



Strengthening International Cooperation on climatE change REsearch

Work Package 3 - Deliverable 3.1
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**Identification of relevant international
networks, programmes and institutions
for JPI Climate research**

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Introduction

SINCERE aims to strengthen the European and international linkages to enhance climate research in a diversity of disciplines and sectors. To prepare the ground for enhanced international collaboration, SINCERE task 3.1 is providing this guiding document as a first deliverable. The specific focus of task 3.1 is to explore opportunities for synergies and other benefits with regard to international science networks with regard to the results of past and ongoing research and transnational collaboration in JPI Climate member countries. This guiding document will be helpful to identify the international science networks that could be approached to set-up the actual collaboration.

1.1 Objectives of SINCERE task 3.1

According to the SINCERE Description of Work, the general objective of task 3.1 is “to carry out activities to increase the use, the scale and the ambition of JPI Climate research projects by improving the connection between (trans-) national research projects in JPI Climate member countries with international science networks, enhancing the research impact on European and international scientific research and assessment programmes and initiatives.” These activities would raise the impact of JPI Climate-funded research by valorising the research in international research, policy and practice networks.

To define valorisation, we use the definition of valorisation of the European Commission, DG for Education and Culture¹: “the process of disseminating and exploiting the results of projects with a view to optimising their value, strengthening their impact, transferring them, integrating them in a sustainable way and using them actively in systems and practices at local, regional, national and European levels.” Therefore, we have expanded our inventory to a certain extent beyond merely the international science networks mentioned in the DoW and we have included some research funders and public and private users of climate research, notably those working in the areas of policy assessment and support, and capacity development. We view the objective of this particular task 3.1 in the context of a broader set of proposed objectives of internationalisation of JPI Climate research²:

- Promote greater complementarity and integration of JPI Climate research activities with similar activities of international partners to address societal challenges more effectively and efficiently;
- Improve the international visibility and impact of JPI Climate; and
- Facilitate the exchange of information and mutual learning with similar research initiatives in other regions of the world.

More specifically, this task 3.1 aims:

- to identify, and exploit synergies between national and transnational research projects to enhance participation in and uptake by international research and assessment programmes, climate services development, and setting of the research agenda.

¹ European Commission, 2014. European commission dissemination & exploitation of results https://issuu.com/matters6/docs/european_commission_-_dissemination/1

² Inspired by the FACCE-JPI European/International Strategy 2016-2020 (Lesser, 2015: FACCE Evolve Deliverable 3.1- Strategy for Cooperation and Coordination with European and International Initiatives and Partners).



- to increase the accessibility of climate change research in JPI Climate member countries by international scientific programmes, and to increase the use of climate change research by promoting excellence and relevance.

The results of this task 3.1 will not only feed into Tasks 3.2. (development of international policy and practice) and 3.3. (research visioning/agenda setting), but where relevant task 3.1 activities are implemented jointly with these other tasks. The rationale for this is that discussions about valorisation (current and past research) and potential future collaboration are usually closely connected, and require interactions with the same individuals in the associated networks, programmes and institutions. The results of this task will also feed the activities of other SINCERE work packages and we aim to optimise our work by seeking for synergies with relevant SINCERE work packages.

1.2 Approach of task 3.1 to develop the guiding document

For this inventory of international science networks, we use a systematic framework in which we connect the thematic focus of JPI Climate research with different categories of potential collaborators, and we identify the potential types of activities for enhanced collaboration.

Thematic focus of JPI Climate research

To connect as directly as possible to the actual activities of JPI Climate, we focus on the Action Groups, which currently represent the main working streams of JPI Climate. These Action Groups are further discussed in **section 2**.

Potential international science networks, programmes and institutions for collaboration with JPI Climate

The SINCERE DoW is unclear as to what "international" mean. For task 3.1, we define 'international' as both European and global and this deliverable focuses on both European and global institutions, with strong emphasis on the latter, because of the common interpretation of "international" in European programmes as 'global'.

Currently, JPI Climate collaborations at European and global level are generally organised in an ad hoc manner - no sustained collaboration yet exists. However, initial collaborations are taking place: JPI Climate collaborated with the Belmont Forum in the 2015 call on Climate Predictability and Inter-regional Linkages; discussions on potential collaboration have already been held also with JPI FACCE, Future Earth and ECRA. We distinguish international science networks, programmes and institutions in four areas:

- research, innovation and climate services;
- research funding;
- science assessment and policy and practice support;
- capacity development and climate science communication.

The international networks, programmes and institutions are further discussed in **section 3**.

Types of collaboration

JPI Climate members have funded a significant number of projects via Joint³ Calls and/or ERA-Net cofunds. This SINCERE task intends to enhance the relevance and value of these research projects by several collaboration mechanisms. Also, options will be identified for collaboration in new JPI

³ i.e. by the member states who collaborate and combine their funding to emit the call



Climate initiatives. Collaboration can be developed according to their type of collaboration and the intensity of the collaboration. In order of type of collaboration, they can be organized according to the research programming cycle (strategic, financial, and operational). In order of increasing intensity: one-way outreach, two-way data and information exchange and knowledge sharing, coordination of research programming, pragmatic temporary collaboration and alignment (e.g. joined call), institutional or strategic partnership (e.g., sustained knowledge hub). These types of collaboration are further elaborated in **section 4**.

Synthesis and conclusions

The information from the sections on thematic focus; networks, programmes and institutions; and types and modalities for collaboration is synthesized in **section 5**. Finally, in **section 6**, conclusions and recommendations for follow-up work by SINCERE and JPI Climate Action Groups are formulated.

1.3 Users of this guiding document

The first use of this guiding document is task 3.1 to explore which international networks, programmes and institutions to approach to explore collaboration. The guiding document can also be useful for the action groups to orientate their upcoming activities. We expect that this document also contain relevant information to implement task 3.2 and 3.3. International science networks, programmes and institutions might can use this document to detect their potential to collaborate with JPI Climate as well.

2 Thematic focus: themes for collaboration with international scientific networks

In this section, we explore the thematic focus of JPI Climate research. We rely on existing categorisation that can be found in JPI Climate Strategic Research and Innovation Agenda 2016-2025. The Strategic Research and Innovation Agenda 2016-2025 of JPI Climate sets out three overarching challenges and one strategic mechanism that together are intended to develop and support excellent, innovative, relevant and informative climate research. The three overarching challenges are: (a) Understanding the processes and consequences of climate change; (b) Improving knowledge on climate-related decision-making processes and measures; and (c) Researching sustainable societal transformation in the context of climate change. The aim of the Strategic Mechanism is to connect people, problems and solutions in a systemic approach. The framing of these challenges – especially the emphasis on connectivity and synergy - reflects the priorities and approaches of researchers, funders and practitioners in the countries participating in JPI Climate. As yet, JPI Climate does not have a formal Implementation Plan, but the work is organised in Action Groups, which addresses specific themes. These themes are further explored in this deliverable to identify opportunities for further collaboration. Action Groups (AGs) are appointed in principle by the [Governing Board](#) (GB) for a period of 4 years and are subjected to modification according to the GB decision. The AGs consist in national representatives of the JPI members. They represent national research funders organised in the JPI. The AGs prepare working papers on the operational and programmatic activities of the JPI that are to be adopted by the GB. SINCERE WP3 focuses on supporting the Action Groups active in 2018, which are:

Past calls:

- Societal Transformation in the Face of Climate Change - 2013 joint call A. Status of the projects: final stage.
- Russian Arctic & Boreal Systems - 2013 joint call B. Status of the projects: final stage.



- AG1: Collaborative Research action on Climate Predictability and Inter-regional Linkages - Objective: 2015 Joint Call with the Belmont Forum. Status of the projects: Ongoing

Current ERANETs:

- AG2: ERA4CS Climate Services - Objective: 2016 Joint Call and Additional Activities for joint vision and alignment. Status of the projects: Ongoing
- AG4: AXIS Cross-sectoral climate impact research and the economics of Vulnerability, Impacts and Adaptation (VIA) - Objective: Alignment of national programmes, 2017 ERA-NET for JPI Climate towards 2018 Joint Call. Status of the projects: Ongoing

Action Groups scoping new research:

- AG3: Green House Gases: emissions, removals and management systems (AG GHG) - Objective: Strategic alignment of national programmes and research infrastructures. Status of the projects: Ongoing
- AG5: Next generation of climate sciences in Europe (AG NGCS) - Objective: Strategic alignment of national climate sciences programming through road mapping (white papers) of research priorities, observation, models, data sharing and research infrastructures. Status of the projects: Ongoing
- AG6: Enabling societal transformation in the face of climate change (AG EST) - Objective: Promote the Social Sciences and Humanities as key disciplines in the sustainable societal transformation in the context of climate change. Status of the projects: Ongoing

	2013	2014	2015	2016	2017	2018	2019	2020
ST FCC								
RABS								
AG1 CBCP								
AG2 ERA4CS								
AG4 AXIS								
AG3 GHG								
AG5 NGCS								
AG6 EST								

Figure 1: Approximate timing of various JPI Climate initiatives

NB 1: No formal Action Groups have been assigned for the 2013 Joint Call on Societal Transformation in the Face of Climate Change and on Russian Arctic & Boreal Systems - follow-up work on these calls will be organised by the support by SINCERE WP3 partners to the Central Secretariat. It will be integrated with the work of the AGs 6 and 5 in relation to the 2013 Call on societal transformation and on Russian arctic and boreal systems, respectively.

NB 2: The current deliverable is a product of AG 7: Internationalisation of the JPI Climate (SINCERE) - Objective: Aims at implementing activities that further open JPI Climate to international cooperation partners, including in Latin America, Africa or Asia, and that encourage engagement of a wider group of EU Member States in this initiative. Status: Ongoing.



3 International networks, programmes and institutions for collaboration

3.1 Types of international networks, programmes and institutions

To meet the objectives articulated in the introduction, this deliverable focuses on international networks, programmes and institutions in four areas:

- International *research, innovation and climate services* programmes and networks (pan-European, global);
- International *research funding* networks;
- International *science assessment* programmes; e.g., assessment, policy and practice support (with task 3.2);
- International *capacity development and climate communication* programmes (with WP 5).

This categorisation is the result of our own understanding of different types of science networks by their main purposes.

3.2 Criteria for consideration in this inventory

There are many international networks, programmes and institutions. To determine the uptake of the respective international networks, programmes and institutions in the inventory, we make use of criteria. Furthermore, because of the limitations in the capacities of JPI Climate to establish and maintain effective collaborations, it is important to establish criteria for prioritizing collaboration. We have searched online via snowballing technique for international networks, programmes and institutions that: ²

- Have thematic overlap with the JPI Climate Strategic Research Agenda, as implemented by the JPI Climate Action Groups;
- Should be a key international players in the area of JPI Climate (e.g., in terms of R&D investments, research implementation, engagement in international policy support);
- Have an interest in and internal capacities for collaboration with JPI Climate, e.g. because of a concrete new initiative planned for the next 3-5 years;
- Should have processes for research programming, implementation and valorisation in place, which are compatible with those of JPI Climate.

Prioritizing criteria for collaboration are connected with the following success factors²:

- Collaboration needs to have add value (e.g. focus on an cross-disciplinary topic; generate additional data; facilitate data standardisation)
- The joint action is co-constructed from the start
- Genuine commitment exists at policy, funding and research performing levels
- Trust exists or is expected to be built
- Target audiences or stakeholders are similar

To establish effective and sustained collaboration, a number of potential barriers have to be addressed:

- Complexity of the European R&I landscape and funding modalities
- Difficulty in agreeing on a common topic and modality for collaboration
- Difference of timing in research programming/programme development
- Weak inter-operable funding procedures



- Lack of clarity regarding future funding priorities
- Legal hurdles (e.g., re. eligibility for ERA-NETs)
- Potential conflict of interest, e.g. networks of Research Performing Organisations also competing for (JPI Climate) research funding cannot be involved in call preparations
- Potential conflict of interest/loss of independence for some forms of collaboration with private sector (for-profit) organisations (e.g. ad odds with "open science" principles)

This deliverable focuses on international networks, programmes and institutions. Because the definition of 'international' is missing in the DoW, we consider this as both European and global and this deliverable focuses on both European and global institutions, with strong emphasis on the latter. Regional networks, programmes and institutions are not included – for example regional networks in Africa and Latin America are covered by WP4 in the Flagship initiatives. Similarly, sectoral networks, programmes and institutions (e.g., urban, energy, water, agriculture) are not covered because currently none of the JPI Climate Action Groups has a sectoral focus (thus thematic overlap is limited). JPIs Urban Europe, Water, FACCE, address such sectors. If Action Groups may develop a sectoral focus during the implementation of SINCERE, these could be added to the list with potential initiatives to collaborate with, at a later stage. While initially also various UN-bodies were suggested to be included, some were also excluded, because these institutions are too remote from science (e.g., UNFCCC as a negotiation body) or have formal procedures and time schedules (e.g., IPCC) which make collaborative activities not possible or desirable from that organizations' point of view. Some UN bodies with operational activities such as programme-wise capacity development, have been included.

Annex 1 gives a preliminary overview of networks, programmes and institutions with which JPI Climate and its Action Groups could explore collaboration.

3.3 Types of collaboration

The way in which JPI Climate can collaborate with different European and global networks, programmes and institutions has at least two dimensions: the phase in the research programming cycle and the intensity of the collaboration. The combination of these two determines what kind of specific form the collaboration can take.

Examples of collaboration

- Scoping workshops: workshop where the scope of a specific issue is discussed and settled
- Hackatons: 24 hours group work to solve a common challenge – bringing together expertise from different networks
- Joint foresight: use long term thinking to find solutions, strategies and pathway
- joint mapping: collectively mapping a problem or solution
- joint vision: building a common vision about a problem or solution
- Joint research agenda/implementation plan: making 1 research agenda for the two networks, or 1 implementation plan that will be used in the two networks
- joint P2P/PPP (e.g., in MoU), collaboration with non-EU countries: working together to approach and set-up collaboration with non-EU countries
- Coordination or synchronisation of national calls: collaborating to make sure that national calls are aligned and connected
- funding joint knowledge hub: bringing together knowledge in 1 hub and jointly fund it
- Thematic Annual Programming (alignment national calls)/ integrated joint research programme: based on themes, setting up a joint annual plan



- Joint calls: set-up 1 call for both networks
- Data sharing: enable the possibility to share data among projects
- Twinning projects: link comparable projects to encourage learning from each other
- Coordination/harmonisation of scientific techniques, data and methodologies: to make sure that scientific techniques, data and methodologies of comparable projects is harmonised
- Agreement on open access to national scientific research outputs
- Staff exchange: exchange staff from one project to another and vice versa
- Alliance of RPOs
- Common framework for monitoring, evaluation and impact assessment/joint project monitoring: develop a joint way of monitoring the projects
- Establishment of a Joint Research Centre/ shared research infrastructure
- Best practices on the use of research findings: learn from each other how to disseminate research findings
- Joint dissemination/policy briefs; develop joint policy briefs
- Joint upscaling and replication of research findings: collaborate between networks to scale up research results
- Paper writing – write shop: bring researchers together to make joint papers
- valorisation actions/joint exchange, learning and dissemination of research results towards policy makers
- Linked/integrated websites/newsletters/social media implementation
- Joint training for researchers, policy makers and practitioners (e.g., masterclasses; summer schools)

3.4 The phase in the research programming cycle

Interactions with different types of networks, programmes and institutions can be sought in different stages: strategic, financial, operational and outreach stage.

- For example (see Figure 2), in the phase of scoping new JPI Climate research activities (e.g., exploratory workshops), *strategic* collaboration with research funders, research coordination bodies and key stakeholder organisations (e.g. from business, civil society) can be relevant. The Action Groups on Enabling Societal Transformation, GHG Emissions and Carbon Neutrality, and New Generation of Climate Science are currently in this more strategic phase. Collaboration could focus on developing a joint strategic agenda for instance. In the *financing* phase (e.g., by joint calls), collaboration would focus mainly on collaboration with other funding bodies to join forces and bring financial resources together (e.g., with the Belmont Forum for the 2015 joint call).
- In the *implementation (operational)* phase, interactions between JPI Climate research programmes and associated projects with organisations involved in training researchers or sharing data and research infrastructure becomes relevant. ERA4CS and AXIS are currently in this phase.
- In the *outreach* phase, the emphasis would be on collaboration with regard to communicating and discussing findings with policy makers and advisors, and practitioners at various levels. This phase is now relevant for the projects of the 2013 and 2015 calls.



Figure 2. Alignment actions across the entire research and innovation programming cycle.

3.5 The intensity of the collaboration

The intensity of collaboration can also differ (see figure 3). The lowest intensity of collaboration is dissemination. This could include the dissemination of JPI Climate research reports with the international networks, programmes and institutions. Knowledge sharing could involve twinning projects that share data. Coordination is most of the time the level of the network or programme and could include coordination and alignment of activities with regard to specific groups of stakeholders. Collaboration is more intense and could include joint activities. Strategic partnership can emerge when there is a specific type of institutionalization like for instance a memorandum of understanding.



Figure 3: The intensity of collaboration

As discussed in Section 5 of this deliverable, the networks, programmes and institutions identified in our inventory have different relevance for collaboration with JPI Climate: while some may be interesting for dissemination of information in an ad hoc manner (Figure 2, left), for others rather intensive and sustained collaboration may be attractive and feasible (Figure 2, right). Table 1 gives some examples of the kind of collaborative actions for different phases of the research programming cycle and different intensities of collaboration. Depending on the discussions with potential collaborators, tools from this table (or additional ones) can be selected to reach specific objectives.



		Phase in research programming cycle			
		<i>Strategic</i>	<i>Financial</i>	<i>Operational</i>	<i>Outreach</i>
Intensity of collaboration	Dissemination				Best practices on the use of research findings, joint dissemination/policy briefs; joint upscaling and replication of research findings
	Sharing of data, information and knowledge			Data sharing, network of individual researchers	Paper writing – write shop; valorisation actions/joint exchange, learning and dissemination of research results towards policy makers
	Coordination	Scoping workshops, hackatons	Coordination or synchronisation of national calls, funding joint knowledge hub, Thematic Annual Programming (alignment national calls)	Twinning projects, coordination/harmonisation of scientific techniques, data and methodologies; agreement on open access to national scientific research outputs	Linked/integrated websites/newsletters/social media implementation
	Collaboration	Joint foresight, joint mapping, joint vision	Joint calls, joint funders network	Staff exchange, alliance of RPOs, common framework for monitoring, evaluation and impact assessment, joint project monitoring	Joint training for researchers, policy makers and practitioners (e.g., masterclasses; summer schools)
	Strategic partnership	Joint research agenda/implementation plan, joint P2P/PPP (e.g., in MoU), collaboration with non-EU countries	Joint calls, integrated joint research programme	Establishment of a Joint Research Centre, shared research infrastructure	

Table 1: Tool for exploring collaboration with international networks, programmes and institutions based on for different phases of the research programming cycle and different intensities of collaboration, including some ideas for joint activities



4 Synthesis of opportunities for enhanced international collaboration for JPI Climate research

In this section, the information from the three previous sections on themes for collaboration (and associated Action Groups); international science networks, programmes and institutions; and types of collaboration respectively, is synthesized in a preliminary manner to explore opportunities for collaboration.

First, we explore the match on themes. Table 2 clarifies the potential thematic connection between the international science networks, programmes and institutions and the Action Groups.

Then, we aim to determine the potential for collaboration. Therefore, we first assess in which phase of the research programming cycle the JPI Climate Action Groups are situated. (Figure 3)

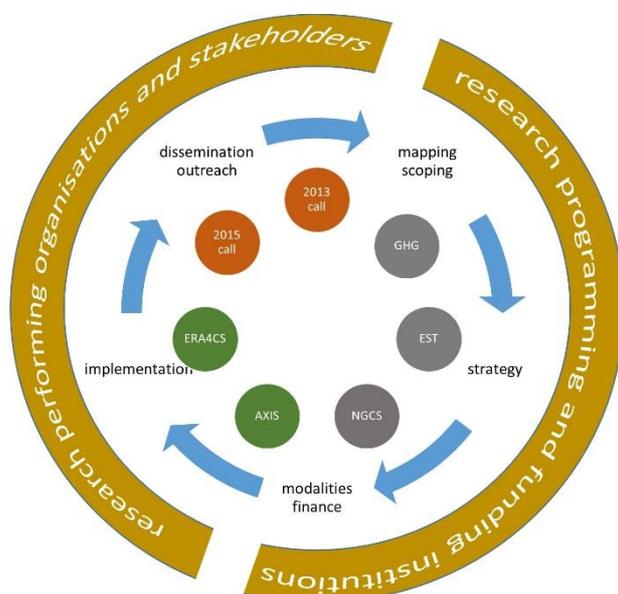


Figure 4: The JPI Climate Action Groups positioned in the research development cycle and the main types of institutions for collaboration (GHG = GHG emissions and carbon neutrality; EST = Enabling Societal Transformation; NGCS: Next Generation of Climate Science).

Then, we identify in Table 3 some initial ideas about the possible types of collaboration (strategic, financial, implementation, outreach and valorisation, see also Figure 2) that can be used by the Action Groups and the respective JPI Climate research projects with regard to some key international networks, programmes and institutions. If and when collaboration with other parties would be considered potentially advantageous for both sides, the examples in Table 1 can be considered to further specify what kind of specific tools or instruments can be used.

Theme	Type of Action Group	Research, innovation and climate services programmes	Research funding networks (with task 3.3)	Science assessment/policy & practice support programmes (public and private) (with task 3.2)	Capacity development and climate communication programmes (with WP5)
Societal Transformation in the Face of Climate Change	2013 Call A	ISSC , GCF	-	EEA/SOER	-
Russian Arctic & Boreal Systems	2013 Call B, with Russia	WCRP, CORDEX, GFCS, C3S, Future Earth	-	Arctic Council , EEA	-
Collaborative Research action on Climate Predictability and Inter-regional Linkages	2015 Joint Call with Belmont Forum	WCRP , CORDEX, GFCS, C3S, CMIP, Future Earth	Belmont Forum	EEA	Climateurope
ERA4CS Climate Services	ERANET Cofund 2016 Joint Call	C3S , ISIMIP, GCF, JRC, WCRP, GFCS	JPI Urban Europe	CKB , EEA, weADAPT	Climateurope
AXIS Cross-sectoral impact assessments	ERANET Co-fund	ISIMIP , C3S, JRC, GCF, IAMC	JPI Urban Europe, JPI Water, FACCE-JPI	EEA , CKB, weADAPT, GRF, IISD	-
GHG emissions, removals and management systems (lead task 3.3)	Action Group	Future Earth/GCP , IAMC, JRC	JPI FACCE , Belmont Forum, JPI Urban Europe	EEA , CDP , UN ENV, The Climate Group/2050 pathways, Carbon Trust, WRI, CKB, CAN, OECD, We Mean Business, WBCS, GCF	START, UNDP, CDKN, SSN
Mobilizing social science and humanities research in climate services for societal transformation (lead task 3.3)	Action Group	ISSC , Future Earth/IHOPE , Arctic Council, JRC, UNU	Belmont Forum , JPI Urban Europe , JPI FACCE, JPI Oceans	EEA , UN ENV, The Climate Group/2050 pathways, WeADAPT, OECD, CAN	START, RCCC, UNDP, UNITAR, UNISDR, SSN, GCECA, UN ENV/GAN, IISD, CDKN
Next generation climate science in Europe (lead task 3.3)	Action Group	WCRP , Future Earth , CMIP , CEOS, CORDEX , C3S, Arctic Council, GCF, ISIMIP, GFCS	Belmont Forum, JPI Oceans	EEA, CAN, Climate Group	RCCC, SSN, CDKN, START, UNENV, UNITAR, Climateurope

Table 2: Potential networks, programmes and institutions (4 types) for different JPI Climate initiatives and Action Groups. See for explanation acronyms Annex 1.

NB1 **Bold**: Tentative assessment of most relevant networks, programmes and institutions

NB2 Most global networks, programmes and institutions are only relevant for activities with a focus on developing countries

NB3 Consortia of Research Performing Organisations are only relevant for activities that do not pose any risk of conflict of interest

NB4 Disaster risk networks, programmes and institutions are only relevant for activities which a focus on extreme weather events and disaster risk management

NB5 The table does not include regional and sectoral initiatives, some of which are however included in Annex 1 for possible future reference.

Action Groups ->	Societal Transformation in the Face of Climate Change 2013 Call A	Russian Arctic & Boreal Systems 2013 Call B, with Russia	Collaborative Research action on Climate Predictability and Inter-regional Linkages 2015 joint call	ERA4CS Climate Services, ERANET Cofund 2016 Joint call	AXIS Cross-sectoral impact assessments, ERANET Cofund	GHG emissions, removals and management systems (lead task 3.3) Action group	Mobilizing social science and humanities research for societal transformation (lead task 3.3) Action group	Next generation climate science in Europe (lead task 3.3) Action Group
Networks, programmes, institutions								
Arctic Council	NA	Outreach/ valorisation	NA	NA	NA	NA	Strategic (scoping & agenda setting)	Strategic (scoping & agenda setting)
Belmont forum	NA	NA	Outreach/ valorisation	NA	NA	Strategic (scoping & agenda setting); funding	Strategic (scoping & agenda setting), funding	Strategic (scoping & agenda setting), funding
CAN	NA	NA	NA	NA	NA	Strategic (scoping)	Strategic (scoping)	Strategic (scoping)
Carbon Trust	NA	NA	NA	NA	NA	Strategic (scoping)	NA	NA
CDKN	NA	NA	NA	NA	NA	Strategic (scoping & agenda setting)	Strategic (scoping & agenda setting)	Strategic (scoping & agenda setting)
CDP	NA	NA	NA	NA	NA	Strategic (scoping & agenda setting)	NA	NA
CEOS	NA	NA	NA	NA	NA	NA	NA	Strategic (scoping & agenda setting)
CKB	NA	NA	NA	Implementation phase & outreach	Implementation phase & outreach	NA	NA	NA
Climateurope	NA	NA	Outreach/ valorisation	Outreach/ valorisation	NA	NA	NA	Strategic (scoping)
CMIP	NA	NA	Outreach/ valorisation	NA	NA	NA	NA	Strategic (scoping & agenda setting)
CORDEX	NA	Outreach/ valorisation	Outreach/ valorisation	NA	NA	NA	NA	Strategic (scoping & agenda setting)
ECMWF/C3S	NA	Outreach/ valorisation	Outreach/ valorisation	Strategic (scoping/agenda setting); implementation ()	Outreach/ valorisation	NA	NA	Strategic (scoping & agenda setting)
EEA	Outreach/ valorisation	Outreach/ valorisation	Outreach/ valorisation	Outreach/ valorisation	Outreach/ valorisation	Strategic (scoping)	Strategic (scoping)	Strategic (scoping)
Future Earth	NA	NA	Outreach/ valorisation	NA	NA	Strategic (scoping & agenda setting, e.g. GCP)	Strategic (scoping & agenda setting, e.g. IHOPE)	Strategic (scoping/agenda setting, e.g. ILEAPS, GECHH, SOLAS)
GCECA	NA	NA	NA	NA	NA	NA	Strategic (scoping)	NA
GCF	Outreach/ valorisation	Outreach/ valorisation	Outreach/ valorisation	Outreach/ valorisation; implementation	Outreach/ valorisation, implementation	Strategic (scoping & agenda setting)	Strategic (scoping)	Strategic (scoping)
GCOS	NA	NA	Outreach/ valorisation	NA	NA	NA	NA	Strategic (scoping & agenda setting)
GRF Davos	NA	NA	NA	NA	Outreach/ valorisation; implementation	NA	NA	NA
IISD	NA	NA	NA	NA	Outreach/ valorisation	NA	Strategic (scoping)	NA
IAMC	NA	NA	NA	NA	Outreach/ valorisation	Strategic (scoping & agenda setting)	NA	NA
ISIMIP (plus AgMIP if agri-focus)	NA	NA	NA	Strategic (scoping & agenda setting)	Implementation phase & outreach	NA	NA	Strategic (scoping & agenda setting)



Action Groups ->	Societal Transformation in the Face of Climate Change 2013 Call A	Russian Arctic & Boreal Systems 2013 Call B, with Russia	Collaborative Research action on Climate Predictability and Inter-regional Linkages 2015 joint call	ERA4CS Climate Services, ERANET Cofund 2016 Joint call	AXIS Cross-sectoral impact assessments, ERANET Cofund	GHG emissions, removals and management systems (lead task 3.3) Action group	Mobilizing social science and humanities research for societal transformation (lead task 3.3) Action group	Next generation climate science in Europe (lead task 3.3) Action Group
Networks, programmes, institutions								
ISSC	Outreach/ valorisation	NA	NA	NA	NA	NA	Strategic (scoping & agenda setting); funding; implementation	NA
JPI FACCE	NA	NA	NA	NA	NA	Strategic (scoping & agenda setting); funding	NA	NA
JPI Oceans	NA	NA	NA	NA	NA	NA	Strategic (scoping & agenda setting); funding	Strategic (scoping & agenda setting); funding
JPI Urban Europe	NA	NA	NA	Outreach/ valorisation (if urban projects)	Outreach/ valorisation (if urban projects)	Strategic (scoping & agenda setting); funding	Strategic (scoping & agenda setting); funding	NA
JPI Water	NA	NA	NA	NA	Outreach/ valorisation (if water projects)	NA	NA	NA
JRC	NA	NA	NA	Outreach/ valorisation	Outreach/ valorisation; implementation	Strategic (scoping & agenda setting); funding	Strategic (scoping & agenda setting); funding	iStrategic (scoping & agenda setting); funding
OECD	NA	NA	NA	NA	NA	Strategic (scoping)	Strategic (scoping)	NA
RCCC	NA	NA	NA	NA	NA	NA	Strategic (scoping)	Strategic (scoping)
SSN	NA	NA	NA	NA	NA	Strategic (scoping); Outreach/ valorisation	Strategic (scoping); Outreach/ valorisation	Strategic (scoping)
START	NA	NA	NA	NA	NA	Strategic (scoping); Outreach/ valorisation	Strategic (scoping); Outreach/ valorisation	Strategic (scoping)
The Climate Group	NA	NA	NA	NA	NA	Strategic (scoping)	Strategic (scoping)	NA
UNDP Climate Programme	NA	NA	NA	NA	NA	<i>Strategic (scoping); Outreach/ valorisation</i>	Strategic (scoping); Outreach/ valorisation	Strategic (scoping)
UN Environment adaptation, mitigation, GEO	NA	NA	NA	NA	NA	<i>Strategic (scoping); Outreach/ valorisation</i>	Strategic (scoping); Outreach/ valorisation	NA
UN Environment/GAN	NA	NA	NA	NA	NA	NA	Strategic (scoping); Outreach/ valorisation	Strategic (scoping)
UNISDR	NA	NA	NA	NA	NA	Outreach/ valorisation	Strategic (scoping); Outreach/ valorisation	Strategic (scoping)
UNITAR	NA	NA	NA	NA	NA	Outreach/ valorisation	Strategic (scoping); Outreach/ valorisation	Strategic (scoping)
UNU	NA	NA	NA	NA	NA	NA	Implementation	NA
WBCSD	NA	NA	NA	NA	NA	Strategic (scoping)	NA	NA
WCRP	NA	Outreach/ valorisation	Outreach/ valorisation	Outreach/ valorisation	NA	NA	NA	Strategic (scoping & agenda setting)
WeAdapt	NA	NA	NA	Outreach/ valorisation	Outreach/ valorisation	NA	Strategic (scoping)	NA
We Mean Business	NA	NA	NA	NA	NA	Strategic (scoping)	NA	NA
WMO/GFCS	NA	Outreach/ valorisation	Outreach/ valorisation	Strategic (scoping & agenda setting)	Outreach/ valorisation	NA	NA	Strategic (scoping & agenda setting)
WRI	NA	NA	NA	NA	NA	Strategic (scoping); Outreach/ valorisation	NA	NA

Table 3: Preliminary assessment of the possible types of collaboration for JPI Climate initiatives and Action Groups with international networks, programmes and institutions. Does not include regional and sectoral initiatives, some of which are however included in Annex 1 for possible future reference. **Bold** represents potential priority combinations. Will be confirmed and further developed in future interactions with the individual JPI Climate initiatives and Action Groups.

5 Discussion, Action Group options, conclusions and next steps

The analysis reveals the following observations that have to be considered when exploring potential for collaboration with the international scientific networks, programmes and institutions.

5.1 Discussion

Geographic scope. A large number of networks, programmes and institutions in the world focus on the developing world. The most climate change vulnerable groups are living in developing countries, and fast economic development presents challenges for climate change mitigation. Urbanization presents particular adaptation challenges. However, past and ongoing JPI Climate projects are focused on EU member states and are therefore of limited relevance for developing regions, possibly with a few exceptions. New JPI Climate initiatives could change that. Benefits could be an enhanced contribution of European climate research to international climate research, policy and practice, as well as allowing European researchers to benefit from expertise and good practice examples elsewhere.

In this report, we do not focus on transnational organizations of countries in Europe which are not member of JPI Climate, particularly in Central and Eastern Europe. If the JPI Climate GB would decide to emphasize on these regions, this can be added to the inventory at a later stage. Risks are the potentially burdensome administrative and practical procedures and a dilution of the already scarce research funds focusing on EU societal challenges.

Sectoral scope. Current, ongoing and planned JPI Climate initiatives tend to have a generic focus and do not address specific sectors. Depending on the future direction that JPI Climate AGs will take, sectoral networks, programmes and institutions that are not yet included in this inventory would be potentially relevant and provide access to relevant knowledge and opportunities to mobilize additional resources.

Connections with other Action Groups. In this deliverable, we focus on individual Action Groups. As the work in these Action Groups is evolving, overlaps are possible in terms of thematic focus as well as in terms of potential collaborations. For example, while the GHG/carbon neutrality AG currently focuses on GHG emissions verification and monitoring, its future plans include wider issues such as transformation pathways towards carbon neutrality, which falls within the scope of the EST Action Group. Research performed in AXIS and emerging from the work of the EST Action Group can be very relevant for the climate services developed in ERA4CS.

Different types of organizations. JPI Climate can in principle work with any organization in their remit area provided that they cover the same research themes and the result of the collaboration is not at odds with scientific quality and neutrality. Industry and NGOs (including advocacy groups) could be users of JPI Climate research output and inform AGs on knowledge needs as stakeholders, but may not be suitable partners for conducting academic research. UN and other intergovernmental organisations can be recipients of output from JPI Climate research, support scoping of future work, and partner with JPI initiatives on implementation of new research. However, formal procedures and specific time schedules associated with intergovernmental processes may make intensive collaboration difficult (e.g., IPCC, UNFCCC). (Networks of) research performing organizations which also compete for JPI Climate research funding can be involved in explorative workshops and



outreach, but not in preparing call details, a principle also applied in earlier JPI Climate initiatives.

5.2 Preliminary conclusions in terms of potential international initiatives for collaboration with the various Action Groups.

Collaborative Research action on Climate Predictability and Inter-regional Linkages (AG1)

This call aims to contribute to the overall challenge of developing climate services with a focus on inter-regional linkages role in climate variability and predictability. More specifically, this call and the funded projects focus on three topics: 1- Understanding past and current variability and trends of regional extremes; 2- Predictability and prediction skills for near-future variability and trends of regional extremes; and 3- Co-construction of near term forecast products with users. The 8 funded projects involve researchers from Brazil, China, France, Germany, India, Japan, Norway, Sweden, The Netherlands and the United Kingdom, with additional collaborators from Canada. The call emphasizes the low climate service capacity in developing countries but also the central role of climate services for developed and emerging countries referring to the WMO Global Framework for Climate Services, as well as the new global platform Future Earth. Therefore, it is evident that in terms of dissemination, outreach and knowledge sharing outside the EU, these two programmes are the most important. In Europe, the same may apply to the ECMWF C3S.

ERA4CS Climate Services (AG2)

Within the European Research Area (ERA), the ERA4CS Consortium is aiming to boost, research for Climate Services (CS), including climate adaptation, mitigation and disaster risk management, allowing regions, cities and key economic sectors to develop opportunities for developing and implementing climate services and strengthen Europe's leadership. International collaboration will be sought as ERA4CS additional activities, which will initiate "a strong partnership between JPI Climate and other key European and international initiatives (as Copernicus, KIC-Climate, JPIs, WMO/GFCS, Future Earth, Belmont Forum...) in order to work towards a common vision and a multiyear implementation strategy, including better co-alignment of national programs and activities up to 2020 and beyond." It is yet to be discussed to what extent SINCERE can support these plans which will also take place without SINCERE and considering the national programmes of the JPI Climate members. In addition to the programmes already listed above (Copernicus C3S, KIC-Climate, other JPIs, WMO/GFCS, Future Earth, Belmont Forum), we identified a few additional potentially interesting institutions. In Europe, also the EEA may be interested in ERA4CS outcomes, while connections with Climate Knowledge Brokers can conversely support ERA4CS researchers to enhance their capabilities to meet user climate service demands. At the global level, some ERA4CS cases may be interesting for weADAPT.

Green House Gases: emissions, removals and management systems (AG3)

The Action Group on Green House Gases: emissions, removals and management systems. A key element of the work of this AG will be to consider how the emissions pathways/scenarios, that are compatible with the Paris Agreement (PA) temperature goal and the required balance of GHG emissions and removals, can be achieved. It will aim to provide analysis relevant to the PA Global stocktake process. Also, it will act in collaboration with other AGs, notably the AG on social sciences and humanities, and on the next generation climate science in Europe. The initial focus of the AG is on verification of GHG fluxes and in that context it already has noted possible connections with ESA, GCOS, CEOS, JPI FACCE and JPI Oceans. Additional international initiatives with which this AG may want to connect with Future Earth (notably the Global Carbon Project). This AG also wants to move towards "the elaboration of strategic roadmaps and the promotion of scientific topics in this area, specifically on the Paris Agreement Greenhouse Gas balance, including carbon neu-



trality, associated emissions pathways/scenarios and approaches to overcome barriers to achievement of these.” Two workshops were already organised on to explore the concept of carbon neutrality. The first workshop explored scientific and technical aspects related to what a balance between sources and sinks of GHGs means in the Paris Agreement context. The second dealt with issues related to data for assessing progress towards achieving that balance. A 3rd workshop is being proposed focusing on the question what “carbon neutrality” (or similar objectives) mean in practice for countries, cities and communities and companies. Potential partners in answering this question would include CDP, Carbon Trust, WBCSD and the We Mean Business Coalition. In a next step, this path would not only require closer connections with the AGs EST and NGCS, but also the exploration of links with other institutions, such as, for example, the CKB for enhancing the science-policy-practice interface, EEA for using European findings from research enabled by this Action Group (e.g., a knowledge hub), OECD for economic analysis of carbon neutrality and the Climate Group (Under 2 Coalition) for identifying and filling knowledge needs with stakeholders. If capacity building on meeting long-term climate goals globally would be included, a multitude of international organizations would be candidates for collaboration, both in the UN system (UNDP, UNITAR, UN Environment, UNISDR) and beyond (SSN, CKDN, WRI).

AXIS, Assessment of Cross(X)-sectoral climate Impacts and pathways for Sustainable transformation (VIA, AG4)

The ERA-NET Consortium AXIS aims to promote cross-boundary, cross-community research with the overall goal to improve coherence, integration and robustness of climate impact research and connect it to societal needs. To this effect, AXIS aims to overcome boundaries between science communities through inter- or transdisciplinary research projects. AXIS themes are: Cross-sectoral and cross-scale climate change impact assessments; Integration of biophysical climate change impact estimates with economic models; and Developing pathways to achieve the long-term objectives of the Paris Agreement, taking into account interactions with SDGs. The 1st two of these themes developed from the work in ISIMIP, and thus collaboration with ISIMIP is an obvious choice for various kinds of collaboration, including outreach on project outcomes and scoping future work. The call text suggests a number of collaborations: the WCRP Coupled Model Intercomparison Project ([CMIP](#)) and its Vulnerability, Impacts, Adaptation and Climate Services Advisory Board (VIACS); the Coordinated Regional Climate Downscaling Experiment (WCRP [CORDEX](#)); the Global Framework for Climate Services ([GFCS](#)); the Integrated Assessment Modeling Consortium ([IAMC](#)); the Inter-Sectoral Impact Model Intercomparison Project ([ISIMIP](#)) and other relevant sectoral coordination frameworks, such as the Agricultural Model intercomparison and Improvement Project ([AgMIP](#)). Projects which will be selected for funding (in particular for the first two themes) may themselves connect to these programmes individually, or through the AXIS management, in a coordinated fashion, e.g. by twinning projects, organising joint events or otherwise. In addition, at the European level AXIS research results funded under these themes can be relevant for the Sectoral Information System component of C3S, for the periodic climate impact reports of the EEA and for JRC climate impact work. At the global level, in terms of outreach and dissemination project results can be relevant for networks, programmes and institutions such as IISD, WeAdapt, WRI, UNU/EHS. AXIS-projects funded under the 3rd theme can be strongly connected to the work of the GHG/carbon neutrality and Societal Transformation Action Groups, and link to external networks, programmes and institutions which address transformative pathways, such as EEA's SOER⁴ reports, UN Environment GEO, or the Climate Group.

Next generation of climate sciences in Europe and 2013 joint call B (AG5)

The Action Group on the Next Generation of Climate Sciences in Europe is already active for a number of years, from the first phase of JPI Climate within module 1 on the coordination of modeling and observations, and has members who are well-connected internationally. The potential from

⁴ The European Environment State and Outlook Report



SINCERE to propose new connections is therefore limited. A first action of this AG is to develop a Joint JPI Climate-JPI Oceans ERANET call. Task teams are elaborating further work on the following subjects: Carbon cycle (gather projects and map gaps), Sea level rise (Knowledge Hub), Climate extremes (map gaps), Predictability (Evaluate 2015 Belmont Forum call), Climate projections (Scope topic), Geo-engineering (map expertise and gaps: align national calls or knowledge hub), Research Infrastructures, Modeling (Prepare H2020 call on next generation climate models, Support ExtremeEarth Flagship, Workshop to investigate other actions), Research infrastructures/Observations (Data access, Strategy on new RI, Opportunities for field campaigns). Rather than identifying potential networks for all these themes, SINCERE may focus on two themes: Climate Extremes; and Sea Level Rise. For the latter, a knowledge hub is proposed and a workshop will take place before May 2019. Dependent on further discussions, other areas may become important. For example, the importance of integrating climate change adaptation and disaster risk management increases. This is exemplified by the large amount of international institutions working in this area and included in our inventory.

Enabling societal transformation in the face of climate change and 2013 joint call A (AG6)

The key aims of the Action Group on Enabling societal transformations in the face of climate change are to provide a platform for strengthening interdisciplinary research collaboration on and for societal transformation, climate services and climate decision-making by: ensuring that key insights from social and behavioural science research in these areas are connected, distilled and operationalized within and beyond JPI Climate; strengthening the capacity of SSH researchers to contribute to, shape and lead inter- and transdisciplinary research networks; building bridges to relevant research, policy and practitioner communities within and beyond JPI Climate, and contributing to the identification of topics for potential Joint Calls related to these interconnected research areas. The AG is planning to launch a new call in 2019. The predecessor of this Action Group has organised a joint call in 2013 on 5 topics. Five of six topics focused on the societal capacity and governance to respond to climate change and one on the role of knowledge and risk perception in climate-related policies. Three topics were not addressed: the normative and social justice dimensions of climate change, the role of economy and finance in societal transformation, and integrative studies on societal transformation, visions and pathways under climate change. The outcomes of the projects can thus be best disseminated to potentially interested institutions working on improving the societal capacity for transformation, including various UN agencies and NGOs. In particular, organisations that address the other four themes can be involved in future work, mobilising expertise in these areas, such as ISSC and Future Earth. It appears promising to explore collaboration with the ISSC, notably its Transformation to Sustainability programme, which shares many of its objectives with the JPI Climate Action Group. Interactions between projects to be funded by JPI Climate and ISSC can be encouraged. ISSC staff can be consulted when scoping new JPI Climate work. Also, collaboration with Future Earth projects may be explored, such as IHOPE. If new activities to be developed by JPI Climate would be oriented towards transformative action at the global level and associated capacity development, collaboration with several UN and non-UN institutions may be considered. Which ones would be most relevant in a climate context depends on the emphasis on either adaptation (climate and disaster resilience), or mitigation (transformed energy and food systems). It has already been suggested by the AG to explore collaboration with other transnational funding bodies, notably JPI Urban Europe, FACCE-JPI and BiodivERSA.

5.3 Conclusions

The suggestions in the tables are necessarily tentative, meant to inspire further discussions between the Action Groups and the respective international networks, programmes and institutions. The Action Groups are still in the process of developing their ideas. For example, it is not clear if they will decide to focus on particular sectors or regions, or if they would focus primarily on gener-



ating new knowledge through (applied) research, or also consider programmes focusing on research combined with training and capacity building or operational knowledge hubs, which would lead to a different set of potential collaborators. The programmes, networks and institutions with which JPI Climate could explore opportunities for cooperation can be divided in different categories:

- a. a sustained, strategic cooperation or dialogue at the level of *JPI Climate as a whole for more than one phase of the research programming cycle*: e.g., Future Earth, Belmont Forum, EEA; such collaboration can also be supported by including representatives in the STAB
- b. a sustained, strategic cooperation or dialogue at the level of *JPI Climate Action Groups for more than one phase of the research programming cycle*: e.g., C3S (ERA4CS), ISSC (AG EST), ISIMIP (AXIS); representatives of such groups can also be invited in steering/advisory committees of programmes to be set up by these AGs.
- c. ad hoc cooperation for the *strategic phase* of the research programming cycle: e.g., various stakeholder groups engaged in the implementation of the Paris Agreement (AG GHG) and climate research networks (AG NGCS) can be invited to exploratory/scoping workshops
- d. ad hoc cooperation for the *financing phase* of the research programming cycle: e.g., JPIs with which no sustained collaboration would be pursued can be contacted in early stages of developing joint calls
- e. ad hoc cooperation for the *implementation phase* of the research programming cycle: e.g., projects funded by JPI Climate could be twinned with similar projects funded by other agencies, or during project implementation collaboration can be sought with institutions working at the science-policy-practice interface, such as CKB (ERA4CS)
- f. ad hoc cooperation for the *outreach and valorisation phase* (uptake, training) of the research programming cycle: JPI Climate programmes that focus on international outreach can discuss opportunities for dissemination and capacity building with projects such as Climateurope, or with various UN and other international institutions.

This document is a living document. As the various Action Groups develop their work, the list of potential and actual collaborators and the possible modalities for collaboration will be adjusted and complemented. Because as yet little experience exists in JPI Climate on collaboration with international organizations, learning by doing is key. As the discussions in the Action Groups evolve and the scope of future JPI Climate work gets clearer, the specific requirements and opportunities for collaboration will also become clearer. For example, future work may move in a direction, which is sector-specific, necessitating the exploration of options for collaboration with sectoral networks, programmes and institutions. The SINCERE WP3 team will collaborate with and support the Action Groups, for example by facilitating discussions with potential partners via targeted teleconferences and workshops or by making use of events organized by others.

Various follow-up is proposed for JPI Climate activities, which are in different stages of development (see Figure 1). For past calls (2013 and 2015 calls), the emphasis will be on outreach and dissemination of research results to a target audience in science, policy and practice. It will have to be explored to what extent the projects associated to these calls can help identifying research priorities of Action Groups scoping new research activities, such as AG EST and NGCS. The same applies to ERA4CS projects, which are currently running, and AXIS projects which proposals were under review as this deliverable was finalized. Collaborations are already encouraged to be developed by the research teams in the call texts.

Different opportunities for collaboration can also be identified for different types of networks, programmes and institutions. E.g., research programming and performing organisations can be involved at the strategic level in the exploratory phase of identifying knowledge gaps. In the next phase, or possibly also in the same phase, funding agencies can be engaged to prioritise and scope new activities such as new joint calls in more detail. Programmes that use scientific information to inform policy development, such as scientific assessments, can also be involved in identification of



knowledge gaps, but also in the co-development of scientific output. Initiatives that focus on capacity development and putting knowledge into action are to be involved in the latter stages of implementation of research. In discussing international collaborations, a possible constraint that has to be taken into account is that JPOI Climate, unlike JPI Oceans, is not a legal entity and thus cannot enter into formal agreements,

5.4 Next steps

Events and opportunities to further explore collaboration with international partners include:

- September 2018: SINCERE will organize a series of interviews with representatives of key programmes and initiatives to discuss opportunities for collaboration, and a webinar to inform and engage such potential partners (action WUR with BOKU).
- Autumn 2018: opportunities have to be explored on how SINCERE can deliver the supporting mechanism for valorisation of the ERA4CS projects (action: BELSPO with ANR). One option to be explored is a series of webinars in spring 2019 in the context of Climateurope.
- 5 October 2018: the Mid Term Event of the 2015 JPI Climate/Belmont Forum Call on Climate Predictability and Inter-regional Linkages can be combined with the SPARC General Assembly; this will serve the purpose of connecting with the Belmont Forum as well as starting activities for valorisation and linking the 2015 JPI Climate call projects with SINCERE activities (Action: BELSPO). At their final meeting in 2019, the 2015 call projects could be asked to jointly draft a synthesis paper for both a policy and science audience.
- 10-11 October 2018, Brussels. Workshop on Enabling Societal Transformation. This workshop is a joint venture between the Action Group EST and SINCERE task 3.3, in which task 3.1 will be involved, to facilitate the input from results of the 2013 call on societal transformation (Action: WUR with BOKU).
- 17-19 October 2018: At the Climateurope Festival, some of the ERA4CS projects plus the 2013 and 2015 call results will be presented in a booth at the market place as a valorisation action. SINCERE WP 1, 2 and 5 are responsible for being present at the Climateurope Festival and will carry out these activities that will serve task 3.1. valorisation actions.
- 23-25 October 2018, Norrköping, Sweden: The 5th Nordic Conference on Climate Change Adaptation would have been an opportunity for dissemination of the results of the 3 projects funded by the 2013 Arctic call B but when discussions on SINCERE WP3 started the conference programme was already fixed. It can be checked with the project coordinators of the three projects if they are planning to attend individually. If opportunities for future collaborations may be identified or recommended. They can relate to the proposed work of the Action Group on the next generation of climate science, for example focusing on oceans). Ideas include the development of a synthesis paper with key results and remaining knowledge gaps; and a webinar in the context of Climateurope (Action: BELSPO).
- 12 -13 November 2018: There will be a Workshop together with the AG GHG on the concept of “Carbon Neutrality – Practitioners Experience”
- January 2019. A first out of three workshops on improved impacts and synergies with international programmes will be organized according to the DoW. It will have to be explored if this can be a separate event or if it can be organized at the occasion of another event, e.g. ECCA4 (see below).
- Before May 2019: WS on sea level rise and the establishment of a knowledge hub
- 28–31 May 2019, Lisbon, Portugal: the 4th ECCA conference could be used for organising a side event/special session at the conference (or after the conference) for showcasing JPI project results to the international networks (has to be organised efficiently, action WUR).
- End of 2019: AXIS – Kick off Meeting. Attendees can be informed at this early stage of their projects that SINCERE will be supporting the outreach of AXIS activities. Additionally, the ongoing AXIS call could be used for the Award Strategy (connecting with the projects in a



very early stage) - for this there could be synergies with Climate KIC (valorise research - Action WUR and BELSPO).

List of actions to support the Action Groups – based on Telcos about getting feedback and input on this report (August –September 2018).

2013 Joint Call – Societal transformation in the face of climate change & Russian arctic and boreal systems

Projects are in progress and mid-term report will be soon available.

Valorisation activities:

- The attractive presentation of research results for sharing with other networks in format of a factsheet/magazine/e-book – to disseminate it at ECCA2019; Climateurope Festival
- Climateurope context webinars

AG1: 2015 Joint Call with Belmont Forum - Collaborative Research action on Climate Predictability and Inter-regional Linkages

- 2015 JC Mid-term event in Kyoto: Objectives for JPI-Climate: use the opportunity provided by the SPARC General Assembly to discuss valorisation opportunities for the 2015 joint call. Discussion around linking results of projects – with SPARC – very concrete example of valorisation.
- News item on the results of the mid-term review meeting in Kyoto
- Project Reporting: The Belmont Forum has a reporting system and PIs have been requested to fill in the forms. These reports can be used to foster the valorisation
- Conference - valorisation activity: a conference/event can be organised in the last phase of the projects' implementation to connect with potential users, or connect to already planned events – before mid-2020. Dates/places around COP meetings in 2019 may be attractive. Collaboration can be sought with other institutions/programmes, e.g., the Climate Services Partnership. Also, a synthesis report or an e-book/magazine can be developed to support further valorisation. These output should feed into the work of the Action Group on the Next Generation of Climate Science in Europe, and possibly the Flagship Latin America in SINCERE.
- Collaboration/networks: Future Earth – the Belmont Forum is already connected with Future Earth and discussions have been held with FE representatives during the JPI Climate ScopingForum meeting, but no formal collaboration has as yet been agreed. Possibly, as discussed in D3.1, collaboration should be sought by developing concrete joint activities at the level of programmes under FE, e.g. the Global Carbon Project.

AG2: ERA4CS Climate Services

- Find connection with Copernicus
 - SINCERE to support collaboration: ERA4CS aiming to ensure PIs are fully informed about Copernicus possibilities - Copernicus to be informed about ERA4CS activities
 - Potential collaboration activity: 2019 fall event
 - Concrete action proposed by Petra: A joint event on mutual learning and creating synergies with the view of valorisation - link to the Copernicus Academy for a joint event
- Other JPis



- GFCS: interested but not sure how to collaborate/interact
- To make an overview of organisations that are comparable to Climate knowledge brokers to assess most relevant organisations (SINCERE support not immediately required)
- Climateurope:
 - ERA4CS midterm meeting (autumn 2019) could be coupled with Festival
 - Webinars: 2 ERA4CS projects (INSEPTION and COCLIME) interested to present at webinar (spring 2019, organised by SINCERE, more info (propose series of dates) will come by SINCERE mid October)
 - ECCA 2019: to attend by PI's and be part of the JPI Climate booth programme
 - SINCERE to support with collaboration events (e.g. Climateurope, ECCA 2019, Copernicus) - midterm meeting in autumn 2019
 - 26 PIs plus additional participants (wider extent/audience)
 - 2 days internal ERA4CS (exchange of information, monitor progress) plus 3rd day (collaboration with other activities)
 - Climateurope new working group on Climate Services (Inès) - first Telco September 2019, interested to attend ECCA 2019
 - Decision on midterm meeting (where to go) in November 2018 ERA4CS GA (Madrid)
- Interest in non-EU audiences : Several ERA4CS projects cover issues in Africa - more details when ERA4CS summary is completed) - potential to point out other regions of the world

AG3: GHG emissions, removals and management systems

- Support the organisation of 3rd workshop on Carbon Neutrality – November 12-13, 2019.
- Explore collaboration with CCAFS - CGIAR

AG4: AXIS - Cross-sectoral climate impact research and the economics of vulnerability, impacts and adaptation

- These proposals still have to be submitted – selection by February 2019.
- All projects will have budget to participate in 3 network events: kick off, mid-term and final
- Interesting networks that have been explored by AG AXIS:
 - Belmont forum without success – no co funding in AXIS
 - The world in 2050
- Requests to SINCERE for support:
 - Help to find a conference in 2019 that can be useful for the kick-off meeting (back-to-back) – for instance Climateurope Festival
 - Look for international research network that can organise conference together with ISIMIP and AXIS – mainly to solve the funding issues (third party)
- After all Telcos with AG leads – explore synergies for collaboration between the AG based on WP3 objectives
- AG AXIS itself:
 - Will try to connect with The world in 2050 + ISIMIP (once projects are selected an info overview plus invitation to collaborate can be communicated)
 - Present the selected projects to the TAB and ask the TAB to find international experts that could be invited to take part in the kick-off – SINCERE could support here as well, if needed/requested by the AG (to initiate collaboration e.g. with paper synthesis, networking)

AG5: Next generation of climate sciences in Europe



- Workshop on Sea-level rise knowledge hub in April 2019, to involve EEA and Copernicus
- Connect with Copernicus
- Elaborate activity on extremes – connecting CCA and DRR – to identify useful networks to connect with as well as niche.
- Make connection between AG, flagship and SINCERE (Networks)

AG6: Enabling societal transformation in the face of climate change

- Whitepaper Development: Joint SINCERE/ AG EST workshop on October 11-12th, 2018, BELSPO Brussels with the goal to develop a whitepaper that will be presented to JPI Climate GB in November 2018.
 - Aim: briefly summarize and connect findings from prior JPI Climate scoping activities in the areas of societal transformation, climate services and climate-related decision-making; advise on key research gaps, areas (topics, themes) that should be prioritized and funded and provide suggested framings that will attract a diversity of SSH and interdisciplinary perspectives in research addressing the identified themes.
 - Whitepaper is the base for a Call in the field of societal transformation and a COST Action supporting tasks of the AG EST (both planned for 2019)
 - SINCERE task 3.3. is fully supporting the developments and actions of the AG EST in providing human resources wherever needed (e.g. workshop organization, logistical support)
 - SINCERE task 3.1.:
 - Support AG with linking to previous JPI Climate working groups (2013, 2015 JC, and ERA4CS projects)
 - Help to synthesize, build on and connect previously fragmented research efforts within and beyond JPI Climate/member countries, e.g.:
 - Link to SINCERE activities in Latin America, Africa, and USA (US START programme; African Academy of Sciences, others)
 - JPI Climate (potentially) new member countries such as Czech Republic, Georgia, Estonia, etc.,
 - SINCERE WP2 WIDEN activities (Georgia) and Task 2.2 on Finance and WP4 on Africa and Latin America, USA initiatives
- Joint Call 2019: Call is planned to be launched in September 2019. The AG EST is evaluating a possibility for a Joint SSH-led call at the Belmont Forum meeting 16-18th October
 - SINCERE task 3.1. can help establish/facilitate that link (at a later stage of the whitepaper development)
- Cost Action 2019:
 - SINCERE task 3.3. is organizing the proposal writing and submitting of a COST Action application in September 2019 to be developed by AG co-leads, nominated experts, and others
 - SINCERE task 3.1. to support with networks (e.g. research organizations/institutes, universities, private sector/SMEs, consultancy firms, NGOs)



Annex 1

Targeted international programmes, networks and institutions. Suggestions or cooperation

Introduction

The following information is mainly derived from the websites of the organizations. The list should be kept at hand when reading the tables in the main document. Under 'Potential focus for cooperation' the list provides points of attention for the cooperation suggested in the two axes of Table 1 of the deliverable: phase of the research programming cycle (Strategic, Financial, Operational, Outreach and Valorization) and intensity of interactions (Dissemination; Sharing of data, information and knowledge; Coordination; Collaboration; Institutional partnership). When discussions would be initiated between JPI Climate and the programmers, networks and institutions in this annex, Table 1 gives some suggestions for concrete instruments that could be used. For some institutions, cooperation may be useful in more than one phase of the programming cycle. For example, funding agencies are primarily relevant in the phase in which funding is sought and arranged, but it is usually important to involve the same agencies also in the strategic phase selecting topics for future research. Partner organizations during the implementation phase (e.g., stakeholders) are often also important for the outreach and valorization phase.

The following types of networks are distinguished.

1. R&I Org.= Research and Innovation organization, includes Climate services. It can also be organization who provide training or education, e.g. UNITAR
2. Fund. Org. = Funding organization, not uniquely research funding.
3. PolSup. Org. = Policy support organization, includes knowledge assessment, includes government oriented as well as business oriented networks
4. CapDev. Org.= Capacity Development organization, includes dissemination

These can also be found in the columns of Table 2 and the rows of Table 3. Some organizations have a combined nature, e.g. they combine policy support and knowledge assessment with research and or innovation. In that case both codes have been added behind the name of the network. Organizations or networks combining existing knowledge into policy support tools are referred to as Policy support organization. In the main body of this deliverable (notably in Tables 2 and 3) we have not included regional or sectoral initiatives. Some are included in this Annex for possible future reference. The following acronyms are used for the JPI Climate Action Groups: EST (Enabling Societal Transformation), GHG (Greenhouse Gas management and carbon neutrality) and NGCS (Next generation of Climate Science).



AAS African Academy of Sciences (continental) (R&I Org.)

The [AAS](#) is a pan-African organization headquartered in Kenya, which aims to drive sustainable development in Africa through science technology and innovation. Climate change is one of the six focus areas of the current Strategic Plan of the AAS (2013- 2018). The AAS mission is to serve, first, as an honorific society with the primary function of honouring African science and technology achievers. Secondly, it wants to mobilize the entire African science and technology community, facilitating the development of scientific and technological capacity for science-led development in Africa, while promoting excellence and relevance in doing so.

The AAS has been repositioning itself to respond to the challenges Africa faces by developing its five-year strategy in 2013. The Academy's goal is to help shape Africa's agenda for science and contribute to developing the field. The AAS elects Fellows, who are proven science, technology and innovation leaders, policy advisors and thinkers most of whom live and work throughout the continent. The Academy also gives prizes, funds research that is relevant to Africa's challenges, and works with policymakers to develop science strategies. The AAS' work is covered in three areas: Recognising excellence; Implementing science, technology and innovation programmes; Providing think-tank functions. Possibly a new five-year strategy will be developed starting 2018.

Potential focus for cooperation: Interactions would be interesting for programmes targeting Africa in the strategic phase (e.g., joint knowledge agenda setting), programmes such as the Africa Flagship may be coordinated or aligned.

AfDB African Development Bank (Fund. Org.)

The overarching objective of the African Development Bank ([AfDB](#)) Group is to spur sustainable economic development and social progress in its regional member countries (RMCs), thus contributing to poverty reduction. The Bank Group wants to achieve this objective by mobilizing and allocating resources for investment in RMCs; and providing policy advice and technical assistance to support development efforts. The Bank also relates to the full set of objectives of the UN Sustainable Development Goals. Its ten-year strategy (2013-2022) focuses on two objectives to improve the quality of Africa's growth: inclusive growth, and the transition to green growth.

Inclusive growth: to achieve growth that is more inclusive, leading not just to equality of treatment and opportunity but to deep reductions in poverty and a correspondingly large increase in jobs. The Bank invests in infrastructure that unlocks the potential of the private sector, highlighting gender equality and community participation. It intends to help improve skills for competitiveness, ensuring that those skills better match the opportunities and requirements of local job markets.

Green growth: the objective is to ensure that inclusive growth is sustainable, by helping Africa gradually transition to "green growth" that will protect livelihoods, improve water, energy and food security, promote the sustainable use of natural resources and spur innovation, job creation and economic development. The Bank intends to support green growth by finding paths to development that ease pressure on natural assets, while better managing environmental, social and economic risks. Priorities in reaching green growth include building resilience to climate shocks, providing sustainable infrastructure, creating ecosystem services and making efficient and sustainable use of natural resources (particularly water, which is central to growth but most affected by climate change).

Potential focus for cooperation: Interactions may be interesting for programmes targeting Africa, such as the Latin America Flagship, in the financial phase (e.g., joint funding) but also establishing contact in the strategic phase could be relevant (knowledge agenda setting).

AgMIP, Agricultural Model intercomparison and Improvement Project (R&I Org.)

The [AgMIP](#) is an international collaborative effort to improve agricultural modeling and to understand climate impacts on the agricultural sector at global, national, and regional scales. AgMIP Impacts Explorer was created with support from the UK Department for International Development.



Regional farming systems face uncertain futures and policy-makers and stakeholders need actionable information in order to ensure future food security. AgMIP interdisciplinary teams in Sub-Saharan Africa and South Asia have completed studies on complex farming systems at the locations listed below. For each location, researchers evaluated projected climate change impacts and measured the vulnerability of the regional farming systems to those impacts. They also tested the value of adaptation packages developed for each region both in the present and future climate. AgMIP Regional Research Teams combine model simulations with expert knowledge to assess the vulnerability of these complex systems and test adaptations to improve farmers' livelihoods. Tools are the Regional Summary, Spatial dashboard and Data Explorer. AgMIP is connected to ISIMIP (see also there).

Potential focus for cooperation: Opportunities may exist to establish interactions in the implementation and outreach phases of the AXIS programme for those projects to be funded that focus on the agricultural sector. Interactions of different intensity could be considered, varying from exchange of information and data to more intensive collaboration like project twinning and joint paper writing. AgMIP could also contribute to strategic JPI Climate discussions for AXIS outreach, uptake and other follow-up, but also inform other Action Groups such as the Next Generation Climate Science or ERA4CS.

Arctic Council/AMAP (Pol.Sup. Org.)

The [Arctic Council](#) is a leading intergovernmental forum promoting cooperation, coordination and interaction among the Arctic States, Arctic indigenous communities and other Arctic inhabitants on common Arctic issues (sustainable development and environmental protection in the Arctic). Members of the Arctic Council are Canada, the Kingdom of Denmark, Finland, Iceland, Norway, the Russian Federation, Sweden and the United States. In addition, six organizations representing Arctic indigenous peoples have status as Permanent Participants. In addition, parties with observer status participate in the Arctic Council, e.g. inter-governmental, inter-parliamentary, global, regional and non-governmental organizations. These observers primarily contribute through their engagement in the Council at the level of Working Groups.

The standing Arctic Council Secretariat formally became operational in 2013 in Tromsø, Norway. The work of the Council is primarily carried out in six Working Groups. Among them are the *Arctic Contaminants Action Program (ACAP)* acts as a strengthening and supporting mechanism to encourage national actions to reduce emissions and other releases of pollutants; The *Arctic Monitoring and Assessment Programme (AMAP)* monitors the Arctic environment, ecosystems and human populations, and provides scientific advice to support governments as they tackle pollution and adverse effects of climate change. The *Conservation of Arctic Flora and Fauna Working Group (CAFF)* addresses the conservation of Arctic biodiversity, working to ensure the sustainability of the Arctic's living resources; The *Protection of the Arctic Marine Environment (PAME)* Working Group is the focal point of the Arctic Council's activities related to the protection and sustainable use of the Arctic marine environment. The *Sustainable Development Working Group (SDWG)* works to advance sustainable development in the Arctic and to improve the conditions of Arctic communities as a whole. The Council may also establish Task Forces or Expert Groups to carry out specific work. The Arctic Council regularly produces comprehensive, cutting-edge environmental, ecological and social assessments through its Working Groups. The Council has also provided a forum for the negotiation of three important legally binding agreements among the eight Arctic States. The Arctic Council is a forum; it has no programming budget. All projects or initiatives are sponsored by one or more Arctic States. Some projects also receive support from other entities.

Potential focus for cooperation: The outcomes of JPI Climate 2013 call B (and maybe ERA4CS and AXIS) can be potentially relevant for the Arctic Council, notably the Arctic Monitoring and Assessment Programme, suggesting that contacts are relevant in the outreach and dissemination phase of these JPI Climate programmes. Research results from other AGs (2015 call?) may only be relevant



if a link with the Arctic is evident. Other AGs (EST, NGCS) may be interested in the Arctic Council, if they consider research activities focusing on the Arctic, e.g. in the strategic phase (joint knowledge agenda setting).

Belmont Forum (Fund. Org.)

The [Belmont Forum](#) is an international partnership to mobilize funding of environmental change research and to accelerate its delivery in order to remove critical barriers to sustainability. Established in 2009, the Belmont Forum is a partnership of funding organizations, international science councils, and regional consortia committed to the advancement of interdisciplinary and transdisciplinary science. Forum operations are guided by the Belmont Challenge, a vision document that encourages International transdisciplinary research providing knowledge for understanding, mitigating and adapting to global environmental change. Forum members and partner organizations work collaboratively to meet the Belmont Challenge by issuing international calls for proposals, committing to best practices for open data access, and providing transdisciplinary training. To that end, the Belmont Forum is also working to enhance the broader capacity to conduct transnational environmental change research through its e-Infrastructure and Data Management initiative. Themes addressed by CRAs have included [Freshwater Security](#), [Coastal Vulnerability](#), [Food Security and Land Use Change](#), [Climate Predictability and Inter-Regional Linkages](#), [Biodiversity and Ecosystem Services](#), [Arctic Observing and Science for Sustainability](#), and [Mountains as Sentinels of Change](#).

Potential focus for cooperation: JPI Climate already collaborated with the Belmont Forum in the 2015 Joint Call, as result of collaboration in the strategic and financial phase. It can be explored if and if so how JPI Climate and Belmont can also collaboration on dissemination and uptake of research results, including connecting to the Belmont Forum's e-Infrastructures and Data Management Collaborative Research Action. JPI Climate may again work with the Belmont Forum on future research programmes from relevant AGs, connecting to the Belmont Challenge vision document and priority areas (e.g., follow-up Arctic call for "Arctic Observing and Science for Sustainability", or linking the EST AG to the human dimensions component of the Belmont Forum work). Because of aim of JPI Climate in its SINCERE project is to internationalize work, collaboration with the Belmont Forum beyond merely information exchange is desirable.

CAN Climate Action Network (Pol.Sup. Org.)

The Climate Action Network ([CAN](#)) is a worldwide network of over 1100 Non-Governmental Organizations (NGOs) in over 120 countries working to promote government and individual action to limit human-induced climate change to ecologically sustainable levels. CAN members work to achieve this goal through information exchange and the coordinated development of NGO strategy on international, regional, and national climate issues. Climate Action Networks (CAN Networks): Eastern Africa
[E Eur, Caucasus & Central Asia](#); [Europe](#), [Latin America](#), [Arab World](#), [Pacific Islands](#), [South Asia](#), Southern African Region. [South East Asia](#), [West & Central Africa](#), [Australia](#), [Canada](#), [China](#), [France](#), [Japan](#), [New Zealand](#), [South Africa](#), [Tanzania](#), [Uganda](#), [US](#). CAN has a Leadership Development Program for young experts among which one also finds those involved in education and/or research. With CAN being an advocacy network, for interactions with JPI Climate caution is required to maintain scientific objectivity.

Potential focus for cooperation: CAN is one of the key stakeholders engaged in international climate policy development from the NGO/advocacy side and while they are thus less appropriate for research collaboration, they can inform relevant JPI Climate AGs in the strategic phase on their



views on knowledge gaps/research priorities (e.g., GHG AG) but can also be targeted in dissemination of research results. Interactions would be of relatively low intensity (outreach and knowledge sharing).

Carbon Trust (Pol.Sup. Org.)

The [Carbon Trust](#) is an independent, expert partner of leading organisations around the world, helping them contribute to and benefit from a more sustainable future through carbon reduction, resource efficiency strategies and commercialising low carbon technologies. The Carbon Trust has approximately 180 staff with over 30 nationalities, based in the UK, China, Mexico, Brazil, India, South Africa and the USA. Its experts come from a diverse range of professional backgrounds, including engineering, policy, academia, and business management. The Carbon Trust has set up and invested in a number of innovative and pioneering low carbon companies. For business, government, and other professional investors, the Carbon Trust also arranges and advises on investments in innovative low-carbon companies. Over 400 corporates from around the world have already signed up to the Science Based Targets initiative (SBTi), committing to set targets on greenhouse gas emissions that are in line with what the science says is necessary to limit global warming to no more than 2°C above pre-industrial levels. These leading companies recognise that reducing their emissions in line with a climate science is not just the right thing to do for the environment; it can also be a genuine business opportunity.

Potential focus for cooperation: As one of an increasing number of private sector initiatives Carbon Trust can be invited to JPI Climate events to provide inputs in the strategic phase of research programming (e.g., for the Action Group on GHGs) from a stakeholder perspective, Carbon Trust partners may be part of research consortia in which participation with the private sector is requested. Level of interactions would be limited to mutual exchange of information and views on research priorities.

CDKN, Climate and Development Knowledge Network (Pol.Sup. Org.)

The Climate and Development Knowledge Network [CDKN](#) works under the leadership of South-SouthNorth (see below), together with Fundación Futuro Latinoamericano, Overseas Development Institute, and ICLEI–South Asia. CDKN has developed into a multi-donor funded entity to ensure the long-term sustainability of CDKN (e.g. funds by Governments of Norway and Sweden, the US Department of State and the International Development Research Centre (IDRC)). They seek new funding partners and collaborations.

CDKN supports decision-makers in designing and delivering climate compatible development by combining research, advisory services and knowledge management in support of locally owned and managed policy processes. CDKN works in partnership with decision-makers in the public, private and non-governmental sectors nationally, regionally and globally. CDKN can provide support through its alliance organisations and procure services from around the world. Within the broad scope of climate compatible development, CDKN works across four strategic themes: Climate compatible development strategies and plans; Improving developing countries' access to climate finance; Strengthening resilience through climate-related disaster risk management; and Supporting climate negotiators from the least developed and most vulnerable countries. CDKN's work contains both knowledge management and technical assistance and acts as a catalyst to maximise the impact of increasing flows of donor climate and development funding. CDKN ongoing work includes: Serving as the Co-Secretariat of the Low Emissions Development Global Partnership (LEDS GP), leading on knowledge management; Managing the Secretariat of the Africa LEDS Partnership; Managing the Coordination, Capacity-Building and Knowledge Exchange Unit of the Future Climate for Africa (FCFA) programme; Delivering the Climate Resilient Cities Initiative in Latin America and Implementing the Mobilising Investment for NDC implementation project in Ethiopia, Kenya, Bangladesh and Peru.



Potential focus for cooperation: For past and current JPI Climate work there are few opportunities because of the European focus of that work. For future activities of the AG EST and GHG, CDKN can be a collaborator on training and uptake (outreach and valorization phase), and help scoping international components of future activities (strategic phase), but only if such activities address vulnerability and mitigation in developing countries. This also applies to (follow-up in developing regions of) ERA4CS. For future African or Latin American Flagship programmes, CDKN could be an interesting potential partner. For the AG Next generation climate science in Europe CDKN could help defining knowledge questions relevant for developing countries.

CDP (Pol.Sup. Org.)

[CDP](#), formerly the Carbon Disclosure Project, runs the global disclosure system that enables companies, cities, states and regions to measure and manage their environmental impacts. It is comprehensive collection of self-reported environmental data in the world. CDP's network of investors and purchasers, representing over \$100 trillion, along with policy makers around the globe, use the data and insights to make better-informed decisions, CDP writes. CDP asks companies, cities, states and regions for data on their environmental performance, data are transformed into detailed analysis on critical environmental risks, opportunities and impacts, and finally investors, businesses and policy makers can use CDP data and insights to make better decisions, manage risk and capitalize on opportunities.

Potential focus for cooperation: In the strategic phase, CDP can inform the work of the Action Group on GHGs and carbon neutrality from a stakeholder perspective.

CEOS, Committee on Earth Observation Satellites (R&I Org.)

The [CEOS](#) Working Group on Climate, established in 2010, is the centre-piece of CEOS' contribution to climate change monitoring. This group, a joint group including CEOS Agencies and the Coordination Group for Meteorological Satellite (CGMS), coordinates and encourages collaborative activities between the world's major space agencies in the area of climate monitoring with the overarching goal to improve the systematic availability of Climate Data Records through the coordinated implementation and further development of a global architecture for climate monitoring from space. WGClimate facilitates the implementation and exploitation of Essential Climate Variable (ECV) time-series through coordination of the existing and substantial activities undertaken by CEOS Agencies and via strong collaboration with other CEOS Working Groups and Virtual Constellations.

Potential focus for cooperation: CEOS can inform the discussions in the NGCS AG in the strategic phase, possibly also exchanging views on open data policies.

CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) (R&I Org.)

[CGIAR](#) is a global research partnership focusing a food-secure future. Its science is carried out by 15 Research Centers in collaboration with hundreds of partners across the globe, to address the issues of global climate change, agriculture and food security. The CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) will address the increasing challenge of global warming and declining food security on agricultural practices, policies and measures through strategic, broad-based global partnerships. CCAFS is led by the [International Center for Tropical Agriculture \(CIAT\)](#). CCAFS coordinates with the other CGIAR research programs. All CGIAR centers have a stake in CCAFS, and numerous Centers have considerable climate change expertise and activities. CCAFS brings together strong international researchers in agricultural science, climate science, environmental and social sciences, to identify and address the most im-



portant interactions, synergies and trade-offs between climate change and agriculture. The program is carried out with funding support from governments and aid agencies, both through the CGIAR Fund and bilaterally. CCAFS intends to define and implement a uniquely innovative and transformative research program that addresses agriculture in the context of climate variability, climate change and uncertainty about future climate conditions. CCAFS is a partner of Future Earth.

Potential focus for cooperation: CCAFS could contribute to strategic JPI Climate discussions for AGs which consider links between agriculture and climate change, e.g. the African and Latin American flagship initiatives, possibly ERA4CS, EST and GHG (if agricultural GHG emissions and soils inks would be considered). Because this is the domain of FACCE JPI rather than JPI Climate interactions are probably useful only at a low level.

CKB, Climate Knowledge Brokers (Pol.Sup. Org.)

The Climate Knowledge Brokers ([CKB](#)) Group is a growing alliance of currently around 150 leading global, regional and national knowledge brokers specializing in climate and development information. It brings together a diverse set of information players, from international organisations to research institutes, NGOs and good practice networks, and covers the full breadth of climate related themes. In September 2015, the CKB released its Manifesto, a milestone publication and call for joint action to meet the climate knowledge challenges ahead in the post-Paris world. It sets out a vision of a world in which people make climate sensitive decisions fully informed by the best available climate knowledge. An annual highlight on the CKB calendar is the 'Workshop'. The Workshops provide an opportunity for knowledge brokers to meet, discuss developments in the field of climate knowledge brokering and provide peer support, for example in the very popular 'knowledge sharing clinics'. Participants are also given the chance to contribute ideas and experience to the future development of CKB activities – this year, the focus will be on developing methods for knowledge broker capacity building. Since 2014, the CKB is coordinated by the CKB 'Coordination Hub', which is run by REEEP⁵ with support from CDKN.

CKB provide different tools collaboratively developed by CKB members, with or without the cooperation of the CKB Coordination Hub. 'Climate Search' offers users a quick and easy way to find reliable resources on many topics related to climate change. It searches all portals included in the Knowledge Navigator Database, and offers translations and related search topics based on the Climate Tagger's Climate Thesaurus. The 'Knowledge Navigator' functions like a 'who is who' of climate information portals. Users can search a directory of more than 100 platforms, selected for the quality and reliability of their resources, and refine their search by geographical and thematic focus area. 'Climate Tagger' is a suite of tools which automatically organises and tags large volumes of content related to climate change and development. [weADAPT](#) is the new home of the CKB-platform.

Potential focus for cooperation: In the outreach phase, the outcomes of programmes like ERA4CS (and maybe AXIS) can be potentially relevant for the CKB. Conversely, CKB may be involved in JPI Climate activities (e.g. workshops with JPI funded researchers) that focus on maximizing relevance of research for policy and practice, involving PIs and other researchers in the implementation phase. The annual CKB Workshop may an event to link up to, e.g. with masterclasses or info-exchange and CKB have an interesting set of tools for knowledge brokering. While generally ad hoc interactions seem appropriate, at the programme level more intensive collaboration could be considered for JPI Climate programmes which specifically focus on interactions with users (such as ERA4CS).

Climateurope (R&I, Pol.)

Climateurope is the Europe-wide network for researchers, suppliers and users of climate information, a place to share best practices, gaps and recommendations and discover the state of the art

⁵ REEEP is an international multilateral partnership that works to accelerate market-based deployment of renewable energy and energy efficient systems in developing countries.



about climate observations, modeling and services, and an opportunity to actively interact with users and suppliers of climate information. Climateurope coordinates and supports Europe's knowledge base to enable better management of climate-related risks and opportunities, thereby creating greater social and economic value. Through significant and sustained investments from the European Commission and national governments, Europe is currently at the leading edge of Earth-System modeling and climate service development. This has the potential to directly improve the lives of European citizens who face the impacts of climate variability and extreme weather events and need to adapt to and mitigate a changing climate. Changes in the climate are affecting many sectors but the audience of decision- and policy-makers is so wide and varied that the requirements from each application can be quite different. There are a growing number of initiatives at the international and European level, from research networks of data providers, operational services, impact assessments, to coordination of government initiatives and provision of policy relevant recommendations; all provided on a wide range of timescales. The landscape of activities is very diverse.

Users and providers of climate information currently face significant challenges in understanding this complex landscape. If we are to maximize the benefits of the investments and provide European citizens with the information and technology to develop a climate-smart society, then a mechanism is needed to coordinate the impressive and varied research and innovation effort. The overall concept behind [Climateurope](#) is to create and manage a framework to coordinate, integrate and support Europe's research and innovation activities in the fields of Earth-System modeling and climate services. The purpose of this concept is to create greater social and economic value for Europe through improved preparation for, and management of, climate-related risks and opportunities arising from making European world-class knowledge more useable and thus more applicable to policy- and decision-making. This value will be felt by a range of actors including the public sector, governments, business and industry. [Climateurope](#) will provide a comprehensive overview of all the relevant activities to ensure the society at large can take full advantage of the investment Europe is making in research and innovation and associated development of services. Although [Climateurope](#) is a project funded by the European Commission under the Framework Program Horizon2020 (and in this Annex temporary projects are generally not included), we include the project because of its relevance for JPI Climate.

Potential focus for cooperation: In the outreach phase, the outcomes of programmes like the 2015 collaborative call and ERA4CS (and maybe AXIS) can collaborate with Climateurope to communicate research results. Conversely, the Climateurope team could be consulted on research priorities for the AG NGCS.

CMIP, Coupled Model Intercomparison Project (by WCRP) (R&I Org.)

Under the [World Climate Research Programme \(WCRP\)](#) the [Working Group on Coupled Modeling \(WGCM\)](#) established the Coupled Model Intercomparison Project ([CMIP](#)) as a standard experimental protocol for studying the output of coupled atmosphere-ocean general circulation models (AOGCMs). CMIP provides a community-based infrastructure in support of climate model diagnosis, validation, intercomparison, documentation and data access. This framework enables a diverse community of scientists to analyze GCMs in a systematic fashion, a process which serves to facilitate model improvement. Virtually the entire international climate modeling community has participated in this project since its inception in 1995. The [Program for Climate Model Diagnosis and Intercomparison \(PCMDI\)](#) archives much of the CMIP data and provides other support for CMIP. PCMDI's CMIP effort is funded by the [Regional and Global Climate Modeling \(RGCM\)](#) Program of the [Climate and Environmental Sciences Division](#) of the U.S. Department of Energy's Office of Science, [Biological and Environmental Research \(BER\)](#) program.

Coupled atmosphere-ocean general circulation models allow the simulated climate to adjust to changes in climate forcing, such as increasing atmospheric carbon dioxide. CMIP began in 1995 by



collecting output from model "control runs" in which climate forcing is held constant. Later versions of CMIP have collected output from an idealized scenario of global warming, with atmospheric CO₂ increasing at the rate of 1% per year until it doubles at about Year 70. CMIP output is available for study by approved diagnostic sub-projects. Phase three of CMIP ([CMIP3](#)) included "realistic" scenarios for both past and present climate forcing. The research based on this dataset provided much of the new material underlying [the Intergovernmental Panel on Climate Change \(IPCC\)](#) Fourth Assessment Report (AR4). They are now beginning the process towards the IPCC Fifth Assessment Report and with it the [CMIP5](#) intercomparison activity. The CMIP5 (CMIP Phase 5) experiment design has been finalized with the following suites of experiments:

- I Decadal Hindcasts and Predictions simulations,
- II "long-term" simulations,
- III "atmosphere-only" (prescribed SST) simulations for especially computationally-demanding models.

Potential focus for cooperation Interactions with CMIP would inform the exploratory work of the NGCS AG in the strategic phase, while CMIP guidance may play a role in harmonizing research and data management during the implementation phase of climate modeling projects.

CORDEX, Coordinated Regional Downscaling Experiment (R&I Org.)

The [CORDEX](#) vision is to advance and coordinate the science and application of regional climate downscaling through global partnerships. The international CORDEX initiative is a program sponsored by the World Climate Research Program (WCRP) to organize an internationally coordinated framework to produce improved regional climate change projections for all land regions worldwide. The CORDEX-results will serve as input for climate change impact and adaptation studies within the timeline of the Fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC) and beyond.

CORDEX Goals are:

1. To better understand relevant regional/local climate phenomena, their variability and changes, through downscaling;
2. To evaluate and improve regional climate downscaling models and techniques;
3. To produce coordinated sets of regional downscaled projections worldwide;
4. To foster communication and knowledge exchange with users of regional climate information.

Potential focus for cooperation: Interactions with CORDEX would inform the exploratory work of the NGCS AG and the Latin American and African flagship initiatives in the strategic phase, while CORDEX guidance may play a role in harmonizing research and data management during the implementation phase of climate modeling projects. Possibly, results from the Russian Boreal and Arctic systems projects (2013 call) and the Collaborative Research action on Climate Predictability and Inter-regional Linkages (2015 joint call) could be interesting for CORDEX.

ECF

The European Climate Foundation ([ECF](#)) – a 'foundation of foundations' – was established in early 2008 as a major philanthropic initiative to help Europe foster the development of a low-carbon society and play an even stronger international leadership role to mitigate climate change. The European Climate Foundation is an international organisation whose aims are to promote climate and energy policies that it says would greatly reduce Europe's greenhouse gas emissions and to help Europe play a stronger international leadership role in mitigating climate change. According to the group, key elements of a sustainable energy future include: a substantial increase in energy efficiency; a successful transition from conventional to renewable energy and maintenance of the earth's ecological systems and the life-supporting services they provide, and an equitable distribution of energy services to different segments of the population, both internationally and within nations. The European Climate Foundation is funded by the Nationale Postcode Loterij, The Arcadia Fund, The Children's Investment Fund Foundation, The ClimateWorks Foundation, The McCall



MacBain Foundation, Oak Foundation, The Stordalen Foundation and The William and Flora Hewlett Foundation.

Potential focus for cooperation: In the strategic phase, CDP can inform the work of the Action Group on GHGs and carbon neutrality from a stakeholder perspective.

ECMWF/C3S, Copernicus Climate Change Service (R&I and Pol.Sup. Org.)

The Copernicus Climate Change Service ([C3S](#)) is still in development and will combine observations of the climate system with the latest science to develop authoritative, quality-assured information about the past, current and future states of the climate in Europe and worldwide. ECMWF operates the Copernicus Climate Change Service on behalf of the European Union and will bring together expertise from across Europe to deliver the service. C3S will provide key indicators on climate change drivers such as carbon dioxide and impacts, for example, reducing glaciers. The aim of these indicators will be to support European adaptation and mitigation policies in a number of sectors. This service will deliver substantial economic value to Europe by: informing policy development to protect citizens from climate-related hazards such as high-impact weather events; improving planning of mitigation and adaptation practices for key human and societal activities; and promoting the development of new services for the benefit of society.

The service will build upon and complement capabilities existing at national level and being developed through a number of climate-change research initiatives. It will become a major contribution from the European Union to the WMO (see below) Global Framework for Climate Services and its Climate Monitoring Architecture. The service will provide comprehensive climate information covering a wide range of components of the Earth-system and timescales spanning decades to centuries. It will maximise the use of past, current and future earth observations (from in-situ and satellite observing systems) in conjunction with modeling, supercomputing and networking capabilities. This will produce a consistent, comprehensive and credible description of the past, current and future climate.

Although in development, the Copernicus Climate Change Service already has products and proof of concept systems in place for users to take advantage of. Through its 'Data Services' C3S is already providing comprehensive monthly data and maps for the average global and European temperatures. In the C3S 'sectoral information system', C3S is working with organisations from across Europe to develop and test a range of proof of concept projects to develop the service in a way that best suits the needs of users in a number of sectors such as energy, agriculture, water management and insurance. The 'Climate Data Store' (CDS) will provide software (its toolbox) to allow users to develop their own applications, making use of the CDS content to analyse, monitor and predict the patterns of both climate drivers and their impacts. The 'Evaluation and Quality Control' (EQC) projects of C3S aim to evaluate and foster the development of climate services. The EQC function assesses the technical and scientific quality of the service including the value to users. The various components are developed by C3S staff and a number of selected projects.

Potential focus for cooperation: The outcomes of JPI Climate programmes in particular ERA4CS, New Generation of Climate Science and maybe AXIS can be potentially relevant for C3S in the outreach phase, notably for the sectoral information system and maybe the Evaluation and Quality Control. Conversely, C3S staff can advise on priorities for these JPI Climate AGs. It is not clear of the ECMWF funding procedures offer opportunities for going beyond information exchange (e.g., joint funding or twinning climate services projects).

EEA (Pol.Sup. Org.)

The European Environment Agency ([EEA](#)) is an agency of the European Union, The EEA aims to support sustainable development by helping to achieve improvement in Europe's environment through the provision of information to policymaking agents and the public. The European Environment Agency provides sound, independent information on the environment for those involved in developing, adopting, implementing and evaluating environmental policy, and also the general



public. In close collaboration with the European Environmental Information and Observation Network (Eionet) and its 33 member countries, the EEA gathers data and produces assessments on a wide range of topics related to the environment. The European environment information and observation network (Eionet) is a partnership network of the EEA and its member and cooperating countries. Through Eionet, the EEA brings together environmental information from individual countries concentrating on the delivery of timely, nationally validated, high-quality data. This knowledge is made available through the EEA website and forms the basis of both thematic and integrated environmental assessments. This information serves to support environmental management processes, environmental policymaking and assessment, as well as citizen participation. In the area of climate change, various EEA initiatives may be relevant for JPI Climate and the other way around. In the area of adaptation, EEA periodically published science-based assessment reports about climate change impacts, vulnerability and adaptation. It also operates the European Climate Adaptation Platform ([Climate-ADAPT](#)), in a partnership with the European Commission (DG CLIMA, DG Joint Research Centre and other DGs). Climate-ADAPT aims to support Europe in adapting to climate change. It helps users to access and share data and information on: Expected climate change in Europe; Current and future vulnerability of regions and sectors; EU, national and transnational adaptation strategies and actions; Adaptation case studies and potential adaptation options; and Tools that support adaptation planning. In the area of mitigation, the EEA publishes the annual EU GHG emissions inventories and periodically reports about sectoral aspects of mitigation. Also relevant are the periodic State-of-the-Environment-and-Outlook (SOER) reports, comprehensive assessments of the European environment's state, trends and prospects, in a global context. [Societal transformation](#) plays a role in this context.

Potential focus for cooperation: The outcomes of past and current JPI Climate programmes (2013 and 2015 calls, ERA4CS, AXIS) are all expected to be potentially relevant for the EEA in the outreach and valorization phase. For future activities of the AGs EST and GHG in the strategic phase, EEA can contribute to the scoping from the perspective of its own activities, e.g. the SOER2020 and next Climate Change Impacts and Vulnerability reports. During the implementation phase of European projects dealing with climate change adaptation and mitigation, EEA could be invited in an advisory role.

Future Earth (R&I and Pol.Sup. Org.)

[Future Earth](#) is a global platform for international scientific collaboration, providing the knowledge required for societies in the world to face risks posed by global environmental change and to seize opportunities in a transition to global sustainability. Future Earth is at its core a 'federation' of projects and other initiatives related to Global Environmental Change.

The [Future Earth 2025 Vision](#) emphasises how greater interactions among disciplines and between research and societal partners, in both public and private sectors and civil society, can improve the role of research to identify solutions for societal challenges. The Knowledge-Action Networks aim to facilitate this by creating frameworks for applying these approaches both to research and to related activities that encourage engagement between diverse partners in addressing these challenges. These dynamic networks will be innovative: aiming to identify and fill knowledge gaps that are defined collaboratively by broad communities of experts within and outside of academia. Consistent with Future Earth's slogan "research for global sustainability," the main function of Knowledge-Action Networks is to generate high-quality actionable scientific knowledge through the integration of research and the involvement of societal partners, following the Engagement Guidelines of Future Earth. Knowledge-Action Networks aim to generate knowledge by pulling from many areas of both academia and society. They involve fundamental research, integration of natural and social sciences and humanities, co-designed research questions with users, co-produced outcomes, and broader engagement activities through state-of-the-art communications, dialogues and involvement at policy interfaces. The co-design process ensures that the Knowledge-Action Networks deliver the knowledge that society needs. Future Earth includes more than 20 research projects, some of which are more relevant for JPI Climate than others, notably the Global



Carbon Project (for the GHG AG), IHOPE (for the EST AG) and iLEAPS, GECHH and SOLAS (for the Next Generation of Climate Science).

Potential focus for cooperation: In the strategic phase of the work of the GHG, EST and NGCS AGs representatives of relevant Future Earth component projects can be invited to assist in joint knowledge agenda setting. Results from JPI Climate projects which have direct global relevance for the work of Future Earth may be disseminated via the Future Earth Newsletter or in relevant events of Future Earth and its composing projects. During programme implementation, it may be possible to identify opportunities for connecting the JPI Climate projects to other research performed in the Future Earth projects. Because of the broad coverage of climate issues covered by Future Earth and the interest of internationalizing JPI Climate opportunities for a more sustained strategic collaboration could be explored.

GCECA, Global Centre of Excellence on Climate Adaptation (Pol.Sup. Org.)

GCECA aims to accelerate climate adaptation by recognising, building and promoting excellence among all relevant stakeholder groups around the world. The Global Centre of Excellence on Climate Adaptation wants to focus its activities on those areas where acceleration is most needed: where action is most urgently required and where this is complementary to the work of others. It is an independent organisation, working across the Global North and South, with offices in the Netherlands. GCECA was initiated by UN Environment and the governments of the Netherlands, Japan and the Philippines and has established partnerships with global organisations, NGOs, governments, financial institutions, knowledge institutions and businesses to accelerate climate adaptation. GCECA works across different sectors and cross cutting issues to define and up-scale effective climate adaptation. It does this by: Mobilising and convening the global adaptation community through discussion briefs, workshops, webinars & conferences to set the global adaptation knowledge agenda; Recognising and building excellence by mining projects for best practices and lessons learned to share tools, guidance, metrics and lessons; and Promoting the uptake of adaptation excellence by contributing to capacity building and technical assistance by partners, connecting projects to resources and offering global outlooks and policy advice.

GCECA facilitates thematic groups on key issues to connect various stakeholders and identify opportunities and gaps in building excellence and accelerating climate adaptation. They will work on specific cross-cutting topics within various domains. Themes are: Risk Management, Planning, Implementation & Evaluation, Finance; Investment and Business; Institutions and Governance; Deltas; Cities; Infrastructure and Transport; and Food-Water-Energy-Health-Nexus.

Potential focus for cooperation: For past and current JPI Climate work there are few opportunities because of the European focus of that work and lack of attention to adaptation, in particular finance. For future activities of the AG EST in the strategic phase, GCECA may help scoping international components of future activities and may be a collaborator on training in the outreach phase. For future African or Latin American Flagship programmes, GCECA appears to be a potential partner. However, for all these AGs and programmes this only makes sense if such activities address vulnerability and adaptation in developing countries.

GCF, Global Climate Forum (R&I Org.)

The **Global Climate Forum** initiates and performs innovative research on climate change and related global challenges. It is an association of institutes, companies, NGOs and individual researchers, working in the network of governments, corporations and social movements that has formed around the issue of climate change. GCF tries to embed its research in long-term stakeholder dialogues, developing a variety of opinions. GCF-studies provide arguments for long-term climate mitigation and adaptation policies. These studies focus on problems which different stakeholders have differing views on. GCF's goal is to clarify differences and produce analyses that summarise and advance our state of knowledge in critical areas. The forum cultivates a pluralistic exchange in which different points of view are freely expressed and debated, on a basis of mutual respect.



Topics of interest for GCF joint studies are: questions related to green growth, global aspects of the interaction between climate change and the socio-economic system, regional impacts of climate change, adaptation and mitigation, economic and political instruments for controlling greenhouse gas emissions, technologies for reducing greenhouse gas emissions, such as more efficient energy use, the introduction of renewable technologies, CO₂ sequestration, integrated risk management related to climate change.

In 2001, a group of people representing European research institutes, NGOs, and businesses founded the European Climate Forum (not to be confused with the). Gradually, the network has expanded well beyond Europe, through linkages with the US, China, Australia and other regions of the world. Therefore, in 2011 the members' assembly decided to change the name of the organization to Global Climate Forum – GCF. GCF has considerable experience in participating in and organising national and international research projects and interdisciplinary science-stakeholder dialogues, organising international scientific conferences, and encompassing scientists, stakeholders (from energy, insurances, financial, computing and other economic sectors), NGOs, as well as policy makers through such activities.

Potential focus for cooperation: (The partners of the) GCF are also bidding for research funds, including those of JPI Climate (e.g., ERA4CS). In collaborating with GCF, therefore, conflict of interest has to be avoided. Nevertheless because of the overlap in research interests, GCF may be consulted in the strategic phase of the work of AGs such as NGCS, GHG and EST, taking into account the outcomes of projects that GCF has implemented. In the outreach phase (e.g. ERA4CS, AXIS), JPI Climate could make use of events organized by GCF. During implementation, JPI Climate projects may be linked to GCF projects.

GCOS, US GLObal Climate Observing System Program (R&I Org)

The mission of [GCOS](#) is to improve global atmospheric climate observing through a diverse and integrated set of global, regional, and bi-lateral observing activities. Its goals are:

- Monitoring the impacts of and the response to climate change
- Early detection of climate change due to human activity
- Improving data for impact analysis
- Reducing major uncertainties in long-term climate activities

The U.S. GCOS program has been one of the leaders in the global effort to maintain systematic climate observations and the program provides support in three-tiered approach of global, regional, and bi-lateral support. As part of the global support for GCOS, and in response to a U.S. Presidential Climate Change Research Initiative (CCRI), the U.S. has formulated a Framework for International GCOS Support plan. This plan focuses on the status of GCOS, what is needed to bring GCOS to its operational-design level, and the support needed from the scientific, donor, and host communities to implement selected improvements to it primarily through the support of GUAN and GSN stations, but also via support for the GCOS Lead Data Center at NCDC, the operation of the Global Observing System Information Center, as well as support to selected improvements in the Global Atmosphere Watch. On the regional level, via State Department supported bi-lateral climate agreements with Australia and New Zealand, the program supports the Pacific Islands regional GCOS program; with the Pacific being of critical importance to climate (e.g., source of El Nino) and given the general sparseness of data from this critical climate region, a strong regional program in support of GCOS is a benefit to the global climate observing effort. In the past year the U.S. (via the State Department) has entered into a number of important bi-lateral climate agreements. Specifically, the U.S. GCOS Program Office is involved in funding projects with Australia, China, New Zealand, and South Africa. These bi-laterals cover a wide range of projects dealing with climate prediction, ocean observing, stratospheric detection, water vapor measurements, capacity building and training, and communication of information, and will focus the attention and resources of all these countries towards developing a more sustainable and robust GCOS program.



Potential focus for cooperation: The main potential links between JPI Climate and GCOS are via the NFGCS AG, both in the strategic (agenda setting) and in the outreach phase (information exchange and data-sharing, e.g. with the Collaborative Research action on Climate Predictability and Inter-regional Linkages 2015 joint calls?). Verification of GHG emissions and sinks maybe a link with the GHG AG.

GRF, Global Risk Forum (Pol.Sup. Org.)

The [GRF Davos](#) promotes the worldwide exchange of know-how and expertise, creates solutions and fosters good practices in integrative risk management and climate change adaptation. The forum creates interaction between key players by connecting line ministries, disaster, risk and safety management authorities, academic institutions, practitioners, the private sector, practitioners, and the media together. The mission of the Global Risk Forum GRF Davos is to turn thoughts into action. GRF wants to promote the worldwide exchange of know-how and expertise, create solutions and foster good practice in integrative risk management and climate change adaptation. They aim for an improved understanding, assessment and management of disasters and risks that affect human safety, security, health, the environment, critical infrastructures, the economy and society at large.

Urban risk has become a major planetary concern. Climate change will worsen the situation. Thus GRF's main goals are: To bridge the gap between science and practice; To promote the worldwide exchange of know-how and experience; To target solutions and promote good practice in integral risk management and climate change adaptation; To provide and manage a network for decision-makers, practitioners and experts from politics, government, IGOs, business, science, NGOs, media and the public.

GRF Davos implements research projects with a focus on an integrative risk management approach. GRF particularly focuses on applied research and Integrative Risk Management in various areas, dissemination and knowledge transfer activities. They offer expertise. Besides the International Disaster and Risk Conferences IDRC, GRF Davos conducts a series of topic specific conferences within the broad spectrum of disaster and risk management. The conferences dealing with specific disaster and risk topics may be organized in Davos or elsewhere. The conferences held under the label GRF Summit will aim at the provision of solutions for global disaster and risk management and climate change adaptation, which needs the involvement of stakeholders of the public and the private sector.

Potential focus for cooperation: Ad hoc interactions with GRF could be useful for JPI Climate AGs which address risks of weather-related extremes, possibly AXIS. Especially in the outreach phase, its conferences could offer opportunities for exchange, or twinning to reach similar audiences (stakeholder of the public and private sector). GRF offers itself to be available as Partner for Project Proposals – in the implementation phase, consortia preparing JPI Climate proposals can consider GRF as any other RPO.

IAMC, Integrated Assessment Modeling Consortium (R&I Org.)

The Integrated Assessment Modeling Consortium (IAMC) is an organization of scientific research organizations that pursues scientific understanding of issues associated with integrated assessment modeling and analysis. The IAMC has three core missions.

1. The IAMC facilitates and fosters the development of integrated assessment models (IAMs), peer interaction and vetting of research associated with IAMs, and the conduct of research employing IAMs, including model diagnosis, intercomparison, and coordinated studies.
2. The IAMC promotes, facilitates and helps to coordinate interactions between IAMC members and members of other scientific research communities studying climate change such as the Climate Modeling (CM), the Impact, Adaptation, and Vulnerability (IAV), and the technology and engineering communities.
3. The IAMC provides a point of contact with other institutions and organizations that use the science results of the IAM community, such as the IPCC.



Overview of the IAMC: The Integrated Assessment Consortium (IAMC) is an organization of scientific research organizations. The IAMC was created in 2007 in response to a call from the Intergovernmental Panel on Climate Change (IPCC) for a research organization to lead the integrated assessment modeling community in the development of new scenarios that could be employed by climate modellers in the development of prospective ensemble numerical experiments for both the near term and long term. The first task of the IAMC was to organize the research community to provide four scenarios, characterized by four different levels of radiative forcing in the year 2100 (see Moss, et al., 2008) and including data on emissions and concentrations of greenhouse gases, short-lived species, and aerosols, as well as associated land-use and land-cover, which could be used by the climate modeling community to develop new ensembles for the near and long term. Those four scenarios are referred to as Representative Concentration Pathways (RCPs). In 2008 the IAMC met in Baden, Austria to discuss the development of the RCPs, which were at that time at a critical point in their development.

At and following the 2009 IAMC annual meeting, a more formal structure was proposed and adopted to allow for greater transparency, participation from the broad IAMC community, and flexibility to simultaneously undertake multiple activities and interactions. Eleventh annual meeting of the IAMC. [The Eleventh Annual Meeting of the IAMC](#) will be held in Sevilla, Spain from November 13-15, 2018. [Call for Abstracts OPEN](#). *Submission deadline: Before June, 30*.

Potential focus for cooperation: IAMC brings together RPOs in the area of integrated modeling of climate change. As such, in the implementation phase consortia preparing JPI Climate proposals can consider IAMC partners as potential consortium member or connect to their network. In the strategic phase, experts from IAMC may bring relevant expertise to inform discussions of AGs such as GHG and NGCS, e.g. from the IAMC scenario working group. In the outreach phase, results from AXIS projects may provide relevant input for the IAMC annual meetings. For IAMs used in JPI Climate research, the IAMC data management protocols would be relevant. Interactions would be at a relatively low level, dependent on opportunities emerging.

IDB Inter-american Development Bank (Fund. Org.)

[IDB](#) works to improve lives in Latin America and the Caribbean. Through financial and technical support for countries working to reduce poverty and inequality, the Bank wants to help improve health and education, and advance infrastructure. Its aim is to achieve development in a sustainable, climate-friendly way. The bank is a leading source of development financing for Latin America and the Caribbean, providing loans, grants, and technical assistance; and conducting extensive research. It wants to achieve measurable results and a high standard of increased integrity, transparency, and accountability.

The Bank's current focus areas include three development challenges: social inclusion and inequality, productivity and innovation, and economic integration. It contains three cross-cutting issues: gender equality and diversity, climate change and environmental sustainability; and it focuses institutional capacity and the rule of law.

The goals of IDB are : Reducing poverty and social inequalities; Addressing the needs of small and vulnerable countries; Fostering development through the private sector; Addressing climate change, renewable energy and environmental sustainability; and Promoting regional cooperation and integration.

Potential focus for cooperation: Interactions may be interesting for programmes targeting Latin America such as the Latin America Flagship, in the financial phase (e.g., joint funding), but also establishing contact in the strategic phase could be relevant (knowledge agenda setting).

IISD (R&I and Pol.Sup. Org.)

The International Institute for Sustainable Development ([IISD](#)) is an independent think tank championing sustainable solutions to 21st century problems. It wants to promote human development and environmental sustainability. IISD's considers what she considers the ' root causes' of the



challenges facing the planet: ecological destruction, social exclusion, unfair laws and economic rules, a changing climate. Through research, analysis and knowledge sharing, IISD wants to identify and champion sustainable solutions that make a difference. They report on international negotiations, conduct research, and want to engage citizens, businesses and policy-makers in developing sustainably. Established in 1990, IISD has offices in Canada, Switzerland and the United States. It is a registered charitable organization in Canada and has non-profit status in the U.S. IISD receives core operating support from the Government of Canada, The institute also receives project funding from governments inside and outside Canada, United Nations agencies, foundations and the private sector.

IISD's work is organized around six programs and a core set of strategic goals: Economic Law and Policy; Resilience; SDG Knowledge; Energy; and Water. In the area of climate change adaptation, IISD serves as the secretariat for the National Adaptation Plan (NAP) Global Network, has partnered in the development and use of the Community-based Risk Screening Tool – Adaptation and Livelihoods (CRiSTAL) planning tool and its specialized versions and provides secretariat support for the Prairies Regional Adaptation Collaborative. For mitigation, IISD experts help policy-makers identify and prioritize options for reducing emissions, such as through developing clean and renewable energy systems. IISD also supports developing countries in identifying and accessing financing for low-carbon development, by developing roadmaps for reform, engaging with policy-makers and the stakeholders they engage with, providing quantitative and qualitative analysis of policy options for energy and carbon mitigation, and identifying means of implementation.

Potential focus for cooperation: In the outreach phase, some of the output of AXIS may be interesting for IISD, while the IISD Sustainable Development context may make it a relevant stakeholder in the strategic phase for informing scoping activities, in particular of the AG EST (Enabling societal Transformation) and possibly the African and Latin American Flagships.

ISIMIP, The Inter-Sectoral Impact Model Intercomparison Project (R&I Org.)

[ISIMIP](#) offers a framework for consistently projecting the impacts of climate change across affected sectors and spatial scales. An international network of climate-impact modellers contribute to a comprehensive and consistent picture of the world under different climate-change scenarios.

ISIMIP offers a consistent framework for cross-sectoral, cross-scale modeling of the impacts of climate change. The key goal of ISIMIP is to contribute to the comprehensive (cross-sectoral) understanding of the impacts of politically and scientifically-relevant climate-change scenarios.

ISIMIP is organised into [simulation rounds](#), which are guided by a focus topic. For each round, a [simulation protocol](#) defines a set of common simulation scenarios based on the focus topic. Participating modeling groups are provided with a common set of climate input data, and other data (in some cases unique to one sector) necessary to ensure cross-sectorally consistent impacts simulations. Participation is open to all models capable of following the simulation protocol.

In the current simulation round, participating models cover impacts in the following sectors: Global water, Regional water, Agriculture, Global biomes, Regional forests, Fisheries and marine ecosystems, Permafrost, Energy supply and demand, Biodiversity, Health - heat-related mortality, Tropical cyclones.

Potential focus for cooperation: Opportunities may exist to establish interactions in the implementation and outreach phases of the AXIS programme. Interactions of different intensity could be considered, varying from exchange of information and data to more intensive collaboration like project twinning and joint paper writing. The ISIMIP coordination team could also contribute to strategic JPI Climate discussions for AXIS outreach, uptake and other follow-up, but also inform other Action Groups such as the Next Generation Climate Science or ERA4CS.

ISSC, International Social Science Council (R&I Org.)

The International Social Science Council ([ISSC](#)) was established in 1952 as an independent non-government organisation. It is the primary body representing the social, economic and behavioural



sciences at an international level. Its mission is to increase the production and use of social science knowledge to help solve global problems.

The ISSC is a membership-based organisation governed by a General Assembly and an elected Executive Committee. Our members include international professional associations and unions, regional and national social science research councils and academies, universities and institutes with major interests in the social sciences. The Secretariat in Paris manages a [dynamic portfolio of programmes and activities](#) aimed at strengthening the social sciences to help solve global priority problems and secure a sustainable future for everyone. The ISSC works to:

- identify and mobilise resources for international research priorities
- facilitate research collaborations across regions, disciplines and scientific fields
- foster innovative talent and build social science research capacities
- provide access to global social science expertise, resources and networks
- connect research, policy and practice.

A number of ISSC's programmes are potentially relevant for JPI Climate. E.g., every three years, the

World Social Science Forum gathers social scientists and practitioners from all over the world to discuss important societal challenges, take stock of social science contributions and capacities, and make recommendations for future research, practice and policy. **Transformations to Sustainability** is a unique international programme for integrated, solutions-orientated research on transformations to more sustainable and equitable societies around the world. The [Transformations to Sustainability](#) (T2S) programme supports research to help advance transformations to more sustainable and equitable societies around the globe. Funders of a recent call overlap with JPI Climate. The ISSC **World Social Science Fellows programme** nurtures a new generation of social scientists working on today's most pressing global problems. The ISSC is a member of the Governing Council of Future Earth. ISSC issues small seed grants to enable researchers to build or extend the international, interdisciplinary and transdisciplinary teams needed to prepare strong proposals for its calls.

Potential focus for cooperation: In the strategic phase of the work of the EST AG representatives of ISSC (in particular the Transformations to Sustainability programme) can be invited to assist in joint knowledge agenda setting, maybe also for mobilizing additional funds for calls, in particular engaging with other regions. In the outreach phase, results from JPI Climate projects (e.g., 2013 societal transformation call) which have direct global relevance for the work of ISSC may be disseminated via relevant ISSC events. During programme implementation, it may be possible to identify opportunities for connecting the JPI Climate projects to other research performed in ISSC projects, and connecting to the various networks of young social scientists. Because of the issues covered by ISSC (Transformations to Sustainability) and the interest of internationalizing JPI Climate opportunities for a more sustained strategic collaboration could be explored.

IUFRO The global network for forest science cooperation (2000)] (R&I and Pol.Sup. Org.)

"The International Union of Forest Research Organizations ([IUFRO](#)) is a global network for forest science cooperation. It unites some 15,000 scientists in almost 700 Member Organizations in over 110 countries, and is a member of ICSU (International Science Council)⁶. Scientists cooperate in IUFRO on a voluntary basis. The mission of IUFRO network is to promote global cooperation in forest-related research and to enhance the understanding of the ecological, economic and social aspects of forests and trees; as well as to disseminate scientific knowledge to stakeholders and decision-makers and to contribute to forest policy and on-the-ground forest management.

Potential focus for cooperation: IUFRO could contribute to strategic JPI Climate discussions for AGs which consider links between forestry and climate change, e.g. the African and Latin American flag-

⁶ICSU currently has 30 Scientific Union Members and 122 National Scientific Members covering 142 countries. In addition, ICSU has 22 International Scientific Associates. There are two categories of full Members: National Members and International Scientific Unions.



ship initiatives, possibly ERA4CS, EST and GHG (if forestry GHG sinks would be considered). Because this is not a priority area for JPI Climate, interactions are probably useful only at a low level, if at all.

JPI FACCE (Fund. Org. and R&I Org.)

The Joint Programming Initiative on Agriculture, Food Security and Climate Change ([FACCE-JPI](#)) brings together 22 countries who are committed to building an integrated European Research Area addressing the interconnected challenges of sustainable agriculture, food security and impacts of climate change.

FACCE-JPI provides and steers research to support sustainable agricultural production and economic growth, to contribute to a European bio-based economy, while maintaining and restoring ecosystem services under current and future climate change. It aims to do so with a strong trans-disciplinary research base, in addition to scientific ones, and with a creative approach towards the alignment of national programmes and the input of multiple actors and stakeholders.

The integrated FACCE-JPI strategic research agenda defines 5 core research themes:

- 1 Sustainable food security under climate change, based on an integrated food systems perspective: modeling, benchmarking and policy research
- 2 Environmentally sustainable growth and intensification of agricultural systems under current and future climate and resource availability
- 3 Assessing and reducing trade-offs between food production, biodiversity and ecosystem services
- 4 Adaptation to climate change throughout the whole food chain, including market repercussions
- 5 Greenhouse gas mitigation: nitrous oxide and methane mitigation in the agriculture and forestry sector, carbon sequestration, fossil fuel substitution and mitigating GHG emissions induced by indirect land use change.

Potential focus for cooperation: Because GHG emissions and sinks from agricultural lands are key to meeting the goals of the Paris Agreement, strategic cooperation with FACCE-JPI is relevant for JPI Climate, in particular for the GHG AG (joint knowledge agenda setting, possibly future joint calls or knowledge hubs). JPI Climate could conversely advise FACCE-JPI on climate knowledge priorities in relevant programmes, such as the proposed Food Systems ERANET or EJP Soils. In the strategic phase, expertise from FACCE can be relevant (ERAGAS, soil sinks). Cooperation could be framed as a sustained dialogue.

JPI Oceans (R&I and Pol.Sup. Org.)

The vision of the Joint Programming Initiative Healthy and Productive Seas and Oceans ([JPI Oceans](#)) is to enable Blue Growth and jobs, whilst fostering the health and productivity of seas and oceans and addressing the pressures of climate change and human impacts on the oceans. JPI Oceans intends to advocate the importance of the seas and oceans to the economy and society. It wants to support the development of effective policies with robust and independent scientific evidence.

Strategic domains are: Exploring deep sea resources; Technology and sensor developments; Science support to coastal and maritime planning and management; Linking oceans, human health and wellbeing; Interdisciplinary research for good environmental status; Observing, modeling and predicting ocean state and processes; Climate change impact on physical and biological ocean processes; Effects of ocean acidification on marine ecosystems; Food security and safety driving innovation in a changing world; Use of Marine Biological Resources through Development and Application of Biotechnology; Cross-Cutting Initiatives. The present Strategic Research and Innovation Agenda runs 2015-2020.

Potential focus for cooperation: Because oceans play a key role in the global climate system, strategic and maybe financial cooperation with JPI Oceans is relevant for JPI Climate, in particular for the GHG NGCS (joint agenda setting, possibly future joint calls or knowledge hubs). JPI Climate could



conversely advise JPI Oceans on climate knowledge priorities in their programmes. Cooperation could be framed as a sustained dialogue.

JPI Urban Europe (Fund. Org. and Pol.Sup. Org.)

[JPI Urban Europe](#) aims to connect public authorities, civil society, scientists, innovators, business and industry to provide a new environment for research and innovation. It offers experimental zones and long-term research infrastructures in a broad sense. It aims to develop knowledge, tools and platforms for dialogue on urban transitions. In the longer term, JPI Urban Europe wants to become “THE platform to create, combine, discuss and make available knowledge and robust evidence for sustainable urban solutions by setting common research and innovation priorities, improving and aligning R&I instruments, moderating science-policy processes and supporting transnational collaboration for local capacity building.”

The strategy process to update the JPI Urban Europe’s Strategic Research and Innovation Agenda takes place throughout 2018 and starts with the public consultation. The consultation aims at collecting stakeholder reflections on strategic issues related to urban transitions and European local priorities to drive sustainable urban development, e.g. in the Agora – JPI Urban Europe Strategic Dialogue on 24–25 April, Bucharest, Romania.

Potential focus for cooperation: Cities play a key role in reducing GHG emissions and are vulnerable to climate change while adaptive solutions often relate to urban design and green infrastructure. Therefore, strategic and maybe financial cooperation with JPI Urban Europe can be attractive for JPI Climate, in particular for the GHG and EST AGs (joint agenda setting, possibly future joint calls or knowledge hubs). JPI Climate could conversely advise JPI Urban Europe on climate knowledge priorities in their programmes, at the least contributing to the public consultation to shape the Strategic Research and Innovation Agenda for 2020 and beyond. Cooperation could be framed as a sustained dialogue.

JPI Water (R&I Fund. Org.)

[JPI Water](#) challenges for a changing world” aims to tackle the challenge of “Achieving sustainable water systems for a sustainable economy in Europe and abroad”. Water is vital and essential for a smart, sustainable and inclusive growth. Better results and optimization of public funds are obtained through the alignment of water research agendas and programmes at European and international level.

The organization is currently updating the Water JPI Strategic Research and innovation Agenda (SRIA 2.0) and invites input. To submit proposed Research and Development Needs/Gaps to the SRIA, an online template can be completed [here](#). The 2.0 SRIA sets out specific RDI priorities or areas where RDI measures are highly recommended within five main themes. It will be implemented during the period 2016-2019. JPI Water prioritizes the following core activities:

Exploratory workshops: thematic workshops to gather relevant experts in a specific topic, who will present and discuss their findings to other experts and stakeholders (end-users, policymakers and industry) as well as identifying knowledge gaps in a particular theme. The expected outputs include planning of joint or cofounded joint calls for proposals in a specific topic, their focus and urgency (i.e. when the call should be launched) and further elaboration of RDI needs. These workshops would typically take place before the joint call activities.

Transnational joint calls: competitive calls that can be funded with or without EC co-funding. Interested Water JPI members can take part as funding agencies in the call and so can other possible partners. The calls will result in the funding of transnational projects. To date, the type of projects funded can be described by: research spectrum: basic to applied research; indicative technology readiness levels (TRLs): up to TRL 4; indicative duration: 2–3 years; and indicative requested budget: up to €1.5 million.



These joint calls will promote multi-disciplinary work and encourage proposals with fundamental and/or applied approaches, stimulate the mobility of researchers and research infrastructure sharing within the consortia, and enhance collaborative research and innovation during the project's life and beyond.

Monitoring of Water JPI-funded projects. Water JPI-funded projects will be monitored following light management procedures. Research Project Consortia are required to attend the kick-off, mid-term review and final review meetings. Progress will be monitored by a follow-up group (composed of selected experts) on behalf of the call steering committee (national funding agencies involved in a specific call). In addition, Water JPI projects are encouraged to follow open data and open access guidelines. An impact assessment of the projects funded under a specific call will be carried out once the projects are completed.

Networking workshops (alignment of on-going transnational and national projects) and **Knowledge hubs** (alignment of communities on dedicated areas). Networking workshops will be thematic one-day workshops to foster an exchange of information among the projects, finding synergies and means of collaboration, discussing how project outcomes can be targeted at stakeholders and exploring the formation of future consortia. These workshops typically follow joint call activities. They will also contribute to the strategy activities of the Water JPI. Read more on the [2016 Networking Workshop](#) on "Emerging pollutants". Knowledge hubs are thematic networks consisting of selected research groups within a defined area of research targeted at stakeholders. These knowledge hubs are typically set up following joint call activities. They also contribute to the strategy activities of the Water JPI. In addition to improved communication and networking with stakeholders and the scientific community, the added value of the knowledge hub instrument includes establishing a critical mass of research and technological excellence, integration and sharing of knowledge, infrastructures, data and modeling tools, training and capacity building.

Potential focus for cooperation: In the implementation phase JPI Water's objective on sustainable water management may produce relevant opportunities for exchange with the AXIS Cross sectoral Impact network, with the AXIS network providing relevant inputs on climate impact insights influencing sustainable water management needs.

JRC, Joint Research Centre (R&I and Pol.Sup. Org.)

[JRC](#) is the European Commission's science and knowledge service which employs scientists to carry out research in order to provide independent scientific advice and support to EU policy, throughout the whole policy cycle. JRC creates, manages and makes sense of knowledge and develop innovative tools and make them available to policy makers. JRC anticipates emerging issues that need to be addressed at EU level and understand policy environments. The center collaborates with more than thousand organisations worldwide whose scientists have access to JRC facilities through various [collaboration agreements](#). JRC hosts specialist laboratories and research facilities and is home to thousands of scientists.

The center focuses ten research areas: agriculture and food security; economic and monetary union; energy and transport; environment and climate change; health and consumer protection, information society, innovation and growth, nuclear safety and security, safety and security, standards. In the area of climate change, JRC focuses on climate change impacts and landuse-related issues (Ispra) and economic modeling (Sevilla). It operates a number of centres which relate to climate change, such as the European Drought Observatory (EDO), the European Flood Awareness System (EFAS) and the Disaster Risk Knowledge Centre. The JRC PESETA project (Projection of Economic impacts of climate change in Sectors of the European Union based on bottom-up Analysis) aims to make a consistent multi-sectoral assessment of the impacts of climate change in Europe for the 2071-2100 time horizon.

<https://ec.europa.eu/jrc/en>



Potential focus for cooperation: The results of the ongoing JPI Climate projects seem of limited value for JRC. For the future, in the outreach phase results from ERA4CS and in particular AXIS can be relevant for JRC. Dependent on the focus of the forward looking Action Groups JRC may be consulted in the strategic phase for scoping on EST (e.g., if economics is included), GHG (e.g., land-use emissions) and NGCS (in support of climate impact analysis). Further discussions should clarify if a more sustained dialogue would be useful and feasible.

NSF (R&I Fund. Org.)

The National Science Foundation (NSF) is an independent federal agency created by US Congress in 1950 "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense..." NSF is vital because we support basic research and people to create knowledge that transforms the future. With an annual budget of \$7.5 billion (FY 2017), NSF is the funding source for approximately 24 percent of all federally supported basic research conducted by America's colleges and universities. In many fields such as mathematics, computer science and the social sciences, NSF is the major source of federal backing. NSF leadership has two major components: a director who oversees NSF staff and management responsible for program creation and administration, merit review, planning, budget and day-to-day operations; and a 24-member National Science Board (NSB) of eminent individuals that meets six times a year to establish the overall policies of the foundation. The director and all Board members serve six year terms. Each of them, as well as the NSF deputy director, is appointed by the President of the United States and confirmed by the U.S. Senate. At present, NSF has a total workforce of about 2,100 at its Alexandria, VA, headquarters, including approximately 1,400 career employees, 200 scientists from research institutions on temporary duty, 450 contract workers and the staff of the NSB office and the Office of the Inspector General.

As described in our strategic plan, NSF is the only federal agency whose mission includes support for all fields of fundamental science and engineering, except for medical sciences. We are tasked with keeping the United States at the leading edge of discovery in areas from astronomy to geology to zoology. So, in addition to funding research in the traditional academic areas, the agency also supports "high-risk, high pay-off" ideas, novel collaborations and numerous projects that may seem like science fiction today, but which the public will take for granted tomorrow. And in every case, we ensure that research is fully integrated with education so that today's revolutionary work will also be training tomorrow's top scientists and engineers. NSF's task of identifying and funding work at the frontiers of science and engineering is not a "top-down" process. NSF operates from the "bottom up," keeping close track of research around the United States and the world, maintaining constant contact with the research community to identify ever-moving horizons of inquiry, monitoring which areas are most likely to result in spectacular progress and choosing the most promising people to conduct the research. Directorates potentially relevant for JPI Climate include Social, Behavioural, and Economic Sciences (for the EST AG) and Geosciences (for the NGCS AG).

Potential focus for cooperation: NSF is the main public national funding body in the US. Currently it is unclear to what extent international research collaboration with the US is relevant for JPI Climate. The EST, NGCS and GHG AGs could consider cooperation with the US research community – US researchers interested in collaboration with JPI Climate project consortia may apply for NSF grants.

OECD, Organization for Economic Cooperation and Development (Pol.Sup. Org.)

Sustainable economic growth is the ultimate goal of the OECD. The OECD is an international organization and has 30 members. The OECD was established in 1961 with the following objectives: Promote Employment, Improve the standard of living, Facilitate world trade growth, and Maintain financial stability. OECD climate change work is focusing on how to move countries to a low-carbon and climate resilient pathway, and how to improve the effectiveness of the global climate regime. Key areas of work include mitigation (low-carbon transition) and adaptation on climate change,



GHG Measurement, Reporting & Verification, environmental-economic modeling, and climate finance.

<http://www.oecd.org/>

Potential focus for cooperation: While the outcomes of past and current JPI Climate programmes (2013 and 2015 calls, ERA4CS, AXIS) appear to be of limited relevance for the OECD, the focus of the AGs EST and GHG has more important overlaps. In the strategic phase, OECD could be consulted to support the scoping from the perspective of its own activities, e.g. the GHG monitoring and energy-transition work, mainly providing economic expertise.

RCCC, Red Cross Red Crescent Climate Centre (Pol.Sup. Org.)

The [Climate Centre](#) was established in 2002 by the Netherlands Red Cross (NLRC) and the IFRC (Framework for Climate Action Towards 2020), and is hosted by the NLRC in The Hague as a Public Benefit Organization under Dutch law. Its overarching mission is to help the Red Cross and Red Crescent Movement and its partners reduce the impacts of climate change and extreme-weather events on vulnerable people. The Climate Centre helps to fulfill the ground-breaking commitments on climate made at the 30th International Conference of the Red Cross and Red Crescent in November 2007 to raise awareness on climate change; provide humanitarian assistance; improve response and preparedness; decrease vulnerability of communities; integrate climate risk management into policy and planning; and mobilize human and financial resources.

A core objective is to make the best global scientific insights operable at the local level. Key elements include support for awareness-raising and capacity-building, especially in developing countries whose people are the most vulnerable to climate change. Various tools (guidelines, games) are developed and applied, always building on a sound scientific basis. The IFRC and its science and forecasting partners at the International Research Institute for Climate and Society (IRI) issue seasonal forecasts for precipitation worldwide for the next three months, and update them every month.

Potential focus for cooperation: For past and current JPI Climate work there are few opportunities because of the European focus of that work. For future activities of the AG EST, RCCC may be a collaborator on training and outreach, and help scoping international components of future activities, but only if such activities address vulnerability at local level in developing countries. In particular, for a future African Flagship programme, RCCC appears to be a potential partner, e.g. on seasonal forecasting/climate services. For the AG NGCS, RCCC could help defining knowledge questions relevant for developing countries.

SASSCAL Southern African Science Service Centre for Climate Change and Adaptive Land Management (R&I Org.)

[SASSCAL](#) is a joint initiative of Angola, Botswana, Namibia, South Africa, Zambia, and Germany in response to the challenges of global change. The current processes of global change, including demographic change, climate change and the globalisation of economic systems, are an enormous challenge for societies worldwide. Climate change is affecting the lives of millions of people in all parts of the world. Current projections on future developments indicate that there is an urgent need to develop concepts on how to adapt to these challenges in due course. Science and research offer proactive approaches to deal with the current and the expected changes. In this regard, the role of science is to be understood as a service to those societies that are most severely affected by climate change and to provide decision-makers with evidence-based results and advice. The establishment of SASSCAL adds value for the whole southern African region. The Centre is conceptualized and operationalised to complement the existing research and capacity development infrastructure and research initiatives in the region.



Potential focus for cooperation: Interactions would be interesting for programmes targeting Africa in the strategic phase (e.g., joint knowledge agenda setting), programmes such as the Africa Flagship may be coordinated or aligned.

SSN, Southsouthnorth (R&I, Pol.Sup. and Fund. Org)

[SSN](#) is a non-profit organisation operating from Cape Town, South Africa. SSN assists governments, the private sector and research institutions in understanding the economic, social and environmental choices that climate change presents. It collaborates extensively with partners who share SSN's vision of sustainable development. SSN captures and shares lessons as they emerge, to contribute to global knowledge on achieving climate-compatible development in practice. SSN believes that programmes involving partnerships with both the developed and the developing world can bring about lasting and effective change within societies. SSN is currently engaged in programmes in both Africa and Latin America that look at providing an alternative to the business-as-usual development path associated with high greenhouse gas emissions. Information on past programmes and projects that address both adaptation and mitigation can be found on [SSN's resources page](#). Since 2018, SSN leads the Climate and Development Knowledge Network (CDKN, see above). Its programmes are Mobilising Investment for NDC Implementation, Africa LEDS Partnership (AfLP), the Southern Africa Climate Finance Partnership, Future Climate for Africa (FCFA) and the Small Grants Facility.

Potential focus for cooperation: For past and current JPI Climate work there are few opportunities because of the European focus of that work. For future activities of the AGs EST and GHG, SSN can be a collaborator on training and outreach, and help scoping international components of future activities (strategic phase). For a future African Flagship programme, SSN appears to be a potential partner. For the AG Next generation climate science in Europe SSN might help defining knowledge questions relevant for developing countries.

START (R&I Org. and Pol.Sup. Org.)

[START](#) provides opportunities for training, research, education and networking that strengthen scientific skills and inspire leadership for advancing solutions to critical sustainability challenges. START works globally, connecting experts and organizations across countries and regions, with a particular focus on Africa and Asia. START was founded in 1992 to advance scientific capacity and promote understanding of global environmental change. Since its early days, START has worked with regional and international institutions to establish its working agenda.

Through the years, START has engaged over ten thousand researchers and practitioners. START aims at mobilizing country- and regionally-driven research collaborations dedicated to generating and disseminating scientific knowledge that informs decision-making and inspires solutions to global sustainability challenges. START has a number of programmes, most of which focus on Africa and Asia, specifically. In the programme Sustainable Urbanisation Global Initiative/Food-Water-Energy Nexus, START has worked with the Belmont Forum and the Joint Programming Initiative Urban Europe on a research call to bring together the fragmented research and expertise across the globe to address these challenges. The initiative seeks to improve access to resources and quality of life in urban areas, by focusing on the interactions between the food, water and energy sectors. Projects will start by 2018.

Another potentially interesting programme for JPI Climate is Transdisciplinary Research and Application. The complex challenges facing the world today call for a more effective approach to scientific research, involving a wider range of stakeholders working together to address common problems. Since 2014 START has worked with partners to strengthen capacity in development, use, and evaluation of TD approaches. For instance, with the Centre for Complex Systems in Transition at Stellenbosch University, Transdisciplinary Lab at ETH Zurich, International Social Science Council (ISSC), and the National Research Foundation of South Africa, START has led efforts to outline curricula for training courses on TD research and application. Trainings and strategic meetings



with global organizations are held regularly and an online TD research community is active on Future Earth's Open Network.

Potential focus for cooperation: For past and current JPI Climate work there are few opportunities because of the European focus of that work. For future activities of the AGs EST and GHG, the trans-disciplinary objectives of START make them a potential collaborator on training in the outreach phase. In the strategic phase, START can help scoping international components of future activities if capacity development would be a focus. For a future African Flagship programme, START appears to be a promising potential partner. For the AG NGCS START could help defining knowledge questions relevant for developing countries.

The Climate Group/Under 2 coalition (Pol.Sup. Org.)

The [Under2 Coalition](#) is driven by a group of ambitious state and regional governments committed to keeping global temperature rises to below 2°C. The coalition is made up of more than 200 governments who represent over 1.3 billion people and nearly 40% of the global economy. The Climate Group is the Secretariat to the Under2 Coalition and works with governments to accelerate climate action through three workstreams: 2050 'Pathways' Deep decarbonization pathway planning; supporting governments to develop robust medium and long-term (2050) emissions reduction plans in line with the goals of the Paris Climate Agreement; 'Policy Action' Scaling innovative policy solutions: replicating and spreading today's best climate policies and developing new policies to ensure full decarbonization over the long term; and 'Transparency' Mainstreaming transparency and reporting: supporting governments so they have the expertise and systems in place to assess their emissions accurately, track progress and ensure policies remain fit for delivering against climate targets. Established in 2015, the Under2 Coalition builds on the legacy of its forerunner, the States & Regions Alliance. It is an international non-profit, founded in 2004, with offices in London, New Delhi and New York. The Climate Group brings together powerful networks of businesses and governments, which shift global markets and policies, towards this goal. It acts as a catalyst to take innovation and solutions to scale and uses the power of communication to build ambition and pace, focusing on the greatest global opportunities for change.

Potential focus for cooperation: For past and current JPI Climate work there are few opportunities because they do not focus on the long-term climate goal. However, the focus of the Climate Group/Under 2 coalition is very much related to that of the EST and GHG AGs – they could be involved as stakeholder in scoping knowledge questions for these AGs in the strategic phase.

UNDP Climate Programme (Pol.Sup. Org.)

UNDP's support to countries on climate change and disaster resilience is shaped by three important global agreements: the Paris Agreement on Climate Change, the Sendai Framework on Disaster Risk Reduction, and the 2030 Agenda for Sustainable Development. [UNDP](#) works with countries to help them reduce greenhouse gases and advance a long-term goal of zero-carbon development. At the same time, UNDP works together with partners to adapt to the impacts of climate change, enhance access to clean energy, reduce the risk of disasters and, where needed, support resilient disaster recovery. Taken all together, these efforts are the path towards sustainable development that is risk-informed, zero-carbon and resilient.

In climate change [adaptation](#), UNDP works across six signature Climate Change Adaptation Signature Programmes to support vulnerable communities in building resilience to climate change: Supporting Integrated Climate Change Strategies; Advancing Cross-Sectoral Climate Resilient Livelihoods; Ecosystem-Based Adaptation; Fostering Resilience for Food Security; Climate Resilient Integrated Water Resource and Coastal Management; and Promoting Climate Resilient Infrastructure and Energy.

Working to put the Paris Agreement and Agenda 2030 into action, the UNDP [mitigation](#) programme equips governments and companies with the right tools and services to implement the



low-emission development targets which they laid out in their NDCs. UNDP thereby helps countries pursue a “whole-of-society”, integrated approach that is embedded within national systems to drive transformative sustainable development results. UNDP is doing so by capitalizing on the unique strengths that each party has to offer, working in close collaboration with development partners, and in contribution to the NDC Partnership, a global coalition of 80+ countries and institutions.

Potential focus for cooperation: For past and current JPI Climate work there are few opportunities because of the European focus of that work. For future activities of the AGs EST and GHG, UNDP can be a collaborator on training in the outreach phase, and in the strategic phase help scoping international components of future activities, but only if such activities address vulnerability at local level in developing countries. For future African or Latin American Flagship programmes, UNDP appears to be a potential partner. For the AG NGCS, UNDP staff could help defining knowledge questions relevant for developing countries. The UN nature of UNDP (member states) offers barriers and opportunities.

UN Environment (Pol.Sup. Org.)

[UN Environment](#) works on both adaptation and mitigation. (The Global Adaptation Network (UN Environment GAN) is discussed separately below). In the area of [mitigation](#), areas of work are: Climate mitigation finance; Emissions gap report; Energy; Low emission development; Climate initiatives platform and the Pledge pipeline.

The UN [Climate Change Adaptation Unit](#) focuses on 4 priority areas: 1. Ecosystem-based adaptation - Implementing projects that utilize biodiversity and ecosystem services as part of a holistic adaptation strategy; 2. Knowledge, analysis and networking - Spreading vital adaptation knowledge through well-connected global networks; 3. Access to adaptation finance - Helping countries to gain access to finance for building resilience and national capacity; 4. Adaptation policy and planning - Producing analyses, research and suggested targets for integrating adaptation into national policy.

The World Adaptation Science Programme ([PROVIA](#)) is a joint initiative between UN Environment and the World Meteorological Organization. The secretariat is hosted by UN Environment in Nairobi. With the coming into force of the Paris Agreement, the adaptation landscape has changed. Consequently, the World Adaptation Science Programme is being reshaped to better meet new demands and target its services to provide value added input to key international policy processes. A scoping meeting was held in Geneva in September 2017 to chart out the future of the programme and discuss how it can act as a catalyst in the delivery of highly demanded scientific information to Parties to the UN Climate Change Convention, the Intergovernmental Panel on Climate Change and other recipients of climate services. In 2013, the Programme became a component of the World Climate Programme and works closely with other research programmes such as the Global Framework on Climate Services. UN Environment is a founder of the biennial International Adaptation Futures Conference, which brings together research scientists, policymakers and practitioners from developed and developing countries to share knowledge about adaptation challenges and opportunities. The Conference is hosted by the World Adaptation Science Programme. Finally, the UN Environment Global Environmental Outlooks (GEOs) may be relevant from a societal transformation perspective. The upcoming [GEO-6](#), expecting to be launched in 2019, will build upon regional assessment processes and create a comprehensive picture of the environmental factors contributing to human well-being, accompanied by an analysis of policies leading to greater attainment of global environmental objectives and goals. The Global Environment Outlook is a consultative process, participatory process that builds capacity for conducting integrated environmental assessments and reporting on the state, trends and outlooks of the environment. GEO is also a series of products that informs environmental decision-making and aims to facilitate the interaction between science and policy.



Potential focus for cooperation: For past and current JPI Climate work, there are few opportunities because of the European focus of that work. For future activities of the AG EST and GHG, UN Environment can be a collaborator in outreach phase, and in the strategic phase help scoping international components of future activities, but only if such activities address vulnerability and adaptation in developing countries. Output of both AGs may also provide input into the GEO process.

UN ENV/GAN, the Global Adaptation Network (R&I Org. and Pol.Sup. Org.)

Founded in 2010, [GAN](#) provides a worldwide platform to distribute and exchange climate change adaptation knowledge in a variety of ways. It emphasizes the value of direct personal exchange and partnerships, often within particular regions of vulnerability. The secretariat of GAN is hosted by the UN Environment in Nairobi. This anchoring within the UN system bestows GAN with a global reach, drawing on esteemed partnerships in the interests of building resilience. As an umbrella organization spanning most continents, GAN is composed of many constituent regional networks and partners, each of which provide knowledge services in their respective regions. This GAN 'family' is a community that provides benefits to its members. Through these partners, GAN connects the global with the local.

The Global Adaptation Network works on a range of adaptation projects, connecting each one into a larger worldwide platform, including opportunities for networking, collaboration, knowledge-sharing, and the accessing of funding avenues. GAN transfers solutions producers and innovators to those who most need them.

The Global Adaptation Network hosts its own biennial Forums, bringing together experts in climate adaptation. The Forums are to influence climate policy at an international scale, and they encompass diverse themes, from climate risk insurance schemes to the engagement of the private sector.

The university-city partnership project, EPIC (Educational Partnerships for Innovation in Communities), has been working with GAN to extend their model of students and courses engagement on critical issues, to all continents around the globe. GAN has been developing the Lima Adaptation Knowledge Initiative (LAKI), which seeks to identify the most pressing gaps in adaptation knowledge. LAKI works through a participatory process of gap prioritization, accompanied by science-policy-practice dialogue, which catalyses the implementation of actions to meet these existing gaps.

Potential focus for cooperation: For past and current JPI Climate work there are few opportunities because of the European focus of that work. In the strategic phase, for future activities of the AG EST, GAN can be a collaborator on outreach, and help scoping international components of future activities, but only if such activities address vulnerability and adaptation in developing countries. For future African or Latin American Flagship programmes, the regional GAN networks REGATTA and AAKNet appear to be a potential partner. For the AG Next generation climate science in Europe GAN (LAKI) could help defining knowledge questions relevant for developing countries.

UNISDR (Pol.Sup. Org.)

[UNISDR](#) was established in 1999 as a dedicated secretariat to facilitate the implementation of the International Strategy for Disaster Reduction (ISDR). It is mandated by the United Nations General Assembly resolution to serve as the focal point in the United Nations system for the coordination of disaster reduction and to ensure synergies among the disaster reduction activities of the United Nations system and regional organizations and activities in socio-economic and humanitarian fields. It is an organisational unit of the UN Secretariat and is led by the UN Special Representative of the Secretary-General for Disaster Risk Reduction (SRSG). UNISDR defines itself through its multi-stakeholder coordination approach based on the relationships it has developed with national and local governments, intergovernmental organizations and civil society, including the private sector, and by its mode of operating through a network of global partners. UNISDR is focused on



achieving stronger recognition of disaster risk reduction and climate change adaptation as essential elements of climate risk management and sustainable development. The organization advocates for a synergy between disaster risk reduction and climate change. It supports these efforts by developing specific policies at the international level on the linkages between reducing disaster risk and responding to climate change, guiding national and regional action to integrate policies and practices, and strengthening capacities to support the integration of disaster reduction and climate change by all actors. UNISDR manages [PreventionWeb](#), the portal for disaster reduction knowledge management.

Potential focus for cooperation: For past and current JPI Climate work there are few opportunities because of the European and climate change focus of that JPI work. For the AG NGCS, in the strategic phase, UNISDR could help defining knowledge questions relevant for disaster risk assessment and management, in particular for developing countries. In the outreach phase, PreventionWeb is a vehicle to disseminate JPI Climate output that is relevant for disaster risk reduction.

UNITAR, United Nations Institute for Training and Research (R&I Org.)

An autonomous UN body established in 1963, UNITAR is a dedicated training arm of the United Nations System. It has the mandate to enhance the effectiveness of the UN through diplomatic training, and to increase the impact of national actions through public awareness-raising, education and training of public policy officials. UNITAR provides training and capacity development activities to assist mainly developing countries with special attention to Least Developed Countries (LDCs), Small Island Developing States (SIDS) and other groups and communities who are most vulnerable, including those in conflict situations. UNITAR's Green Development and Climate Change Programme offers a range of services, including executive training, capacity development for education and training institutions, support for national learning strategies, learning methodology development, and knowledge-sharing. Activities are carried out through partnerships with other UN organizations, bilateral development partners, as well as leading learning institutions and think tanks.

UNITAR's Green Development and Climate Change Programme focuses more on general capacity development and adaptation than on mitigation. Some cornerstones of that might be relevant for JPI Climate are UN [CC:Learn](#): Servicing a One UN approach to climate change learning and skills development including collaborative work in 8 partner countries and the Climate Change Capacity Development Network ([C3D+](#)): Applied research and knowledge sharing through a global network of Centers of Excellence. The Capacity Development for Climate Change Partnership (C3D+) supports research and training institutions in developing countries to identify, develop, test and apply new analytical tools and methods that can build the human and institutional capacities needed to deal with a future of increasing climatic uncertainty.

C3D+ focuses on nationally appropriate solutions and works through a global network of affiliations promoting the sharing of knowledge and skills through a South-South-North approach. It comprises five "service areas": Climate Science and Information Services (Climate science and information tools support the development of future climate scenarios and help frame the context for non-technical audiences); Climate Vulnerability and Adaptation Services (Adaptation tools and methods help decision-makers and analysts to identify vulnerabilities and define appropriate adaptation options); Climate Mitigation Services (Mitigation activities and tools address the connection between poverty alleviation, development and reducing greenhouse gases); and Mainstreaming Services (Decision support tools help policy makers to analyze and use multiple sources of information to promote climate sensitive and sustainable development); and Capacity Development (Capacity development activities support countries to use climate services, implement climate change actions, and engage in knowledge sharing activities). C3D+ sponsors a [Climate Information Platform](#) and has supported the development of [WeAdapt](#). (www.unitar.org)



Potential focus for cooperation: For past and current JPI Climate work there are few opportunities because of the European focus of that work. For future activities of the AGs EST and GHG, UNITAR may be a collaborator on training in the outreach phase, and in the strategic phase help scoping international components of future activities. For future African and Latin American Flagship programmes, UNITAR appears to be a potential partner. For the AG NGCS UNITAR could help defining knowledge questions relevant for developing countries.

UNU, United Nations University (R&I Org.)

The United Nations University ([UNU](#)) is a global think tank and postgraduate teaching organisation headquartered in Japan. The mission of the UN University is to contribute, through collaborative research and education, to efforts to resolve the pressing global problems of human survival, development and welfare that are the concern of the United Nations, its Peoples and Member States. In carrying out this mission, the UN University works with leading universities and research institutes in UN Member States, functioning as a bridge between the international academic community and the United Nations system. Through postgraduate teaching activities, UNU contributes to capacity building, particularly in developing countries. UNU brings together an international community of scholars engaged in research, postgraduate training, and dissemination of knowledge in furtherance of the purposes and principles of the United Nations, its Peoples and Member States. UNU serves as a think tank for the United Nations system — it is a platform for new and creative ideas, as well as academic and policy dialogue. To carry out its mission, UNU acts as a bridge between the international academic community and the United Nations system. In addition to the UNU Headquarters located in Tokyo, UNU has established fifteen institutes and programmes worldwide. The triple challenge facing societies today of structural transformation, inclusion and sustainability is the focus of UNU-WIDER's work programme 2014-2018. The United Nations University World Institute for Development Economics Research provides economic analysis and policy advice with the aim of promoting sustainable and equitable development for all. The Institute began operations over 30 years ago in Helsinki, Finland, as the first research centre of the United Nations University. Today it is a unique blend of think tank, research institute, and UN agency – providing a range of services from policy advice to governments as well as freely available original research.

The United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS) is a leading research and teaching institute based in Tokyo, Japan. Its mission is to advance efforts towards a more sustainable future, through policy-oriented research and capacity development focused on sustainability and its social, economic and environmental dimensions. UNU-IAS serves the international community through innovative contributions to high-level policymaking and debates, addressing priority issues for the UN system. The activities of the institute are in three thematic areas: sustainable societies, natural capital and biodiversity, and global change and resilience.

Other relevant programs maybe at the Institute for Environment and Human Security (EHS), Bonn. UNU-EHS (Bonn) conducts research on risks and adaptation related to environmental hazards and global change and promotes policies and programmes to reduce these risks. The institute also offers a joint Master of Science degree programme in “The Geography of Environmental Risks and Human Security” jointly with the University of Bonn. UNU-EHS is a first-class research institute contributing to global sustainability research. Its approach of bringing international and interdisciplinary research teams together and cooperating with research centres around the globe creates innovative knowledge. Possibly administrative barriers apply for cooperation. There are more formal cooperations with associated research institutes.

Potential focus for cooperation: In the implementation and outreach phases, projects funded by JPI Climate may connect to UNU activities to reach out to other regions, e.g. in the areas of societal transformation (UNU-EHS, UNU-IAS, UNU-WIDER).



UCCRN, Urban Climate Change Research Network (UCCRN)

[UCCRN](#) established regional hubs around the world promoting enhanced opportunities for new urban climate change adaptation and mitigation knowledge and information transfer. The Urban Climate Change Research Network (UCCRN) is a consortium of over 800 individuals dedicated to the analysis of climate change mitigation and adaptation from an urban perspective. UCCRN members are scholars and experts from universities and research organizations. They span a broad range of expertise including climate scientists; urban heat island and air quality experts; climate change impact scientists; social scientists, including political scientists, planners, and economists; and urban designers and planners. As cities lead on climate change, the demand for knowledge grows. To support appropriate city-level action, UCCRN was established in May 2007 during the C40-Large Cities Climate Summit held in New York City. UCCRN, an initial group of 100 researchers in 60 cities, was created to provide knowledge to the C40 cities and other urban decision makers to enhance climate science based policy-making.

Potential focus for cooperation: UCCRN could contribute to strategic JPI Climate discussions for AGs which consider the role of cities in climate change, e.g. ERA4CS, EST and GHG (if urban GHG emissions and climate policies would be considered). Because this is the domain of JPI Urban Europe rather than JPI Climate interactions are probably useful only at a low level.

WASCAL, West African Science Service Center on Climate Change and Adapted Land Use (R&I Org.)

With climate change being one of the most severe challenges to rural Africa in the 21st century, West Africa is facing an urgent need to develop effective adaptation and mitigation measures, [WASCAL](#) writes. WASCAL is a large-scale research-focused Climate Service Center designed to help tackle this challenge and thereby enhance the resilience of human and environmental systems to climate change and increased variability. It does so by strengthening the research infrastructure and capacity in West Africa related to climate change and by pooling the expertise of ten West African countries and Germany. Funded by the German Federal Ministry of Education and Research (BMBF), WASCAL is implemented in a collaborative effort by West African and German partners.

Potential focus for cooperation: Interactions would be interesting for programmes targeting Africa in the strategic phase (e.g., joint knowledge agenda setting), programmes such as the Africa Flagship may be coordinated or aligned.

WBCSD, World Business Council for Sustainable Development (Pol.Sup. Org.)

[WBCSD](#) is a global organization of over 200 leading businesses working together to accelerate the transition to a sustainable world. WBCSD's aim is to help make its member companies more successful and sustainable by focusing on the maximum positive impact for shareholders, the environment and societies. WBCSD's member companies come from all business sectors and all major economies, representing a combined revenue of more than US\$8.5 trillion and with 19 million employees. Its Global Network of almost 70 national business councils gives members unparalleled reach across the globe. WBCSD is uniquely positioned to work with member companies along and across value chains to deliver high-impact business solutions to the most challenging sustainability issues. The WBCSD Climate & Energy Cluster facilitates interaction on cutting-edge climate and energy topics between WBCSD members, their peers and stakeholders as they address critical industry issues and share best practices and solutions. For GHG Management, the WBCSD/WRI Greenhouse Gas Protocol (GHG Protocol) is the most widely used international accounting tool for government and business leaders to understand, quantify and manage greenhouse gas emissions. Through Action2020 and the Low Carbon Technology Partnerships initiative (LCTPi), WBCSD focuses on concrete and scalable business actions. Each solution area contributes to the science-based societal goal of limiting global temperature rise to between 1.5 - 2°C above pre-industrial levels. Other initiatives are: Future of mobility; Below50; Climate Policy; Resilience; Rescale; Road Freight Lab.



Potential focus for cooperation: In the strategic phase, WBCSD can inform the work of the GHG AG from a stakeholder perspective, in particular through its GHG management activities (with WRI). WBCSD would also be a relevant partner for any JPI Climate programme in which collaboration with the private sector is pursued (currently none).

WCRP World Climate Research Program (WMO/UNESCO/ISCU) (R&I Org.)

WCRP facilitates analysis and prediction of Earth system change for use in a range of practical applications of direct relevance, benefit and value to society. WCRP aims to determine the predictability of climate and the effect of human activities on climate. Scientific guidance for WCRP is provided by the WCRP [Joint Scientific Committee \(JSC\)](#), which meets annually and consists of scientists selected by mutual agreement between the three sponsoring organizations (the [World Meteorological Organization \(WMO\)](#), the [International Council for Science \(ICSU\)](#) and the [Intergovernmental Oceanographic Commission \(IOC\)](#) of UNESCO). Together they represent climate-related disciplines in atmospheric, oceanic, hydrological and cryospheric sciences. The three sponsors defined WCRP's objectives and the JSC's Terms of Reference in a [1993 Sponsors' Agreement](#). In July 2014 WCRP and the World Meteorological Organization (WMO) Commission for Climatology (CCI) released a [Joint CCI-WCRP Statement](#) in Heidelberg, Germany, on working together towards strengthened Research and Operations Linkages for Enhancing Climate Services.

Through a joint consultation process with WCRP expert bodies and activity chairs, WCRP leadership has prepared the next Draft WCRP Strategic Plan which is now open for public comment. WCRP welcomes your comments and invites you to share this call among your colleagues and networks. This public consultation phase will take place until 31 August 2018. It will enable WCRP, jointly with its wider community, to shape climate research priorities for the next decade.

The four WCRP core projects are:

- [Climate and Cryosphere \(CliC\)](#): CliC encourages and promotes research into the cryosphere in order to improve understanding of the cryosphere and its interactions with the global climate system, and to enhance the ability to use parts of the cryosphere for detection of climate change.
- [Climate and Ocean Variability, Predictability and Change \(CLIVAR\)](#): CLIVAR's mission is to understand the dynamics, the interaction, and the predictability of the coupled ocean-atmosphere system. To this end it facilitates observations, analysis and predictions of changes in the Earth's climate system, enabling better understanding of climate variability, predictability and change.
- [Global Energy and Water Exchanges \(GEWEX\)](#): GEWEX is an integrated program of research, observations, and science activities that focuses on the atmospheric, terrestrial, radiative, hydrological, coupled processes, and interactions that determine the global and regional hydrological cycle, radiation and energy transitions and their involvement in global changes.
- [Stratosphere-troposphere Processes And their Role in Climate \(SPARC\)](#): SPARC provides intellectual leadership to address key issues in atmospheric dynamics and predictability, chemistry and climate, and long-term records for climate understanding.

Potential focus for cooperation: In the outreach phase, output from the 2013 call B and 2015 call as well as from ERA4CS may provide useful input into WCRP's events. Strategically, future work of the AG NGCS can be aligned with WCRP priorities. The AG on NGCS may provide input into WCRP's public consultation before Sept. 2018.

weADAPT (R&I Org. and Pol.Sup. Org.)

weADAPT is a collaborative platform on climate adaptation issues. It allows practitioners, researchers and policy-makers to access credible, high-quality information and connect with one another. weADAPT aims to bring together practitioners, researchers and policy makers to actively share knowledge and learn from each other on issues relating to climate change adaptation, so that adaptation activities across the world can be as well-informed as possible. weADAPT is an online 'open space' on climate adaptation issues (including the synergies between adaptation and mitigation) which allows practitioners, researchers and policy makers to access credible, high quality in-



formation and to share experiences and lessons learnt with the weADAPT community. It is designed to facilitate learning, exchange, collaboration and knowledge integration to build a professional community of research and practice on adaptation issues while developing policy-relevant tools and guidance for adaptation planning and decision-making. weADAPT is developed and maintained by the Stockholm Environment Institute (SEI). Content is curated both by SEI and the weADAPT team, a dynamic network of Knowledge Partners, using an innovative suite of technologies. weADAPT started life as 'wikiADAPT' and has grown into a collection of over 1000 articles and case studies. The technical development of weADAPT is based on extensive consultation with Knowledge Partners by the Stockholm Environment Institute. It has been the result of collaborations over several years.

Potential focus for cooperation: In the outreach phase, relevant reports or case studies from JPI Climate research (e.g. AXIS) could be uploaded on weADAPT for dissemination. In the implementation phase, JPI-funded researchers can find partners and share experiences through weADAPT. In the strategic phase, weADAPT staff (at SEI) can inform AGs which want to identify adaptation knowledge gaps.

We Mean Business (Pol.Sup. Org.)

[We Mean Business](#) is a global non-profit coalition working with the world's most influential businesses to take action on climate change. Together We Mean Business catalyzes business leadership to drive policy ambition and accelerate the transition to a low-carbon economy. The coalition brings together seven international non-profit organizations: BSR, CDP, CERES, the B Team, The Climate Group, WBCSD and the Prince of Wales' Corporate Leadership Group. Its mission is to ensure that the world economy is on track to avoid dangerous climate change by 2020 while delivering sustainable growth and prosperity for all.

Potential focus for cooperation: We Mean Business can inform the work of the GHG AG from a stakeholder perspective.

WMO/GFCS Global Framework for Climate Services (R&I Org. and Pol.Sup. Org.)

[GFCS](#) aims at accelerating and coordinating the technically and scientifically sound implementation of measures to improve climate-related outcomes at national, regional and global levels. As a framework with broad participation and reach, GFCS enables the development and application of climate services to assist decision-making at all levels in support of addressing climate-related risks. The implementation of GFCS has five components: Observations and Monitoring; Climate Services Information System; Research, Modeling and Prediction; User Interface Platform; and Capacity Development. GFCS focuses on developing and delivering services in five priority areas, which address issues basic to the human condition and present the most immediate opportunities for bringing benefits to human safety and wellbeing: Agriculture and Food Security; Disaster Risk Reduction; Energy; Health; and Water.

Following the decision of the World Climate Conference-3 (WCC-3) to establish the GFCS, a taskforce of high-level independent advisors (HLT) was appointed through an intergovernmental process to prepare a report that was to include recommendations on the proposed elements of the GFCS and the next steps for its implementation. The report of the HLT was endorsed by the Sixteenth Session of the World Meteorological Congress (Geneva, 16 May to 3 June 2011, report), which entrusted the WMO with the responsibility of developing the Implementation Plan, draft Terms of Reference and Rules of Procedure for the Intergovernmental Board on Climate Services (IBCS) and its substructures.

Potential focus for cooperation: In the outreach phase, the outcomes of JPI Climate programmes in particular ERA4CS, maybe AXIS and future output of the AG NGCS research is potentially relevant for the GFCS, e.g. the Climate Services Information System, the User Interface Platform and Research, Modeling and Prediction. This becomes relevant when JPI Climate initiatives reach out to the global level and developing regions. Conversely, GFCS can advise on priorities for the relevant



JPI Climate AGs. For initiatives focusing on Europe Copernicus (C3S, also included in this annex) is the European equivalent.

WRI, World Resources Institute (R&I Org. and Pol.Sup. Org.)

[WRI](#) is a global research and policy support organization that wants to turn big ideas into action at the nexus of environment, economic opportunity and human well-being. WRI's mission is to move human society to live in ways that protect Earth's environment and its capacity to provide for the needs and aspirations of current and future generations. WRI organizes its work around six critical goals in order to secure a sustainable future:

- **Climate:** Protect communities and natural ecosystems from damage caused by greenhouse gas emissions, and generate opportunities for people by catalyzing a global transition to a low-carbon economy.
- **Energy:** Drive the scale-up of clean, affordable power systems throughout the world to deliver sustainable socio-economic development.
- **Food:** Ensure the world's food systems reduce their impact on the environment, drive economic opportunity, and sustainably feed 9.6 billion people by 2050.
- **Forests:** Alleviate poverty, enhance food security, conserve biodiversity, and mitigate climate change by reducing forest loss and restoring productivity to degraded, deforested lands.
- **Water:** Achieve a water-secure future by mapping, measuring, and mitigating global water risks.
- **Sustainable Cities:** Improve quality of life in cities by developing and scaling environmentally, socially, and economically sustainable urban and transport solutions.

WRI designs solutions for and analyzes these six critical goals through the lenses of four Centers:

- A Business Center that aims to harness the private sector to spur action, innovation, and ambition. It combines research, analysis, tools, and direct engagement with businesses to create solutions that advance environmental sustainability and drive value.
- An Economics Center helping decision-makers identify opportunities for cost-effective action to protect or enhance natural resources, and ensure the delivery of essential ecosystem services. It is to provide research and tools to help identify and compare the full costs and benefits of continuing on a business-as-usual growth path versus more sustainable options.
- A Finance Center aiming to mobilize and shift public and private sector investments toward sustainable development—particularly in developing nations. It wants to advance transparency, sound governance, environmental and social safeguards, and public-private partnerships to ensure this finance is ambitious, accountable, and effective.
- A Governance Center which works to empower people and support institutions to foster socially equitable and environmentally sound decision-making.

WRI's [International Climate Action Initiative](#) uses analysis, innovation and partnerships to achieve effective national policies and implement the Paris Agreement on climate change. WRI's offices around the world work at all levels of government and with businesses to advance cost-effective solutions to reduce its emissions in the short- and long-term. [PACT](#) advances the development of robust and effective transparency and accountability rules and processes for the Paris Agreement on climate change by developing options and approaches for the transparency framework, building consensus among parties and supplying relevant and timely inputs to the United Nations Framework Convention on Climate Change (UNFCCC) negotiations. [Climate Watch](#) offers open data, visualizations and analysis to help policymakers, researchers and other stakeholders gather insights on countries' climate progress. Through [Science Based Targets](#), WRI and partners help hundreds of the world's largest companies set ambitious climate targets. And the [Greenhouse Gas Protocol](#) helps companies, cities and countries measure, manage, and report their greenhouse gas emissions. WRI's Climate Resilience Practice helps governments, civil society, and the private sector to develop adaptation solutions in line with the scale and scope of climate change. WRI works at multiple scales to develop adaptation strategies that both serve and engage vulnerable people,



with a particular focus on the poor. The WRI Europe office represents the World Resources Institute in Europe and is based in The Hague.

Potential focus for cooperation: The main opportunities for collaboration appear to be in the strategic phase of the work of the GHG AG, where WRI (via its work on GHG protocols, PACT and science-based targets, and/or the European office in The Hague) can be consulted on knowledge gaps and research priorities. Later, WRI could play a role in the outreach phase of related research projects, but also, being interested in upscaling adaptation knowledge, in relevant project results in the area of impacts and adaptation.



Annex 2

list of abbreviations

AAS = African Academy of Sciences
ACAP = Arctic Contaminants Action Program
AfDB = African Development Bank
AfLP = Africa LEDS Partnership
AG = Action Group
AgMIP = Agricultural Model intercomparison and Improvement Project
AMAP = Arctic Monitoring and Assessment Program
ANR = French National Research Agency
AOGCM = atmosphere-ocean general circulation model
AR = Assessment Report
AXIS = Assessment of Cross(X)-sectoral climate Impacts and pathways for Sustainable transformation
BELSPO = Belgian Science Policy
BER = Biological and Environmental Research program
BOKU = Universität für Bodenkultur Wien
C3D+ = Climate Change Capacity Development Network
C3S = Copernicus Climate Change Service
CAFF = Conservation of Arctic Flora and Fauna Working Group
CAN = Climate Action Network
CCAFS = Climate Change, Agriculture and Food Security
CCI = Commission for Climatology
CDKN = Climate and Development Knowledge Network
CDP = formerly Carbon Disclosure Project
CDS = Climate Data Store
CEOS = Committee on Earth Observation Satellites
CGIAR = Consultative Group on International Agricultural Research
CKB = Climate Knowledge Brokers
CliC = Climate and Cryosphere
Climate ADAPT = European Climate Adaptation Platform
CLIVAR = Climate and Ocean Variability, Predictability and Change
CM = Climate Modeling
CMIP = Coupled Model Intercomparison Project
CORDEX = Coordinated Regional Climate Downscaling Experiment
CRiSTAL = Community-based Risk Screening Tool
DG = General Directorate
DoW = Description of Work
ECCA4 = European Climate Change Adaptation conference 4
ECF = European Climate Foundation
ECMWF = European Centre for Medium-Range Weather Forecasts
ECRA = European Climate Research Alliance
European Drought Observatory = EDO
EEA = European Environment Agency
EFAS = European Flood Awareness System
EQC = Evaluation and Quality Control



ERA4CS = European Research Area for Climate Services
ERANET = European Research Area Network
EST = Enabling Societal Transformation
FACCE = Joint Programming Initiative on Agriculture, Food Security and Climate Change
FCFA = Future Climate for Africa program
GAN = Global Adaptation Network
GB = Governing Board
GEWEX = Global Energy and Water Exchanges
GCECA = Global Centre of Excellence on Climate Adaptation
GCF = Global Climate Forum
GCM = general circulation model
GCOS = US GLObal Climate Observing System Program
GFCS = Global Framework for Climate Services
GHG = Green House Gasses
GRF = Global Risk Forum
HLT = high-level taskforce
IAMC = Integrated Assessment Modeling Consortium
IAV = Impact, Adaptation, and Vulnerability
IBCS = Intergovernmental Board on Climate Services
IDB = Inter-american Development Bank
IHOPE = Integrated History and Future of People on Earth
IISD = International Institute for Sustainable Development
IPCC = Intergovernmental Panel on Climate Change
IRI = International Research Institute for Climate and Society
ISIMIP = Inter-Sectoral Impact Model Intercomparison Project
ISSC = International Social Science Council
IUFRO = International Union of Forest Research Organizations
JPI = Joint Programming Initiative
KIC = Knowledge and Innovation Community
LEDS GP = Low Emissions Development Global Partnership
MoU = Memorandum of Understanding
NAP = National Adaptation Plan
NCDC = National Climatic Data Center
NGCS = Next Generation of Climate Science
NSF = National Science Foundation
OECD = Organization for Economic Cooperation and Development
P2P = Peer to peer
PACT = Project for Advancing Climate Transparency
PAME = Protection of the Arctic Marine Environment
PCMDI = Program for Climate Model Diagnosis and Intercomparison
PESETA project = Projection of Economic impacts of climate change in Sectors of the European Union based on bottom-up Analysis
PPP = Public Private Partnership
R&D = Research and Development
R&I = Research and Innovation
RCCC = Red Cross Red Crescent Climate Centre
RGCM = Regional and Global Climate Modeling
RPO = Research Performance Organisation
SASSCAL = Southern African Science Service Centre for Climate Change and Adaptive Land Management



SDG = Sustainable Development Goal
SDWG = Sustainable Development Working Group
SOER = European Environment State and Outlook Report
SPARC = Stratosphere-troposphere Processes And their Role in Climate
SRSG = Special Representative Secretary-General
SSN = Southsouthnorth
STAB = Steering and Advisory Board
UCCRN = Urban Climate Change Research Network
UN = United Nations
UNDP = United Nations Development Program
UN EHS = United Nations Institute for Environment and Human Security
UN ENV = United Nations Environment authority
UNFCC = United Nations Framework Convention on Climate Change
UNISDR = United Nations International Strategy for Disaster Reduction
UNITAR = United Nations Institute for Training and Research
UNU = United Nations University
VIACS = Vulnerability, Impacts, Adaptation and Climate Services
WASCAL = West African Science Service Center on Climate Change and Adapted Land Use
WBCSD = World Business Council for Sustainable Development
WCC-3 = World Climate Conference-3
WCRP = World Climate Research Program
weADAPT = an online 'open space' on climate adaptation issues
WGCM = Working Group on Coupled Modeling
WMO = World Meteorological Organization
WRI = World Resources Institute
WUR = Wageningen University and Research