Next generation climate monitoring and related capabilities

HORIZON-CL5-2026-07-D1-01

Program:	**Horizon Europe Cluster 5.**
Típus:	**Research and Innovation Actions**
TRL szint:	
Támogatás projektenként:	**5M EUR**
Támogatott projektek száma:	**3**
Pályázati felület megnyílik:	**2025. december 18.**
Beadási határidő:	**2026. április 15.**
Felhívás linkje:	LINK

Climate monitoring of Essential Climate Variables at global and regional scales is crucial to assess the state of our climate, its variability and change, and to track progress towards the goals of the Paris Agreement and the corresponding EU climate objectives. Underlying elements, in particular climate data records, reanalyses and forcings, are fundamental to climate science and serve multiple applications across weather, climate, environmental and sectoral domains, generating societal benefits. In turn, methods to distil information from this wealth of data can help extract relevant knowledge and key messages for climate policymaking.
Proposals should address only one of the following priority areas, which must be clearly indicated:

A. Next generation climate data records
B. Next generation Earth system reanalyses
C. Next generation climate forcing and emission data sets

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Advancing European climate risk assessments

HORIZON-CL5-2026-07-D1-02

Program:	**Horizon Europe Cluster 5.**
Típus:	**Research and Innovation Action**
TRL szint:	
Támogatás projektenként:	**4-5M EUR**
Támogatott projektek száma:	**3**
Pályázati felület megnyílik:	**2025. december 18.**
Beadási határidő:	**2026. április 15.**
Felhívás linkje:	LINK

The development and implementation of climate adaptation strategies and plans of the EU and Member States rely on the most accurate and decision-useful assessments of climate risks that science can provide. For this purpose, the new knowledge feeding future EUCRAs will be essential. In the first report, a number of gaps in terms of knowledge and action, and corresponding recommendations are highlighted to underpin more effective EU policy intervention to manage climate risks, stressing the importance of a systemic approach to climate risk assessments, adaptation and resilience and of the interaction with non-climate risk drivers (e.g. such as biodiversity loss and ecosystem degradation).

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Economics of climate change and cost of inaction

HORIZON-CL5-2026-07-D1-03

Program:	**Horizon Europe Cluster 5.**
Típus:	**Research and Innovation Action**
TRL szint:	
Támogatás projektenként:	**4M EUR**
Támogatott projektek száma:	**4**
Pályázati felület megnyílik:	**2025. december 18.**
Beadási határidő:	**2026. április 15.**
Felhívás linkje:	LINK

As emphasized by the IPCC, it is urgent to better understand the benefits and opportunities associated with deep, rapid and sustained mitigation and accelerated adaptation action to inform strategic decisions. Comprehensive assessments of the socio-economic impacts of climate change are essential for this, however, current approaches face significant challenges with a wide uncertainty in global damage estimates, fragmentation, lack of comparability across methodologies, and reliance on extrapolation from historical data, increasingly unrealistic in the context of current unprecedented changes in the climate system.

Actions should develop and enhance models, methods, and tools to improve the understanding of future socio-economic costs of climate inaction (for the purpose of this topic defined as insufficient, or delayed action), advancing novel approaches and frameworks to address the limitations in existing methodologies, integrating latest scientific evidence, diverse data sources and applicable to various conditions and contexts. In this context, actions are encouraged to leverage emerging digital capabilities, including, if appropriate, those developed under initiatives like Destination Earth.

Research should account for the full spectrum of climate impacts, such as those from extreme and low-probability high-impact events and the consequences of trespassing Earth system tipping points, to ensure more comprehensive and accurate assessments. Cascading and compound effects as well as non-market impacts (e.g. health, biodiversity and ecosystems, migration) should be considered. Actions should also contribute to rethinking discount rates and damage functions to better reflect the long-term uncertainty of climate impacts and their implications.

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Fighting disinformation and effectively communicating on climate change

HORIZON-CL5-2026-07-D1-04

Program:	**Horizon Europe Cluster 5.**
Típus:	**Research and Innovation Action**
TRL szint:	
Támogatás projektenként:	**4-5M EUR**
Támogatott projektek száma:	**3**
Pályázati felület megnyílik:	**2025. december 18.**
Beadási határidő:	**2026. április 15.**
Felhívás linkje:	LINK

Climate change science is well-established and increasingly relevant to daily life and societal welfare. However, effectively communicating both the science and the necessary climate actions remains a significant challenge. Particularly challenging is understanding and addressing the spread of misinformation, disinformation, and political misinterpretation. There is also a crucial need for a strengthened public trust in science and in democracy, and for evidence-based climate communication strategies that foster a sense of agency through empowering and positive narratives. Complex messages should be made accessible, relevant, and reliable to non-specialist audiences.

Actions are expected to advance the understanding of the sources, channels, types, and influence of misinformation and disinformation on the public perception and assimilation of climate change-related information. The role of AI should also be investigated. Actions should identify, develop, and test strategies for the public and private sectors to detect, monitor and counteract false information. Such tools and products should be made available for policymakers, companies and the general public to incentivise and equip society to critically assess climate change-related information online and offline.

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Improving climate and weather models for Africa

HORIZON-CL5-2026-07-D1-05

Program:	**Horizon Europe Cluster 5.**
Típus:	**Research and Innovation Action**
TRL szint:	
Támogatás projektenként:	**7M EUR**
Támogatott projektek száma:	**3**
Pályázati felület megnyílik:	**2025. december 18.**
Beadási határidő:	**2026. április 15.**
Felhívás linkje:	LINK

Africa is among the regions most severely affected by climate change, mostly due to high vulnerability and low adaptive capacity. While significant advancements in global weather and climate science have transformed resilience efforts elsewhere, their benefits in Africa remain to be harnessed, to unlock the continent's ability to address climate challenges more effectively.
Actions should address critical knowledge gaps for improving weather and climate modelling for Africa in the context of changing climate, with focus on the understanding and representation of weather and climate dynamics in Africa at regional, interregional or continental scale. They should enhance models' predictive skill and reduce uncertainties in key areas such as rainfall and extreme weather events. Actions should harness observational data to advance process-based understanding and model performance across various Earth System components (e.g. land, ocean, atmosphere). This includes improving data collection, assimilation and quality assurance practices, integration of local and rescued historical data to provide high-quality inputs for models. Actions are encouraged to leverage digital technologies, including AI/ML techniques, tools, and models as well as advances in high performance computing to achieve the topic's goals.

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Closing knowledge gaps on Earth system science in support of global and regional assessments and climate policy

HORIZON-CL5-2026-08-Two-Stage-D1-06

Program:	**Horizon Europe Cluster 5.**
Típus:	**Research and Innovation Action**
TRL szint:	
Támogatás projektenként:	**5-9M EUR**
Támogatott projektek száma:	**7**
Pályázati felület megnyílik:	**2025. december 18.**
Beadási határidő:	**First stage: 2026. április 15.** **Second stage: 2026. október 8.**
Felhívás linkje:	LINK

The global community's ability to mitigate and adapt to climate change requires the continuous advancement of climate science and related disciplines. International climate policy is informed primarily by the assessments made by the Intergovernmental Panel on Climate Change (IPCC), which provide the most comprehensive and authoritative evaluation of the state of knowledge on climate science, including the Earth's climate system and its expected changes under different scenarios. Despite the exponential increase of available data, other evidence and knowledge accumulated on these issues, there remain significant gaps in our understanding of key issues and processes. These may include factors such as insufficient or divergent evidence, low confidence findings or high uncertainties. Some of these gaps are identified in AR6 (specifically, in Working Group I contribution), "The Next Frontier for Climate Change Science" and other relevant sources. Moreover, science has progressed since the closing of the evidence base used for AR6, raising new questions and avenues for inquiry.

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Advancing understanding, modelling and prediction of extreme events in a changing climate

HORIZON-CL5-2027-01-D1-07

Program:	**Horizon Europe Cluster 5.**
Típus:	**Research and Innovation Action**
TRL szint:	
Támogatás projektenként:	**6M EUR**
Támogatott projektek száma:	**3**
Pályázati felület megnyílik:	**2026. november 17.**
Beadási határidő:	**2027. március 4.**
Felhívás linkje:	LINK

Climate change is intensifying the frequency and severity of extreme events. Understanding and predicting extreme events and the interaction between different types of hazards is critical to building resilience and safeguarding communities.
Actions are expected to draw upon multiple lines of evidence from a hierarchy of models (including high resolution Earth system models and digital twins) and data of past and recent climate to further our understanding of processes, pre-conditioning and causality driving extreme events under climate change conditions, including anthropogenic factors and internal variability. Other innovative and efficient modelling and analysis methods, including AI-based approaches, to better predict, emulate and reveal climate change related extreme and unprecedented high impact events, and to capture their likelihood are particularly welcome.

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Paleoclimate science for a better understanding of Earth system dynamics

HORIZON-CL5-2027-01-D1-08

Program:	**Horizon Europe Cluster 5.**
Típus:	**Research and Innovation Action**
TRL szint:	
Támogatás projektenként:	**7M EUR**
Támogatott projektek száma:	**2**
Pályázati felület megnyílik:	**2026. november 17.**
Beadási határidő:	**2027. március 4.**
Felhívás linkje:	LINK

Palaeoclimatic (including geological, biological and ice-core) records provide information on the long-term evolution of the climate, as well as the conditions and processes that can drive physical and ecological systems during warm and cold periods, deglaciations and abrupt climatic events. The challenge of the research under this topic is to provide robust information on palaeoclimate states and events outside the range of variability recorded over the past centuries that can serve as guide for the development of Earth system models.

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Assessing the performance of policy instruments to inform climate change mitigation action

HORIZON-CL5-2027-01-D1-09

Program:	**Horizon Europe Cluster 5.**
Típus:	**Research and Innovation Action**
TRL szint:	
Támogatás projektenként:	**3M EUR**
Támogatott projektek száma:	**3**
Pályázati felület megnyílik:	**2026. november 17.**
Beadási határidő:	**2027. március 4.**
Felhívás linkje:	LINK

As the EU and its Member States intensify efforts to reduce their greenhouse gas (GHG) emissions to achieve climate neutrality by 2050, understanding the effectiveness and acceptability of policy instruments becomes crucial. The implementation of the European Green Deal and climate legislation under the recent “Fit-for-55" package has further emphasised the need to better identify and quantify the impact of climate policies and measures both on EU and national level. Many policies are also subject to fast-changing political dynamics. Ex-post evaluation can help explain whether emission reductions occurred and explain why, while also identifying other benefits or trade-offs of climate mitigation.

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National Research, Development and Innovation Office
Hungary

Understanding and avoiding maladaptation to climate change

HORIZON-CL5-2027-01-D1-10

Program:	**Horizon Europe Cluster 5.**
Típus:	**Research and Innovation Action**
TRL szint:	
Támogatás projektenként:	**5-6M EUR**
Támogatott projektek száma:	**3**
Pályázati felület megnyílik:	**2026. november 17.**
Beadási határidő:	**2027. március 4.**
Felhívás linkje:	LINK

Recent climate records, showing unprecedented temperatures and extreme weather events, underscore the urgent need for rapid, systemic and comprehensive adaptation to address the escalating impacts of climate change on all natural and managed systems. However, while adaptation is essential, not fully informed measures can backfire, leading to severe unintended consequences or to short-term gains that are not sustainable. In this context, maladaptation refers to adaptation actions unintentionally leading to increased risk of adverse climate-related outcomes, including via increased greenhouse gas emissions, socio-economic, biodiversity and environmental trade-offs, increased or transferred vulnerability and greater social inequity.

Most of the adaptation plans and implemented actions are relatively recent, so even if the cases of maladaptation are increasingly documented, the evidence is still scarce and sparse, as the latest IPCC reports confirm. There is a need to learn from the increasing evidence of maladaptation across sectors and regions, both in Europe and globally, to prevent maladaptation in policy design and implementation (e.g. of the EU Adaptation Strategy).

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Africa-EU CO-FUND action on climate

HORIZON-CL5-2027-01-D1-11

Program:	**Horizon Europe Cluster 5.**
Típus:	**Research and Innovation Action**
TRL szint:	
Támogatás projektenként:	**15M EUR**
Támogatott projektek száma:	**1**
Pályázati felület megnyílik:	**2026. november 17.**
Beadási határidő:	**2027. március 4.**
Felhívás linkje:	LINK

The action should establish joint collaborative activities between the EU and the AU, their respective Member States and other like-minded countries implementing the Climate Action Pillar of the CCSE Partnership. For framing its activities, the action should use the CCSE Roadmap and the priorities identified by the Coordination and Support Action funded from the call “HORIZON-CL5-2025-03-D1-07: Implementing the climate action pillar of the EU-African Union Partnership on Climate Change and Sustainable Energy”. It should also consider the latest scientific and policy developments for adjusting the course of its activities. The action should address a well-balanced variety of climate issues under the Climate pillar of the CCSE Partnership, with particular emphasis on climate risk reduction and resilience. It should advance availability of climate-related data, data sharing and related information platforms, enhance climate services, and promote an integrated approach to knowledge. This should include awareness raising – in particular for the most vulnerable sectors and parts of the population – while leveraging the opportunities offered by the digital revolution to improve accessibility and impact. Co-design, co-development, and demonstration with end-users should be an integral part of the activities to increase uptake of the outcomes.

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Better understanding and attribution of land and ocean carbon sources and sinks

HORIZON-CL5-2027-01-D1-12

Program:	**Horizon Europe Cluster 5.**
Típus:	**Research and Innovation Action**
TRL szint:	
Támogatás projektenként:	**5M EUR**
Támogatott projektek száma:	**5**
Pályázati felület megnyílik:	**2026. november 17.**
Beadási határidő:	**2027. március 4.**
Felhívás linkje:	LINK

Understanding the mechanisms and drivers of land (including inland waters) and ocean carbon sinks and sources is crucial for accurate climate models and scenarios and informing climate mitigation strategies. However, significant gaps and uncertainties remain in quantifying these complex processes and their components. It is essential to better understand the roles of anthropogenic and natural drivers of carbon fluxes, in particular the surface-to-air flux. This is necessary for reconciling conceptual discrepancies among estimates and assessing the implications for future trends and mitigation potential, taking into account that mitigation actions need to be additional to natural processes and business-as-usual and that the remaining carbon budget depends, inter alia, on assumptions on sinks.

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Next generation scenarios for informing climate and sustainability transitions

HORIZON-CL5-2027-01-D1-13

Program:	**Horizon Europe Cluster 5.**
Típus:	**Research and Innovation Action**
TRL szint:	
Támogatás projektenként:	**4M EUR**
Támogatott projektek száma:	**6**
Pályázati felület megnyílik:	**2026. november 17.**
Beadási határidő:	**2027. március 4.**
Felhívás linkje:	LINK

Climate scenarios have been instrumental in shaping global, national, and increasingly local responses to climate change by helping stakeholders make informed decisions. Against the backdrop of rapid environmental shifts, social upheavals, high uncertainties and complexity, scenarios must be advanced to inform low-emission climate-resilient pathways, while also accounting for other critical policy priorities, such as environmental protection.
Actions should improve Integrated Assessment Models (IAMs) or propose alternative approaches to address key challenges and gaps in current climate scenario frameworks. They should extend the scope of scenarios beyond the 21st century, enlarge the future possibility space with more diverse narratives and drivers (e.g. post-growth), more explicit consideration of equity, justice, geopolitics and attention to inclusivity.
Actions should focus on one of the following research areas:
Area A: Integration of climate impacts and adaptation dimension
Area B: Improved scenario frameworks
Area C: Improved policy representation

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