The Commission, in collaboration with other funders and international organisations, will work on the development of a collaborative interface that brings together research funders from around the world working at the intersection of health and climate. This platform will establish opportunities for participating organisations to discuss challenges and priorities and share best practices, research strategies and implementation plans. The platform will also serve to identify areas of common interest for collaboration and to build a shared vision to support health and climate research globally.

Proposals under this topic should focus on the provision of administrative and technical support to the successful establishment and implementation of a multilateral initiative of research and innovation funders working in climate change and health.

More specifically, proposals are expected to focus on all the following activities:

- Build on the preparatory work done and further support exchanges between relevant parties to delineate the operational structure and governance model of the multilateral initiative, in close collaboration with the European Commission.
- Facilitate and support the drafting of the workplan for the first period of activities of the multilateral initiative.
- Provide administrative and organisational support to the board of the multilateral initiative, in close collaboration with the chairs of the initiative.
- Provide scientific and technical support in aspects relevant to the development and implementation of the multilateral initiative.
- Facilitate communication between members of the initiative as well as with external stakeholders and organisations, and support the organisation of necessary meetings and the preparation of supporting material.
- Support external communication activities such as the creation of a website, newsletters, social media outreach and any other relevant communication and dissemination materials to promote the multilateral initiative.

HORIZON-HLTH-2027-01-ENVHLTH-02: Integrating climate-related exposures into the human exposome and characterising its changes in response to climate change

Call: Cluster 1 - Health (Single stage - 2027/1)	
Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of between EUR 10.00 and 11.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.

Indicative budget	The total indicative budget for the topic is EUR 45.00 million.
Type of Action	Research and Innovation Actions
Eligibility conditions	The conditions are described in General Annex B. The following exceptions apply: In recognition of the opening of the US National Institutes of Health's programmes to European researchers, any legal entity established in the United States of America is eligible to receive Union funding. If projects use satellite-based earth observation, positioning, navigation and/or related timing data and services, beneficiaries must make use of Copernicus and/or Galileo/EGNOS (other data and services may additionally be used). The Joint Research Centre (JRC) may participate as member of the consortium selected for funding as a beneficiary with zero funding, or as an associated partner. The JRC will not participate in the preparation and submission of the proposal - see General Annex B.
Award criteria	The criteria are described in General Annex D. The following exceptions apply: The thresholds for each criterion will be 4 (Excellence), 4 (Impact) and 4 (Implementation). The cumulative threshold will be 12.
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Beneficiaries will be subject to the following additional dissemination obligations: Proposals should ensure that chemical monitoring and human biomonitoring data are shared in the Common Data Platform for Chemicals and its services such as the Information Platform for Chemical Monitoring - IPCHEM [102] (through involvement with the European Commission's Joint Research Centre - JRC) and the environmental sustainability database. In order to maximise synergies and increase the impact of the projects, all proposals selected for funding from this topic will form a cluster and be required to participate in common networking and joint activities (and in determining modalities for their implementation and the specific responsibilities of projects). These activities will be included in a dedicated work package, having sufficient budget allocated to it (around 2% of the total requested budget). Depending on the scope of proposals selected for funding, these activities may include:

[102] https://ipchem.jrc.ec.europa.eu

	• Attendance of regular joint meetings (e.g. common kick-off meeting and annual meetings). • Periodic report of joint activities (delivered at each reporting period). • Common dissemination and communication activities (which may include, for example: a common dissemination and communication strategy, web portal and visual identity, brochure, newsletters). • Common Data Management Strategy and Common Policy Strategy (including joint policy briefs). • Thematic workshops/trainings on issues of common interest. • Working groups on topics of common interest (e.g. data management and exchange, communication and dissemination, science-policy link, scientific synergies). The granting authority may, up to 4 years after the end of the action, object to a transfer of ownership or to the exclusive licensing of results, as set out in the specific provision of Annex 5.

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

- Researchers, policymakers, healthcare practitioners and the public have a more comprehensive understanding of the human exposome and the interactions between climatic, environmental and socio-behavioural factors, supported by FAIR[103] data linking these exposures to disease and health outcomes.

- Researchers, governments, policymakers, social care services and healthcare practitioners have improved knowledge on the links between the climatic, social, lifestyle and environmental factors of the exposome and global health burden, supporting their efforts to adopt the exposome approach to identify and address relevant health impacts.

- The public has access to the latest information on the influence of global environmental exposures on health, enabling the adoption of health-promoting, climate-resilient and nature-positive behaviours.

Scope: The exposome is the totality of exposures (and their interactions) experienced by an individual throughout their lifetime, including chemical, physical, biological, nutritional and psychosocial factors, from conception onwards. Many of these factors originate in the

[103] See definition of FAIR data in the introduction to this Work Programme part.

environment, including climate-related exposures such as extreme heat, heightened air pollution or drought. Climate change may amplify or interact synergistically with other better-established exposures, dynamically altering the human exposome and its health implications. Despite this, climate factors remain underrepresented in large-scale human exposome studies.

Research activities under this topic should strengthen the use of the exposome approach to study global exposures and generate evidence on their health implications. Proposals should focus on integrating climate-related factors into exposome research and understanding how the exposome changes in response to direct and indirect climate exposures. Moreover, research activities should be multiscale and multidisciplinary and account for the complexity and multifactorial nature of health determinants and the most pressing unmet medical needs in relation to environmental degradation and disrupted ecosystems. Proposals should include climate-relevant social determinants of health as part of their proposed activities.

More specifically, research actions under this topic should include all the following activities:

- Incorporate multiple climate exposures into exposomics studies and provide insights on their influence on disease burden, through interactions with other exposome factors.
- Predict, identify and monitor changes in the exposome (including environmental, social and occupational exposures) resulting from climate-related pressures and study their health implications to identify emerging health risks and potential benefits of climate change.
- Advance data generation, analysis, integration and interpretation in human exposomics, developing methodologies and integrating novel approaches (e.g. AI technologies and machine learning) for advanced data analytics, including for Real-World Data (RWD)[104].

In addition, research actions should include several of the following targeted activities:

- Establish and investigate the biological pathways and mechanisms by which the exposome drives health impacts, jointly considering climate-related and other exposures. Build upon (when relevant) and study existing and/or newly generated longitudinal cohorts that combine individual exposome data with the corresponding medical, omics and biological data.
- Identify exposome-relevant indicators and biomarkers for exposome-related health risks and potential benefits using comprehensive exposome studies that combine climate, environmental, behavioural and social exposures. Account for disparities in individual trajectories and exposure patterns where relevant.
- Report on health-relevant exposome findings using, where possible, standardised metrics to ensure harmonised reporting of exposome-driven disease burden across regions and

[104] EMA definition: “Real-World Data are routinely collected data relating to patient health status or the delivery of healthcare from a variety of sources other than traditional clinical trials (e.g. claims databases, hospital data, electronic health records, registries, mhealth data, etc.)”.

sectors. Build on existing exposome toolboxes and increase their robustness and coverage by integrating climate related exposures.

- Study the role of socioeconomic (e.g. income, energy poverty, occupation), demographic (e.g. gender, racial or ethnic origin[105], age) and behavioural (e.g. public trust, risk perception) factors in determining patterns of exposure, using the exposome approach to generate knowledge on intersectional vulnerability and resilience to exposome-driven (including climate-driven) health impacts. Identify disproportionately affected populations and develop interventions to reduce disparities.

When handling vulnerability data and indicators, sex-, gender-, racial or ethnic origin[106]-disaggregated data should be collected and analysed, incorporating intersectional factors where feasible and relevant.

International cooperation is encouraged, in particular with regions that are under-represented in human exposome research.

Projects should leverage the knowledge, data and tools already generated under past initiatives such as EHEN[107] and ongoing initiatives such as IHEN[108], ICOS ERIC[109] and EIRENE RI[110].

Proposals are encouraged to consider, where relevant, the data, expertise and services offered by European research infrastructures[111] in the environment, climate and health domain. Projects should make the tools developed as part of their research available on the IHEN Exposome Toolbox[112] and upload their data sets in the IHEN Data Catalogue[113].

In order to maximise synergies and increase the impact of the projects, all proposals selected for funding from this topic will form a cluster and be required to participate in common networking and joint activities. Guidance on the potential activities to be developed can be obtained by consulting the ongoing clusters of projects under the Environment, Climate and Health research portfolio[114].

Proposals should make sure that relevant activities, outcomes and outputs are shared with the European Climate and Health Observatory[115] through the cluster that will be formed after the approval of the proposals.

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105 The use of the term ‘racial or ethnic origin’ does not imply an acceptance of theories that attempt to determine the existence of separate human races.

106 The use of the term ‘racial or ethnic origin’ does not imply an acceptance of theories that attempt to determine the existence of separate human races.

107 https://www.humanexposome.eu

108 https://humanexposome.net

109 https://www.icos-cp.eu/about/organisation-governance/icos-eric

110 https://eirene.eu

111 The catalogue of European Strategy Forum on Research Infrastructures (ESFRI) research infrastructures portfolio can be browsed on the ESFRI website: https://ri-portfolio.esfri.eu

112 https://bio.tools/t?domain=exposome

113 https://data-catalogue.molgeniscloud.org/catalogue/catalogue

114 https://research-and-innovation.ec.europa.eu/research-area/health/environment-climate-and-health_en

115 https://climate-adapt.eea.europa.eu/en/observatory