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- /BMBF/ Wissenschaftlich-Technologischen Zusammenarbeit (WTZ) mit Kolumbien, Frist: 30. Juni 2023, 1. Stufe

- /BMWK/ Deutsch-Katalanische Ausschreibung für gemeinsame Forschungs- und Entwicklungsprojekte kleiner und mittlerer Unternehmen. Frist: 02. Juni 2023

- /HORIZON EUROPE/ Innovations to prevent and combat desertification, deadline 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Back to earth: bringing communities and citizens closer to soil, deadline: 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Discovering the subsoil, deadline: 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Soil-friendly practices in horticulture, including alternative growing media, deadline 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Soils in spatial planning, deadline: 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Carbon farming in living labs, deadline 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Co-creating solutions for soil health in Living Labs, deadline 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Soil pollution processes – modelling and inclusion in advanced digital decision-support tools, deadline 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Mission Ocean and Waters and Mission A Soil Deal for Europe – Joint demonstration of approaches and solutions to address nutrient pollution in the landscape-river-sea system in the Mediterranean sea basin, deadline: 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Atlantic and Arctic sea basin lighthouse – Addressing climate change and human activities threats to marine biodiversity, deadline 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Cross-basin topic - Analysis of the obstacles and opportunities for repurposing aged/unused offshore infrastructures, deadline 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Cross-basin topic - Innovative nature-inclusive concepts to reconcile offshore renewables with ocean protection, deadline 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/Roadmap towards the integration of inland waters into the Digital Twin Ocean, deadline 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ European Blue Parks – Protection and restoration of marine habitats, deadline 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ European natural lakes: demonstration of integrated approaches for protection and restoration of natural lake ecosystems and their biodiversity, deadline 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Lighthouse in the Baltic and the North Sea basins - Lighthouse in the Baltic and the North Sea basins - Green and energy-efficient small-scale fishing fleets, deadline 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Choose your fish: a campaign for responsible consumption of products from the sea, deadline: 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Ocean & water and arts: the contribution of creative sectors to Mission Ocean and waters, deadline: 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Integration of socio-ecological models into the Digital Twin Ocean, deadline 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Danube river basin lighthouse – Demonstration of effective and sustainable management of sediments in the Danube river-Black sea system, deadline 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Mission Climate adaptation, Mission Ocean & waters and Mission Soil Deal for Europe – Joint demonstration of an integrated approach to increasing landscape water retention capacity at regional scale, deadline: 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ MSCA Feedback to Policy 2023, deadline 06. June 2023 17:00 Brussels time

- /HORIZON EUROPE/ The European Capital of Innovation Awards iCapital 2023, deadline: 29. June 2023 17:00 Brussels time

- /HORIZON EUROPE/ Call on Centres of Excellence for Exascale HPC Applications, deadline 08. June 2023 17:00 Brussels time

- /HORIZON EUROPE/ The European Capital of Innovation Awards Rising 2023, deadline 29. June 2023 17:00 Brussels time

- /HORIZON EUROPE/ The EU Prize for Humanitarian Innovation, deadline 03. October 2023 17:00 Brussels time

- /HORIZON EUROPE/ Pathways to Synergies, deadline 28. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Towards a holistic support to children and adolescents' health and care provisions in an increasingly digital society, deadline 19. September 2023 17:00 Brussels time, 1. Step

- /HORIZON EUROPE/ Access to health and care services for people in vulnerable situations, deadline 19. September 2023 17:00 Brussels time, 1. Step

- /HORIZON EUROPE/ The role of environmental pollution in non-communicable diseases: air, noise and light and hazardous waste pollution, deadline: 19. September 2023 17:00 Brussels time, 1. Step

- /HORIZON EUROPE/ Innovative non-animal human-based tools and strategies for biomedical research, deadline 19. September 2023 17:00 Brussels time, 1. Step

- /HORIZON EUROPE/ Personalised prevention of non-communicable diseases - addressing areas of unmet needs using multiple data sources, deadline: 19. September 2023 17:00 Brussels time, 1. Step

- /HORIZON EUROPE/ Associating Ukrainian cities to the Climate-neutral and smart cities Mission, deadline: 06. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ MSCA Postdoctoral Fellowships 2023, deadline 13. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Validation of fluid-derived biomarkers for the prediction and prevention of brain disorders, deadline 19. September 2023 17:00 Brussels time, 1. Step

- /HORIZON EUROPE/ Tackling high-burden for patients, under-researched medical conditions, deadline 19. September 2023 17:00 Brussels time, 1. Step

- /HORIZON EUROPE/ Comparative effectiveness research for healthcare interventions in areas of high public health need, deadline: 19. September 2023 17:00 Brussels time, 1. Step

- /HORIZON EUROPE/ Pandemic preparedness and response: Adaptive platform trials for pandemic preparedness, deadline 19. September 2023 17:00 Brussels time, 1. Step

- /HORIZON EUROPE/ Dissemination and Exploitation Support Facility, deadline: 28. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Small scale biorefining in rural areas, deadline: 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Production of safe, sustainable, and efficient bio-based fertilisers to improve soil health and quality, deadline: 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Improve fermentation processes (including downstream purification) to final bio-based products, deadline: 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Recycling bio-based plastics increasing sorting and recycled content (upcycling), deadline: 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Development of scalable, safe bio-based surfactants, with an improved sustainability profile, deadline: 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Selective, sustainable production routes towards bio-based alternatives to fossil-based chemical building blocks, deadline: 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ High performance, circular-by design, biobased composites, deadline: 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Optimised and integrated wood-based value chains, deadline: 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Expansion and/or retro-fitting of biorefineries towards higher-value bio-based chemicals and intermediates, deadline: 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Bio-based packaging materials with improved properties: barrier, food contact, forming, printability, safety, recyclability /circularity-by-design, deadline: 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Valorisation of aquatic biomass waste and residues, deadline: 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Phyto-management; curing soil with industrial crops, utilising contaminated and saline land for industrial crop production, deadline: 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Optimised forest-based value chains for high value applications and improved forest management, deadline: 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Robust and optimised industrial biotech and chemical/industrial biotech processes, deadline: 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Development of novel, high-performance bio-based polymers and co-polymers, deadline: 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Pre-normative research to develop standards for biodegradability of bio-based products in controlled and in open environments, deadline: 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ EU-wide network of pilot plants and testing facilities, improving SMEs and start-ups' access to scale-up, deadline: 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Supporting the capacity of regions in environmental sustainability assessment for the bio-based sectors, deadline: 20. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Advanced materials and cells development enabling large-scale production of Gen4 solid-state batteries for mobility applications (Batt4EU Partnership), deadline: 05. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ New Approaches to Develop Enhanced Safety Materials for Gen 3 Li-Ion Batteries for Mobility Applications (Batt4EU Partnership), deadline: 05. September 2023 17:00 Brussels time

- /HORIZON EUROPE/ Creating a digital passport to track battery materials, optimize battery performance and life, validate recycling, and promote a new business model based on data sharing (Batt4EU Partnership), deadline: 05. September 2023 17:00 Brussels time

- /EMBO/ Global Investigator Network, deadline: 01. June 2023

- /EMBO/ EMBO Member Keynote Lectures, deadline: 01. June 2023

- /ESF/ Fight Kids Cancer 2023-2024 - Paediatric brain tumours, deadline 01. September 2023

- /EUI/ Marie Sklodowska-Curie Actions Postdoctoral Fellowships, deadline: 31. Mai 2023 14:00 CEST

- /Fulbright/ Doktorand:innenprogramm, Frist: 01. Juni 2023

- /Canon/ Research Fellowships, deadline: 15. September 2023

- /Helmholtz Stiftung/ Helmholtz Distinguished Professorship, deadline 17. July 2023

- /Sonstige/ Contact Research Funding Advice of the Otto von Guericke University Magdeburg

Inhalte:

/DFG/ Memristive Devices Toward Smart Technical Systems, deadline: 12. July 2023

A non-volatile memory resistor (short: memristor) is a revolutionary type of electronic memory device that combines the best features of conventional memory technologies. It has two terminals, and its resistance can be programmed and retained even after the device is powered off, making it a non-volatile memory. ReRAMs, Ferro-Electric Memories, Phase Change Memories, Atomic Switches etc. are representative examples of memristor device technologies that currently are actively researched due to their non-volatility, high density, high switching speed and low power consumption. At the same time, volatile memristors offer new possibilities for emulating brain dynamics and therefore building compact low-power bio-inspired systems. Based on these features, memristors are currently considered for a variety of applications, including memory, logic, sensing, in-memory computing, neuromorphic computing and machine learning, making them a versatile choice for AI, IoT devices and Cyber-Physical Systems. Additionally, their unique electrical properties and compatibility with complementary metal-oxide-semiconductor (CMOS) technology make them a promising candidate for integration into existing electronic systems. However, their commercialisation and widespread use in electronics is still in its early stages, and more research and development are needed to fully realise their potential. The aim of this Priority Programme is to demonstrate the increasingly important role of

memristors, to enable the derivation of new results in basic research, to verify the performance of memristive systems in applications and to further develop new memristive technology in shaping the future of electronics.

The development of memristor technology requires expertise from multiple disciplines. The MemrisTec programme promotes the interdisciplinary collaboration among researchers from the fields of Materials Science, Device Physics, Device and Circuit modelling, Circuit Design, Computer Architecture, Neuromorphic Computing, Artificial Intelligence and Analog Signal Processing. The goal is to advance the state of the art in memristor technology by overcoming technical challenges and limitations. Furthermore, this multidisciplinary approach will enable a top-to-bottom and/or bottom-to-top approach towards a common application-oriented memristor-based system that is in tune with the demands of the market. Investigating the underlying physical properties of memristors and their behaviour under various conditions will enable the identification of the most appropriate memristor materials with the desired electrical and memory properties. New memristor devices will be developed that fulfil the performance and reliability requirements for storing, recalling and processing data in novel designs of computing systems that mimic the behaviour of the human brain.

Importantly, since a strong theoretical foundation is essential for the successful design of memristor-based circuits and systems and for the development of new applications that leverage the unique properties of memristors, each MemrisTec project proposal must include a partner engaged in theoretical investigations. A solid understanding of the fundamental principles and behaviour of memristors is essential for circuit design, device selection and system architecture.

The Priority Programme MemrisTec focuses on the following topics:

- Design of innovative adaptive analogue circuits

- Development of in-memory computing arrays

- Realisation of sensing devices

- Memristive (neuromorphic) circuits

- Hybrid approaches for in-memory computing

Project proposals should envisage the creation of memristor-centred, bio-inspired, reconfigurable, energy-efficient and real-time computing systems. It must be noted that memristor device technologies based on magnetic effects will not be considered, since they are the object of extensive research elsewhere. The same applies to common non-memristive approaches to neuromorphic system design, non-full custom ASICs, fully digital electronics and von Neumann hardware architectures, all of which are excluded from this Priority Programme.

Referring to the German-American DFG roundtable discussion on memristive systems in Dresden in February 2023, it is noted that project parts carried out in other countries can be funded by the DFG if they promise to add value to the projects being pursued under the Priority Programme in Germany and if they make an important additional contribution to achieving the objectives of the Priority Programme. Note that proposals that include principal investigators from abroad can only be accepted if the scientific coordinator of the Priority Programme has explicitly acknowledged the aforementioned requirements at the time of proposal submission.

Proposals must be written in English and submitted to the DFG by 12 July 2023. Please note that proposals can only be submitted via elan, the DFG's electronic proposal processing system.

Further Information:

https://www.dfg.de/foerderung/info_wissenschaft/info_wissenschaft_23_33/

/BMBF*/ Gestaltung der Arbeit in europäischen Kollaborationsnetzwerken (EuKoNet), Frist: 01. August 2023, 1. Stufe

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Das BMBF fördert mit dieser Förderrichtlinie den gezielten Aufbau von kollaborativen, vorwettbewerblichen Forschungsvorhaben (Verbundprojekte), deren Fokus auf neuen Instrumenten und Methoden für eine humanzentrierte Arbeit in europäischen Kollaborationsnetzwerken liegt.

Arbeit soll auch unter den Bedingungen eines dynamischen, länderübergreifenden Wertschöpfungsnetzwerkes zukunftsweisend, produktiv, innovativ und sozial bleiben. Neue Formen der Kollaboration in internationalen Netzwerken können wichtige Beiträge zur Förderung persönlicher und organisatorischer Resilienz und zur europäischen Souveränität leisten. Die Akteure der Arbeitsforschung, gemeinsam mit Vertretern aus weiteren Disziplinen, Unternehmen und deren Beschäftigten, Transfer- und Sozialpartnern werden animiert, für diesen Zweck innovative Lösungsansätze (unter anderem Konzepte, Methoden, Instrumente, Testumfelder) zu erarbeiten. Die Lösungsansätze müssen in konkreten betrieblichen Anwendungsszenarien prototypisch validiert, Nutzende durch geeignete Partizipationsformate in die Forschungsprojekte eingebunden und eine Bewertung der Lösungen unter möglichst realen Bedingungen durchgeführt werden. Weiterhin sollen die Ergebnisse methodisch für den Breitentransfer in der Europäischen Union generalisiert und entsprechend weiterentwickelt werden. Resultate sind in den beiden folgenden Handlungsbereichen zu erarbeiten:

- Methoden und Instrumente für die Kollaboration in internationalen Netzwerken, unter anderem

- Kollaboratives Wissensmanagement in sich verändernden Netzwerken; Instrumente zur inter- und transdisziplinären Arbeit sowie zur Förderung von Vielfalt in Innovationsprozessen; Werkzeuge zur Bewertung von Kollaborationsprozessen

- Kultursensible Konzepte zur Zusammenarbeit auf regionaler, nationaler und internationaler Ebene sowie zur Weiterentwicklung von Prozesswissen in Europa

- Digitale Unterstützungsmittel, die Transdisziplinarität, Interaktionsbereitschaft, Autonomie und vertrauensbasierte Zusammenarbeit in Netzwerken ermöglichen, unter anderem in digitalen Plattformen bzw. Ökosystemen

- Hybride Lösungen, die komplementäre Kompetenzen in internationalen Netzwerken gewinnbringend fördern

- Nachhaltiger, sicherer Austausch zwischen Führungs- und operativer Ebene durch passende Digitalausstattung sowie innovative Wertschätzungs- und Arbeitszeitmodelle.

- Organisationaler Rahmen für die kompetenzförderliche Gestaltung von Arbeit in Kollaborationsnetzwerken, unter anderem

- Ganzheitliche Maßnahmen für adaptive Partizipation und Entscheidungsprozesse; branchenbezogene, unkonventionelle Formen der Arbeitsverteilung, unter anderem zur Förderung von Kreativität, Vertrauen und Diversität

- Ausschöpfung des Potenzials selbstbestimmter und eigenverantwortlicher Arbeit (unter anderem Freiräume und Selbstkompetenzen); Instrumente zur Einführung von ganzheitlichem Kollaborationsmanagement; Strategien für die Zuteilung „diffuser“ Verantwortung

- Transparente und partizipative Organisation des permanenten Wandels unter Berücksichtigung betrieblicher Strukturen, individueller Fähigkeiten, der Arbeitskultur sowie der Bedürfnisse kollaborierender Partner

- Vorausschauende Gestaltung menschenzentrierter und resilienter Organisationsformen für die digital unterstützte Kollaboration

- Strategien zur proaktiven Kompetenzsicherung angesichts sich schnell ändernder Tätigkeiten und zur Adressierung von Fachkräftemangel; biographiesensible Planungsansätze für Transformationsprozesse im Betrieb; Referenzrahmenmodelle für zukunftsfähige Lern- und Weiterbildungskulturen

- Beiträge zur Beteiligung der Beschäftigten am Kollaborationsmanagement im Sinne einer selbstbestimmten Umsetzung; Testumfelder für das Zusammenspiel zwischen agilen bzw. stabilen Arbeitsformen; vertrauensbasierte Anreizsysteme für Kollaboration.

Bei beiden Handlungsbereichen ist die Umsetzung mit konkreten betrieblichen Anwendungsfällen zu belegen. Für diesen Zweck sind ganzheitliche Prinzipien zur Gestaltung sozio-technischer Systeme aus Sicht von Mensch, Technik und Organisation zu berücksichtigen. Tangiert sind diese Aufgaben mit Maßnahmen zu neuen Führungs- und Partizipationskulturen. Bei der Bearbeitung der oben genannten Themenfelder sind Konzepte, die lediglich die Anpassung individueller Verhaltensmuster adressieren nicht ausreichend. Ausgehend von den Herausforderungen der Kooperation in Netzwerken, der digitalen Transformation bzw. einer fluiden Arbeitswelt werden unter Berücksichtigung der oben genannten Handlungsbereiche und den jeweiligen Anwendungsfällen beispielsweise folgende Ergebnisse erwartet:

- Exemplarische, vorwettbewerbliche IT-Lösungen zur technischen Umsetzung eines digitalen Kooperationsnetzwerks („Demonstrator“), das an die oben genannten Anwendungsfälle angepasst ist.

- An die Anwendungsfälle angepasste, humanzentrierte Vorgehensmodelle, in denen vor allem Rollen, Zuständigkeiten und Verantwortlichkeiten definiert bzw. abgegrenzt werden. Die Beschäftigten sollen konkrete Orientierung erhalten, um ihre Prozesse und Strukturen für die „fluide Arbeitswelt“ weiterzuentwickeln.

- KMU-spezifische Lösungsansätze zum arbeitsintegrierten Lernen und zur Förderung der Innovationsfähigkeit in und von Arbeitsnetzwerken.

- Zu den oben genannten Punkten passende Kompetenz- und Qualifikationsprofile, um die oben genannten technischen und personellen Herausforderungen zu bewältigen.

- Aus den Anwendungsfällen abgeleitete Handlungsleitfäden, Best Practices, Erfolgsgeschichten etc.

Als vorrangige Kriterien der Ergebnisbewertung gelten die prototypische Umsetzung der entwickelten Lösungen in mindestens zwei Anwendungsszenarien und deren Validierung, die insbesondere unter Gesichtspunkten der europäischen Vernetzung und Kollaboration und des Umgangs mit den Herausforderungen einer fluiden Arbeitswelt betrieben werden. Die beteiligten Organisationen sollen die entwickelten Lösungen selbständig weiter anpassen, dauerhaft optimieren und erweitern können.

Gefördert werden risikoreiche und anwendungsorientierte europäische Verbundprojekte mit innovativem Ansatz, die ein arbeitsteiliges und interdisziplinäres Zusammenwirken von Unternehmen mit Hochschulen bzw. Forschungseinrichtungen erfordern.

Die im Projekt entwickelten Lösungen und Methoden sind einschließlich der bei der Erprobung und Validierung gewonnenen Erkenntnisse in Handlungsempfehlungen für weitere Unternehmen aufzubereiten. Bezüglich der geplanten Verwertung der

Projektergebnisse sind belastbare Konzepte und umfassende Vorgehensweisen darzustellen, wie die Lösungen für den zeitnahen Wissens- und Ergebnistransfer genutzt werden.

Voraussetzung für die Förderung ist grundsätzlich das Zusammenwirken von mehreren unabhängigen Partnern aus Wissenschaft und Wirtschaft zur gemeinsamen Bearbeitung von Forschungsvorhaben (Verbundprojekte), die den Stand der Technik und Forschung deutlich übertreffen. Zum Transfer der Ergebnisse wird die assoziierte Beteiligung unter anderem von Netzwerken und Sozialpartnern begrüßt. Es können Projektideen aus allen Wirtschaftssektoren und Branchen eingereicht werden. Ausgewiesene Expertise im Bereich der Arbeitsforschung wird hierfür benötigt.

Antragsberechtigt sind staatliche und nichtstaatliche Hochschulen, Unternehmen der gewerblichen Wirtschaft sowie außeruniversitäre Forschungseinrichtungen. Zum Zeitpunkt der Auszahlung einer gewährten Zuwendung wird das Vorhandensein einer Betriebsstätte oder Niederlassung (Unternehmen) bzw. einer sonstigen Einrichtung, die der Tätigkeit des Zuwendungsempfängers dient (Hochschule, Forschungseinrichtung), in Deutschland verlangt. Ausgenommen von der Förderung sind Gebietskörperschaften.

Das Antragsverfahren ist zweistufig angelegt.

Weitere Informationen:

https://www.bmbf.de/bmbf/shareddocs/bekanntmachungen/de/2023/03/2023-03-27-Bekanntmachung-EuKoNet.html

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/BMBF*/ Deutsch-Polnische Ausschreibung für gemeinsame Forschungs- und Entwicklungsprojekte, Frist: 30. September 2023

Die Ausschreibung lädt Partner dazu ein, gemeinsame Vorschläge für technologische FuE-Projekte bis zum 30. September 2023 im Einklang mit dem im folgenden beschriebenen Verfahren einzureichen.

Die förderfähigen Projektteilnehmer aus Polen und Deutschland finanzieren ihre Kosten aus den jeweiligen nationalen Förderprogrammen und ergänzend mit eigenen Mitteln.

Die zu erwartenden Projektergebnisse sollen zu marktwirksamen technologischen Innovationen (neue Produkte, Verfahren und/oder technische Dienstleistungen) führen, die sich am internationalen Stand der Technik orientieren. Die Projekte müssen folgenden Leitlinien entsprechen:

- Zu den Partnern müssen mindestens ein deutsches mittelständisches Unternehmen sowie ein polnisches Unternehmen und/oder eine polnische Forschungseinrichtung gehören, die jeweils wesentliche inhaltliche Beiträge zu dem Projekt leisten.

- Die Beteiligung von weiteren Unternehmen und Forschungseinrichtungen als weitere Projektpartner oder Unterauftragnehmer entsprechend den nationalen Richtlinien ist möglich.

- Es können auch Unternehmen und/oder Forschungseinrichtungen aus anderen Ländern teilnehmen. Die Teilnahme dieser Partner wird nicht durch das ZIM oder INNOGLOBO gefördert; sie sind mit in das Proposal Application Form aufzunehmen.

- Das Projekt soll einen ersichtlichen Mehrwert aufgrund der Kooperation der Teilnehmer beider Länder erzielen. (z. B. eine verbesserte Wissensgrundlage, Zugang zu FuE-Infrastrukturen, neue Anwendungsbereiche).

- Die Laufzeit der Projekte soll zwischen 24 und 36 Monaten betragen.

- Die Kooperation muss ausgewogen sein. Dies bedeutet unter anderem, dass die beteiligten Forschungseinrichtungen in einem Konsortium zusammen nicht mehr als 50 % der Projektarbeiten (Personenmonate) leisten dürfen. Des Weiteren gilt es zu beachten, dass in einem Projekt mit zwei Partnern nicht mehr als 70 % der Personenmonate und bei mehr als zwei Partnern nicht mehr als 50 % der Personenmonate auf einen Partner entfallen dürfen.

- Das Projekt muss auch aus finanzieller Sicht zwischen den Ländern ausgewogen sein. Die Projektteilnehmer eines Landes, i.d.R. Polen und Deutschland, dürfen zusammengenommen nicht weniger als 30% und nicht mehr als 70 % der gesamten Kosten des internationalen Projektes einbringen.

- Vor diesem Hintergrund gilt es die minimalen und maximalen Projektkosten beider Länder zu berücksichtigen. Im INNOGLOBO betragen die min. Projektkosten 400.000 PLN und max. 1,5 Mio. PLN. Im ZIM gelten für Unternehmen max. 450.000 EUR und für Forschungseinrichtungen max. 220.000 EUR förderfähige Kosten.

Weitere Informationen:

https://www.zim.de/ZIM/Redaktion/DE/Artikel/International/polen.html

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/BMBF*/ Forschungs- und Entwicklungszusammenarbeit zwischen Deutschland und der Ukraine, Frist: 22. Juni 2023, 1. Stufe

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Gefördert werden im Rahmen dieser Fördermaßnahme Forschungsprojekte sowohl als Einzel- wie auch als Verbundvorhaben, die entsprechend des oben beschriebenen Zuwendungszwecks in internationaler Zusammenarbeit mit der Ukraine eines oder mehrere der nachfolgenden Schwerpunktthemen bearbeiten:

- Digitalisierung und Informationstechnologien,

- Biotechnologien und Gesundheitsforschung,

- Neue Materialien und Fertigungstechnologien,

- Sozial- und Geisteswissenschaften (interdisziplinärer Ansatz).

Die Förderbekanntmachung zielt zudem auf Projektvorschläge ab, welche die Ziele des „European Green Deal“ unterstützen. Dies betrifft Vorhaben in Grundlagen- und angewandter Forschung in Bereichen wie

- Umwelttechnologien und Nachhaltigkeitsforschung (einschließlich sozialer Nachhaltigkeit),

- Landwirtschaft, Ernährungssicherheit und Landnutzung,

- Saubere, erschwingliche und sichere Energie.

Antragsberechtigt sind Hochschulen, außeruniversitäre Forschungseinrichtungen sowie Unternehmen der gewerblichen Wirtschaft, insbesondere KMU, kommunale Gebietskörperschaften und andere Institutionen in Deutschland, die Forschungsbeiträge liefern. Zum Zeitpunkt der Auszahlung einer gewährten Zuwendung wird das Vorhandensein einer Betriebsstätte oder Niederlassung (Unternehmen) beziehungsweise einer sonstigen Einrichtung, die der nichtwirtschaftlichen Tätigkeit des Zuwendungsempfängers dient (Hochschule, Forschungseinrichtung, Institutionen, die Forschungsbeiträge liefern), in Deutschland verlangt.

Das Antragsverfahren ist zweistufig angelegt.

Weitere Informationen:

https://www.bmbf.de/bmbf/shareddocs/bekanntmachungen/de/2023/03/2023-03-31-Bekanntmachung-Ukraine.html

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/BMBF/ Die europäische Innovationsunion – Deutsche Impulse für den Europäischen Forschungsraum, Frist: 30. September 2023

Gefördert werden Maßnahmen zur Vorbereitung und Erstellung von Anträgen zu Ausschreibungen in den thematischen Clustern im zweiten Pfeiler von Horizont Europa. Ebenso soll die Entwicklung von Projektvorschlägen für Verbundprojekte innerhalb Europäischer Partnerschaften, die dem zweiten Pfeiler von Horizont Europa thematisch zuzuordnen sind, unterstützt werden.

Gefördert werden Einzelvorhaben für die Sondierung, den Auf- und Ausbau von themenspezifischen Konsortien und die Zusammenarbeit an der Entwicklung der Vorschläge für Forschungs- und Entwicklungsvorhaben, die durch den Antragsteller als geplantem Koordinator gesteuert werden.

Nicht gefördert werden Maßnahmen zur Vorbereitung eines Antrags für Koordinierungs- und Unterstützungsmaßnahmen (Coordination and Support Actions), Maßnahmen der Individualförderung und Preise.

Antragsberechtigt sind außeruniversitäre Forschungseinrichtungen, Hochschulen sowie andere Institutionen, die Forschungsbeiträge liefern, KMU, Kommunen und kommunale Unternehmen, die die Zuwendungszwecke und Zuwendungsvoraussetzungen erfüllen. Zum Zeitpunkt der Auszahlung einer gewährten Zuwendung wird das Vorhandensein einer Betriebsstätte oder Niederlassung (Unternehmen) bzw. einer sonstigen Einrichtung, die der Tätigkeit des - Zuwendungsempfängers dient (Hochschule, Forschungseinrichtung oder andere Institution, die Forschungsbeiträge liefern) in Deutschland verlangt.

Das Antragsverfahren ist einstufig angelegt.

Weitere Informationen:

https://www.bmbf.de/bmbf/shareddocs/bekanntmachungen/de/2021/04/3534_bekanntmachung

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/BMBF*/ Förderung von Forschungsprojekten mit der Tunesischen Republik unter der Beteiligung von Wissenschaft und Wirtschaft (TUNGER 2+2), Frist: 31. Mai 2023, 1. Stufe

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Gefördert werden im Rahmen dieser Fördermaßnahme FuE-Projekte als Verbundvorhaben, die entsprechend dem oben beschriebenen Zuwendungszweck in internationaler Zusammenarbeit mit Partnern aus der Tunesischen Republik eines der nachfolgenden Schwerpunktthemen bearbeiten:

- Nexus Wasser-Energie-Nahrungsmittel-Ökosystem (WEFE),

- Angewandte Biotechnologie und Gesundheitswirtschaft,

- Grüne Wirtschaft/Kreislaufwirtschaft.

Um insbesondere die Verwertungsperspektiven der bilateralen Partnerschaften zwischen deutschen und tunesischen Institutionen in Forschung und Wirtschaft zu stärken, können im Rahmen der geförderten Verbundvorhaben auch sogenannte bilaterale Innovationsforen gefördert werden.

Innovationsforen zielen auf den Aufbau eines breiten bilateralen Netzwerks mit weiteren deutschen Forschungs- und Bildungseinrichtungen und innovativen Unternehmen zusammen mit entsprechenden bewährten tunesischen Institutionen zur Initiierung zukünftiger Forschungskooperationen oder Geschäftsbeziehungen ab.

Im Rahmen eines Innovationsforums sollen die Partner ihre Position im nationalen und internationalen Wettbewerb gemeinsam festlegen und eine Umsetzungsstrategie für die künftige Zusammenarbeit sowie gemeinsame Innovationsziele entwickeln. In diesem Zusammenhang können auch die Durchführbarkeit und Umsetzbarkeit von neuen Produkt-, Verfahrens- und Dienstleistungsideen untersucht werden. Das Hauptergebnis des Innovationsforums soll ein gemeinsam erarbeiteter Aktionsplan für die Entwicklung neuer Produkte, Anwendungen, Verfahren und Technologien sein.

Dementsprechend beschreibt der Begriff Innovationsforum einen Prozess der Vernetzung, des Dialogs und der Agendasetzung, der etwa entsprechend dem Triple- (oder auch Quadruple-) Helix-Format organisiert wird. In der Regel sollte ein Innovationsforum mehrere kleinere Veranstaltungen umfassen, die in beiden Ländern stattfinden können, und eine letzte öffentliche Veranstaltung in der Tunesischen Republik.

Bei übergeordneter Bedeutung für das gesamte Innovationsforum kann der Erwerb oder die Entwicklung von unternehmensübergreifenden Markt- und Potenzialstudien im Einzelfall unterstützt werden.

Ein antragstellender deutscher Partner sollte Mitglied eines bereits bestehenden deutschen Netzwerkes sein. Willkommen sind vor allem neue Netzwerke, die am Anfang ihrer Entwicklung stehen. Die Beschreibung des Innovationsforums in der Projektskizze sollte zeigen, dass das geplante bilaterale Netzwerk für eine diskriminierungsfreie Teilnahme und Beteiligung anderer interessierter Akteure aus Wirtschaft, Wissenschaft, Politik und öffentlicher Verwaltung offen sein wird.

Des Weiteren wird eine sektorenübergreifende bilaterale Mobilität zwischen den Projektpartnern – der Austausch von tunesischem und/oder deutschem Forschungs- und Innovationspersonal mit deutschen und/oder tunesischen Unternehmen – begrüßt. Der Wissenstransfer soll dazu beitragen, kreative Ideen in innovative Technologien, Produkte, Verfahren und/oder Dienstleistungen umzusetzen. Unterstützt wird der Austausch von Nachwuchsforschern (Early Stage Researchers, ESR) und erfahrenen Forschern (Experienced Researchers, ER). Die betreffende Person muss mindestens sechs Monate vor der ersten Entsendung bei der entsendenden Organisation beschäftigt und im Bereich FuE tätig gewesen sein. Die Entsendungen an die Partner können bis zu drei Monate dauern.

Antragsberechtigt sind Hochschulen, außeruniversitäre Forschungseinrichtungen und sonstige Einrichtungen und Institutionen mit Forschungsinteresse sowie Unternehmen der gewerblichen Wirtschaft, insbesondere KMU.

Das Antragsverfahren ist zweistufig angelegt.

Weitere Informationen:

https://www.bmbf.de/bmbf/shareddocs/bekanntmachungen/de/2023/04/2023-04-26-Bekanntmachung-Tunesien.html

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/BMBF/ Wissenschaftlich-Technologischen Zusammenarbeit (WTZ) mit Kolumbien, Frist: 30. Juni 2023, 1. Stufe

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Gefördert werden Vorhaben zur Projektbezogene Mobilität (Modul 2) gemeinsam mit Partnern aus Kolumbien. Es sollen bestehende Kooperationen ausgebaut und gefestigt werden.

Es werden Projekte aus den folgenden thematischen Schwerpunktbereichen gefördert:

- Biotechnologie

-Biodiversität

-Gesundheitsforschung

-Meeresforschung

-Geowissenschaften

-Erneuerbare Energien

Gemäß der Rahmenbekanntmachung sollen die Vorhaben die internationale Mobilität von Forschenden ebenso wie Koordinierungsaktivitäten im Kontext bestehender Projekte stärken. Dabei erfolgt die Förderung zusätzlich zu einem oder mehreren anderweitig finanzierten Forschungsvorhaben und soll dazu beitragen, dass Forschungsprojekte oder -aktivitäten in Deutschland und Kolumbien synchronisiert werden, um eine gemeinsame Arbeit an Forschungsthemen zu ermöglichen und ggf. gemeinsame Anschlussvorhaben vorzubereiten. Die geförderten Vorhaben sollen auch der Vorbereitung von umfangreicheren Antragstellungen z. B. beim Bundesministerium für Bildung und Forschung (BMBF) oder bei Förderorganisationen wie bspw. der Deutschen Forschungsgemeinschaft (DFG) oder der Europäischen Union (EU) dienen.

Vorhaben, die im Rahmen dieser Förderrichtlinie beantragt werden, sollten das Potenzial für eine langfristige und nachhaltige Kooperation mit Kolumbien dokumentieren.

Antragsberechtigt sind Hochschulen und Forschungseinrichtungen sowie forschende kleine und mittlere Unternehmen (KMU). Zum Zeitpunkt der Auszahlung einer gewährten Zuwendung wird das Vorhandensein einer Betriebsstätte oder Niederlassung (Unternehmen) bzw. einer sonstigen Einrichtung, die der nichtwirtschaftlichen Tätigkeit des Zuwendungsempfängers dient (juristische Personen des öffentlichen oder privaten Rechts, kommunale Gebietskörperschaften), in Deutschland verlangt.

Die Förderung erfolgt als nicht rückzahlbare Zuwendung. Die Fördersumme pro deutsches Projekt kann bis maximal 50.000 €, mit Laufzeit von bis zu 24 Monaten betragen.

Das Antragsverfahren ist zweistufig.

Weitere Informationen:

https://www.bmbf.de/bmbf/shareddocs/bekanntmachungen/de/2023/04/2023-04-26-Foerderaufruf-Kolumbien.html

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/BMWK/ Deutsch-Katalanische Ausschreibung für gemeinsame Forschungs- und Entwicklungsprojekte kleiner und mittlerer Unternehmen. Frist: 02. Juni 2023

Die Ausschreibung lädt Partner dazu ein, gemeinsame Vorschläge für industrielle FuE-Projekte im Einklang mit dem folgenden Verfahren einzureichen.

Die förderfähigen Projektteilnehmer aus Deutschland und Katalonien werden ihre Kosten aus den für diese Ausschreibung geltenden Förderprogrammen von ACCIÓ und dem deutschen Förderprogramm ZIM sowie ergänzend aus eigenen Mitteln finanzieren. Die Bereitstellung von Mitteln durch eine Fördereinrichtung bedeutet weder, dass auch Mittel der anderen Fördereinrichtung bereitgestellt werden, noch, dass die andere nationale Einrichtung an die Bereitstellung von Mitteln für die förderfähigen Projektteilnehmer gebunden ist.

Die zu erwartenden Projektergebnisse müssen zu marktwirksamen Innovationen (neue Produkte, Verfahren und/oder technische Dienstleistungen) führen, die sich am internationalen Stand der Technik orientieren. Die Projektanträge müssen folgenden Leitlinien entsprechen:

- Zu den Partnern müssen mindestens ein katalanisches Unternehmen und ein deutsches mittelständisches Unternehmen gehören, die jeweils wesentliche Beiträge zu dem Projekt leisten.

- Die Beteiligung von weiteren Unternehmen und Forschungseinrichtungen als Partner oder Unterauftragnehmer entsprechend der jeweiligen landesspezifischen Förderrichtlinien ist willkommen.

- Unternehmen und/oder Forschungseinrichtungen aus anderen Ländern können sich ebenfalls beteiligen. Diese Partner werden jedoch weder von ACCIÓ noch vom BMWK finanziert. Stattdessen gelten für sie die Finanzierungsregeln einschließlich der Verfahren und Förderbestimmungen der Herkunftsländer dieser Partner.

- Das Projekt soll einen ersichtlichen Mehrwert aufgrund der Kooperation der Teilnehmer beider Länder erzielen (beispielsweise eine verbesserte Wissensgrundlage, Zugang zu FuE Infrastrukturen, neue Anwendungsbereiche).

- Die Laufzeit der Projekte soll drei Jahre nicht überschreiten. Die Förderung wird gemäß den geltenden nationalen Gesetzen, Bestimmungen, Vorschriften und Verfahren gewährt.

Bis zum Stichtag müssen alle Partner eines FuE-Projektes einen Kooperationsvertrag (noch nicht unterschrieben) in englischer Sprache (mit deutscher Arbeitsübersetzung) beifügen, der die Bedingungen der Kooperation zwischen allen Partnern regelt. Zusätzlich können optional alle Partner eines FuE-Projektes ein gemeinsames Übersichtsformular (Joint Proposal Application Form) in englischer Sprache stellen, der von allen Organisationen rechtsgültig unterschrieben wird.

Weitere Informationen:

https://www.zim.de/ZIM/Redaktion/DE/Artikel/International/katalonien-spanien.html

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/HORIZON EUROPE/ Innovations to prevent and combat desertification, deadline: 20. September 2023 17:00 Brussels time

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Activities under this topic will help to progress towards the objectives of the Mission 'A Soil Deal for Europe', in particular its specific objective 1, "Reduce land degradation relating to desertification".

Project results should contribute to all of the following outcomes:

- The socio-economic and climatic drivers, the extent and the impacts of different types of land degradation (incl. water scarcity, vegetation loss, soil erosion) in (semi-)natural and agricultural systems of arid areas and areas becoming increasingly arid are clearly understood, accurately and reliably measured at the most relevant scale and in connection with specific land uses. This knowledge is widely shared among relevant actors from various sectors.

- The economic viability and environmental effectiveness of solutions for the prevention of desertification and for the restoration of degraded land (such as soil protection measures that help retain water and reduce water needs, improve management of soil organic matter, avoid salinization, protect biodiversity, minimise soil sealing and increase land resilience to droughts) is demonstrated in the different local or regional contexts.

- Enhanced access for land managers in desertification-prone areas to effective, context-specific restoration and prevention solutions and to information about the conditions under which they are effective.

- The number and size of areas under sustainable soil and water management are expanded, and the retention of moisture in the landscape and the management of soil organic matter are improved across different land-use types and local-regional conditions. In consequence, dryland soils become more resilient and less vulnerable to drought and desertification.

In 2017, 25% of land in Southern, Central and Eastern Europe was estimated to be at high or very high risk of desertification. The risk is likely to have further increased since then, and to continue increasing because of accelerating climate change and continued pressures from land use and land-use change. Desertification leads to loss of biodiversity, of organic carbon and of other land-based ecosystem services, including reduced agricultural and forest productivity. Desertification further amplifies global warming through the release of CO_2 and other greenhouse gases linked with the decrease in vegetation cover. Thus, it has severe environmental, social and economic consequences which need to be urgently tackled.

Proposed activities should:

- Synthesise and gather evidence on the drivers and impacts of land degradation at all relevant scales, using diverse data flows and where relevant models, with a view to supporting alternative land management actions (scenarios) that alleviate the pressures from land uses and land-use changes leading to desertification.

- Identify, demonstrate the effectiveness, and promote the scale-up of measures for reducing and reversing desertification and increasing soil's water-retention capacity, taking into account (actual and projected) changes in climatic conditions. Work should be carried out at different scales and address various types of land use (agriculture, forestry and natural land) and land use changes. Due attention should be given to the role of plant and microbial diversity in increasing the resilience of land vis-a-vis desertification processes.

- Specifically for agricultural land including both conventional and organic farming, identify and demonstrate farming or other land-use practices which are more resilient and are suitable for combatting desertification while sustaining ecosystem services and preventing land abandonment.

- Facilitate learning and exchange among all relevant actors, including across sectors, by promoting in the scope of activities various types of innovations (nature-based, technological, socio-economic, cultural and institutional) and/or various types of land use (natural and semi-natural as well as agricultural, agroforestry and forest areas).

- Develop policy recommendations for creating incentives and overcoming obstacles for the widespread uptake of measures that have demonstrated to be effective for the prevention of desertification and restoration and are suitable for scaling-up.

- Carry-out activities for awareness-raising on desertification and for the demonstration and dissemination of solutions, also as part of the UN Day to combat desertification and drought.

Proposals should demonstrate a route towards open access, longevity, sustainability and interoperability of knowledge and outputs through close collaboration with the Joint Research Centre's EU Soil Observatory (EUSO) and with other projects to be funded under the Soil Mission. Proposals should also include a dedicated task, appropriate resources and a plan on how they will collaborate with other projects funded under this topic, and ensure synergies with projects funded as part of the Partnership for Research and Innovation in the Mediterranean Area (PRIMA) and with the EU LIFE project NewLIFE4Drylands. In order to achieve the expected outcomes, international cooperation is encouraged, in particular with third countries in the Mediterranean region.

Potentially, the projects funded under this topic could cooperate with living labs and lighthouses that will be created in this call and future calls under the Mission 'A Soil Deal for Europe'.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2023-soil-01-04;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Back to earth: bringing communities and citizens closer to soil, deadline: 20. September 2023 17:00 Brussels time

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Activities under this topic will help progress towards the overall goal of the Mission 'A Soil Deal for Europe', in particular by contributing to its specific objective 8 "Increase soil literacy across society". Activities should also contribute to the Education for Climate Coalition and to the Long-term vision for EU's rural areas as the Mission is one of its flagship initiatives.

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

- Increased societal awareness on the importance of soil and the challenges it faces and of the impact of individual decisions (like housing, food and transport behaviour) on soils. This is manifested by an increased engagement in the protection and restoration of soil health.

- Opportunities for engaging in creative ways in soil protection are widely available and supported by soil-related arts products and innovative methodologies (including digital ones, but not limited to these).

- Cultural and creative industries (CCIs), artists and civil society organisations are mobilised and work together alongside with universities, research institutes and public institutions and citizens to increase soil literacy in society.

- Increased capacity of public and private institutions at different levels (e.g. European, national, regional and local) to engage with the wide public in creative ways to promote sustainable soil management.

The cultural and creative sectors were particularly affected during the COVID-19 crisis, but they are considered to be "a significant driver of local development through job creation and income generation, and generate important spillovers to the wider economy" as well as to the society.

CCIs, artists and civil society organisations can play a significant role in promoting a green transition by engaging people and giving visibility to environmental issues. Working together with soil experts, they can contribute to increasing soil literacy by mobilising the population in the protection and restoration of soil health as well as by tackling soil challenges through creative activities.

With regard to soil health, CCIs, artists and civil society organisations have a major role to play in acting as ambassadors and giving visibility to soil related challenges. They are key for raising awareness, for example on the importance of soil and its functions for society (e.g. documentaries, communication campaigns, podcasts, music, artistic performances, exhibitions, literary arts, etc.), and for inspiring and engaging people to take part in a broader debate and in taking actions, including through innovative methodologies and tools, arts and participatory processes. Arts and other creative forms of engagement have shown to be able to mobilise people that would otherwise not easily connect to more scientific or technical information on soils. Existing examples include initiatives to raise awareness on soils in schools by painting with earth colours or citizen projects on collective composting and urban gardening or the production of documentaries and exhibitions for the general public.

Various and innovative methodologies and tools to increase citizens' awareness and engagement should be tested in different contexts to reach and involve a large number of people with the overall scope of increasing soil literacy across society. An increased societal awareness of the importance of soil and of the challenges it faces should lead to a better protection and restoration of this precious resource across Europe and possibly beyond.

The successful proposal should:

- Establish a network of relevant actors (e.g. artists, soil scientists, researchers, communication and engagement experts, public authorities including local administrations) and projects around art, humanities, cultural and creative industries. The network should carry-out a range of activities and campaigns to elevate the importance and value of soils in the context of citizen's lives and increase people's awareness (both as citizens and professionals) on soils, as well as ensure meaningful citizens' engagement.

- While including relevant actors as beneficiaries from the beginning, the network should gradually expand during the lifetime of the project its activities by providing financial support to third parties. This financial support should be used to fund smaller projects or initiatives (being either transnational, regional or local ones) that contribute to increasing soil literacy across society. In selecting the projects, the consortium should take into consideration quality, geographical balance and coverage aiming at covering a range of Member States and Associated Countries, and include a variety of territories ensuring that both rural and urban areas are covered. The selection process for these projects will be based on principles of transparency, fairness and objectivity.

- Coordinate, monitor (with appropriate indicators and KPIs) and evaluate the actions of the projects and initiatives from third parties receiving financial support. It should also scale up successful initiatives and contribute to the implementation of the third-party activities, in particular in view of supporting innovative communication campaigns and building capacities for interacting with policy makers at different levels on how to best engage people from all walks of life in the protection and restoration of soil health.

- Design and provide tools and material as well as build capacities and skills for supporting public and private institutions at different levels (e.g. European, national, regional and local) in their activities to engage with citizens in creative ways in the protection and restoration of soil health.

- Organise regular festivals (at least two) open to the public with the participation of the projects and initiatives financed through the financial support to third parties to present activities aimed at increasing soil literacy across society to a broader audience. The festival should give visibility to exemplary projects in particular areas, for example (but not exclusively) through awards. In the organisation of the festival, the proposal should consider accessibility, inclusiveness and sustainability. The proposal should also include a long-term plan to ensure the continuity of the festival beyond the life of the Horizon Europe funded project.

The projects and initiatives financed through the financial support to third parties should:

- Run innovative communication campaigns through different tools (e.g. social media, magazines, podcasts, posters, arts, movies, documentaries) to raise awareness on the importance of soil. Furthermore, selected projects should engage with citizens by proposing hand-on activities on proven sustainable practices for soil protection and management. The campaigns should highlight the relevance that soil has in people's daily lives and link it with people's values. They should also lift the public profile of the Mission 'A Soil Deal for Europe' and promote its eight specific objectives.

- Organise and promote artistic, soil-related activities that target and/or involve the public, such as cultural/arts events, exhibitions, and creative workshops that have at their centre the importance of soils.

- Engage citizens in the protection and preservation of soil as well as in tackling soil challenges (including the ones addressed by the specific objectives of the Soil Deal Mission), through innovative, participatory and creative methodologies (e.g. by applying arts-based methods for transformative engagement, citizen assemblies and collaborative projects (e.g. on composting, greening cities and reducing soil sealing, avoiding soil pollution, promoting soil biodiversity).

The financial support to third parties will provide funding of up to 150 000 € per project or initiative. While a substantial amount of the total budget should be allocated to third parties, the support should not exceed 40%.

Proposals must implement the multi-actor approach and involve a wide range of actors (including the end-users), such as artists, cultural and creative industries, civil society organisations, citizen engagement experts and public authorities, along with soil scientists.

Proposals under this topic should include social sciences and humanities (SSH) disciplines (e.g. behavioural sciences, communication, and arts).

They should demonstrate a comprehensive strategy to deal with issues of multilingualism when implementing the project to ensure effective outreach.

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

Proposals should create synergies with projects funded under the topics HORIZON-MISS-2021-SOIL-02-06 "Engage with and activate municipalities and regions to protect and restore soil health" and HORIZON-MISS-2022-SOIL-01-07 "Foster soil education across society". Proposals are also encouraged to create synergies with relevant activities supported under the Creative Europe programme.

Legal entities established in non-associated third countries may exceptionally participate in this Coordination and Support action, as the collaboration with international experts in the fields relevant for this topic (from soil science to art, culture, communication and public engagement) can contribute to achieve the expected outcomes beyond the European territory.

International organisations with headquarters in a Member State or associated country are exceptionally eligible for funding such as the United Nations Educational, Scientific and Cultural Organization (UNESCO), due to its role in advancing international cooperation in the areas of education, sciences and culture.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2023-soil-01-07;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Discovering the subsoil, deadline: 20. September 2023 17:00 Brussels time

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Activities under this topic will help to progress towards the objectives of the Mission 'A Soil Deal for Europe´, in particular towards its specific objectives 2 "Conserve and increase soil organic carbon stocks" and 6 "Improve soil structure to enhance habitat quality for soil biota and crops". Activities should also contribute to the EU Soil Strategy and to the Long-term vision for EU's rural areas, as the Mission is one of its flagship initiatives.

Project results should contribute to all of the following outcomes:

- Improved access for land managers and public authorities to data and knowledge on the spatial variations of the chemical, physical and biological conditions and dynamics in subsoils. This should support the development of sustainable soil management practices as well as financial and policy incentives.

- Accelerated deployment of sustainable management practices for protecting and restoring subsoils in agricultural, forest and other types of soils, and increasing relevant soil-dependent ecosystem services such as the provision of food and fibre or habitats for soil biodiversity.

- Improved understanding of the role of the subsoil in climate change adaptation and mitigation, e.g. regarding carbon and water storage.

The term "subsoil" refers to the horizons immediately below the topsoil. In the past, this layer has often been neglected as most land management practices (e.g. tillage, cover crops, forestry) are focused on the topsoil. Our understanding of subsoil issues (e.g. compaction and its persistence) in semi-natural environments (e.g. heathlands, peatlands, natural grassland) is even less developed than for agricultural and forestry subsoils. Spatial datasets on soils at both national and EU-scale have also mostly focused on topsoils.

The subsoil can have a large impact on soil's potential for productivity and the supply of ecosystem services. It is estimated, for example, that plants extract between 10 and 80% of their nutrient and water requirements from the subsoil. Carbon sequestered in subsoils generally contributes to more than half of the total stocks within a soil profile. In contrast to topsoil, organic matter stored in subsoil horizons is characterised by high mean residence times. Conversely, subsoil degradation (e.g. through compaction, pollution, salinization) may limit root penetration, reduce nutrient uptake and result in plants becoming increasingly susceptible to stress such as from pests and diseases or drought and floods. Reduced water infiltration in subsoils limits plant growth, while increasing surface water runoff and the risk of soil erosion. Timber-related activities in forests, for example, can also cause considerable soil compaction leading to a decrease in productivity of forests due to increased surface water runoff and erosion.

Activities under this topic should improve our understanding and knowledge of the links between the subsoil and ecosystem services, and they should promote practices that enhance the health status of subsoils in agriculture, forestry and urban areas, as well as in sites of nature conservation and sensitive landscapes.

Proposed activities should:

- Increase knowledge on the properties (e.g. soil structure) as well as chemical, physical and biological process dynamics and their relationships in subsoils, and how these contribute to overall soil health and the delivery of ecosystem services such as carbon storage and greenhouse gas (GHG) mitigation, water retention, nutrient provision, crop productivity, and habitat for soil biodiversity. Amongst others, activities should explore the potential of modelling to help capturing the complexity of processes and dynamics in subsoils.

- Identify pressures on the subsoil that impair a range of soil functions and ecosystem services, as well as drivers for subsoil degradation.

- Identify indicators to assess subsoil driven changes in soil ecosystem functioning.

- Identify the potential of subsoils to store and maintain carbon, and to contribute to mitigating other GHG (e.g. N_2O) emissions. Work should take into account potential barriers and the synergies and trade-offs between climate regulation and other ecosystem services, such as the support to biodiversity. Consideration should be given to existing and future land use options.

- Identify existing as well as develop and test sustainable management practices to improve the conditions and functions of subsoils (e.g. water retention, nutrient provision, habitat for soil biodiversity, carbon storage). Activities should be undertaken in close cooperation with land managers and allow for wide demonstration and dissemination of practices.

- Develop tools and methods for risk assessment as regards subsoil degradation, reflecting diverse soil uses. Demonstrate practical approaches for the use of these tools and methods by land managers and policy-decision makers.

- Establish robust methods to spatially assess and monitor the chemical, physical and biological characteristics of subsoils and to improve data collection and use. For this, sampling methods for subsoil should be harmonised in order to provide comparable and reliable data. The long-term storage and access to subsoil data should be done in close collaboration with the European Soil Observatory (EUSO).

In carrying out activities, proposals should consider various soil types and land uses and climatic/biogeographical regions in the EU and Associated Countries. With regard to agriculture, work should draw on sustainable practices, applied across a range of farming systems and benefit both conventional and organic farming. The proposals selected under this topic should dedicate the necessary resources to work closely together and maximise synergies.

Activities should be undertaken in close cooperation with the European Commission's Joint Research Centre (JRC). The cooperation with the JRC is particularly relevant for further developing the LUCAS Soil survey and the Soil Health Dashboard under the European Soil Observatory (EUSO). Proposals should demonstrate a route towards open access, longevity, sustainability and interoperability of knowledge and outputs, amongst others through close collaboration with the EUSO. Potentially, the projects funded under this topic could also cooperate with living labs and lighthouses that will be created in this and future calls of the Mission 'A Soil Deal for Europe'.

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

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2023-soil-01-01;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Soil-friendly practices in horticulture, including alternative growing media, deadline: 20. September 2023 17:00 Brussels time

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Activities under this topic will help to progress towards the objectives of the Mission 'A Soil Deal for Europe', in particular its specific objectives 2 "Conserve and increase soil organic carbon stocks", 4 "Reduce soil pollution and enhance restoration" and 6 "Improve soil structure to enhance habitat quality for soil biota and crops". Activities should also contribute to EU climate action and to other policies in the framework of the European Green Deal, such as the Organic Action Plan, the Biodiversity Strategy for 2030 and the proposed Nature Restoration Law.

Project results should contribute to all of the following outcomes:

- Reduced carbon and overall environmental footprint of the horticultural sector and more sustainable production systems, reducing negative impacts on soil health throughout the value chain.

- Novel products (e.g. alternative potting and soil-improving materials), production processes and management options for soil management are developed and tested and show improved environmental, social, health and safety performance, as demonstrated through improved testing and validation methods throughout the entire life cycle.

- Sustainable alternatives to peat are more widely available and used in conventional and organic horticulture.

- Policy measures and other incentives have been explored and elaborated to further the uptake of sustainable alternatives to peat.

Practices in horticulture can affect soil health and related ecosystem services at different points in the value chain, for example at production sites as well as further upstream. Within horticultural production systems, soils are often subjected to particularly intensive use, which can cause among others soil compaction, soil pollution (e.g. excess nutrients, pesticides or microplastics), and salinization as a consequence of intensive irrigation. Peat is commonly used in nurseries, greenhouses and amateur horticulture as a growing medium and for soil improvement, as it has an excellent water retention capacity, is highly fertile due to the reduced leaching of nutrients and can improve the soil buffering capacity. The extraction of natural peat, however, is highly contentious as the disturbance of peatlands leads to habitat loss, soil degradation, CO_2 emissions and increased flood risks. Therefore, sustainable alternatives to natural peat are required. While various peat-free or peat-reduced growing media have become more widely available in recent years, their performance with regard to environmental and other relevant criteria remains difficult to assess.

Proposed activities should:

- Identify, develop and promote horticultural practices and production systems that conserve or improve soil health. This should include alternative materials to be used as sustainable substitutes for peat as substrate or soil improver in organic and conventional horticulture, with the aim of attenuating soil stress and strengthening ecosystem services.

- Demonstrate the feasibility and economic viability of the newly developed alternatives to the use of peat in horticulture. This should be done in accordance with relevant EU regulatory frameworks related to their placing on the market.

- Generate data to support improved environmental, social, health and safety performance of alternative growing media in a life-cycle perspective and taking into account potential trade-offs and indirect consequences, including outside of the EU, where relevant.

- Develop and/or improve sustainable management practices in horticulture (including digital technologies and infrastructures) to reduce the use of inputs such as plant protection products, fertilizers and water in horticultural crops. Measures should also contribute to improving soil structure and mitigating soil compaction. Where applicable, practices should cover both protected (greenhouses and tunnels) and open field systems.

- Identify and analyse barriers (economic, social or regulatory) that may hinder the uptake of the proposed soil-friendly practices by professional producers as well as by private consumers in amateur horticulture, and where relevant suggest suitable measures to overcome the identified obstacles.

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

In this topic the multi-actor approach has to be implemented by involving a wide range of stakeholders (e.g. industry including SMEs, public authorities, research centres, public and private investors, civil society) to co-create sustainable solutions and increase opportunities for them to be scaled up. The topic should involve the effective contribution of SSH disciplines.

The proposals selected under this topic should dedicate the necessary resources to work closely together to maximise synergies. Proposals should demonstrate a route towards open access, longevity, sustainability and interoperability of knowledge and outputs through close collaboration with the EU Soil Observatory and other projects funded under the Mission ‘A Soil Deal for Europe’. Furthermore, proposals should take into account and build on outputs from other relevant projects such as e.g. EXCALIBUR.

Potentially, the projects funded under this topic could also cooperate with living labs and lighthouses that will be created in this call or future calls of the Mission ‘A Soil Deal for Europe’.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2023-soil-01-05;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Soils in spatial planning, deadline: 20. September 2023 17:00 Brussels time

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Activities under this topic will support a more structured approach to sustainable land management in line with global commitments for land degradation neutrality and EU efforts for a balanced development of the EU territory. This will help to sustain ecosystems in rural and urban areas, as aimed for in the EU Long-term Vision for Rural Areas and other EU Green Deal strategies. Activities will in particular contribute to the implementation of the roadmap towards no net land take and reduced soil degradation as defined under the EU Soil Strategy.

Project results should contribute to all of the following outcomes:

- The value of soil functions and ecosystem services provided by soils is more systematically recognised and integrated in spatial planning and land use decisions in urban and rural areas, due to increased awareness of spatial planning authorities on the importance of soil functions and soil health overall. Therefore, the various societal demands for land are more easily reconciled.

- Municipalities and public authorities have information, data and planning tools at hand to develop and implement (participatory) strategies for more adaptive land management in accordance with land neutrality targets (no net land take by 2050). This will allow increasing land use efficiency, reducing soil sealing and applying the principles of the “land take hierarchy”.

- Spatial plans promote the use of nature-based solutions to support soil functions and the provision of ecosystem services, in particular on currently sealed areas.

- Approaches for rezoning, restoration and de-sealing are available and applied for building land and infrastructure which is no longer in use or to be reused.

Land is a limited resource and needs to be managed carefully to meet the various, sometimes conflicting societal demands on land and soil. These demands arise e.g. from urbanisation, food/biomass production and environmental protection. Inadequate practices in land management and in land use planning are main drivers of land degradation and result in the loss of important

soil functions. In urban areas for example, soil sealing leads to reduced evaporation and infiltration of water into the soil. As a consequence, the risk of floods and heat waves in cities increases significantly. In rural areas, fragmented landscapes lead to a loss of habitats for species and to reduced capacities of soils to perform important functions such as water regulation or carbon storage. At the same time, pressures on rural housing, such as in the aftermath of COVID-19, also call for adequate planning to ensure that soil and land management addresses the manifold needs of rural populations. Spatial planning has a considerable role to play when it comes to steering a more balanced and sustainable use of land and ensuring that net land take is reduced, in particular if applying the principles of a “land take hierarchy”.

Activities under this topic should identify mechanisms and highlight associated benefits that accrue from the increased consideration of soil functions by the spatial planning sector, both in urban and rural environments.

Proposed activities should:

- Undertake a systematic review and analysis of how soils, their functions and ecosystem services as well as soil threats are considered in the various levels of spatial planning systems in the EU and Associated Countries.

- Improve the knowledge on potential trade-offs regarding the provision of ecosystem services in the context of further expanding urban, peri-urban and rural areas.

- Identify good planning practices that integrate soils and their ecosystem services into spatial planning and show the impact of these practices on actual land use in urban and rural areas such as on: land take, the re-use of land, restoration, de-sealing and the support to soil functions. In addition to examples from Member States and Associated Countries, good experiences from Third Countries could be highlighted as well. Due attention shall be given to examples promoting soil functions and reducing soil sealing through nature-based solutions.

- Work together with public authorities to develop strategies for zero net land take by 2050 and provide practical recommendations for a better integration of soils into existing spatial planning practices, taking into account synergies with the management of other resources such as water. Activities should identify the main bottlenecks for the adoption of planning systems, which are based on a more integrated, sustainable, and resource efficient use of land.

- Provide opportunities for training and skill development of planners as well as for the exchange of experiences (e.g. events, information tools) between the various actors involved in (participatory) planning processes and land use decisions at various levels.

- Improve the tools as well as the data and information basis (including maps) available to spatial planners and decision-makers regarding soil functions and ecosystem services.

The selected project(s) should liaise with the Joint Research Centre to make sure that relevant data, maps and information can potentially be used and displayed by the European Soil Observatory.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2023-soil-01-06;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Carbon farming in living labs, deadline: 20. September 2023 17:00 Brussels time

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Activities under this topic respond directly to the goal of the Mission ‘A Soil Deal for Europe’ of setting up 100 living labs by 2027 to lead the transition to healthy soils by 2030. In particular, it supports the Mission’s specific objective 2, “Conserve and increase soil organic carbon stocks”.

Activities should also contribute to meeting the European Green Deal ambitions and targets and more specifically those of the Farm to Fork Strategy, of the Commission’s Communication on Sustainable Carbon Cycles and of the upcoming regulatory proposal on the certification of carbon removals, as well as to Sustainable Development Goal (SDG) 13 on climate action. Activities performed within living labs will also support the Long Term Vision for EU’s Rural Areas (LTVRA).

In its 2021 Communication on Sustainable Carbon Cycles, the Commission sets out how to increase removals of carbon from the atmosphere, including by upscaling carbon farming to store more carbon in nature. Research and innovation will also contribute to this goal, providing further solutions to farmers and foresters. Measures to achieve this goal include: standardising the monitoring, reporting and verification methodologies needed to provide a clear and reliable certification framework for carbon farming, allowing for developing voluntary carbon markets; and provide improved knowledge, data management and tailored advisory services to land managers.

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

- Increased carbon sequestration and protection of carbon in soils, living biomass and dead organic matter, with environmental co-benefits safeguarded or enhanced, in different regions within the EU and Associated Countries where the selected living labs are operating.

- Increased capacities for participatory, interdisciplinary and transdisciplinary R&I approaches, allowing for effective cooperation between research, practice and policy, to tackle carbon farming challenges.

- Practice-oriented knowledge and tools are more easily available to land managers and contribute to an enhanced uptake of carbon farming.

- Strengthened collaborations between actors across territories and sectors as well as increased consideration of effective solutions for carbon farming in regions where the selected living labs are operating.

- Policy-makers in the EU and Associated Countries are more aware of local needs with regard to carbon farming and can use knowledge to design and implement more effective policies.

Carbon farming can be defined as a green business model that rewards land managers for taking up improved land management practices, resulting in the increase of carbon sequestration in living biomass, dead organic matter and soils by enhancing carbon capture and/or reducing the release of carbon to the atmosphere, in respect of ecological principles favourable to biodiversity and the natural capital overall.

More research is still needed to increase removals of carbon from the atmosphere and achieve the EU's legally binding commitment to become climate neutral by 2050, as well as to close the gap between science and practice, between knowledge and implementation. The Mission ‘A Soil Deal for Europe’ proposes a novel approach to research and innovation in the area of soil health, including the implementation of living labs. Living labs have the potential to empower a green transition towards healthy soils by developing solutions in a co-creative manner, involving actors in real-life settings at territorial level to achieve large-scale impacts.

Nowadays, there exist various definitions and conceptualizations of living labs. However, three components are recognizable within the now well-established living labs research concept, which include (a) co-creation with a large set of stakeholders, (b) in real-life sites and (c) involving the end-user. For the purpose of the Mission ‘A Soil Deal for Europe’, “Soil health living labs” are defined as “user-centred, place-based and transdisciplinary research and innovation ecosystems, which involve land managers, scientists and other relevant partners in systemic research and co-design, testing, monitoring and evaluation of solutions, in real-life settings, to improve their effectiveness for soil health and accelerate adoption”.

Living labs are collaborations between multiple partners that operate and undertake experiments on several sites at regional or sub-regional level. Individual sites could be e.g. farms, forest stands, urban green or industrial areas, enterprises and other entities, where the work is carried-out and monitored under real-life conditions regardless of the land size, tenure (land ownerships) or the type of economic activity.

Lighthouses in contrast are defined as “places for demonstration of solutions, training and communication that are exemplary in their performance in terms of soil health improvement”. They are individual, local sites (one farm, one forest exploitation, one industrial site, one urban city green area, etc.) that can either be part of a living lab or be situated outside a living lab.

According to the Mission Implementation Plan, living labs involve partners from different backgrounds, disciplines and/or sectors and are composed of 10 to 20 experimental sites. However, depending on the specific context (e.g. the land use(s)), applicants can propose living labs with fewer experimental sites. By working together in a carbon farming living lab, the various partners involved will be able to replicate actions and solutions, compare results, exchange good practices, validate methodologies and benefit from cross-fertilisation within a local/regional setting.

More specifically, the funded project(s) should:

- Set up four to five living labs (or more, as applicable to the land use(s) and purpose of the project) to work together on carbon farming, covering one or several land use types. The living labs shall be located in at least three different Member States and/or Associated Countries. Proposals should describe the rationale for cooperation across the various living labs and explain how the work undertaken will contribute to the Mission’s specific objective 2.

- Establish, based on the goals and objectives of the project(s), a detailed work plan with the activities to be undertaken in an interdisciplinary way, ensuring the co-design, co-development, and co-implementation of locally adapted solutions.

- Carry out participatory and transdisciplinary research and innovation in living labs in view of seeking practical solutions to carbon farming challenges, taking into account the relevant drivers and pressures. Moreover, challenges to the scaling up and the transferability of solutions should be addressed. Proposed strategies and solutions should be adapted to the different environmental, socio-economic and cultural contexts in which the living labs are operating. Living labs working in the area of agriculture are expected to address sustainable practices, applied across a range of farming systems, and benefit both conventional and organic farming.

- Identify sites that demonstrate high performance in terms of their actions and results on carbon farming and that may be converted into lighthouses.

- Establish for each living lab a baseline for carbon farming, in order to allow for an accurate assessment of the conditions and changes of soils in the different sites over time, and a clear monitoring of progress towards the objectives of the respective living lab and of the project overall. The funded project(s) should make use of relevant accounting methodologies for quantification of carbon removals, addressing the durability, additionality and environmental safeguards/co-benefits of carbon farming. They should work closely with the European Commission's Joint Research Centre (JRC) to contribute to the JRC's efforts on soil monitoring and the development of the European Union Soil Observatory (EUSO).

- Monitor and carry out an assessment of the innovative practices for carbon farming, taking into account the effects of ongoing climate change on carbon sequestration potential and dynamics. This should include a demonstration of the viability of the proposed solutions. Propose strategies (e.g. financial, organisational) to ensure long-term sustainability and continuity of the living labs beyond the Horizon Europe funding, including through identification of possible business models and actions involving local authorities, business communities, SMEs, investors, entrepreneurs, etc.

- Document in an easy and accessible way the newly developed solutions in order to facilitate their uptake by land managers and transmit the acquired knowledge to all relevant actors.

In line with the nature of living labs, proposals must implement the multi-actor approach. The list of stakeholders will vary depending on features specific to each living lab and can involve different types of actors such as researchers, land owners or land managers, industry (incl. SMEs), public administrations, representatives of civil society (e.g. consumers, environmental NGOs). Care should be taken to describe the capabilities and roles of the different partners involved in the project and their areas of expertise. For example, while some partners may lead the conceptual work and coordinate the work within and across living labs, others may focus on carrying out experiments, providing advice, testing and validating innovative solutions, or be involved in outreach activities.

To encourage and facilitate the involvement of different types of actors in the living labs, applicants are reminded of the different types of participation possible under Horizon Europe. This includes not only beneficiaries (or their affiliated entities) but also associated partners, third parties giving in-kind contributions, subcontractors and recipients of financial support to third parties.

Proposals may provide for financial support to third parties (FSTP) to implement one or more of the living lab activities described in this topic further to calls or, if duly justified, without a call for proposals. Applicants are reminded to consult the standard conditions for "financial support to third parties" set out in Annex B of the General Annexes including those that apply to FSTP calls.

Proposals should include a dedicated task, and appropriate resources, on how they will collaborate with projects funded under other Work Programme topics of the Mission 'A Soil Deal for Europe' which are relevant to carbon farming and related challenges (such as, but not limited to, HORIZON-MISS-2022-SOIL-01-06: Network on carbon farming for agricultural and forest soils). In addition, proposals should seek synergies with projects PREPSOIL, NATI00NS and NBSSOIL. Additionally, projects should cooperate with and benefit from the services of a dedicated 'Living Lab Support Structure' to be established by the Specific Grant Agreement under this Work Programme.

Cooperation with relevant networks active at local level, such as EIP-AGRI operational groups, is encouraged, in order to promote the involvement of key local stakeholders in living labs' activities or in the dissemination of solutions. The project should also build on other existing activities and ensure cooperation with relevant projects and partnerships, such as EIT Knowledge and Innovation Communities (EIT KICs), in particular EIT Food and its regenerative agriculture activities, or the 'European partnership on accelerating farming systems transition: Agroecology living labs and research infrastructures' which will also support living labs.

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

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2023-soil-01-09;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Co-creating solutions for soil health in Living Labs, deadline: 20. September 2023 17:00 Brussels time

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Activities under this topic respond directly to the goal of the Mission 'A Soil Deal for Europe' of setting up 100 living labs to lead the transition to healthy soils by 2030. They support the specific objectives of the Mission 'A Soil Deal for Europe' dealing with urgent soil health challenges (see in particular specific objectives 1 to 6 and 8). Activities should thereby contribute to meeting

the European Green Deal ambitions and targets, such as those related to food and nutrition security, climate, biodiversity, environment and rural areas.

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

- Living labs across Europe are fully operational and have established themselves as places for co-creation and testing of solutions for soil health in rural and urban areas.

- Increased capacities for participatory, interdisciplinary and transdisciplinary R&I approaches, allowing for effective cooperation between research, practice and policy to tackle soil health challenges.

- Practice oriented knowledge and tools are more easily available to land managers and contribute to an enhanced uptake of solutions for soil health and related ecosystem services.

- Strengthened collaborations between actors across territories and sectors and increased consideration of effective solutions for soil health in regions where the selected living labs are operating.

- Policy makers in the EU and Associated Countries are more aware of local needs with regard to soil health and can use this knowledge to design more effective policies.

While more research is needed to restore and maintain healthy soils in the EU, an important barrier still encountered to accelerate the transition towards a climate-neutral and green European Union is the gap between science and practice, between knowledge and implementation. The Mission 'A Soil Deal for Europe' proposes a novel approach to research and innovation in the area of soil health, including the implementation of living labs. Living labs have the potential to empower a green transition towards healthy soils by developing solutions in a co-creative manner and involving actors in real life settings at territorial level to achieve large-scale impact.

Nowadays, there exist various definitions and conceptualizations of living labs. However, three components are recognizable within the now well-established living labs research concept, which include (a) co-creation with a large set of stakeholders, (b) carried out in real-life settings and (c) involving the end-users. For the purpose of the Mission 'A Soil Deal for Europe', Soil health living labs are defined as "user-centred, place-based and transdisciplinary research and innovation ecosystems, which involve land managers, scientists and other relevant partners in systemic research and co-design, testing, monitoring and evaluation of solutions, in real-life settings, to improve their effectiveness for soil health and accelerate adoption".

Living labs are collaborations between multiple partners that operate and undertake experiments on several sites at regional or sub-regional level. Individual sites could be e.g. farms, forest stands, urban green or industrial areas, enterprises and other entities, where the work is carried-out and monitored under real-life conditions, regardless of the land size, tenure (land ownerships) or the type of economic activity.

Lighthouses, in contrast, are defined as "places for demonstration of solutions, training and communication that are exemplary in their performance in terms of soil health improvement". They are individual, local sites (one farm, one forest exploitation, one industrial site, one urban city green area, etc.) that either can be part of a living lab or be situated outside a living lab.

According to the Mission Implementation Plan, living labs involve partners from different backgrounds, disciplines and/or sectors and are composed of 10 to 20 experimental sites. However, depending on the specific context (e.g. the land use(s), the soil health challenge(s) addressed), applicants can propose living labs with fewer experimental sites. By working together on themes of common interest, the various partners involved in a living lab will be able to replicate actions and solutions, compare results, exchange good practices, validate methodologies and benefit from cross-fertilisation within a local/regional setting.

More specifically, each of the funded projects should:

- Set up four to five living labs (or more, as applicable to the land use(s) and purpose of the project) to work together on thematically related soil health challenges, addressing the same or several land use types. The living labs should be located in at least three different Member States and/or Associated Countries. Proposals should describe the rationale for cooperation across the various living labs and explain how the work undertaken will contribute to one or more of the Mission's specific objectives. Living labs on carbon farming are excluded from this topic as a dedicated topic for carbon farming living labs is opened in this work programme.

- Establish, based on the projects' goals and objectives, a detailed work plan with the activities to be undertaken in an interdisciplinary way, ensuring the co-design, co-development, and co-implementation of locally adapted solutions.

- Carry out participatory and transdisciplinary research and innovation in living labs to seek practical solutions to problems/challenges identified, taking into account the relevant drivers and pressures. Moreover, activities should address challenges to the scaling up and the transferability of solutions. Proposed strategies and solutions should be adapted to the different environmental, socio-economic and cultural contexts in which the living labs are operating. Living labs working in the area of agriculture are expected to promote sustainable practices, applied across a range of farming systems and benefit both conventional and organic farming.

- Identify sites that demonstrate high performance in terms of their actions and results on soil health improvement and that may be converted into lighthouses.

- Establish for each living lab a baseline for the selected soil health challenge(s), in order to allow for an accurate assessment of the conditions and changes of soils in the different sites over time and for monitoring of progress towards the objectives of the respective living labs and the project overall. As appropriate, make use of the set of soil health indicators presented in the Soil Mission Implementation Plan. To this end, funded projects should work closely with the European Commission's Joint Research Centre (JRC) to contribute to their efforts on soil monitoring and the development of the European Union Soil Observatory (EUSO).

- Monitor and carry out an assessment of the effects of the developed innovative practices or introduced solutions on soil health and related ecosystem services. This should include a demonstration of the viability (e.g. technical, economic) of the proposed solutions.

- Propose strategies (e.g. financial, organisational) to ensure long-term sustainability and continuity of the living labs beyond the Horizon Europe funding, including the identification of possible business models and actions involving local authorities, business communities, SMEs, investors, entrepreneurs.

- Document in an easy and accessible way the developed solutions in order to facilitate their uptake by land managers and transmit the acquired knowledge to relevant actors.

In line with the nature of living labs, proposals must implement the multi-actor approach. The list of stakeholders will vary depending on features specific to each living lab and can involve different types of actors such as researchers, land owners or land managers, industry (e.g. SMEs), public administrations, representatives of civil society (e.g. consumers, environmental NGOs). Care should be taken to describe the capabilities and roles of the different partners involved in the project, depending on their area of expertise. For example, while some partners may lead the conceptual work and coordinate the work within and across living labs, others may focus on carrying-out experiments, providing advice, testing and validating innovative solutions, or be involved in outreach activities.

To encourage and facilitate the involvement of different types of actors in the living labs, applicants are reminded of the different types of participation possible under Horizon Europe: This includes not only beneficiaries (or their affiliated entities) but also associated partners, third parties giving in-kind contributions, subcontractors and recipients of financial support to third parties.

Proposals may provide for financial support to third parties (FSTP) to implement one or more of the living lab activities described in this topic further to calls or, if duly justified, without a call for proposals. Applicants are reminded to consult the standard conditions for "financial support to third parties" set out in Annex B of the General Annexes including those that apply to FSTP calls.

Proposals should include a dedicated task and appropriate resources to collaborate with other Living Lab projects funded under this topic as well as with projects funded under other Work Programme topics of the Mission 'A Soil Deal for Europe' which are relevant to the chosen soil health challenge(s). In addition, proposals should seek for synergies with projects PREPSOIL, NATI00NS and NBSSOIL. Additionally, projects should cooperate and benefit from the services of a dedicated 'Living Lab Support Structure' to be established by the Specific Grant Agreement under this Work Programme.

Cooperation with relevant networks active at local level, such as EIP-AGRI operational groups, is encouraged in order to promote the involvement of key local stakeholders in living labs activities or in the dissemination of solutions. The projects should also build on other existing activities and ensure cooperation with relevant projects and partnerships, such as EIT Knowledge and Innovation Communities (EIT KICs) or the 'European partnership on accelerating farming systems transition: Agroecology living labs and research infrastructures', which will also support living labs.

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

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2023-soil-01-08;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Soil pollution processes – modelling and inclusion in advanced digital decision-support tools, deadline: 20. September 2023 17:00 Brussels time

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Activities under this topic will help to progress towards the objectives of the Mission 'A Soil Deal for Europe', in particular to its operational objective of building the knowledge base for soil health and its support to ecosystems services and its specific objective 4 "Reduce soil pollution and enhance restoration".

Project results should contribute to all of the following outcomes:

- Increased understanding of the impact of various types of soil pollution on soil processes, soil functions and related ecosystem services along with increased insight into how soil pollution responds to different land-uses and soil-management practices, restoration mechanisms, emission controls, climate extremes, drying-rewetting cycles and land cover dynamics at various scales.

- Enhanced access to soil relevant knowledge and data for a wide range of stakeholders that can inform practices and policies for reduced levels of pollution, enhanced take up of sustainable soil management practices and restoration of polluted soils, especially those with high risk to human health and environmental wellbeing.

- Enhanced capacities are in place to integrate diverse data streams (including from Earth Observation), to model and predict soil-related processes and their interactions with soil pollutants, and ultimately to demonstrate the effectiveness of policy measures (for air, water, soils) and their impact on soils.

- Data and tools available can feed effectively and further advance the “Destination Earth” initiative.

Depending on the scale, severity and type of contamination, pollutants can have a detrimental effect on soils by altering underlying chemical, physical and biological processes. Examples of common soil pollutants include heavy metals, persistent organic pollutants, pesticides, microplastics and emerging pollutants like pharmaceutical and personal care products. In agriculture, soil pollution has severe consequences with regard to food safety.

The capacity to carry out a comprehensive scenario analysis at EU level on the impact of key drivers on soil pollution (e.g. societal behaviour, changes in emissions, climate, land management practices) is currently lacking. Soil-oriented fate and transport models exist for certain pollutants (e.g. pesticides, radionuclides, nutrients, metals) but they are generally not integrated with each other, often lack a temporal capacity, and do not always provide a quantification of actual risk to human and environmental health. Models that address the extent, fate, and transport, of emerging contaminants (e.g. microplastics, pharmaceuticals, PFAS) are even scarcer.

In addition, environmental pollution modelling is also often compartmentalized despite a clear understanding that soil can be both a recipient of atmospheric deposition (e.g. nitrogen and sulphur) and a source of atmospheric pollutants and greenhouse gases (e.g. N_2O, NH_4, CO_2, dust, nutrients). While also acting as a buffer to water bodies from pollutants, soils can be at the origin of some of the main problems affecting terrestrial ecosystems, freshwater and marine ecosystems (e.g. nitrification, eutrophication, pesticides, in both water column and sediment) as well as compromise the production of safe food and human health. Currently, there is no integrated modelling system that seamlessly links all three environmental compartments (soil, air, water). In addition there is a clear need to demonstrate that policy measures that affect air quality or industrial emissions can, over time, have a positive impact also on soils and water bodies.

Proposed activities should:

- Integrate and improve existing models and develop and test new models of soil processes that allow for better and easier integration of and reduced uncertainty about soil-related processes (physical, chemical and biological), with a particular focus on different forms of pollution and with a view to its prevention and reduction.

- Integrate soil processes modelling for quantification of soil ecosystem services with assessments of threats from diverse pollution sources.

- Ensure inter-operability between existing databases and their integration into Destination Earth and the EU Soil Observatory.

- Develop specific use cases for soil modelling towards the integration of local sustainable soil management practices or catchment or field scale modelling. This includes for example, the role of water and wind erosion in the movement of pollutants, nutrient flows in the context of circular economy, interactions between surface-subsurface-groundwater-air components, and links with the objectives of the Oceans and Climate Missions.

- Develop scenarios based on integrated models that show a) how changes in land management practices can reduce soil pollution (and in consequence air and water pollution) and b) the effects of policies on land management practices that avoid/reduce soil pollution.

Projects funded under this topic should demonstrate a route towards open access, longevity, sustainability and interoperability of knowledge and project outputs through close collaboration with the Joint Research Centre and its EU Soil Observatory and take into account other relevant projects funded under the Mission ‘A Soil Deal for Europe’ (e.g. projects funded under the topic HORIZON-MISS-2022-SOIL-01-04: Remediation strategies, methods and financial models for decontamination and reuse of land in urban and rural areas and HORIZON-MISS-2023-SOIL-01-01: Discovering the subsoil) and Destination Earth.

The proposals selected under this topic should dedicate the necessary resources to work closely together to maximise synergies and minimise overlaps. Furthermore, coordination with the successful proposals under topic HORIZON-CL3-2024-DRS-01-0201: ‘Prevention, detection, response and mitigation of chemical, biological and radiological threats to agricultural production, forestry and to food processing, distribution and consumption’ should be envisaged to avoid duplication, and to exploit complementarities as well as opportunities for increased impact. To this end, proposals should foresee dedicated tasks and allocate appropriate resources.

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

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2023-soil-01-02;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Mission Ocean and Waters and Mission A Soil Deal for Europe – Joint demonstration of approaches and solutions to address nutrient pollution in the landscape-river-sea system in the Mediterranean sea basin, deadline: 20. September 2023 17:00 Brussels time

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This topic contributes to the implementation of the European Green Deal, the Farm to Fork Strategy, the Biodiversity Strategy for 2030, the Soil Strategy for 2030, the Bioeconomy Strategy and the EU Action Plan: 'Towards Zero Pollution for Air, Water and Soil'. It addresses the Mission 'A Soil Deal for Europe' specific objective 4 – reduce soil pollution and enhance restoration, targets T.4.2 – reducing fertiliser use by at least 20% and T.4.3 – reduce nutrient losses by at least 50%. It relates to the Mission Ocean and waters' objective 2 – prevent, minimize and remediate pollution of marine and freshwater ecosystems, which has a focus on the Mediterranean Sea basin. It also contributes to the objectives of the Marine Strategy Framework Directive (MSFD) and the Water Framework Directive (WFD) - including in terms of Good Environmental Status and restoration of aquatic ecosystems - and the Marine Spatial Planning Directive (MSPD).

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

- accelerated uptake of integrated innovative and reproducible approaches to prevent, minimise and remediate soil and water pollution from excess nutrients (especially nitrogen and phosphorus) in the landscape-river catchment-sea system and transition waters in the Mediterranean Sea basin;

- accelerated uptake of integrated innovative and reproducible approaches to reduce the use of fertilisers and to prevent, minimize and remediate nutrient pollution and reduce ocean and inland water eutrophication;

- foundations for future demonstration and upscaling activities on integrated innovative approaches to prevent, minimise and remediate soil and water pollution from excess nutrients, and to reduce the use of fertilisers, in 'associated regions';

- empowerment of citizens to take action against pollution of soils, waters and the ocean.

Soils are essential for all life-sustaining processes in our planet. If they are healthy and managed sustainably, they provide many benefits to people, nature and climate. However, 60-70% of soils in Europe are in an unhealthy condition. One of the reasons for poor soil health in Europe is the excess of nutrients (mainly nitrogen and phosphorus) due to an excess of fertiliser applications. The presence of nutrients in soil at concentrations higher than plant requirements not only reduces their capacity for providing their vital ecosystem services, but the nutrient runoff contaminates groundwater, streams, rivers, wetlands, lakes and seas, and increases the risk of water and ocean eutrophication. Addressing nutrient pollution is crucial to achieve the objectives of the Water Framework Directive, in particular in relation to nutrient losses in agriculture.

Consequently, proposals should demonstrate scalable breakthrough innovations (technological, business, social and governance) in the landscape-river catchment-sea system, including coastal ecosystems, in the Mediterranean Sea basin addressing all following issues:

- Upstream prevention and reduction of nutrient (especially nitrogen and phosphorus) losses from soil, and of soil and water pollution from excess nutrients, such as through reduction in the use of traditional/mineral fertilisers and/or their sustainable substitution with bio-based fertilisers, improved nutrient retention in soil and slower release to crops, improved nutrient use efficiency, integrated landscape and soil management, reduction of nutrient losses from rural and urban communities;

- Prevention of entry of nutrients in river catchment areas and their reduction, for example through improved wastewater treatment, use of green filters and other measures for reducing the flow of nutrients through the river system and prevention and reduction of their entry into the estuary/sea;

- Measures to reduce/eliminate excess nutrients in/from the estuary/sea to reduce or eliminate the risk of eutrophication.

Proposed solutions for pollution prevention, elimination and remediation should not increase the level of anthropogenic air emissions or underwater noise, or lead to other potential environmental impacts. Proposed solutions should be in line with the EU taxonomy regulation and delegated acts.

The consortium must carry out demonstration activities in 3 different Member States or Associated Countries of the Mediterranean basin, involving and including in the consortium partners from these respective countries. The demonstrations should be carried out at the level of territorial units, such as a rural area, an urban community, a region, a river basin or an estuary, to show effectiveness of the demonstrated solutions.

The demonstration of solutions should be fully adapted to the local conditions for reduction of use of fertilisers and of nutrient losses from soil, and they should take place in a real-life demonstrative context (e.g. actual farms and/or forests) with well-defined system boundaries. Demonstrations should also involve actual users of the solutions (e.g. land owners, soil managers, water managers, river management authorities, etc.). Proposals should ensure a balanced regional distribution of the demonstration sites, taking into account pedo-climatic conditions, topographic conditions, soil types, farming/forestry systems, soil water regimes, and include all relevant elements of the water system (ground waters, surface waters, streams, as well as, where relevant, coastal and estuarine waters).

In line with the impact-driven approach of the Missions, proposals are expected to work with and engage at least five 'associated regions' to showcase in additional geographic areas the feasibility, replicability and potential for upscaling of the solutions developed within the projects. The funded projects should ensure that the associated regions are located in Member States/Associated countries other than those that are part of the project consortium. Regions located in European sea basins other than the Mediterranean Sea basin are eligible to be selected as associated regions, with a view to upscaling and deployment of the demonstrated solutions in other areas.

The consortia should proactively reach out to the associated regions to enable them to follow closely the project and its demonstration activities. The projects should continuously share their outcomes and knowledge with associated regions and may provide them with technical assistance to build capacity and to implement solutions to reduce fertiliser use and to prevent, minimise and remediate pollution of soil and water from excess nutrients in their territory. The technical assistance to the associated regions may include advice for the preparation of roadmaps, plans and projects to reduce fertiliser use and to prevent, minimise and remediate pollution from excess nutrients, to address possible barriers and show the feasibility of implementing integrated innovative approaches.

As a mechanism to provide knowledge transfer and technical assistance to the associated regions, the selected projects may provide support to third parties in the form of grants. The maximum amount of the envisaged Financial Support to Third Parties is EUR 100 000 per third party for the entire duration of the action. Proposals should outline the selection process of the third parties to which financial support would be granted based on principles of transparency, objectivity and fairness. An associated region shall benefit from the Financial Support to Third Parties provided under this topic only once.

Proposals should:

- Ensure the involvement of different stakeholders with complementary expertise in different stages of the projects and take into account the needs of the stakeholders and users;

- Build upon existing knowledge and solutions and support the upscaling of successful solutions, including from beyond the EU, designed and developed in the frame of projects funded by current and previous European and national programmes, in particular the European Union Framework Programmes for Research and Innovation (such as Horizon 2020);

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

- Include a mechanism and resources to establish links with the Implementation Support Platform of the Mission Ocean and Waters and the Implementation Platform of the Mission A Soil Deal for Europe; as appropriate, also link with other Missions' relevant initiatives.

- Include dedicated tasks and adequate resources for coordination measures, networking and joint activities with other relevant projects funded under Horizon 2020 and Horizon Europe, and in particular with the other project funded under this topic. These coordination measures, networking and joint activities could, for example, involve the organisation of and participation in joint workshops, the exchange of knowledge, the coordinated development and adoption of best practices, or joint communication activities.

- Collaborate with the JRC's EU Soil Observatory, in particular as regards interoperability, sustainability and longevity of data and knowledge; and

- Support the Ocean and Water Knowledge System, in particular by contributing to knowledge creation and data collection.

Potentially, projects financed under this topic could cooperate with future Living Labs and Lighthouses created under dedicated call topics from the Mission A Soil Deal for Europe and working in the area of reduction of fertiliser use and of soil pollution from excess nutrients. Moreover, the sites for demonstration of solutions for reduction of use of fertilizers as well as reduction of nutrient losses from soil established within the projects funded under this topic could themselves qualify to be considered as Lighthouses in the sense of the Mission A Soil Deal for Europe, if they comply with the criteria laid down in the Implementation Plan of that Mission.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2023-ocean-soil-01-01;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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HORIZON EUROPE/ Atlantic and Arctic sea basin lighthouse – Addressing climate change and human activities threats to marine biodiversity, deadline: 20. September 2023 17:00 Brussels time

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

- Enhanced implementation of the Biodiversity Strategy 2030 and the EU Arctic policy;

- Technological, logistical, social and economic innovations to counteract marine biodiversity loss;

- Enhanced basin-scale cooperation in the Atlantic and Arctic, including through transition arrangements that create socially and economically sustainable propositions for local stakeholders;

- Enhanced implementation of the European Green Deal, the EU Adaptation Strategy, Marine Strategy framework Directive, the EU Bioeconomy Strategy as well as the Galway Statement, the Belém Statement, the OSPAR Convention in connection with the implementation of EU marine environment, biodiversity and Arctic policies, the EU's International Ocean Governance Agenda, the Atlantic Action Plan 2.0 with the aim to work for the benefit of all communities of stakeholders around the Atlantic and the Arctic Action Plan enhancing collaborative efforts to address the challenges in the Arctic;

- Active support to the Mission's Digital Ocean and Water Knowledge system and knowledge cross-fertilization across EU sea basins;

- Better informed citizens and decision makers, for a better governance.

Proposals under this topic are expected to show how their activities and results will achieve the Mission objective 1 - Protect and restore marine and freshwater ecosystems and biodiversity, in line with the timeframe of the Mission phases, i.e.: by 2025 for the 'development and piloting' phase and 2030 for the 'deployment and upscaling phase'.

Proposals will focus on developing and demonstrating ecosystem-based conservation measures and approaches for reducing cumulative pressure from human activities to address marine biodiversity loss at basin/regional level.

Proposals will contain a set of activities, but are not necessarily limited to, sustainable fishery management and practices, pollution reduction and sustainable shipping, prevention and control of invasive species, marine and nursery habitat preservation and protection, establishment of marine reserves, impacts of climate change. To safeguard biodiversity against climate change and build resilience, adaptive management approaches and nature-based measures are also expected to be considered as well as minimisation of cumulative impacts of other stressors. Activities for quantifying the impact of climate change (acidification, sea-level rise, deoxygenation, ocean warmings, primary production, phytoplankton and zooplankton, etc.) on ocean and coastal ecosystems and biodiversity will be important to understand the stressors. Proposals can include application of genomics methods for the characterization of the biodiversity status, as well as for the long-term biomonitoring of restorative interventions and ecosystem evolution.

Activities will be designed and carried out in partnership with local fishing communities and, where relevant, indigenous people as well as other relevant stakeholders (e.g.: shipping industry) to ensure that the tested solutions grant due consideration to their knowledge, expectations and needs.

Activities will also support evidence-based data and awareness raising on biodiversity conservation in relation to local/regional development and capacity building and will establish good practices for nature-friendly local/regional initiatives and inspire specific transnational cooperation with EU Macro-regional regions.

Citizen engagement is a pillar concept for the Mission. Proposals may involve coastal communities with important biodiversity hotspots, including islands and the EU Outermost Regions in the co-creation of measures that meet the Mission's aims while granting due consideration to local communities' needs and values. Proposals are expected to involve where appropriate European Solidarity Corps and citizens science activities in the restoration efforts.

Proposals must

- Carry out demonstration activities in 3 different countries of the Atlantic and Arctic sea basin, involving and including in the consortium partners from these respective countries;

- Proposals should also identify areas and locations where the solutions are replicable and draw up an action plan and roadmap to replicate and scale up the ecosystem and biodiversity restoration solutions and actions.

To address the impact-driven approach of the Mission and the nature of Innovation Actions, proposals are expected to work with and engage at least 5 ‘associated regions’ to showcase the feasibility, replicability and scalability of the solutions developed within the projects in other areas. ‘Associated regions’ are understood as areas with ecosystems that can benefit from the demonstration activities (e.g. neighbouring regions and/or regions in a different sea basin) and/or less-developed regions, with the need to build capacity to implement the innovative solutions to restore marine ecosystems and biodiversity. The proposals should ensure that the associated regions are located in Member States/Associated countries other than those that are part of the project consortium. The partners will proactively reach out to the associated regions to enable them to follow closely the project and its demonstration activities. The projects should continuously share their outcomes and knowledge with those ‘associated regions’ and provide them with technical assistance to build capacity and solutions to address biodiversity loss and restore ecosystems in their territory, which will contribute to achieve the Mission objectives. The technical assistance to the ’associated regions’ should include advice to prepare roadmaps, plans and projects to restore marine ecosystems and biodiversity in the associated regions, to address possible barriers and show the feasibility of implementing innovative solutions for socio-economic transition processes in an ecosystem based and circular economy perspective.

Proposals should outline the selection process of the third parties to which financial support would be granted based on principles of transparency, objectivity and fairness, in accordance with part G of the general annexes to this work programme.

The proposals should build on research and innovation developed in the frame of related projects in the current and previous EU framework programmes, such as Horizon 2020 (e.g. the ongoing projects and activities which are part of the All-Atlantic Ocean Research Alliance and projects selected under topics HORIZON-MISS-2021-OCEAN-01-02; HORIZON-MISS-2021-OCEAN-02-03 and HORIZON-MISS-2021-OCEAN-02-05), EU programmes (Copernicus, EMODnet), LIFE and national and regional programmes in the Atlantic/Arctic basins as well as the activities of the Sustainable Blue Economy Partnership and the Atlantic Action Plan 2.0. Additionally, projects should collaborate with projects funded under the topic HORIZON-INFRA-2022-EOSC-01-03 to adopt best practices regarding FAIR and open data sharing. Projects may benefit from the expertise and knowledge of the Joint Research Centre, especially in the areas of large scale monitoring and assessment set-up, technical input on harmonised methodologies and making links with relevant policy frameworks.

The projects funded under this topic should address all following issues:

- build links with other Mission activities and other relevant activities within the lighthouse and its area to maximize synergies, as well as with the European Blue Parks, other Mission lighthouses;

- build links with the Mission implementation monitoring system that will be part of the Mission Implementation Support Platform and with the Atlantic and Arctic sea basin lighthouse support facility and platform, for reporting, monitoring and coordination of all relevant implementation activities in the lighthouse area as well as with the Blue Parks technical support platform;

- support the Ocean and water knowledge system, in particular by contributing to biodiversity monitoring, modelling and knowledge creation and data.

Projects funded under this topic are strongly encouraged to participate in networking and joint activities with other projects funded under other topics in the Mission Ocean, seas and waters as well as in other relevant Missions, as appropriate. These networking and joint activities could, for example, involve the participation in joint workshops, the exchange of knowledge, the development and adoption of best practices, or joint communication activities.

Proposals addressing the EU Outermost Regions are encouraged, given these regions’ natural assets.

Proposals are expected to show how their activities and results will achieve the Mission’s objectives, in line with the timeframe of the Mission phases, i.e.: by 2025 for the ‘development and piloting’ phase and 2030 for the ‘deployment and upscaling phase’.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2023-ocean-01-03;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Cross-basin topic - Analysis of the obstacles and opportunities for repurposing aged/unused offshore infrastructures, deadline: 20. September 2023 17:00 Brussels time

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

- Solutions to support marine restoration;

- Insights in view of sustainable business models;

- Options for repurposing aged/unused offshore platforms and enhance the circular economy transition.

The increasing number of offshore infrastructures to be decommissioned in the near future in the European seas requires a sound assessment of environmental, social and technical impacts that decommissioning processes carry. Alternatives to decommissioning can be viewed as an opportunity to preserve the marine habitats around these platforms and to convert these infrastructures to other potentially valuable uses with environmental, economic and/or scientific benefits.

Proposals under this topic are expected to show how their activities and results will achieve the Mission objective 3 – Sustainable, carbon-neutral and circular blue economy, in line with the timeframe of the Mission phases, i.e.: by 2025 for the 'development and piloting' phase and 2030 for the 'deployment and upscaling phase'.

Decisions taken in the coming years will determine whether offshore infrastructures become an environmental liability or an opportunity for preserving marine ecosystems, minimising risks and promoting innovation.

There are several options available to dispose of offshore infrastructures, including complete removal and re-processing of the materials, partial removal or dismantling the structure and placing the materials on the seabed, reuse and re-purposing of the infrastructure for e.g. scientific and ocean monitoring purposes, economic, or recreational activities.

Proposals under this topic should focus on analysing options to decommissioning offshore platforms, in light of marine conservation and ecosystem protection, identifying possible business models and assessing related implications for policy/decision making and for public acceptance. This analysis should complement the outcomes of the Study on "Decommissioning of offshore oil and gas installations: a technical, legal and political analysis[1]" and will address all following issues:

Proposals should address all following issues:

- Carry out a review of existing experiences, strategies and programmes for alternatives to offshore platforms decommissioning;

- Design a framework for cost-benefit analysis of potential options to decommissioning of offshore platforms, including a risk/benefit analysis of these potential options on marine ecosystems and biodiversity;

- Examine related legal, regulatory and policy issues;

- Carry out informed discussions among major stakeholders, environmental organisations and NGOs, owners and operators, national and regional public authorities (including Regional Sea Conventions) and agencies for defining actions to address obstacles and opportunities for repurposing aged/unused offshore platforms and identify at least 3 promising sites for future demonstration activities;

- Assess the socio-economic benefits including job creation of decommissioning versus repurposing.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2023-ocean-01-07;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Cross-basin topic - Innovative nature-inclusive concepts to reconcile offshore renewables with ocean protection, deadline: 20. September 2023 17:00 Brussels time

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

- Enhanced implementation of the EU Sustainable Blue Economy Strategy and the achievement of EU Green Deal objectives and the Paris Agreement targets;

- Development of standards for nature-inclusive design in the offshore renewables sector;

- New approaches for the design of environmental-friendly offshore platforms;

- Solutions to meet renewable energy targets and the protection/restoration targets of the EU biodiversity strategy.

The EU offshore renewable energy strategy sets ambitious objectives for renewable energy production at sea, namely in relation to the REPowerEU Communication. These objectives are particularly relevant to quickly move away from our dependency on fossil fuels. Deployment of renewable energy solutions needs to be fast and coherent with the EU biodiversity

protection and restoration targets. Offshore renewable infrastructures need to be built in such a way that they do not significantly harm the marine environment (e.g.: facilitating the expansion of invasive species) and even, where possible, contribute to restore marine ecosystems. Offshore infrastructures can already have positive impacts on the surrounding biodiversity and act as reefs and refuges for certain species. Nature-inclusive designs might further decrease the negative impacts and enhance desired effects. So far, efforts on design have focused mostly on scour and cable protection in the offshore wind sector. They are limited to few small scale pilot projects and a few species (cod, flat oysters, etc.), that have shown positive impacts on marine ecosystems and concentrate on the seabed close to offshore wind turbines.

Considering the expected expansion of offshore renewables, there is room for the development of innovative concepts to reduce impact of offshore activities and protect the ocean.

Proposals under this topic are expected to show how their activities and results will achieve the Mission objective 3 – Sustainable, carbon-neutral and circular blue economy, in line with the timeframe of the Mission phases, i.e.: by 2025 for the 'development and piloting' phase and 2030 for the 'deployment and upscaling phase'.

Proposals should focus on truly multidisciplinary approaches for the development of nature-inclusive concept design of offshore renewable energy devices. Proposals should address novel concepts, technologies and solutions beyond the state-of-the-art, taking a life-cycle perspective, thus addressing aspects relating to planning, installation, maintenance and end-of-life issues. Proposals should identify and assess already existing approaches and concepts and highlight the benefits and feasibility of novel solutions.

Nature-inclusive concepts will address the design and choice of materials for the mooring foundations and for the offshore devices, either fixed or floating, noise issues, and laying cables, and show potential positive effects for biodiversity and the marine ecosystems. Multiple-use concepts could also be considered if relevant. Other ocean energy technologies beyond wind energy relying on wave, marine floating photovoltaics and tidal stream, for example, may also be considered.

Recommendations relating to long-term monitoring regimes of the impacts are also expected. Proposals should include biodiversity and ecosystem impact and risk assessments, (also in relation to risks of propagating invasive species).

The activities are also expected to contribute to the development of environmental standards in the field and of good practices for decision-making, planning processes and future investments. Main industry actors, such as those involved in the European Strategic Energy Technology Plan (SET Plan) should be involved.

The projects funded under this topic should:

- build links with other Mission activities and other relevant activities within the Mission lighthouses to maximize synergies, as well as with relevant EU Partnerships like Clean Energy Transition (CET), Sustainable Blue Economy Partnership (SBEP) or the European Institute of Innovation and Technology (EIT) and its Knowledge and Innovation Communities (KICs), with regard to EIT InnoEnergy activities;

- build links with the Mission implementation monitoring system that will be part of the Mission Implementation Support Platform and with the lighthouse support facilities, for reporting in different basins, monitoring and coordination of all relevant implementation activities in the lighthouse area;

- support the Ocean and water knowledge system, in particular by contributing to ocean monitoring, modelling and knowledge creation and data.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2023-ocean-01-06;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/Roadmap towards the integration of inland waters into the Digital Twin Ocean, deadline: 20. September 2023 17:00 Brussels time

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The Digital Twin Ocean is the first digital component developed to propose a Mission knowledge system supporting the objectives of the Mission "protect our oceans and waters" and supporting the implementation of Mission lighthouses.

The Digital Twin ocean will host a digital infrastructure with data services to facilitate data analytics, advanced modelling and high performance computing, development of what if scenarios to assess policies development in a context of resilience to climate change and sustainable development, supporting as well the implementation of local twins addressing specifics requested by stakeholders at all relevant scales from global to local.

The DTO architecture is meant to become scalable and flexible to offer the opportunity to develop an integrative approach to all-waters management from inland waters to oceans and vice versa, considering the whole as the hydrosphere.

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

- Inventory and prioritization of EU/cross-boundary or international policies (WFD but not only) and topics to be addressed by the knowledge system to increase and share knowledge on inland waters (lakes, rivers, reservoirs, wetlands, snow, ice etc. excluding coastal and seas)

- Inventory of what is relevant from the national meteorological services duties including for climatology, and principles of interfacing with them

- Inventory of current actions, projects and programmes (including research projects, Research infrastructures, European Research Infrastructure Consortia – ERICs, cross-boundary programmes, Interreg) ongoing to get access to, to further develop a digital integrated inland water monitoring (from observations to forecasting or projections) that goes beyond the duties of the national meteorological services

- Inventory of current European digital systems of interest to build a digital twin for inland waters:

    - Actions and systems related to inland water observations and inland water data spaces (on land and including the land/sea interface at the shore) including environmental sensing as well as socio-economic data or data crowd-sourced

    - Modelling and data analytics capacities (including environmental representation, human activities, socio-economic dimension, from river catchment monitoring and management to flood and drought monitoring and forecasting) which are complementary to meteorological services and the Digital Twin on Extreme events

- Digital service portfolio relevant for a digital twin on inland waters in terms of content (data, models, data analytics tools) and in terms of digital environment based on existing assets mature enough and state-of-the-art for a leading edge digital twin of inland waters

- Roadmap for the integration of relevant existing assets and development of necessary digital functionalities for a digital twin for inland waters, interoperable with the Digital Twin Ocean to ensure the consistency and continuity of water management, interoperable and avoiding duplication of inland water functionalities already available in existing twins of Destination Earth and EU data spaces initiatives

- Architectural concept, interfaces, and standards to make data, models and technologies interoperable and integrable with the Digital Twin Ocean to propose a single digital environment for the Mission knowledge system and lighthouses.

The objective of the CSA is to prepare the development of the inland waters part (rivers, lakes, reservoirs, wetlands, snow and ice etc.) of the Mission Knowledge system, and address activities to be developed to make it integrated or interoperable with the Digital Twin Ocean for a unified Digital twin of Ocean and waters (addressing the hydrosphere as a whole) for the Mission and the lighthouses.

This should address the various facets of freshwater systems from static knowledge to dynamic monitoring of runoffs, hydrology, hydrodynamics, biogeochemistry to biology, interactions with soils and seas, for climate purposes, water management or natural disasters (e.g. flood, drought) etc.

Different scales shall be addressed from catchment to global perspective of the water cycle.

The targeted inland water digital twin shall support the implementation of the Mission through its different lighthouses and specially supporting the one dedicated to Danube.

The project should address the following:

Inventory

- Make the inventory of EU and international policies relevant to inland waters that call for monitoring, forecast, projection or simulation of the inland water cycle in all its components: physical state, chemistry, geology, biology, both static and dynamic

- Liaise with relevant stakeholders: researchers, industry (specially water industry operators), users (lie river basin agencies, water agencies) etc. to inventory their requirements for better policy implementation and planning in a context of climate change, considering specially the relevant lighthouses

- Make the inventory of data sources and sensing capacities (environmental but as well socio-economic or citizen) available or required to support the twinning

- Make the inventory of past or ongoing research projects, information systems and technical or operational programs (e.g. Copernicus, Wise) dealing with inland water monitoring and management and able to provide the basis for future digital services in terms of content, product, software (models, data analytics), tools or infrastructures (digital or sensors)

- Liaise with the national meteorological services and with the digital twins in place in DestinationEarth to scope precisely the contribution of a twin on inland waters, avoiding duplication and preparing interfaces with these external systems to be able to propose an integrative approach to inland water monitoring and management

Critical analysis and preliminary design

Based on the outcomes of the above tasks:

- Define a set of reference uses cases for a future digital twin development and set of requirements

- Conduct a critical analysis of current technical achievements to propose a state-of-the-art content for an inland water digital twin (products, digital services, data analytics and digital tools including models), liaising with lighthouses, stakeholders to eventually define priorities of implementation

- Define recommendations for a functional and system digital architecture (which data space, digital tools, digital backbone for computing and data management, APIs with external infrastructures, which reference R&D and infrastructures to consider integrating) that:

- can be integrated or at least interoperable with the Digital Twin Ocean (linked action with HORIZON-MISS-2021-OCEAN-IBA-01 EU Public Infrastructure for the European Digital Twin Ocean)

- is compatible and interoperable with the DestinationEarth initiative, especially with the two first twins that can include a hydrological component for climate and for extreme events) and with the digital platform

- enable the development of a mature, high-quality, scientifically state-of-art and pre-operation digital twin component for inland waters

Roadmap

- Based on the recommendations defined above and the inventory made, develop a roadmap for the implementation of the Digital Twin for Inland waters including:

- A preliminary breakdown of the work, with priorities of implementation, into a stepped approach, in view of the complexity of the content, which will include physical, chemical and biological data

- A list of reference technical developments, data sources and existing programs/projects on which to build

- A list of reference use cases on which to build first with identified stakeholders, contributing preferably to the Danube lighthouse

- A tentative schedule, cost estimate and risk analysis

- Interfaces to be considered and set up to ensure the effective interoperability with external and ongoing developments like DTO, DestinE, ERICs

- A tentative technical governance to liaise with EU programs and with National meteorological services to foster an inclusive and integrative approach to the management of inland waters in a context of climate change and sustainable development

Projects should collaborate with projects funded under the topic HORIZON-INFRA-2022-EOSC-01-03 to adopt best practices regarding FAIR and open data sharing and with EU relevant programmes (Copernicus land and climate change monitoring services, EMODnet, WISE).

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2023-ocean-01-09;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ European Blue Parks – Protection and restoration of marine habitats, deadline: 20. September 2023 17:00 Brussels time

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To support the implementation of the European Green Deal, the Biodiversity Strategy and the Nature Restoration Law, project results are expected to contribute to all of the following expected outcomes:

- Effectively managed marine protected areas with clear science-based conservation objectives and conservation measures that contribute to the restoration and protection of marine ecosystems and support a shift towards strictly protected areas;

- Protection and restoration of marine habitats and species through strictly protected areas, in particular of seabed habitats, including to preserve their carbon sequestration capacity, ensure spill-over of fish, provide ecosystem functionality and maintain connectivity;

- Enhanced resilience and adaptation potential of coastal and marine ecosystems and improved provision of their ecosystem services, in particular in relation to climate change mitigation/adaptation and to fisheries;

- A blueprint for the designation and management of marine protected areas and/or for shifting their status from “protected” to “strictly protected” including criteria and tools for quantifying their success/ effectiveness in terms of conservation outcomes/results; a blueprint for the identification of ecological corridors as part of a blue Trans-European Nature Network;

- Active support to the Mission’s Digital Ocean and Water Knowledge system through advances in biological, ecosystem and socio-economic knowledge applied to restoration;

- Reinforced EU leadership in international efforts to stop and reverse biodiversity loss, in line with the EU key priorities and international commitments.

Proposals under this topic are expected to show how their activities and results will achieve the Mission objective 1 - Protect and restore marine and freshwater ecosystems and biodiversity, in line with the timeframe of the Mission phases, i.e.: by 2025 for the ‘development and piloting’ phase and 2030 for the ‘deployment and upscaling phase’.

Proposals under this topic will develop and demonstrate protection and restoration solutions to address the degradation of coastal and marine ecosystems. Proposals should significantly improve the management of marine protected areas in particular through definition of clear science-based conservation objectives and implementation of the necessary conservation measures to achieve those objectives. Amongst the conservation measures, proposals should entail implementation of passive restoration actions through e.g.: strict protection, either as a newly designated strictly protected areas or as part of the zoning in the existing marine protected areas. Proposals should address the whole marine ecosystem functioning in the designated area, including the seabed and its role in carbon storage and as fish spawning and nursery area. Nevertheless, in well justified cases, proposals may address either specific vulnerable species or habitats that are under strong pressures or that have the most potential to capture and store carbon. Proposals could consider and assess pros and cons of some active restoration activities whereby native habitat building species would be reintroduced in degraded marine and coastal habitats to facilitate the natural recovery.

Proposals should be site-specific, and the scale and range of the protected area for demonstration activities has to be ecologically relevant and impactful. At the same time, proposals should show a significant replication potential.

When identifying and restoring degraded areas, particular attention needs to be paid to ensuring that the ecosystem services these areas can provide are resilient to climate change and that the areas are adequately protected to prevent new degradation. Proposals should develop innovative, efficient and cost-effective tools and methods to measure the conservation results/outcomes in terms of improvements of biodiversity in demonstration areas.

The proposals should also address the creation and long term maintenance of adequate conditions for habitats and/or for the movement of individuals and more generally species and for increasing ecosystems’ capacity to adapt to climate change. Proposals should cover a wide range of ecosystem functions and services using a coherent and systemic approach and avoid the risk of trade-offs of focusing on one or very few ecosystem services at the expense of others. In this respect, seabed protection and restoration should be integrated, including preservation of seabed carbon sequestration capacity. The approach proposed has to show the potential to be up-scaled and reproduced at European level and beyond and develop a scalability plan.

The proposed innovation actions for the Blue Parks should seek the most effective and efficient management and supporting technologies to enable strict protection as a restoration measure and will closely follow the EU Guidance to Members States on the designation of additional protected or strictly protected areas.

Proposals are expected to contribute to the implementation of the existing legislation related to Marine Protected Areas (MPA), notably the Birds, Habitats and Marine Strategy Framework Directives. Proposals may consider marine Natura 2000 sites established under the Birds and Habitats Directives as well as explore new areas to reach the targets of protecting 30% of EU marine area by 2030, of which one third should be strictly protected.

National and local authorities and coastal communities should be involved in the design and implementation of innovative solutions to ensure that these solutions are successfully implemented in the long term. Citizen engagement is a pillar concept for the Mission and a key element in relation to conservation and restoration actions. Activities should, therefore, use innovative participatory management practices, citizen-science initiatives and awareness-raising actions to promote a proactive involvement of local communities including scientists, land and sea use planners, marine protected area managers, and other stakeholders, to enable co-creation of solutions. Awareness raising actions to inspire and generate co-ownership for protection of local habitat and biodiversity should be included as well as collaboration with existing initiatives. Citizen engagement related activities should also be gender-responsive and socially inclusive.

Proposals are expected to contribute to the implementation of the existing legislation, notably in relation to Natura 2000 and Marine Protected Areas, as well as to provide recommendations addressing environmental or anthropogenic pressures and how to overcome them. Governance issues could be examined as a way to ensure effectiveness of protection and conservation

measures. Activities improving the state of vulnerable ecosystem conditions are expected to be integrated into best practices or innovative monitoring within relevant monitoring governance schemes.

Proposals should build links with the Mission implementation monitoring system which will be part of the Mission Implementation Support Platform and with the Blue Parks technical support platform which enables the reporting, monitoring, and coordination of all relevant implementation activities. In this regard, projects should cooperate closely with projects funded under Mission Ocean topic HORIZON-MISS-2021-OCEAN-02-01 and topic HORIZON-MISS-2022-OCEAN-01-01.

Proposals should build upon existing knowledge systems and upon the Mission Digital and Water Knowledge system for access to data, monitoring and forecasts and knowledge dissemination. The proposals should also build on research and innovation developed by projects financed under the current and/or previous EU framework programmes (Horizon 2020, in particular the FutureMARES, MaCoBios and Rest-Coast projects, LIFE, EMFF/EMFAF), national and regional programmes (e.g. Interreg 2021-2027 / EU Macroregional Strategies), EU programmes (Copernicus, EMODnet) as well as on the activities of the Sustainable Blue Economy Partnership and the Biodiversa+ Partnership.

For improved coordination and networking, the applicants should set aside resources to engage with other actions funded under Horizon Europe, in particular projects funded under Cluster 6 topics, e. g.: HORIZON-CL6-2021-BIODIV-01-12 (Improved science based maritime spatial planning and identification of marine protected areas), HORIZON-CL6-2021-BIODIV-01-10 (Demonstration of measures and management for coastal and marine ecosystems restoration and resilience in simplified socio-ecological systems); HORIZON-CL6-2021-BIODIV-01-03 (Understanding and valuing coastal and marine biodiversity and ecosystems services); HORIZON-CL6-2021-BIODIV-01-04 (Assess and predict integrated impacts of cumulative direct and indirect stressors on coastal and marine biodiversity, ecosystems and their services); HORIZON-CL6-2022-CLIMATE-01-02: Understanding the oceanic carbon cycle as well as with activities supported under the H2020 Green Deal call, notably LC-GD-7-1-2020 Restoring biodiversity and ecosystem services. Additionally, projects should collaborate with projects funded under the topic HORIZON-INFRA-2022-EOSC-01-03 to adopt best practices regarding FAIR and open data sharing.

Proposals addressing the EU Outermost Regions are encouraged, given these regions' natural assets.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2023-ocean-01-01;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ European natural lakes: demonstration of integrated approaches for protection and restoration of natural lake ecosystems and their biodiversity, deadline: 20. September 2023 17:00 Brussels time

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

- Enhance the implementation of the European Green Deal, the EU Biodiversity Strategy, the EU Zero Pollution Action Plan, the EU Bioeconomy Strategy and the Water Framework Directive as well as other EU instruments and policies that concern freshwater ecosystems;

- Improved ecological and chemical status of European natural lakes;

- Demonstrated integrated and replicable approaches to protection and restoration of natural lake ecosystems, their biodiversity and healthy functioning, integrating all aspects of good ecological and chemical status of lakes under the Water Framework Directive;

- Demonstrated effective and replicable nature based solutions for restoration and protection of European lakes;

- Demonstrate improved solutions and systems for effective collaboration between, municipalities, regions and, if relevant, countries within a lake catchment area;

- Create opportunities for scaling up of solutions for protection and restoration of European lakes through involvement of 'associated regions'.

Natural lakes are understood for the purposes of this Work Programme as natural inland bodies of standing surface freshwater or brackish water. There are more than 500 000 natural lakes larger than 1ha in Europe. There were over 2 800 lakes in the EU with bad or poor ecological status and over 8 000 lakes with moderate ecological status in 2018. The main pressures affecting the ecological status of European lakes are hydro-morphological pressures, pollution, in particular from chemicals and nutrient enrichment, water abstraction and climate change impacts. Nutrient enrichment results in algal blooms influencing the ecological status of these waters as well as their use for drinking and recreation.

Proposals under this topic are expected to show how their activities and results will achieve the Mission objective 1 - Protect and restore marine and freshwater ecosystems and biodiversity, in line with the timeframe of the Mission phases, i.e.: by 2025 for the 'development and piloting' phase and 2030 for the 'deployment and upscaling phase'.

The proposals should design and demonstrate integrated and replicable approaches to protect and restore natural lake ecosystems and their biodiversity that result in a significantly improved ecological and chemical status and maintain it in the long-term. The integrated approaches should cover physical and biochemical elements and address in an integrated way all main pressures on the lake ecosystem, (e.g.: water level regulation, water extraction, agriculture, soil pollution, aquaculture and navigation, main source of pollution, barriers to connectivity, pressures on biodiversity, including invasive alien species). Proposals should also consider threats and risks associated to climate change and pressures on biodiversity.

The demonstration activities should combine measures and solutions to reduce pressures and stressors, to restore and protect the lake ecosystem and its biodiversity, in particular using effective nature-based and circular-biobased solutions in the lakes, along shorelines and across their catchments to reduce use of chemicals and retain nutrients. The demonstration sites should be located on natural lakes with a surface area exceeding 1 km^2.

Proposals must:

- Carry out demonstration activities in at least 3 different countries, involving and including in the consortium partners from these three countries;

- Proposals should also identify areas and locations where the solutions are replicable and draw up an action plan and roadmap to replicate and scale up the solutions and actions for the protection and restoration of natural lakes.

To address the impact-driven approach of the Mission and the nature of Innovation Actions, proposals are expected to work with and engage at least 3 'associated regions' to showcase the feasibility, replicability and scalability of the solutions developed within the projects in other areas. 'Associated regions' are understood as areas with ecosystems that can benefit from the demonstration activities (e.g. in the context of this topic, regions with another natural lake located in EU Member States and/or Associated countries) and/or less-developed regions, with the need to build capacity to implement the innovative solutions to restore freshwater ecosystems. The proposals should ensure that the 'associated regions' are located in Member States/Associated countries other than those that are part of the project consortium. The involvement of 'associated regions' that have not yet participated in Mission projects is encouraged. The partners will proactively reach out to the 'associated regions' to enable them to follow closely the project and its demonstration activities. The projects should continuously share their outcomes and knowledge with those 'associated regions' and provide them with technical assistance to build capacity and to implement natural lake restoration and protection solutions in their territory to contribute to achieve the Mission objectives. The technical assistance to the 'associated regions' should include advice to the prepare roadmaps, plans and projects to restore and protect natural lakes, to address possible barriers and show the feasibility of implementing innovative solutions.

Proposals should outline the selection process of the third parties to which financial support would be granted based on principles of transparency, objectivity and fairness, in accordance with part G of the general annexes to this work programme.

The projects should support data and knowledge sharing through and as well benefit from the Ocean and Water Knowledge System to foster cross-regions, pan-European approaches. An European Digital Innovation Hub (EDIH) on Natural lakes – at interregional/transnational level – could be envisaged.

The proposals are expected to integrate actions within basins and across lake catchments that support social and economic transitions towards sustainable, inclusive and long-term management of the restored and protected ecosystems. These should include natural, social, economic and cultural elements and business models for generating revenue from the restored and protected ecosystems. For that purpose, demonstrations should involve local business communities, in particular SMEs, investors and other business stakeholders.

Training, upskilling and communication activities towards stakeholders, including regional and local authorities from the 'associated regions' should be included in each proposal. Local actors, including where appropriate, the European Solidarity Corps and Mission Citizen Assemblies, should be involved in ecosystem restoration and protection activities and any actions for social and economic transitions towards sustainable inclusive and long-term management of the restored ecosystems, using activities like citizen science to encourage involvement and stewardship of lakes and their catchments.

The projects funded under this topic should:

- build links with other Mission activities and other relevant activities within the Mission lighthouses to maximize synergies, as well as with the European Blue Parks, and other Mission activities;

- build links with the Mission implementation monitoring system that will be part of the Mission Implementation Support Platform and with the lighthouse support facilities, for reporting in different basins, monitoring and coordination of all relevant implementation activities in the lighthouse area as well as with the Blue Parks technical support platform;

- support the Ocean and water knowledge system, in particular by contributing to biodiversity monitoring, modelling and knowledge creation and data.

Applicants should consider to link with other actions funded under Horizon Europe and set aside resources to engage in cooperation and networking with projects funded under the EU Framework Programme, e. g: the MERCES project that developed ecological tools and protocols for cost-effective marine habitat restoration; the EULAKES project; the Espon project,

Horizon Europe Nord-Balt-Ecosafe, H2020 MERLIN as well as ECOSTAT and EuropaBON activities. Applicants should benefit from EU space programmes (e.g. Copernicus land and climate change monitoring services addressing hydrology). Additionally, projects should collaborate with projects funded under the topic HORIZON-INFRA-2022-EOSC-01-03 to adopt best practices regarding FAIR and open data sharing.

Proposals are expected to show how their activities and results will support the European Green Deal and how they will achieve the Mission's objectives, in line with the timeframe of the Mission phases, i.e.: by 2025 for the 'development and piloting' phase and 2030 for the 'deployment and upscaling phase'.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2023-ocean-01-04;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Lighthouse in the Baltic and the North Sea basins - Lighthouse in the Baltic and the North Sea basins - Green and energy-efficient small-scale fishing fleets, deadline: 20. September 2023 17:00 Brussels time

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

- Enhanced implementation of the European Green deal objectives and the EU Biodiversity Strategy for 2030;

- Improved understanding of technical, social, legal, regulatory and policy barriers to small-scale fisheries decarbonisation;

- Reduced fuel consumption and emissions from small-scale fishing vessels and improved energy efficiency in their range of activities, including acoustic noise reduction;

- Accelerated transition to fleets of small-scale fisheries equipped with greener and energy-efficient technologies to reduce emissions and fuel consumption;

- Increased users' choices and responsible user behaviours;

- Improved monitoring and understanding on the impact of greener and more efficient small-scale fishing fleets on the marine environment and marine biodiversity.

Proposals under this topic are expected to show how their activities and results will achieve the Mission objective 3 – Sustainable, carbon-neutral and circular blue economy, in line with the timeframe of the Mission phases, i.e.: by 2025 for the 'development and piloting' phase and 2030 for the 'deployment and upscaling phase'.

Proposals will address the complex dynamic of energy consumption and energy efficiency of small-scale fishing vessel fleets and in their range of activities. Under this topic, small-scale fisheries is defined as "fishing carried out by fishing vessels of an overall length of less than 12 m and not using towed fishing gear".

Proposals under this topic are expected to identify a set of suitable innovative and sustainable solutions, technologies, practices and processes to be tested, validated and demonstrated in real conditions to reduce emissions and fuel consumption of small-scale fishing vessels (length of less than 12 m), to increase energy efficiency in their range of activities and comply with EU regulatory frameworks. Solutions should consider multi-disciplinary approaches and guarantee full integration in the vessels. The integrated solutions need to be tested at sea to ensure fitness for purpose in harsh marine environment and for all range of fishing-related activities. Innovative solutions such as battery/hybrid systems, wind-propulsion vessels as well as use of sensors, predictive analytics, data, etc. can be considered.

Impact assessment on the marine environment and its biodiversity should also be carried out as well as an analysis of the obstacles, opportunities and recommendations about good practices for reducing fuel consumption and emissions from small-scale fishing vessels and improving energy efficiency in their range of activities.

Close cooperation between the fishing community, researchers and other stakeholders as well as with environmental organisations, NGOs, national and international authorities is a crucial requirement to ensure that solutions and technologies are suitable for and acceptable by the end-users, economically viable for (often) very small fishing enterprises.

Where appropriate activities may take into account synergies with other actions aimed to reduce waterborne transport emissions, for example projects arising from Horizon Europe calls; HORIZON-CL5-2021-D5-01, HORIZON-CL5-2022-D5-01, HORIZON-CL5-2023-D5-3, HORIZON-CL5-2024-D5-3 as well as with the activities carried out under the Zero Emission Waterborne Transport Partnership (ZEWT) and the Sustainable Blue Economy Partnership (SBEP). If projects collect in-situ data and marine observations, projects should collaborate with projects funded under the topic HORIZON-INFRA-2022-EOSC-01-03

to adopt best practices regarding FAIR and open data sharing and benefit as well from EU programmes (Copernicus, EMODnet) in terms of marine observation and ocean forecasting capacities.

The projects funded under this topic should:

- build links with other Mission activities and other relevant activities within the Mission lighthouses to maximize synergies, and with other Mission activities;

- build links with the Mission implementation monitoring system that will be part of the Mission Implementation Support Platform and with the lighthouse support facilities, for reporting in different basins, monitoring and coordination of all relevant implementation activities in the lighthouse area;

- support the Ocean and water knowledge system, in particular by contributing to ocean monitoring, modelling and knowledge creation and data.

SMEs, early-stage business and scale-ups involved in Mission projects entailing innovative, scalable and sustainable business ventures from traditional and emerging blue economy sectors are invited to join the BlueInvest community and benefit from the BlueInvest Fund.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2023-ocean-01-05;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Choose your fish: a campaign for responsible consumption of products from the sea, deadline: 20. September 2023 17:00 Brussels time

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

- Accessible and engaging media product to offer information on seafood and aquaculture consumption choices; to ensure a higher outreach, such product must be offered in all EU official languages, and take into account fisheries and aquaculture specificities of all EU sea basins and inland waters;

- More informed seafood and aquaculture products purchase choices by European citizens;

- Encourage sustainability of consumption patterns, including on reducing food waste and carbon footprint, and in consideration of future viability of stocks;

- Support knowledge and consumption of local and seasonal seafood and aquaculture products;

- Create an awareness campaign, including communication products for e.g. Social Media, to promote the media product and support the objectives as from the above mentioned expected outcomes.

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

The selected proposal should help citizens to make responsible choices in relation to the seasonality of fishes and to fish population decline and, when relevant, to the sustainability of fishing techniques. The campaign should be performed by using the most effective and creative media, tools and types of initiatives to ensure a broad outreach targeting different segments of consumers, including children.

Activities under this topic should also increase awareness and encourage consumption and purchase of seasonal and local seafood and aquaculture products, as well as awareness on health benefits and nutritional value of aquatic food. These activities should also increase awareness on the benefits to the planet from consuming sustainable seafood products (including under organic farming) as well as in relation to the lower relative carbon footprint of aquatic food.

Activities should have a broad geographical coverage in all Member States and Associated Countries. To take in due account local/regional specificities, activities should be co-designed and co-implemented with seafood retailers, consumer associations, producers and SMEs to motivate them to support informed choices of consumers.

Links with the “Taste the Ocean” initiative as well as with other international, national or local initiatives are encouraged in order to maximise the impact on more sustainable seafood and aquaculture products choices.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2023-ocean-01-10;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Ocean & water and arts: the contribution of creative sectors to Mission Ocean and waters, deadline: 20. September 2023 17:00 Brussels time

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

- Stimulate the citizens' interest in and fascination by ocean and waters;

- Boost interest in working in the blue economies, engaging in ocean and water management and protection and blue research and innovation;

- An increase of citizen and stakeholder awareness about the challenges and pressures faced by the ocean and inland waters - such as habitat and biodiversity loss, pollution (litter and plastic, chemicals, excess nutrients, light and underwater noise), invasive species, excessive human exploitation as well as climate change impacts, and mobilisation of citizens and stakeholders for the protection and restoration of ocean, seas, coastal areas as well as inland waters;

- Mobilisation of artistic communities (e.g. visual arts, literary arts, performing arts, architects) and creative sectors (e.g., entities and associations operating in cultural, artistic, educational fields) for the protection and restoration of ocean, seas and inland waters and their biodiversity and for and empowerment of these communities and citizens to act against pollution and destruction of marine and freshwater ecosystems;

- Connect coastal and maritime communities with their habitats and their ecological, aesthetic and cultural heritage;

Art and creative sectors can play an important role in the mobilisation of citizens, stakeholders and civil society actors, such as NGOs and the philanthropic community, for the protection and restoration of the ocean and inland waters, their biodiversity, aesthetic and cultural heritage. Creative activities can also play an important role in addressing the challenges of coastal areas, thus contributing to the New Bauhaus initiative. In this context, this action should bring together citizens, museums, aquaria, research institutions, engineers, architects, the civil society and citizens with artists and other creative sectors to foster interdisciplinary experimentation and entrepreneurship. Such undertakings should benefit from close cooperation with the scientific community and the philanthropists.

Mobilisation, cooperation and coordination should be envisaged at interregional/transnational level. Proposals are encouraged to build synergies with relevant activities supported under the Creative Europe programme and with other New European Bauhaus projects, notably those based in coastal and maritime regions.

Proposals should include at least three calls for the selection of art and creative sectors projects, which will be supported through Financial Support to Third Parties under this topic. The entities implementing the arts and creative sector projects, shall be the recipient of the financial support, which should be used exclusively for the implementation of the project.

The selection process for these projects will be based on principles of transparency, fairness and objectivity, in accordance with part G of the general annexes to this work programme.

Proposals should ensure:

- among the assessment criteria, a high degree of circularity, carbon neutrality and positive environmental impact of the project;

- high visibility of the projects selected for funding, among others by publicising their results at the dedicated Mission website at europa.eu;

- promotional actions to highlight the contribution of artists and creative sectors' projects to achieving the Mission objectives through dissemination campaigns.

The artistic and creative sector projects that will benefit from the financial support to third parties under this topic should cover all the following elements:

- Creative and novel artistic expressions that unlock and strengthen the connection of the wider public with ocean, seas, inland waters and their biodiversity;

- Synergies with scientific domains and involve scientific and research actors, as well as engage with civil society actors;

- Expected impact of the projects, expected number of people involved (directly in the project, and of potential reach out), and themes directly related to Mission objectives;

- Strong and innovative ocean and water literacy activities aimed at the general public designed with the participation of the relevant scientific and research communities, as well as civil society actors;

- Full sustainability and circularity of the entire project, including the use of sustainable materials and circular solutions and renewable energy;

- Commitment to a Climate Pact Pledge leading to full decarbonisation or at least carbon neutrality of the project and of all the proposed activities;

- Commitment to the Make Europe Blue Campaign.

Proposals submitted under this topic should:

- build links with other Mission activities and other relevant activities within the Mission lighthouses' areas and Blue Parks to maximize synergies;

- contribute to the aims and work pursued under the EU4Ocean Coalition and the new Bauhaus initiative;

- build links with the Mission implementation monitoring system that will be part of the Mission Implementation Support Platform and with the basin lighthouse support facilities and platforms, for reporting, monitoring and coordination of all relevant implementation activities in the lighthouses' areas.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2023-ocean-01-11;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Integration of socio-ecological models into the Digital Twin Ocean, deadline: 20. September 2023 17:00 Brussels time

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Expected outcomes should complement the capacities and uses of the European Digital Twin Ocean (EU DTO) by:

- Solutions to the challenges of marine social-ecological modelling that will allow for their seamless incorporation in the framework of the Digital Twin Ocean, taking into consideration their complex nature. Marine social-ecological models aim to integrate modelling approaches originating from different disciplines, focusing on different levels of analysis and implementing different methodological frameworks in a meaningful way. The challenges include interoperability of transdisciplinary data (ecological, social, economic, legal, etc.); integration of models with different spatial and temporal resolutions, calculation of uncertainties and more.

- Social-ecological models, developed with a multi-actor approach, that would help assess the impacts of environmental changes, human pressures and/or policy implementation on the overall ocean health, blue economy and societal prosperity;

- Improved understanding of complex social-ecological systems, aiming at better management of human activities, policy implementation, responding to societal needs (local communities, economic activities, growing resources needs,...) and avoiding negative outcomes of policies such as the loss of jobs, overfishing, hypoxia, or stock collapse.

The vision for the European Digital Twin Ocean is to make ocean knowledge readily available to citizens, entrepreneurs, scientists and policy-makers and to provide them with an innovative set of user-driven and interactive tools, fostered by digital transition, empowering them to collectively share the responsibility of marine and coastal habitats and act on their restoration, to support a sustainable blue economy and to mitigate and adapt to climate change. It aims to provide consistent high-resolution, multi-dimensional description of the ocean: its physical, chemical, biological and social-ecological and economical dimensions, with forecasting periods from season to multi-decades, transforming data into knowledge. This call aims to support the necessary actions and tool developments to appropriately include the social-ecological component of the European Digital Twin Ocean, including the links and interactions with other parts of the system (data, underlying models, ecosystem models, local twins, etc.), the necessary social-economic data considerations and the development of models and other applications to simulate and predict the social and economic part of marine and coastal systems linked to the environmental/ecological components, enabling the development of normative (what-if scenarios) and decision-support tools.

Proposals should address all activities and tasks as described below, in cooperation and complementarity with the linked actions and other relevant actions:

- Address the long-term and reliable accessibility and availability of spatially explicit social and economic data, fit-for-purpose for the development of social-ecological models and other relevant approaches as described below. The social and economic data should be integrated with the available marine data sources and models of the DTO in an interoperable and standardised manner. This should include considerations related to spatial and temporal scale of analysis and data collection, development of methodological protocols to connect socio-economic data with environmental data, etc.

- Development of a wide range of social-ecological models, tools and applications, from simple impact assessment models, to agent-based models, to integrated social-ecological models, with capacity to run and assess a variety of normative (what-if) scenarios, evaluating the impact and long-term effect of environmental change, policy alternatives and management decisions to coastal and marine systems, both environmentally and societally.

- Assessment of existing or development of new parallel frameworks of analysis, other than models (e.g. statistical approaches, AI) to be integrated into the framework of the DTO. As not all aspects of socio-economic systems and behaviours can be assessed through numerical models, other methodologies should be investigated and developed, to ensure inclusion of these parts of the system into the DTO and link them appropriately with the social-ecological models.

- Development of integrated ecological and socio-economic indicators that can be used in the assessment of the impacts of environmental, policy or management change in coastal and marine social-ecological systems.

- Development of new processes and tools for decision-support, participatory management and policy scenarios assessment, including the methodological approaches to effective stakeholders' engagement.

Proposals should address considerations of social-ecological modelling in the overall framework of the European Digital Twin Ocean, but also develop applications appropriate for use in local Twins (thematic or regional/local scale approaches to twinning).

Proposals should support the Mission's Blue Parks and Mission lighthouses and efficient ocean stewardship. Projects should collaborate with projects funded under the topic HORIZON-INFRA-2022-EOSC-01-03 to adopt best practices regarding FAIR and open data sharing and benefit from existing EU programmes (e.g. Copernicus, EMODnet, EUROSTAT).

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2023-ocean-01-08;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Danube river basin lighthouse – Demonstration of effective and sustainable management of sediments in the Danube river-Black sea system, deadline: 20. September 2023 17:00 Brussels time

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

- Contribution to the implementation of the European Green Deal and the Water Framework Directive and related guidance documents as well as other EU instruments and policies that concern freshwater ecosystem protection, in particular to the implementation of the Updated River Basin Management Plan for Danube (2021) as regards sustainable sediment management in the Danube river basin;

- Demonstrated sustainable and effective solutions for sediment management at a river basin scale, including solutions for the restoration of sediment balance, quality and flow in the Danube river-Black sea system;

- Measurable improvements in the quality (including a reduction of harmful chemicals, plastics and microplastics) and quantity of sediments flows demonstrate the effectiveness of the measures and solutions implemented;

- Improved transnational and trans-sectoral cooperation between national authorities and other actors involved in sediment management at river basin scale;

- Scaling up of solutions for the sustainable management of sediments at river basin scale in other European river basins through the involvement of river basin management bodies and 'associated regions';

- Active support to the Mission's Digital Ocean and Water Knowledge system through advances in knowledge related to land-sea and river-sea interactions.

Proposals under this topic are expected to show how their activities and results will achieve the Mission objective 1 - Protect and restore marine and freshwater ecosystems and biodiversity, in line with the timeframe of the Mission phases, i.e.: by 2025 for the 'development and piloting' phase and 2030 for the 'deployment and upscaling phase'.

Sediments, a key component of river ecosystems, provide habitats to many aquatic organisms, regulate the morphology and shape of river basin and provide key ecosystem services. Pollutants can accumulate in sediments and, once displacements occur, disperse with them throughout the entire river basin. Human activities that affect natural river flow and continuity, such as flood protection measures, commercial sediment excavation, hydropower and navigation, alter sediment balance and transport within the river basin. Land-based activities such as agriculture, are also major drivers of alterations in sediment regime. This interference results in decreased sediment flow in free flowing river sections and in a sediment surplus in impounded sections increasing the risk of damage to infrastructure and human dwellings, besides reducing the effectiveness and raising maintenance costs. Also, sediment quality, in particular the degree of pollution levels, plays an important role in achieving good ecological status of river waters. Effective sediment management at a river basin scale requires trans-national, cross-sectoral and multidisciplinary approach. Moreover, sediment management accounts for the different demands on sediments; it considers relevant protection aspects and multiple uses of a river and its floodplain (also diverging use interests, conflicts).

In the Danube river basin, the ICPDR underlines in the river management plans 2009, 2015 and 2021 the need to improve sediment management and river morphology to address an increasing discrepancy between surplus and lack of sediment, which increases flood risks, reduces navigation possibilities, impacts hydropower production and biodiversity. The 2021 river management plan recognises the sediment balance alteration as a significant management issue that requires urgent trans-national solutions.

The sediment flows in the Danube river basin were analysed in the ICPDR Danube Sediment Interreg project, which provided Danube Sediment management Guidance, whereas sediment quality monitoring was covered by the ICPDR 'SIMONA' project. This knowledge and guidance should provide references for the design of effective management measures and their subsequent demonstration at a river basin scale.

The proposals should focus on the demonstration of sustainable and effective solutions for sediment management at river basin scale, including solutions for restoration of sediment balance and flow in the Danube river-Black sea system and measures to improve sediment quality. The demonstration activities should entail a holistic approach to sediment management, involving all relevant actors at a transnational/national scale and across relevant sectors, such as ICPDR, relevant national authorities, riparian communities as well as concerned economic actors. These demonstration activities should appropriately combine sediment management measures focused on sediment flow quantity such as:

- measures to restore sediment transport and sediment flows;

- measures to reduce excessive erosion (e.g. change of sediment regime, increase of bed resistance, reduction of energy slope, nature based solutions, etc.);

- measures to address excessive sedimentation (e.g. change of sediment regime, route sediments, increase energy slope, increase bed shear stress, etc.),

with measures to improve sediment quality, such as pollution prevention and reduction. The measures should be adjusted to the needs of a specific river section, reservoir or embankment area and ensure a long-term sustainability of sediment flow, also improving the good ecological status and ecosystem services provided by key river ecosystems and habitats, including wetlands and protection of biodiversity. Nature based solutions and building with nature should be prioritised. Use of satellite-based remote sensing is encouraged to complement more traditional approaches on effectiveness assessment of the chosen measures and solutions.

Proposals must:

- Carry out demonstration activities in 3 different Member States and/or Associated Countries of the Danube river basin, involving and including in the consortium entities from these three countries. These demonstration activities should be selected on the basis of their relevance and impact at the river basin scale and based on the recommendations and results of the previously mentioned projects (ICPDR Danube Sediment Interreg project and SIMONA);

- Proposals should also identify areas and locations where the proposed solutions are replicable and draw up an action plan and roadmap needed for the replication and scale up of the solutions for sustainable and effective sediment management at a river basin scale.

The projects should include impact monitoring of the activities affecting sediment flow within the Danube river basin and into the Black sea, based on and in cooperation with the ICPDR sediments monitoring system set up through previous projects such as SIMONA and in cooperation with the national water/river management authorities concerned and relevant European Research Infrastructures. In addition, the project will monitor the impacts and effectiveness of demonstration activities at a local scale.

To address the impact-driven approach of the Mission and the nature of Innovation Actions, proposals are expected to work with and engage at least 5 'associated regions' to showcase the feasibility, replicability and scalability of the solutions developed within the projects in other areas. 'Associated regions' are understood as areas with ecosystems that can benefit from the demonstration activities (e.g. neighbouring regions and/or regions in a different sea basin) and/or less-developed regions, with the need to build capacity to implement the innovative solutions to improve management of sediments in a river basin. The proposals should ensure that the 'associated regions' are located in Member States/Associated countries other than those that are part of the project consortium. The involvement of 'associated regions' that have not yet participated in Mission projects is encouraged. The partners should proactively reach out to the 'associated regions' to enable them to follow closely the project

and its demonstration activities. The projects should continuously share their outcomes and knowledge with those ‘associated regions’ and provide them with technical assistance to build capacity and to implement sustainable, balanced and effective sediment management at a river basin scale in their territory that contribute to achieving the Mission objectives. The technical assistance to the ’associated regions’ should include the provision of technical advisory services necessary to the prepare roadmaps, plans and projects to restore sustainable and balanced sediment flow at a river basin scale by addressing possible barriers, improving sediment quality, implementing effective sediment monitoring systems at a river basin scale and showing the feasibility of implementing innovative solutions. Proposals should outline the selection process of the third parties to which financial support would be granted based on principles of transparency, objectivity and fairness, in accordance with part G of the general annexes to this work programme. The projects should support data and knowledge sharing through and as well benefit from the Ocean and Water Knowledge System to foster cross-regions, pan-European approaches.

The maximum amount of Financial Support to Third Parties is EUR 100,000 per 'associated region' for the entire duration of the action. Proposals should outline the selection process of the third parties to which financial support would be granted based on principles of transparency, objectivity and fairness.

The proposals are expected to integrate actions to support the social and economic transitions towards sustainable, inclusive and long term management of the restored and protected ecosystems, including natural, social, economic and cultural elements and business models for generating revenue from the restored and protected ecosystems and involve for that purpose local business communities, in particular SMEs, investors and other business stakeholders.

Training and communication activities addressing stakeholders, including regional and local authorities from the ‘associated regions’ should be included in each proposal. Local actors, including where appropriate, the European Solidarity Corps and Mission Citizen Assemblies, should be involved in the demonstration activities.

The proposal should consider actions to prevent and reduce pollution from different sources (such as chemicals and organic pollutants) affecting sediments with a view to improving their quality.

The proposals should also build on research and innovation developed in the current and previous EU framework programmes, such as but not limited to Horizon2020 and Horizon Europe (notably with projects selected under topics HORIZON-MISS-2021-OCEAN-01-02; HORIZON-MISS-2021-OCEAN-02-02 and HORIZON-MISS-2021-OCEAN-02-04) and the Strategic Research and Innovation Agenda for the Black Sea (SRIA), LIFE, Interreg projects (such as Danube Flood Plain), EU monitoring programmes (Copernicus land and climate change monitoring services, EMODnet) and national and regional programmes in the Danube river basin (e.g. Interreg 2021-2027 / EU Macroregional Strategies) as well as the activities of Water4All Partnership and Sustainable Blue Economy Partnership and the Common Maritime Agenda for the Black Sea, in particular in the framework of sustainable sediment management. Additionally, projects should collaborate with projects funded under the topic HORIZON-INFRA-2022-EOSC-01-03 to adopt best practices regarding FAIR and open data sharing.

The projects funded under this topic should:

- build links with other Mission activities and other relevant activities within the lighthouse and its area to maximize synergies, as well as with the European Blue Parks, other Mission lighthouses and their activities;

- build links with the Mission implementation monitoring system that will be part of the Mission Implementation Support Platform and with the Danube river basin lighthouse support facility and platform, for reporting, monitoring and coordination of all relevant implementation activities in the lighthouse area as well as with the Blue Parks technical support platform;

- build links with the activities of the International Commission for the Protection of the Danube River in the area of sediment management, with the Danube sediment monitoring framework as well as with the national and regional authorities with competence in the area of river and water management;

- support the Ocean and water knowledge system, in particular by contributing to hydrological or biodiversity monitoring, modelling and knowledge creation and data.

Proposals are expected to show how their activities and results will support the European Green Deal and the European Biodiversity Strategy, in particular its target of 25,000 km of free flowing rivers and demonstrate how they will achieve the Mission’s objectives, taking into account the timeframe of the Mission phases, i.e.: by 2025 for the ‘development and piloting’ phase and 2030 for the ‘deployment and upscaling phase’.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2023-ocean-01-02;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Mission Climate adaptation, Mission Ocean & waters and Mission Soil Deal for Europe – Joint demonstration of an integrated approach to increasing landscape water retention capacity at regional scale, deadline: 20. September 2023 17:00 Brussels time

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

- Demonstrated effective and inclusive integrated approaches to the management of landscape, soil, water and vegetation at a regional level, to increase the resilience to climate change impacts on soils, waters, habitats and biodiversity;

- Demonstrated effective nature-based solutions and ecological approaches to increase landscape water retention capacity, including soil water retention capacity;

- Demonstrated economic feasibility of these solutions, ensuring their long term sustainability;

- Enhanced implementation of the European Green Deal, the EU Adaptation Strategy, the EU Biodiversity Strategy, EU legislation for the protection of freshwaters (such as the EU Water Framework Directive and EU Groundwater Directive) and the EU Soil Strategy for 2030;

- Better information and greater mobilisation of all relevant actors, including citizens, local and regional authorities and planning bodies, farmers, foresters, land owners, business owners and economic operators, soil protection and management organisations, water management and planning bodies, for an effective and sustainable governance of soil, water and all other landscape components to achieve climate change resilience and increase water retention in the landscape.

This joint topic relates to the Adaptation to Climate Change Mission's third objective, aiming to support at least 75 full-scale deep demonstrations of climate resilience, to the Mission Ocean & Waters' objective 1, protect and restore marine and freshwater ecosystems and biodiversity, and objective 2, prevent and eliminate pollution of marine and freshwaters. The topic also relates to several specific objectives of the Mission "A Soil Deal for Europe", including to the objectives to reduce soil degradation and soil sealing and to prevent erosion. It also contributes to the objectives of the Water Framework Directive (WFD), including achieving Good Ecological and Chemical Status and restoration of aquatic ecosystems, to the objectives of the Groundwater Directive as regards improvement of chemical status of ground waters, as well as to the freshwater objectives of the Biodiversity Strategy 2030 on the re-naturalisation of rivers and the restoration of floodplains.

Landscape water retention capacity is understood as the ability of water bodies, soils and other ecosystems to retain water after it has fallen as precipitation; it is fundamental for the protection of biological diversity as life depends on water. High landscape water retention capacity prevents accelerated surface run-off, increases water content in soils and surface and ground water availability for vegetation, improves the quantity and quality of groundwater and aquifer recharge, reduces soil erosion and nutrient run off into surface water bodies, and improves local micro-climate by reducing local air and biomass temperature. As such, it has the potential to prevent and mitigate impacts of extreme hydrological events such as floods and to act as a buffer against heat extremes. Permanent vegetation in a landscape, such as forest areas, wetlands and permanent grasslands, significantly improves water retention capacity.

Projects should demonstrate socio-ecological approaches and nature-based solutions to increase landscape and soil water retention capacity, leading to improvement of quality and quantity of ground and surface waters in the area where they are deployed, and boosting resilience to climate change impacts. A combination of nature-based measures with hybrid solutions and relevant Blue-Green engineering may be considered, provided these combined solutions are sustainable and provide adequate social and environmental safeguards.

The consortium must carry out demonstration activities in 3 different Member States or Associated Countries, involving and including in the consortium partners from these respective countries. Proposals under this topic should comprise full-scale demonstration of innovative solutions in real conditions of landscapes in the countries selected for demonstration activities, with specific impacts leading to a measurable increase of the resilience and adaptation capacity of the areas involved, whilst contributing to climate change mitigation, surface and ground water quality, soil health improvement and biodiversity protection and conservation. Applying a multi-actor approach, demonstrations should be carried out at the level of socio-ecological territorial units that are large enough to allow covering the different living and non-living systems (soil, water, vegetation and other biota, human communities, etc.) in a landscape and the complex web of relations among them (e.g. a region or a sea/river basin).

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

The project(s) should also identify, create and disseminate best-practice examples for end-users (e.g. farmers and other land managers, decision-makers, water management authorities, landscape planners) to ensure landscape water retention capacity

in the long term, including soil water retention capacity, with a view to boosting resilience to climate change, preventing biodiversity loss and promoting at the same time socio-economic transition processes in an ecosystem-based and circular economy perspective, and promote those best practices among the end users.

The demonstration sites established within the project(s) funded under this topic could qualify as “lighthouses” in the sense of the Mission A Soil Deal for Europe if and when they comply with the criteria laid down in the Implementation Plan of that Mission.

Proposals should both:

- Involve at least five 'associated regions' as third parties, to showcase the feasibility, replicability and possibility to scale up the solutions developed. The consortium will proactively reach out to these associated regions to enable them to follow closely the project and its demonstration activities, transferring knowledge to them and technical assistance to build capacity and to implement integrated approaches for landscape, water and soil management to increase landscape water retention capacity in their territories; and

- Draw up an action plan and roadmap to replicate and scale up the solutions within the ‘associated regions’ and beyond them, to increase landscape water retention capacity, including soil water retention capacity.

As a mechanism to provide knowledge transfer and technical assistance to the associated regions, the selected project should provide support to third parties in the form of grants. The maximum amount of the envisaged Financial Support to Third Parties is EUR 100 000 per third party for the entire duration of the action. Proposals should outline the process for selection of the third parties to which financial support would be granted, based on the principles of transparency, objectivity and fairness.

The project(s) funded under this topic should address all the below points:

- Contribute to the networking and coordination activities and joint activities of the three Missions, including by establishing links with projects funded under Horizon 2020, including the European Green Deal call, and under Horizon Europe, where they are relevant for climate adaptation and soil health knowledge and solutions;

- Include a mechanism and resources to establish links with the Implementation Support Platform of the Mission Ocean and Waters and build links with other activities of this Mission to maximize synergies;

- Include a mechanism and the resources to establish operational links with the Climate-ADAPT platform (run by the European Environment Agency (EEA) together with DG CLIMA) that will act as a central element for the monitoring, support and visualisation of the Adaptation to Climate Change Mission progress in European Regions. To this purpose, projects will feed their results to the Climate-ADAPT and EEA assessments and should include a mechanism to establish links with the Mission Adaptation to Climate Change Implementation Platform;

- Include a mechanism and resources to establish links with the Implementation Platform being established for the Mission A Soil Deal for Europe; and

- Support the Ocean and Water Knowledge System and the EU Soil Observatory, in particular by contributing to knowledge creation and data collection.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2023-clima-ocean-soil-01-01;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ MSCA Feedback to Policy 2023, deadline: 06. June 2023 17:00 Brussels time

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Project results are expected to contribute to the following outcomes:

- Coordinated monitoring and exploitation of the contribution of Horizon 2020 and Horizon Europe MSCA projects to the EU Missions;

- Enhanced interaction between MSCA beneficiaries, researchers and policymakers, on research results and their contribution to policy developments, and greater collaboration among MSCA beneficiaries and researchers themselves particularly in view of possible follow-up partnerships and funding opportunities;

- Detailed MSCA portfolio analysis in the EU Missions areas;

- Recommendations for strengthening the policy impact of the MSCA;

- Assessment of the contribution of the MSCA to the ERA policy objectives related to support for researchers' training and skills development, and intersectoral cooperation;

- Strengthened synergies and complementarities between the MSCA and other relevant EU-funded initiatives and programmes linked to the EU Missions, researchers' training, skills and career development and related intersectoral cooperation.

While the bottom-up nature of the MSCA is and will remain its core principle, there is a need to have an overview of the funded research portfolio and make stronger thematic links between MSCA projects, raise visibility of their impact on ERA priority areas and gather stakeholder feedback on ways to maximise the MSCA impact. Given the thematic diversity of MSCA-funded projects, the scope of this call cannot cover all the areas to which the MSCA contribute. It should be seen as a pilot to map areas and types of intervention for possible similar actions in the future that will support a broader policy feedback process.

One of the objectives of this action is to support ongoing and planned Commission initiatives which focus on exploiting and assessing the impact of Horizon 2020 and Horizon Europe projects results in relation to thematic and cross-cutting priorities, including the EU Missions.

It also aims to assess the extent to which MSCA projects achieve two of the core horizontal policy objectives of the programme: the development of researchers' training, skills and career and the related promotion of intersectoral collaboration.

Activities should therefore include the contribution and impact of MSCA projects in relation to:

- The EU Missions and societal challenges they address;

- Researchers' skills development, including but not limited to the skills needed to tackle the thematic areas of the Missions;

- Cooperation between academic and non-academic organisations, with the emphasis on the business sector.

The activities should contribute to strengthening complementarities between ongoing MSCA projects, especially with a view to better exploiting their results and maximising their impact vis-à-vis the thematic and cross-cutting priorities mentioned above.

The proposed activities should include:

- Consolidating the ongoing EU Missions cross-portfolio analysis to make full use of MSCA projects results and analyse their contribution to each individual Mission;

- Identifying good practice examples of cooperation between academic and non-academic organisations, with a special emphasis on the business sector as well as the main obstacles for stronger intersectoral cooperation in MSCA;

- Identifying researchers' training, skills and career development needs (both research-related and transferable) to tackle societal challenges, including those covered by the Missions;

- Exploring ways to consolidate the available training material developed in MSCA projects, especially on transferrable skills, and exploring how to make it more broadly accessible for further exploitation;

- Following up the existing policy feedback activities under the MSCA, particularly through coordination with the ongoing Commission activities (cluster events, studies and analyses) and through regular consolidation of the outcomes and deliverables of policy feedback activities;

- Supporting/complementing existing communication and dissemination efforts by the European Commission to promote and share MSCA success stories and examples of good practice in the thematic and horizontal priorities of this call (EU Missions, intersectoral cooperation, researchers' training, skills and career development);

- Identifying good practice of synergies between MSCA projects and other relevant programmes and initiatives;

- Providing practical recommendations on how to better exploit MSCA project results and enhance impact in the areas of EU Missions, intersectoral cooperation and researchers' skills and career development in line with the call's objectives.

- Analysing trends in research to feed back into the MSCA and Commission R&I policy. Due to their bottom-up nature, the MSCA provide a valuable resource for tracking changing research trends and can provide and evidence base for any changes in the latter stages of Horizon Europe as well as the design of subsequent framework programmes;

The expected deliverables should include a combination of analytical reports, *ad hoc* policy briefs, stakeholders' events and meetings, policy roundtables and different communication and dissemination support actions, such as:

- Studies, analyses, reports looking into trends and developments in MSCA relevant to:

    - The EU Missions, including citizens' engagement activities;

    - Researchers' skills and career development and training;

    - Intersectoral cooperation between academia and other sectors (businesses, industry, SMEs, public administration, civil society organisations, etc.), as well as motivation and obstacles to engage in such cooperation;

- Examples of synergies and complementarities with other EU/national/regional programmes and frameworks.

- Consolidation of projects results for policy feedback and communication and dissemination purposes;

- Dissemination and networking activities using the results of cluster events and communities of practice identified for the events; consulting project beneficiaries on policy needs, dissemination based on reports and feedback from cluster events; providing input into coordination of cluster events (e.g. suggesting themes, format and structure of cluster events);

- Synthesis of coordination activities linked to policy feedback and the improved exploitation of MSCA projects results: e.g. preparatory briefings, follow-up reports, feedback consolidation linked to MSCA cluster events, *ad hoc* policy briefs and monitoring of exploitation opportunities.

The maximum duration of the action is 48 months.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-msca-2023-ftp-01-01;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ The European Capital of Innovation Awards iCapital 2023, deadline: 29. June 2023 17:00 Brussels time

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The traditional city innovation ecosystem is opening up to new models of innovation engaging citizens. An increasing number of cities are acting as test beds for innovation and run people-driven initiatives to find solutions to societal challenges. The public domain is particularly challenged with finding effective ways to ensure the mainstreaming of these practices into the ordinary urban development process. Successful practices are particularly crucial to enhance the city's capacity to attract new resources, funds and talents to stimulate the growth of breakthrough innovations. Moreover, collaboration and strengthening synergies among innovation ecosystems boost cities' development and resilience to tackle urban challenges. For this reason, the European Capital of Innovation Awards will recognize the cities' role as catalysers of the local innovation ecosystem and will stimulate new activities aimed at boosting game-changing innovation.

In 2023, the European Capital of Innovation Awards will feature two categories.

The first one, the European Capital of Innovation category, would include cities which have a population of minimum 250 000 inhabitants and, based on the cumulative criteria set out below, would reward the winner (ranked 1st) with EUR 1 million and two runners-up (ranked 2nd and 3rd) with EUR 100 000 each one.

The second one, the European Rising Innovative City category, would include towns and cities with a population of 50 000 and up to 249 999 inhabitants; and, based on the cumulative criteria set out below, would reward the winner (ranked 1st) with EUR 500 000 and the two runners-up (ranked 2nd and 3rd) with EUR 50 000 each one. Each application has to contain a specific endorsement to apply signed by the city Mayor (or the equivalent highest political representative).

A European prize to the most innovative cities ecosystems. The award will raise the profile of the cities that have developed and implemented innovative policies; established frameworks that boost breakthrough innovation; enhanced the city attractiveness towards investors, industry, enterprises and talents; helped to open up connections and strengthen links with other cities, promoting the replication of best practices in the innovation field; enhanced citizens' involvement in the decision-making process; and supported cities resilience.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-eic-2023-icapital-prize-02-1;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Call on Centres of Excellence for Exascale HPC Applications, deadline 08. June 2023 17:00 Brussels time

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Centres of Excellence advancing specific Lighthouse Exascale Applications, at the frontier of technology and relevant for the communities of HPC users, that enable and promote the use of upcoming exascale and post exascale computing capabilities in collaboration with other High Performance Computer (HPC) stakeholders. They should implement concrete actions to increase the performance of applications and exploit these advanced computing capabilities. The goal is to develop or scale up existing application codes towards exascale performance, resulting into tangible benefits mainly for scientific challenges. Proposals for Centres of Excellence - Exascale Lighthouse applications will exploit existing federated resources around Europe, developing available competences, and ensuring multidisciplinary (combining application domain and HPC system, software and algorithm expertise).

This topic builds and complements the HORIZON-EUROHPC-JU-2021-COE-01-01: Centres of Excellence preparing applications in the Exascale era call.

Proposals should focus on the development of specific and clearly identified applications (i. e. codes), convincingly demonstrate their exascale capabilities and needs, and present a detailed software development plan with clear timeline for the implementation including quantitative KPIs, milestones and deliverables. This includes codes and tools that support the analysis and assessment of academic or industrial applications with potential for performance optimisation that can exploit the current and future advanced computing capabilities. Research activities on the basis of use cases are not within the scope of the action and use cases should be limited to test runs required for development purposes such as regression tests.

Proposals for Centres of Excellence in Topic HORIZON-EUROHPC-JU- 2023-COE-01-01 must clearly identify one of the following the Exascale Lighthouse application areas:

- Personalised Medicine/ Digital twin of the human body

- Human Brain research & neurological disorders

- Energy: optimising energy consumption and supporting the transition to a reliable and low carbon and clean energy society;

- Performance optimisation: analysis and assessment, tools and optimisation and productivity services for HPC academic and industrial code(s) (including support to selected Centres of Excellence)

Only one proposal will be selected per Exascale Lighthouse applications topic identified above. Proposals should also be able to articulate clearly the scientific grand challenge(s) which will be addressed by the applications and why the exascale performance is needed.

Targeted applications should be relevant for communities of HPC users as well as for future EuroHPC JU systems to be acquired. Proposals should be inherently committed to co-design activities to ensure that future HPC architectures are well suited for the applications and their users.

Requirements for CoEs:

- Clear identification of the targeted applications and related codes, including their user basis and the global impact in their domain. The ownership and license of each code must be listed in the proposal. Only applications (software) which are owned or controlled by the consortium members are eligible.

- Describe the European user communities of the targeted applications, the current and predicted use on EuroHPC infrastructure as well as the impact of the planned developments on the European users.

- Demonstrable advances of the targeted HPC applications towards highly scalable, optimised flagship codes and exascale performance (both computing and extreme data). This includes developing, maintaining, porting, optimising (if needed re-designing) and scaling HPC application codes, addressing the full scientific/industrial workflow, particularly covering data aspects; testing and validating codes and quality assurance. This also includes horizontal tools and services that can be applied to parallel codes in any application domain to analyse and improve their performance.

- Addressing the exascale and post exascale related technical challenges, such as load balancing; resilience; heterogeneity programming models, in particular accelerator-based architecture programming; run-time systems; workflow management tools; development environments and production environments.

- Involvement in co-design activities (hardware, software, codes), including the collaboration with HPC vendors and the identification of suitable applications relevant to the development of European HPC technologies towards exascale and collaboration with European initiatives (e.g. EPI, RISC- V, EuroHPC JU Pilots).

- Activities to improve the energy efficiency of applications, algorithms, methods, libraries and/or tools.

- Enlarging and expanding HPC applications development and use, in particular for new user communities in EU countries and countries associated to Horizon Europe that are members of the EuroHPC Joint Undertaking currently developing and advancing their HPC infrastructure and ecosystem.

- Federating capabilities and integrating communities around exascale computing in Europe.

- Include clear KPIs on the optimal employment of current and/or emerging HPC technologies, allowing the assessment of the progress towards the objectives, both in terms of outputs and ultimate impact.

- Coordinate within the European ecosystem, including Competence Centres, to address the skills gap in the targeted exascale applications and codes, by specialised training and capacity building measures to develop the human capital resources for increased adoption of exascale solutions.

- Coordinate with Competence Centres to ensure wider access to codes and foster their uptake by scientific user communities.

- Proposals should ensure the cooperation with complementary projects launched specifically in the area of the “EuroHPC-2020-01-a: Advanced Pilots towards the European Supercomputers” including also the need to establish from the beginning of this cooperation appropriate IP exploitation agreements and should provide preliminary benchmarking data on new and emerging HPC technologies.

In addition, proposals should ensure collaboration with other Centres of Excellence for HPC applications, and other national and EU funded activities that focus on similar or complementary objectives for HPC codes and applications, in order to maximise the synergies and optimise such codes and applications for current and future architectures of EuroHPC supercomputers. This includes participation in the common continuous integration and deployment platform developed by Centres of Excellence for HPC applications selected in call HORIZON-EUROHPC-JU-2021-COE-01 and the associated Coordination and Support Action CASTIEL 2. Selected proposals are expected to accede the collaboration agreement between existing Centres of Excellence and CASTIEL 2.Proposals should also clearly demonstrate that all partners in the consortium have a significant and justified role, including appropriate deliverables under their responsibility which cover the specific contributions of each partner.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-eurohpc-ju-2023-coe-01-01;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ The European Capital of Innovation Awards Rising 2023, deadline 29. June 2023 17:00 Brussels time

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The traditional city innovation ecosystem is opening up to new models of innovation engaging citizens. An increasing number of cities are acting as test beds for innovation and run people-driven initiatives to find solutions to societal challenges. The public domain is particularly challenged with finding effective ways to ensure the mainstreaming of these practices into the ordinary urban development process. Successful practices are particularly crucial to enhance the city's capacity to attract new resources, funds and talents to stimulate the growth of breakthrough innovations. Moreover, collaboration and strengthening synergies among innovation ecosystems boost cities’ development and resilience to tackle urban challenges. For this reason, the European Capital of Innovation Awards will recognize the cities’ role as catalysers of the local innovation ecosystem and will stimulate new activities aimed at boosting game-changing innovation.

In 2023, the European Capital of Innovation Awards will feature two categories.

The first one, the European Capital of Innovation category, would include cities which have a population of minimum 250 000 inhabitants and, based on the cumulative criteria set out below, would reward the winner (ranked 1st) with EUR 1 million and two runners-up (ranked 2nd and 3rd) with EUR 100 000 each one.

The second one, the European Rising Innovative City category, would include towns and cities with a population of 50 000 and up to 249 999 inhabitants; and, based on the cumulative criteria set out below, would reward the winner (ranked 1st) with EUR 500 000 and the two runners-up (ranked 2nd and 3rd) with EUR 50 000 each one. Each application has to contain a specific endorsement to apply signed by the city Mayor (or the equivalent highest political representative).

A European prize to the most innovative cities ecosystems. The award will raise the profile of the cities that have developed and implemented innovative policies; established frameworks that boost breakthrough innovation; enhanced the city attractiveness towards investors, industry, enterprises and talents; helped to open up connections and strengthen links with other cities, promoting the replication of best practices in the innovation field; enhanced citizens' involvement in the decision-making process; and supported cities resilience.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-eic-2023-icapital-prize-02-2;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=

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/HORIZON EUROPE/ The EU Prize for Humanitarian Innovation, deadline 03. October 2023 17:00 Brussels time

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The European Prize for Humanitarian Innovation celebrates the humanitarian organisations, social enterprises, and companies that are developing technology to deliver better quality assistance to vulnerable people affected by natural disasters and man-made crises such as conflicts. The prize recognises innovations and the organisations that develop them so that they may inspire other humanitarian actors to scale up actions that allow more effective and efficient delivery of humanitarian assistance. The prize will be awarded to the organisations that have developed and are deploying innovative solutions for the delivery of humanitarian aid, that are cost-effective, simple to use and re-use, scalable in different humanitarian aid settings and sectors such as shelter, water and sanitation, energy, heating or cooling, food, hygiene, protection, natural disaster risk reduction and health care and based inter alia on the application of digital technologies. Solutions should be tested and proven use cases of disruptive innovation, aimed at changing the paradigm and promoting more efficient humanitarian aid delivery and based on advanced technologies and services, including digital technologies demonstrating the added value and potential of one or more advanced technologies. The prize will be awarded to eligible organisations from across the EU and countries associated to Horizon Europe, who have transformed their ideas into disruptive innovations which provide assistance to vulnerable people affected by humanitarian crises.

Supporting the development and scaling of disruptive innovations with the potential to deliver a more cost-effective, sustainable and higher-quality aid delivery, leading to an optimised use of humanitarian funding and an enhanced response to urgent needs in a humanitarian aid settings, notably for those in a most vulnerable situation, in areas such as shelter, water and sanitation, energy, heating or cooling, food, hygiene, protection, natural disaster risk reduction and health care.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-eic-2023-humanitarian-prizes-05;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Pathways to Synergies, deadline 28. September 2023 17:00 Brussels time

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ynergies between Horizon Europe and the cohesion policy programmes, mainly the European Fund for Regional Development (ERDF) but also INTERREG and the Resilience and Recovery Fund (RRF), are instrumental for widening countries to catch up in their R&I performance and to reduce the innovation divide in Europe. Although such synergies are already addressed in the Teaming and Excellence Hubs actions under this work programme these instruments do not capture the full range of possible synergies and need to be complemented by a dedicated scheme. The Draft COMMISSION NOTICE Synergies between Horizon Europe and ERDF presents the new opportunities for achieving operational synergies between Horizon Europe and the ERDF, including for Seal of Excellence, transfer, cumulative funding, combined funding (Co-funded and Institutionalised Partnerships), Teaming, and upstream/downstream synergies. This pilot call offers opportunities to incentivise the concrete realisation of particularly promising sequential synergies in two different pathways either supporting the upstream synergy mode (a) or downstream synergy mode (b) where the former is focusing on human resources development and internationalisation and the latter on valorisation and upscaling of research results towards marketable solutions.

The following overall outcome is expected:

- Improved and more systematic synergies between Horizon Europe and Horizon 2020, and ERDF, IPA (instrument for pre-accession assistance), RRF, INTERREG or similar funding instruments through internationalisation, valorisation and technology uptake;

- Strengthened competitiveness of R&I actors in Widening countries;

- Accelerated knowledge transfer and innovation cycle for beneficiaries from ERDF and Horizon 2020 and Horizon Europe;

- Strengthened innovation capacity and competitiveness of less R&I performing regions.

For actions opting for pathway a) on upstream synergies the following specific outcome is expected:

- Joint internationalisation strategy for R&I;

- Human resources development strategy;

- Improved access to excellent European R&I networks and communities;

- Increased competitiveness and reputation in applications for European and international research funding;

- Overcoming locked-in effects for former mono-beneficiaries funded under ERDF;

- Acquisition of new transferable skills for R&I staff notably in the fields of knowledge transfer, R&I management and communication;

- Better use of R&I infrastructure funded under ERDF.

For actions opting for pathway b) on downstream synergies the following specific output is expected:

- Valorisation of results generated in Horizon Europe or Horizon 2020 projects in a regional context;

- Improved knowledge transfer and technology uptake in less R&I performing regions;

- Exploitation and diffusion of R&I results into the market in line with national/regional smart specialisation priorities;

- Preparation of pilots and demonstrators in the chosen R&I domain for funding under ERDF;

- Improved intellectual asset management and technology uptake.

The purpose of this action is to provide support for additional efforts required for setting up the interfaces between two different funding systems where major barriers still occur due to the mismatches of regional versus European approach, consortium vs single beneficiary funding and Horizon thematic priorities vs national/regional smart specialisation. Consortia should decide at proposal level which of the two aforementioned pathways is applicable for their needs. This will also influence the composition of the applicant consortium and the choice of funded activities.

More specifically, consortia applying for funding under pathway a) should be composed of a core group of at least three different public or private research entities established in at least two different Widening countries that were beneficiaries from ERDF, RRF or similar investments for R&I including infrastructure in the current or previous programming period. These applicants should provide evidence for (e.g., contract numbers) and a short description of the investment. In addition to this core group other participants also from non-Widening countries may join if their roles are duly explained and justified e.g., by providing training, coaching, strategic advice, knowledge transfer, hosting staff secondments etc. as long as the EU contribution to these participants does not exceed 30% of the total EU contribution.

The main goal of the pathway a) is to move formerly single beneficiaries of regional funding programmes out of isolation via cross-border collaboration and to prepare them for successful participation in Horizon Europe calls by strengthening their competitiveness by means of a customised bunch of activities. Therefore, proposals should present a coherent and strategically convincing package of activities with a particular focus on internationalisation strategies and human resources development. The latter may include training and coaching on non-scientific skills such as management of international R&I projects, knowledge transfer and science communication. HR capacity building may be complemented by suitable study visits and short-term secondments to partners. Communication activities including social media should contribute to raising the reputation and visibility of the members of the core group. This may include advertising their technical infrastructure (funded under ERDF) to potential partners in future competitive calls. Early-stage co-operation with NCP organisations is strongly encouraged.

Consortia applying for funding under pathway b) on downstream synergies should be members of a consortium of one or two completed or ongoing projects (in the same domain) RIA(s) funded under Horizon Europe or Horizon 2020 that has already generated validated (e.g., evidenced by approved deliverables, final or periodic reports, peer reviewed publications) research results to be valorised by support from ERDF, IPA, RFF funds or EIC financial instruments. The Horizon consortium should not necessarily participate in its full extent and can be represented by a core group of participants benefitting from valorisation.

For both pathways, participants from non-Widening countries may join the consortium, e.g., for the purpose of knowledge transfer as long as the majority of participants are from Widening countries and EU contribution to widening participants is at least at the level of 70% of the total EU contribution. For the valorisation activities the consortium should identify at proposal stage up to three focus regions located in Widening countries where the implementation of downstream synergies actually should take place. Additional partners without contractual relationship especially from the focus regions may be associated, notably regional authorities in charge of managing the ERDF or similar funds and SMEs are especially encouraged and may serve as catalysts for the uptake of R&I results generated under Horizon. Activities, supported under this CSA may include identification and mapping of specific research results for valorisation generated in Horizon projects with a potential for valorisation, matchmaking between HE beneficiaries and ERDF project partners around regional/national S3 priorities, analysis on how existing Horizon project outputs and results can be exploited in line with the territorial needs described in the ERDF/RRF or similar programmes, workshops with management authorities and local business, specification of demonstrators and pilots, IPR management and technology uptake. Special attention should be paid to the preparation of applications to calls under regional programmes. Communication and dissemination activities should contribute to raising the reputation and visibility of EU funded activities in the focus regions. The funding is considered seed funding and no guarantee for the actual acquisition of synergetic funding needs to be given at the level of the proposal.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-widera-2023-access-04-01;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Towards a holistic support to children and adolescents' health and care provisions in an increasingly digital society, deadline 19. September 2023 17:00 Brussels time, 1. Step

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This topic aims at supporting activities that are enabling or contributing to one or several impacts of destination 1 "Staying healthy in a rapidly changing society". To that end, proposals under this topic should aim for delivering results that are directed at, tailored towards and contributing to all of the following expected outcomes:

- Children, adolescents and their parents/carers are educated and empowered in prevention strategies involving personalised approaches and solutions (also through the use of digital tools) to manage, maintain and improve children's and adolescents' own health, physical activity, nutrition habits, leisure needs, mental and social well-being, in full respect of the privacy of individuals.

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

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

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

Laying the ground for a healthy life starts in childhood. Accordingly, and in line with the HealthyLifestyles4All Initiative, the 'Healthier Together' – EU Non-Communicable Diseases Initiative, and the Communication of the Commission on enabling the Digital Transformation of Health and Care, the main goal of the research and innovation should be to promote healthier societies by developing holistic solutions that foster healthy lifestyles from early age with long-term impact(s).

Digitalisation poses risks but can also be a driving force for empowering young citizens, who are growing up in an increasingly digitised world, in taking an active role in the management of their own health conditions, mental and social well-being, and promote healthy lives and disease prevention, through innovative solutions, coordinated person-centred care models and better health literacy.

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

The proposed research and innovation should focus on several of the following aspects:

- Develop and advance person-centred, evidence-based and coordinated disease prevention intervention solutions to support children and adolescents' health and care in an increasingly digital society. The effectiveness of the intervention solutions should be evaluated, inter alia, in terms of health outcomes, (comparative) cost-effectiveness, implementation facilitators and barriers. The target group should include children and adolescents up to 25 years of age from different socio-economic backgrounds.

- Develop and integrate innovative, privacy preserving tools and technologies, such as (but not limited to) activity trackers, sensors, serious games, platforms and robotics, Massive Open Online Courses (MOOCs) in coordinated and integrated care models, to help children and adolescents lead healthy, active and social lifestyles, prevent diseases, as well as to better monitor and manage their physical, social and mental health. Empower children and adolescents to navigate the health and care systems, interact with their doctors, formal and informal carers, social circles, as well as better manage their own health at home, in the community and at school, taking into account specific youth psychiatric risk factors, the risk of addiction, as well as the geographic, social and economic determinants of health and digital literacy inequities.

- Stimulate the adoption of person-centred approaches and solutions for better health, care and well-being of children and adolescents, by including stakeholders from all the relevant sectors (including but not limited to education, leisure, social innovation, healthcare, Medtech, media and citizens) in the co-creation, design, planning and adoption of the solutions, as well as the training of their end-users.

- Develop and disseminate evidence-based guidance and tools for children and adolescents promoting healthy balance between a sedentary digitised lifestyle and a more active non-digitised lifestyle in support of their physical, mental and social health and well-being on short- and long-term basis.

- Develop, implement (pilot and/or scale-up) and promote person-centred tools and interventions for better physical and mental wellbeing, addressing the risks of digital addiction and overconsumption, isolation and mental illness, by promoting physical, intellectual or artistic activities, social interaction and providing mental health support and treatment.

In all instances, gender as well as demographic, geographic and socio-economic aspects should be duly taken into account.

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

Moreover, greater involvement of non-health sectors directly affecting risk factors and determinants of health, for example (physical) environment, food and nutrition, security, education, sports, finance, industry is desirable/encouraged, as relevant.

Proposals should be highly integrated, ambitious, go beyond simple networking and provide appropriate indicators to measure progress and impact.

Selected projects under this topic are strongly encouraged to participate in joint activities as appropriate. These joint activities could, for example, take the form of clustering of projects and involve joint coordination and dissemination activities such as the participation in joint workshops, the exchange of knowledge, the development and adoption of best practices and adoption strategies on regional, national and European level. The details of these joint activities will be defined during the grant preparation phase with the Commission. Applicants should plan a necessary budget to cover this collaboration.

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

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-hlth-2024-stayhlth-01-02-two-stage;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Access to health and care services for people in vulnerable situations, deadline 19. September 2023 17:00 Brussels time, 1. Step

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This topic aims at supporting activities that are enabling or contributing to one or several expected impacts of destination 4 “Ensuring access to innovative, sustainable and high-quality health care”. To that end, proposals under this topic should aim for delivering results that are directed, tailored towards and contributing to several of the following expected outcomes:

- Decision- and policymakers, service providers, and health and care workers have better availability to and make use of knowledge on barriers to access to health and care services experienced by people in vulnerable situations and at risk of stigma or discrimination (from now on referred to as people in vulnerable situations).

- Decision- and policymakers, providers and health and care workers have access to innovative solutions to promote and improve access to health and care services for people in vulnerable situations.

- Decision- and policymakers and providers have access to reliable quantitative data on health inequalities in access to health and care services for people in vulnerable situations.

- People in vulnerable situations are better equipped in terms of health and digital literacy, knowledge about their rights etc. when it comes to access to health and care services.

- People in vulnerable situations are involved in the design and implementation of research and innovation activities concerning access to health and care services.

Equal and needs-based access to health and care services are important values of the EU, as well as central principles within the Member States (for example 2006 Council Conclusions on Common values and principles in European Union Health Systems, European Pillar of social rights). At the same time, plenty of evidence indicates that there is unmet need for health and care services. Although financial barriers are an important part of the explanation, it is also evident that even in countries where co-payment is low or even zero, access to health and care services differs between groups. Certain groups are more at

risk of not accessing all the health and care services they need, depending among other factors, on their socio-economic and legal status, age, sex and gender identity, (dis)ability, ethnicity and geographical location.

For example, the life expectancy for the Roma people – the largest ethnic minority in the EU – is on average ten years shorter than the general population. This is because, due to poor socio-economic conditions and ethnic segregation, many Roma people live in enclaves where equal opportunities to services including infrastructure are lacking. Due to these inequalities that are also rooted in antigypsysim, Roma people are facing much greater difficulties accessing and receiving standard health and care services including prevention compared to other citizens.

There are significant health inequalities between the LGBTIQ community and the population as a whole. One part of the explanation is reluctance to seek health and care services because they have experienced or fear hostile reactions. Trans- and intersex people still struggle to access quality and affordable medication and care, both related to general health services and specific health care relating to transition, such as a lack of relevant medication or surgical procedures.

Compared to men, older women have a higher poverty risk also due to lower pay and lower pensions. They face a higher risk to live longer in poorer health, so their overall need for health and especially care services is therefore higher. People living in difficult socio-economic situations, such as homeless people or people at the risk of poverty may experience similar issues. For migrants and refugees, uncertain legal status, fear of public authorities, or language difficulties may cause additional barriers to seeking adequate health and care services.

Whilst factors outside the health and care sector also have an impact on people's access to health and care services, health and care systems can influence and facilitate access through accessibility, costs, referrals and attitudes.

Another aspect concerns access to data regarding certain groups. Whereas data on access to health and care when it comes to factors related to socio-economic characteristics, geographical barriers, sex, and age is more accessible, data on people in vulnerable situations (often due to the problem of sensitivity of data) is often less accessible, contributing to making the situation of these groups less visible.

Activities under this call should focus on groups that are in vulnerable situations from a social, financial or health perspective, or at risk of discrimination, such as migrants, Roma people, trans and intersex people, specific age and gender groups (that intersects with other aspects of vulnerability, such as elderly women), indigenous people, homeless people, people in poverty or at risk of poverty, people with disabilities or patients with complex conditions. Where relevant, activities should use intersectional approaches to consider, inter alia, socioeconomic factors, geography, citizenship, age, sex and gender identity, and ethnicity.

Next to the above-mentioned, research and innovation activities under this topic should address several of the following:

- Different types of barriers - different barriers to study could be financial, geographic, social, marginalisation and discrimination. When relevant, health and digital literacy aspects should be analysed. The selection of factors should be context specific as groups suffering from access barriers vary a lot across EU countries and at subnational level. The principle of needs-based health and care should be taken into account.

- Access to what? – for example: what part of the health and care system (from prevention, primary care and long-term care to tertiary care, any specific services, e.g. mental care) do different groups have access to? Is integrated care provided for these groups taking into account their particular needs? How much health and care services do different groups access?

- Solutions - What measures are needed to counter inequalities in health and care access and make sure that vulnerable groups access health and care services and that access is based on needs (measures to educate, support and empower vulnerable groups can be included here)? What are the costs, at different levels, to develop these solutions? Piloting of measures could be included. Community-based and/or co-created initiatives and peer-support approaches: what works and how can these be supported, sustained and/or integrated in the wider service landscape.

- Better data – improving access and quality of data will contribute to identify people in vulnerable situations' health needs and implement targeted measures corresponding to the challenges that each group experiences. The data could for example explore effectiveness of provided care (metrics helping to assess if provided care addresses the root causes of inequalities) or new valid methodologies to identify the unmet health related needs of people in vulnerable situations. Quantitative and qualitative data on inequalities in prevention, prevalence and treatment of different morbidities.

- Cost analyses - The cost of inequalities in access to health and care services: Quantitatively and/or qualitatively measure the negative impact on not taking measures for helping people in vulnerable situations have access to health and care services including prevention.

Proposals are expected to involve the people/groups studied in the design and implementation of the research and innovation activities and where relevant service providers and other stakeholders.

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 strongly encouraged to participate in networking and joint activities, as appropriate. Therefore, proposals should include a budget for the attendance to regular joint meetings and may consider covering the costs

of any other potential 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.

When relevant, funded actions should build on the work done by the European Joint Action on Health Equity Europe (JAHEE) and the upcoming activities under the EU4Health Programme (Direct grants to international organisations (WHO): supporting Member States in improving access to healthcare and effectiveness of health coverage, taking into account vulnerabilities of specific groups and targeted intervention and access to mental health for people in vulnerable situations).

Also, when relevant, projects should build on, and are encouraged to consider how their proposals can contribute to, the Commission's LGBTIQ Equality Strategy 2020-2025, the EU Strategy for the rights of persons living with disabilities, EU strategy on the rights of the child the Child Guarantee, the Gender Equality Strategy, the EU Roma Strategic Framework and the EU Strategy for the Rights of Persons with Disabilities 2021-2030.

Projects are encouraged to coordinate their activities with the planned European Partnership on Transforming Health and Care Systems, the Cancer Mission, the Cancer Inequalities Registry and the EU Non-Communicable Diseases Initiative.

Projects may explore the Health Systems Performance Assessment (HSPA) Report on more effective ways of measuring access to healthcare, published in 2021. The report provides a collection of tools used on the ground to better understand needs of people in vulnerable situations and adapt the health coverage to ensure more effective care.

2021 Country Profiles published in the framework of the State of Health in the EU can be used as a source of basic comparable data on health inequalities.

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

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-hlth-2024-care-04-04-two-stage;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ The role of environmental pollution in non-communicable diseases: air, noise and light and hazardous waste pollution, deadline: 19. September 2023 17:00 Brussels time, 1. Step

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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 tailored towards and contributing to all of the following expected outcomes:

- National and EU authorities apply user-friendly tools to produce and use generated data on the impact of pollutants on health;

- National and EU authorities benefit from access to robust and transparent indicators for health impact assessment to monitor efficacy of pollution-mitigating actions and policies;

- Policymakers and other stakeholders, e.g. public authorities such as urban planners, health professionals, employers, civil society organisations and citizens, use developed guidelines to take action to prevent pollution-related illnesses and impairments, and choose healthier lifestyles and behaviours;

- EU, national and regional authorities receive guidance and recommendations for updates of (1) scientific evidence about health risks caused by environmental pollutants (2) advice on management and mitigation of these health risks and (3) guidance and recommendations for updates of limit values for different classes of pollutants in the environment; these recommendations should take into account vulnerable population groups and people with increased vulnerability because of pre-existing medical conditions;

- The implementation of the Zero-Pollution Action Plan, the Chemical Strategy for Sustainability and the EU legislation on air quality, noise and waste continue to be supported by a strong evidence-base;

- Relevant actors in our daily lives, e.g. medical personnel, building engineers, teachers, urban planners etc., have access to information such as training courses on pollution and health impacts.

The European Green Deal set out by the European Commission recognises that man-made environmental pollution is an increasing threat for human health and wellbeing. Opinion polls show that climate change, air pollution, and waste are the three

most important environmental issues that European citizens are concerned about. Over three-quarters (78%) of respondents believe that environmental issues have a direct effect on their daily life and health.

Pollution affects a large number of people in Europe and beyond: A 2018 assessment attributed 16% of total global mortality to pollution-related disease. Over 7 million people die of exposure to polluted air every year worldwide. For 2019, the European Environment Agency has estimated that around 350 000 premature deaths in the EU can be attributed to air pollution (namely from particulate matter, nitrogen dioxide and ozone). Today, more than 1 in 4 Europeans is exposed to traffic noise levels dangerous to their health in their homes, schools and workplaces. The increase of artificial light at night (ALAN) in cities has altered the natural light levels in the environment and extended human activities to the usually dark hours. It has been estimated that more than 80% of the world population is living under light polluted skies. Waste continues to be a persistent environmental issue in Europe, and it is estimated that there are 2.5 million contaminated sites in Europe, with potentially significant adverse health effects.

The global burden from non-communicable diseases (NCDs) has consistently increased over the last decades, being now estimated to account for 70% of deaths globally (World Health Organization). The growing burden of chronic diseases will also be a challenge for Europe's healthcare systems, these diseases already accounting for an estimated 70-80% of healthcare costs. Currently, around 50 million European citizens suffer from two or more chronic conditions and most of these people are over 65. The most recent WHO environmental burden of disease estimations suggest that, annually, 13% of deaths (630 000) in the WHO Europe region are attributable to environmental stressors and an EEA report concluded that, 90% of deaths attributable to the environment result from non-communicable diseases, including cancers, cardiovascular diseases, stroke, chronic obstructive pulmonary disease, mental, behavioural and neurological disorders, diabetes, kidney disease and asthma. While early childhood deaths have declined, the years lived with disability have increased, particularly with chronic disease.

The proposed research should strengthen the knowledge base available to policymakers regarding pollution-disease associations and causal mechanisms at different phases of the life course, taking advantage of latest molecular, cellular and computational technologies to elucidate biological pathways from exposure (including combined exposures) to disease. The work should bring together toxicology, exposure science, public health engineering and environmental epidemiology, and build on data from sources such as pollution-related databases, disease registries, epidemiological studies and biobanks, environmental and human biomonitoring data and new generated data and could consider citizen science and other innovative approaches. All exposure routes should be considered where relevant (oral/digestive tract, inhalation, dermal).

The focus of this topic should be on three areas where the understanding of and evidence on causality should be strengthened to overcome the current paucity of data and respond to calls from policymakers. The applicants should focus on at least one of the following three aspects:

- Air pollution, especially in the urban environment, taking into account existing evidence, notably the latest WHO air quality guidelines of 2021 and their recommendations on different pollutants, including on pollutants of emerging concern, looking at e.g. ultrafine particles and interactions with aeroallergens, black carbon, sand and dust storms and impact on human health;

- Noise pollution and light pollution impact on human health;

- Pollution from hazardous waste (e.g. pharmaceuticals, illicit drugs, e-waste, plastics (including nano- and microplastics)) in heavily contaminated environments and adverse health outcomes.

Several of the following activities should be included:

- Research activities to strengthen the evidence base for pollution-disease associations and underlying causality mechanisms and biological pathways, taking into account combined exposures and mechanisms of increased sensitivity in susceptible groups;

- Delivery of FAIR data on causal associations between environmental risk factors and health outcomes, in particular for air pollutants of emerging concern, specifically ultrafine particles, black carbon, and others, taking into account vulnerable population groups and specific exposure situations in a life-course approach including vulnerable early-stages of life and transgenerational risks;

- Development of user-friendly tools for systematic mining and assessment of the knowledge generated and translation into best practices and to improve the assessment of individual life-exposure to pollutants;

- Proposals for environmental limit values for the studied pollutants and generation of health impact indicators, where relevant and taking into account existing standards and evidence;

- Development of guidelines and socio-economic and decision support tools for different actors including policymakers, health professionals and citizens to take action to prevent pollution-related illnesses and impairments, and to enable the choice of healthier lifestyles and behaviours;

- Identification of cross-sectoral interventions (case studies) with the potential for remediating pollution and risk of exposure and improving human health and well-being in the short/medium term;

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

- Design of best-practice evidence-based communication actions for fact-based risk and benefit communication and improving citizen awareness of pollution and preventive actions, offsetting dissemination of misinformation;

- Undertaking case studies to demonstrate the added societal value of tools, methodologies and guidelines developed and the implementation of resulting actions to decrease health impacts of exposures.

Aspects such as gender, regional variations, socioeconomics and culture should be considered, where appropriate. Proposals should ensure that chemical monitoring data are shared in IPCHEM through involvement with the European Commission's Joint Research Centre (JRC). In that respect, the JRC will collaborate with any successful proposal and this collaboration, when relevant, should be established after the proposal's approval.

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.

In order to optimise synergies and increase the impact of the projects, all projects selected for funding from this topic will form a cluster and be required to participate in common networking and joint activities. Without the prerequisite to detail concrete joint activities, proposals should allocate a sufficient budget for the attendance to regular joint meetings and to cover the costs of any other potential common networking and joint activities.

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

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-hlth-2024-envhlth-02-06-two-stage;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Innovative non-animal human-based tools and strategies for biomedical research, deadline 19. September 2023 17:00 Brussels time, 1. Step

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This topic aims at supporting activities that are enabling or contributing to one or several expected impacts of destination 5 "Unlocking the full potential of new tools, technologies and digital solutions for a healthy society". To that end, proposals under this topic should aim for delivering results that are directed towards and contributing to several of the following Expected Outcomes:

- Researchers utilise tools and strategies that are more relevant to the human situation as compared to the currently used animal models.

- Fewer live animals are used in biomedical research.

- Health technology developers will get access to improved human-relevant tools or strategies allowing for a faster pace of innovation.

- Legislators and regulators will benefit from strengthened EU leadership in non-animal based biomedical research that is socially accepted and sustainable.

- Healthcare providers and patients will benefit from innovative tools or strategies opening up novel biomedical concepts enabling improved disease prediction, prevention and treatment.

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

The proposals should address all of the following aspects:

- The innovative tools and strategies should include a variety of technologies and methodological approaches such as –omics and other high-throughput procedures, human-derived cell-based material, organoids, micro-physiological systems, and in-silico models.

- The newly proposed tools and strategies should demonstrably advance the state-of-the-art in specific areas of biomedical research.

- Prospects and avenues for dissemination, knowledge sharing, uptake or translation into health policies of the proposed tools and strategies within the EU should be provided.

- Aspects such as harm and cost-benefit assessment as well as ease of production with respect to current practices should also be considered.

- Criteria for model qualification and standardisation should be developed in well-justified use-case contexts to demonstrate their translational values.

Proposals could consider the involvement of the European Commission's Joint Research Centre (JRC) to provide added-value regarding such aspects as supporting validation of emerging approaches, promotion of research results, and the interfacing with the regulatory community. In this respect, the JRC is open to collaborate with any successful proposal after the selection process has been completed.

All projects funded under this topic are strongly encouraged to participate in networking and joint 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. Therefore, proposals are expected to include a budget for the attendance to regular joint meetings and may consider covering the costs of any other potential 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 may take on the role of facilitator for networking and exchanges, including with relevant stakeholders.

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.

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

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-hlth-2024-tool-05-06-two-stage;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Personalised prevention of non-communicable diseases - addressing areas of unmet needs using multiple data sources, deadline 19. September 2023 17:00 Brussels time, 1. Step

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This topic aims at supporting activities that are enabling or contributing to one or several impacts of destination 1 “Staying healthy in a rapidly changing society”. To that end, proposals under this topic should aim at delivering results that are directed at, tailored towards and contributing to several of the following expected outcomes:

- Citizens have access to and use effective personalised prevention schemes and health counselling (including through digital means) that take into account their individual characteristics and situation. Individuals can be assigned to particular groups based on their characteristics, and receive advice adequate to that group. Stratification of a population into groups showing similar traits allows for effective personalised disease prevention.

- Health professionals use effective, tried and tested tools to facilitate their work when advising both patients and healthy individuals. Public health programme owners gain insight into the specificities and characteristics of disease clusters within the population through stratification. This can then be used to facilitate the identification of population groups with elevated risk of developing certain diseases and improve the programmes, update them and design effective strategies for optimal solutions and interventions.

- National and regional programmes make better use of funds, data infrastructure and personnel in health promotion and disease prevention, primary and secondary healthcare. They can consider the use of new or improved ambitious policy and intervention options, with expected high population-wide impact, for effective health promotion and disease prevention.

- Companies generate opportunities for new product and service developments to cater to the needs of the healthcare service and individuals.

Non-communicable diseases (NCDs) are responsible for the majority of the disease burden in Europe and are the leading cause of avoidable premature death. The human and financial cost of NCDs is high and expected to grow. Reducing the burden of NCDs requires a holistic approach and tackling health inequalities across the board. Preventing NCDs from developing in the first place will be at the core of successful public health programmes in the future.

Personalised approaches and the development of targeted interventions have led to an impressive progress in several fields of medicine and have been included in many treatments. However, the use of stratification and individualisation in guiding prevention strategies is still not widely in use even though examples of its potential are accumulating. Identifying people at risk of developing a particular disease before the disease starts to manifest itself with symptoms greatly improves treatment options. It is estimated that about two thirds of all NCDs are preventable, many affecting people who are unaware of their disease risks or do not have access to information pertaining to the management of the condition.

Personalised prevention is the assessment of health risks for individuals based on their specific background traits to recommend tailored prevention. This can include any evidence-based method. Personalised prevention strategies complement general public health prevention programmes without replacing them, optimising the benefit of both approaches. Personalised prevention is ideally suited to the use of large data sets, computational and omics approaches, with design and use of algorithms, integrating in-depth biological and medical information, machine learning, artificial intelligence (AI) and 'virtual twin' technology, taking into account explainable and transparent AI.

The funded projects will work towards reducing the burden of NCDs in line with the 'Healthier Together' – EU Non-Communicable Diseases Initiative. This does not limit the scope of projects under this topic to particular diseases as any disease area of interest, co-morbidities and health determinants can be addressed.

Accordingly, the proposed research is expected to deliver on all of the following points:

- Enable the understanding of areas of unmet need in NCDs prevention, possibly also addressing disease mechanism, management of disease progression and relapse. Providing new approaches for prevention, focussing on the digitally supported personalised dimension, that can be adopted and scaled up.

- Devise new or improved ambitious policy and intervention options, with expected high population-wide impact on the target groups in question. To be proposed and made available for effective health promotion and disease prevention including targeted communication strategies to successfully reach out to the risk groups.

- Design an integrated, holistic approach that includes several of the following aspects: genetic predisposition to NCDs, meta-genomics, epigenomics, the microbiome, metabolomics, sleep disorders, large cohorts, molecular profiling in longitudinal health screening, impact of lack of physical activity, novel predictive biomarker candidates, diets and nutrition, eating habits for designing customised dietary patterns (geographical variation), and the influence of choice environment on personal choices.

- Study the ethical, legal and social aspects as well as health economics of the personalised prevention tools and programmes being developed. Consider optimal health counselling and communication to the patients/citizens. Address legal aspects of balancing the right not to know and the obligation of helping people in danger.

Furthermore, the proposed research is expected to deliver on several of the following points:

- Develop and validate effective strategies to prevent NCDs and optimise health and well-being of citizens (including the most vulnerable). Propose the strategies to policymakers along with mechanisms to monitor their progress. The strategies need to be aligned with relevant national and European health laws and policies.

- Provide scientific evidence on interactions between the genetic predisposition to multifactorial diseases and environmental factors or environmental triggers. Propose scientifically supported personalised prevention strategies that ensure how to modify the environmental drivers of behavioural risk factors.

- Develop new computational tools combining and analysing comprehensive data with different dimensions[7] to identify risk factors and modifiers. Creating procedures and algorithms to combine information from different sources (with standardised common data models) to generate risk scores for several diseases and provide health promotion recommendations for the individual as advised by healthcare professionals. Furthermore, develop advanced computational modelling techniques[8] for predicting disease risk and predisposition (addressed together in an integrative approach) and identifying the optimal solution/intervention for different target groups and individuals.

- Develop tools and techniques to increase the efficiency and cost- effectiveness of on the one hand interventions, adjusting their scope, characteristics and resources, and on the other hand healthcare infrastructure and how it promotes and delivers health promotion, disease prevention, and care effectively to the different population groups.

- Design tools to collect various data to advance health promotion and disease prevention and strategies for providing omics essays for the general patient with a focus on cost-effectiveness and flexibility.

- Determine how to optimise the benefits of physical activity, smart monitoring of physical activity and sedentary behaviour with measurable data, addressing barriers to uptake and implementation of healthy lifestyles in daily life, understanding what promotion methods work and why, behavioural science to understand healthier choice environments. Balancing the ecosystem associated with the economic, social, and health consequences of NCDs. Affordability related consideration should be taken into account to ensure accessibility of new tools and techniques.

- Conduct data mining of real-world data and develop quantifiable and distinguishable indicators from wearables data, taking into account 'light-weight' AI means to ensure patient privacy and short reaction times.

- Demonstrate with a practical prototype on a given health challenge: from multimodal data collection to identification of an effective prevention strategy to be tested and validated for one or several NCDs.

Where relevant, the projects should contribute to and create synergies with ongoing national, European and international initiatives such as the European Partnership for Personalised Medicine, the 'Healthier Together' - EU Non-Communicable Diseases Initiative, Europe's Beating Cancer Plan and the Mission on Cancer, WHO's 9 targets for NCDs, the EMA 'Darwin' network etc.

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

Where relevant, activities should build on and expand results of past and ongoing research projects. Selected projects under this topic are expected to participate in joint activities as appropriate, possibly including also related projects from other call topics. This can take the form of project clustering, workshops, joint dissemination activities etc. Applicants should plan a necessary budget to cover this collaboration.

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

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-hlth-2024-stayhlth-01-05-two-stage;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Associating Ukrainian cities to the Climate-neutral and smart cities Mission, deadline: 06. September 2023 17:00 Brussels time

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

- Contribute to the implementation of EU policy and international commitments (European Green Deal, Global Approach to Research and Innovation).

- Identify a core group of Ukrainian cities that would commit to a climate neutrality target, including in reconstruction efforts;

- Accelerate the systemic transition to climate-neutrality of Ukrainian cities by preparing local authorities to meet the overarching objectives of the European Green Deal;

- Increase the visibility of the EU and its cities as leaders and engage cities participating in the Cities Mission in twinning and teaming activities with collaboration-minded Ukrainian city partners.

President von der Leyen's statement on 27 April 2022 and the subsequent Commission Communication on Ukraine Relief and Reconstruction of 18 May 2022 propose to involve, through partnerships, the cities of the European Union in the reconstruction of the Ukrainian cities. This effort provides a unique opportunity for Ukraine and its cities to combine reconstruction considerations with long-term climate neutrality and sustainability objectives in line with the EU Green Deal, relevant international policy frameworks and the New European Bauhaus initiative. This will require systemic approaches and the deployment of innovative solutions to reduce in particular Green House Gas emissions in all sectors of activities so as to comply with the objective of climate neutrality. The purpose of this action is to associate more closely Ukrainian cities in the process of transition towards climate neutrality that is being promoted by the Horizon Europe Climate-neutral and smart cities Mission.

Proposals are expected to address all the following activities:

- Map, on the basis of existing EU and international initiatives, the cities in Ukraine that could commit to the target of climate neutrality. The analysis that will be performed will be based on the methodological approach and guidelines published in the call for Expression of Interest of 25 November 2021;

- Following this analysis, identify and support a number of Ukrainian cities in developing their strategy for climate neutrality. Support should be provided to increase the awareness and the capacity of the local authorities on the issues related to climate neutrality. When developing their strategy for climate neutrality, cities should pay special attention to the need to reduce

energy dependency from fossil fuels, to integrate climate neutrality considerations in their reconstruction plans and, when applicable, a citizen-driven systemic approach;

- Support the twinning and teaming between these Ukrainian cities and like-minded cities involved in the EU Cities Mission;

- Facilitate the exchange of good practices within the target group of Ukrainian cities and between them and the other cities in Ukraine.

The proposals will take into account the work already done by global city networks such as the Global Covenant of Mayors, C40 Cities and the EU's International Urban and Regional Cooperation Programme, by international and multilateral organisations such as the UN-Habitat, the World Economic Forum and the World Business Council for Sustainable Development, by international associations such as ICLEI and by global initiatives such as the Urban Transition Mission of Mission Innovation. Linkages should also be ensured with international networks that promote piloting activities such as the European Network of Living Labs (ENoLL) and with the initiatives for urban climate neutrality under the EU's Neighborhood, Development and International Cooperation Instrument.

Close collaboration with the Mission Platform presently managed by the NetZeroCities project is essential and projects should ensure that appropriate provisions for activities and resources aimed at enforcing this collaboration are included in the workplan. Detailed description of the specific activities and common actions that will be undertaken is not required at proposal stage and can be further defined at a second stage during the lifetime of the projects. The collaboration with the Mission Platform should be formalised through a Memorandum of Understanding to be concluded as soon as possible after the project starting date.

Collaboration with programmes and initiatives managed by the World Bank and the European Bank for Reconstruction and Development (EBRD) should also be considered when helping cities identify sources of funding for the implementation of their climate-neutral strategy.

Cooperation with the Global Covenant of Mayors as well as with the European Alliance of Cities and Regions for Ukraine, which is being proposed by the European Committee of the Regions for the reconstruction of Ukraine should also be taken into account in order to facilitate the peer to peer cooperation between cities and regions in the European Union and those in Ukraine.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2023-cit-02-01;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ MSCA Postdoctoral Fellowships 2023, deadline 13. September 2023 17:00 Brussels time

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Project results are expected to contribute to the following outcomes:

For supported postdoctoral fellows

- Increased set of research and transferable skills and competences, leading to improved employability and career prospects of MSCA postdoctoral fellows within academia and beyond;

- New mind-sets and approaches to R&I work forged through international, inter-sectoral and interdisciplinary experience;

- Enhanced networking and communication capacities with scientific peers, as well as with the general public that will increase and broaden the research and innovation impact.

For participating organisations

- Increased alignment of working conditions for researchers in accordance with the principles set out in the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers;

- Enhanced quality and sustainability of research training and supervision;

- Increased global attractiveness, visibility and reputation of the participating organisation(s);

- Stronger R&I capacity and output among participating organisations; better transfer of knowledge;

- Regular feedback of research results into teaching and education at participating organisations.

Fellowships will be provided to excellent researchers undertaking international mobility. Applications will be made jointly by the researcher and a beneficiary in the academic or non-academic sector.

Postdoctoral Fellowships either can take place in Europe (i.e. in an EU Member State or a Horizon Europe Associated Country) or in a Third Country not associated to Horizon Europe:

- European Postdoctoral Fellowships are open to researchers of any nationality who wish to engage in R&I projects by either coming to Europe from any country in the world or moving within Europe. The standard duration of these fellowships must be between 12 and 24 months.

- Global Postdoctoral Fellowships are open to European nationals or long-term residents who wish to engage in R&I projects with organisations outside EU Member States and Horizon Europe Associated Countries. These fellowships require an outgoing phase of minimum 12 and maximum 24 months in a non-associated Third Country, and a mandatory 12-month return phase to a host organisation based in an EU Member State or a Horizon Europe Associated Country.

Specific eligibility conditions apply to MSCA Postdoctoral Fellowships in the research areas covered by the Euratom Research and Training Programme 2021-2025.

Secondments

Researchers receiving a Postdoctoral Fellowship may opt to include a secondment phase, within the overall duration of their fellowship in any country worldwide. The secondment phase can be a single period or be divided into shorter mobility periods.

For European Postdoctoral Fellowships, secondments cannot exceed one third of the requested duration of the action (excluding from the duration of the action any additional period for a non-academic placement) and should be in line with the project objectives, adding significant value and impact to the fellowship.

For Global Postdoctoral Fellowships, optional secondments are permitted for up to one third of the outgoing phase. A maximum of three months of such secondments can be spent at the start of the project at the beneficiary (or associated partners linked to the beneficiary), allowing the researcher to spend time there before going to the associated partner in the Third Country. This period of maximum three months will be considered as part of the outgoing phase.

Secondments cannot take place during the mandatory twelve-month return period to the host organisation in an EU Member State or Horizon Europe Associated Country.

Placements in the non-academic sector

Postdoctoral Fellowships can provide an additional period of up to six months to support researchers opting for a placement at the end of the project to work on R&I projects in an organisation from the non-academic sector established in an EU Member State or Horizon Europe Associated Country. While this possibility is also available to fellows recruited in the non-academic sector, such a placement must be implemented at a different non-academic host organisation established in an EU Member State or Horizon Europe Associated Country. The request for such a non-academic placement must be an integral part of the proposal, explaining the added-value for the project and for the career development of the researcher, and will be subject to evaluation. This incentive aims at promoting career moves between sectors and organisations and thereby stimulate innovation and knowledge transfer while expanding career opportunities for researchers.

If the placement does not meet the requirements (taking place in an academic organisation or in a Third Country), the proposal will be evaluated without taking into account the placement. This might affect the final score.

Training activities

The training activities implemented under the Postdoctoral Fellowships should include training for key transferable skills, foster innovation and entrepreneurship, (e.g. commercialisation of results, Intellectual Property Rights, communication, public engagement and citizen science), foster good scientific conduct such as research integrity and promote Open Science practices (open access to publications and to other research outputs including data, FAIR data management, societal engagement and citizen science etc.).

Career Development Plan

In order to equip MSCA postdoctoral fellows with skills that enhance and expand their career opportunities inside and outside academia, a Career Development Plan should be established jointly by the supervisor(s) and the researcher. In addition to research objectives, this plan should comprise the researcher's training and career needs, including training on transferable skills, teaching, planning for publications and participation in conferences and events aiming at opening science and research to citizens. The Plan will have to be submitted as a project deliverable at the beginning of the action and can be updated when needed.

Euratom

Aiming to enhance nuclear expertise and excellence as well as synergies between Programmes, organisations active in nuclear research established in one of EU Member States or countries associated to the Euratom Research and Training programme 2021-2025, are eligible to participate. MSCA Postdoctoral Fellowships in this area of research will be supported by the Euratom

Research and Training Programme 2021-2025 through an indicative annual financial contribution of EUR 1 million to the MSCA Postdoctoral Fellowships call.

ERA Fellowships

The ERA Fellowships implemented through Work Programme Annex 11, Widening Participation and Strengthening the European Research Area, provide specific support to researchers to undertake their fellowship in a widening country. This will help spread excellence and contribute to fostering balanced brain circulation in widening countries.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-msca-2023-pf-01-01;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Validation of fluid-derived biomarkers for the prediction and prevention of brain disorders, deadline 19. September 2023 17:00 Brussels time, 1. Step

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This topic aims at supporting activities that are enabling or contributing to one or several expected impacts of destination 3 “Tackling diseases and reducing disease burden”. 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:

- The scientific and clinical communities make effective use of state-of-the-art information, data, technologies, tools and best practices to underpin the development of the diagnostics, and as such can also facilitate the development of effective therapeutics and/or preventive strategies.

- The scientific and clinical communities advance the field through a better understanding of mechanisms underlying brain disorders at the molecular, cellular and systemic level.

- The scientific and clinical community make wide use of newly established and where relevant open access databases and/or integrate them with existing infrastructures for storage and sharing of collected data according to FAIR principles, thereby encouraging further use of the data.

- Policymakers, funders, scientific and clinical communities, patient organisations, regulators and other relevant bodies are informed of the research advances made, while health professionals envisage use of the biomarker tests for early detection of the disorder and for guiding patients in the selection of personalised treatments/interventions.

- Patients and caregivers are sufficiently engaged with the research, which also caters for their needs.

Treatments for some high-burden brain disorders are potentially on the horizon. Consequently, many patients and citizens will want to know if they are eligible for these treatments. For some disorders, a definitive diagnosis is difficult, expensive and time-consuming. Simple blood or other fluid-derived (e.g. saliva, urine, sweat) tests for markers that may indicate early signs of the disorder, and which can be deployed for widespread clinical use are needed.

The brain disorders within the scope of this topic fall under two categories, namely those listed under chapters six and eight of the International Classification of Diseases. Proposals in the area of mental disorders are encouraged.

Proposals should address all of the following aspects:

- Proposals should aim to validate biomarkers that can reliably confirm early stages of the human brain disorder and guide treatment/ intervention selection.

- Proposals should aim to provide evidence supporting the regulatory acceptance of the biomarkers.

- Exploitation of existing data, biobanks, registries and cohorts is expected, together with the generation of new key data.

- Inclusion of patients or patient organisations in the research is strongly encouraged, as to ensure that their views are considered.

- Sex and gender aspects, age, socio-economic, lifestyle and behavioural factors should be taken into consideration in the study.

- To enable sharing of samples, quality data and advanced analytical and digital tools, consideration should be made for using infrastructures already developed at the European or national level.

- To enable the management of brain disorders, consideration should be made in demonstrating the gained cost efficiency.

- SME participation is encouraged.

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

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-hlth-2024-disease-03-13-two-stage;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Tackling high-burden for patients, under-researched medical conditions, deadline 19. September 2023 17:00 Brussels time, 1. Step

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This topic aims at supporting activities that are enabling or contributing to one or several expected impacts of destination 3 “Tackling diseases and reducing disease burden”. 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:

- The scientific and clinical communities make effective use of state-of-the-art information, data, technologies, tools and best practices to better understand the condition, underpinning the development of diagnostics, therapeutics and/or preventive strategies.

- The scientific and clinical community exchange data, knowledge and best practices, thereby strengthening their collaboration and building knowledge and care networks in Europe and beyond.

- The scientific and clinical community make wide use of newly established and where relevant open access databases and/or integrate them with existing infrastructures for storage and sharing of collected data according to FAIR principles, thereby encouraging further use of the data.

- Policymakers and funders are informed of the research advances made and consider further support in light of the sustainability of the studies.

- Patients and caregivers are constructively engaged with the research, which also caters for their needs.

- Health professionals have access to and use improved clinical guidelines on diagnosis and/or treatment of the condition.

A number of medical conditions fail to be recognised and/or be correctly diagnosed in a significant proportion of patients. As a consequence they are inadequately treated and often can become a chronic burden for the patient. These medical conditions may be insufficiently researched even though they manifest with high prevalence. This topic excludes rare diseases.

Proposals should address all of the following aspects:

- Proposals should address the gaps in robust, scientific evidence for improved policies and practices to tackle such medical condition(s), and aim at identifying the pathophysiological mechanism(s) (e.g. genetic, cellular and molecular) and potential risk factors (e.g. psychological and environmental) of the medical condition(s) through basic, pre-clinical and/or clinical research. These efforts should underpin the development of diagnostics, therapeutics, and/or preventive strategies for the condition.

- Proposals should demonstrate that the medical condition(s) under study is/are insufficiently understood, inaccurately diagnosed or inadequately treated in a significant proportion of patients, and as such represent a high burden for patients and society. This could be through referencing key literature.

- Sex and gender aspects, age, ethnicity, socio-economic, lifestyle and behavioural factors should be taken into consideration. In addition, the emotional and societal long-term effects of these chronic disorders for the affected individuals should be addressed.

- Where applicable, the development of biomarkers and other technologies for diagnosis, monitoring in patients, and stratification of patient groups should be considered.

- Where applicable, the development of clinically relevant, (non-)human model systems that can complement clinical investigations should be considered.

- Exploitation of existing data, biobanks, registries and cohorts is expected, together with the generation of new (e.g. genomics, epigenomics, transcriptomics, proteomics) data.

- To enable sharing of samples, quality data and advanced analytical tools, it is encouraged to make use of existing infrastructures developed at the European or national level.

- Inclusion of patients or patient organisations in the research is strongly encouraged, to ensure that their views are considered.

- SME participation is strongly encouraged.

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.

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

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-hlth-2024-disease-03-14-two-stage;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Comparative effectiveness research for healthcare interventions in areas of high public health need, deadline: 19. September 2023 17:00 Brussels time, 1. Step

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This topic aims at supporting activities that are enabling or contributing to one or several expected impacts of destination 3 “Tackling diseases and reducing disease burden”. 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:

- Health policymakers are aware of the healthcare interventions (pharmacological, non-pharmacological or technological interventions; including preventive and rehabilitative actions) that are identified as working best for the specific population groups from the point of view of safety, efficacy, patient outcomes, adherence, quality of life, accessibility, and (cost-) effectiveness.

- Health professionals have access to and use the improved clinical guidelines on the optimal treatment of patients and prevention of diseases e.g. through vaccines. Considerations made in the guidelines include the harmonisation and standardisation of care for high burden diseases or conditions throughout Europe, as well as possible individualised needs of patients.

- The scientific and clinical communities make effective use of state-of-the-art information, data, technologies, tools and best practices to develop interventions that are sustainable.

- Citizens, patients, prescribers, and payers receive more accurate information on available healthcare interventions via ad hoc communication platforms.

- The scientific and clinical communities make wide use of the newly established open access databases and/or integrate them with existing open access infrastructures for storage and sharing of collected data according to FAIR principles.

Effective, affordable and accessible healthcare for diverse population groups is challenging and complex. For example, specific needs underlie the delivery of effective preventive actions and therapeutic treatments to a rapidly growing elderly population, often presenting comorbidities and associated polypharmacy. The paediatric population, including children born preterm, has also its specific needs in specially adjusted therapeutics and early interventions to address emerging health and developmental problems. Similar to the elderly population, the paediatric population is often excluded from many clinical trials that generate the evidence base for healthcare interventions. Women, including pregnant women, are also often under-represented in clinical studies and access to quality healthcare is frequently inadequate. Other population groups with limited access to quality healthcare and/or under-representation in clinical studies include low-income groups, and refugees. Intersectionality within these groups also needs consideration.

Proposals should address most of the following:

- Compare the use of currently existing (pharmacological, non-pharmacological and technological) healthcare interventions in specific population groups (or selected subgroups). While there is no restriction on diseases or conditions, preference will be given to proposals focusing on interventions with high public health relevance.

- Ensure acceptability and sustainability of the healthcare intervention through early involvement of 'end users' (e.g. patients, care providers) in the design of the study (integrating patient valued outcomes) and, where possible, in the research process including implementation. Additionally, proposals should take into account the diversity of health systems in different regions of Europe to allow large-scale uptake.

- Consider involving HTA bodies in order to create synergies and accelerate the practical implementation of the results. Where relevant, existing work of EU-funded projects such as EUnetHTA should be also taken into account.

- Consider issues of particular relevance for the target populations, for example, multimorbidity, complex chronic conditions, polypharmacy, substance misuse, vaccine efficacy, compliance, age, gender specificities and diseases with high societal burden (including but not limited to e.g. musculoskeletal diseases and mental health disorders). Special consideration should be given to fulfilling all ethical requirements.

- For the chosen population, assess clinical and safety parameters, as well as health and socio-economic outcomes (e.g. quality of life, patient mortality, (co)morbidity, costs, and performance of the health system). Agreed core outcome sets (COS) should be used as endpoints in conditions where they already exist, in other cases, efforts should be made to agree on such COS. Consider using new instruments and methods for determining the burden of disease and for evaluating the effects of the interventions. Low-cost innovations should also be considered.

- Inclusion of patient organisations and associations of caregivers and other healthcare professionals is recommended.

- Clinical trials, including pragmatic clinical trials, observational studies, use of existing health data in different study designs, creation of large-scale databases and performing meta-analyses may be considered for this topic. Use of existing data should always be considered to add value, increase quality and increase implementation speed of the study. Regarding databases, sustainability after the proposed action's end also needs to be considered.

- The proposed research needs to take into account sex and gender aspects.

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.

The Commission will ensure an overall coordination mechanism between the projects funded under this topic to catalyse the exchange of knowledge, as well as the development and adoption of best practices. Proposals are expected to budget for the attendance to regular meetings. Projects resulting from this call will be invited to share and discuss their case studies amongst themselves and with relevant stakeholders at the EU level, and necessary resources should be allocated to this task.

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

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-hlth-2024-disease-03-08-two-stage;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Pandemic preparedness and response: Adaptive platform trials for pandemic preparedness, deadline 19. September 2023 17:00 Brussels time, 1. Step

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This topic aims at supporting activities that are enabling or contributing to one or several expected impacts of destination 3 "Tackling diseases and reducing disease burden". To that end, proposals under this topic should aim for delivering results that are directed, tailored towards and contributing to all of the following expected outcomes:

- A diverse and comprehensive EU landscape of multi-country adaptive platform trials (i.e. able to study multiple interventions in a disease or condition in a perpetual manner, thus allowing modification to the trial after its initiation without undermining its validity and integrity) that assess vaccines and therapeutics for infectious diseases, and have the capacity to pivot rapidly in the case of epidemic or pandemic health threats.

- Innovative and improved design of clinical studies, suited for pandemic preparedness, is available for the clinical research community, taking into account the high safety standards in the European regulatory environment.

- Trial sites across multiple countries have the capacity to deliver robust clinical evidence in a diverse European population, using harmonised research methods, data collection and analysis.

As shown by the COVID-19 pandemic, infectious diseases remain a major threat to health and health security in the EU and globally. Health threats are expected to arise due to among others, climate change, and thus a need for proactive approaches to ensure timely availability of medical countermeasures during disease outbreaks is anticipated. The conduct of perpetual adaptive platform trials, with the in-built agility to pivot when an epidemic strikes, is key to be prepared for infectious disease epidemics or pandemics.

This topic aims to provide funding to adaptive clinical platform trials that may be implemented routinely outside of an epidemic or pandemic context, but that are designed to be ready for the timely assessment of novel diagnostics, therapeutics or vaccines in the face of an epidemic or pandemic.

Proposals should develop the wide range of elements needed to sustain multi-country adaptive platform trials, including the trial implementation capacity, laboratory analysis capacity, and a harmonised approach to the collection, storage, sharing and analysis of FAIR data.

Proposals should ensure timely engagement with regulatory authorities and bodies. Proposals should consider the European regulatory environment and take full use of the European capacity to deliver quality trials, including the possibility for registration of new medical products. Proposals should strengthen the leading role of the EU in clinical research preparedness for future epidemics and pandemics.

The proposals should address the following areas:

- Development of robust clinical evidence that contributes to the knowledge base for the diagnosis, treatment and prevention of infectious diseases. Sex, gender, age, ethnicity and socio-economic factors should be taken into account.

- Known hurdles related to ethical, administrative, regulatory, legal and logistical aspects should be anticipated and addressed to the extent possible, in order to avoid such barriers when the trial needs to pivot in response to an epidemic or pandemic.

- Engagement with clinical researchers and biostatisticians, to increase capacity for the design and implementation of adaptive platform trials across Europe.

Collaboration and coordination with existing adaptive platform trials in the EU is expected, where relevant, as well as with the coordination mechanisms established under topic HORIZON-HLTH-2023-DISEASE- 3.05 and with the European Medicines Agency (EMA). Collaboration and coordination with other organisations and other regional and global initiatives, such as Global Health EDCTP3 Joint Undertaking, the Global Research Collaboration for Infectious Disease Preparedness (GloPID-R), the European Pandemic Preparedness Partnership and the European Health Preparedness and Emergency Response Authority (HERA) should be envisaged. International cooperation is encouraged.

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.

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

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-hlth-2024-disease-03-11-two-stage;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Dissemination and Exploitation Support Facility, deadline: 28. September 2023 17:00 Brussels time

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Improving knowledge diffusion, technology uptake and having spill-over effects is fundamental to ensure that researchers and their institutions build on and valorise the latest available knowledge. Moreover, the exploitation of research results and the creation of value for our economy and society, often depend on the skills and abilities of the beneficiaries as well as the intermediaries (i.e., technology/knowledge transfer officers) to present and connect to those stakeholders that can help them

take the results into the next level. Especially in Widening countries, R&I actors lack sufficient support and information, skills or connections to the right stakeholders and these gaps can jeopardise their ability to maximise the potential value of their results.

Dissemination & Exploitation (D&E) policy of Horizon Europe can act as an enabler for the implementation of the political objectives of this programme component. Therefore, this action focuses on activities to strengthen or build D&E capacities in Widening countries. It will provide beneficiaries of the ongoing portfolio of projects funded mainly under the programmes: Spreading excellence and Widening Participation under Horizon 2020 and the widening component of Horizon Europe with further opportunities for scaling up their research results and improve the sustainability of their actions. This includes innovations that can translate into / contribute to new products and services that create economic or social value, more efficient production or distribution processes; and results that can feed into policymaking and help citizens and public authorities. The action is framed by a broader D&E policy and will support our beneficiaries towards the maximum dissemination and exploitation of their results in the context of Horizon Europe.

The following specific outcome is expected:

- Strengthened Dissemination and Exploitation capacities including through better understanding of the Commission's D&E Strategy and the opportunities it can offer to beneficiaries in need from widening actions;

- Support to beneficiaries in their dissemination and exploitation of results through a market-oriented approach;

- Improved skills and knowledge on D&E, knowledge transfer and IP management for researchers and management personnel of beneficiaries of widening actions to be able to fulfil their Horizon Europe Model Grant Agreement obligations, including after the end of their project;

- Collected and shared best practices for uptake of R&I results and identify the blocking contextual elements that prevent beneficiaries from valorising further their R&I results; Address these blocking factors by proposing measures in the valorisation channels as identified in the EU valorisation policy;

- Increasing the maturity level of key exploitable results produced by widening beneficiaries;

- Greater recognition of beneficiaries based in Widening countries at national & regional policy level, as a result of enhanced visibility of D&E success stories;

- Enhanced synergies between beneficiaries of widening actions in view of networking opportunities and future competitive calls;

- Improved sustainability of ongoing widening actions;

- Identify downstream synergies with other EU programmes especially the European Regional Development Fund (ERDF), the European Social Fund (ESF) and the Recovery and Resilience Facility (RRF).

This action should be implemented as a CSA awarded to consortia of at least three entities who should have a proven track record of success in D&E and related training, communication and networking. The consortium should establish a facility including training, upskilling, entrepreneurship, access to capital, best practice sharing, knowledge exchange and community of practice building for beneficiaries of the Widening countries with a first priority to beneficiaries of ongoing or completed widening projects funded under Horizon 2020 or Horizon Europe (this action could be extended to other H2020 and HE beneficiaries in Widening countries if budget cannot be exhausted by the widening portfolio). The scope of the services should include the valorisation of research results that were not immediately generated within a widening action but in a related domain under a different funded action. The consortium should ensure that the developed services address the full geographic scope of the Widening countries including Outermost Regions.

Specifically, the consortium should establish a tailor-made service package with training, coaching, mapping of results, experts and study visits, peer support, matchmaking events, innovation and IP management, knowledge transfer both in an individualised manner and collective workshops. The consortium is expected to closely collaborate with the ongoing NCP network WIDERAnet, other NCP projects and the Enterprise Europe Network (EEN).

It should help beneficiaries to better understand how to fulfil with D&E commitments under Horizon Europe and Horizon 2020 and to seek for opportunities by other community funding programmes especially under the cohesion policy (e.g., ERDF, ESF) as well as the RRF and Reform funds. It should also enhance beneficiaries' knowledge on tools to develop their D&E activities, including, e.g., the tools offered by the Commission for D&E support (e.g., Horizon Results Platform, Horizon Results Booster), effective use of social media and innovative communication channels, IPR (e.g., IP Helpdesk, IP scan, IP voucher, Health Research Board, etc.) & Open data. In addition, it should incentivise beneficiaries to initiate policy dialogues with national and regional institutions and stakeholders aiming at a favourable impact on the modernisation of the national and regional R&I system and creating an innovation friendly culture in Widening countries. Furthermore, the activities should support and motivate beneficiaries of completed and advanced ongoing projects to scale up and valorise their results towards further uptake and commercialisation (e.g., training, networking, start-ups, connection with the investors and the relevant industrial ecosystems, commercialisation support).

This will help to ensure sustainability of widening actions especially Teaming and Excellence Hubs after the end of the funding period.

This consortium should provide a plan detailing its priorities, the key targets, proposed actions, repartition of budget and regular monitoring on achievements and challenges.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-widera-2023-access-05-01;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Small scale biorefining in rural areas, deadline: 20. September 2023 17:00 Brussels time

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Successful proposals will contribute to the Bioeconomy Strategy, the Long-Term Vision for Rural Areas, and the Common Agriculture Policy by promoting new economically viable and environmentally sustainable business models for a successful green transition in primary production and rural areas in line with the European Green Deal objectives.

Project results should contribute to the following expected outcomes:

- Deployment of sustainable, inclusive, and reliable biobased value chains in rural areas with a focus on fair economic returns at local (farm) level

- Industrial competitiveness, strategic autonomy and resource independence of bio-based value chains of EU member states and/or Associated countries

- Improved circularity and resource efficiency via practical application of the circular (bio)economy concept, e.g., by maximising the valorisation of residual biomass

- Contribution to additional, diversified incomes and generational renewal in rural areas, with the potential for a multiplier effect when replicated across the EU

- New skilled jobs opportunities and investments in the bio-based sectors in rural areas, particularly in regions with underdeveloped capacities, improved innovation capacities and product portfolio extension in primary production sectors and SME's

- Significant reduction of land use and other climate and environmental benefits

- Efficient recycling of nutrients transportation and logistics costs reduction and overall enhanced circularity of nutrients cycles

- Social acceptance of circular bio-based solutions and products

Small-scale biorefineries are attractive, especially to rural stakeholders, because they may not require a high level of initial investment in comparison to large-scale facilities and, therefore, often provide a quicker return on investment. In addition, technology providers benefit from this model because of its high replication potential across Europe. Small-scale biorefineries have the potential to offer diversification opportunities for primary producers and local rural stakeholders by:

- processing their biomass directly at source (shortening logistic chains and avoiding degradation, increasing production value) to produce new biorefinery products based on the circular use of local resources, and/or

- providing additional sources of income in rural areas and supporting the economy of scale with new biorefinery products based on the circular use of local resources.

While some small-scale and/or modular biorefinery solutions, such as the EIP-OG Biorefinery Glas and BBI IA-DEMO AGRI-MAX, have already been successfully demonstrated, both technical and non-technical barriers still exist that prevent the broad implementation in Europe. Downscaling in particular poses a challenge in maintaining process- and cost-efficiency competitive with large scale processes that can exploit economy of scale. Smart and integrated process designs, as well as circular processes maximising the material use, can provide innovative solutions, while maximising the environmental benefits and bringing more value to the concerned rural actors.

Proposals under this topic should:

- Demonstrate the technical suitability and economic viability of small scale decentralised biorefinery concepts, which may include modular and mobile units, in rural areas, thereby considering safety and security issues for the operators of the plant and the possible interferences with the rural landscape (e.g. in terms of biodiversity).

- Develop, demonstrate and validate resource-efficient technologies with a view to add value to locally available resources (underutilised biomass; by-products; residues; solid, liquid and gaseous waste and residual streams) at the point of origin, either as feedstock for conversion, or as process medium or growing medium for feedstock for further conversion.

- Seek synergies with the existing regional food, feed, or bioenergy value chains to further strengthen their economic and environmental sustainability in line with the cascading principle of biomass use. In the context of CBE JU food, feed, and bioenergy (including biofuels) as main products are out of scope, but the related existing value chains can be involved. Food and feed ingredients and soil nutrients are in scope.

- Assess the environmental (including elimination / reduction of pollution from the processing operations) and socio-economic performance of the demonstrated value chains.

- Evaluate the replication potential of the small-scale biorefinery concept, provide a sound business plan and training material in particular for primary producers and other rural actors.

- Ensure an active involvement and profit sharing of primary producers in the value system.

- Cooperate, if applicable, with central hubs, such as local and regional hubs, distribution centres, collection and processing points for further processing steps.

Proposals must apply the concept of the 'multi-actor approach' and ensure adequate involvement of primary producers and other relevant actors in rural areas.

Proposals are encouraged to include regions with underdeveloped capacities and regions where rural bio-based pilot plants and demonstrational sites are missing or underrepresented.

Proposals should also describe their contribution to the Specific CBE JU requirements, presented in section 2.2.3.1, and the Cross-cutting elements, highlighted in section 2.2.3.2 of the CBE JU Annual Work Programme 2023.

Where relevant, proposals should consider synergies and complementarities with results of past and ongoing EU funded projects and calls, including BBI JU.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-ju-cbe-2023-ia-01;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Production of safe, sustainable, and efficient bio-based fertilisers to improve soil health and quality, deadline: 20. September 2023 17:00 Brussels time

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This topic contributes to the objectives of the Communication on "Ensuring availability and affordability of fertilisers", EU Bioeconomy Strategy, Mission "A Soil Deal for Europe", Common Agriculture Policy, and EU Fertilising Products Regulation by replacing synthetic fossil and mineral fertilisers and supporting the strategic autonomy of the EU fertiliser industry through the production of sustainable and safe bio-based alternatives to improve soil health and quality. The successful proposals will support the achievements of the Farm to Fork strategy objectives and targets as well as of the European Green Deal (EGD) objectives.

Project results should contribute to the following expected outcomes:

- Enhanced availability of affordable and sustainable fertiliser in the EU

- Safe, precise applicable and efficient bio-based fertilisers to support the transition towards a circular economy (including fertiliser industry) and agricultural production

- Replacement of conventional fossil and mineral fertilisers with bio-based alternatives, while closing nutrient cycles and creating new value chains on a regional level

- Availability of innovative and sustainable bio-based fertiliser delivery systems (e.g., coatings) for controlled-release (if applicable)

- Significant contribution to the objectives of the R&I mission 'A Soil Deal for Europe'

- Social acceptance of circular bio-based solutions and products

Fertilisers are critical for the EU agriculture and the current market situation for fossil and mineral fertilisers, together with a general increase of input costs, could have significant impacts on EU farmers and their productivity.

Bio-based fertilisers have the potential to make the food system more sustainable in line with the Farm to Fork objectives and targets but also support the availability and affordability of fertilisers by providing bio-based alternatives to farmers with similar or even improved properties. The recycling of nutrients from nutrient-rich waste and side-streams (such as agricultural by-products and waste, food waste or sewage sludge) also offer great opportunities to diversify and enhance rural incomes.

However, these alternatives need to comply with the requirements laid down in the EU Fertiliser Product Regulation, including the provisions to restrict intentionally added microplastics from 2026 onwards. Polymeric materials and plastic coatings, used to optimise the release properties of fertilisers, remain a significant problem in terms of environmental pollution and risks to human health.

Proposals under this topic should:

- Demonstrate the technical validation and implementation of bio-based fertiliser production from nutrient-rich waste and side streams (such as agricultural/forest/aquatic residues and wastes, municipal waste, food waste, sludge, etc.), thereby reducing the environmental impact linked to the dispersion of nutrients.

- Develop and validate novel bio-based fertilisers, including biodegradable fertiliser coatings or other delivery system (if applicable), ensuring their agronomic efficiency, safety and sustainability with similar or improved properties compared to synthetic and mineral fertilisers.

- Contribute to the substitution of conventional, non-renewable fertilisers, thereby reducing the dependency and risks related to depletion, market volatility as well as import dependency.

- Address the product marketability and compliance with EU Regulation 2019/1009 to the largest possible extent.

- Optimise the costs of the value chain (including logistics) and circular approaches of waste and side streams and increase resource efficiency of the fertiliser production.

- Engage with primary producers and test the developed products on demo farms, including the machinery for application, and monitor the effects on soil health and quality. If applicable, connect and cooperate with existing living labs in the framework of the EU mission ‘A soil deal for Europe’.

- Include a task to closely cooperate with projects funded under Horizon 2020, Horizon Europe (including the R&I partnership ‘Accelerating farming systems transition: agroecology living labs and research infrastructures’) and the Mission ‘A Soil Deal for Europe’.

Proposals are recommended to include a task to perform an assessment based on the safe-and- sustainable-by-design (SSbD) framework, developed by the European Commission, for assessing the safety and sustainability of chemicals and materials. Under this context, proposals are recommended to also include a task to contribute with and develop recommendations that can advance further the application of the SSbD framework.

Proposals must implement the multi-actor approach and demonstrate the involvement of all concerned key actors, such as primary producers, in the bio-based systems.

Proposals should also describe their contribution to the Specific CBE JU requirements, presented in section 2.2.3.1, and the Cross-cutting elements, highlighted in section 2.2.3.2 of the CBE JU Annual Work Programme 2023.

Proposals should build on and avoid replication of results of previous and ongoing projects such as from BBI JU portfolio, and from Horizon 2020, and Horizon Europe portfolio.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-ju-cbe-2023-ia-02;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Improve fermentation processes (including downstream purification) to final bio-based products, deadline: 20. September 2023 17:00 Brussels time

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In line with the objectives of the Circular economy and the Zero pollution action plan, successful proposals will demonstrate processing technologies to facilitate the large-scale deployment of industrial bio-based systems. These systems will contribute

to the EU Bioeconomy Strategy implementation, demonstrating improved environmental performances, maximum resource- and energy-efficiency, and optimal cascading use of bio-based feedstock, aiming for ‘zero waste’ and ‘zero-pollution’ operations.

Project results should contribute to the following expected outcomes:

- Availability of new industrial biotechnology-based production routes to bio-based products from sustainably sourced biomass;

- Improved productivity, yield, titre and selectivity of scaled up fermentation processes to bio-based products;

- Increased competitiveness of European biorefineries;

- Significant improvement of environmental performance across the value chain against specified fossil and/or bio-based benchmarks;

- Improved circularity and resource efficiency via practical application of the circular (bio)economy concept;

- Social acceptance of circular bio-based solutions and products;

- Availability of broader range of bio-based products meeting market requirements;

- Facilitation of market uptake of scalable bio-based solutions

Fermentation of bio-based feedstock is powerful but often still cost-intensive and resource-intensive process. This is mainly due to costly enzymes, low process yields, high by-product toxicity, poor microorganism growth, high nutrient requirements but also inefficiencies in downstream purification. Moreover, most used biocatalysts are optimised for converting conventional sugars and are less effective (or unable) to deal with second generation and non-food quality sugars, thus preventing the exploitation of additional sources of biomass feedstock. Solving all these issues may require the development of new metabolic pathways and the scale-up of related processes to industrially relevant scale. In addition, the presence of by-products often requires complex and expensive downstream purification processes, especially when the desired end products are non-volatile. This aspect adds to the complexity and cost of the process and needs to be optimised as well.

Proposals under this topic should:

- Specify and justify the choice of one or more sustainable feedstock types to be valorised via optimised, scaled up fermentation processes, and the targeted bio-based products. With regards to the targeted bio-based products, non-volatile as well as thermally and/or chemically unstable compounds, presenting higher downstream purification constraints, should be in the scope.

- Demonstrate improved process design strategies to solve previously identified bottlenecks in industrially relevant fermentation processes considering both upstream and downstream steps. The proposed strategies can consider biocatalyst(s) optimisation, reactor design, process design innovation but also process agents (e.g. solvents) innovation. Address fermentation processes productivity (yield, titre, selectivity) as well as cost-, resource- and energy-efficiency in view of further scale-up to commercial level;

- Ensure the improvement of the energy and resource efficiency of downstream purification strategies for obtaining the end products in scope, thus also enabling cost-effective production, in particular when dealing with non-volatile or chemically/thermally unstable products.

- Target end products with tangible market applications and ensure that the products meet market and regulatory requirements (e.g. in terms of consumers safety and Health, Safety and Environment (HS&E))

- Include a task to integrate assessment based on the safe-and-sustainable-by-design (SSbD) framework, developed by the European Commission, for assessing the safety and sustainability of chemicals and materials. Under this context, projects are expected to contribute with and develop recommendations that can advance further the application of the SSbD framework.

- Analyse and prove techno-economic feasibility as well as commercial viability of further scaling up the process to commercial scale.

Proposals must implement the multi-actor approach and demonstrate the involvement of all concerned key actors, such as the processing industry, end users and brand owners.

Proposals should also describe their contribution to the Specific CBE JU requirements, presented in section 2.2.3.1, and the cross-cutting elements, highlighted in section 2.2.3.2 of the CBE JU Annual Work Programme 2023.

Where relevant, proposals should seek links with and capitalise on the results of past and ongoing EU funded projects.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-ju-cbe-2023-ia-03;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=

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/HORIZON EUROPE/ Recycling bio-based plastics increasing sorting and recycled content (upcycling), deadline: 20. September 2023 17:00 Brussels time

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In line with the objectives of the Circular Economy Action Plan, Plastics Strategy and Waste Framework Directive, successful proposals will make available effective recycling technologies for bio-based plastics. Successful proposals will also contribute to the Zero pollution action plan and the EU Bioeconomy Strategy.

Project results should contribute to the following expected outcomes:

- Improved circularity and resource efficiency via practical application of the circular (bio)economy concept in the bio-based plastics value chain

- Increased recycled content in new products from bio-based plastics

- Effective sorting and recycling schemes for bio-based plastic materials

- Significant improvement environmental performance across the value chain against specified fossil and/or bio-based benchmarks

- Social acceptance of circular bio-based solutions and products

Bio-based plastic waste does not yet constitute a relevant amount of the total plastic waste (being only 1% in weight), but due to their high weight in the political agenda it is easy to foresee that bio-based plastics will gain a relevant market share in the near future. However, there is a broad range of partially or fully bio-based plastic materials and products with different molecular structures and properties. If – performance wise – this broad range of materials available offers exciting opportunities to develop highly functional products, on the side of end-of-life considerations it represents a challenge. Some bio-based plastics are chemically equivalent to fossil-based ones and can follow the same recycling routes, others are only partially compatible with existing recycling processes, further others need the development of new processes. Some of them are biodegradable, others are compostable, others are neither of the two.

Besides the technical challenges related to the recycling process itself, scale is also a challenge. For some materials, such as PLA, recycling technologies are available when they are rather homogenous industrial waste streams; their implementation in post-consumer waste treatment is however hampered by bio-based being only a small fraction of the overall highly inhomogeneous plastic stream. Another challenge lies in establishing an efficient collection and sorting process. Plastic recycling is overall a challenge in Europe, with less than 14% of plastic consumption recycled domestically. Bio-based plastic is part of this picture, although still relatively a small fraction (1%) but with forecast of high growth. Labelling is not yet there to distinguish fossil-based from bio-based plastics, and the streams are collected together. A partial exception in this picture is biodegradable plastic which is labelled after EN 13432 or similar certification schemes indicating that such plastic is compostable in industrial composting plants or in home-composting reactors. The expected end-of-life of compostable plastic is to be collected together with bio-waste and to be composted.

All these challenges require establishing collection and sorting strategies for bio-based plastics that are compatible with current waste management practices and recycling techniques that allow recycling bio-based plastics into new materials.

The scope of this topic focusses on the recycling of bio-based plastics which are not already recycled with the conventional (fossil-based) plastics (bio-based PET, for example, is recycled with fossil-based PET). This means that bio-based plastics made of ‘drop-ins’ polymers are excluded from the scope.

Proposals under this topic should:

- Develop sorting and separation systems for isolating dedicated bio-based plastics from the mixed bio-based and fossil-based plastics streams (when applicable, as an enabler for conversion of the bio-based polymer fraction)

- Develop, upscale and deploy innovative recycling technologies or adapt, optimise and deploy existing ones for bio-based plastics

- Demonstrate integration of the recycling process(es) at relevant scale inside a real waste management plant

- Target as much as possible the same grade for the recycled as the virgin product (e.g. keeping food grade), or upgrade the resulting stream into higher-value products (e.g. using them as fermentation feedstock for conversion into chemicals, materials)

- Assess the market uptake potential of recycled bio-based plastic products.

- Assess the integration of the developed sorting and recycling technologies with current waste management practices. Involvement of waste management companies/authorities should be envisaged.

- Integrate a task to perform assessment based on the safe-and-sustainable-by-design (SSbD) framework, developed by the European Commission, for assessing the safety and sustainability of chemicals and materials. Under this context, projects are expected to contribute with and develop recommendations that can advance further the application of the SSbD framework.

Proposals must implement the multi-actor approach and demonstrate the involvement of all concerned key actors, such as waste management companies, packaging producers and brand owners.

Proposals should also describe their contribution to the Specific CBE JU requirements, presented in section 2.2.3.1, and the cross-cutting elements, highlighted in section 2.2.3.2 of the CBE JU Annual Work Programme 2023.

Where relevant, proposals should seek links with and capitalise on the results of past and ongoing EU funded projects.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-ju-cbe-2023-ia-04;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Development of scalable, safe bio-based surfactants, with an improved sustainability profile, deadline: 20. September 2023 17:00 Brussels time

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Projects are expected to address the EU Bioeconomy Strategy and its action plan, the Chemicals Strategy for Sustainability (under the 'EU Zero pollution ambition'), the EU Industrial strategy, the EU Biodiversity strategy 2030, the Sustainable Products Initiative (SPI) as well as and the upcoming transition pathway for the energy-intensive industries ecosystem (including the 'chemicals transition pathway'). In line with the aforementioned policies, successful proposals will contribute to upscaling the production of commercially viable, high-performing, safe and sustainable bio-based surfactants, with an additional focus on feedstock diversification and feedstock (sourcing) sustainability, also by advancing further Circular Bioeconomy concepts.

Project results should contribute to the following expected outcomes:

- Reduction of feedstock imports dependency, including biomass imports, to produce bio-based surfactants at EU level;

- Improvement on feedstock sustainability and reduction of direct and indirect land use impact;

- Improved circularity and resource efficiency via practical application of the circular (bio)economy concept and by diversification of the valorised biomass feedstock;

- Significant improvement of the environmental performance across the value chain, against specified fossil and/or bio-based benchmarks;

- Scaling up of safe-and-sustainable-by-design (SSbD), bio-based surfactants, especially contributing to downstream sectors where sustainability and safety performance challenges are high, namely FMCG household & personal care sectors but also process and manufacturing industries as well as other relevant sectors;

- Social acceptance of circular bio-based solutions and products;

- Facilitation of market uptake of scalable bio-based surfactants & availability of broader range of bio-based products meeting market requirements.

Surfactants are often classified by: i) feedstock for synthesis, ii) biodegradability, safety and environmental effects, iii) application and iv) chemical structure (drop-in or dedicated chemical structures). Bio-based surfactants are produced from biomass as high value products, typically for consumer applications [household (45%), personal care (11%)]; while other sectors are characterised by a smaller share, including processing applications (e.g. food, textiles, waste treatment, etc.). Overall, there is market penetration, with an approximately 50% EU bio-based production share (4% CAGR). Therefore, safety and sustainability performance improvements in bio-based surfactants are expected to have cascading impact in existing but also novel markets/applications.

Bio-based surfactants often face limitations for larger uptake such as high costs and niche applications. Moreover, their EU production is at present mainly based on primary biomass (vegetable oils, sugar and starch), bringing land use impacts but also often influencing the degree of feedstock imports. Currently, there is a reported impact on land use, with an index of about 0.6 ha/t of product, whereas the feedstock import dependency is at approximately 68% for the EU bio-based production. In view of the foreseen upscale of the bio-based production capacity, feedstock diversification should be sought. Other challenges are related to wider bio-based surfactants' production/supply issues and upstream as well as downstream production process challenges, affecting the OPEX (and often CAPEX as well). For applications where surfactants are found in end products,

substitution of conventional ones can result into complex re-formulation effects, affecting market uptake by brand-owners, together with an existing uncertainty of steady supply.

Proposals under this topic should:

- Scale up the energy and resource efficient production of anionic and/or cationic, and/or non-ionic and/or microbial bio-based surfactants. Concerning chemical structure, both dedicated and/or drop in structures are in scope.

- Address and assess feedstock-sourcing sustainability to produce bio-based surfactants. This could be done by replacing feedstock imported from outside the EU, with sustainably sourced EU feedstock, or by scaling up the valorisation of circular EU feedstock sources (e.g., agricultural and agro-industrial waste and residual streams, municipal waste, industrial food waste etc).

- Include in the early design phase, key aspects such as biodegradability, mildness but also other desirable properties (e.g., antimicrobial), as relevant to meeting application-related, technical performance and environmental sustainability criteria. Moreover, testing against those aspects should be included, based on EU standards, as available.

- Assess and demonstrate safety benefits, considering both ecotoxicity and human toxicity aspects, while also taking into account the final products/formulations and/or other applications (e.g., process/manufacturing -related applications). End-products should aim to meet all relevant market and regulatory requirements (e.g., in terms of consumers safety and HS&E).

- Integrate a task to perform assessment based on the safe-and-sustainable-by-design (SSbD) framework, developed by the European Commission, for assessing the safety and sustainability of chemicals and materials. Under this context, projects are expected to contribute with and develop recommendations that can advance further the application of the SSbD framework.

- Analyse and prove techno-economic feasibility as well as commercial viability for the proposed bio-based surfactants, also providing a comparison to fossil-based and/or bio-based benchmarks, where these exist.

- Demonstrate and optimise the ‘robustness’ and impact of the bio-based surfactants by testing them in: i) final products/formulations. Validate therefore the developed bio-based surfactants for formulation (re)design, whilst investigating and understanding the complex physicochemical behaviour of the new surfactant molecules in mixtures/formulations, as well as their potential implications in end-product(s) scale up, performance and (physical, chemical) stability, and/or ii) final production/manufacturing processes, while meeting technical and holistic environmental performance criteria.

Proposals must implement the multi-actor approach and demonstrate the involvement of all concerned key actors, including the involvement of feedstock suppliers, brand owners and any relevant B2B actors.

Proposals should also describe their contribution to the specific CBE JU requirements, presented in section 2.2.3.1, and the cross-cutting elements, highlighted in section 2.2.3.2 of the CBE JU Annual Work Programme 2023.

Proposals should consider synergies with past and ongoing projects.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-ju-cbe-2023-ia-05;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Selective, sustainable production routes towards bio-based alternatives to fossil-based chemical building blocks, deadline: 20. September 2023 17:00 Brussels time

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Successful projects will contribute to scaling up the sustainable production of bio-based chemicals with a large market potential and as alternatives for fossil-based platform chemicals, thus going beyond niche and specialty applications, while considering both technical and sustainability performance.

Projects are overall expected to address the EU Bioeconomy Strategy and its action plan, the Chemicals Strategy for Sustainability (under the EU Zero pollution ambition), the EU Industrial strategy, the EU Biodiversity strategy 2030, as well as and the upcoming transition pathway for the energy-intensive industries ecosystem (’chemicals transition pathway’).

Project results should contribute to the following expected outcomes:

- Reduced biomass feedstock imports dependency and land use impact with positive effects of the feedstock sustainability along the value chain;

- Improved circularity and resource efficiency via practical application of the circular (bio)economy concept, encompassing the resource- and energy-efficient, cascading use of sustainably sourced biomass;

- Significantly improved sustainability, strategic autonomy, resilience and competitiveness of the European chemical industry while reducing the fossil feedstock dependence in other downstream sectors;

- Significant improvement of environmental performance across the value chain against specified fossil and/or bio-based benchmarks;

- Reduction of direct and indirect emissions against available fossil-based and/or bio-based benchmarks of the chemical industry, with a clear technical pathway to carbon neutrality;

- Social acceptance of circular bio-based solutions and products;

- Availability of broader range of bio-based chemicals meeting market requirements & facilitation of market uptake of scalable bio-based solutions (therefore, improving on the present market penetration and impact of the bio-based chemicals).

The production of a wider portfolio of bio-based platform chemicals is presently at low maturity, and CAPEX (and OPEX) investments are still needed to scale up production. The EU bio-based production share still amounts to 0.3 %. The main current feedstock platforms deployed for bio-based chemicals are the sugar/starch, vegetable oils and glycerine platforms. Concerning the current land use impact of bio-based platform chemicals, an index of 0.5 ha/t of product has been reported, with a medium level imported feedstock dependency of 34%.

The bio-based platform chemicals portfolio remains relatively limited, with an approximate of 90% of the global bio-based production capacity accounted by a limited amount of platform chemicals. Yet, the list of bio-based platform chemicals is growing and with a projected 10% CAGR.It is essential to progress further with the market penetration of bio-based chemicals, with a holistic consideration of sustainability across the value chain.

Proposals under this topic should:

- Demonstrate novel or improved production routes that are resource and energy efficient towards bio-based platform chemicals which have a large market potential. Such novel improved production routes can encompass different enabling technologies.

- Address and assess feedstock sustainability and imports dependency to produce bio-based platform chemicals from EU-sourced feedstock, including the valorisation of circular biomass sources (e.g., agricultural and agro-industrial waste and residual streams, municipal waste, etc).

- Propose and deduce reaction mechanisms and pathways to produce the studied bio-based platform chemicals; enabling reaction kinetics elucidation and mechanistic understanding. This should be provided also in the context of further advancing process scale-up;

- Include a task to integrate assessment based on the safe-and-sustainable-by-design (SSbD) framework, developed by the European Commission, for assessing the safety and sustainability of chemicals and materials. Under this context, projects are expected to contribute with and develop recommendations that can advance further the application of the SSbD framework.

- Demonstrate the applicability and added-value of the bio-based chemical building blocks compared to the fossil-based ones, while considering the target end uses in bio-based products.

- Develop and propose a strategic roadmap for closing the competitiveness between well-established fossil-based routes and the proposed novel or improved bio-based routes.

Proposals must implement the multi-actor approach and demonstrate the involvement of all concerned key actors in the bio-based systems, such as feedstock suppliers, researchers and technology providers bio-based processing industries, end-users and consumers (in case of B2C value chains).

Proposals should also describe their contribution to the specific CBE JU requirements, presented in section 2.2.3.1, and the cross-cutting elements, highlighted in section 2.2.3.2 of the CBE JU Annual Work Programme 2023.

Proposals should consider synergies with past and ongoing projects.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-ju-cbe-2023-ia-06;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ High performance, circular-by design, biobased composites, deadline: 20. September 2023 17:00 Brussels time

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Successful proposals will contribute to the implementation of the EU Bioeconomy strategy, the Circular Economy Action Plan, the Sustainable Products Initiative (SPI), as well as the New European Bauhaus initiative and the EU Industrial Strategy.

Project results should contribute to the following expected outcomes:

- Availability of sustainable and circular bio-based composites meeting high technical performance requirements;

- Improved circularity and overall sustainability of downstream sectors taking into account both the production and use phase, as well as end of life considerations of composites;

- Significant improvement of environmental performance across the value chain against specified fossil and/or bio-based benchmarks;

- Improved circularity and resource efficiency via practical application of the circular (bio)economy concept;

- Facilitation of market uptake of scalable bio-based solutions.

Many sectors applying composites in their products have set a target of shifting from fossil-based towards bio-based and/or materials with a high recycled content. Current commercial bio-based polymers and natural fibre-based materials are however suited to respond only to a part of the projected increased demand. Limitations include not being fully compatible with current industrial processing, not being able to fully meet target application requirements, and/or their higher cost vs existing solutions.

Like conventional polymer matrices for composites, bio-based matrix materials can be divided into two different polymer groups of: i) thermoplastics and ii) thermosets. Thermoplastic polymers are characterised by reversible chemical bonds while thermosets have strong covalent bonds and crosslinking (aspects that may impact their recyclability). Regarding bio-based composites, demonstration activities have mainly focused on the integration of (natural or synthetic bio-based) fibres in fossil-based polymer matrices up to now, rather than fully bio-based composites (i.e. including both bio-based matrix and fibres).

Processability during manufacturing (including aspects of thermal stability), technical performance of the end product along its life cycle, and durability are some of the key challenges to address for bio-based composites. It is also important to address the end of life and circularity challenges of composites, including recycling, re-using or upcycling.

Proposals under this topic should:

- Demonstrate, at a relevant scale, the production of bio-based composite materials and products made from bio-based natural (e.g. plant) fibres and/or bio-based synthetic fibres (e.g. lignin carbon fibres), in bio-based thermoset and/or thermoplastic matrices. Proposals can address one or more classes of fibres and matrices depending on the application(s) and products in scope.

- In addition to the demonstration of the innovative composite end product, proposals may also include demonstration of the production of innovative fibres, matrix or both, as well as full formulation with relevant innovative bio-based additives where applicable.

- Meet end-product technical performance requirements dictated by the final application (e.g. mechanical and thermal stability properties, fire resistance, corrosion resistance, durability…).

- Design for sustainability and with a focus on enabling circularity to address major challenges of end of life in end use sectors. Circularity aspects can include also considerations in increasing the recyclable content, biodegradability and/or compostability (under specified conditions). The choice of the end of life option must be compatible with application and technical performance requirements. In case of recycling, the recycling routes for the composite materials in scope should be tested and a strategy should be proposed on the basis of existing practices and infrastructures.

- Address composites manufacturing issues, minimising CAPEX impacts, employing energy- and resource-efficient processes and minimising the amount of hazardous substances used in production.

- Include a task to integrate assessment based on the safe-and-sustainable-by-design (SSbD) framework, developed by the European Commission, for assessing the safety and sustainability of chemicals and materials. Under this context, projects are expected to contribute with and develop recommendations that can advance further the application of the SSbD framework.

Proposals must implement the multi-actor approach and demonstrate the involvement of all concerned key actors in the bio-based systems, such as researchers and technology providers bio-based processing industries, end-users and consumers (in case of B2C value chains).

Proposals should also describe their contribution to the Specific CBE JU requirements, presented in section 2.2.3.1, and the Cross-cutting elements, highlighted in section 2.2.3.2 of the CBE JU Annual Work Programme 2023.

Proposals should consider synergies with past and ongoing projects.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-ju-cbe-2023-ia-07;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Optimised and integrated wood-based value chains, deadline: 20. September 2023 17:00 Brussels time

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In line with the EU Bioeconomy Strategy, the EU Forest strategy, the EU Biodiversity strategy, the updated Industrial strategy and the Circular Economy Action Plan, successful proposals will facilitate the large-scale deployment of industrial bio-based systems based on primary woody biomass. These systems will contribute to the EU Bioeconomy Strategy implementation, demonstrating improved environmental performances, maximising resource- and energy-efficiency, and optimising cascading use of bio-based primary and secondary feedstock, aiming at ‘zero waste’ and ‘zero-pollution’ operations and outputs.

Project results should contribute to the following expected outcomes:

- Deployment of competitive, replicable, regional/local, circular and inclusive bio-based business models in the forest-based sector and industry encompassing all segments of the value chain

- Improved circularity and resource efficiency of wood-based resources via practical applications of the circular (bio)economy concept to reduce the consumption of primary woody biomass

- Significant improvement in environmental sustainability across the value chain against specified fossil-based and/or bio-based benchmarks

- Reduction in the dependency on imported feedstock and products

- Social acceptance of circular bio-based solutions and products

- Availability of a broader range of competitive circular bio-based products meeting consumer and market requirements

- Industrial competitiveness, strategic autonomy and resource independence of bio-based value chains of EU member states and/or Associated countries

- New skilled job opportunities and investments in the bio-based sectors, particularly in the regions with underdeveloped capacities and in the rural and coastal areas

Forest-based value chains are often vertically integrated but could be further optimised by introducing innovative processing technologies, e.g., upcycling residual flows to higher value applications and exploiting industrial symbiosis concepts (within the same industrial sector but also with other industrial sectors when applicable) to maximise the value extracted from main and side streams of forest biomass. Moreover, there are non-forest woody resources, both primary and secondary, not yet efficiently managed and valorised.

This topic aims to considerably increase resource efficiency by promoting cooperation of companies of different scales and other actors and move towards "zero waste, zero pollution" operations. The feedstock in scope of the topic are woody biomass from sustainably managed forests and wood industry side streams and residues.

For this purpose, seamless and efficient integration of processing technologies of main and side flows of woody biomass between various companies and other actors is needed, specialising manufacturing of diverse materials and products. This may be achieved by the creation of a symbiotic ecosystem with clusters of companies of different scale and technology providers using the residual streams of large-scale industrial plants, but also exploiting the technical opportunities from emerging manufacturing systems. The cascading use of woody biomass already allows for a range of industrial purposes; the better integration would provide efficiency gains and higher value of the wood-based value chains at a regional scale. The cooperation between well-established and emerging industrial operators, forest owners, innovators and RTOs/ academia, as well as financial support from public and private investors must be increased, to ensure circular, resource efficient and zero pollution processing.

Proposals under this topic should:

- Establish a symbiotic and flexible woody biomass processing system involving the cooperation of several actors to maximise the cascading use of feedstock and the use of residues for high value added circular products. Contribute to match interests, priorities and technological status of different participating companies and other actors as well as gaining support from public and private investors to a large-scale systemic change. One example would be clustering several enterprises/technology providers around a main woody-biomass operator to valorise its side and residual streams.

- Identify regional opportunities to share primary materials, recycled materials, and side-streams between different industries in the wood-based sectors in a secure and economically feasible way.

- Identify and support process technologies and logistical solutions that can be integrated in a symbiotic way to create a circular economy. Develop processes to share heat, process water and chemicals between different businesses, at production site level.

- Develop cost-efficient processes to allow for efficient recycling of secondary woody biomass-products.

- Develop innovative and efficient methods to extract and produce valuable molecules and components from biomass (addressing material decomposition processes which are energy-consuming) and individuate new market sectors for such materials (e.g., pigments, new materials for additive manufacturing, bioadhesives and bio-based functional additives, food and feed ingredients etc.).

- Develop new production methods enabled by innovative, including emerging breakthrough, technologies.

- Develop material-and energy-efficient processing and recirculation of (chemicals) flows, towards the fully circular model, within the single industrial plant and within the extended production site.

- Innovate the outputs from the value chain while applying the principles of eco-design of bio-based products.

- Demonstrate the substantial improvement of environmental performance, including reduction of GHG and other harmful emissions, across the value chain against specified fossil and/or bio-based benchmarks.

- Incorporate and integrate innovative processes and solutions along the value chain into a large-scale system, including woody biomass-based products for high value applications.

- Develop and demonstrate a sound business model, based on experienced bottlenecks/gains, ensuring long-term investments and new jobs opportunities, encouraging the inclusion of all actors in the regional value chain.

- Apply certification schemes of woody biomass, including certification of environmental sustainability, and expand its use along the different types of woody biomass.

Consider integrating activities contributing to climate change adaptation.

- Demonstrate the replication potential of this flagship concept in the EU and the associated countries.

Proposals are recommended to include a task to perform an assessment based on the safe-and-sustainable-by-design (SSbD) framework, developed by the European Commission, for assessing the safety and sustainability of chemicals and materials. Under this context, proposals are recommended to also include a task to contribute with and develop recommendations that can advance further the application of the SSbD framework.

Proposals may consider making existing/new industrial assets (e.g., labs, test rigs, etc.) or other training packages accessible to researchers, SMEs, etc., for visiting, or training and testing bio-based processes.

Proposals must implement the multi-actor approach and ensure adequate involvement of all key actors in the value chains relevant for this topic, across the sustainable circular bio-based system, e.g., the bio-based processing industry, including brand owners, but also researchers, feedstock producers and suppliers, regional actors, regional policy makers, consumers and civil society.

Proposals should also describe their contribution to the Specific CBE JU requirements, presented in section 2.2.3.1, and the Cross-cutting elements, highlighted in section 2.2.3.2 of the CBE JU Annual Work Programme 2023.

Where relevant, proposals should seek links with and capitalise on the results of past and ongoing EU funded projects, including from BBI JU.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-ju-cbe-2023-iaflag-01;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Expansion and/or retro-fitting of biorefineries towards higher-value bio-based chemicals and intermediates, deadline: 20. September 2023 17:00 Brussels time

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In line with the objectives of the circular economy and the zero pollution action plan, the successful proposal will facilitate the large-scale deployment of industrial bio-based systems. These systems will contribute to the EU Bioeconomy Strategy implementation, demonstrating improved environmental performances, maximum resource- and energy-efficiency, and optimal cascading use of bio-based feedstock. The successful proposal will also support the implementation of relevant EU policies and

priorities such as the EU Industrial Strategy, green and digital transition, Circular Economy Action Plan, as well as contribute to the achievement of the European Green Deal (EGD) objectives.

Project results should contribute to the following expected outcomes:

- Deployment of competitive, replicable, regional/local, circular inclusive bio-based business models centred on biorefineries encompassing all segments of the value chain

- Availability of a broader range of (environmentally and economically) sustainable processes of bio-based feedstock and by-products in a biorefinery to added value bio-based materials/products

- Availability of a broader range of bio-based products meeting market requirements

- Large scale implementation of (environmentally and economically) sustainable biorefinery processes.

- Significant improvement in environmental sustainability across the value chain against specified fossil and/or bio-based benchmarks

- Industrial competitiveness, strategic autonomy and resource independence of bio-based value chains of EU member states and/or Associated countries

- Improved circularity and resource efficiency via practical application of the circular (bio)economy concept

- Income and business opportunities diversification for stakeholders and actors (including primary producers) in the bio-based sectors

- New skilled job opportunities and investments in the bio-based sectors, particularly in the regions with underdeveloped capacities and in the rural and coastal areas

- Social acceptance of circular bio-based solutions and products

- Market uptake and growth of scalable circular bio-based solutions

Many biorefineries in Europe were built in the past decades with a rather narrow product scope (e.g., biofuel plants, pulp and paper mills). New technologies allow expanding their production capacity to convert bio-based feedstock to added value products, following the cascading approach, and/or to produce new and higher-value products to take full advantage of the existing assets and keep them competitive with the current market requirements. In addition to that, there is a wealth of CAPEX from dismissed or declining industrial assets that could be converted as parts of the biorefinery while exploiting the existing infrastructures, resulting in lower CAPEX, and other economic and technological benefits (e.g., shorter lead times, faster implementation, fewer production time losses and lower risks compared to fully greenfield plant construction).

Proposals under this topic should:

- Integrate innovative and sustainable conversion processes in existing biorefineries (currently producing a conventional and/or narrow range of products), addressing all elements in the value chain, also integrating, if applicable, dismissed or declined industrial assets that could be converted as parts of the biorefinery by:

    - increasing the valorisation of sustainable bio-based feedstock, from primary and secondary sources, respecting the ‘cascading use’ approach;

    - expanding the use of residual and waste streams from bio-based processes within the biorefinery into added-value products, addressing the technical challenges of converting secondary bio-based feedstock (limited process integration, energy inefficiency, water use, etc.);

    - integrating, when applicable, any other local residual biomass such as residual and waste streams from different sources (aquatic or terrestrial) to extract maximum value from the incoming feedstock and increase the economic viability;

    - developing new production methods enabled by innovative, including emerging breakthrough, technologies;

    - expanding and diversifying the production capacity and range of bio-based products, and increasing their value, including via symbiosis with other industrial actors when applicable;

    - improving the environmental sustainability profile of the plant by decreasing and controlling polluting emission and energy consumption;

    - improving the efficiency of processes to minimise process losses and reducing or eliminating the use of hazardous substances;

    - improving the flexibility to energy supply, e.g., expanding the use of renewable energy resources, increasing electrification, enabling energy storage, etc.;

    - responding to current and foreseen market requirements, e.g., expanding to markets different from the ones considered when building the plant in the first place.

- Validate the technical and economic viability of the plant conversion concept, enabling its replication including the integration of dismissed industrial assets, if applicable.

- Demonstrate the replication potential of this flagship concept in the EU and the associated countries.

- Demonstrate the economic and social sustainability in terms of maintaining (or increasing) jobs and skilled jobs, including at regional level towards an improved social and economic development of sectors providing bio-based feedstock, such as rural community, with no interference with the food value chains.

Proposals are recommended to include a task to perform an assessment based on the safe-and-sustainable-by-design (SSbD) framework, developed by the European Commission, for assessing the safety and sustainability of chemicals and materials. Under this context, proposals are recommended to also include a task to contribute with and develop recommendations that can advance further the application of the SSbD framework.

Proposals may consider making existing/new industrial assets (e.g., labs, test rigs, etc.) or accessible to researchers, SMEs, etc., for visiting, or training and testing bio-based processes.

Proposals must implement the multi-actor approach and ensure adequate involvement of all key actors in the value chains relevant for this topic, across the sustainable circular bio-based system, e.g., the bio-based processing industry, researchers, feedstock producers and suppliers, regional actors, policy makers and civil society.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-ju-cbe-2023-iaflag-02;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Bio-based packaging materials with improved properties: barrier, food contact, forming, printability, safety, recyclability /circularity-by-design, deadline: 20. September 2023 17:00 Brussels time

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In line with the objectives of the Sustainable Products Initiative as well as the EU Plastics Strategy, successful proposals will facilitate the large-scale deployment of new sustainable and high-performing packaging materials, including alternatives to plastics. Successful proposals will also contribute to the implementation of the EU Bioeconomy strategy, the Circular Economy Action Plan and the updated Industrial Strategy.

Project results should contribute to the following expected outcomes:

- Improved barrier properties (e.g., oxygen, grease and/or water, depending on application) with respect to existing fossil and/or bio-based benchmarks

- Improved durability also in unfavourable environments (e.g. high humidity, high or low temperatures depending on the application) with respect to existing fossil and/or bio-based benchmarks

- Improved sustainability and circularity with respect to existing fossil and/or bio-based benchmarks

- Availability of a broader range of circular bio-based packaging products meeting market requirements (depending on specific application)

- Contribution to deployment or strengthening of replicable, regional/local, circular bio-based business models

- Industrial competitiveness, strategic autonomy and resource independence of bio-based value chains of EU member states and/or Associated countries

- Significant improvement in environmental sustainability across the value chain against specified fossil and/or bio-based benchmarks

- Improved circularity and resource efficiency via practical application of the circular (bio)economy concept to packaging solutions

- Income and business opportunities diversification for stakeholders and actors (including primary producers) in the bio-based sectors

- New skilled job opportunities and investments in the bio-based sectors, particularly in the regions with underdeveloped capacities and in the rural and coastal areas

- Social acceptance of circular bio-based solutions and products

- Market uptake and growth of scalable bio-based solutions

The packaging business is undergoing considerable transformations due to pressing legislative changes, the issue of plastic littering and changes in customer behaviour. While consumer products make up a considerable share of packaging products, industrial packaging products also need to be considered. Future packaging products need to be bio-based, recyclable and/or biodegradable, lightweight and functional. A challenge is represented by the seemingly opposing requirements of barrier/surface properties (obtained by innovative coatings or multi-layered structures) and the need to make the product easy to recycle (easier with fully bio-based or mono-material structures).

Proposals under this topic should:

- Upscale production technologies and deploy the complete value chain to bio-based packaging materials with improved functional properties, meeting market and sustainability/circularity/environmental performance requirements. Applications and the related requirements should be clearly identified and addressed.

- More specifically, focus on improvement of surface and/or barrier properties, enabling circularity and improved environmental performance while also meeting technical performance requirements. Innovation can focus on one, more or all components (e.g. substrate/polymer, coatings, films, additives) of the bio-based packaging product, provided that technical, circularity and environmental requirements are met by the product as a whole.

- Address and demonstrate at relevant scale the sustainable end-of-life of the developed products, in particular compatibility with the existing recycling streams and/or, based on standards, their compostability or biodegradability, depending on the application sought. Reuse and remanufacturing are also in scope when compatible with the application and common practices.

- Verify the regulatory status of the new product and its safety for the intended use (especially important in food packaging) and for the environment.

- Depending on the biomass feedstock in scope, apply existing certification schemes.

- Consider end-users perception, behaviour and preferences for product design (especially important in food and consumer goods packaging, but also relevant in industrial packaging) but also in terms of disposal at end-of-life (e.g. avoiding littering, enabling easy sorting and high-target recycling with the correct stream).

- Employ low-emission and energy efficient process and ensure improved sustainability profiles for the products in scope compared to existing bio-based solutions.

Proposals are recommended to include a task to perform an assessment based on the safe-and-sustainable-by-design (SSbD) framework, developed by the European Commission, for assessing the safety and sustainability of chemicals and materials. Under this context, proposals are recommended to also include a task to contribute with and develop recommendations that can advance further the application of the SSbD framework.

Proposals may consider making existing/new industrial assets (e.g., labs, test rigs, etc.) accessible to researchers, SMEs, etc., for visiting, training and testing bio-based processes.

Proposals must implement the multi-actor approach and demonstrate the involvement of all concerned key actors, including the involvement of brand owners and any relevant B2B actors.

Proposals should also describe their contribution to the Specific CBE JU requirements, presented in section 2.2.3.1, and the Cross-cutting elements, highlighted in section 2.2.3.2 of the CBE JU Annual Work Programme 2023.

Where relevant, proposals should seek links with and capitalise on the results of past and ongoing EU funded projects.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-ju-cbe-2023-iaflag-03;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Valorisation of aquatic biomass waste and residues, deadline: 20. September 2023 17:00 Brussels

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In line with the objectives of the circular economy and the zero pollution action plan, successful proposals will facilitate the large-scale deployment of industrial bio-based systems. These systems will contribute to new EU strategy for a Sustainable Blue Economy implementation and address the EC Communication Towards a Strong and Sustainable EU Algae Sector,

demonstrating improved environmental performances, maximum resource- and energy-efficiency, and optimal cascading use of bio-based feedstock, aiming for ‘zero waste’ and ‘zero-pollution’ operations.

Project results should contribute to the following expected outcomes:

- Industrial competitiveness, strategic autonomy and resource independence of bio-based value chains of EU member states and/or Associated countries.

- Improved circularity and resource efficiency via practical application of the circular (bio)economy concept, maximising the valorisation of residual biomass.

- Market uptake and growth of scalable circular bio-based solutions for high value applications.

- Availability of a broader range of bio-based products meeting market requirements

- Income and business opportunities diversification for stakeholders and actors (including fisheries and aquaculture) in the bio-based sectors

- New skilled job opportunities and investments in the bio-based sectors, particularly in coastal areas

- Social acceptance of circular bio-based solutions and products.

- Significant contribution to the objectives of the R&I Mission ‘Restore our Oceans and Waters by 2030’ and the Sustainable Blue Economy Partnership

Residual and waste streams from fisheries, seafood processing and aquaculture, including seaweed and invertebrates, represent potentially interesting but so far underutilised sources of active compounds, chemicals and materials. Some of them are processed into animal feed or fertilisers, but a large proportion is treated as waste (e.g. discards), despite containing interesting molecules for cosmetics and nutraceutical applications, among others. Moreover, associated disposal costs are high.

The specific challenge consists in demonstrating and deploying the efficient operation of a full value chain based on residuals and side streams from aquaculture, fisheries and aquatic processing for valorisation into new bio-based products (food/feed ingredients, chemicals and materials), increasing the value of extracted fractions, while retaining and adding functionality and increasing the range of end applications. Additional challenge consists in guaranteeing quality of the biomass for processing, including by mobile and modular units (where relevant). Microalgae and related streams are not in scope.

Proposals under this topic should:

- Demonstrate the suitability of small scale, decentralised biorefinery concepts (that may include modular and mobile units when relevant), extracting maximum value from (all components of) the sustainably sourced bio-based feedstock to produce a variety of products in the scope of CBE JU including chemicals, bioactives, soil nutrients, as well as food and feed ingredients.

- Upscale the production technologies and deploy the complete value chain to address the hurdles and bottlenecks regarding the availability, sourcing, logistics and associated infrastructure in the targeted biomass feedstock supply systems. These could include pre-treatment aspects as necessary to preserve feedstock quality and minimise losses due to biodegradation.

- Demonstrate the selection, extraction or production of specific compounds from these residual streams into products for further value-added applications in the chemical industry, cosmetics and human or animal nutrition. Proposals may address more than one feedstock and production chain in an integrated concept.

- Include processing operations tailored to local circumstances. These operations will need to cope with availabilities, distances, qualities of the residuals and side streams, possible variations in these qualities, etc. The business case underlying the proposal must include a feasibility assessment (technological and financial) of: (i) the associated processes at the envisaged scale; and (ii) combinations with other relevant processes.

Proposals are recommended to include a task to perform an assessment based on the safe-and-sustainable-by-design (SSbD) framework, developed by the European Commission, for assessing the safety and sustainability of chemicals and materials. Under this context, proposals are recommended to also include a task to contribute with and develop recommendations that can advance further the application of the SSbD framework.

Proposals may consider making existing/new industrial assets (e.g., labs, test rigs, etc.) accessible to researchers, SMEs, etc., for visit, training and testing bio-based processes.

Proposals must apply the concept of the ‘multi-actor approach’ and ensure adequate involvement of primary producers and other relevant actors in rural/coastal areas

Proposals should also describe their contribution to the Specific CBE JU requirements, presented in section 2.2.3.1, and the Cross-cutting elements, highlighted in section 2.2.3.2 of the CBE JU Annual Work Programme 2023.

Where relevant, proposals should consider synergies and complementarities with results of past and ongoing EU funded projects and calls, including BBI JU.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-ju-cbe-2023-iaflag-04;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Phyto-management; curing soil with industrial crops, utilising contaminated and saline land for industrial crop production, deadline: 20. September 2023 17:00 Brussels time

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Successful proposals will contribute to the EU mission “A Soil Deal for Europe”, EU Bioeconomy Strategy, EU Long-Term Vision for Rural Areas, Circular Economy Action Plan and Common Agriculture Policy by testing new zero-pollution approaches and business models for a successful green transition in rural areas in line with the European Green Deal objectives.

Project results should contribute to the following expected outcomes:

- Increased availability of domestic raw materials for use in non-food high-value applications in the bio-based industries.

- Enhanced knowledge on sustainable options to extract, recover, added value compounds as well as on the processing of the biomass into high value products.

- Development of guidelines, recommendations, thresholds, and restrictions related to the utilised biomass in form of specific case studies.

- Better knowledge on characteristics and quality of biomass grown on contaminated and salt-affected soils.

- Improved environmental condition of post-industrial and other relevant areas affected by soil contamination or salinity, in view of their future reconversion to other uses (agriculture, recreation etc).

- Significant contribution to the objectives of the R&I mission ‘A Soil Deal for Europe’.

Phytoremediation, the use of plants to remove contaminants from the environment and in particular soils, has become an important approach in ecological engineering. However, contaminated lands are normally left fallow for a long period of time as there is a risk of bioaccumulation in food crops.

A relatively new area of phytoremediation is phytomanagement in which non-food high biomass yielding crops are used to reduce and control risks arising from soil pollution, while making a profitable and sustainable use of resources possible by extracting contaminants and valorising marketable biomass.

Considering the increasing demand of biomass and resulting potential land-use conflicts, the cultivation of industrial crops in contaminated soils offers great environmental benefits and new social and economic opportunities for primary producers, broader society and the entire bio-based value system.

Furthermore, this topic addresses phytoremediation techniques for salt-affected soils to better understand the potential of selected high-yielding industrial crops to restore soil fertility and ecosystem services, including in view of the reconversion to future uses (agriculture, recreation etc).

The high biomass yield (productivity) is an important aspect of the topic.

Proposals under this topic should:

- Test and optimise, validate and monitor the cultivation and production of high-yielding and resilient industrial crops to restore contaminated lands (by heavy metals or organic/inorganic pollutants) or remediate salt-affected soils in support of the biodiversity and climate objectives.

- Assess resource-efficient pathways in specific case studies for the valorisation and conversion of biomass and recovered compounds for high-value applications, linking with relevant bio-based industry actors, while taking into account the levels of pollution and/or/ salinisation and suitability of the crop for site phytomanagement.

- Identify and validate economic-viable value chains, end products and applications of bio-based products in which farmers play an active role and generate additional income.

- Ensure the minimisation of environmental impacts in the context of good agricultural practices and possible sanitary and other safety related implications through guidelines and Life Cycle Environmental Assessments.

- Include a task to closely cooperate with activities and projects funded under the Mission ‘A Soil Deal for Europe’, and other parallel projects funded e.g., under Horizon Europe., as well as with civil society (e.g. NGOs) to benefit from social innovation, creativity and engagement.

Proposals must apply the concept of the 'multi-actor approach' and ensure adequate involvement of primary producers and other relevant actors in rural/post-industrial areas.

Proposals should also describe their contribution to the Specific CBE JU requirements, presented in section 2.2.3.1, and the Cross-cutting elements, highlighted in section 2.2.3.2 of the CBE JU Annual Work Programme 2023.

Where relevant, proposals should seek links with and capitalise on the results of past and ongoing EU funded projects.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-ju-cbe-2023-r-01;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Optimised forest-based value chains for high value applications and improved forest management, deadline: 20. September 2023 17:00 Brussels time

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Successful proposals will contribute to the Bioeconomy Strategy, the Long-Term Vision for Rural Areas, Biodiversity Strategy and Forest Strategy by promoting new business models for a successful green transition in primary production and rural areas in line with the European Green Deal objectives. Project results should contribute to the following expected outcomes:

- Improved overall environmental impact of the forest management practice, due to higher understanding and appreciation of natural forest biodiversity, knowledge on climate change impacts, and improved non-invasive quality control.

- Optimized application of the cascading use of biomass in regional industrial ecosystems, based on the principles of circularity, residue up- and recycling and industrial symbiosis.

- Increased engagement and innovation capacity of regional and local actors, including bio-based industry, and in particular SMEs, as well as social impact in rural areas.

- Increased consideration of the sustainability objectives, for the multifunctional forestry value chains, contributing to speeding up deployment and maximising the opportunities in new rural industrial ecosystems.

- Strengthened application of the hierarchy of materials use, trade-offs, synergies, business models, participatory approaches, with positive environmental, social and economic impacts in regional and rural development.

European forests are important providers of multiple feedstocks and services including biomass used for a wide variety of uses, where the assurance of sustainability plays a key role. Moreover, they host a wealth of biodiversity and act as highly effective carbon sinks, in addition to other multiple functions in bioeconomy (e.g. recreation, 'reconnection with nature'), and ecosystem services (e.g. water retention, soil quality/prevention of erosion etc). However, they are presently facing increasing pressure from climate change and other environmental pressures. Extreme weather conditions and fluctuations, changing pathogen niches, water stress and infestations from insects, rot and fungi, resulting from or worsened by climate change, are having an increasingly stronger negative impact on trees and forest ecosystems. Availability and quality of data and information about the growing forest is a key for success together with digital tools of handling the data in specific purposes of interest. The speed of development in both data handling, machine learning and data collection bring new opportunities to this research field. Forest operators need to adapt to these fast-changing conditions to ensure the continued role of forests in providing biomass, enhancing biodiversity and absorbing atmospheric carbon. Sensing, data acquisition and predictive technologies can prove a key enabler for data-driven decision making in forest-based operations. These range from maintaining forest health through monitoring and corrective actions, to quality control of wood and non-wood biomass, to support decision making on the best application of each biomass (wood and non-wood, when applicable) component.

Proposals under this topic should:

- Develop or upgrade non-invasive solutions for forest health monitoring and wood quality control (including remote and automated operations), taking into account the European and regional variety of forests. The developed solutions should support sustainable forest management via better understanding of forest ecosystem characteristics (including multi-species' interactions in forest ecosystems), and of the relation between growth conditions of the trees/forest ecosystems (presence of parasites or pests, biodiversity, climate change stress) and the resulting woody biomass quality.

- Apply data gathering and monitoring across the whole value chain from forest operations to transport, storage and processing of wood. Use this knowledge for decision support and prediction throughout forest-based operations to optimise the value chain in scope. Decision support is needed for instance to identify the best moment for harvesting/conservation/treatment options. Data gathering and monitoring of tree growth will assist in anticipating and projecting resulting wood quality and forest ecosystem health.

- Identify early intervention actions to restore and enhance forest health, (e.g. new or better adapted varieties with higher resistance to pathogens, pests, water scarcity adaptation etc) in particular to mitigate and adapt to effects of climate change and to enhance the natural biodiversity potential and forest resilience ('learning from nature' approaches). A feedback loop should be created with the forest management and the ecosystem research sectors to reach this goal.

- Identify the most suitable application(s) for different grades of woody feedstock (which may include wood rot, insect damaged and storm damaged wood, but also local varieties and wood whose characteristics are affected by climate change stress) and apply innovative solutions for their valorisation. When applicable, the activity can include additional sources of primary biomass such as bark, stumps, leaves, nuts etc. aiming at full valorisation of forest biomass. Higher quality of wood means it is increasingly used for high value and durable applications (e.g. construction sector), increasing its carbon storage potential.

- Optionally, proposals can include downstream processing of the selected feedstock for the identified applications, to assess the impact of the innovations introduced by the project in relation to the benchmark.

- In a dedicated task on Life Cycle Environmental Assessment conducted to understand the environmental impact of the proposed solutions, consider in particular the biodiversity enhancement and resource efficiency potentials. Conduct the social impact assessment to understand the impact on rural actors. Identify the economically viable opportunities and new business cases, for the forest economy stakeholders, developing the recommendations and suggestions, in particular for any uptake or deployment actions.

Proposals should build on past or ongoing research projects and collaborate with relevant initiatives, including the Forest Information System for Europe (FISE).

Proposals must implement the multi-actor approach and ensure adequate involvement of all key actors in the rural value chains relevant for this topic including researchers, feedstock producers and suppliers (including forest managers), regional actors, and civil society.

Proposals should also describe their contribution to the Specific CBE JU requirements, presented in section 2.2.3.1, and the Cross-cutting elements, highlighted in section 2.2.3.2 of the CBE JU Annual Work Programme 2023.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-ju-cbe-2023-r-02;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Robust and optimised industrial biotech and chemical/industrial biotech processes, deadline: 20. September 2023 17:00 Brussels time

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Successful proposals will contribute to the Industrial Strategy, Green and Digital transition and Circular Economy Action Plan, as well as to the achievement of European Green Deal objectives. Proposals will also contribute to the EU Bioeconomy Strategy implementation, developing processes with improved environmental performances, maximum resource- and energy-efficiency, and optimal cascading use of bio-based feedstock, aiming for 'zero waste' and 'zero-pollution' operations.

Project results should contribute to the following expected outcomes:

- (Industrial) biotech or chemical/(industrial) biotech processing routes with improved efficiency compared to established routes, or completely new processing routes that are currently unavailable;

- Cost-competitive bio-based products;

- Improvement of the environmental performance of bio-based processes through resource-efficient valorisation of sustainable biomass feedstock, while addressing (i.e. reduction/elimination) pollution issues in production processes;

- Significant improvement environmental performance across the value chain against specified fossil and/or bio-based benchmarks;

- Improved circularity and resource efficiency via practical application of the circular (bio)economy concept;

- Availability of a broader range of bio-based products meeting market requirements.

Industrial biotech processes often have limitations of scaling up and continuous processing. There is an additional complexity of reduced biocatalyst robustness and poor process metrics, especially when applied in sequence with chemical pre-processing. Industrial biotech processes can be used to replace chemical conversion steps which may pose safety or resource efficiency issues (e.g. necessitating complex reactions with protective groups, hazardous solvents etc.), or may be high in energy demand

(heat, pressure) etc. Vice versa, some biotechnological conversion steps can be difficult to scale up because of e.g. substrate inhibition, difficult product removal, co-factor regeneration: in this case, chemical conversion steps can provide improvements.

Proposals under this topic should:

- Identify existing, industrially relevant, bio-based process(es) (upstream and conversion steps) and identify the areas of intervention and bottlenecks to improve process flexibility, robustness, techno-economic feasibility and environmental performance. The proposal should consider the case of developing combined processes using biotech and chemical approaches synergistically in order to optimise process and/or (bio)catalyst design for obtaining bio-based products.

- Incorporate reactor design (e.g. membrane reactors, small-scale reactors, microfluidics), process design, process control and optimisation as well as catalysis optimisation aspects that are relevant to also enable tandem chemical/biotech processes, and where applicable for optimisation of continuous production approaches (batch2continuous).

- Identify, optimize/engineer and test more active and robust microbial hosts and their enzymes, or other (bio)catalysts, against relevant process conditions (including physical and chemical stressors). The projects should also consider integrating the biofoundry and synthetic biology advances;

- Ensure and assess productivity, yield, robustness, flexibility of the process.

Overall, modifications and optimisation of the (physico)chemical steps to further optimize chemical/biotech tandem processes are also in scope and could be considered.

Proposals should also describe their contribution to the Specific CBE JU requirements, presented in section 2.2.3.1, and the Cross-cutting elements, highlighted in section 2.2.3.2 of the CBE JU Annual Work Programme 2023.

Where relevant, proposals should seek links with and capitalise on the results of past and ongoing EU funded projects.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-ju-cbe-2023-r-03;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Development of novel, high-performance bio-based polymers and co-polymers, deadline: 20. September 2023 17:00 Brussels time

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In line with the objectives of the EU Bioeconomy Strategy, Plastics Strategy and Industrial strategy, successful proposals will contribute to development of new, high performance materials for the European industry. Successful proposals may also contribute to achieving the objectives of the Sustainable Products Initiative (SPI) and the Sustainable Textiles strategy.

Project results should contribute to the following expected outcomes:

- Availability of a broader range of bio-based products meeting market requirements;

- Unlocking new applications presently not covered by bio-based polymers;

- Improved sustainability, safety and circularity when compared to fossil-based (or bio-based) state-of-the-art benchmark(s);

- Evidence of promising product and process performance for reference applications in view of subsequent upscaling;

- Significant improvements in environmental performance across the value chain, against specified fossil and/or bio-based benchmarks;

- Improved circularity and resource efficiency via practical application of the circular (bio)economy concept.

Many bio-based monomers and polymers are (relatively) new: while some are well characterised and already produced at industrial scale, there are hundreds of molecular structures with limited application outside the lab, which may be worth exploring in view of future upscaling and market uptake. Often, bio-based polymers have a limited application space in comparison with established fossil-based counterparts also due to some undesired properties (e.g. brittleness, low glass transition temperature). Co-polymerisation or blending with other materials could also be one way to provide a solution to overcome at least some of these issues, but research in the field is scarce due to their (relative) novelty and unavailability of materials in sufficient quantity (at least at pilot scale) to perform testing and characterisation.

Proposals under this topic should:

- Develop polymers with improved or unprecedented properties by:

    - Polymerisation of bio-based monomers with no fossil-based counterpart to produce new polymers with unprecedented properties, and/or

    - Co-polymerisation of (new or known) bio-based monomers to improve the properties of the copolymer with respect to the original polymer(s), and/or

    - Blending of (new or known) bio-based polymers to obtain materials with novel, advanced properties

- Design the polymers so that they are able to match application requirements without using potentially hazardous additives and substances of concern in the end product formulations. Proposals need to specify the end applications sought and involve potential end users to provide specific application requirements.

- Develop pilot scale production and test the products against application requirements, demonstrating high performance and market suitability. Process design choices should take into account energy and resource efficiency showing the potential for future scale up.

- Perform a preliminary assessment of the safety, circularity and overall sustainability of the developed polymers in view of the subsequent scale-up phase. Circularity aspects should be considered from the early stages of material design, based on existing or novel end of life (EoL) options. In the absence of suitable EoL options, projects should highlight R&I gaps that may be taken up by future projects.

- Perform a preliminary techno-economic feasibility analysis of the subsequent scale-up phase, including market considerations (demand; target price; competing products; estimated lead time)

Proposals should also describe their contribution to the Specific CBE JU requirements, presented in section 2.2.3.1, and the Cross-cutting elements, highlighted in section 2.2.3.2 of the CBE JU Annual Work Programme 2023.

Where relevant, proposals should seek links with and capitalise on the results of past and ongoing EU funded projects.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-ju-cbe-2023-r-04;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Pre-normative research to develop standards for biodegradability of bio-based products in controlled and in open environments, deadline: 20. September 2023 17:00 Brussels time

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The successful proposal will enable the bio-based industries in the Union to contribute to the enhancement of European bio-based industrial sustainability and to the development of innovative and sustainable value-chains in the bio-based sectors. Project results will contribute to deliver bio-based solutions which are biodegradable either in controlled or in open environments, with reduced environmental impacts on soil, water and air quality, biodiversity and climate, in line with the EGD objectives, the EU circular economy and the EU zero pollution action plans.

Project results should contribute to the following expected outcomes:

- Development and validation of the methodology to test the safe biodegradation of bio-based materials and products both in controlled and in open environments

- Support to the development of standard(s) for biodegradability in controlled/open environments and clear labelling for end consumers and customers

- Societal acceptance of bio-based circular bio-based solutions and products

- More responsible and informed choices in consumption

- Significant improvement in environmental sustainability and safety across the bio-based value chains

- Significant contribution to the objectives of the R&I missions ‘A soil deal for Europe’ and ‘Restore our oceans and waters’

The amount of waste littered in the open environment and causing pollution from harmful substances released from such waste streams, e.g., from plastic littering, has reached the level of a global emergency, especially affecting soil and water quality and biodiversity in land and marine environments. The overall low level of recycling of many waste streams, including collected

plastic waste, is also part of such global pollution challenge. Biodegradability of materials and products for targeted applications may offer viable end-of-life solutions in case of safe and sustainable biodegradation either under controlled conditions, i.e., in composting plants and anaerobic digestors, or in open environments. However, there is still a need for clarity on how to label biodegradable products and a lack of standards covering the range of conditions under which a (claimed) biodegradable material actually biodegrade to the desired extent and in the desired time frame to ensure a safe end-of-life.

Proposals under this topic should:

- Select applications for biodegradable bio-based materials and products. Such applications should include materials and products which show environmental benefits from being biodegradable in one (or more) of the following cases: i) controlled environments (if separately collected after their use), such as industrial composting plants, anaerobic digesters and home-composting, for example in cases where products and materials are contaminated from food or from other organic substances during their use; ii) open environments, for example in those cases of uncontrolled waste littering, or in those cases where the products are used already in the open environment and their biodegradation 'in situ' is the expected end-of-life.

- Identify gaps and needs of existing methods and standards to test the biodegradability of materials and certification schemes applicable to the bio-based material and products selected.

- Select a set of combinations of bio-based products and end-of-life environments. The set of combinations should cover all of the following end-of-life pathways in: industrial composting plants, anaerobic digesters and home-composting, as controlled environments, and soil and water, as open environments. The choice of products and applications should be based on the review of existing standards and gaps and on the indications from the current legislative framework, as well on current market volume, projected market volume (to capture emerging materials) and, in the case of end-of-life in open environments, the likelihood of the product being released (fully or partially) to the environment during its use of afterwards.

- Design new/improve existing tests of biodegradability in the specific environments for the selected set of combinations, under representative ranges of physical/chemical conditions. The tests should include the monitoring of all relevant environmental impacts, including, but not limited to, emissions, eco-toxicity and any impacts on natural ecosystems, from biodegraded materials, including from micro-plastics, and from their additives during the biodegradation process. The tests should include, as a parameter of biodegradation process, the time-frame of partial up to full biodegradation. A risk assessment should be planned as well, based on the monitored parameters.

- Validate the tests of biodegradability of the selected set of combinations and develop protocols for their replication. The trials of biodegradation of bio-based materials in different environments should be performed and monitored under representative ranges of physical/chemical conditions.

- Develop a proposal for the development and/or the update of standards for tests of biodegradability for the selected applications.

- Perform a survey among the concerned consumers and end-of-life stakeholders to get insights on the information necessary on the correct use and end-of-life disposal options of the selected bio-based products. This includes information about the specific conditions/environments for use and end-of-life (e.g., recycling, composting, anaerobic digestion, home-composting, 'in situ' biodegradation, etc.) and recommendations on the integration of such information in the existing labelling systems.

- Design measures to deliver transparent communication, aiming at improved societal acceptance of bio-based innovation and at supporting consumers, public procurers and the business-to-business market in making responsible and informed choices. It should include the information about the environmental impacts, including on ecosystems, of uncontrolled disposal and of uncontrolled littering into the open environments and of the consequent risks.

In order to achieve the expected outcomes, the consortium should include a standardisation body, to monitor and be consulted on the development of the tests, to the development of the standers proposal, to participate in the consultations on the labelling systems. Suggested members of the consortium are researchers in the bio-based technologies, bio-based industries, trade bodies, consumers' associations and any relevant stakeholder along the value chain of industrial bio-based systems, as well as waste management companies and facilities.

An advisory board shall be established by the project. The Bio-Based Industries Consortium and a representative from the European Commission should be part of this advisory board to provide expertise in the implementation and follow up of the different tasks.

Proposals should also describe their contribution to the Specific CBE JU requirements, presented in section 2.2.3.1, and the Cross-cutting elements, highlighted in section 2.2.3.2 of the CBE JU Annual Work Programme 2023.

Where relevant, proposals should seek links with and capitalise on the results of past and ongoing EU funded projects.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-ju-cbe-2023-r-05;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=

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/HORIZON EUROPE/ EU-wide network of pilot plants and testing facilities, improving SMEs and start-ups' access to scale-up, deadline: 20. September 2023 17:00 Brussels time

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In line with the objectives of the EU Bioeconomy Strategy, Industrial strategy and SME strategy, the successful proposal will facilitate the access of innovative bio-based SMEs and start-ups to scale-up and growth.

Project results should contribute to the following expected outcomes:

- Integration of pilot plants and test rigs, labs for testing and upscaling bio-based processes in an open and long lasting community with an EU-wide scope, bringing them together with users such as SMEs and start-ups

- Capacity building for researchers including enabling access to research, testing and upscaling infrastructures and services

- Access to scale-up and testing facilities for SMEs and start-ups, as well as academia actors searching for facilities and support to scale up their lab-scale processes with an outlook towards future commercialisation.

Availability and accessibility of testing and pilot infrastructures is a key element to increase and integrate the research and innovation capacity of stakeholders across the Union, especially SMEs and start-ups that often lack the ability of performing scale-up research in-house. While the number of open access facilities is growing across Europe, there are considerable discrepancies in geographic distribution and scale, which means that many SMEs and start-ups have difficulties in getting access to scale-up facilities beyond pilot scale. As a consequence, local bioeconomy potential is not fully exploited, particularly in under-represented countries and regions. Past and ongoing projects at national, macro-regional and European level have produced maps and databases of existing open access facilities and organisations across Europe, but their efforts are often scattered and there's a need for a centralised and all-encompassing approach. Besides making available and updating a EU-wide database of such facilities, there is also a need of turning it into a community, bringing together demand and offer and providing matchmaking and networking occasions for pilot facilities, open access labs and test rigs on one side and SMEs, start-ups, research groups and large companies on the other.

Proposals under this topic should:

- Map existing infrastructures for pilot, testing and upscaling bio-based processes in Europe, building on and going beyond existing databases, with a geographic distribution encompassing all EU countries. Create an open database of such infrastructures.

- Create and manage a community bringing together facilities, SMEs/startups and researchers, encouraging the access of the latter to the scale up ecosystem. The community should also involve large companies and market actors, investors and finance actors to provide networking and matchmaking opportunities for the SMEs and startups.

- Establish assistance, training and support services for SMEs and startups (e.g. related to process design, access to finance) in view of scaling up their process technology. Create opportunities for knowledge exchange and commercial development of the scaled-up innovations by connecting innovators and market/finance actors.

- Work in synergy with the European Strategy Forum on Research Infrastructures (ESFRI) and other R&I infrastructure-related initiatives to develop an integrated and efficient ecosystem of research infrastructures (RIs) in Europe which includes pilot plants and test rigs, labs for testing and upscaling bio-based processes, including regions where access to such facilities is currently lacking.

- Deploy actions to create or improve awareness of the opportunities related to the network of open access facilities, with a specific focus on under-represented countries and regions.

- Develop a viable business model with a credible revenue generation stream to make the database and community self-sustainable beyond the project duration. Test the exit strategy and revenue generation model already during the project duration to prove the business model and establish the foundations of future self-sustaining operations.

- Proposals may involve financial support to third parties to provide direct support (e.g. in the form of cascading grants) to (SMEs, SMEs cluster, local hubs, start-ups and spin-offs form universities and research organisations). A maximum of € 50 000 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 EUR 300 000 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.

Proposals should also describe their contribution to the Specific CBE JU requirements, presented in section 2.2.3.1, and the cross-cutting elements, highlighted in section 2.2.3.2 of the CBE JU Annual Work Programme 2023.

Proposals should seek links with and capitalise on the results of past and ongoing EU funded projects.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-ju-cbe-2023-s-01;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Supporting the capacity of regions in environmental sustainability assessment for the bio-based sectors, deadline: 20. September 2023 17:00 Brussels time

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The successful proposal will enable the bio-based industries in the Union to contribute to the fair and just green transition, enhancement of European bio-based industrial sustainability and socio-economic viability at regional level, and to boost inclusive innovation of sustainable value-chains in the bio-based sectors. Project results will contribute to increasing engagement, understanding and participation of regional stakeholders, including policymakers, to develop policy on bio-based solutions, in line with the EGD objectives, updated EU Bioeconomy Strategy, Biodiversity Strategy, the EU circular economy and the EU zero pollution action plans.

Project results should contribute to the following expected outcomes:

- Increased deployment of circular bio-based solutions in the regional settings, especially of the actors currently lagging behind, based on correct understanding of sustainability challenges and opportunities/benefits, while ensuring inclusive engagement of market operators and civil society, thus contributing to regional revitalization and fair and just green transition.

- Implement (i.e. integrate into regional/local policies) monitoring systems and assessment of the environmental impacts and circularity of bio-based systems for the EU single market and for international trade.

- Improved understanding and awareness by the regional and local stakeholders including at the authorities' level, of the sustainability and circularity screening methodologies (for resources such as water, biodiversity, land use including 'marginal land' potentials/limitations, biological primary and secondary feedstock, which are all critical for the development of bio-based sectors and applications), supporting higher innovation capacity and inclusion of such methodologies into the regional bioeconomy strategies and action plans based on local resources, as well as social engagement.

- Improved resource efficiency of local resources and lowered environmental impact of the circular bio-based industrial activities in the regional and local scales (maximizing biodiversity enhancement and restoration through bio-based solutions, and the climate adaption and resilience of bio-based systems).

While the bioeconomy carries great potential for achieving various policy aims related to sustainability, sustainability is not an intrinsic characteristic of the bioeconomy, but a potential it could achieve. For this reason, and to achieve the expected benefits, improving our capacity to assess the environmental impacts of bioeconomy (including any bio-based activity) development is of great importance. Regions can be considered the most appropriate territorial level at which to implement bioeconomy strategies, including for the innovative bio-based sectors. The aim of this action is to support decision-makers to incorporate considerations of ecological limits into their regional bioeconomy strategies and roadmaps, when it comes to circular bio-based activities.

Proposals under this topic should:

- Consider the existing datasets related to environmental sustainability assessment and its methodology options and in particular Life Cycle Assessment (LCA) data developed under the past BBI JU projects, as a baseline to develop/expand guidelines, digital tools and other policy recommendations for the regional-level authorities and other bio-based sector' stakeholders. Within the scoping of methologies for safe and sustainability assessment, the safe and sustainable by design assessment framework should be considered.

- Include into study the following considerations: i) projections on bio-based chemicals and materials market growth, their value chains including biorefining options (small, including mobile, and large scale) and applications at EU/national and regional level, based on available sources, ii) tools to assess/model biomass (including secondary) availability requirements for chemicals, polymers and materials. iii) cover scenarios of growth while estimating impacts on food security Land Use, Land Use Change and Forestry (LULUCF), biodiversity and ecosystems integrity (including potentials/limitations of biomass provision from marginal land).

- Perform a policy analysis (e.g. conflicting policies/trade-offs)/SWOT) and provide recommendations to policy makers at local/regional/EU level, taking into account the geographical distribution of the feedstock, and considering the regional ecological and socio-economic boundaries, as well as the related social impacts

- Collect and analyze the (range of) best available industrial bio-based systems in the scope of CBE JU within the EU in terms of environmental and circular performances,

- Develop practical forums for case studies' collection and exchange of best practice at regional level, to build a preliminary set of benchmarks or references of best performing industrial systems, across a diversity of European regions, providing an inclusive platform for all stakeholders, including expert voices, market actors (especially SMEs), civil society (especially NGOs) and policy makers.

- Deploy actions to create or improve awareness of the policy makers related to opportunities in bio-based sectors, with a specific focus on under-represented regions.

- Ensure synergies and complementarities with parallel activities, including those of Circular Cities and Regions Initiative (CCRI) and the projects funded under the Horizon Europe programme on bioeconomy governance, in particular when related to circular bio-based innovation systems.

Proposals must apply the concept of the 'multi-actor approach' and ensure adequate involvement of civil society, public authorities and other relevant actors at regional scales, in particular in policy-making capacity. This will contribute towards the aim to support 'fair and just green transition', and aiming at not leaving anyone behind in this process.

Proposals should also describe their contribution to the Specific CBE JU requirements, presented in section 2.2.3.1, and the Cross-cutting elements, highlighted in section 2.2.3.2 of the CBE JU Annual Work Programme 2023.

An Advisory Board shall be established by the project. The Bio-based Industries Consortium should be part of this Advisory Board to provide expertise in the implementation and follow up of the different tasks and provide support to the organisation of meetings and workshops. Cooperation with macro-regional initiatives such as BIOEAST Initiative is encouraged. Explore the possibility to collaborate with and/or provide inputs to the European Commission Knowledge Centre on Bioeconomy.

International cooperation is encouraged, in order to collect best practices (indicators, methodologies, tools and data) outside EU and to expand the outreach of projects outputs, as a win-win solution, while taking care of the European industrial competitiveness.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-ju-cbe-2023-s-02;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Advanced materials and cells development enabling large-scale production of Gen4 solid-state batteries for mobility applications (Batt4EU Partnership), deadline: 05. September 2023 17:00 Brussels time

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Building on the results of earlier research projects on advanced solid-state materials, the objective of this topic is to demonstrate, at cell level, the scale-up of advanced solid-state materials for anodes, cathodes, electrolytes and, where applicable, separators with performances and costs compatible for mobility markets.

Projects are expected to contribute to all the following outcomes:

- The selection of solid-state cell components and architecture (anode; electrolyte, cathode, collector, and interfaces) meeting, by the end of the project, all performance indicators at ambient and operational temperatures necessary for mobility, as following:

    - Safety: with a technology compatible with the level 4 EUCAR at module/pack level for automotive (level 2 for aviation and waterborne applications).

    - Gravimetric and volumetric energy density: > 400Wh/kg and 1000Wh/l.

    - Cycling: up to 3000 cycles at 50% DoD (Depth of Discharge) with a minimum of 500 cycles at 80% DoD.

    - C Rate at charge up to 5 C at 80% SoC (state of charge), or whichever C-rate / SOC combination that would allow < 20mn full capacity recovery; for aviation applications, up to 10C.

    - Materials and cells design with mechanical properties and constraints that enable large scale production processes at a competitive cost, especially in terms of pressure conditions at cell and module level.

    - Atmospheric conditions in factories.

- A demonstration of the selected materials in a State-of-Art benchmark cell (at least TRL5) with at least 1 Ah capacity.

- A competitive cost level towards 75€/kWh at pack level by 2030.

- An optimised environmental footprint of cell materials in terms of carbon footprint and quantity of metals.

- Cell manufacturing processes which allow the fabrication of performant, reliable, sustainable, and affordable solid-state cells, demonstrated at industrial pilot level.

- Cell materials and designs which are compatible with a recycling process that respects the requirements as put forward in the proposed Batteries Regulation.

Proposals are expected to cover all the following points:

- Develop or leverage the materials-specific models and digital tools for material and cell design to identify the best combinations of materials and speed up the cell optimisation process.

- Ensure high ionic conductivity (> 0.5mS/cm^2) and stability of the solid electrolyte.

- Integrate high voltage cathode (> 4V) to reach the KPIs for mobility as listed in the Expected Outcomes section.

- Propose and evaluate interfaces and coating solutions especially to suppress dendrite growth and enable a stable solid-electrolyte interphase (SEI) and cathode-electrolyte interphase (CEI).

- Optimise the cell design with respect to all the cell components to meet high energy density objectives.

- Anode current collectors and/or solid electrolyte capable of accommodating volume changes upon charge/discharge.

- Demonstrate the potential for scale up of materials, cells and sustainable industrial processing methods with cells reaching a capacity of several Ah, produced in a statistical meaningful number to demonstrate the process repeatability.

- Project publications should adhere to the guidelines for publication of research results, as laid out by the "Batteries Europe - Reporting Methodologies" report, subject to the need to maintain confidentiality for future commercial exploitation.

Plans for the exploitation and dissemination of results for proposals submitted under this topic should include a strong business case and sound exploitation strategy, as outlined in the introduction to this Destination. The exploitation plans should include preliminary plans for scalability, commercialisation, and deployment (feasibility study, business plan) indicating the possible funding sources to be potentially used (in particular the Innovation Fund).

Projects should link to ongoing Horizon Europe calls, especially HORIZON-CL5-2021-D2-01-03: Advanced high-performance Generation 4a, 4b (solid-state) Li-ion batteries supporting electro mobility and other applications and HORIZON_CL5-2021-D1-01-05 (Manufacturing technology development for solid-state batteries (SSB, Generations 4a - 4b batteries). Projects should also take stock of the outcomes of the projects under call LC-BAT-1-2019 (Strongly improved, highly performant ad safe all-solid-state batteries for electric vehicles).

This topic implements the co-programmed European Partnership on Batteries (Batt4EU). As such, projects resulting from this topic will be expected to report on the results to the European Partnership on Batteries (Batt4EU) in support of the monitoring of its KPIs.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-cl5-2023-d2-02-01;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ New Approaches to Develop Enhanced Safety Materials for Gen 3 Li-Ion Batteries for Mobility Applications (Batt4EU Partnership), deadline: 05. September 2023 17:00 Brussels time

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

- Advanced Li-ion batteries with enhanced safety behaviour.

- Advanced materials which lead to improved cyclability (15% increase in cyclability by 2030 compared to 2019 base levels) and operational lifetime (a doubling of lifetime by 2030 compared to 2019 base levels), whilst maintaining competitive performance for cost, energy and power density with state-of-art advanced materials for Li-ion batteries.

- Improved sustainability and recyclability, in line with the recycled content, recycling efficiency and material recovery targets included in the proposed Batteries Regulation.

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

- The improvement in safety has to be demonstrated at representative cell level for mobility applications by direct comparison with SOA Gen. 3 cells tested at the beginning of the project.

- A EUCAR Hazard Level of 3 or other equivalent mobility standard should be validated.

This topic aims at developing safer materials for high-performing cells by targeted modification in main cell components, namely the cathode, anode, separator and electrolyte. Solutions to common safety hazards have to be covered through a comprehensive design of new materials for at least three of following components:

- New cathode materials with no exothermal decomposition/reactions, reduced probability for oxygen and other gasses release, and preventing corrosion at current collector. Development can include the following approaches/strategies at different levels:

    - Doping strategies or surface coating materials leading to more robust and effective cathode electrolyte interphase (CEI).

    - Design of high-capacity cathode materials based on safer chemistries (e.g. stabilized Li-rich layered oxides, disordered rock salts, polyanionic materials...).

    - Design high-voltage cathodes and high voltage anodes in order to combine them in a high energy cell, with sufficiently high operating voltage to avoid stripping/plating of lithium.

    - Innovative approaches of cathode structuring to mitigate heat generation, including with toxic gas releases, in abuse conditions.

- New stable anode materials and electrode designs with non-swelling, or low degree of expansion over the whole cell lifetime, with no decomposition/exfoliation, high resistance against Li-dendrite formation – specially at high anode rate capabilities, and favouring the formation of a thermally stable, and low-resistivity SEI. Development can include the following approaches/strategies at different levels:

    - Design and development of new systems with higher standard potential compared to lithium stripping/plating. (High SiOx, Si/C, etc. content).

    - Surface coating materials for more robust and effective SEI.

    - New approaches to minimize material/anode swelling and expansion during cycling, including anode manufacturing (polymeric and ceramic coating-based approaches, etc.) and structuring the anode-current collector interface.

- New electrolyte formulations with shear thickening, flame retardant and over-charge/discharge properties, maintained high ionic conductivity, broad electrochemical stability i.e., voltage-operating window, and high onset point for Li-dendrite formation, SEI decomposition and CEI effectiveness. Development can include the following approaches/strategies at different levels:

    - (Multi-)functional additives for SEI and CEI stabilisation and protection on anode and cathode such as flame-retardant additives or solvents, ionic conductivity boosters, stability window promoters, etc.

    - Addition of selective particles (i.e. oxides, etc.) to hinder mechanical abuse and improve shear thickening behaviour.

- New separator materials with flame retardant and improved ion transport capabilities, high melting point, and mechanical stability

- New binder materials with thermal, mechanical and electrochemical stability (self-healing systems), low ionic and electrical resistance, improved adhesion and cohesion, and preventing swelling and porosity reduction in electrodes.

Projects need to justify the relevance of the selected components which will be addressed and how the new materials, and the combination of them, will lead to better safety outcomes. To the extent possible the safety and sustainability of developed materials should be assessed in alignment with the Commission Recommendation on safe and sustainable by design chemicals and materials.

Plans for the exploitation and dissemination of results for proposals submitted under this topic should include a strong business case and sound exploitation strategy, as outlined in the introduction to this Destination. The exploitation plans should include preliminary plans for scalability, commercialisation, and deployment (feasibility study, business plan).

In order to achieve the expected outcomes, international cooperation is encouraged, in particular with the USA.

Projects may collaborate and/or contribute to the activities of the Coordination and Support Action defined under the topic HORIZON-CL5-2022-D2-01-08.

This topic implements the co-programmed European Partnership on Batteries (Batt4EU). As such, projects resulting from this topic will be expected to report on the results to the European Partnership on Batteries (Batt4EU) in support of the monitoring of its KPIs.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-cl5-2023-d2-02-02;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/HORIZON EUROPE/ Creating a digital passport to track battery materials, optimize battery performance and life, validate recycling, and promote a new business model based on data sharing (Batt4EU Partnership), deadline: 05. September 2023 17:00 Brussels time

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Stakeholders engaged with the battery value chain need to be provided with accurate, reliable and immutable battery information e.g. related to ESGE (Environmental, Social, Governance & Economic) indicators and monitor thermal runaway at any stage of the value chain. Furthermore, the proposed Batteries Regulation and future regulations will extend the due diligence to all domains of the battery value chain in the upcoming years. The EU Data Strategy is setting a clear architectural approach to federated data and is enabling a great opportunity to boost the EU dataspace on batteries.

The availability of shared, interoperable, and trusted data for improving recycling and second life application might promote new business, assuring workforce and transportation safety. Indicators such as SoH (State of Health), SoS (State of Safety), SoP (State of Power) should be calculated in accurate, reliable, immutable, and standardized way, based on historical data (usage profile, working temperatures, etc.) of the battery or cells.

The project is expected to contribute to the following outcomes:

- A European economic base which is stronger, more resilient, competitive and fit for the green and digital transitions, by reducing strategic dependencies for critical raw materials by promoting resource efficiency.

- A Digital Product Passport (DPP), a proper tracking and blockchain solution, DLT (Distributed Ledger Technology)-solution or an equivalent solution that allows for built-in data authenticity verification, along the value chain, with no data duplication, avoiding data manipulation assuring privacy by design, with a low power consumption and promoting data interoperability.

- A set of transparent calculation methods for the relevant battery indicators stored in the DPP, which can be used as a base to set future standards.

- A demonstration of new business models in the different parts of the battery value chains and of circular data extraction, based on data sharing.

- The improvement of the battery transportation and workforce safety.

- A solution which has been tested throughout the entire battery value chain.

- At least 2 real life pilots capable to exploit data generated by DPP and to test two of the innovative solutions proposed.

The project is also encouraged to address some of the following outcomes:

- Improvement of the recycling efficiency (more than one material).

- Promotion of sustainability and circularity through the adoption of 4R methodological approach Reduce, Repair, Reuse, Recycle.

- Boost of the use of recycled and reusable material to reduce energy usage/CO2 footprint.

- Increase of competitiveness of the European battery industry across the value chain (from mines and refiners to cell manufacturers to cell integrators).

- Streamlined compliance with the proposed Batteries Regulation and EU federated dataspace.

The project outcomes are expected to:

- Be applicable to 3 or more use cases among the main transport or mobile applications (such as road, waterborne, airborne and rail transport, as well as non-road mobile machinery and industrial applications), with the aim to maximize the impact on the European industry.

- Also be applicable to stationary energy storage applications.

The project is expected to:

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

- Be able to facilitate real-time data recognition for different indicators and at local device - even when the battery ceases to be part of the Energy Storage System (ESS).

- Consider the key performance indicators proposed by Batteries Europe or by the dedicated Partnerships, reflected in the Partnership Strategic Research Agenda (SRA), to guide the technology developments on the application segments and use cases that will be selected. Contribute to the related regulation standards.

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

The suggested blockchain, DLT, or equivalent, solutions are requested to demonstrate trustworthy tracking. The project is encouraged to:

- Validate its interoperable data sharing strategy by adopting a unique battery data space and testing of interoperability between different subsystems (mobility, energy, etc.) is encouraged.

- Develop a safety second life-battery certification protocol, and hazard alerts system to assure liability and protection during transport, and second use.

- Validate new business models, capable to demonstrate improvement in remanufacturing, repurposing and recycling.

- Aim for cross-sectorial applications

- Focus on the lithium-ion battery chemistries currently on the market - or reaching the market in the short term, with the potential to quickly adapt to next-generation battery chemistries and assess its safety tracking.

Projects need to be compliant with the following EU strategy and regulations framework:

- Green Deal and in particular Circular Economy Action Plan's Sustainable Product Initiative,

- the EU Digital strategy's Circular Electronics Initiative and,

- the EU Data strategy,

- Upcoming regulation on Batteries.

Plans for the exploitation and dissemination of results for proposals submitted under this topic should include a strong business case and sound exploitation strategy, as outlined in the introduction to this Destination. The exploitation plans should include preliminary plans for scalability, commercialisation, and deployment (feasibility study, business plan).

Proposals should interface with the project(s) funded under the topic DIGITAL-2021-TRUST-01-DIGIPASS "Digital Product Passport: sustainable and circular systems" and notably its activities regarding batteries. They should also establish cooperation and complementarity with the selected proposal under the topic HORIZON-CL4-2022-RESILIENCE-01-05 "Technological solutions for tracking raw material flows in complex supply chains", which is tracking raw material flows for batteries value chains and others.

They should furthermore establish collaboration with the partnership "Battery Passport" under the Global Battery Alliance. In order to achieve the expected outcomes, international cooperation is encouraged, in particular with the USA, Japan and South Korea.

Proposals could consider the involvement of the European Commission's Joint Research Centre (JRC) whose contribution could consists of providing added value regarding various aspects of battery sustainability, performance or safety.

This topic implements the co-programmed European Partnership on Batteries (Batt4EU). As such, projects resulting from this topic will be expected to report on the results to the European Partnership on Batteries (Batt4EU) in support of the monitoring of its KPIs.

Further Information:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-cl5-2023-d2-02-03;callCode=null;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094502;programmePeriod=2021%20-%202027;programCcm2Id=43108390;programDivisionCode=null;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=startDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState

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/EMBO/ Global Investigator Network, deadline: 01. June 2023

The EMBO Global Investigator Network supports group leaders who, at the time of application, are within their first six years of setting up their laboratories in an EMBC Associate Member State or in countries or territories covered by a co-operation agreement. Selected researchers become part of an international network of more than 600 current and former EMBO Young Investigators, Global Investigators and Installation Grantees.

EMBO Global Investigators receive financial support for four years for training and networking activities, providing them with opportunities to form collaborations with scientists in their region and in Europe. After these four years, they remain associated with the network and have access to some of its benefits.

Applications are accepted from candidates who meet the following criteria:

- Applicants should have been an independent group leader for at least one year and for less than six years on 1 January in the year of application. This means that the applicant should have obtained the independent status between 1 January 2017 and 1 January 2022 for the 2023 round.

- Applicants should have an excellent track record.

- Applicants must perform research in the life sciences (see EMBO subject areas on page 2) in an EMBC Associate Member State (currently India and Singapore) or in countries or territories covered by a co-operation agreement (currently Chile and Taiwan).

- Applicants are expected to have obtained sufficient funding to run their laboratory.

- Applicants must have published at least one last author research paper in an international peer reviewed journal from independent work carried out in their own laboratory. Last author reviews will not be considered.

- Applicants must not have applied to this programme more than once in previous years.

- Applicants must be able to attend a virtual interview on 28 November 2023.

Candidates are asked to submit a full application by 1 June.

Further Information:

https://www.embo.org/funding/fellowships-grants-and-career-support/global-investigator-network/

/EMBO/ EMBO Member Keynote Lectures, deadline: 01. June 2023

Organizers of major international scientific meetings can apply for funding for an EMBO Member or EMBO Associate Member to give a keynote lecture. Up to 1,000 euros (within the same continent) and 2,000 euros (intercontinental) to cover travel, accommodation and subsistence costs will be reimbursed to the speaker, who will be requested to submit an expense claim form together with relevant receipts to the ">EMBO Courses & Workshops Office.

The lecture must be given the status of a keynote lecture, featured prominently within the programme and entitled “The EMBO Lecture”. Funding will only be provided for one EMBO Member or EMBO Associate Member per meeting. Please note that funding is not available for EMBO Keynote Lectures at EMBO Workshops, EMBO I FEBS Lecture Courses or EMBO | EMBL Symposia.

It is also possible to apply for funding for a virtual keynote lecture. Up to 1,000 euro to cover expenses associated with the virtual meeting platform will be reimbursed to the meeting organizer who will be requested to submit an expense claim form together with relevant receipts to the EMBO Courses & Workshops office.

Application should be made by the meeting organizer and fulfill the following requirements:

- Support will only be provided for a speaker who is an EMBO Member or an EMBO Associate Member.

- The meeting must cover a topic from one of EMBO’s subject areas.

- The meeting must take place at the earliest four months from the date of the application deadline

- Funding will be provided for only one speaker per meeting.

- The lecture must have keynote lecture status, be featured prominently within the meeting programme and be entitled “The EMBO Lecture”.

- The meeting should have a geographically diverse speaker list.

- At least 40% of speakers should be of the underrepresented gender.

- Registrations must be open to all; closed meetings will not be funded.

- The meeting must be a stand-alone event; talks at satellite meetings will not be funded.

Further Information:

https://www.embo.org/funding/lecture-travel-and-childcare-grants/embo-member-keynote-lectures/

/ESF/ Fight Kids Cancer 2023-2024 - Paediatric brain tumours, deadline 01. September 2023

FIGHT KIDS CANCER is thrilled to announce that its next call opening on September 1st, 2023 will be exclusively dedicated to research on paediatric brain tumours.

In order to substantially support this disease area, which is in dire need for new treatments, FIGHT KIDS CANCER decided to increase the amount available per grant application:

- Up to 0.5 million euros for translational projects;

- Up to 1.5 million euros for clinical trials;

- Up to 2 million euros for translational projects using clinical trial data.

If applicants have innovative proposals, which do not fit with the above criteria, please contact the FIGHT KIDS CANCER secretariat at European Science Foundation.

FIGHT KIDS CANCER aims to catalyse and support pan-European leading-edge research initiatives in paediatric cancer to develop innovative approaches to improve the outcome for all children and adolescents with cancer. This call will cover the following non-exclusive objectives:

- Realise real impact on young patients,

- Improve survival rates and reduce toxicity to restore young patients to full health after treatment,

- Advance fundamental knowledge of paediatric malignancies,

- Support improved interdisciplinary research, methods and collaborations for tackling the issues of today,

- Strengthen collaboration and the development of scientific capacity across Europe.

FIGHT KIDS CANCER aims towards overcoming the structural lack of research dedicated to paediatric cancers by ensuring a recurring endowment that will be granted to the best European research projects every year. An additional ambition is to foster closer working ties between clinical and laboratory researchers.

Further Information:

https://www.esf.org/funding-programmes/fight-kids-cancer-2023-2024-call-for-proposals/

/EUI/ Marie Sklodowska-Curie Actions Postdoctoral Fellowships, deadline: 31. Mai 2023 14:00 CEST

The EUI (the Departments, the Robert Schuman Centre for Advanced studies, and the School of Transnational Governance) acts as a host institution for Marie Sklodowska-Curie Postdoctoral Fellowships which are awarded by the European Commission through their Framework Programme for Research and Innovation, Horizon Europe.

The 2023 Postdoctoral Fellowships call has been published by the European Commission and opened on 12 April 2023 with the application deadline of 13 September 2023.

The EUI organises a pre-selection with the deadline of 31 May 2023 (14.00 CEST).

Candidates should ensure that they fulfil the conditions of eligibility of the call before sending an expression of interest to the EUI by applying online.

The EUI will not accept any candidates that do not have the explicit support of a member of the EUI faculty. Before applying, candidates should ensure the support of an EUI professor (full- or part-time) who would be willing to act as supervisor on their application. The name of the EUI Professor should be indicated in the application form.

Your file should contain the following elements.

1) Application form in which you are invited to provide your personal data, application details, and the names of two referees who have agreed to send a reference for you. The referees should not include members of the professorial staff of the EUI.

Attach the following documents as PDF files to the online application form:

2) A short CV.

3) A two-page research proposal.

4) A short statement with indication of why the EUI/the academic unit you have chosen would be the best host institution for your research and which are the specific training opportunities you would in particular benefit from during a stay at the EUI.

Further Information:

https://www.eui.eu/apply?id=marie-sklodowska-curie-actions-postdoctoral-fellowships

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/Fulbright/ Doktorand:innenprogramm, Frist: 01. Juni 2023

Fulbright Germany fördert deutsche Nachwuchswissenschaftler:innen, die ein vier- bis sechsmonatiges Forschungsprojekt an einer U.S.-Hochschule oder einer wissenschaftlichen Einrichtung durchführen, das in direktem Zusammenhang mit ihrer bereits begonnenen akademischen Dissertation steht.

Das zu fördernde Forschungsvorhaben trägt zur Stärkung der Wissenschaftsbeziehungen zwischen amerikanischen und deutschen Hochschulen bei.

Stipendienleistungen:

- Reisekostenpauschale in Höhe von 1.400 Euro

- monatliche Unterhaltskostenpauschale in Höhe von Euro 1.700

- eine einmalige Nebenkostenpauschale in Höhe von Euro 300

- Kranken- und Unfallversicherung

- gebührenfreies Fulbright J-1 Visum

- Teilnahme am Fulbright Seminar 2023

- Betreuung und Aufnahme in das Netzwerk

Gemäß dem Anspruch des Fulbright Programms richten wir uns an Nachwuchswissenschaftler:innen, die durch Ihre Persönlichkeit und Ihr Engagement aktiv zum akademischen und kulturellen Austausch zwischen Deutschland und den USA beitragen.

Bewerben können sich Nachwuchswissenschaftler:innen, die in einem Promotionsstudium eingeschrieben sind, das auf ein wissenschaftliches Forschungsdoktorat zielt. Nach Abschluss des Stipendienaufenthalts führen sie die Promotion an ihrer Heimathochschule zu Ende. Mit Ausnahme der medizinischen Studienfächer steht die Förderung den Promovenden aller Fachbereiche offen.

Chancengleichheit, Diversität, Inklusion sowie Bildungsgerechtigkeit gehören zu den Grundprinzipien von Fulbright Germany. Die Bewerbung ist offen für alle Personen unabhängig von u.a. Geschlecht, ethnische Herkunft, Religion oder Weltanschauung, Behinderung, Alter, gesellschaftlichen Status, sexuelle Orientierung und Geschlechtsidentität.

Fulbright Germany ermutigt Bewerber:innen aus traditionell unterrepräsentierten Studierendengruppen, sich für alle seine Stipendien, Programme und anderen Aktivitäten zu bewerben.

Bewerbungsvoraussetzungen:

- Deutsche Staatsangehörigkeit

- Bewerber:innen haben zum Zeitpunkt der Antragstellung ein Hochschulabschlussexamen (Diplom, Magister, Erstes Staatsexamen, Master) abgelegt und sind in einem Promotionsstudium eingeschrieben. Sie sollten größere Teile ihres Studiums an einer deutschen Hochschule absolviert haben.

- Bereitschaft zum Einsatz für die deutsch-amerikanische Verständigung (insbesondere zur Vertiefung der transatlantischen Wissenschaftsbeziehungen)

- ein im Sinne der Zielgruppenbeschreibung überzeugendes fachliches und persönliches Profil

- ein schlüssig begründetes, mit dem Dissertationsprojekt direkt verknüpftes und während des geplanten Stipendienaufenthalts (der maximal 6 Monate nicht überschreiten darf) durchführbares Forschungsvorhaben

- Schriftlicher Nachweis über die offizielle Einladung der vorgesehenen U.S.-Gasteinrichtung für die Durchführung des Forschungsprojekts

Die Programmteilnahme ist abhängig von den jeweils aktuellen regionalen Covid-19 Richtlinien, dem Betriebszustand der U.S. Gasthochschulen, der Verfügbarkeit konsularischer Dienste (Visaausstellung) und transatlantischer Reisemöglichkeiten.

Weitere Informationen:

https://www.fulbright.de/programs-for-germans/nachwuchswissenschaftler-innen-und-hochschullehrer-innen/doktorandenprogramm

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/Canon/ Research Fellowships, deadline: 15. September 2023

Annually, the Canon Foundation in Europe grants up to 15 Fellowships to highly qualified European and Japanese researchers. European Fellows are expected to pursue a period of research in Japan whereas Japanese Fellows are expected to do their research in Europe.

Canon Foundation Fellowships are for a minimum period of three months up to maximum of one year.

We support all fields of research. There are no limitations or restrictions. Applicants do not have to be currently enrolled or employed at the time of applying.

Canon Fellows from Europe are free to choose their host institutes and hosts in Japan. The same freedom is given to Japanese Canon Fellows coming to Europe. Canon Foundation Research Fellowships may be applied for when an agreement on co-operation and on a research plan has been reached between the guest researcher and the proposed host institution.

Applications can also be submitted by members of commercial, industrial, governmental or professional organisations.

All Europeans are eligible to apply (including UK, Israel, Turkey, Balkan and Baltic countries).

Applicants should have obtained at least a Master's or PhD degree within the last ten years of applying to the Canon Foundation. We will also consider candidates who obtained their qualification more than ten years ago as long as they provide further supporting information in their application.

Please note that priority is given to applicants going to Europe and Japan for the first time.

The next application deadline will be 15 September 2023 for applications starting between January and December 2024.

Further Information:

https://www.canonfoundation.org/programmes/research-fellowships/

/Helmholtz Stiftung/ Helmholtz Distinguished Professorship, deadline: 17. July 2023

The call funds Helmholtz Distinguished Professorship positions. The funding volume amounts to 600,000 Euros per scientist and year and increases the basic funding of the recruiting Helmholtz Center. The Helmholtz Center and the German partner university are expected to provide additional financial resources of substantial amount. The funding can be used to finance the position of the female scientist, the members of her research group and relevant equipment. An essential prerequisite for funding is a concept for the use of the funds that details their deployment and additional resources provided by the Helmholtz Center and the partner university. The jointly appointing institutions are strongly encouraged to come up with innovative offers to attract the target group (dual-career measures, onboarding offers, etc.).

The funding is targeted to the scientist who is awarded a Helmholtz Distinguished Professorship and recruited to a Helmholtz Center through this program. If funding is granted, the successful appointment as professor (submission of the certificate of appointment is necessary) is a prerequisite for transferring funds to the budget of the recruiting Helmholtz Center. After notification of the successful appointment and announcement of the start of employment, this funding increase for the respective research programs will be granted accordingly for the duration of the employment contract at the respective Helmholtz Center. If the funded scientist leaves the Helmholtz Center, the payment of the personrelated funding to the Center ends. In this case, the Helmholtz Center is obliged to inform the Helmholtz Head Office of the leave immediately. Nomination of a replacement candidate is not possible.

The funding program is aimed at highly distinguished female scientists with an international reputation who are currently conducting research at institutions abroad and who are recognized leaders in their respective research field. This may also

include female researchers of German nationality who have been employed abroad in the last years (generally for at least the last three years).

Further Information:

https://www.helmholtz.de/forschung/aktuelle-ausschreibungen/ausschreibung/helmholtz-distinguished-professorship-ausschreibung-2023/

/Sonstige/ Contact Research Funding Advice of the Otto von Guericke University Magdeburg

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For questions about funding opportunities, specific calls for proposals, help with submitting applications and project support, please contact the department for Research Funding Advice/EU-University Network of Otto von Guericke University Magdeburg.

Information on current events, funding structures and contact online at:

https://www.ovgu.de/en/ContactResearchFundingAdvice

https://www.euhochschulnetz-sachsen-anhalt.de/en/
