes. This could refer to both online and offline forms of collective political action, including artistic

forms of protest (audiovisual art, literature, music, etc.). Proposals should consider drivers and factors that play a role in fostering such forms of politics (emotional, gender, socioeconomic, cultural, historical, generational, geopolitical, geographical etc.), including the role of social media platforms.

→ Finally, how formal education contexts are integrating these new manifestations into citizenship education could also be explored.

## Testing and implementation of research results fostering democracy and governance

HORIZON-CL2-2024-DEMOCRACY-01-12

CSA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING  
4/10/23

DEADLINE  
7/2/24

Per topic: **4.00 M€**

Per project: **3.00 - 4.00 M€**

Up to 1 project



Proposals have to credibly identify a targeted democracy and/or governance related issue that can be addressed by implementing existing research and innovation results. In addition, proposals should take those research and innovation results further through testing and experimenting in the relevant operational environment, and enhancing

the potential take-up of innovative solutions by civil society, public institutions, including educational institutions, and policymakers at all governance levels, including in third countries.

- The proposals have to build on the rich stock of actionable recommendations, knowledge, toolkits, educational material, and scientific methods etc. developed in particular by the over 300 Horizon 2020 projects on democracy and governance related issues.
- Proposals should also involve practitioners and experts in science communication.

## Beyond the state-of-the-art “biometrics on the move” for border checks

HORIZON-CL3-2023-BM-01-03

IA

CIVIL SECURITY FOR SOCIETY

OPENING  
29/6/2023

DEADLINE  
23/11/2023

Per topic: **6.00 M€**

Per project: **3.00 M€**

Up to 2 projects



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

- Updated, European-based, knowledge and development on robust biometrics technologies that could be used for recognition (identification and verification) of people crossing external EU borders, demonstrating a

clear advancement beyond the current state-of-the-art;

- Maximisation of travellers’ experience and of security reassurances, minimising handling of personal data and maximising accuracy, reliability and throughput of the recognition process;



→ Contribution to improving the operational response capacity of the EBCG at border crossing points and to capabilities that strengthen the Schengen area, by providing

security at its external borders that also reassure on maintaining the free movement within its borders.

→ Proposals submitted under this Destination should demonstrate how they plan to build on relevant predecessor projects; to consider the citizens' and societal perspectives; to include education, training and awareness raising for practitioners and citizens; to measure the achieved TRL; and to prepare the uptake of the research outcomes.

## Explainable and Robust AI (AI Data and Robotics Partnership)

HORIZON-CL4-2024-HUMAN-01-06

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024

Per topic: **30.00 M€**  
Per project: **9 - 10 M€**  
Up to 3 projects



Projects are expected to contribute to one of the following outcomes:

- Enhanced robustness, performance and reliability of AI systems, including awareness of the limits of operational robustness of the system;
- Improved explainability and accountability, transparency and autonomy of AI systems, including awareness of the working conditions of the system. All proposals are expected to embed mechanisms to assess and demonstrate progress (with qualitative and quantitative KPIs, benchmarking and progress monitoring), and share communicable results with the

European R&D community, through the AI-on-demand platform or Digital Industrial Platform for Robotics, public community resources, to maximise re-use of results, either by developers, or for uptake, and optimise efficiency of funding; enhancing the European AI, Data and Robotics ecosystem through the sharing of results and best practice.

→ Putting standards into science is very important to anticipate and prepare the standards-development process in future areas.

→ Developments in digital and enabling technologies have the potential to enhance social inclusion, can inform up-skilling training programmes and ensure a two-way engagement with society with regard to developing technologies.

## Collaborative intelligence – combining the best of machine and human (AI Data and Robotics Partnership)

HORIZON-CL4-2024-HUMAN-01-07

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024

Per topic: **20 M€**

Per project: **5 M€**

Up to 4 projects



Projects are expected to contribute to the following outcomes:

- Demonstrate the value of human-machine collaboration and interaction by improved effectiveness, intuitiveness, efficiency, completeness, limits of knowledge indication and other objective or quantifiable subjective measures.
- Demonstrate how collaborative decision-making improves over human decision-making and that the collaborative decisions cover all stages of reasoning (that they are based on

an improved coverage of data and knowledge sources, on an improved analytic ability to reason from input to output, and on a well-communicated decision).

Proposals are expected to address at least one of the expected outcomes.

At least one proposal will be selected with a focus on human-machine collaboration and interaction and at least one with a focus on collaborative decision-making. Proposals should clearly mention which of the two areas they address.

- It also aims to support the digital transformation of education through these technologies in particular. Putting standards into science is very important to anticipate and prepare the standards-development process in future areas.

## Facilitate the engagement in global ICT standardisation development

HORIZON-CL4-2024-HUMAN-01-61

CSA

DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024

Per topic: **6 M€**

Per project: **6 M€**

Up to 1 project



This action will contribute to the objectives spelled out in the EU Standardisation Strategy and meeting the objectives of the European Green Deal and Europe's Digital Decade, in particular to supporting the EU's leading position

in global standards-setting as a forerunner in key technologies and promoting EU core values, by supporting and empowering the participation of European stakeholders in the development of open technical specifications and standards with

the aim to strengthen European competitiveness and sovereignty, promoting European values and ethics, and strengthen the take-up, scalability and cross-sector interoperability of their technological solutions. This action will among the others support

the Commission's effort to address the critical issues related to internet, trusted and secured chips, or data standards as described in the EU Standardisation Strategy.

- Support the digital transformation of education through these technologies in particular.
- The proposal will also include actions, including development of tools and materials, to promote education on ICT standardisation.

## A new framework to improve traffic safety culture in the EU

HORIZON-CL5-2024-D6-01-12

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING  
07/05/2024

DEADLINE  
05/09/2024

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



Efforts should therefore be made to complement road safety initiatives by a safety culture perspective, i.e., the values, beliefs, priorities and viewpoints shared among groups of road users and stakeholders that influence their decisions to behave or act in

ways that affect safety, while also considering energy consumption. This concept is already well established in organisational research.

- Better understanding of the link between road safety outcomes and safety culture; pilot implementation of road safety education at secondary school level and also for decision makers and practitioners in EU Member States/Associated countries.

## Transformative action of policy mixes, governance and digitalisation addressing biodiversity loss

HORIZON-CL6-2024-BIODIV-01-5

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING  
17/10/2023

DEADLINE  
22/02/2024

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





# Ethics/Research Integrity

## Bio-printing of living cells for regenerative medicine

HORIZON-HLTH-2024-TOOL-11-02

RIA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING  
26/10/2023

DEADLINE  
11/04/2024

Per topic: **25.00 M€**

Per project: **6.00 - 8.00 M€**

Up to 4 projects



Proposals under this topic should aim for delivering results that are directed towards and contributing to several of the following expected outcomes:

- Biomedical scientists will access entire bio-printing units for regenerating human tissue.
- Availability of larger-scale bio-printed tissues

for biomedical research purposes to both industry and academia.

- Healthcare professionals acquire information on the safe and effective use of advanced therapies.

- Regulatory knowledge of the field is desired and should be documented through contacts with relevant national or international European regulatory authorities.
- 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.

## Beyond the horizon: A human friendly deployment of artificial intelligence and related technologies

HORIZON-CL2-2024-TRANSFORMATIONS-01-06

RIA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING  
4/10/23

DEADLINE  
7/2/24

Per topic: **10.00 M€**

Per project: **2.00 - 3.00 M€**

Up to 3 projects



The proposal should cover all the following aspects:

- Decisive contributions to develop a sound European capacity building on the future and long term human and societal implications of AI, building, as appropriate, on previous work of the HLEG-AI, ADRA125, and current development of the AI Act or other relevant European and national AI initiatives.
- A solid scientific approach, providing an in-depth analysis of successful existing

deployment of AI and the impact they have on European economy and society. Such analysis should also significantly contribute to awareness raising of such deployments, providing a reality check of capabilities/benefits, but also limitations of current AI solutions, and how the latter are currently addressed.

- On the basis of lessons from successful deployment, analysis of the implementation of the ethics principles for trustworthy AI.
- Many ethical issues arise in the development of AI systems, such as their use in medical devices, brain-computer interfaces, reasoning about human mental and emotion state, etc. Funded proposals should also take into account existing EU policy in the area, such as the development of the AI Act and the Excellence and trust in artificial intelligence under A Europe fit for the digital age.

## Capabilities for border surveillance and situational awareness

HORIZON-CL3-2023-BM-01-01

IA

CIVIL SECURITY FOR SOCIETY

OPENING  
29/6/2023

DEADLINE  
23/11/2023

Per topic: **8.00 M€**

Per project: **4.00 M€**

Up to 2 projects



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

- Increased border surveillance capabilities,

better performing and more cost-efficient, with data and fundamental rights protection by design;

- Better surveillance of border areas, supporting fight against illegal activities across external borders, as well as safety of people and operators in the border areas, including favouring border crossings through border crossing points;
- More efficient and more flexible solutions (including for relocation, reconfiguration and rapid deployment capabilities) than physical barriers to deter and monitor irregular border crossings outside border crossing points.

→ The proposed solutions should include, by design, the protection of fundamental rights such as privacy, and/or the application of privacy-enhancing technologies. They should also ensure secure data collection, access, encryption and decision support processes.

## Beyond the state-of-the-art “biometrics on the move” for border checks

HORIZON-CL3-2023-BM-01-03

IA CIVIL SECURITY FOR SOCIETY

OPENING  
29/6/2023

DEADLINE  
23/11/2023



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

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

- Updated, European-based, knowledge and development on robust biometrics technologies that could be used for recognition (identification and verification) of people crossing external EU borders, demonstrating a clear advancement beyond the current state-of-the-art;
- Maximisation of travellers’ experience and of security reassurances, minimising handling of personal data and maximising accuracy, reliability and throughput of the recognition process;
- Contribution to improving the operational response capacity of the EBCG at border

crossing points and to capabilities that strengthen the Schengen area, by providing security at its external borders that also reassure on maintaining the free movement within its borders.

→ The developed solutions need to comply with the Ethics Guidelines on Trustworthy AI (2019) [1], the EU values and fundamental rights, including on data protection and avoid bias and discrimination.



## Interoperability of systems and equipment at tactical level; between equipment and databases; and/or between databases of threats and materials

HORIZON-CL3-2023-BM-01-04

IA

CIVIL SECURITY FOR SOCIETY

OPENING  
29/6/2023

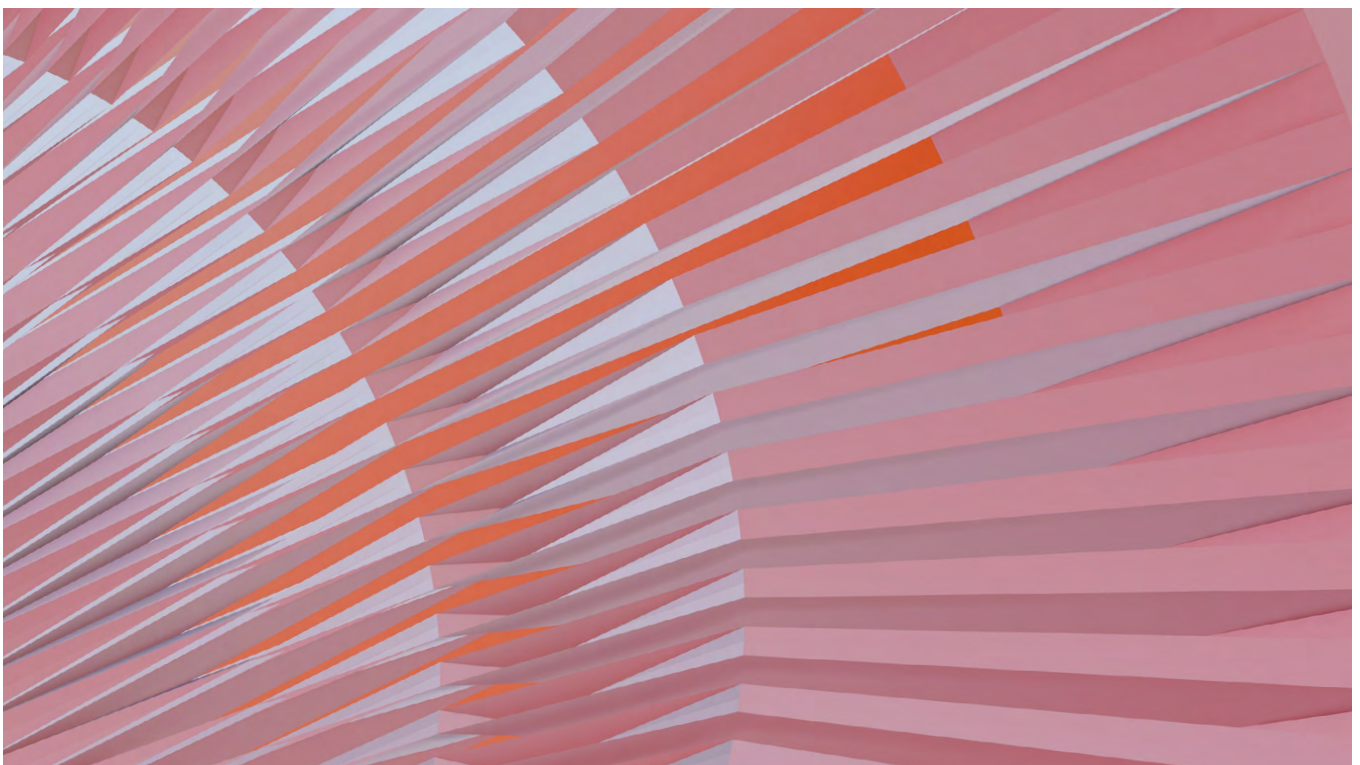
DEADLINE  
23/11/2023

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



- Projects' results are expected to contribute to some or all of the following outcomes:
- Increased interoperability of existing (and foreseeable upcoming) customs control equipment at tactical level, multi-supplier, multi-authority and cross-border;
- More efficient and quicker availability, for EU customs practitioners, of reference data (such as spectra) on threats and dangerous and/or illicit materials;
- Building capabilities for a more harmonised European application of customs controls based on risk management and trade facilitation.

→ Research should also consider how future management of borders can develop protection of human rights, and how it can facilitate protection of refugees.



## Robotics: Autonomous or semi-autonomous UGV systems to supplement skills for use in hazardous environments

HORIZON-CL3-2023-DRS-01-05

IA

CIVIL SECURITY FOR SOCIETY

OPENING  
29/6/2023

DEADLINE  
23/11/2023



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

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

- Broad acceptance of autonomous systems by first responders and affected people in civil protection;
- Higher safety and security standards for operational forces working in hazardous environments;
- Get ahead of future shortcomings of trained first responder personnel by increasing first responder efficiency (less personnel do more work in shorter time);
- Increased ability to conduct on-scene operations remotely without endangering first responders;
- European robotics industry is strengthened through engagement in the civil protection research as well as an economic and political advantage through building up know-how for innovative technologies;
- Reduction of false positive readouts from various sensors carried by robots.

→ Broad acceptance of autonomous systems by first responders and affected people in civil protection;

## A harmonized European forensics approach on drugs analysis

HORIZON-CL3-2023-FCT-01-02

IA

CIVIL SECURITY FOR SOCIETY

OPENING  
29/6/2023

DEADLINE  
23/11/2023



Per topic: **9.00 M€**  
Per project: **4.50 M€**  
Up to 2 projects

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

- European Police Authorities, forensic institutes and other relevant security practitioners are equipped by modern means of chemical analysis (composition) in drugs aimed at facilitating the cross-matching of seized drugs to labs and the establishment of links between cases, including by developing protocols to quickly exchange information on new substances;
- Improved and uniform EU-wide approach for the collection of evidence regarding illicit drugs-related overdoses, that would allow for

choosing adequate responses in countering the drug-related problems;

- Improved collection and availability of forensic evidence, that could be used in court by the authorities, in direct violence, kidnapping or human trafficking cases, as well as reinforced

prevention of such cases thanks to sensors/kits that are reliable, lawful, fast and easy-to-use;

- Enhanced perception of citizens in public and private spaces that Europe is an area of freedom, justice and security.

→ Gender-related impacts as well as legal and ethical challenges of such solutions should be fully considered in the development process.

## New methods and technologies in service of community policing and transferable best practices

HORIZON-CL3-2023-FCT-01-03

IA

**CIVIL SECURITY FOR SOCIETY**

OPENING  
29/6/2023

DEADLINE  
23/11/2023

Per topic: **4.00 M€**

Per project: **4.00 M€**

Up to 1 project



- Projects' results are expected to contribute to some or all of the following outcomes:
- Strengthened resilience of local communities against crime and radicalisation, lowered feeling of insecurity and improved law enforcing;
- Negative factors in local communities are identified early, possible threats are detected, and crime reporting is enhanced;
- Better recognition for community diversity within neighbourhoods, and tailored approaches to milieus including communities traditionally not engaging with statutory authorities resulting in comprehensive community empowerment;
- The interactions, and potential feedback between CP and alternatives to incarceration are explored;

- Identification and EU wide dissemination of validated community policing best practices;
- New methodologies, tools and adoption of technological support are developed; and
- Training curricula for Police Authorities are developed on community policing in non-homogenous local milieus with social complexities, including balancing of majority needs while recognising expectations of minorities and/or sub-groups.

→ More secure cyberspace for citizens, especially children, through a robust prevention, detection, and protection from cybercriminal activities.

## Open Topic

HORIZON-CL3-2024-BM-01-01

RIA

CIVIL SECURITY FOR SOCIETY

OPENING  
27/6/2024

DEADLINE  
20/11/2024



Projects' results are expected to contribute to outcomes in line with the one or all of the pursued impacts described in the Introduction to the Destination "Effective Management of EU external borders".

Under the Open Topic, proposals are welcome to

Per topic: **6.00 M€**

Per project: **3M€**

Up to 2 Projects

address new, upcoming or unforeseen challenges and/or creative or disruptive solutions within this Destination that are not covered by the other topics in Horizon Europe Calls Border Management 2021-2022, Border Management 2023 and Border Management 2024.

→ Research should also consider how future management of borders can develop protection of human rights, and how it can facilitate protection of refugees.

## Advanced user-friendly, compatible, secure identity and travel document management

HORIZON-CL3-2024-BM-01-03

IA

CIVIL SECURITY FOR SOCIETY

OPENING  
27/6/2024

DEADLINE  
20/11/2024



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

- Improved capabilities to validate breeder and identity documents as well as ICAO Type 1 and Type 2 digitalised travel documents;
- Improved compatibility among tools for verification of travel documents and identity, while guaranteeing not sharing (beyond what's strictly necessary) or compromising personal

data;

- Enhanced integration with EU current or planned architecture(s) for digital identity frameworks;
- Contribute to capabilities that strengthen the Schengen area, by providing security at its external borders that also reassure on maintaining the free movement within its borders.

→ The developed solutions need to comply with the Ethics Guidelines on Trustworthy AI (2019) [1]. <https://digital-strategy.ec.europa.eu/en/library/ethics-guidelines-trustworthy-ai>

## Integrated risk-based border control that mitigates public security risk, reduces false positives and strengthens privacy

HORIZON-CL3-2024-BM-01-04

IA

CIVIL SECURITY FOR SOCIETY

OPENING  
27/6/2024

DEADLINE  
20/11/2024



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

- Improve assisted border crossing control systems, coordinated between border, customs and security controls;
- Allocate more efficiently border check resources, maintaining security while minimising time and hassle for crossings and false positives;

Per topic: **5M€**

Per project: 5M€

Up to 1 project

- Allocate flexibly border check resources, when and where needed, depending on changing needs (for example seasonally, and/or in the case of roll-on-roll-off ferries);
- Contribute to capabilities that strengthen the Schengen area, by providing security at its external borders that also reassure on maintaining the free movement within its borders

→ The project should integrate strong ethical, legal and acceptability assessment to ensure that, on the other hand, the risks of bias (such as on ethnicity or gender) and discrimination of risk mitigation is minimised. Research should also consider how future management of borders can develop protection of human rights, and how it can facilitate protection of refugees.

## Detection and tracking of illegal and trafficked goods

HORIZON-CL3-2024-BM-01-05

RIA

CIVIL SECURITY FOR SOCIETY

OPENING  
27/6/2024

DEADLINE  
20/11/2024



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

- Improve assisted border crossing control systems, coordinated between border, customs and security controls;
- Allocate more efficiently border check resources, maintaining security while minimising time and hassle for crossings and false positives;

Per topic: **6.00 M€**

Per project: **3.00 M€**

Up to 2 projects

- Allocate flexibly border check resources, when and where needed, depending on changing needs (for example seasonally, and/or in the case of roll-on-roll-off ferries);
- Contribute to capabilities that strengthen the Schengen area, by providing security at its external borders that also reassure on maintaining the free movement within its borders



→ The project should integrate strong ethical, legal and acceptability assessment to ensure that, on the other hand, the risks of bias (such as on ethnicity or gender) and discrimination of risk mitigation is minimised. Research should also consider how future management of borders can develop protection of human rights, and how it can facilitate protection of refugees.

## AI-driven data operations and compliance technologies (AI, data and robotics partnership)

HORIZON-CL4-2024-DATA-01-01

IA

DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024

Per topic: **38.00 M€**

Per project: **8.00 - 10.00 M€**

Up to 4 projects



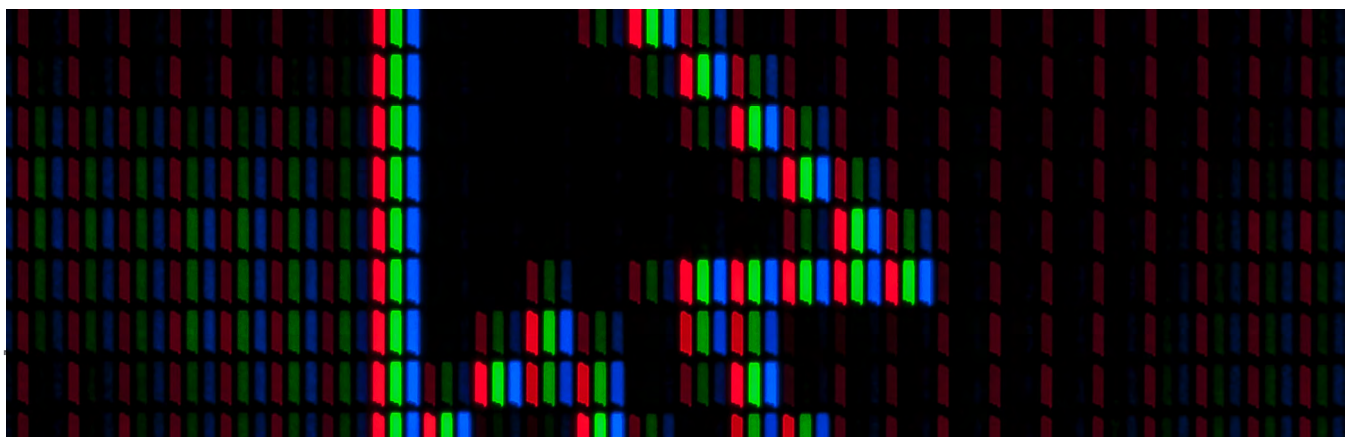
Projects are expected to contribute to the following outcomes:

→ To enable companies and public sector to easily comply with existing and emerging regulation (e.g. GDPR, Data Governance Act, Data Act, Artificial Intelligence Act) and create value on data assets that they possess or that they acquire from the market, and to allow citizens to feel more confident that data-driven systems treat them in a fair, unbiased and compliant way and respect their privacy/anonymity and other rights, and keep track of the use of personal data in a world where

“everything” moves online.

- Define, quantify and measure bias in data sets (especially those used for AI development).
- Shorten the time-to-market and reduce development costs of compliant data solutions.
- Contribute to open, trusted and federated Common European data spaces.
- Quantify and reduce the environmental footprint of data operations which will contribute to the Green Deal target “no net emissions of greenhouse gases by 2050.

→ Compliance should be understood in the broad sense, involving legal, ethical and environmental compliance. The competences represented in the consortium should cover all the relevant aspects (technical, legal, commercial, societal, ethical) appropriately.



## Explainable and Robust AI (AI Data and Robotics Partnership)

HORIZON-CL4-2024-HUMAN-01-06

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024

Per topic: **30 M€**

Per project: **9 - 10 M€**

Up to 3 projects



Projects are expected to contribute to one of the following outcomes:

- Enhanced robustness, performance and reliability of AI systems, including awareness of the limits of operational robustness of the system;
- Improved explainability and accountability, transparency and autonomy of AI systems, including awareness of the working conditions of the system. All proposals are expected to embed mechanisms to assess and demonstrate progress (with qualitative and quantitative KPIs, benchmarking and progress monitoring), and share communicable

results with the European R&D community, through the AI-on-demand platform or Digital Industrial Platform for Robotics, public community resources, to maximise re-use of results, either by developers, or for uptake, and optimise efficiency of funding; enhancing the European AI, Data and Robotics ecosystem through the sharing of results and best practice.

- 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. The objective of this heading is to gain industrial leadership in eXtended Reality technologies and immersive environments, while ensuring the European values of privacy, ethics and inclusiveness.

## Collaborative intelligence – combining the best of machine and human (AI Data and Robotics Partnership)

HORIZON-CL4-2024-HUMAN-01-07

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024

Per topic: **20 M€**

Per project: **5 M€**

Up to 4 projects



Projects are expected to contribute to the following outcomes:

- Demonstrate the value of human-machine collaboration and interaction by improved effectiveness, intuitiveness, efficiency, completeness, limits of knowledge indication and other objective or quantifiable subjective measures.
- Demonstrate how collaborative decision-making improves over human decision-making and that the collaborative decisions cover all stages of reasoning (that they are based on

an improved coverage of data and knowledge sources, on an improved analytic ability to reason from input to output, and on a well-communicated decision).

- Proposals are expected to address at least one of the expected outcomes.
- At least one proposal will be selected with a focus on human-machine collaboration and interaction and at least one with a focus on collaborative decision-making. Proposals should clearly mention which of the two areas they address.

→ Ethics principles needs to be adopted from early stages of development and design, and gender-sensitivity should be considered, where relevant. The objective of this heading is to gain industrial leadership in eXtended Reality technologies and immersive environments, while ensuring the European values of privacy, ethics and inclusiveness.

## Facilitate the engagement in global ICT standardisation development

**HORIZON-CL4-2024-HUMAN-01-61**

CSA

**DIGITAL, INDUSTRY AND SPACE**

OPENING  
15/11/2023

DEADLINE  
19/3/2024



Per topic: **6 M€**  
Per project: **6 M€**  
Up to 1 project

This action will contribute to the objectives spelled out in the EU Standardisation Strategy and meeting the objectives of the European Green Deal and Europe’s Digital Decade, in particular to supporting the EU’s leading position in global standards-setting as a forerunner in key technologies and promoting EU core values, by supporting and empowering the participation of European stakeholders in the development of open technical specifications and

standards with the aim to strengthen European competitiveness and sovereignty, promoting European values and ethics, and strengthen the take-up, scalability and cross-sector interoperability of their technological solutions. This action will among the others support the Commission’s effort to address the critical issues related to internet, trusted and secured chips, or data standards as described in the EU Standardisation Strategy.

- The objective is to gain industrial leadership in eXtended Reality technologies and immersive environments, while ensuring the European values of privacy, ethics and inclusiveness.
- Promotion of the relevance and benefits of ICT standardisation, especially for European industry competitiveness, driving sustainability, sovereignty, green deal, values and ethics.

## Exploration of critical raw materials in deep land deposits

HORIZON-CL4-2024-RESILIENCE-01-01

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING  
19/9/2023

DEADLINE  
7/2/2024

Per topic: **20 M€**

Per project: **around 5 M€**

Up to 4 projects

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 for EU industrial value chains and strategic sectors. Projects are expected to contribute to the following outcomes:

- Develop innovative technologies for exploration of critical raw materials in deep land deposits in the EU and non-EU countries;
- Increase the resources and reserves of various primary critical raw materials within the EU and non-EU countries;
- Accelerate development of EU domestic critical raw materials exploration projects integrating innovative technologies;
- Strengthen EU autonomy and ethical sourcing of raw materials by developing socially

and environmentally acceptable means of discovery of primary raw materials;

- Improve responsible supply of raw materials to the EU in line with the EU principles for sustainable raw materials, which are a non-regulatory set of principles based on the EU acquis. They set out requirements for sustainable raw materials and extraction and processing in Europe in terms of social, environmental and economic performance;
- Promote the utilisation of UNFC (United Nations Framework Classification for Resources) and UNRMS (United Nations Resource Management System) in the raw materials sector.

Actions are expected to contribute to the implementation of the EU action plan on Critical Raw Materials.

- **Expected Outcome: Strengthen EU autonomy and ethical sourcing of raw materials by developing socially and environmentally acceptable means of discovery of primary raw materials.**

## Novel paradigms and approaches, towards AI-powered robots—step change in functionality (AI, data and robotics partnership)

HORIZON-CL4-2024-DIGITAL-EMERGING-01-03

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024

Per topic: **30.00 M€**

Per project: **8.00 M€**

Up to 4 projects

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

- Achieve the substantial next step in the ability of robots to perform non-repetitive functional tasks in realistic settings, based on underlying robot functions (e.g. guidance/navigation/manipulation/interaction etc.), demonstrated in key high impact sectors where robotics has the potential to deliver significant economic and/or societal benefits. Proposals should address functional challenges that are of equivalent or greater complexity and/or combine different types of functions to deliver greater functional complexity:
- To reach the point where the robot systems operating in harsh complex and dynamic working environments can carry out sequences of complex functions to achieve a functional goal.
- In navigation to reliably and purposefully move between destinations within complex people centric environments that are occupied such as busy transport hubs, shopping malls or entertainment and sporting venues; or to move purposefully maintaining a direction of travel towards a target destination or sequence of destinations over variable terrain where the surface is shifting and reactive to the robot's motion.
- In manipulation to reach human speed with equivalent dexterity, or manipulate objects beyond human capability, such as very small objects, or very precise manipulation tasks, or vary big objects, beyond current capabilities and functionalities; to manipulate complex articulated objects either as part of an assembly task or in order to use those objects as tools to achieve a specific function.
- Step change in the enabling conditions essential for the accelerated diffusion of robots in various industries, sectors and services which can 1) handle tasks efficiently, robustly, and safely and 2) interact naturally and smoothly to support humans in their daily activities, based on a strong multidisciplinary approach, including the relevant SSH dimension.
- The development, use and exploitation of major advances in science and technology for the enhancement of European robotics, in order to maintain Europe's scientific excellence and ensure sovereignty of key technologies relevant to robotics
- Create opportunities to affect society in the longer term by contributing to impact on major broad societal challenges.

→ Where relevant, proposals should 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 need to be adopted from early stages of development and design.





## Next generation low-emission, climate-resilient pathways and NDCs for a future aligned with the Paris Agreement

HORIZON-CL5-2024-D1-01-05

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING  
9/12/23

DEADLINE  
3/5/24

Per topic: **14.00 M€**

Per project: **4.50 M€**

Up to 3 projects



As showcased by various independent assessments, the current Nationally Determined Contributions (NDCs) and climate policies fall short of reaching the long-term goals of the Paris Agreement. Projects should contribute to strengthening of national climate policies, NDCs and long-term strategies, by developing next generation low-

emission transformation pathways, with increased sectoral detail, and fostering more holistic and more integrative approaches that promote synergies and minimise trade-offs between mitigation, adaptation, biodiversity and other policy objectives. They should support the creation of tools that evaluate the existing NDCs and facilitate monitoring processes.

→ This topic requires the effective contribution of SSH disciplines including ethics and the involvement of SSH experts, institutions as well as the inclusion of relevant SSH expertise, in order to produce meaningful and significant effects enhancing the societal impact of the related research activities.

## AI for advanced and collective perception and decision making for CCAM applications (CCAM Partnership)

HORIZON-CL5-2024-D6-01-04

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING  
07/05/2024

DEADLINE  
05/09/2024

Per topic: **10.00 M€**

Per project: **5.00 M€ U**

p to 2 projects



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

- Approaches for resilient collective awareness, which can eventually be used in e.g. complex models of collective behaviour.
- Advanced collective awareness, decision making and triggering of actions for CCAM applications, enabled by new concepts and tools built on advancements in Artificial Intelligence (AI), including Hybrid Intelligence (HI).

- CCAM solutions evolving from reactive into predictive system state awareness (including driver state and road user diversity), decision making and actuation, enhancing road safety.
- Understanding of AI-related ethical issues and user needs, together with capabilities, limitations and potential conflicts of AI based systems for CCAM, including a definition and a measure of human-like control.
- Increased user acceptability and societal benefit of CCAM solutions, based on

explainable, trustworthy and human-centric AI. Interactions with AI-based vehicles are

understandable, human-like and reflect human psychological capabilities.

- Expected outcome : understanding of AI-related ethical issues and user needs, together with capabilities, limitations and potential conflicts of AI based systems for CCAM, including a definition and a measure of human-like control.
- This topic requires the effective contribution of SSH disciplines including ethics and the involvement of SSH experts, institutions as well as the inclusion of relevant SSH expertise, in order to produce meaningful and significant effects enhancing the societal impact of the related research activities.

## Targeting aquatic extremophiles for sourcing novel enzymes, drugs, metabolites and chemicals

HORIZON-CL6-2024-CircBio-01-10

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING  
17/10/2023

DEADLINE  
22/02/2024

Per topic: **9.00 M€**  
Per project: **4.50 M€**  
Up to 2 projects

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

- Contribution to expanding the sustainable exploration of biodiversity hotspot regions, e.g., transitional waters, deep-sea, polar regions;
- Better preparedness to harvest aquatic bioactive substances in the most environmental friendly manner and support to green industrial bioprocessing with more sustainable bio-based products through bio discovery of novel sources and new biotechnology processes and applications;
- Advancement in understanding the ecology of marine or other aquatic ecosystems, including possibly the ones on water surface, in sediments, in the internal cavity of sponges etc.;
- They should disseminate their results in the most efficient and transparent manner considering the risks and ethics related to science & technology in compliance with EU regulations on access to genetic resources and the fair and equitable sharing of benefits arising from their utilisation (ABS) in the EU.

- They should disseminate their results in the most efficient and transparent manner considering the risks and ethics related to science & technology in compliance with EU regulations on access to genetic resources and the fair and equitable sharing of benefits arising from their utilisation (ABS) in the EU.



# Public engagement

## Pandemic preparedness and response: Host-pathogen interactions of infectious diseases with epidemic potential

HORIZON-HLTH-2024-DISEASE-08-20

RIA

HEALTH

OPENING  
14/12/2022

DEADLINE  
14/03/2023



As shown by the COVID-19 pandemic, infectious diseases remain a major threat to health and health security in the EU and globally. Viral disease emergence is expected to accelerate due to among other factors, climate change, and thus a proactive approach to the development of vaccines and inhibitors for the cellular uptake of viruses in preparedness for future infectious disease outbreaks is needed. The availability of vaccines and candidates that inhibit cellular uptake of viruses would provide a critical preparedness measure against future health threats, in particular against pathogens with high pandemic potential meeting the criteria identified by

Per topic: 50.00 M€

Per project: **7.00 - 8.00 M€**

Up to 5 projects

the Health Emergency Preparedness and Response Authority (HERA).

Proposals should follow innovative approaches to characterise host-pathogen interactions with a view to inhibit viral replication, viral proteases, viral exit strategies and to develop therapeutic antibodies and vaccines that target viruses with high epidemic or pandemic potential for the EU (Hendra and Nipah virus, Lassa virus, Crimean Congo haemorrhagic fever virus, Rift Valley fever virus, Ebola and Marburg virus, Dengue virus, Yellow Fever virus, Zika virus, West Nile fever virus and Chikungunya virus).

→ According to expected outcomes the scientific and clinical communities have access to experimental vaccine candidates and candidates that inhibit cellular uptake of viruses against emerging or re-emerging viral infections for further clinical investigation.

## Protest politics and cultures of opposition in democracy

HORIZON-CL2-2024-DEMOCRACY-01-01

RIA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING  
4/10/23

DEADLINE  
7/2/24

Per topic: **9.00 M€**

Per project: **2.00-3.00 M€**

Up to 3 projects

○ ————— ○  
Research proposals under this topic should analyse further the shift towards politics of collective action, and their impact on European democracies, including their role in resisting the rise of authoritarian tendencies and in taking down authoritarian regimes. This could refer to both online and offline forms of collective political action, including artistic

forms of protest (audiovisual art, literature, music, etc.). Proposals should consider drivers and factors that play a role in fostering such forms of politics (emotional, gender, socioeconomic, cultural, historical, generational, geopolitical, geographical etc.), including the role of social media platforms.

→ Special attention could be put on younger generations, who have vastly participated in shaping the public sphere with their activism in movements such as Pride, Fridays for Future and feminist mobilisations. A focus could also be on violence and extremist movements' influence, for instance on protests against COVID-19 public health measures. How social networks act as a factor to increase societal resilience and as a way to pressure political change could also be investigated. As new forms of Horizon Europe - political participation are still very much urban-based, proposals should include a specific focus on how to constructively channel rural youth's discontent.

## Multilevel governance in times of digital and climate transitions

HORIZON-CL2-2024-DEMOCRACY-01-01

CSA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING  
4/10/23

DEADLINE  
7/2/24

Per topic: **9.00 M€**

Per project: **2.00-3.00 M€**

Up to 3 projects

○ ————— ○  
Research proposals under this topic should analyse further the shift towards politics of collective action, and their impact on European democracies, including their role in resisting the rise of authoritarian tendencies and in taking down authoritarian regimes. This could refer to both online and offline forms of collective political action, including artistic

forms of protest (audiovisual art, literature, music, etc.). Proposals should consider drivers and factors that play a role in fostering such forms of politics (emotional, gender, socioeconomic, cultural, historical, generational, geopolitical, geographical etc.), including the role of social media platforms.

→ As the innovation part of this action, proposals should experiment with community-led innovations in one or both policy areas, such as through deliberative processes, or engaging social innovation partners and citizens representatives.

## The interrelation between social, cultural and political identities, as well as the sense of belonging, and democracies

HORIZON-CL2-2024-DEMOCRACY-01-04

RIA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING  
4/10/23

DEADLINE  
7/2/24



In the past few years, Europe has arguably experienced an increased fragmentation of identities, given rapid generational, demographic, social, religious and political changes. This has opened up questions about the negative impact that such fragmenting trends might have on democratic life, as well as the barriers that certain groups face to be actively and meaningfully engaged in

Per topic: **9.00 M€**

Per project: **2.00-3.00 M€**

Up to 3 projects

democratic participation, among these youths, migrants, and LGBTIQ+ collectives. In this context, proposals should help further investigate the way that democracy and its key tenets such as political representation, participation or trust are interrelated to social, cultural, and political identities and a sense of belonging and identification with different communities.

→ Proposals should identify and explore barriers and factors that limit or impact the engagement of certain communities in democratic practices and processes, and erode their political participation, representation or trust in democratic institutions. Moreover, they should consider and propose policies, frameworks and recommendations to prevent and revert such negative trends, as well as ways to further foster the sense of belonging to democratic societies. This could include the piloting of participatory processes or civic engagement activities targeted at identifying and discussing the issues underpinning the sense of democratic belonging in said communities.

## Gender-roles in extremist movements and their impact on democracy

HORIZON-CL2-2024-DEMOCRACY-01-05

RIA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING  
4/10/23

DEADLINE  
7/2/24



Proposals should consider the interrelation between top-down hyper-masculinistic leadership styles and bottom-up identitarian, nationalist and other extremist movements developing in online spaces,

Per topic: **9.00 M€**

Per project: **2.00-3.00 M€**

Up to 3 projects

and analyse their impact on democratic participation, decision-making and trust in governance. Historical experiences of leadership and politics in crisis situations may also be considered in this regard.



- Proposals should develop strategies and practical solutions for the engagement and deliberation with men involved in reactionary, identitarian, or far-right nationalist online forums, and examine the influence of the online discourse in such platforms on the constitution of extremist movements, as well as their relation to mainstream (online) platforms and political discourse. This includes, but is not limited to, an analysis and engagement with different types of masculinity, how these relate to political violence, gender-based violence, and hate crimes, and perceptions around EU values and socio-political change.

## Digital democracy

HORIZON-CL2-2024-DEMOCRACY-01-07

CSA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING  
4/10/23

DEADLINE  
7/2/24

Per topic: **9.00 M€**

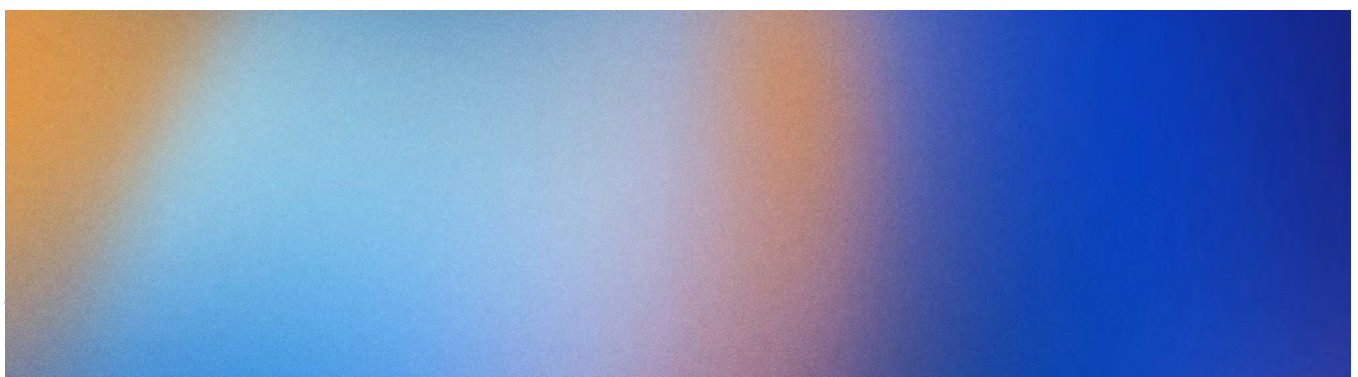
Per project: **2.00-3.00 M€**

**Up to 3 projects**

Proposals should investigate - building on existing literature and data - the most recent developments, especially as regards the pandemic-induced innovative e-democracy and e-participation solutions at all levels of governance (international, EU, national, regional, local). Research should pay particular attention to digital inclusion as a

key challenge and essential element of inclusive citizen participation in public deliberations for a healthy digitally enabled democracy through equal participation irrespective of citizen's income level, education, ethnicity, gender, religion, language used, ability, geographical location, etc., and to the digital divide between generations.

- Based on lessons learnt from existing good practice cases and experiences, proposals should consider the citizens' perspectives in building digital democracy tools and processes, including related technical aspects (e.g. gamification, artificial intelligence). The involvement of different stakeholders, including public administrations, end-users, political actors and the private sector is strongly encouraged to foster dialogue and understanding between diverse interest groups in democratic deliberations, enhance the legal frameworks and safeguards against threats and challenges (e.g. fraud prevention in e-voting), overcoming polarisation and reaching better public policy outcomes.



## Culture, the arts and cultural spaces for democratic participation and political expression, online and offline

HORIZON-CL2-2024-DEMOCRACY-01-08

RIA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING  
4/10/23

DEADLINE  
7/2/24

Per topic: **9.00 M€**

Per project: **2.00-3.00 M€**

Up to 3 projects



Proposals are expected to investigate cultural activity and engagement, online and offline, as political expression, civic participation and political engagement, historically, in contemporary society, and to provide forecasts for the future.

- Proposals should propose forward-looking policy recommendations to ensure that such digital spaces can, by design, have a positive impact on democratic life, and to limit the potential threats to democracy. How can these new spaces be exploited as positive tools for citizen engagement?
- Proposals are expected to investigate cultural activity and engagement, online and offline, as political expression, civic participation and political engagement, historically, in contemporary society, and to provide forecasts for the future.

## The role and functioning of public administrations in democratic systems

HORIZON-CL2-2024-DEMOCRACY-01-09

RIA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING  
4/10/23

DEADLINE  
7/2/24

Per topic: **9.00 M€**

Per project: **2.00 - 3.00 M€**

Up to 3 projects



This area of research intends to investigate how European Union governments are approaching public administration and governance reform i.e. what areas they strategically invest in, what challenges they encounter, what (national, European or international) support (expertise, finance) they capitalise on, and how they generally approach transforming their

government administrations (through e.g. systems approaches, open government approaches, innovation portfolio approach, organisational framework conditions enabling innovation, etc.) as they face the challenges of today.

- Particular attention should be paid to the role and functioning of public institutions in democratic systems, their role in fostering democratic, economic and social stability, and in reforming public management and institutions in ways that enhance citizens' trust in government and active participation in public affairs [e.g. engagement with citizens, open and transparent public decision- and policymaking, e

## Future scenarios and young visions for European democracy 2040

HORIZON-CL2-2024-DEMOCRACY-01-11

RIA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING  
4/10/23

DEADLINE  
7/2/24

Per topic: **4.00 M€**

Per project: **3.00 - 4.00 M€**

Up to 1 project



In light of the current discourse about the need to rethink and redesign virtual and real public spaces and civic engagement, this research will also investigate the future of democracy and its instruments, and will also explore the views of political institutions such as national parliaments and the European Institutions, and those of organised civil society actors as regards their visions for the future, emerging trends such as e.g. participatory and deliberative democracy

models that better serve the public good, build trust between governments and citizens, and deepen democracy at large. Particular attention should be paid to the development of future European (and national) public spaces that mutually support one another and work together, and the evolution of the current EU model (with its peculiarities and often quoted democratic deficit) into its best potential.

- Future scenario workflows, roadmap and strategy playbook to achieve the most preferred scenarios for democracy in the European Union 2040, researched, debated and co-developed through iterative, large-scale engagement processes with diverse groups of stakeholders i.e. young European citizens, political and institutional actors and organised civil society.
- It is important to document (e.g. the making-of film, documentary, library of video interviews, etc.) the journey undertaken over time from research through large-scale stakeholder engagements, debates and co-development of outcomes for European citizens to engage with the content as the project is progressing and after its conclusion.



## Testing and implementation of research results fostering democracy and governance

HORIZON-CL2-2024-DEMOCRACY-01-12

CSA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING  
4/10/23

DEADLINE  
7/2/24



Proposals have to credibly identify a targeted democracy and/or governance related issue that can be addressed by implementing existing research and innovation results. In addition, proposals should take those research and innovation results further through testing and experimenting in the relevant operational environment, and enhancing

Per topic: **4.00 M€**

Per project: **3.00 - 4.00 M€**

Up to 1 project

the potential take-up of innovative solutions by civil society, public institutions, including educational institutions, and policymakers at all governance levels, including in third countries.

- Proposals should involve end-users (including civil society organisations) and/or strategic partners who can foster the societal impact of the research and innovation results. Possible end-users and strategic partners could include for instance local or regional authorities, schools/universities, cultural institutions, civil society, foundations, political parties, trade unions, or youth organisations.
- Proposals could also develop strategies to promote citizens activism and community engagement to build inclusive societies.
- Proposals are also encouraged to collaborate with the JRC Competence Centre on Participatory and Deliberative Democracy, [[https://knowledge4policy.ec.europa.eu/participatory-democracy\\_en](https://knowledge4policy.ec.europa.eu/participatory-democracy_en)] particularly with respect to actions and initiatives directly contributing to the provisions of the European Democracy Action Plan for the promotion of democratic engagement and active participation beyond elections.

## Leverage the digital transition for competitive European cultural and creative industries

HORIZON-CL2-2024-HERITAGE-01-03

IA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING  
4/10/23

DEADLINE  
7/2/24



Per topic: **13.00 M€**

Per project: **3.00 - 4.00 M€**

Up to 3 projects

Proposals should provide for devising effective and cost-efficient measures to support CCIs to embrace and make full use of digital technologies for competitiveness and sustainability. Proposals should choose a suitable set of CCI sector(s), or/ and cross-sectoral issues, to focus on, which allow significant impacts to be achieved. A wide array of digital technologies should be considered, which are deemed crucial to the CCI sector(s) or/and issues chosen. Analytical technologies such as “big

data” or “artificial intelligence” could be used for instance to better understand users’ behaviours, to better plan activities or/and to engage deeper with customers.

→ A wide set of stakeholders should be involved, in accordance with the focus chosen, with a view to ensure that pilot trials are developed in an effective and realistic manner and that results can readily be taken up by relevant policymakers or/and other decision-makers.

## Beyond the horizon: A human friendly deployment of artificial intelligence and related technologies

HORIZON-CL2-2024-TRANSFORMATIONS-01-06

RIA CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING  
4/10/23

DEADLINE  
7/2/24



Per topic: **10.00 M€**  
Per project: **2.00 - 3.00 M€**  
Up to 3 projects

The proposal should cover all the following aspects:

- Decisive contributions to develop a sound European capacity building on the future and long term human and societal implications of AI, building, as appropriate, on previous work of the HLEG-AI, ADRA125 , and current development of the AI Act or other relevant European and national AI initiatives.
- A solid scientific approach, providing an in-depth analysis of successful existing

deployment of AI and the impact they have on European economy and society. Such analysis should also significantly contribute to awareness raising of such deployments, providing a reality check of capabilities/ benefits, but also limitations of current AI solutions, and how the latter are currently addressed.

→ Proposals need to take a multi-disciplinary and cross-sectorial approach, and engage with a wide set of stakeholders, including research organisations, enterprises, citizens[of different age groups incl. children and young people as well as elderly people], policymakers, public private partnerships in particular the AI, Data and Robotics Partnership, and other relevant EU projects and initiatives around AI.



## Effective education and labour market transitions of young people

HORIZON-CL2-2024-TRANSFORMATIONS-01-10

RIA

CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

OPENING  
4/10/23

DEADLINE  
7/2/24



Per topic: **10.00 M€**

Per project: **2.00 - 3.00**

Up to 3 projects

Proposals should use quantitative and qualitative methods to analyse transitions between educational levels (including between general education and

vocational training) and/or between education/training and the labour market and improve the evidence base for policy decisions

→ Proposals should also include the voice of young people and other relevant stakeholders as part of the data collection.

## Beyond the state-of-the-art “biometrics on the move” for border checks

HORIZON-CL3-2023-BM-01-03

IA

CIVIL SECURITY FOR SOCIETY

OPENING  
29/6/2023

DEADLINE  
23/11/2023



Per topic: **6.00 M€**

Per project: **3.00 M€**

Up to 2 projects

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

- Updated, European-based, knowledge and development on robust biometrics technologies that could be used for recognition (identification and verification) of people crossing external EU borders, demonstrating a clear advancement beyond the current state-of-the-art;
- Maximisation of travellers' experience and of security reassurances, minimising handling

of personal data and maximising accuracy, reliability and throughput of the recognition process;

- Contribution to improving the operational response capacity of the EBCG at border crossing points and to capabilities that strengthen the Schengen area, by providing security at its external borders that also reassure on maintaining the free movement within its borders.

→ Proposals submitted under this Destination should demonstrate how they plan to build on relevant predecessor projects; to consider the citizens' and societal perspectives; to include education, training and awareness raising for practitioners and citizens; to measure the achieved TRL; and to prepare the uptake of the research outcomes.

# Improving social and societal preparedness for disaster response and health emergencies

HORIZON-CL3-2023-DRS-01-01

RIA

CIVIL SECURITY FOR SOCIETY

OPENING  
29/6/2023

DEADLINE  
23/11/2023

Per topic: **8.00 M€**

Per project: **4.00 M€**

Up to 2 projects

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

- Identification of different factors in inequality and ways to communicate with vulnerable groups, of individual, organisational, and systemic resilience factors and pathways to support these, and of ways to address vulnerabilities in acute crisis as well as during prevention, in order to elaborate an interconnectedness of resilience and vulnerability;
- Improvement of populations health literacy and basic understanding of how medicine and vaccines work and how they are developed and produced;
- Improved crisis communication through increased awareness and risk perception regarding bio security, identification of challenges for and limits of communication strategies and interventions regarding different vulnerable groups and approaches to address these, elaborating of ways for resolving barriers for crisis communication: interlinguality, interculturality, intersemiotics;
- Putting the citizen at the centre of the crisis management process (involving where relevant citizen volunteers in demonstrations related to research developments), increasing their capacity to access, read and interpret scientifically sourced information, analysing gender behaviours regarding unpopular measures (e.g., quarantine) and vaccination attitudes and identification and relieving of barriers for vaccination readiness: Trust, risk appraisal, barriers for registration for vaccination, information, collective responsibility;
- Incorporation of information technology and bias-free data into crisis management through improved information processing in transformative governance, illustrating possibilities, challenges, and limits of digitalisation and enabling usage of data for political decision making;
- Incorporation of machine learning and artificial intelligence in governance and political decision making based on interdisciplinary discussions on definitions on problems in compliance with EU law; areas of application; and definition of responsibilities and competences in data governance;
- Validation of novel, smartphone sized or wearable technologies with laboratory-level diagnostics capability (e.g., wearables with integrated digital dosimeters, handheld PCR test devices);
- Strengthening of the One Health approach including not only human physical health but also mental health as well as environmental and animal health, and understanding of the biological risks posed by environmental changes such as climate change and preparedness for impacts on human health;
- Projects should comply with privacy safeguards to ensure that disaster response systems protect EU fundamental rights such as privacy and protection of personal data.

- The involvement of citizens, including citizen volunteers in demonstrations of tools and technologies, civil society and other societal stakeholders in co-design and co-creation should be promoted.
- Putting the citizen at the centre of the crisis management process (involving where relevant citizen volunteers in demonstrations related to research developments), increasing their capacity to access, read and interpret scientifically sourced information, analysing gender behaviours regarding unpopular measures (e.g., quarantine) and vaccination attitudes and identification and relieving of barriers for vaccination readiness: Trust, risk appraisal, barriers for registration for vaccination, information, collective responsibility

## Design of crisis prevention and preparedness actions in case of digital breakdown (internet, electricity etc.)

HORIZON-CL3-2023-DRS-01-02

RIA

CIVIL SECURITY FOR SOCIETY

OPENING  
29/6/2023

DEADLINE  
23/11/2023

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



Projects' results are expected to contribute to some of the following outcomes:

- Development of prevention/preparedness actions based on the (existing) analysis of interdependencies between critical infrastructures and possible cascading effects;
- Analysis of existing communication systems and assessment/development of alternative

communication tools for Civil Protection and Crisis Management security authorities, including the communication with private sector and actors responsible for critical infrastructures, as well as representatives of regional / local authorities and citizen organisations.

- The involvement of citizens, civil society and other societal stakeholders in co-design and co-creation should be promoted. In order to achieve the expected outcomes, international cooperation is encouraged.

## Internationally coordinated networking of training centres for the validation and testing of CBRN-E tools and technologies in case of incidents, with consideration of human factors

HORIZON-CL3-2023-DRS-01-04

IA

CIVIL SECURITY FOR SOCIETY

OPENING  
29/6/2023

DEADLINE  
23/11/2023

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



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

- Extended networking of training centres in Europe and selected CBRN Centres of Excellence in non-EU countries;
- Compilation of information of capacities of networked CBRN-E training centres in view of better coordination of training and testing actions in support of research and standard developments;
- Improved cooperation and development of testing methodologies and protocols for the

validation of tools and technologies resulting from research actions (including pre- or co-normative research) and/or proofs of concepts for developing standards, combining societal and technological challenges;

- Inter-cooperation through an established forum of training centres to synchronize actions for identifying gaps in test and validation techniques, methodologies and protocols.

→ The involvement of citizens, including citizen volunteers in demonstrations of tools and technologies, civil society and other societal stakeholders in co-design and co-creation should be promoted.

## Increased technology solutions, institutional coordination and decision-support systems for first responders of last-kilometer emergency service delivery

HORIZON-CL3-2023-DRS-01-06

IA

CIVIL SECURITY FOR SOCIETY

OPENING  
29/6/2023

DEADLINE  
23/11/2023



Per topic: **3.50 M€**  
Per project: 3.50 M€  
Up to 1 project

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

- Identification and evaluation of existing technologies supporting first and second responders in their immediate response to natural disasters (e.g. drones, AI, sensors), highlighting their strengths and weaknesses;
- Testing and implementation of most promising

user-centred technologies in real-world conditions;

- Innovative technology solutions to improve searching operations in smoky environments in the case of wildfires.

→ More specifically, proposals should contribute to the achievement of one or more of the following impacts: Enhanced understanding and improved knowledge and situational awareness of disaster-related risks by citizens, empowered to act and consider innovative solutions, thus raising the resilience of European society.

## Facilitating strategic cooperation to ensure the provision of essential services

HORIZON-CL3-2023-INFRA-01-01

IA

CIVIL SECURITY FOR SOCIETY

OPENING  
29/06/2023

DEADLINE  
23/11/2023



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

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

- Tools for EU Member State authorities and operators for the assessment and anticipation of relevant risks to the provisions of essential services are identified;
- The cooperation between authorities of EU Member States is facilitated by providing solutions for data exchange and joint cross-border risk assessments;
- Simulation tools are developed for large-scale exercises to test the resilience of operators and of specific sectors, and related training courses are designed;
- Measures by Member State authorities to facilitate risk assessments by operators are identified, including the assessment of dependencies on different sectors and cross-border interdependencies;
- Provide common European guidance and support for the drafting of their resilience plans in order to meet all the provisions of the proposed CER-Directive: risk analysis, domino effects, cross-sector and cross-border analysis, standardised plans, educational and training tools;
- An all-hazards framework is created to support Member States in ensuring improved concepts and instruments for the anticipation of risks to entities that provide essential services, resulting in an improved preparedness and response against disruptions of key sectors in the EU and enhanced resilience of the EU internal market.

→ The inclusion of associations representing private or public operators in specific sectors, or across sectors on EU- or national level, is encouraged.

## Supporting operators against cyber and non-cyber threats to reinforce the resilience of critical infrastructures

HORIZON-CL3-2023-INFRA-01-02

IA

CIVIL SECURITY FOR SOCIETY

OPENING  
29/6/2023

DEADLINE  
23/11/2023



Per topic: **9.50 M€**  
Per project: **4.75 M€**  
Up to 2 projects



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

- Support is provided to the resilience of operators against cyber and non-cyber threats in specific sectors;
- A reliable state-of-the-art analysis of physical/cyber detection technologies and risk scenarios is created, in the context of an operator in a specific sector in sectors that have not yet been covered by previous research projects;
- Strengthened cooperation against natural or human-made threats and subsequent disruptions of infrastructures in Europe, allowing for operational testing in real scenarios or realistic simulations of scenarios with specific regard to disruptions in a specific sector of critical entities;
- Improved situational awareness, preparedness and governance by the implementation of effective solutions that enhance detection and anticipated projection of a determined threatening situation, as well as implementation of prevention, preparedness/mitigation, response, and recovery types of intervention;
- Significant reduction of risks and exposures to anomalies or deliberate events on cyber-physical systems, or on complex and critical infrastructures/systems;
- Enhanced preparedness and response by definition of operational procedures of operators as well as public authorities considering citizen's behaviour/reaction and societal impact in case of disruption in a specific sector.

→ Enhanced preparedness and response by definition of operational procedures of operators as well as public authorities considering citizen's behaviour/reaction and societal impact in case of disruption in a specific sector.

## Pilot line(s) for 2D materials-based devices

HORIZON-CL4-2024-DIGITAL-EMERGING-01-31

RIA DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024

Per topic: **33 M€**  
Per project: **33 M€**  
Up to 1 project



Projects are expected to contribute to the following outcomes:

- Broadly accessible pilot line(s) fostering the creation of electronic and photonic devices and systems (co-)integrating two-Dimensional Materials (2DM).
- Significant progress towards the adoption of the 2DM in the silicon and semi-conductor arena by allowing the production of new (co-)integrated devices and systems in a quality controlled way.

→ The objective of this heading is to ensure autonomy for Europe in AI, data and robotics in developing world-class technologies serving the needs of all types of European industries, from manufacturing to healthcare, public sector, etc.

## Synergy with national and regional initiatives in Europe

HORIZON-CL4-2024-DIGITAL-EMERGING-01-34

CSA

DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024

Per topic: **3 M€**

Per project: 3 M€

Up to 1 project



Projects are expected to contribute to the following outcomes:

- Well-coordinated European, national and regional initiatives in the field of graphene and two-dimensional materials (2DM);
- Further development of a strong European innovation ecosystem in 2DM-based technologies. Proposals should support the

coordination between relevant national and regional public authorities funding research and innovation in 2DM-based technologies

- This coordination should allow them to work synergistically with the goal to strengthen and complement the EU funded activities in the domain.

- Proposals should support the coordination between relevant national and regional public authorities funding research and innovation in 2DM-based technologies. The objective of this heading is to ensure autonomy for Europe in AI, data and robotics in developing world-class technologies serving the needs of all types of European industries, from manufacturing to healthcare, public sector, etc.

## Stimulating transnational research and development of next generation quantum technologies, including basic theories and components

HORIZON-CL4-2024-DIGITAL-EMERGING-01-42

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024

Per topic: **15 M€**

Per project: 15 M€

Up to 1 project



- Projects are expected to contribute to the following outcomes:
- Support to transnational projects in quantum technologies, fostering synergy between European, national and regional initiatives

and promoting broader partnerships between the European stakeholders in quantum technologies.

→ The objective of this heading is to ensure autonomy for Europe in AI, data and robotics in developing world-class technologies serving the needs of all types of European industries, from manufacturing to healthcare, public sector, etc. developing world-class technologies serving the needs of all types of European industries, from manufacturing to healthcare, public sector, etc.

## Quantum sensing and metrology for market uptake

HORIZON-CL4-2024-DIGITAL-EMERGING-01-45

IA

DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024

Per topic: **15 M€**  
Per project: **4 - 5 M€**  
Up to 3 projects



Projects are expected to contribute to mature quantum sensing technologies and devices (TRL 6-7) in different application sectors, with the goal of establishing a reliable, efficient supply chain including first standardisation and calibration efforts for rapid market uptake. Proposals should address the development of mature quantum sensing technologies and single or network-operating devices that have the potential to find a broad

range of new applications including but not limited to transportation, precise localisation and timing, navigation, metrology, health, biology, security, telecommunications, Radio Frequency sensing and processing, imaging and recognition, radars energy, electronics industry, construction, mining, prospection, aerospace, materials, automotive, energy transformation etc...

- Projects are expected to contribute to mature quantum sensing technologies and devices (TRL 6-7) in different application sectors, with the goal of establishing a reliable, efficient supply chain including first standardisation and calibration efforts for rapid market uptake. Proposals should address the development of mature quantum sensing technologies and single or network-operating devices that have the potential to find a broad range of new
- applications including but not limited to transportation, precise localisation and timing, navigation, metrology, health, biology, security, telecommunications, Radio Frequency sensing and processing, imaging and recognition, radars energy, electronics industry, construction, mining, prospection, aerospace, materials, automotive, energy transformation etc...

## Explainable and Robust AI (AI Data and Robotics Partnership)

HORIZON-CL4-2024-HUMAN-01-06

RIA

**DIGITAL, INDUSTRY AND SPACE**

OPENING  
15/11/2023

DEADLINE  
19/3/2024

Per topic: **30 M€**

Per project: 9 - 10 M€

Up to 3 projects



Projects are expected to contribute to one of the following outcomes:

- Enhanced robustness, performance and reliability of AI systems, including awareness of the limits of operational robustness of the system;
- Improved explainability and accountability, transparency and autonomy of AI systems, including awareness of the working conditions of the system. All proposals are expected to embed mechanisms to assess and demonstrate progress (with qualitative and

quantitative KPIs, benchmarking and progress monitoring), and share communicable results with the European R&D community, through the AI-on-demand platform or Digital Industrial Platform for Robotics, public community resources, to maximise re-use of results, either by developers, or for uptake, and optimise efficiency of funding; enhancing the European AI, Data and Robotics ecosystem through the sharing of results and best practice.

- To ensure trustworthiness, public awareness and support, wide adoption by user communities for the benefit of society, actions should promote the highest standards of transparency and openness. Advances across the topic areas can help create human-centric AI, which reflects the needs and values of European citizens and contribute to an effective governance of AI technologies.
- In particular, the Digital Decade and its compass set a target 80% of citizens using a digital ID solution by 2030.
- Technologies need to be developed that industries and citizens will trust, so and that they could be applied in a wide range of applications and industrial sectors. EIT Digital, through projects with cities for example, improves engagement and inclusiveness of the citizens and of the visitors. Augmented and virtual reality of the cities are another facet of exposing or simulating city data from the past, present or future to the benefit of citizens.

## Collaborative intelligence – combining the best of machine and human (AI Data and Robotics Partnership)

HORIZON-CL4-2024-HUMAN-01-07

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024

Per topic: **20 M€**

Per project: **5 M€**

Up to 4 projects



Projects are expected to contribute to the following outcomes:

- Demonstrate the value of human-machine collaboration and interaction by improved effectiveness, intuitiveness, efficiency, completeness, limits of knowledge indication and other objective or quantifiable subjective measures.
- Demonstrate how collaborative decision-making improves over human decision-making and that the collaborative decisions cover all stages of reasoning (that they are based on

an improved coverage of data and knowledge sources, on an improved analytic ability to reason from input to output, and on a well-communicated decision).

Proposals are expected to address at least one of the expected outcomes.

At least one proposal will be selected with a focus on human-machine collaboration and interaction and at least one with a focus on collaborative decision-making. Proposals should clearly mention which of the two areas they address.

- To ensure trustworthiness, public awareness and support, wide adoption by user communities for the benefit of society, actions should promote the highest standards of transparency and openness.
- EIT Digital, through projects with cities for example, improves engagement and inclusiveness of the citizens and of the visitors by increasingly organising and exposing data, especially in real time and along with analytics and machine learning.

## Facilitate the engagement in global ICT standardisation development

HORIZON-CL4-2024-HUMAN-01-61

CSA

DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024

Per topic: **6 M€**

Per project: **6 M€**

Up to 1 project





This action will contribute to the objectives spelled out in the EU Standardisation Strategy and meeting the objectives of the European Green Deal and Europe's Digital Decade, in particular to supporting the EU's leading position in global standards-setting as a forerunner in key technologies and promoting EU core values, by supporting and empowering the participation of European stakeholders in the development of open technical specifications and

standards with the aim to strengthen European competitiveness and sovereignty, promoting European values and ethics, and strengthen the take-up, scalability and cross-sector interoperability of their technological solutions. This action will among the others support the Commission's effort to address the critical issues related to internet, trusted and secured chips, or data standards as described in the EU Standardisation Strategy.

- To ensure trustworthiness, public awareness and support, etc. Developments in digital and enabling technologies have the potential to enhance social inclusion, can inform up-skilling training programmes and ensure a two-way engagement with society with regard to developing technologies. EIT Digital, through projects with cities for example, improves engagement and inclusiveness of the citizens and of the visitors.
- Expected Outcome: Share information about global sectorial ICT standardisation ecosystems and engagement of European stakeholders in global standardisation settings.

## Exploration of critical raw materials in deep land deposits

HORIZON-CL4-2024-RESILIENCE-01-01

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING  
19/9/2023

DEADLINE  
7/2/2024



Per topic: **20 M€**

Per project: around 5 M€  
up to 4 projects

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 for EU industrial value chains and strategic sectors. Projects are expected to contribute to the following outcomes:

- Develop innovative technologies for exploration of critical raw materials in deep land deposits in the EU and non-EU countries;
- Increase the resources and reserves of various primary critical raw materials within the EU and non-EU countries;
- Accelerate development of EU domestic critical raw materials exploration projects integrating innovative technologies;
- Strengthen EU autonomy and ethical sourcing of raw materials by developing socially

and environmentally acceptable means of discovery of primary raw materials;

- Improve responsible supply of raw materials to the EU in line with the EU principles for sustainable raw materials, which are a non-regulatory set of principles based on the EU acquis. They set out requirements for sustainable raw materials and extraction and processing in Europe in terms of social, environmental and economic performance;
- Promote the utilisation of UNFC (United Nations Framework Classification for Resources) and UNRMS (United Nations Resource Management System) in the raw materials sector.

Actions are expected to contribute to the implementation of the EU action plan on Critical Raw Materials.

→ 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.

## Technologies for processing and refining of critical raw materials

HORIZON-CL4-2024-RESILIENCE-01-04

IA

DIGITAL, INDUSTRY AND SPACE

OPENING  
19/9/2023

DEADLINE  
7/2/2024

Per topic: **22 M€**

Per project: **Around 7.30 M€**

Up to 3 projects

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 for EU industrial value chains and strategic sectors. Projects are expected to contribute to the following outcomes:

- Increase recovery rates of valuable raw materials, particularly critical raw materials from low grade or complex ores and/or from extractive waste;
- Significantly increase economic performance in terms of higher material-, water-, energy- and cost-efficiency and flexibility in minerals processing and metallurgical processes;
- Significantly improve the health, safety and environmental performance of the operations

throughout the whole life cycle which is considered, including a reduction in waste, wastewater and emissions generation and a better recovery of resources from generated waste;

- Improve responsible supply of raw materials to Europe in line with the EU principles for sustainable raw materials, which are a non-regulatory set of principles based on the EU acquis. They set out requirements for sustainable raw materials and extraction and processing in Europe in terms of social, environmental and economic performance. Actions are expected to contribute to the implementation of the EU action plan on Critical Raw Materials.

→ 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.



## Rare Earth and magnets innovation hubs

HORIZON-CL4-2024-RESILIENCE-01-08

IA

DIGITAL, INDUSTRY AND SPACE

OPENING  
19/9/2023

DEADLINE  
7/2/2024



Per topic: **32 M€**

Per project: **16 M€**

Up to 2 projects

The action should create an innovation hub that enables the development, demonstration and testing of new processes for production of rare earths and related products, particularly neodymium permanent magnets in the industrial environments.

This hub should connect critical mass of the existing laboratories, industrial pilots and other research facilities and services across different regions in Europe and if duly justified also in third countries.

→ 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.'

## Addressing due diligence requirements in raw materials supply chains

HORIZON-CL4-2024-RESILIENCE-01-10

CSA

DIGITAL, INDUSTRY AND SPACE

OPENING  
19/9/2023

DEADLINE  
7/2/2024



Per topic: **2.20 M€**

Per project: **2.20 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 for EU industrial value chains and strategic sectors.

Projects are expected to contribute to the following outcomes:

- Improve responsible sourcing of raw materials and responsible business conduct initiatives with regard to raw materials;
- Equip the raw materials sector with tools to enable implementation of relevant regulatory initiatives;

→ Identify and address gaps in the raw materials supply chains due diligence;

→ Improve responsible supply of raw materials to Europe in line with the EU principles for sustainable raw materials, which are a non-regulatory set of principles based on the EU acquis. They set out requirements for sustainable raw materials and extraction and processing in Europe in terms of social, environmental and economic performance.

→ Actions are expected to contribute to the implementation of the EU action plan on Critical Raw Materials

→ 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.

## Technologies for extraction and processing of critical raw materials

HORIZON-CL4-2024-RESILIENCE-01-11

IA

DIGITAL, INDUSTRY AND SPACE

OPENING  
19/9/2023

DEADLINE  
7/2/2024



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 for EU industrial value chains and strategic sectors.

Per topic: **15 M€**  
Per project: **7.50 M€**  
Up to 2 projects

Actions are expected to develop and demonstrate extraction and processing technologies to facilitate exploitation of the primary raw critical raw materials (minerals and metals only) for the EU to strengthen the EU supply chains.

→ 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.

## Development of safe and sustainable by design alternatives

HORIZON-CL4-2024-RESILIENCE-01-24

IA

DIGITAL, INDUSTRY AND SPACE

OPENING  
19/9/2023

DEADLINE  
7/2/2024



Projects are expected to contribute to the following outcomes:

- European industry will have access to safer and more sustainable innovative alternatives of chemicals and materials with reduced substitution barriers (e.g., performance, cost and supply demand);
- Industry will be able to test and demonstrate

Per topic: **59 M€**  
Per project: **from 12 to 15 M€**  
Up to 4 projects

- the applicability of the Safe and Sustainable by Design framework to develop innovative chemicals or materials to substitute substances of concern;
- The EU climate ambitions will be supported by contributing to a decrease of greenhouse gas emissions through a more sustainable production and use of Safe and Sustainable by

Design chemicals and materials;

- The EU strategies/policies and regulation, such as the proposal for the Ecodesign for Sustainable Products Regulation, the EU Ecolabel, REACH or CLP will be supported with safe and sustainable alternatives of chemicals and materials;
- The proof of concept of developing new Safe and Sustainable by Design chemicals or

materials will bring evidence for new skills needed to apply the Safe and Sustainable by Design framework;

- Market uptake of the Safe and Sustainable by Design chemicals and materials will be encouraged by citizens better understanding their benefits.

→ **Expected Outcome: Market uptake of the Safe and Sustainable by Design chemicals and materials will be encouraged by citizens better understanding their benefits. Proposals should address communication actions to all stakeholders and specifically citizens about the benefits of the developed Safe and Sustainable by Design chemicals and materials.**

## Biodegradable polymers for sustainable packaging materials

HORIZON-CL4-2024-RESILIENCE-01-35

IA **DIGITAL, INDUSTRY AND SPACE**

OPENING	DEADLINES	
	1st stage	2nd stage
19/9/2023	7/2/2024	9/24/24
○	○—————○	

Per topic: **31 M€**  
 Per project: **6 - 8 M€**  
 Up to 4 projects

Projects are expected to contribute to the following outcomes:

- The packaging industry will have access to the next generation of biodegradable polymer materials, which will also be recyclable materials. Plastic materials producers will switch from PP, PE, and PET to bio-degradable materials with reduced GHG emissions along the value chain.
- The packaging industry will apply business model of circularity-by-design and sustainable end-of-life (EoL) solutions for plastic packaging materials. This has the potential to lead to a

reduction in landfill waste volume of packaging materials; and to a reduction of littering of plastics, coherent with the ambition of the Horizon Europe Ocean and Waters mission, to reduce the plastic pollution of the oceans. Projects are expected to contribute to the Plastics strategy, the Single-use Plastics Directive and the EU Circular Economy Action plan (CEAP).

- Standards and labels for specific applications will be further defined based on the development of testing of biodegradability of plastics in open environments.

→ **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.**



## Advanced biomaterials for the Health Care

HORIZON-CL4-2024-RESILIENCE-01-36

IA

DIGITAL, INDUSTRY AND SPACE

OPENING

DEADLINES

	1st stage	2nd stage
19/9/2023	7/2/2024	24/9/2024

Per topic: **31 M€**

Per project: **6 - 8 M€**

Up to 4 projects

This topic refers to the innovation market for Healthcare and Medicine, which affects many citizens and their needs. Several materials specifications and related innovations needs will support this topic such as renewable and recyclable materials, alternative active ingredients, design for circularity, lightweight materials. The topic should address several key policies of the European Union such as Circular Economy Action Plan, EU Chemicals strategy.

Projects are expected to contribute to the following outcomes:

- Develop the swiftly growing innovation market of medical applications, which is dependent on

advanced biocompatible materials that can be printed or injected, including 4D materials that change their 3D structures following external impact (e.g. thermic, electric, mechanical or radiation treatment);

- Medical and/or surgical procedures will benefit from injectable materials for non-invasive surgical procedures;
- Some of their advantages include easy deliverability into the body, increased implantation precision, controllable release of therapeutic agents, antimicrobial properties and the possibility of monitoring or stimulating biological events.

→ **Expected Outcome:** This topic refers to the innovation market for Healthcare and Medicine, which affects many citizens and their needs.

→ **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.**

## Innovate to transform' support for SME's sustainability transition

HORIZON-CL4-2024-RESILIENCE-01-41

CSA

DIGITAL, INDUSTRY AND SPACE

OPENING

9/19/23

DEADLINE

7/2/2024



Per topic: **10 M€**

Per project: **5 M€**

Up to 2 projects

Projects are expected to contribute to the following outcomes:

- Support objectives of the European Green Deal and of the EU SME Strategy for a sustainable

and digital Europe;

- Increased resilience of SMEs, by fostering technological and social innovation in SMEs to support their transition to more sustainable business models and more resource efficient and circular processes and infrastructures;
- Increased competitive sustainability of SMEs

through the uptake of advanced technologies;

- Stronger innovation support ecosystems supporting the green, social and economic transition of SMEs, by leveraging synergies between existing EU networks and SME support initiatives.

→ 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.'

## Renewable hydrogen used as feedstock in innovative production routes

HORIZON-CL4-2024-TWIN-TRANSITION-01-34

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING  
19/09/2023

DEADLINE  
7/2/24



Projects outcomes will enable achievement of the objectives of Processes4Planet partnership by developing new processes integrating renewable hydrogen that can replace fossil feedstock-based processes, enabling the full potential of renewable energy sources, and ensuring process flexibility.

Projects are expected to contribute to the following outcomes:

- Enable the technical and economic feasibility of innovative production routes using hydrogen as feedstock demonstrated and validated at suitable scale against current state of art of industrial processes;
- Enable the efficient use and integration of hydrogen as a feedstock in innovative industry

Per topic: **20.00 M€**

Per project: 8.00 - 10.00 M€

Up to 2 projects

processes, considering also fluctuation of availability;

- Support the increased utilisation of renewable energy sources combined with digital technologies in the process industries, thereby contributing to the independency on fossil fuel and fossil fuel imports as put forward in the REPowerEU Plan;
- Contribute to EU Climate neutrality goal by proving the effectiveness of the GHG emission avoidance in the targeted process;
- Support Mission Innovation 2.0 NZEID on 'Net-zero Industries' and its ambition via networking and dissemination activities.

→ 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.'

## Hubs for circularity for industrialised urban peripheral areas

HORIZON-CL4-2024-TWIN-TRANSITION-01-38

IA

**DIGITAL, INDUSTRY AND SPACE**

OPENING  
19/09/2023

DEADLINE  
7/2/24



Per topic: **40.00 M€**

Per project: **15.00 - 20.00 M€**

Up to 2 projects

Projects outcomes will enable achievement of the objectives of Processes4Planet partnership by demonstrating hubs for circularity (H4Cs) concepts, fostering circularity within and beyond process industries and driving the partnership's innovation portfolio towards "First of a kind" demonstrators to de-risk investment for subsequent roll-out. Projects are expected to contribute to the following outcomes:

- Demonstrate zero urban waste in a near commercial scale environment through systemic resource recovery as alternative material feedstock; a decrease of GHG emissions is also expected by explicitly addressing the reduced flow of goods (due to geographical proximity);
- Reduce the freshwater consumption of the urban area by 50%, and re-use 90% of the solid waste generated by the water treatment;
- Citizens living in cities will benefit from a healthier environment through industrial/urban symbiosis by lowering emissions through

circular and renewable energy sources and waste reduction;

- Use urban/industrial symbiosis and cross-sectorial cooperation to pave the way for achieving the EU Green Deal and "Fit for 55" package objectives: providing recommendations for optimized regional framework conditions by highlighting barriers and suitable innovation-oriented policies and looking for possible synergies with the cities selected by the Cities Mission.

- 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.'
- Implement a social innovation action involving at least one of the local community actors and, additional actions to facilitate relations and to involve the local community actors e.g., exchanging knowledge with the educational establishments and developing flexible learning resources;
- Include a plan to extend the hub to additional players parties (especially waste management and associations, new market entries and other relevant stakeholders) who also should benefit and multiply the local/regional synergies in the co-implementation of the identified innovations and solutions within the next five years.

## Breakthroughs to improve process industry resource efficiency (Processes4Planet partnership)

HORIZON-CL4-2024-TWIN-TRANSITION-01-41

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING  
19/09/2023

DEADLINE  
7/2/24



Projects outcomes will enable achievement of the objectives of Processes4Planet partnership by designing processes for maximum resource efficiency (related to P4Planet operational objective 5).

Projects are expected to contribute to several of the following outcomes:

- Achieve a step change in the process industry's green transformation by improving by at least 30 % the industrial processes resource efficiency compared to the state of the art;
- Enable the techno-economic feasibility of novel technologies and processes,

Per topic: **30.00 M€**

Per project: 10.00 - 12.00 M€

Up to 3 projects

demonstrated and validated at suitable scale against current industrial processes to produce the same products;

- Overall positive environmental and if relevant health and safety impact demonstrated;
- Reduce the CO2 intensity of the process industry and contribute to the climate neutrality goal;
- Enable the increase of the competitiveness and resilience of the European process industry.

→ 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.'

## Novel paradigms and approaches, towards AI-powered robots—step change in functionality (AI, data and robotics partnership)

HORIZON-CL4-2024-DIGITAL-EMERGING-01-03

RIA

DIGITAL, INDUSTRY AND SPACE

OPENING  
15/11/2023

DEADLINE  
19/3/2024



Per topic: **30.00 M€**

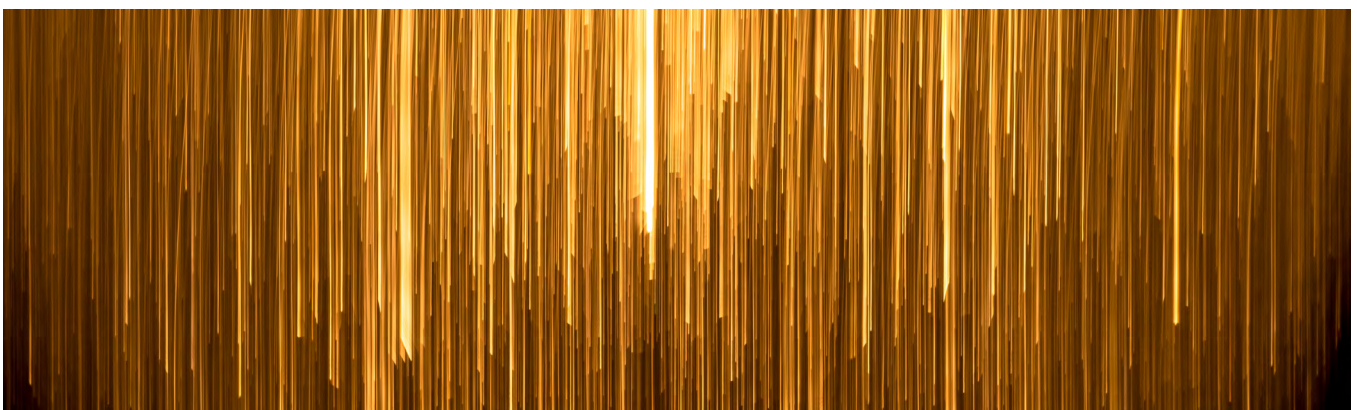
Per project: 8.00 M€

Up to 4 projects

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

- Achieve the substantial next step in the ability of robots to perform non-repetitive functional tasks in realistic settings, based on underlying robot functions (e.g. guidance/navigation/manipulation/interaction etc.), demonstrated in key high impact sectors where robotics has the potential to deliver significant economic and/or societal benefits. Proposals should address functional challenges that are of equivalent or greater complexity and/or combine different types of functions to deliver greater functional complexity:
- To reach the point where the robot systems operating in harsh complex and dynamic working environments can carry out sequences of complex functions to achieve a functional goal.
- In navigation to reliably and purposefully move between destinations within complex people centric environments that are occupied such as busy transport hubs, shopping malls or entertainment and sporting venues; or to move purposefully maintaining a direction of travel towards a target destination or sequence of destinations over variable terrain where the surface is shifting and reactive to the robot's motion.
- In manipulation to reach human speed with equivalent dexterity, or manipulate objects beyond human capability, such as very small objects, or very precise manipulation tasks, or vary big objects, beyond current capabilities and functionalities; to manipulate complex articulated objects either as part of an assembly task or in order to use those objects as tools to achieve a specific function.
- Step change in the enabling conditions essential for the accelerated diffusion of robots in various industries, sectors and services which can 1) handle tasks efficiently, robustly, and safely and 2) interact naturally and smoothly to support humans in their daily activities, based on a strong multidisciplinary approach, including the relevant SSH dimension.
- The development, use and exploitation of major advances in science and technology for the enhancement of European robotics, in order to maintain Europe's scientific excellence and ensure sovereignty of key technologies relevant to robotics
- Create opportunities to affect society in the longer term by contributing to impact on major broad societal challenges.

→ All proposals are expected to embed mechanisms to assess and demonstrate progress (with qualitative and quantitative KPIs, benchmarking and progress monitoring, as well as illustrative application use-cases demonstrating well-defined potential added value), and share communicable results with the European R&D community, through the AI-on-demand platform or Digital Industrial Platform for Robotics, public community resources, to maximise re-use of results, either by developers, or for uptake, and optimise efficiency of funding; enhancing the European AI, Data and Robotics ecosystem through the sharing of results and best practice.



## Innovative applications/integration of geothermal heating and cooling in industry

HORIZON-CL5-2024-D3-01-06

RIA CLIMATE, ENERGY AND MOBILITY

OPENING  
9/12/23

DEADLINE  
1/16/24



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

High integration of geothermal heating and/or cooling in different industry sectors with operation flexibility considering start-up time and ramp-up rate, and maximum cascaded use of thermal energy. explore new heating and/or cooling concepts for industrial sectors which have to decarbonise their production lines using renewable systems. enable

the smart use of thermal grids with emphasis on flexible supply of resources, adapted to different source temperatures and varying demand; and position geothermal utilisation (including underground storage) as a crucial pillar for the (heat and/or cold) transition of industrial energy systems.

→ Expected outcome: Increased industry, region, city and citizen trust and acceptability for geothermal energy.

## Next generation of renewable energy technologies

HORIZON-CL5-2024-D3-01-10

RIA CLIMATE, ENERGY AND MOBILITY

OPENING  
12/7/23

DEADLINE  
18/4/2024



Per topic: **27.00 M€**  
Per project: **3.00 M€**  
Up to 9 projects

The proposal is expected to address high-risk/high return technology developments for game changing renewable energy technologies. It could cover catalyst development, dedicated renewable energy storage systems, integration of renewable energy technologies into a single energy generation

system, heating & cooling systems, fuels production systems, solar driven chemical processes, hybrid electricity generation solutions between different renewable energy sources, direct utilization of renewable energy sources.

→ In developing its concept, the proposal is expected to address issues related to social acceptability or resistance to new energy technologies, related socioeconomic and livelihood issues.



## Demonstration of innovative pumped storage equipment and tools in combination with innovative storage management systems

HORIZON-CL5-2024-D3-01-16

IA CLIMATE, ENERGY AND MOBILITY

OPENING  
12/7/23

DEADLINE  
4/18/24



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

Demonstration of innovative pumped storage equipment and digital tools linking the mechanical storage with innovative storage management systems. The latter may involve hybridisation with storage technologies to reap the full potential of pumped hydro storage under new market conditions.

Solutions should deliver innovative hydropower technologies adapted to unconventional storage schemes, including e.g. low-head locations or former coal mines and/or harsher operation conditions, e.g. using salt water, while minimising CAPEX, OPEX and improving life time and circularity of components.

→ Demonstrated storage solutions should respond to the highest standards of environmental sustainability which is underpinned by a LCA and involve Citizens and Communities during all phases of the project activities, respectively. An analysis of innovative storage potential and impact should be performed.

## Innovative, Community-Integrated PV systems

HORIZON-CL5-2024-D3-02-06

IA CLIMATE, ENERGY AND MOBILITY

OPENING  
17/9/2024

DEADLINE  
21/1/2025



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

PV is growing fast, from domestic and commercial, up to utility scale systems. In the years ahead PV systems and solutions will be an integral contributor of distributed generation, pivotal in building functional energy communities, aggregated and operated through advance distributed controls in hierarchical set up with the integrated grid.

aggregated system with a portfolio of producers and users to facilitate the energy transition to a low carbon economy.

→ Project results are expected to increase the profitability and penetration of PV systems in renewable energy communities. Proposals are expected to demonstrate a community-

→ Through this approach solutions can effectively address the need for overcoming energy poverty, support energy democracy, and expand cooperative solutions for the collective benefit of providers and users. Peer to peer trading and use can be made feasible and emerging solutions highly attractive and implementable.

- Expected results: Engage actively citizens and communities in the clean energy transition in particular through the uptake of energy cooperatives and the development of decentralized platforms.
- Social innovations should also be considered, notably as new tools, ideas and methods leading to active citizen engagement and as drivers of social change, social ownership, and new social practices.

## Market Uptake Measures of renewable energy systems

HORIZON-CL5-2024-D3-02-10

CSA

CLIMATE, ENERGY AND MOBILITY

OPENING  
17/9/2024

DEADLINE  
21/1/2025



The proposal is expected to develop solutions either for the entire renewable energy market or focusing on a specific energy sector, such as electricity, heating, cooling or renewable fuels. Expected outcomes, among others include: Facilitate the wider uptake of renewable energy systems (RES) in the energy, industrial and residential sectors, Contribute to provide open source validated tools and methodologies for policy makers and stakeholders, Contribute to the development of

Per topic: **8.00 M€**  
Per project: **2.00 M€**  
Up to 2 projects

markets and respective financial frameworks, Improve social acceptability of renewable energy facilities and installations. Proposals can also address issues within a specific geographical region such as urban and peri-urban areas. Issues related to acceptability of RES technologies due to ecologic, economic and social aspects are expected to be addressed. The proposed solution can be developed to address a local challenge but needs to have wide potential for reapplication.

- For all actions, the consortia have to involve relevant stakeholders (e.g. businesses, public authorities, civil society organisations). Proposals are encouraged to address social acceptability through the assessment of the environmental economic and social impacts associated with the development of these renewable energies and through the adequate involvement of stakeholders in decision-making processes.

## CCU for the production of fuels

HORIZON-CL5-2024-D3-02-11

IA

CLIMATE, ENERGY AND MOBILITY

OPENING  
17/9/2024

DEADLINE  
21/1/2025



Per topic: **7.00 M€**  
Per project: **15.00 M€**  
Up to 2 projects

Proposals will aim at the development of energy-efficient and economically and environmentally viable CO<sub>2</sub> conversion technologies, including energy storage and/or displacement of fossil fuels that allow for upscaling in the short to medium term.

Proposals have to define ambitious but achievable targets for energy requirements of the conversion process (including catalytic conversion), production costs and product yields that will be used to monitor project implementation.

→ This will be analysed during the project using appropriate techniques and methods from the social sciences and humanities, in order to create awareness, gain feedback on societal impact and advancing society's readiness for the proposed solutions.

## DACCS and BECCS for CO<sub>2</sub> removal/negative emissions

HORIZON-CL5-2024-D3-02-12

IA

CLIMATE, ENERGY AND MOBILITY

OPENING  
17/9/2024

DEADLINE  
21/1/2025



Per topic: **15.00 M€**

Per project: **5.00-7.00 M€**

Up to 3 projects

Projects are expected to develop highly innovative CCUS /carbon negative technologies leading to CO<sub>2</sub> removal. It should enable the cost-effective deployment of technologies such as (DACCS), (BECCS) ideally linking them to industrial clusters

with special emphasis of these technologies to safe CO<sub>2</sub> underground storage and CO<sub>2</sub> utilisation. Projects have conduct an LCA in conformity with guidelines developed by the Commission.

→ Technology development has to be balanced by an assessment of the societal readiness towards the proposed innovations. Relevant end users and societal stakeholders (such as civil society organisations, non-governmental organisations, and local associations) will be identified in the proposal and involved in deliberative activities to understand and address their concerns and needs.

## Digital solutions to foster participative design, planning and management of buildings, neighbourhoods and urban districts (Built4People Partnership)

HORIZON-CL5-2024-D4-02-05

IA

CLIMATE, ENERGY AND MOBILITY

OPENING  
17/09/2023

DEADLINE  
21/01/2024



Per topic: **10.00 M€**

Per project: **5.00 M€**

Up to 2 projects

This topic focuses on the development of digital solutions for a stronger participation of end users, citizens and other relevant stakeholders in the design, planning and management of the renovation of existing buildings, neighbourhoods and / or districts.

Demonstrate the prototype in at least three real-life urban development projects to apply, evaluate and refine the digital solution and inform its market launch and / or commercialisation strategy.

Expected to address following aspects :

- engage citizens (seeking coverage of different genders and social characteristics), end users of the tools and other relevant stakeholders involved in the design, planning and management of urban development projects in the development process of the digital solution.
- digital solutions that allow to analyse and model different scenarios for [...] socio-economic impacts for citizens, building users, owners and occupiers.

## New designs, shapes, functionalities of Light Commercial Vehicles (2ZERO Partnership)

HORIZON-CL5-2024-D5-01-06

IA

CLIMATE, ENERGY AND MOBILITY

OPENING  
07/12/2023

DEADLINE  
18/04/2024

Per topic: **10.00 M€**

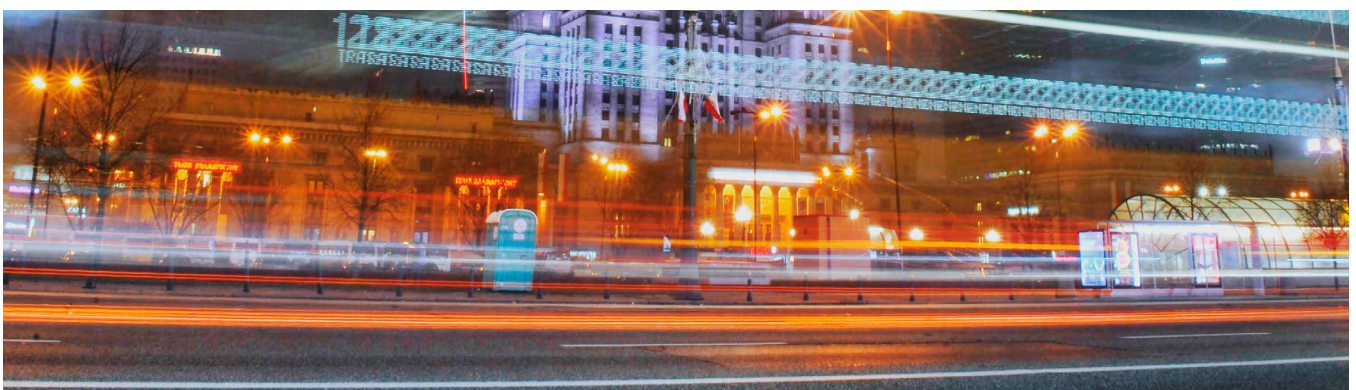
Per project: **10.00 M€**

Up to 1 project

The main objective of this call is to deliver new urban optimized light commercial zero-emission vehicles with a focus on goods transport, that are affordable, safe, sustainable and reliable and with a strong engagement from freight services users and

fleet owners in the definition of requirements and testing. The focus will be to identify and overcome the main barriers for the development of new LCV concepts for urban and sub-urban logistics and freight mobility.

- Proposals are expected to engage with users of the vehicles, define requirements, expectations and potential developments that may influence future demand for these vehicles as well as considering the integration of vehicles in existing and future charging infrastructures.



## Robust Knowledge and Know-How transfer for Key-Deployment Pathways and implementation of the EU-CEM (CCAM Partnership)

HORIZON-CL5-2024-D6-01-05

CSA

CLIMATE, ENERGY AND MOBILITY

OPENING  
07/05/2024

DEADLINE  
05/09/2024

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

Proposed actions should in particular provide support for stakeholders to move into operations by identifying key building blocks and standards for deploying pilot services and enable capacity building for key actors of different use cases /applications

domains as well as for citizens and non-experts on how to use CCAM systems and services and to become aware of new developments and related risks.

### Proposed actions should in particular

- provide support for stakeholders to move into operations by identifying key building blocks and standards for deploying pilot services and enable capacity building for key actors of different use cases /applications domains as well as for citizens and non-experts on how to use CCAM systems and services and to become aware of new developments and related risks.
- identify further needs for targeted content for specific stakeholder categories and in particular, develop content that is accessible to non-experts, thereby supporting capacity building of the general public.
- provide effective dissemination and concertation mechanisms and means for the stakeholder community (e.g. conferences, workshops, international cooperation, capacity building content for non-experts) to enable the exchange of experiences and practices.
- assess the level of awareness and attitudes of European citizens, decision- and policy makers about CCAM as well as their intention to use through regular surveys and workshops.

## Policies and governance shaping the future transport and mobility systems

HORIZON-CL5-2024-D6-01-09

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING  
07/05/2024

DEADLINE  
05/09/2024

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

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

- A better understanding of the effects of governance, policies, and incentives, but also land use and spatial planning, on the choice of individuals, families, or social groups of different kinds to use a specific transport and/or mobility mode.
- Reinforced public engagement in shaping co-created transport and mobility policies.
- Effective policy interventions, co-created with target constituencies and building on high-quality policy; strengthening of research-policy cooperation models to reinforce impact and trust in science.
- More effective and sustainable national, regional and transnational transport and mobility policies toward accepted approaches, based on a system-thinking perspective.
- Better harnessing the potential of digitised mobility data while protecting citizen's privacy.
- Providing concepts and policy recommendations sustainably integrating passenger and freight transportation in order to create a future proof holistic mobility system.

→ Expected outcome : Reinforced public engagement in shaping co-created transport and mobility policies.

→ In addition to the research activities, actions are expected to involve citizens from different backgrounds and origins in the policy analysis to gather and study their understanding, perceptions, opinions and positions, thus contributing to co-designing and co-assessing the most appropriate policies' recommendations. The collection of children's views can also be included in the study. Citizen platforms if existing, can be used for this purpose.

## A new framework to improve traffic safety culture in the EU

HORIZON-CL5-2024-D6-01-12

RIA

CLIMATE, ENERGY AND MOBILITY

OPENING  
07/05/2024

DEADLINE  
05/09/2024



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

Efforts should therefore be made to complement road safety initiatives by a safety culture perspective, i.e., the values, beliefs, priorities and viewpoints shared among groups of road users

and stakeholders that influence their decisions to behave or act in ways that affect safety, while also considering energy consumption. This concept is already well established in organisational research.

→ Assessing road safety cultures in different national, regional or local systems, groups and organisations is believed to help understanding and explaining different patterns of risk perception and risk taking across communities and countries – and can likewise inform tailored interventions for these (sub-)cultures, which all come with their specific norms, values, beliefs and behaviours (including gender-related behavioural patterns).



## Transformative action of policy mixes, governance and digitalisation addressing biodiversity loss

HORIZON-CL6-2024-BIODIV-01-5

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING  
17/10/2023

DEADLINE  
22/02/2024

Per topic: **4.00 M€**

Per project: **2.00 M€**

Up to 2 projects



Projects should address all of the following outcomes e.g.:

- Foresight on society well-being based on realistic assumptions on careful use of natural capital and analysis of the consequences in terms of economic growth.
  - Knowledge and understanding of the transformative changes needed to address the indirect drivers of biodiversity loss underpinned by societal values and behaviours, better design of policy mixes and governance.
  - Improved and new systemic, sustainable policy mixes and governance approaches developed to enable biodiversity-relevant transformative change, based on a range of policy tools, economic research, instruments or regulations.
  - Approaches to facilitate the application of such methods and tools are identified and used, while factoring in societal and political processes (such as citizen engagement, political campaigns, science denialism). Solutions can include stocktaking of good practice, standards, agreements, charters, commitments, regulations, engaging society and incorporating lifelong learning.
- A better understanding of the impacts on, risks and opportunities for biodiversity of digital transformation (for example data-driven technologies, artificial intelligence, robotics, automation, miniaturised sensors, citizen science applications, crowd sourcing), new materials (e.g., for biomimicry), the energy sector (e.g., through energy/electricity infrastructure), and new and emerging technologies.
  - Testing active intervention by R&I policy and sector policies (niche creation, reformulation of governance), also by empowering and endowing communities.

- Approaches to facilitate the application of such methods and tools are identified and used, while factoring in societal and political processes (such as citizen engagement, political campaigns, science denialism). Solutions can include stocktaking of good practice, standards, agreements, charters, commitments, regulations, engaging society and incorporating lifelong learning.

## Demonstrating Nature-based Solutions for the sustainable management of water resources in a changing climate, with special attention to reducing the impacts of extreme droughts

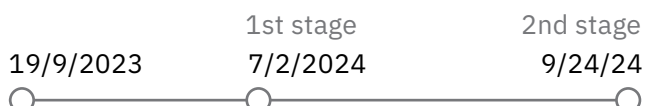
HORIZON-CL6-2024-BIODIV-02-1-two-stage

IA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING

DEADLINES



Per topic: **8.00 M€**

Per project: **4.00 M€**

Up to 2 projects

Projects are expected to:

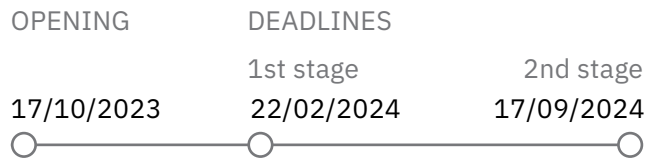
- Demonstrate innovative, systemic and locally attuned NBS (as single interventions or as a combination of them), for the management of catchment water resources and the reduction of extreme drought risks, in areas that are heavily impacted by temporary or lasting water scarcity and areas that are being increasingly exposed to this risk with the deepening of climate change.
- Identify and assess barriers related to: functional conflicts in land-use; NBS technical, commercial, social and cultural acceptance (e.g., farmers perceptions and values, the role of private landowners); and policy regulatory frameworks (e.g., the role of the common agriculture policy, urban, rural and regional development plans) - and propose ways to overcome them (for example through new business cases and governance approaches).
- Develop methodologies and tools, adapted to end-users (e.g., farmers, forest owners, local authorities, engineers, spatial planners), enabling the replication and up-scaling of NBS.
- The ecological performance and resilience of NBS, to deal with both natural and human-induced hazards, such as extreme weather events, desertification, forest fires, plant- and animal diseases (pests), other human activities and socio-political approaches that could have an impact on land-use.

→ This topic requires the effective contribution of SSH disciplines and the involvement of SSH experts, institutions as well as the inclusion of relevant SSH expertise, in order to produce meaningful and significant effects enhancing the societal impact of the related research activities. This means proposals should bring together from the early start multiple types of scientific expertise in both natural sciences (e.g., ecology, climate, pedology) and social sciences and humanities (e.g., economics, geography, sociology) together with a variety of urban and/or rural community representatives, farmers, businesses, civil society organisations and citizens.

# Demonstrating the potential of Nature-based Solutions and the New European Bauhaus to contribute to sustainable, inclusive and resilient living spaces and communities

HORIZON-CL6-2024-BIODIV-02-2-two-stage

IA FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT



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

Projects are expected to:

- Deliver visionary and integrated solutions combining nature-based innovation and social, cultural, or digital solutions, with the NEB approach, in order to increase sustainability and resilience of communities and citizens' well-being. These solutions should address environmental, social, cultural, economic determinants of resilience and well-being and support communities in reducing their exposure to climate-related risks, pollution (including noise) and social tensions.
- Demonstrate how the integration of NBS and NEB in solutions for innovative land-use management, urban design and planning could enhance ecosystem services, foster equitable access to public spaces, enhance their quality and use, or promote sustainable mobility.
- Considering the existing NBS portfolio, further demonstrate NBS, enriched with the new elements brought by the NEB (e.g., aesthetics, quality of experience), as well as with concerns on the circularity, ecodesign, origin and sustainability of materials used. These solutions should be applied in innovative configurations, e.g., in protected areas, eco-tourism sites, transport infrastructure, educational and cultural buildings, etc, notably contributing to urban regeneration, tourism opportunities, green job creation, social inclusion, or health and well-being.

→ For wider impact, proposals should ensure a diversity of demonstration contexts (e.g., urban, rural, protected areas) and geographical representation, as well as the inclusion of a diversity of actors for local demonstration: local and/or regional authorities, business, academia, and civil society.



## Bioeconomy project development assistance

HORIZON-CL6-2024-CircBio-01-8

CSA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING  
17/10/2023

DEADLINE  
22/02/2024

Per topic: **3.00 M€**

Per project: **3.00 M€**

Up to 1 project

Projects are expected to contribute to the:

- Alignment of actors (primary producers, citizens, innovators, educators, SMEs, industry, national authorities and other actors) and their goals in collaborative ventures on bioeconomy related projects.

- Promotion and support of regional and national transitions from existing fossil-based socio-technical systems to bioeconomy-based systems promoting the valorisation of local biological resources and ecosystem services.

- For wider impact, proposals should ensure a diversity of demonstration contexts (e.g., urban, rural, protected areas) and geographical representation, as well as the inclusion of a diversity of actors for local demonstration: local and/or regional authorities, business, academia, and civil society.

## Bioeconomy project development assistance

HORIZON-CL6-2024-CircBio-01-8

CSA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING  
17/10/2023

DEADLINE  
22/02/2024

Per topic: **3.00 M€**

Per project: **3.00 M€**

Up to 1 project

Projects are expected to contribute to the:

- Alignment of actors (primary producers, citizens, innovators, educators, SMEs, industry, national authorities and other actors) and their goals in collaborative ventures on bioeconomy related projects.

- Promotion and support of regional and national transitions from existing fossil-based socio-technical systems to bioeconomy-based systems promoting the valorisation of local biological resources and ecosystem services.

- Alignment of actors (primary producers, citizens, innovators, educators, SMEs, industry, national authorities and other actors) and their goals in collaborative ventures on bioeconomy related projects.

## New circular solutions and decentralised approaches for water and wastewater management.

HORIZON-CL6-2024-CircBio-02-4-two-stage

IA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING

DEADLINES

17/10/2023

1st stage

22/02/2024

2nd stage

17/09/2024



In support of the European Green Deal and EU water-related policies, successful proposals will contribute achieving sustainable and circular management and use of water resources, as well as prevention and removal of pollution, in particular Destination ‘Circular economy and bioeconomy sectors’ impact ‘Accelerate transitions towards a sustainable, regenerative, inclusive, just and clean circular economy based on enhanced knowledge and understanding of science’.

Per topic: **15.00 M€**

Per project: **5.00 M€**

Up to 3 projects

Actions in this topic should further develop efficient and sustainable decentralised and distributed approaches and technologies for climate-neutral and zero pollution water supply and wastewater treatment to optimise circular and sustainable use of natural resources, including integrated stormwater management systems to encourage water management on site rather than to the sewer.

- Improve co-design and co-creation processes and synergies between all relevant stakeholders and enhance public engagement to speed up the market uptake of decentralised and/or semi-decentralised solutions.
- Strengthening public participation and engagement and public private partnerships.
- 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.

## Climate-smart use of wood in the construction sector to support the New European Bauhaus.

HORIZON-CL6-2024-CLIMATE-01-5

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING

17/10/2023

DEADLINE

22/02/2024



Per topic: **14.00 M€**

Per project: **7.00 M€**

Up to 2 projects

This topic will support the New European Bauhaus initiative and the implementation of the new EU forest strategy by making the construction sector more renewable and circular especially for existing buildings, which includes the use of currently underused timber such as hardwoods, salvage wood and post-consumer wood for traditional and

newly emerging innovative woody biomass-based applications, while including circularity as part of a broader system and design loop.

- Engage with relevant stakeholder in co-creation processes (e.g., the New European Bauhaus Community of Partners, policy, architects, business, insurance, investment, society, public and private sector).
- The project must implement the multi-actor approach and ensure an adequate involvement of the primary production sector and the wider forest-based value chain.

## New healthy and sustainable food products and processes

HORIZON-CL6-2024-FARM2FORK-01-2

RIA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING  
17/01/2023

DEADLINE  
20/09/2023



The successful proposal will support R&I to develop new food products and processes in conventional or organic production systems. These new products should be healthier and overall more sustainable and based on natural ingredients, tasty appealing to the consumer, affordable and minimally processed.

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

- New knowledge that the food industry can use in the design of new healthy and sustainable food products and processes to improve health and well-being of EU and Associated Countries citizens and with low impact on the environment/ climate.

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

- Alignment in goals of consumers and food solution providers with more healthy, tasty, minimally processed, affordable and sustainable food.
- New market and job opportunities for sustainable food SMEs and industries.

- Ensure societal acceptance and the consumer buy in of new food products and processes in involving consumer at all stage of the product development process.



## Thematic network tackling food fraud by translating research and innovation into practice

HORIZON-CL6-2024-FARM2FORK-01-3

CSA

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

OPENING  
17/10/2023

DEADLINE  
22/02/2024

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



The successful proposals should therefore facilitate progress to preventing food fraud by translating research and innovation knowledge into practical applications.

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

- Widespread use of existing new knowledge and innovative solutions by end-users/practitioners (official control authorities, food businesses, etc.) on the ground ensuring that food fraud is tackled.
- Improved flow of knowledge and innovative solutions with end-users through more

dynamic interactions and new collaboration methodologies to prevent food fraud in the food supply chain.

- Better incorporation of the needs of end-users into the activities of research and innovation communities, which would generate a better targeted and shared food fraud research agenda for innovation-driven research.
- Improved skills and long-term availability of training and education material and on-line communities for end-users on how to tackle food fraud.

- Development of a community of practice to foster knowledge exchange between end-users and research and innovation ecosystems who will work together mapping existing food fraud practices.
- Creation of tailor-made communication materials summarizing, sharing and presenting, in a language easily understandable for end-users, existing best practices and innovations that are close to implementation into practice, but not sufficiently known by end-users.
- Dissemination via public events, publication of case studies, dissemination papers and reports, and the creation of an on-line collaborative space that remain active in the long-term including the availability of materials for training and education.

## Creating smart and attractive tools to enhance healthy and sustainable food provision, eating and treating of food at home

HORIZON-CL6-2024-FARM2FORK-01-5

IA

CLIMATE, ENERGY AND MOBILITY

OPENING  
17/10/2023

DEADLINE  
22/02/2024

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



The overall aim of this topic and associated R&I activities is to enhance healthy and sustainable diets aligned with national dietary advice by empowerment of citizens and their capacity to eat and cook at home in line with budgetary and time constraints as well as their living situation. The activity will develop tools that can be considered by national competent authorities for implementation. Interventions should not target citizens directly, as full alignment with national policies and advice on nutrition and health needs to be ensured.

Projects results are expected to contribute to all the

following expected outcomes:

- Empowered citizens supported by tools and applications to make healthy and sustainable food provision, cooking and eating, and treating of food at home the easiest choice;
- Enhanced uptake of beneficial tools and applications by citizens, especially those who need it most, considering socio-economic characteristics and differences across EU and Associated countries.

- Proposals are expected to address the following:
- Empowered citizens supported by tools and applications to make healthy and sustainable food provision, cooking and eating, and treating of food at home the easiest choice;
- Enhanced uptake of beneficial tools and applications by citizens, especially those who need it most, considering socio-economic characteristics and differences across EU and Associated countries.
- Engage citizens in solutions to create inclusive and sustainable solutions for broad uptake.
- Proposals must implement the ‘multi-actor approach’ and ensure adequate involvement of among others health actors, such as nutritionists, doctors and nurses. Proposal should apply social innovation and citizen engagement for inclusive and long-term solutions beyond the life cycle of the project and include a strong involvement of citizens/civil society, together with academia/research, industry/SMEs/start-ups and government/public authorities.

## Increasing the availability and use of non-contentious inputs in organic farming

**HORIZON-CL6-2024-FARM2FORK-02-1-two-stage**

IA

**FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT**

OPENING

DEADLINES

	1st stage	2nd stage
17/10/2023	22/02/2024	17/09/2024
○	○	○

Per topic: **12.00 M€**

Per project: **6.00 M€**

Up to 2 projects

A successful proposal should support the objective of the farm to fork strategy to transition to fair, healthy and environmentally-friendly food systems from primary production to consumption, notably the objective to promote and increase organic farming in Europe, in line with the target of at least 25% of the EU’s agricultural land under organic farming by 2030. Activities will support the implementation

of concrete actions in the EU action plan for the development of organic production[1] and of Regulation (EU) 2018/848 on the rules on organic production and labelling of organic products[2]. Activities will also support the farm to fork and biodiversity strategies’ objective to reduce the risk and use of chemical pesticides by 50% and the use of more hazardous pesticides by 50%.

- Develop awareness raising activities towards citizens and consumers, engaging with existing initiatives where relevant.
- Develop training packages targeted to farmers and other actors of the organic agri-food chain.

## Holistic approaches for effective monitoring of water quality in urban areas

HORIZON-CL6-2024-ZEROPOLLUTION-02-1-two-stage

IA **FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT**

OPENING	DEADLINES	
	1st stage	2nd stage
17/10/2023	22/02/2024	17/09/2024

Per topic: **15.00 M€**

Per project: **5.00 M€**

Up to 3 projects

In line with the European Green Deal’s zero pollution ambition, successful proposals will contribute to protecting water quality by managing urban water pollution, and consequently also protecting biodiversity and the quality of aquatic ecosystems, as addressed by several impacts under the Destination ‘Clean environment and zero pollution’, in particular “Move towards achieving clean, unpolluted surface water and groundwater bodies in the EU by advancing the understanding of diffuse

and point sources of water pollution in a global and climate change context, enabling novel solutions to avoid degradation and restore water bodies, aquatic ecosystems and soil functionality, and further enhancing water quality and its management for safe human and ecological use, while fostering the EU’s and Associated Countries’ position and role in the global water scene.”

- In general, the participation of academia, research organisations, utilities, industry and regulators is strongly advised, as well as civil society engagement whenever necessary, also aiming to broaden the dissemination and exploitation routes and to better assess the innovation potential of developed solutions and strategies. The direct participation of urban and catchment/river basin managing water authorities and utilities is essential.



**Contributors:**



NCP\_WIDERA.NET project has received funding from the European Union's Horizon Europe research and innovation programme under the grant agreement No 101055286.



Funded by  
the European Union

