European Research Area for Climate Services

ERA4CS Joint Call on Researching and Advancing Climate Services Development by (A) Advanced co-development with users, (B) Institutional integration

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1. Introduction

Background

The ERA-NET "European Research Area for Climate Services" (ERA4CS) is a network of 45 partner organisations: 15 public Research Funding Organisations (**RFO**s), and 30 Research Performing Organisations (**RPO**s) from 18 European countries designed to boost the development of efficient Climate Services (**CS**) in Europe. Most partners come from countries participating in the Joint Programming Initiative JPI Climate on "Connecting Climate Knowledge for Europe" (www.jpi-climate.eu), a collaboration of 16 European countries coordinating their climate research to inform and enable the transition to a low emission, climate resilient economy, society and environment in line with Europe's long-term climate policy objectives.

ERA4CS is funded as an ERA-NET Co-fund action under the European Union´s Horizon 2020 Framework Program (Grant Agreement number 690462). Its partners intend to develop a durable collaboration in research funding policy and practices, thereby creating added value in high quality research contributing to the development of the European Research Area for CS. **To improve user adoption of and satisfaction with CS, the overall aim is to research and advance CS development by supporting scientific research for developing better tools, methods and standards on how to produce, transfer, communicate and use reliable climate information to cope with current and future climate variability and change across national boundaries.**

The present joint call on "Researching and Advancing Climate Services Development" will be financed by ERA4CS partners contributing either by *cash* funding (RFOs, Topic A) or by *in-kind* resources (RPOs, Topic B) plus co-funding on both topics from the European Commission. A total budget of **about 72 Mio € has been provisionally allocated for this call to support 3 years research projects**.

What are Climate Services?

Easily accessible, timely, and decision-relevant scientific information can help society to cope with current and future climate variability and change in order to limit climate-related economic, social and ecological impacts and damages. This includes information about Climate Change (CC) mitigation, adaptation and disaster risk management. Effective CS also allow society to take advantage of transformation opportunities, to build resilience to CC, to support a sustainable development and to contribute to a climate–resilient and climate-friendly society. CS could address wide timescales, i.e. month to century time-scale, going beyond current operational weather services.

There are different definitions of CS, which is a consequence of the wide variety of stakeholders and needs, as well differing functions of the organisations that deliver CS. ERA4CS uses the concept of CS in a broad sense, namely as user driven development, translation and transfer of climate knowledge, including knowledge for understanding the climate, CC and its impacts, as well as guidance in its use to researchers and to decision-makers in policy and business.

The aim is to respond to the increasing demand from stakeholders for usable information and solutions about CC impacts, vulnerability, risks and opportunities, their uncertainties and probabilities and options for actions. These stakeholders can include e.g. decision-makers in enterprises, NGOs,

policy makers from various levels (transnational, national, regional and local), as well as scientists using the data for impact and applied research, but also citizens and consumers.

This variety reflects a wide scope of "user needs" in which information requirements may differ significantly. CS should thus be tailored to meet specific needs of various sectors as well as cross-sectoral requirements. They are meant to communicate climate knowledge in a way that it is scientifically sound and easily understood, facilitating decision making, and integrating it into the broader context of societal, economic and environmental changes.

Climate Services therefore need to be developed in a solution-oriented approach working with stakeholders and practitioners. As a result, users should also influence the development of CS and the underpinning research by defining their needs and developing specific requests for CS (usually referred to as "co-development"). This feedback loop should improve the research for CS.

ERA4CS in the European Climate Services landscape

The CS landscape (in Europe) is shaped by a variety of fields and actors as shown in Figure 1 (adapted from the "Horizon 2020 Societal Challenge 5 Advisory Group Report 2014"). This schematic shows the interlinks and –dynamics of CS which range from societal needs (right side) to scientific information (left side). Fundamental information should be translated, from climate science, to analysis of CC impacts, and combined with socio-economic and demographic information, to identify vulnerabilities and risks. Further "translation" towards the end user communities can be facilitated by "knowledge brokers". The added value can lead to market development from business and wider decision-making perspectives. This reinforces the "service demand" which represents a strong feedback to stimulate and support scientific knowledge development.

ERA4CS represents a significant contribution to the implementation of the European Roadmap for Climate Services. It is expected to both, contribute to benefit from and complement linked initiatives within the European landscape. These are e.g. the WP 2016/17 H2020 SC5 Actions on CS market research to exploit CS added value, to improve regional climate modelling or to access Earth observations, Actions resulting from the WP2014/15 calls for Climate Adaptation and Climate Services of H2020, the Copernicus Climate Change Service (C3S) focusing on essential climate variables, climate information provision, data access facilitation and operational climate service delivery primarily for policy makers and public authorities, or European and national CC adaptation knowledge platforms and portals, like e.g. Climate-ADAPT or Climate-KIC projects. The aspects which are addressed by this call within this landscape are displayed in green in the below figure.

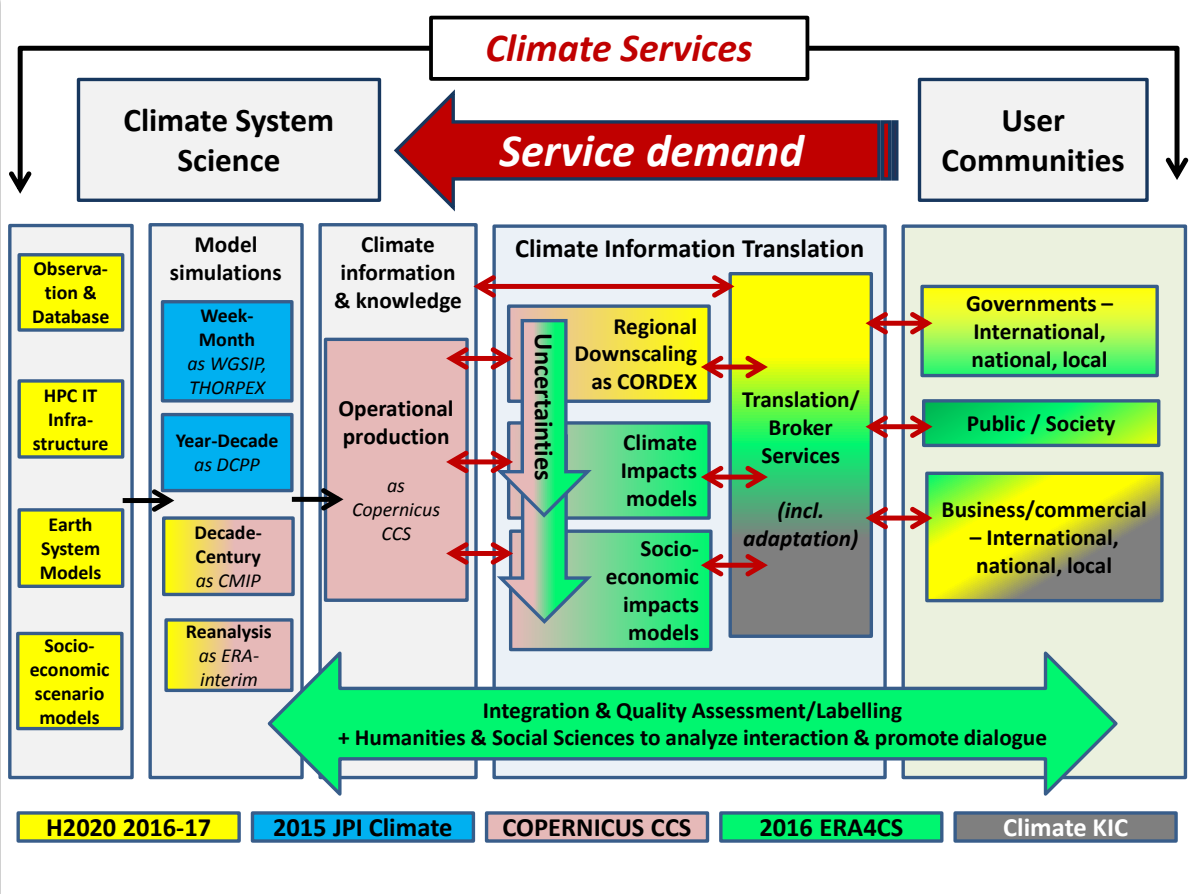

***Figure 1**: Simplified Climate Service Landscape in Europe for the period 2015-2017.The main focus of the 2016 ERA4CS call is displayed in green, and is related to complementary roles of other main European initiatives (H2020 WP 2016-2017 SC5 Actions, the 2015 JPI Climate call on Climate predictability and interregional linkages, Copernicus Climate Change Service, EIT/Climate-KIC).*

2. Scope and objectives

ERA4CS is designed to support research that develops better tools, methods and standards on how to produce, transfer, communicate and use reliable climate and related information. This call mobilizes both the Research Funding Organisations (RFOs) and the Research Performing Organisations (RPOs) in EU Member States and Associated Countries. The aim is to enhance national CS activities and support the various disciplines to **address research gaps that exist between the diverse needs of user communities and climate system science**.

The call places an emphasis on integrated research that creates a bridge between observations, model development, operational products, information translation and user uptake. One of the main objectives of ERA4CS is to improve quality, satisfaction and user adoption of CS (incl. adaptation services). At the same time ERA4CS aims to improve the scientific expertise on CC risks and adaptation options, and to connect that knowledge with decision-making, e.g. by developing and assessing climate adaptation strategies and pathways for countries, regions, cities, catchments and vulnerable sectors.

The **feedback loop from users to research development** is crucial in this context during the project lifetime, from co-design of research priorities to co-development of tools, up to the co-production and co-evaluation of products and a subsequent refinement of the research strategy. Resulting products/instruments from ERA4CS will help to assess vulnerability, impacts, and adaptation responses to current and future climate variability and change including extremes for specific regions, sectors, over relevant time periods and spatial scales. They may for example be designed to provide insight into CC effects in urban and/or rural areas, in order to assist in determination of the appropriate risk reduction and adaption measures. They could also advance understanding of integrated management of small to large scale ecological and social systems (e.g. a city within a larger system) and how this can be optimized to face climate variability and change (e. g. for the prevention of droughts or flooding or the adverse effects of other extreme events). CS may also be designed to help e. g. shaping a climate adaption plan for an entire catchment area or river basin, shedding light on the integrated behaviour of water systems influenced by CC and dynamic user demands. The concept could include approaches to address multi-driver vulnerability, risk and economic analyses, e. g. arising from infrastructure investments, assessing aspects of adaptation measures, and guiding their implementation in planning processes and including dealing with conflicting interests, institutional issues and wider societal and environmental objectives.

By developing a "***translation layer along the Climate Service chain***" ERA4CS expects to stimulate advanced solutions for risk reduction and adaptation, including the management of uncertainties, possibly giving at the same time an impulse for the development of a CS market. The assessment of the potential of such advanced approaches in the field of CS (incl. demonstration of the added value) is part of this call. The operational deployment and building of the market itself as well as the routine provision of raw and generic climate information (observations, projections, etc.) is not included. As shown in Figure 1 these are part of complementary initiatives, such as Copernicus, Climate-KIC and Horizon 2020 (c.f. European research and innovation Roadmap for CS).

3. Call Topics

There are two distinct and coherent topics, with two separate target groups and funding modes:

- **Topic A "Advanced co-development with users"** is open to all applicants from the 13 countries with participating RFOs (see Annexes for Topic A), who comply with the national eligibility criteria (see National Annexes).
- **Topic B "Institutional integration"** is open only to applicants from the 30 mandated RPOs (Annexes for Topic B), subject to their specific eligibility criteria (see RPO Annexes). This means it is not open to external applicants outside of these organisations.

Topic A- Advanced co-development with users, supported in cash by 13 national Research Funding Organisations (RFOs)

This Topic is user focused. It requires user driven development, translation and transfer of climate and related knowledge, as well as guidance on the use of such knowledge by public and private bodies and other decision-makers, including researchers in a facilitative manner. The overall objective is to improve user satisfaction with and adoption of CS by researching, advancing, and assessing of CS (as useful tools for decision-making in public and private sectors), and enhancing co-development and communication with end-users.

Climate Service development calls for transdisciplinary project proposals where value for users shall be demonstrated, by direct involvement of stakeholders/users throughout, starting from the initial conceptual phase on. CS shall draw on information from multiple disciplines, including climate sciences, Social Sciences and Humanities and Engineering as appropriate. The projects proposals are expected to integrate across the chain of service development, bridging research to delivery of effective CS, including feedback from users into the research.

Tailor-made data, new sets of projections, impact and vulnerability indicators, relevant adaptation options, pathways and assessments, may be part of this Topic as long as they are developed in *co-production with users for results in a direct benefit for them*. They can address various users´ needs and capabilities to support informed stakeholder decisions and investments, encompassing public, private and community sectors as well as NGOs. Exploration of synergies between adaptation and mitigation are welcome. Proposals may include analysing the stakeholders' needs and preferences and other relevant societal (e.g. governance) aspects, as well as developing practical management tools, guidelines, knowledge bases, that are relevant to stakeholders and decision makers.

Proposals are invited that address **one or more** of three following topic areas:

A.1: Research in support of the development and deployment of Climate Services

Enhancing the quality and relevance of CS through better governance, of open access, evaluation and quality control of climate information, data and CS providers. This includes the development of criteria for quality and relevance as well as standards, agreed sets of requirements, labelling and a code of conduct for Service Providers (including use limitation and legal aspects). This work should interlink with the WMO Global Framework for CS for widespread adoption of this quality system, as well as the Copernicus Climate Change Service, where quality assurance metrics and processes will be developed.

Assessing the demand and creating new ideas for market settings. This requires research for CS, including research on the CS market and its development, the analysis of commercial and non-commercial approaches, business models, public procurement policies, economic valuation and demand management. These are essential components for a successful market development and management with private and public sector parties. Research can address issues arising from the diversity of CS providers including quality and communication which enable confidence in the CS market. Projects for pure market research as well as short-term demonstrations or pilot applications, however, are not targeted here. They are covered already by the H2020 calls for innovation: SC5-03-2016 and SC5-01-2016-2017.

A.2: Integration and application of Climate Science for decision making

It is asked for **integrating climate predictions and/or projections with impact, vulnerability and adaptation research. This comprises integrated assessment and application to decisions making, including e.g.** case studies for high impact sectors with an assessment/propagation of uncertainties; understanding of cross-sectoral links; integrated policy and response analysis; integration of observations, models and tools. Contributions to WCRP Inter-Sectoral Impact Model Intercomparison Project (ISI-MIP) are encouraged, however only if projects explicitly engage users to assess and improve impact representations with real sectorial data.

Facilitating and /or accelerating decision-making by analysing how CC information affects socio-economic development and impacts on decision-making at different levels (sectoral, spatial, temporal, personal). Understanding how effective CS can increase efficiency and add value.

Support of effective development and implementation of adaptation strategies for countries, regions, cities, neighbourhoods and vulnerable sectors (e.g. energy, ICT, transport, housing, water, agriculture, etc.), including case studies for 'climate sensitive' topics for different time horizons, spatial scales and different actors as well as the analysis of various risk framings, institutional settings and decision-making frameworks that affect the process from climate and other data to end-products. Projects that relate CC to other environmental and socio-economic changes, for integrated decision making, are encouraged, in particular to promote win-win decisions for both short-term and long-term policy and societal objectives.

A.3: Research for co-development of advanced Climate Services

Better understanding of user needs and behaviour, in particular understanding vulnerabilities to CC, decision making rationales including approaches to risk assessment, uncertainty and economic analysis (and cost-benefit analysis if appropriate). The proposal should involve a consortium with providers, translators/integrators and end user, e.g. consumers and citizens. Research on the process of co-creation of knowledge in the domain of CS is welcome. Projects involving Social Sciences and Humanities are encouraged.

Co-development of advanced tools, methods and instruments on how to produce, transfer, communicate and use reliable climate information in order to enhance the capacity of decision-makers to deal with climate uncertainties knowledge (incl. tools for weighing and quantifying different interests and drivers (beside climate also e.g. demography, environment, economy, spatial planning…). Experiments and science-practice labs are encouraged as a test environment for prototyping operational products and services. This can include e.g. visualisation techniques, harmonized language, development of guidance and educational materials for capacity building and improving communication skills and communication tools and methods for socio-economic impact analysis and uncertainty.

Topic B - Institutional integration between 30 predetermined Research Performing Organisations (RPOs)

The aim of this Topic is to invite proposals that could contribute to the development of common tools and methods in support of CS. Combination of experience and practice between 30 mandated RPOs (see list below) will enable generic approaches for pan-European, cross-boundary and local climate impact analyses and decision support for public and private policies. These proposals are expected to provide new information and knowledge on the impacts and risks associated with climate and change. The proposals should aim at **realizing institutional integration** in the development of new methods, assessments, models, products, analyses and science-stakeholder dialogue forms. Time scales of interest range from monthly to multi-decadal.

The proposals under this topic will aim at minimising the knowledge gap in the production of climate information from observations, climate predictions and projections that are key for adaptation and mitigation to CC. Additionally the projects funded by this Topic will provide information on a global and pan-European regional scale that will eventually complement information that will become available under other EU programs such as H2020, KIC climate and Copernicus.

The tools and methodologies developed in this Topic should enable an integrated harmonisation, benchmarking, evaluation and tailoring of observational and model-derived climate data, enhancing the information content of these products. These activities will lead to the development of an improved and integrated CS product portfolio, in addition to (and which could be later operationalized by) what the Copernicus Climate Change Service will routinely deliver. Feedback from stakeholders and users should stimulate new concepts and model development (including impact assessment models), needed to structure the implications of an uncertain future into practical and applicable products, leading to an enhanced market uptake of climate information. Training, visualisation and efficient user interfaces are also required to engage a wider range of users, for effectiveness of CS but also evaluation and feedback on research strategies.

This Topic seeks to advance our understanding of at least one out of the three following domains:

B.1: Development of new methods and tools

Proposals may include (but are not limited to) development of methods, models and data analysis techniques to support (multi) sectorial CC impacts assessment in specific geographic domains (e.g. global, Arctic, Mediterranean, mountain areas, coastal zones and shelf seas, urban areas, rural areas…); the development of a reference set of climate outlooks; systems to integrate climatic and non-climatic data, including land cover and smart visualisation tools, to monitor climate impacts; statistical or physical tools to identify and fill gaps in underrepresented areas due to the scarcity of data; modelling or detection-and-attribution tools that put weather extremes in the context of CC; development of new and advanced models, including coupled approaches and community models, for climate simulation and integrated assessments; development of climate data analysis platforms required to produce CS data in research mode.

B.2: Impacts studies and models

Specific topics of interest include the hydrological cycle and the quantity and quality of water resources (surface reservoirs, streams, glaciers, snow, aquifers,...); landcover, forest and water resource projection models; extreme events and hydrogeological risk (floods, landslides, avalanches, droughts, erosion, windstorms, storm surges, land subsidence...); sea level rise; heat waves and related impacts; natural and managed ecosystems, agricultural and forestry practices and biodiver-

sity preservation. Specific environments of interest are mountains, coastal regions and shelf seas, urban and rural areas exposed to anthropogenic CC stress, either in Europe or in any other area of European interest. Proposals should consider potential applications in socio-economic sectors (infrastructures, energy, transport, agriculture and forestry, tourism, land use management, health, the natural environment…) and specific user needs.

B.3: Localisation of climate information and evaluation of uncertainties

This topic targets the comparison of existing methods, tools and local climate information, including statistical and dynamical downscaling, demonstrating suitability and providing recommendations and best practices. Design of tailored local climate information to socio-economic sectors and cross sectorial regional analysis taking into account localized climate information and transferability assessment of the results. Identification of the relevant information gaps and user needs due to the diversity of data providers. Design of a common framework of the minimum common user-friendly CS database required at a European scale. This will include assessment of quality and uncertainties, as well as an improved understanding of user expectations and requirements. Studies that inform guidelines of the appropriate use of data in the development of CS are also included.

4. Guidelines for Applicants

Who can apply?

There are two distinct and coherent topics, with two separate target groups and funding modes. One Principal Investigator[1] (PI) can submit **only one project as coordinator**.

Applicants based at a RPO supporting Topic B can submit proposals to Topic A, as long as there is **no redundancy between the Topic A and Topic B** proposals.

Individuals who were involved in the build-up of Topic A cannot be a PI in a Topic A proposal.

The representatives in the Cash Management Board of ERA4CS cannot be a PI in any proposal.

The full representatives in the In-kind Management Board of ERA4CS cannot be a PI in a Topic B proposal[2].

Topic A

This Topic is open to **all applicants from countries that are covered by the 13 participating RFOs**, who comply with the national eligibility criteria (see National Annexes). **Action oriented and advanced projects from all disciplines of small to medium size (0.5 - 5 million €)** are expected, having co-development with users in their direct focus of research. It is open for the development of creative new ideas, advanced settings and a variety of approaches. Private sector participation is welcome if the participating national funding agency has suitable instruments (see National Annexes).

Topic B

This Topic is open only to **applicants from the 30 mandated RPOs**, subject to specific eligibility criteria (see RPO Annexes). **Effective institutional integration** of the research component of national CS is the objective, with project **size larger than 1 million €.**

Cooperation with other countries

As ERA4CS is meant to foster European integration at large, participation of project **partners from outside** the countries already partners in ERA4CS is possible and encouraged **if funding is ensured by own resources**. Research focusing on CS, user needs and sectoral/regional challenges in **member states of the geographical East of the EU** is welcome; while funding agencies from these countries who are not yet partner in ERA4CS are particularly encouraged to support such participation. Beyond that, research with partners from **low-income, or lower-middle-income economy (LIC/LMIC) according to the World Bank listings for LIC or LMIC**, who are in need of advanced solutions for dealing with CC, is possible and welcome. For Topic A, cash funders could decide then on a case by case basis if a co-funding might be possible.

[1] The Principal Investigator, one per participating institution, is an individual who assembles a team to carry out a project under his/her scientific guidance. The lead PI is the PI that coordinates the project.
[2] However, they could apply to topic A, if eligible.

Proposal requirements

Proposals should address **one Topic only**, either (A) or (B). They require eligible partners from **three or more different countries participating in ERA4CS** (see Annexes for Topic A, respectively Annexes for Topic B). Furthermore, **parts of a project cannot be submitted twice** to Topic A and to Topic B.

All proposals shall demonstrate **stakeholder engagement for Topic A** and **institutional integration for Topic B**. These aspects are reflected within selection criteria (see below). Applicants need show they are aware of the state-of-the-art and indicate their state-of-play.

Applicants should also describe how information generated in the course of the project will be captured, stored and managed (c.f. JPI Climate Guidelines on Open Knowledge). Plans for long-term archiving and meta-description of data should be detailed, as should the communication and access plans.

Furthermore, consortia shall demonstrate how they take into account sustainability principles in research: i.e. consideration of projects' climate footprint and contributions to a climate-friendly research system, e.g. in terms of (virtual) meetings, travels and energy use (c.f. JPI Climate Guidance on climate-friendly climate research).

Submitting a proposal

A two-step application procedure will be used in this call. Relevant proposal documents (in English, see Annexes) must be submitted electronically by the coordinator by uploading them on the electronic submission system (see www.era4cs.eu) with the following **deadlines for step-one submission**:

- **Topic A Pre-proposal: June 15th**, 2016.
- **Topic B Full proposal: July 15th**, 2016.

Invitation to step-two is subject to the decision of the funding consortia, respectively the 13 RFOs for Topic A or the 30 RPOs for Topic B, taking into account and balancing the available budgets and the requested funding. Applications which are selected for invitation to submit a step-two proposal will be contacted mid-September 2016, with the following **deadline for step-two submission**:

- **Topic A and Topic B: November 15th**, 2016

Proposals should strictly follow the guidelines given and use the proposal templates (see Annexes), for Topic A or B at the relevant evaluation stage (step-one or step-two). Further information, on how to submit step-one and step-two proposals, is available in the Annexes of Topic A and Topic B.

Responsibilities, reporting requirements and dissemination

Each of the proposals that will be funded will be required to sign an internal project agreement prior to the start of the project (addressing internal organisation, IPR, settle of disputes…) and to submit periodic reports for their activities (one at mid-term and one at the end of the project) using a common template. Furthermore, they will be expected to participate in dissemination of their results both at events organized by ERA4CS and towards the general public. In addition, project monitoring and reporting should be in accordance with the respective funding agency´s rules.

5. Assessment

Evaluation Process

Evaluation will be made by one independent Evaluation Panel (EP) for both Topic A and Topic B to insure overall coherence and quality. It consists of experts from the scientific community and representatives of relevant stakeholder groups if appropriate, in order to meet the scientific and societal vision of ERA4CS, and covers the full range of topics within the scope of the Call for Proposals. For step-two, at least 5 independent experts will evaluate each full proposal: 3 members of the EP and 2 external reviewers.

For Topic A: both pre-proposals (step-one) and full proposals (step-two) will be evaluated by the independent EP.

For Topic B: step-one full proposals are used to determine funding eligibility by the board of the official RPO representatives, while only step-two revised full proposals will be evaluated by the independent EP.

Evaluation Criteria

Evaluation criteria for the projects are based on the evaluation standards provided by the European Commission. The relevant items and thresholds are detailed below and summarized in Table 1.
For Topic A: criteria and items differ between step-one (pre-proposal) and step-two (full-proposal).
For Topic B: proposal evaluation is done only for step-two.

1. Excellence

1.1. Fit to objectives and chosen Topic of the call text
1.2. (Scientific) quality and innovativeness, contribution to knowledge, originality, cutting-edge way of performing research
1.3. Added value of European trans-national co-operation *(only for step-two)*
1.4. Integration across the whole chain of climate service development from research to delivery of CS including feedback from users *(only for Topic A)*

2. Impact

2.1. Envisaged societal impacts (e.g., capacity and community building, networking effects, contributions to societal welfare and well-being, policy related or economic impact)
2.2. Value and transferability for the user community
2.3. Complementarity to other initiatives *(only for step-two)*
2.4. Collaboration between providers and users (knowledge co-production), engagement of relevant stakeholders/awareness of stakeholder needs, transdisciplinary approach *(only for Topic A)*
2.5. Institutional integration *(only for Topic B)*

3. Quality and efficiency of the implementation

3.1. Competence and expertise of the team and complementarities of the consortium (e.g. inter-disciplinary / inclusion of all necessary expertise /expertise in managing inter- and transdisciplinary research collaborations, gender balance) *(only for step-two)*

3.2. Appropriateness of the conceptual approach, feasibility of aims and objectives of project, feasibility and suitability of project design and methods, appropriateness of resources and funding requested

The minimum threshold for each criterion is set at **3 points**. In addition for Topic A step-two, sum of Criteria 1 and Criteria 2 scores should be at least **7 points**. Finally for step-two selection, the **sum of scores** (out of 15) **should be at least 10 points**.

Criteria and items	Topic A Step-1	Topic A Step 2	Topic B Step 2
Criteria 1 / Excellence threshold-> items:	**minimum 3**	**minimum 3***	**minimum 3**
1.1 Fit to objectives and chosen Topic of the call text	**x**	**x**	**x**
1.2 (Scientific) quality and innovativeness, contribution to knowledge, originality, cutting-edge way of performing research	**x**	**x**	**x**
1.3 Added value of European trans-national co-operation	**NA**	**x**	**x**
1.4 Integration across the whole chain of climate service development from research to delivery of CS including feedback from users	**x**	**x**	**NA**
Criteria 2 / Impact threshold-> items:	**minimum 3**	**minimum 3***	**minimum 3**
2.1. Envisaged societal impacts (e.g., capacity and community building, networking effects, contributions to societal welfare and well-being, policy related or economic impact)	**x**	**x**	**x**
2.2. Value and transferability for the user community	**x**	**x**	**x**
2.3. Complementarity to other initiatives	**NA**	**x**	**x**
2.4. Collaboration between providers and users (knowledge co-production), engagement of relevant stakeholders/awareness of stakeholder needs, transdisciplinary approach			
2.5. Institutional Integration	**NA**	**NA**	**X**
***Sum of Criteria 1 + Criteria 2 threshold ->**	**NA**	**minimum 7**	**NA**
Criteria 3 / Quality and efficiency of the implementation threshold-> items:	**minimum 3**	**minimum 3**	**minimum 3**
3.1. Competence and expertise of team and complementarities of consortium (e.g. interdisciplinary / inclusion of all necessary expertise /expertise in managing inter- and transdisciplinary research collaborations, gender balance	**NA**	**x**	**x**
3.2. Appropriateness of the conceptual approach, feasibility of aims and objectives of project, feasibility and suitability of project design and methods, appropriateness of resources and funding requested	**X**	**x**	**x**
Sum of 3 Scores threshold ->	**NA**	**minimum 10**	**minimum 10**

***Table 1**: Relationship between topics, evaluation step and criteria items and thresholds*

Scoring system

0 Not possible to evaluate / Fail

1 Poor

2 Fair

3 Good

4 Very Good

5 Excellent

Final selection will depend first on the sum of scores (up to 15), second on funding availability. In case a proposal is selected for funding, a negotiation phase will be made with the relevant organisations to take into account recommendations, including budget.

6. Expected Timeline

- Call Pre-Announcement: January 12th , 2016
- Opening Date of the Call: March 1st, 2016
- Launch Event of submission portal at Adaptation Futures Conference: May 10th, 2016
- Closing date for step-one proposals for Topic A: June 15th, 2016
- Closing date for step-one proposals for Topic B: July 15th, 2016
- Step-two invitation: September 15th, 2016
- Closing date for submission of step-two proposals: November 15th, 2016
- Communication of final results: February 2017
- Start of projects: Spring 2017
- End of projects: Spring 2020

7. Information and Contacts

Applicants to Topic A are advised to carefully read the **National Annexes and to contact their National Contact Points** (see Annexes for Topic A)

Applicants to Topic B are advised to carefully read the **RPO Annexes and to contact the corresponding Contact Points** (see Annexes for Topic B)

Further information on the ERA4CS Project, the Call and the follow-up is available at the ERA4CS website:

www.ERA4CS.eu

8. Background documents

1. The Strategic Research Agenda (SRA) and Implementation Plan of JPI Climate
2. Public Consultation on Update of the Strategic Research Agenda of JPI Climate
3. JPI Climate Governing Principles
4. The Fast Track activities and national dialogues carried out by JPI Climate WG2
5. The First Report of the Horizon 2020 Advisory Group for Societal Challenge 5
6. The European Commission Workshop "Towards a European Market on Climate Services", March 17th, 2015"
7. A European research and innovation Roadmap for Climate Services
8. Outcome of JPI-C Workshop "Towards open climate knowledge, Jan. 13-14th, 2015
9. Outcome of JPI-C Workshop "Demand driven Climate Services in Europe", June 12th, 2015
10. Previous JPI Climate Calls for proposals in 2013 and 2015
11. Activities by other initiatives, as Copernicus Climate Change Service, EIT Climate-KIC, H2020 SC5 "Climate Action, Environment, Resource Efficiency and Raw Materials"

9. Annexes for Topic A

Research Funding Organisations (RFOs) supporting Topic A

- Agence Nationale de la Recherche (ANR), France
- Bundesministerium für Wissenschaft, Forschung und Wirtschaft (BMWFW), Austria
- Service public fédéral de programmation politique scientifique (BELSPO), Belgium
- Deutsches Zentrum für Luft- und Raumfahrt EV (DLR), Germany
- Innovationsfonden (IFD), Denmark
- Ministerio de Economia y Competitividad (MINECO), Spain
- Environmental Protection Agency of Ireland (EPA), Ireland
- Nederlandse organisatie voor wetenschappelijk onderzoek (NWO), the Netherlands
- Norges forskningsrad (RCN), Norway
- Fundacao para a Ciencia e a Tecnologia (FCT), Portugal
- Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI), Romania
- Slovak Academy of Sciences (SAS), Slovakia
- Forskningsrådet för miljö, areella näringar och Samhällsbyggande (FORMAS), Sweden

For other information below see www.era4cs.eu :

National Annexes and Contact Points

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10. Annexes for Topic B

Research Performing Organisations (RPOs) supporting Topic B

- Universitaet Graz (Uni Graz), Austria
- Institut Royal Météorologique de Belgique (RMI), Belgium
- Global Change Research Centre CAS (CzechGlobe), Czech Republic
- Alfred-Wegener-Institut Helmholtz-Zentrum für Polar- und Meeresforschung (AWI), Germany
- Helmholtz-Zentrum Geesthacht Zentrum für Material- und Kustenforschung GMBH (HZG), Germany
- Danmarks Meteorologiske Institut (DMI), Denmark
- Agencia Estatal de Meteorologia (AEMET), Spain
- Barcelona Supercomputing Center - Centro Nacional de Supercomputacion (BSC), Spain
- Agencia Estatal Consejo Superior de Investigaciones Cientificas (CSIC), Spain
- Universidad de Cantabria (UC-IHC), Spain
- Universitat Rovira i Virgili (URV-C3), Spain
- Ilmatieteen Laitos (FMI), Finland
- Suomen ymparistokeskus (SYKE), Finland
- Bureau de Recherches Géologiques et Minières (BRGM), France
- Commissariat à l'Energie Atomique et aux Energies Alternatives (CEA), France
- Centre National de la Recherche Scientifique (CNRS), France
- Institut national de l'information géographique et forestière (IGN), France
- Institut national de la recherche agronomique (INRA), France
- Météo-France (Météo-France), France
- National Center for Scientific Research "Demokritos" (NCSRD), Greece
- Department of the environment, community and local government (Met Eireann), Ireland
- Fondazione Centro euro-mediterraneo sui cambiamenti climatici (CMCC), Italy
- Consiglio Nazionale delle Ricerche (CNR-DTA), Italy
- Koninklijk Nederlands Meteorologisch Instituut-KNMI (KNMI), the Netherlands
- Meteorologisk institutt (Met Norway), Norway
- Fundacao da Faculdade de Ciencias da Universidade de Lisboa (FFCUL), Portugal
- Administratia nationala de meteorologie R.A. (Meteo-Ro), Romania
- Sveriges Meteorologiska och Hydrologiska Institut (SMHI), Sweden
- The University of Reading (UREAD), United Kingdom
- Met Office (Met Office), United Kingdom

For other information below see www.era4cs.eu :

Research Performing Organisation Annexes and Contact Points

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