



Document presented at JPI Climate Governing Board Meeting, 20/21 May 2015

Report JPI Climate Workshop

Improving knowledge for enhanced climate change response and decision-making – Brussels April 21/22, 2015

Summary of key recommendations for the JPI Climate GB

- The workshop strongly recommends restructuring the four Working Groups, or rather, adding a fifth Working Group specifically focusing on the interlinkages between the modules and the core of the JPI Climate framework (“Integrated Climate Knowledge and Decision Support Services for Societal Innovation”).
- The themes that were discussed during the workshop and outlined in section 3 could be topics for further research of such a new Working group.
- Integrated research across science disciplines remains a challenge and needs to be a play of equals, where social sciences and the humanities have equal framing capacities along with the natural sciences.
- The workshop strongly recommends JPI Climate to avoid dedicating modules to specific sciences.
- The participants recommended JPI to align its activities with policy priorities and on-going policy processes related to climate change mitigation and adaptation at national, European and international level, taking into account the diversity of decision-making contexts. The secretariat could prepare a very short overview of ongoing European policy dossiers as an input to every GB meeting.
- The workshop also recommends that JPI revamps social science research and ensures a better representation of the humanities. Furthermore, grant calls should include room (time and resources) for co-design with stakeholders and co-production of knowledge and thereby avoid silo approaches.
- JPI Climate needs to learn about the private sector, a key actor in climate change action. We recommend a specific meeting with private sector actors and private



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sector mediators and intermediaries to identify business-specific research needs, challenges and drivers of co-design and co-production, strategies for improved knowledge uptake and enhanced evidence-based decision making.

- JPI Climate should translate its integral, decision-support oriented vision into practice by establishing a task force – accompanied by funding agencies, focusing on integration, decision-support and stakeholder engagement. The workshop suggested, for instance, that JPI Climate could take the role of bringing together and synthesising interdisciplinary climate research from across Europe using its Europe-wide networks (such as ERA-NETs or other tools).

1. Introduction

The workshop “Improving knowledge for enhanced climate change response and decision-making” was held in Brussels April 21-22, 2015, at the JPI Climate Secretariat offices. The workshop was the result of WG4 work on knowledge transfer and enhanced decision making and has benefited from early research results of one of JPI Climate-funded projects investigating the uptake of IPCC’s Fifth assessment report (AR5).¹ The main goal of the workshop was to generate insights, debate and recommendations for JPI Climate Governing Board regarding challenges and opportunities to better connect JPI Climate research activities to decision makers from local to international scale, to improve science-policy-society interfaces, and to better engage with diverse stakeholders. In particular, the workshop addressed the gap in bridging scientific results with policy actors; the challenges and opportunities of co-design of research and co-production of knowledge with diverse stakeholders; and the lack of awareness of nonlinear relations between science and action that still pervades climate change research.

The workshop attracted a wide range of participants, including academics, politicians, civil society actors, staff of private sector organisations, representatives of the Transdisciplinary Advisory Board and experts connected to the 4 working groups.

¹ See project description at <http://www.cicero.uio.no/en/posts/projects/ipcc-ar5-in-europe>.



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Particular topics discussed include implementation of stakeholder engagement activities (one of JPI Climate's five core principles), decision-making contexts of transdisciplinary research, a better understanding of science-policy gaps, and co-production of knowledge for solutions-oriented research is needed. There was wide agreement among the participants that these issues and goals are often taken for granted, while they are in fact major research topics. There is a wealth of research findings and experience already offering major lessons for JPI Climate.

2. Structure of the workshop

The actual workshop offered a combination of plenary introductions, plenary discussions and break-out groups. The break-out groups were structured according to different decision-making contexts:

- Community and local government decision-making
- National governments decision-making
- Transnational and multilateral governmental decision-making processes
- Private sector and industry decision-making

The discussions were centred on three main themes:

1. Co-producing and connecting scientific knowledge with decision-making and drivers for action.
2. Aligning research and decision-making processes.
3. Connecting with climate and climate adaptation services.

This synthesis report provides in chapter 3 a summary of cross-cutting issues that emerged in the discussions, on each of the above-mentioned themes. In chapter 4, this report addresses some themes that were specific to each decision-making context/stakeholder group. The concluding chapter 5 provides a series of recommendations for the consideration of JPI Climate Governing Board. The program, the list of participants, the budget and the JPI Climate Framing Principles drafted in 2012 can be found in the annex.



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3. Crosscutting Synthesis of Workshop Results

Plenary presentations, plenary discussions and the break-out groups provided a series of cross-cutting insights with relevance for JPI Climate. These were some recurring points in the discussions:

Saliency, legitimacy and credibility are key concepts to guide strategies: The concepts of saliency, legitimacy and credibility, which were outlined by a major research project investigating how to design knowledge assessment processes in order to facilitate uptake in policy², were at the heart of the discussions. Saliency refers to relevant and timely knowledge. Credibility refers to solid and unbiased knowledge. Legitimacy refers to the need for a fair and transparent process of designing and producing knowledge. A key message from the GEA project is that these three factors are necessary but not sufficient conditions for policy uptake. All three variables must reach a certain level, and to some degree there is a trade-off between the three. For instance, co-production of knowledge might increase saliency and legitimacy, but come at the expense of less credibility, which again may become a barrier to uptake. At the same time, there may be other reasons beyond these three concepts for engagement and co-production, such as inclusiveness, creativity and innovation, learning, integration, or for overcoming problems with reductionist thinking.

Enhancing the dialogue between science and policy : The divide between science and policy remains a reality. This claim is backed by theoretical analysis and by practical experience. For example, research about the IPCC's AR5 report, as well as experiences shared by politicians during the meeting, shows the report itself was not a critical piece of evidence in multiple policy decisions neither at the national nor the European level.

² We refer here to the Global Environmental Assessment (GEA) programme (see <http://www.hks.harvard.edu/gea/index.html>), carried out over a ten-year period from 1995, resulting in a large number of publications (including Cash et al. 2003, Jasanoff and Martello 2004, Farrell and Jäger 2005, Mitchell et al., 2006).



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The science-policy gap is not merely a communication challenge. Rather, science and policy remain separate worlds with separate logics. In order to increase uptake of scientific research, both worlds need to be connected. Considerable work remains to be done, whereby the social sciences play a key role.

Science is neither the only source of knowledge nor the only relevant factor for policy makers. Multiple other factors play in, such as national policy requirements, country-specific decision-making arrangements, specific policy contexts such as dependency on a particular fossil fuel, or current economic insecurity.

When decision makers use science as evidence for their decisions, the knowledge is often negotiated. For example, acceptance of certain limits in emissions has to be accompanied by economic measures. As a matter of fact, there is hardly any evidence that a particular piece of “pure” science has had a direct impact on a particular decision. Climate change is no exception: negotiating knowledge also happens for other issues that are characterized by uncertainty and disagreement such as GMOs or health risks. Scientific uncertainty does not necessarily lead to inaction.

Bridging the gap between science and policy shall therefore be given due attention and shall be investigated in theory and in practice in order to enhance evidence-based decision making. However, evidence-based policies in the literal sense of the word are in practice very difficult to achieve. From a democratic standpoint it is also question of whether such policies are desirable; political judgement is a necessary condition in democracies.

Framing the problem of climate change and caring for language:

Scientific outputs on climate change are often (tacitly) framed in particular ways, and require quite some background knowledge from the readers to identify what type of framing is dominant. This is certainly the case for models and quantitative representations. Very often the most important messages about climate change are presented using arrows (such as in the JPI Climate organization architecture) rather than explaining the relations. The use of jargon is a hindrance to knowledge uptake.



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Attention to terms, language and climate narratives is an emergent field where social sciences and humanities have started to offer important insights. Development of stories such as those used in scenario building can be critical tools for enhanced and shared understandings. Such shared scenarios may also push boundaries and break path-dependency in the way scientists think about problems or in contexts where addressing climate change is challenging.

Scientists shall be more aware of how climate change is *framed* by different audiences so that the knowledge they produce becomes more relevant in the decision-making context of these audiences. Similarly, more reflection is needed on what happens to scientific summary products. Often policy makers are already aware of the general scientific messages, while the summaries often avoid including more politically sensitive information. This is for instance the case with the IPCC reports.

Knowledge of decision-making contexts and engagement with ongoing decision-making processes: Knowledge of and experience with specific decision-making contexts (whether these are companies, communities, national or international policy decisions) are central for enhancing the usability of science. If we want to produce relevant knowledge for a specific community, we must familiarise with its situation, cultural issues, power relations etc. This insight applies just as well to policy processes. The participants recommended JPI to align its activities with policy priorities and on-going policy processes related to climate change mitigation and adaptation at national, European and international level. This could also reduce doubling-up by scattered projects looking into similar issues. For instance, JPI Climate could work with the European Commission, the European Parliament and national parliaments. This task could be given to the JPI Climate Secretariat, but could also be informed by research on specific issues. The secretariat could prepare a very short overview of ongoing European policy dossiers as an input to every GB meeting.

Different European countries have diverse traditions for science advice. Taking this diversity in political cultures into account is a key factor in knowledge uptake. However, working with existing transnational knowledge networks may prove more



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effective than a scattergun sample of local initiatives, or having disconnected engagements at national level.

Business also has its specific culture for decision-making. Business decisions are typically short-term, framed in terms of cost-benefit and economic gain, and responding to customers preferences. In order to raise climate awareness in the private sector and mobilize action, knowledge of the specificities of the decision-making processes of business actors is a must.

Co-design of research and co-production of knowledge: So-called “users” of research have never been mere users, as in passive recipients of scientific results. Rather, they are interest-driven translators working under time pressure. A take-away message from the workshop was that instead of continuing to apply the term “users”, we propose to explore the potential and the limits of actual co-design of research and co-production of knowledge. Future Earth has shown the importance of engagement with stakeholders, but there is still little recognition of the importance of these processes as well as their limitations. Co-design and co-production enable joint problem framing; integration of diverse views and sources. This contributes to a better translation of knowledge and collaborative experimenting, reflection and learning.

At the national level, co-production is particularly useful because:

- Political commitment to knowledge processes can help to assure long-term strategies regardless of the shorter-term mandate of the politicians themselves;³
- Funders and university require that research shall be useful for society within a short time-frame;
- An inclusive user (stakeholder) representation can result in a richer, more realistic picture of social and environmental processes involved in climate change.

³ One example in urban contexts is the mayor-led adaptation commitments, <http://mayorsadapt.eu>, that publicly commit a whole city to action, not just the individual mayor. 5/4/2015



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However, the balance of rationales for co-creation can be very different between projects and designs have to be adapted accordingly.

Although co-production (in its so-called “weak” form) is a promising pathway that has gained wide attention the last decade, it should not necessarily be seen as a “silver bullet” for bridging the climate science-policy-society gap. Awareness of the limits and boundaries of science and action is necessary in order to avoid overly politicised science or vice versa, the “scientification” of politics. Common visions of co-production are still evolving; norms need to be negotiated and formed over time. However, there are some good examples of experience-informed protocols for co-development and action oriented exercises which merit following, while at the same time keeping in mind that there are also risks in making reflexivity routine (for example, change labs or change-game-kits).

A proposal put forward to enhance co-design and co-production that received wide supports suggests that a new engagement agenda can be formed by:

- Designing plurality;
- Negotiating expertise;
- Investing in competences;
- Creating incentives;
- Funding new modes of knowledge production;
- Assessing (social) learning.

Intermediaries matter: The role of intermediary organisations is critical, whether these are environmental protection agencies, communications departments of science institutes, or the media. The way they portray and communicate climate change has enormous influence for multiple stakeholders (including political decisions). There are however different views about science communication that are underpinned by an epistemological conception of the relations between science and action. A linear view of science-policy leads to a linear view of science



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communication. The participants in the workshop agreed there is no such a thing as a linear relation because of the fuzzy and iterative nature of decision-making processes. Therefore we need to think more creatively about climate change communication.

Enhanced decision making on climate change requires negotiating “a common vision”: The broad thematic profile of the workshop (including bridging science, policy and society, knowledge of contexts and specific audiences, the need to negotiate what scientific results may or may not mean, co-design and co-production as well as awareness of its limits etc.), led the workshop participants to identify the need to provide a common or shared vision about climate change challenges. Developing this shared vision is a process of co-design and engagement, but also as a matter of social learning and partnerships. Many societal actors would need to agree on a variety of issues if coordinated action is to happen. However, the process of creating a common vision also entails setting limits to an excessive proximity between science and action. Transparency and accountability need to be part of such processes.

The debate on climate services is incomplete and missing the point: A plenary discussion revealed the limitations of the current debate on climate services, which is dominated by the bio-physical sciences and overlooks the social sciences and the humanities. In the European Commission Roadmap for Climate Services that was recently launched, users are seen as the end of the chain of a process dominated by science. Although the Roadmap pays attention to “translation” as an important step between science and decision-making, the term may not properly capture the bidirectional and complex nature of this interface. There is little awareness of the critical importance of knowing the users and their decision making contexts, while the challenges related to trust as well as the drivers for making climate information meaningful and actionable are underestimated. The relation between science and users needs to be conceptualized as bi-directional. Rather than treating users as receivers, developing climate services ought to be an iterative process involving users at different stages. This is critical for ensuring useful and successful climate services. Models and scientific data are not services. The workshop participants suggest a



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major revision with social scientists and users to complete the picture presented in the Roadmap.

4. Specific recommendations for improved engagement with concrete stakeholders

Local communities and governments: Co-production and contextuality is critical for improving decision-making at the local level, however there are economic limits. Efforts are needed to reduce transaction costs. Virtual platforms for engagement and participation are a possible solution, but it is difficult to include resource-poor groups in these processes. Local intermediaries or mediators are often needed to guarantee the quality of the knowledge. The unequal representation of eastern and southern Europe versus northern Europe in JPI is a major hindrance for producing salient, legitimate and credible knowledge at the local level.

Private sector and industry: This is a major societal actor yet the least known by scientists and research organisations. JPI needs to engage more with private sector research entities and business intermediaries. The workshop suggested that JPI would organise a meeting exclusively with private sector actors to identify business-specific research needs, challenges and drivers of co-design and co-production, strategies for improved knowledge uptake and enhanced evidence-based decision making.

National governments: Southern and eastern European countries are critically underrepresented in JPI Climate, while northern European countries are dominating in presence and knowledge. More engagement with actors from the southern and eastern European regions is central for the success of JPI.

Transnational and multilateral governments: in order to enhance decision making at this level, it is central to be informed about existing political processes and negotiations, to tailor knowledge production and results to such contexts. A broader coverage of EU member states is centrally important. The multilateral level is already



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structured through the UNFCCC, but much work remains to be done in linking climate change science to action from a perspective of polycentric governance.

5. Recommendations to JPI Climate Governing Board

The key outcome of the workshop in view of the Governing Board meeting in May and the revision of the SRA is a suggestion to restructure the four Working Groups, or rather, add a fifth Working Group specifically focusing on the inter-linkages between the modules and the core of the JPI Climate framework (“Integrated Climate Knowledge and Decision Support Services for Societal Innovation”). The inter-linkages are currently represented by arrows in the organisational map of JPI Climate. The workshop concluded that these arrows in themselves are important research areas. The themes that were discussed during the workshop and outlined in chapter 3 (and possibly other themes) could be topics for further research of such a new Working group. In addition, the arrows call for a particular way of designing and executing research. Not only do the arrows represent interesting research topics, by focusing on these intersections and connections JPI Climate can also complement other European and national research schemes. Like with any simple scheme, it hides the diversity of decision-making contexts and the associated diverse set of research design, methods and tools required. Integrated research across science disciplines remains a challenge.

To enhance such integrated research, incentives, funds and institutional mechanisms are required that demand integration. Integrated research needs to be a play of equals, where social sciences and the humanities have equal framing capacities along with the natural sciences. The workshop strongly recommends JPI to avoid dedicating modules to specific sciences. The joint calls shall be used as key incentives for an equal participation of different disciplines in the framing, design and development of research. The workshop also recommends that JPI revamps social science research and ensures a better representation of the humanities. Furthermore, grant calls should include room (time and resources) for co-design with stakeholders and co-production of knowledge. Knowing the decision-making contexts of different stakeholders is a necessity if scientific results are to be usable. This also requires having intellectual flexibility and being creative in the choice of methods and forms of



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engagement. After a number of module-related (“siloed”) calls in 2013-2015, JPI Climate should translate its integral, decision-support oriented vision into practice by establishing a task force – accompanied by funding agencies, focusing on integration, decision-support and stakeholder engagement. The workshop suggested, for instance, that JPI Climate could take the role of bringing together and synthesising interdisciplinary climate research from across Europe using its Europe-wide networks (such as ERA-NET or other tools).

Specific recommendations emerging from the meeting relate to the recognition that there is important work already done in generating co-design, co-production and change. Examples are: The "change-lab": an infrastructure (i.e. a service) for experimental participatory co-design and test of new practices and policies, between citizens, policy-makers and scientists, using the principles of two-level experiments research program on co-formulation of needs by users and policy-makers followed by protocols for simulated exploration of new strategies and policies. Another example is the "change-game-kit": a robust, cheap, fun and friendly kit for anyone to play, explore, react and propose links between individual actions, policies, and global drivers, dealing with for instance resource sharing, change and equity for 3 key areas (rich, poor, BRIC). A third example is the "CO-change course": a joint European course (tentatively with JPI Water) on participatory methods.

JPI also needs to engage more with the private sector, to learn from their specific needs, decision making contexts and existing knowledge, as well as their capacity and experience in creating partnerships with relevant partners. A point of departure can be a specific meeting fully dedicated to climate change and the business sector.

We also suggest the revisiting of the JPI Climate Framing Principles drafted by Asun St.Clair and Frans Berkhout in 2012.



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6. Feedback from the Governing Board and from TAB

An earlier version of this document was presented to the Governing Board during their last meetings held May 20-21, 2015 by the chair of the Transdisciplinary Board (TAB), Kevin Noone. The Governing Board was very interested in the input from the workshop and the TAB, particularly regarding the need for an updated strategy document for JPI Climate. A panel has been put together to make a first attempt at coming up with a new strategy document that is shorter than the current one, concentrates on expressing the vision of JPI Climate (implementation will be the focus of a separate document), and emphasizes the strategic importance of the “arrows” in the original figure describing the structure of JPI Climate. This will then be circulated for open comment and debate.

During the meetings, a figure created by Rob Swartz was presented to summarize and visualize the results of the workshop discussions (see figure at the end of this document).

From the TAB perspective, the results were extremely positive. The new TAB wanted to have more active interaction between the TAB and the GB, which is exactly what happened. Now it is just up to us to roll up our sleeves and start to work.

The Governing board also decided to use this document as input for a follow up meeting on communication. We also suggest JPI Climate to use some of the results of this document in the next workshop on climate services.

The Governing Board also approved the suggestion made to organize a meeting with exclusively dedicated to the private sector.

Oslo and Brussels, 5 June 2015⁴

⁴ This report has been written by Asuncion Lera St. Clair with input from Petra Manderscheid, Rob Swart, Kevin Noone, Erlend Hermansen, Maria Mañez, Sarah Cornell and Elisabeth Lannoo.



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ANNEX

- Workshop Program
- 2012 Framing Principles

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