



# Invitation to express interest for Horizon Europe 2023 Call

## One Health related topics

Invitation letter; Version 5\_final\_updated (dates and contact points); Author Elina Tonteri (UH); 16th August 2022

### **This letter of interest has been shared with the following Una Europa bodies:**

Una Europa focus areas: Members of the One Health Self-steering committee, Members of the Cultural Heritage Self-steering committee, Members of the Sustainability Self-steering committee, Chair of the Data-science and AI Self-steering-committee and Chair of the Una Europa European studies Self-steering-committee

Una Europa Research coordination cluster, Una Europa Vzw

The letter can be shared with researchers of the Una Europa partner universities potentially interested in the chosen call topics.

## Introduction

With the three-year Horizon 2020 funded Una.Resin project, we aim to pool our collective research strengths and foster long term Una Europa research collaboration. To achieve this goal, we will create strategies for shared research & innovation agendas, open and share research infrastructures and resources as well as strengthen Una Europa's human capital. For each of these strategies, we will develop accompanying action plans and - through a series of pilot actions - begin their implementation. During this process, we will also reach out to universities' non-academic partners (i.e., private, public, and voluntary/third sector) to strengthen the Una Europa R&I ecosystem as a whole.

According to the Una.Resin outcomes so far, there is a major interest and unused potential with regards to European funding, particularly concerning Horizon Europe funding. Additionally, there are existing support service structures at most Una Europa universities, thus there is potential to build shared practices for matchmaking and support proposal preparation in more coordinated manner.

This pilot, targeting the Horizon Europe 2023 Pillar II (Clusters) calls has been designed together with the Una Europa One Health self-steering committee. The pilot includes collecting the expressions of interests for pre-chosen topics, on-line match-making workshops, and on-site workshop to initiate the proposal preparations.

Una.Resin project managers will coordinate the pilot with the research funding professionals of each partner university in order to ensuring the needed support, making sure that potential researchers are informed about the opportunity and to ensure no conflicting processes.

# Call topics

The following call topics have been chosen by Una Europa One Health Self-steering committee members. All these are Research and Innovation Actions (RIA). Please find the full descriptions in the end of this document.

## **HORIZON-HLTH-2023-ENVHLTH- 2.01: Planetary health: understanding the links between environmental degradation and health impacts**

Applicants are invited to submit proposals providing actionable evidence for policy-makers to take preventive actions to protect the human health and wellbeing by exploring the links between human health and environmental degradation in an integrated and comprehensive manner. Understanding and acting upon these challenges calls for a multidisciplinary, cross-sectorial and transborder approach ranging from the local to the global scale. Cooperation with Africa is encouraged if relevant for the proposal.

## **HORIZON-CL6-2023-BIODIV: Interlinkages between biodiversity loss and degradation of ecosystems and the emergence of zoonotic diseases**

Projects will develop knowledge on the links between the degradation of ecosystems with its associated biodiversity loss and the exposure to, emergence and spread of zoonotic diseases to humans. The aim is to understand better the socio-economic and behavioral factors, as well as the involvement of local communities and effect of policies to environmental, animal and human health. In order to achieve the expected outcomes, international cooperation with strategic third country partners is strongly encouraged. Coordination with Member States and Associated Countries should be sought out. This topic should involve the effective contribution of social sciences and humanities (SSH).

## **HORIZON-CL6-2024-FARM2FORK: Agro-pastoral/outdoor livestock systems and wildlife management**

Proposals must implement the 'multi-actor approach' and ensure adequate involvement of the main stakeholders involved in managing wildlife/livestock interaction (e.g., farmers, hunters, game farmers and producers, agricultural advisory services, land managers, ecology and nature conservation experts, social scientists and other relevant actors). This topic should involve the effective contribution of social sciences and humanities (SSH) disciplines.

## **HORIZON-CL6-2023-FARM2FORK: EU-Africa Union – food safety**

Proposals must implement the multi-actor approach by involving a wide range of food system actors and conducting trans- and interdisciplinary research. The projects aim to contribute to a better understanding of food safety in the informal sector and to develop risk assessment and early warning systems in Africa. Proposals should foresee a space for mentoring and accelerating innovative business concepts, including social innovation. There must be at least 3 partners from Africa and at least 2 from the same region as defined by the African Union.

**Please note that the topics have been selected from a draft call description.** The Horizon Europe 2023 call will be announced in fall 2022. Some topics may be not included in the final version and some conditions can still change. The Una.Resin project managers and Una Europa Vzw officers will follow the process and inform about possible changes along this pilot.

Una.Resin project managers will coordinate the pilot with the research funding professionals of each partner university in order to avoid conflicting processes.

# Process and schedule

## Expressions of interest

This letter is an invitation to express interest to join the process to prepare a proposal for one of the Horizon 2023 call topics listed above. It is shared with relevant self-steering committees of the Una Europa focus areas as well as the Una Europa research funding professionals to allow identification of potential researchers interested in the call topics.

All participants will receive an overview of the answers shortly after closing of the form.

**The expression of interest can be submitted between 1st July 2022 and 4<sup>th</sup> September 2022 using this on-line form:**

<https://www.lyyti.fi/questions/b89b2fa9c9>

If the link does not open here, please copy the address to your browser.

The data policy of the template provider can be found here: <https://www.lyyti.com/en/data-protection-security>

## On-line workshop, 22nd September 13:00-16:00 CET

We will organize an on-line workshop to inform the researchers about the particularities of the call, the special characteristics of each topic and to provide opportunities for matchmaking and discussions.

All those, who have expressed their interest on the on-line form, will receive an invitation to the workshop.

## On-site workshop

As a follow-up to the on-line meeting, there will be an opportunity to meet physically in Brussels in mid-November in connection of the Una Europa meeting or other location and time suitable for the coordinator of the project. The practicalities of this workshop will be confirmed in September 2022.

In this meeting the researchers will have an opportunity to discuss further about the proposal and they will receive coaching on how to prepare a successful proposal.

## Points of contact:

For practical questions concerning the process, please contact:

- Una.Resin project manager, Dr. Elina Tonteri, UH: [Elina.n.tonteri@helsinki.fi](mailto:Elina.n.tonteri@helsinki.fi)
- At Una Europa Vzw, Senior External Funding Officer Kristof Vlaeminck: [kristof.vlaeminck@una-europa.eu](mailto:kristof.vlaeminck@una-europa.eu)

# Cluster 1: Health

## **HORIZON-HLTH-2023-ENVHLTH- 2.01: Planetary health: understanding the links between environmental degradation and health impacts**

<b>Specific conditions</b>	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 6.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 30.00 million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Eligibility conditions</i>	<p>The conditions are described in General Annex B. The following exceptions apply:</p> <p>In recognition of the opening of the US National Institutes of Health’s programmes to European researchers, any legal entity established in the United States of America is eligible to receive Union funding to support its participation in projects funded under this topic.</p>
<i>Award criteria</i>	<p>The criteria are described in General Annex D. The following exceptions apply:</p> <p>The thresholds for each criterion will be 4 (Excellence), 4 (Impact) and 3 (Implementation). The cumulative threshold will be 12.</p>

**Expected Outcome:** This topic aims at supporting activities that are enabling or contributing to one or several expected impacts of destination 2 ‘Living and working in a health-promoting environment’. To that end, proposals under this topic should aim for delivering results that are directed, tailored towards and contributing to most of the following expected outcomes:

- Climate and environmental policies are supported with better knowledge on the Earth natural systems and human health interactions;
- Sustainable planetary health policies which foster co-benefits to human health and the health of natural ecosystems are supported with robust evidence;
- Policy-makers have better tools to improve the predictive capability and preparedness to deal with the impacts on human health of changes in natural ecosystems’;
- Cross sectorial and multidisciplinary scientific collaborations, including expertise in public health and One Health, are established;

- Public authorities rely on indicators about the impacts on human health of changes in natural systems to support adaptation and mitigation strategies to natural hazards;
- Citizens are engaged and informed about the impact of natural systems' degradation on human health and conservation behaviours are promoted.

Scope: Globally, life quality and expectancy have increased to unprecedented levels over the last decades due to the significant public health, agricultural, industrial and technological achievements of the 20th century. On the other hand, the ongoing trend of environmental degradation and global climate and environmental changes has introduced new pressures, which involve large impacts on human health and might put at risk the recent public health gains.

Among others, climate change, biodiversity loss, environmental pollution, changes in land use and degradation, deforestation, thawing permafrost (in polar regions, and particularly in the Arctic), overfishing and acidification of water bodies can result in reduced food and water availability and security and increased exposure to factors causing infectious and non-communicable diseases. Additionally, changes in weather and climate extremes have been observed across the globe, resulting in an increase of the frequency and intensity of extreme weather events such as heavy precipitation and floods, heat waves and hot extremes, droughts and tropical cyclones. Global surface temperature is predicted to continue to increase in the coming decades and global warming of 1.5°C and 2°C will likely be exceeded during the 21st century.

There is increasing evidence showing that many of these environmental stressors and changes can cause profound short- and long-term negative impacts on human health and well-being, contributing to increased morbidity and mortality worldwide. Understanding and acting upon these challenges calls for a multidisciplinary, cross-sectorial and trans-border approach ranging from the local to the global scale. The effects can be direct due to increases in floods, heatwaves, water shortages, landslides, exposure to ultraviolet radiation, exposure to pollutants, among others, or indirect and complex, as climate change -mediated (e.g. possible reactivation of thawing germs which have been locked in melting Arctic permafrost) or ecosystem-mediated (e.g. altered infectious disease risks, reduced food yields leading to undernutrition, depletion of natural medicines, mental health risks, environmental related migrations, effects of aesthetic or cultural impoverishment). In addition, it is imperative that the solutions and initiatives chosen to prevent environmental degradation are safe for human health and the environment. There is growing evidence showing that socioeconomic inequalities play an important role increasing vulnerability both due to greater health impacts and to reductions in economic growth.

Planetary health is a concept focused on the interdependencies between human health and the state of earth's complex natural systems. A key focus is on understanding how the current trend of human-related environmental degradation can affect the health and well-being of current and future generations. The Rockefeller Foundation-Lancet Commission on Planetary Health<sup>[1]</sup> published a report in 2015, laying the foundation for the development of this important new field of study<sup>[2]</sup>. In 2020 the Helsinki declaration<sup>[3]</sup> was published, resulting from a conference where participants discussed how to implement the planetary health approach in Europe in the context of the European Green Deal. This declaration highlights the close dependencies between human health and the health of the planet and calls for collaborative action to prevent further environmental degradation and maintain human health gains. Planetary health is also a priority topic in the research agenda in environment, climate and health proposed by the Coordination and support action HERA<sup>[4]</sup>.

In support to the European Green Deal<sup>[5]</sup> European Commission has recently launched a number of initiatives to minimise the effects of environmental stressors and increase preparedness such as the European Climate and Health Observatory, the Zero Pollution Action Plan<sup>[6]</sup> the Climate Adaptation mission<sup>[7]</sup> and the EU Arctic policy<sup>[8]</sup>.

Applicants are invited to submit proposals providing actionable evidence for policy-makers to take preventive actions to protect the human health and wellbeing by exploring the links between human health and environmental degradation in an integrated and comprehensive manner. More fragmented contributions focused on less studied aspects such as the links between climate change and health and, between biodiversity and health, will also be considered.

To advance the knowledge on planetary health to support policy-making in this area, the applicants should address several of the following activities:

- Provide strengthened evidence for health and wellbeing impacts of planetary changes, considering a systems thinking framework or a fragmentary approach focused on the impacts of climate change and biodiversity loss on human health (for biodiversity loss, proposals should not focus on the connection between the biodiversity loss and ecosystem degradation with the prevention of zoonotic emerging diseases since this topic will be covered by CL6-2023-BIODIV: Prevention of zoonotic emerging diseases & biodiversity);
- Provide improved understanding and modelling of human–ecological systems interactions and ecosystem-mediated effects on human health and well-being, including the attribution of health outcomes to environmental change;
- Provide a methodology to identify and prioritise threats for public health caused by environmental degradation, with a view to improving preparedness of health systems to these threats, through structured processes that move from evidence to recommendations and decisions;
- Investigation how infections agents that might have the capacity to adapt to other host species can spread via the environment, and how this type of insight might lead to enhanced monitoring strategies;
- Lay the foundations for integrated surveillance systems considering already established monitoring systems (e.g. systematic wastewater monitoring) and using available and newly collected health, socioeconomic, and environmental data for defined populations over longer time periods to provide early detection of emerging disease outbreaks (e.g. zoonotic diseases, potential permafrost release of new and old pathogens) or changes in nutrition and non-communicable disease burden and to assess the integrated health, environmental, and socioeconomic effect of policies and technologies. Proposals should coordinate with the work being developed under EU4Health 2022 CP-g-22-04.01 Direct grants to Member States' authorities: setting up a coordinated surveillance system under the One Health approach for cross-border pathogens that threaten the Union<sup>[9]</sup>;
- Explore strategies to reduce environmental damage and harmful emissions including assessment of health co-benefits through engagement with relevant HE partnerships and missions;
- Explore implications of planetary health for health systems and public health and identify opportunities to mitigate adverse health impacts of environmental degradation;
- Improve risk communication to policy makers, public authorities, industry and the public and support evidence-informed decisions by policy makers, by increasing capacity to do systematic reviews and provide rigorous policy briefs;
- Advance knowledge and actions to reduce the burden of non-communicable diseases while reducing the environmental pressure in areas like nutrition, physical activity, and mobility, and to assess the integrated health, environmental, and socioeconomic effect of those actions (i.e. behavior change interventions, policies or new technologies);
- Provide better understanding on adaptation to climate and other environmental changes to protect human health, including the interactions between different planetary boundaries and the need to integrate adaptation and mitigation strategies;
- Improved health impact assessment approaches accounting for environmental externalities and estimating the cost and benefits of interventions versus no action.

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

All projects funded under this topic are required to participate in networking and joint activities, as appropriate. These networking and joint activities can, for example, involve the exchange of knowledge, the development and adoption of best practices, the organization of common capacity building activities (e.g. joint workshops) and joint communication and dissemination activities. Therefore, proposals are required to allocate a sufficient budget for the attendance to regular joint meetings and to cover the costs of any other potential networking and joint activities without the prerequisite to detail concrete joint activities at this stage. The details of these joint activities will be defined during the grant agreement preparation phase. In this regard, the Commission will take on the role of facilitator for networking and exchanges, including with relevant stakeholders, if appropriate. Networking and joint activities with projects funded under other clusters and pillars of Horizon Europe, or other EU programmes, can also be considered, if relevant.

Cooperation with Africa is encouraged if relevant for the proposal.

<sup>[1]</sup> [https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(15\)60901-1.pdf](https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(15)60901-1.pdf)

<sup>[2]</sup> “Our definition of planetary health is the achievement of the highest attainable standard of health, well-being, and equity worldwide through judicious attention to the human systems—political, economic, and social—that shape the future of humanity and the Earth’s natural systems that define the safe environmental limits within which humanity can flourish. Put simply, planetary health is the health of human civilisation and the state of the natural systems on which it depends”

<sup>[3]</sup> Halonen et al. A call for urgent action to safeguard our planet and our health in line with the [Helsinki declaration](#)

<sup>[4]</sup> <https://www.heraresearcheu.eu/>

<sup>[5]</sup> [https://ec.europa.eu/clima/eu-action/european-green-deal\\_en](https://ec.europa.eu/clima/eu-action/european-green-deal_en)

<sup>[6]</sup> [https://ec.europa.eu/environment/strategy/zero-pollution-action-plan\\_en](https://ec.europa.eu/environment/strategy/zero-pollution-action-plan_en)

<sup>[7]</sup> <https://climate-adapt.eea.europa.eu/eu-adaptation-policy/eu-mission-on-adaptation>

<sup>[8]</sup> Joint Communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. A stronger EU engagement for a peaceful, sustainable and prosperous Arctic. Join (2021)7.

<sup>[9]</sup> [21 11 19 Annex I - track changes \(europa.eu\)](#)

# Cluster 6: Food, Bioeconomy, Natural Resources, Agriculture and Environment

## **HORIZON-CL6-2023-BIODIV: Interlinkages between biodiversity loss and degradation of ecosystems and the emergence of zoonotic diseases**

Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of between EUR 4 and 6 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
Indicative budget	The total indicative budget for the topic is EUR 12 million.
Type of Action	Research and Innovation Action

### Expected Outcome:

In line with the EU Green Deal and in particular with the objectives of the EU biodiversity strategy 2030, projects will develop knowledge on the links between the degradation of ecosystems with its associated biodiversity loss and the exposure to, emergence

and spread of zoonotic diseases to humans. This will compliment other initiatives by addressing the biodiversity and health nexus with a focus on the effects of biodiversity loss and degradation of ecosystems on the emergence of zoonotic diseases in the context of climate change and globalization.

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

- Better understand the relation between the degradation of ecosystems with its associated biodiversity loss, and the emergence of zoonotic diseases, focusing on how human drivers for biodiversity loss and for the spread of zoonotic diseases interact, such as illegal wildlife trade, land use change in biodiversity hot-spot regions, food consumption, use of antimicrobial agents, etc.
- Understand under which conditions and at what scale the protection of biodiversity and the restoration of ecosystems can contribute to mitigate the emergence and spread of zoonotic diseases.
- Better understand the socio-economic and behavioral factors that will lead to the development and implementation of improved policies on mitigating the risk of emergence and spread of zoonotic diseases. This should also include the ecology and behavioral traits of those animals which play a role in the spread of zoonotic diseases.
- Based on this knowledge, propose practical strategies to minimize the emergence and spread of zoonotic diseases through addressing biodiversity loss.
- Better understand the biodiversity – health nexus and identify biodiversity relevant parameters and propose the necessary monitoring schemes for further integration into the One Health approach with specific focus on emerging zoonotic diseases. This monitoring should contribute to the establishment or improvement of early detection and warning systems on risks of emerging zoonotic diseases.
- In collaboration among the projects to be funded, create a knowledge platform for a) sharing information on relevant research activities and results concerning the prevention of zoonotic disease emergence in relation to biodiversity; and b) reinforcing the communication and coordination between academics, innovators, end-users, researchers, public health and environmental authorities and citizens in order to create the strong system needed for the prevention of the emergence of zoonotic diseases. This platform should be a joint deliverable between the projects to be funded and will be expected to coordinate the research activities which aim to understand and mitigate the risks of zoonotic disease emergence in relation to the degradation of ecosystems with its associated biodiversity loss, allowing closure of current gaps and break down of existing silos. Proposals should dedicate appropriate resources to develop this joint deliverable in cooperation with the other project/s funded under this topic.

Scope:

Zoonotic diseases, which result from cross-species transmission of pathogens between animals and humans, appear to emerge more frequently and pose significant threats to the health and welfare of people across the planet. Without the necessary scientific information and evidence on the underlying causes and drivers of this more frequent emergence, the only way of responding to them is after their emergence and spread.

Over the last decades, research has indicated that biodiversity loss and the linked degradation of ecosystems could simultaneously increase human exposure to existing pathogens, as well as increase of the probability of the emergence and spread of infectious diseases. Unsustainable exploitation of biodiversity, land-use change, illegal wildlife trade and consumption, together with the



impacts of climate change and use of antimicrobial agents, increase the contact between humans and wildlife that consequently lead to the more frequent occurrence of emerging infectious diseases, of which around 75% are of zoonotic origin.

The high risks of these infectious diseases demonstrate the need for a real paradigm shift: preventing the emergence and spread of infectious zoonotic diseases by focusing on the root causes and underlying mechanisms potentially linked to biodiversity loss and degradation of ecosystems and improving their prediction and early detection.

This topic aims to identify and understand better the interlinkages between biodiversity loss with the linked ecosystem degradation and the emergence of zoonotic diseases. Further research is needed to better understand how the different drivers that lead to biodiversity loss and ecosystem degradation, and how the protection of biodiversity and the restoration of ecosystems may influence the emergence and spread of zoonotic diseases. Also better understanding is needed on how the conservation of animal genetic resources may influence the emergence of zoonotic diseases.

The better understanding of these interlinkages will help to establish better prediction and early detection systems, will enhance the coordination between all relevant stakeholders, ensure fast information sharing and early response and hence reduce the spread of zoonotic diseases.

The topic should contribute to better understanding the biodiversity – health nexus and help towards an enhanced integration of biodiversity parameters and monitoring with the One Health approach.

The development of methods and identification of indicators to monitor the relevant biodiversity parameters will be essential as well as the establishment of baselines of these parameters.

The mitigation strategies in relation to biodiversity loss and ecosystem degradation to be proposed should take into consideration all the aforementioned information and findings. The better understanding of the socio-economic and behavioural factors, as well as the involvement of local communities and environmental, animal and human health stakeholders is crucial for the preparation of these strategies.

Proposals under this topic should cooperate with, and build on the work carried out by other projects in the same field, such as:

- HORIZON-CL6-2021-BIODIV-01-11: What else is out there? Exploring the connection between biodiversity, ecosystem services, pandemics and epidemic risk
- HORIZON-CL6-2021-FARM2FORK-01-18: One Health approach for Food Nutrition Security and Sustainable Agriculture (FNSSA)
- HORIZON-HLTH-2021-ENVHLTH-02-03: Health impacts of climate change, costs and benefits of action and inaction

To achieve the expected outcomes, the following also need to be ensured:

- Coherence and coordination with the European Partnership for pandemic preparedness, the European Partnership for One Health/AMR Antimicrobial Resistance (AMR) and the European Partnership for Animal Health and Welfare (PAHW).
- Opportunities for cooperation with relevant European or international Agencies and initiatives, such as EFSA, EEA, ECDC, HERA, OHHLEP, One Sustainable Health, EU4Health actions (in particular One Health Surveillance), PREZODE, Ecohealth Alliance, etc.

The proposals should take up relevant knowledge assessed by major science-policy bodies such as the Intergovernmental science-policy Platform on Biodiversity and Ecosystem Services (IPBES), the Intergovernmental Panel on Climate Change (IPCC), and by the Convention on Biological Diversity. They should also take into consideration and build up on the results of the request

made to EKLIPSE on Biodiversity and Pandemics. Proposals should show how their results and outcomes could provide timely information to the work of these and further relevant global initiatives.

The proposals should foresee cooperation with the European partnership on biodiversity Biodiversa+ and the Science Service Bio-ogora and use existing platforms and information sharing mechanisms relevant to the topic. They should also contribute knowledge to the EC Knowledge Centre for Biodiversity.

Proposals are strongly encouraged to participate in networking and joint activities, as appropriate, and should foresee explicit resources for such activities. These networking and joint activities could, for example, involve the participation in joint workshops, the exchange of knowledge, the development and adoption of best practices, or joint communication activities.

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

Coordination with Member States and Associated Counties should be sought out.

This topic should involve the effective contribution of social sciences and humanities disciplines (SSH).

### **HORIZON-CL6-2024-FARM2FORK: Agro-pastoral/outdoor livestock systems and wildlife management**

Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of EUR 5 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
Indicative budget	The total indicative budget for the topic is EUR 5 million.
Type of Action	Research and Innovation Action
Eligibility conditions	The conditions are described in General Annex B. The following additional eligibility criteria apply:  The proposals must apply the multi-actor approach. See definition of the multi-actor approach in the introduction to this work programme part.

#### Expected outcome:

In line with the objectives of the Farm to Fork Strategy for a transition to fair, healthy and environmentally friendly livestock production systems, and of the EU biodiversity strategy 2030, including the conservation status of certain habitats and species, the successful proposal will help policy makers and other actors to monitor and improve the management of farming and terrestrial wildlife relationships, thus contributing to sustainable agriculture and ecosystem services.

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

- Innovative and sustainable practices and tools at landscape level to prevent and control negative consequences of interactions between livestock and wild animals to protect wildlife and pastoral/outdoor production systems
- Recommendations/policy advice on optimal management at EU level of wildlife and agro-pastoral systems
- Decision-making process on wildlife management and land planning participated by relevant stakeholders
- Improved coordination across Europe in terms of wildlife management, surveillance and data collection systems

Scope:

Agro-pastoral/outdoor livestock farming systems, which include a large number traditional activities in Europe such as grazing systems, mountain livestock farming, transhumance, silvo-pastoral and agroforestry systems, offer beneficial effects not only to animal production, e.g., in case of scarce fodder resources, or to animal welfare, but also to habitat maintenance, carbon sequestration, biodiversity conservation and soil protection.

The increased demand for natural resources by human population with the consequent fragmentation of wildlife habitat, together with the increased population of wild animals and the change in land use have often resulted in human-wildlife conflicts. The interactions between livestock farmers and wildlife are more frequent and cause damages to both sides with conflicts in the management of farming systems and natural resources.

Wildlife population, which is worth protecting, occupies wide geographic area and extend across administrative borders, and public administrations face difficulties with regards to the reduction of the impact of wildlife on livestock farming. The implementation of a common and integrated approach at EU level is required to optimize the management of the co-existence of terrestrial wildlife (large carnivores, ungulates) and agro-pastoral/outdoor livestock systems at landscape level.

The following elements should be incorporated:

- Review of current wildlife management approaches in agro-pastoral/outdoor production systems in the different EU Member States and associated countries and assessment of the effectiveness of different prevention measures
- Map the most common types of damages caused and the positive externalities created by wild animals with respect to livestock and crops in Europe. Create an inventory of good practices and infrastructures at farms and regional levels, within a wider wildlife management approach.
- Improve or develop tools/technologies for (real time) data collection and analysis to assess, monitor and control (wild) animal behaviour and damages
- Cost/benefit analysis of current and new farming strategies that preserve, protect and valorise wildlife and pastoralism in different regions and ecosystems. Socio-economic, environmental, cultural and political aspects should be considered.
- Assess stakeholders' (farmers, hunters, conservationists, general public, policy makers...) perspectives and needs (participatory approach) and improve or develop effective instruments to reduce conflicts between livestock farming and wildlife. Identify the most effective measures to mitigate damages and the most common (monetary, non-monetary) compensation mechanisms across Europe.

The proposal should take into account projects funded under the LIFE programme, and interact and engage a dialogue with relevant EU organizations such as EU Platform on Coexistence between People and Large Carnivores<sup>[1]</sup>.

Proposals must implement the 'multi-actor approach' and ensure adequate involvement of the main stakeholders involved in managing wildlife/livestock interaction (e.g., farmers, hunters, game farmers and producers, agricultural advisory services, land managers, ecology and nature conservation experts, animal behaviour scientists, social scientists and other relevant actors).

This topic should involve the effective contribution of social sciences and humanities (SSH) disciplines.

### **HORIZON-CL6-2023-FARM2FORK: EU-Africa Union – food safety**

Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 5 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
Indicative budget	The total indicative budget for the topic is EUR 10 million.
Type of Action	Research and Innovation Actions
Eligibility conditions	<p>The conditions are described in General Annex B.</p> <p>The following additional eligibility criteria apply:</p> <p>At least 3 partners from Africa and at least 2 from the same region as defined by the African Union</p> <p>Due to the scope of this topic, legal entities established in all member states of the African Union are exceptionally eligible for Union funding.</p> <p>International organisations with headquarters in a Member State or associated country are exceptionally eligible for funding.</p> <p>The proposals must use the multi-actor approach. See definition of the multi-actor approach in the introduction to this work programme part.</p> <p>The Joint Research Centre (JRC) may participate as member of the consortium selected for funding.</p>

#### Expected outcome:

In line with the European Green Deal priorities and the farm to fork strategy for a fair, healthy and environment-friendly food system, and in support of the food safety systems of the African Union and the EU, the successful proposal will contribute to the first priority of the AU-EU High Level Policy Dialogue (HLPD) on Science, Technology and Innovation on Food and Nutrition Security and Sustainable Agriculture.

Regional integration, including through greater trade in goods and services, is one of the key aspirations of the African Union's (AU) Agenda 2063. The launch of the African Continental Free Trade Area (AfCFTA) has the potential to significantly accelerate

growth and sustainable development, doubling intra-African trade and food trade in particular. While strong local food systems are a backbone of food security, trade contributes to resilient food systems by balancing between markets. The promotion of trade needs to take a start from the local, national and regional level to integrate food safety practices into all aspects of food production, distribution, marketing and consumption. Food safety is a pre-condition for food trade. It aligns with the recent AU decision to establish the Africa Food Safety Agency to ensure the coordination of food safety at the continental level<sup>[1]</sup>

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

- Improved African food safety systems,

Building blocks for improved food safety in Africa, improving climate, environment and food systems, reducing losses by mycotoxins, enhancing local transformation, local markets and regional trade, while reducing impacts on environment, biodiversity, health and society.

Scope:

Proposals are expected to address the following:

- Contribute to a better understanding of food safety in the informal sector by generating data and evidence on trade actors in the informal sector. Improve the understanding of informal trade operations and ways to improve food safety for better access to nutritious food for urban and rural populations.
- Assess and recommend ways to maintain the informal sector's participation towards possible integration into the formal food system. Explore ways for its access to infrastructure such as labs to be able to respond and manage the food safety risks along the chain.”
- Address regulatory aspects, including the risk of over regulation. Develop solutions towards a quality culture from the SME level going forward, including opportunities of better organization of SME in view of lower cost for certification and conformity assessment.
- Pilot training systems to help the informal sector towards compliance with food safety and quality schemes.
- Improve tools to improve risk assessment of health risks, including long term risks of mycotoxins. Risk assessment and other evidence should inform the regulatory systems.
- Contribute towards the development of a food safety strategy for Africa, including monitoring and an early warning system.
- Contribute to a better understanding how fermentation can reduce mycotoxin levels in food products.
- Identify solutions and business cases to improve microbiome based approaches such as traditional and new food fermenting, drying and coating processes for reducing food waste and promoting longer shelf lives. Develop approaches for scale-up.
- Implement the multi-actor approach by involving a wide range of food system actors and conducting trans- and inter-disciplinary research including an effective contribution of SSH disciplines.

Innovation: Proposals should foresee a space for mentoring and accelerating innovative business concepts, including social innovation and upscaling in view of African or European food business entrepreneurs and start-ups with special consideration of women and the diaspora using cascading funding opportunities. Proposals may involve financial support to third parties e.g. to

academic researchers, start-ups, SMEs and other multidisciplinary actors, to, for instance, develop, test or validate developed assessment approaches or collect or prepare data sets or provide other contributions to achieve the project objectives. A maximum of EUR 60 000 per third party might be granted. Conditions for third parties support are set out in Part B of the General Annexes. Consortia need to define the selection process of organisations, for which financial support will be granted. Maximum 20% of the EU funding can be allocated to this purpose. The financial support to third parties can only be provided in the form of grants.

<sup>[1]</sup> <https://www.fao.org/food-coalition/take-action/detail/en/c/1321182/>