Earth-system modelling and climate services

Specific challenge:The pace of current developments and uncertainties surrounding likely future trends requires further steps to maintain and strengthen the evidence base to ensure that policy makers, businesses and citizens in the EU can continue to draw on a sound understanding of the state of the climate and the wider environment, the possible response options and their consequences in social, economic and environmental terms.

Better integration and coordination of on-going and future climate change research and innovation initiatives within the EU and beyond is needed, accompanied by timely and open exchange of information and research results to enhance the impact of research and ensure a more efficient use of resources and scientific developments.

Scope:Creation of EU climate change networks to facilitate dialogue among the relevant scientific communities, funding bodies and user communities in the EU throughout the duration of Horizon 2020 and enhance effective communication and dissemination activities targeting different stakeholders, to maximise the impacts of the research and innovation initiatives and increase public awareness about climate science and research results. Proposals should cover activities such as clustering, co-ordinating and creating synergies between international, EU and nationally funded climate change research and innovation actions, developing joint programmes and projects, creating links with related international programmes, forward looking analysis to establish emerging needs, and effective mechanisms to strengthen science-policy interface. This requires genuinely cross-disciplinary, integrated and systemic approach - including the socio-economic dimension-, as well as the engagement and collaboration between the climate science and the broader stakeholder communities.

Proposals shall address the following issues:

Earth-system modelling and climate services : parallel development of an EU-wide climate modelling and service framework to enable and encourage open

exchange of knowledge, expertise and data in order to more accurately simulate climate evolution, and to improve the reliability of science based climate information at local, regional and global scales. It should integrate the EU climate modelling, observations and service infrastructure initiatives and provide a science-stakeholder communication platform to better manage EU resources, reduce fragmentation and improve synergies between national, EU and international activities.

Expected impact: Evidence-based policy and appropriate, cost-effective management, planning and adaptation decisions by the public sector, businesses, industry and society through the provision and effective communication of trustworthy and timely science-based information. Enhanced impact of research and innovation activities through better identification of climate change R&I priorities, improved coordination of EU, Member States' research and innovation programmes and funded activities, and synergies with international research and innovation programmes and actions.

In addition, the following specific impacts are expected:

EU society's improved resilience to climate change and mitigation of the risk of dangerous climate change.

Type of action: Coordination and support actions

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