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Title: Climate-resilient Innovation Packages for EU regions

Challenge:

Every half-degree of global warming may inflict a new order of magnitude of harmful consequences on planetary health, economic and social cohesion. The failure of economic, financial and industrial policies to sufficiently mitigate and adapt to climate change is more than ever a primary concern for societies worldwide¹. Europe's commitment to accelerate efforts regarding climate change adaptation and to reach climate neutrality and resilience by 2050 is emphasised in the European Green Deal and will be further supported by the European economic recovery plan from the COVID-19 pandemic. In some regions and communities, incremental adaptation will not be sufficient to mitigate the impacts of climate change on socio-ecological systems². We need radical and transformative ways of reducing climate vulnerability and building resilience. Some solutions for regional adaptation have been developed and successfully tested at small scale, ranging from innovative technologies to nature-based solutions, new business models, as well as governance and social innovations. Though the challenge is to scale up and demonstrate at large scale systemic solutions to trigger behavioral change and new ways of decision-making. Multidisciplinary approaches that integrate technological, digital, business, governance, environmental dimensions with social innovation are needed for the development of Green Deal consistent adaptation pathways tailored to support the regions and communities most exposed to climate change impacts.

Scope:

The Horizon Europe Mission on Adaptation to Climate Change, including Societal Transformation will test, evaluate and scale-up a range of adaptation solutions with the aim to

¹ World Economic Forum 2019 - Global Risks Report

² IPCC 2018 - Special Report on Global Warming of 1.5 °C

trigger societal transformations among key community systems that are central to resilience building and sustainable growth. Therefore, the actions funded under this call topic will serve as early facilitators in pre-identifying and upscaling the most promising cross-sectoral solutions.

Proposals should address only one of the following action areas:

Area 1: Innovation Packages for transformational adaptation of European regions and communities

This action should aim at **enabling rapid and far-reaching change** through the development of region-specific portfolios of solutions (mature enough for demonstration), which may include nature-based solutions, insurance and governance, and behavioural change. The innovation packages should cover several systems (e.g., health, agriculture, water, environment including biodiversity and infrastructure including energy) and comprise the adaptation solutions and pathways deemed essential for climate resilience in the specific regional contexts and the set timeline. While accounting for disparities in adaptive capacities and rates of change across countries, regions and communities, the innovation packages should:

- prioritise the key systems that most urgently need to be protected from climate impacts and risks,
- target regions with the highest exposure (e.g. coastal and low-lying areas) and/or least adaptive capacity to climate change impacts,
- lead to transformational adaptation while minimising the trade-offs between 1.5°C-consistent mitigation pathways and sustainable development goals. Hence ensuring a fair transition and environmental justice,
- rely on wide citizen and stakeholder engagement, take stock of existing best practises and solutions already available from other programmes, such as EIT KICs, LIFE+ Programme, the EIB, the EBRD and at national, regional, local and private level.

Area 2: Support the design, testing and upscale of Innovation Packages

The action should provide the operational support for the activities under area 1.

In particular this action area will include:

- Citizens and regions engagement
 - ensure the wide deployment and integration of Innovation Packages through educational and training activities across relevant sectors,

- ensure that targeted regions and communities are involved and benefit from the Innovation Packages through early multi-stakeholder dialogue and citizens engagement and surveys,
- engage with pan-European regional and cities networks from the beginning, e.g. European Committee of the Regions and Covenant of Mayors for Climate and Energy,
 - support regions and communities in identifying and possibly overcoming institutional, regulatory and financial barriers preventing the implementation of Innovation Packages; including testing of innovative public-private partnerships.
- **Monitoring and assessment:**
 - develop a set of indicators, in collaboration with the activities carried out under area 1, enabling the monitoring and assessment of the performance and efficiency of multi-level Innovation Packages towards addressing the resilience of the region and coherence with Green Deal pathways,
 - address issues of replicability across scale and sustainability over time for the cross-sectoral solutions and pathways,
 - **Portfolio of Solutions**
 - support the preparation of the portfolio of solutions,
 - support the regions in identifying, mapping and leveraging EU and national funding and financing programmes to support the deployment of the Innovation Packages
 - foster an enabling environment so the activities under area 1 can thrive (e.g. digital services; engagement, education and capacity building; business models, insurance and resource leveraging; innovative coordination approaches, etc).

Expected Impact:

- Accelerate the economic restart from the Covid 19 crisis and foster transformative change across all regions and sectors of society to increase climate resilience.
- Massive increase of community resilience and capacities to cope with unavoidable effects of climate change. Performance indicators shall include for instance reduction of the climate protection gap, increase in Green investments, etc.,
- Fully functioning online and free-access platform with user-friendly information on Innovation Packages covering all relevant aspects (financial, social, technological and

regulatory) and all relevant areas (health, agriculture, water, environment including biodiversity, and infrastructure including energy, etc.); synergies and/or integration with Climate-ADAPT, Copernicus services and other existing Pan-European platforms will be prioritised,

- Support the European Green Deal targets, in particular the new EU Strategy on Adaptation to Climate Change, the EU biodiversity, bioeconomy and circular economy strategies.

Type of Action: Area 1 Innovation Action, Area 2 Coordinaiton and Support Action