



ERA4CS

Research in support of Climate Services

Consideration
of the current scope, timelines, links and
gaps

JPI Climate Scoping Forum Symposium
26-27 March 2018
Paris



European Research Area
for Climate Services

Roger Street
University of Oxford / ANR

ERA4CS Task 7.4 Synergy and Mismatch Analysis



Aim: Identify research and knowledge gaps, complementarities, redundancies and synergies

Building on the mission of JPI Climate, to increase the effectiveness, relevance and impact of research and innovation supporting climate services, JPI Climate and its members should:

1. Strengthen **cooperation** on climate services research and innovation to maximise effectiveness and impact
2. Strengthen the **alignment** of research and innovation supporting climate services to maximise effectiveness and impact
3. Enhance the **societal relevance** of research and innovation supporting climate services by intensifying efforts to promote interdisciplinary research and innovation
4. Collaborate to establish a **stronger global position** for JPI Climate in research and innovation supporting climate services

A European research and Innovation Roadmap

Informing H2020 and others' investments



Challenge 1: Enabling Market Growth

1.1: <i>Assessing the nature of climate services market.</i>	(a) Assessing the climate services market (demand and supply).
	(b) Translating users' needs into services and access required.
	(c) Exploring the public and private domains of the market.
1.2: <i>Growing the climate services market.</i>	(a) Developing foresight into perspective market growth: identifying untapped potentials, and measures to promote market growth.
	(b) Establishing the means of enhancing the awareness of, and promoting, climate services.
	(c) Developing appropriate business models for the provision of climate services.
1.3: <i>Demonstrating the added value.</i>	(a) Identifying mature markets and front-runners.
	(b) Demonstrating the impacts and full value of climate services as standalone services and/or integrated into broader decision-support systems.

Challenge 2: Building the market framework

2.1: <i>Communities and infrastructures to support and grow the climate services market.</i>	(a) Developing a viable climate services community that engages users, providers, purveyors and researchers.
	(b) Building and widening capacity for climate services development, provision and use.
	(c) Computing, data and information technology (IT) infrastructure required to develop, deliver and support access/use of climate services.
2.2: <i>Standards, quality assurance and control, access and legal aspects.</i>	(a) Demonstrating credibility and assuring quality of climate services.
	(b) Implications of limited, and open and free access to data and information for services supply and demand.
	(c) Liability in providing climate services and market implications.
	(d) Intellectual property (IP) implications of co-design, co-development and co-delivery.
2.3: <i>International cooperation.</i>	(a) Engaging the European climate service community internationally.
	(b) Supporting the growth of climate service capacities (demand and supply) within least developed countries (LDCs), with a focus on Africa.

Challenge 3: Enhancing the quality and relevance of climate services

3.1: <i>Information frameworks in support of climate services.</i>	(a) Integration of physical and socioeconomic data and information.
	(b) Developing standards and protocols for data in support of vulnerability and risk assessments, and decision-support systems.
	(c) Establishing confidence in, and the role of uncertainty, in climate services and decision-support systems.
3.2: <i>Strengthening the scientific basis and relevance of climate services.</i>	(a) Improving modelling and prediction capacity relevant to improve climate services.
	(b) Developing tools and supportive resources needed by users - local, national and transnational.
	(c) Identifying and evaluating the implications of scientific development on climate processes in terms of improving climate services.
3.3: <i>Climate information and end-users' needs: innovations and products.</i>	(a) Making better use of available climate information and knowledge.
	(b) Making innovations in service products and presentation.

Draft JPI Climate Vision

For research and innovation supporting climate services

*To actively **inform and facilitate coordinated research and innovation** at the pan-European level that enables the development of relevant and useable (**decision-driven**), and credible (**science informed**) **climate services** that are aligned with and able to inform European and national climate objectives, strategies and plans.*

In so doing, JPI Climate shall:

- Contribute to the activities of other relevant European research and innovation organisations (e.g., other JPIs); and
- Foster Europe's role in international collaboration on climate change research and in related international policy developments



European Research Area
for Climate Services

Highlights of Identified research and innovation Gaps

Identified through activities that were linked to the JPI Climate Scoping Forum Process

- Developing **standards, quality control, quality assurance and an effective evaluation system** that will support the use and further development of climate services in Europe;
- Exploring the nature and scope of **public and private domains** that could lead to a **vibrant climate service market** across Europe;
- Exploring the **implications of liability** for the provision and use of climate services;
- Exploring and addressing from an ethics perspective the **implications of inequitable access to and provision of climate services**;



Highlights of Identified research and innovation Gaps

- **Building capacity of the climate service communities** – researchers, providers, purveyors and users – in the context of engagement in enhancing the quality and relevance of climate services
- **Enhancing the availability, accessibility, and integration** of physical, socio-economic and climate data and information that support CCA, DRR and mitigation decisions and decision-making;
- Exploring **climate service requirements in the evolving and heterogeneous communities** that are and should be using climate services; and
- Demonstrating the **added value of climate services** to CCA, DRR and mitigation in a **meaningful manner to policy and decision makers** within the CCA, DRR and mitigation communities



Have your say!



With a focus on future research and innovation supporting climate services in the context of potential collaboration with ERA4CS, share your thoughts on:

- **Research and innovation links (complementarities and synergies)**
- **Activities of particular interest, including those where you believe collaboration would be of value**