Societal Transformation in the face of Climate Change
10 Key messages from the Future Research Leaders

Synthesis Report

2013 Future Research Leaders' Forum

Editors: JPI CLIMATE Working Group 3

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JPI CLIMATE
Future Research Leaders Forum
Sustainable Transformations of Society
in the Face of Climate Change:
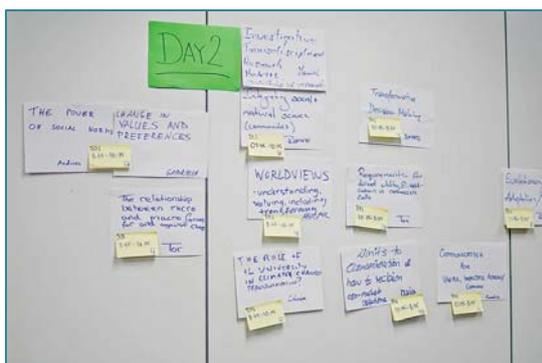**Promising Research Directions**
17 - 18 June 2013

Pre-Conference Event to the Oslo Transformation Conference 2013

Setting the European Research Agenda on Societal Transformation in the face of Climate Change

JPI CLIMATE is setting a European Research Agenda for better understanding and enabling societal transformations in light of a changing climate. This requires input from different areas of science and society. It calls for the active participation of decision-makers and knowledge-users in society, international research leaders and in particular the *research leaders of tomorrow* in order to contribute their insights, visions and promising ideas. The European Joint Programming Initiative JPI CLIMATE is doing exactly that.

This synthesis report compiles the results of the **2013 JPI CLIMATE Future Research Leaders' Forum** where 25 selected early-career researchers from across the world discussed their thoughts on research priorities at the interface of Social Sciences and Humanities (SSH) and climate change research, including the interface of natural sciences and SSH.

The JPI CLIMATE Future Research Leaders' Forum is part of a **series of agenda-setting workshops** organized by the European Joint Programming Initiative 'Connecting Climate Knowledge for Europe' (JPI CLIMATE), which aims at supporting European research to tackle the grand societal challenge of climate change through collaborative, trans-national research funding.

This synthesis report is based on the session reports and the position papers that have been prepared by the participants in the course of the workshop. The synthesis process of the editorial team aimed – from a research policy perspective – at compiling salient and intensively debated recommendations. It did not seek for comprehensiveness in terms of an overall summary.

References to the full documentation of the future research leaders' forum, along with the reports of the further scoping workshops on transformation research with international research leaders (2012) and societal stakeholders (2013) can be found at the bottom of this paper.

JPI CLIMATE research programming

The Joint Programming Initiative on Connecting Climate Knowledge for Europe (JPI Climate) acts as a strategic platform for aligning national research priorities in the area of climate research and also for launching joint funding activities. It has fourteen member countries (Austria, Belgium, Denmark, Estonia, Finland, France, Germany, Ireland, Italy, Norway, Spain, Sweden, the Netherlands, and the United Kingdom).

JPI CLIMATE contributes to coordinated knowledge development and connecting that knowledge to decision-making on climate change adaptation and mitigation. By connecting science and decision making processes JPI CLIMATE aims to provide the knowledge necessary to meet the challenge of making Europe both climate-friendly and climate-proof, and reach the target of becoming a energy-efficient, low carbon economy.

Research Agenda for tomorrow:
Key messages from the future research leaders

Topics

1. Individuals as Change Agents of Societal Transformations

Societies are made up of individuals (e.g. as citizens, consumers, researcher). A research agenda on societal transformations in light of climate change should tackle the question how individuals can contribute to societal transformation. A pressing question is what would be action perspectives for them, towards sustainable transformations under different circumstances. A conceptualization of the individual should try to build a bridge between approaches that center on the individual (e.g. social psychology) and systemic approaches (e.g. macro-economics). Several existing frameworks (e.g. social practices approach) seem promising in this respect.

2. Theories and Approaches of Change

There is a need for theories and approaches to socio-economic change that focus on the attainability of the climate goal and offers mechanisms and instruments of a substantial social change while remaining open to the resulting socio-economic order. Such approaches could inform in particular intermediate but fundamental steps of societal transformation processes.

3. Transformative Politics: Accelerating social change within democracies

More knowledge is needed on how to accelerate change within democracies, enabling climate friendly development paths. The increasing concentration of wealth in many countries makes democratic control of political power more

challenging. In particular insights are needed about how markets can be governed – designed and regulated – in order to accelerate technological and social innovation towards sustainable societies.

4. Transforming the economy: redefining self interest

If climate change is considered a symptom of a development model in the modern world based on economisation, driven by material and short-term self-interest and largely decoupled from long-term societal needs and individual well-being goals, transforming the economy requires a challenge to that model to acknowledge non-marketized values and human well-being goals. Studies on steps towards a long-term and well-being oriented economy should take into account the multi-level character of economic systems (macro to micro) and respective multi-level governance options.

5. Sustainability requirements and implications for Societal Transformations

Research on societal transformation in the face of climate change needs to take into account the notion of Sustainable Development to support transformative processes that lead to sustainable outcomes. Again the role of the individual as change agents in societal transformation becomes apparent by tackling the question of education reforms for sustainable development, both for children and adults.

6. Positive and negative Feedback Loops for Societal Transformation

The question needs to be addressed how sustainable innovations can be scaled up to facilitate substantial sustainability transformations in support of climate goals. In order to understand under which conditions societal transformations can be scaled up and accelerated, knowledge on the interrelationships between different levels of societal change, in terms of feedback loops – spatially from the individual to the global and temporally from the short term to the long term, are very much needed. The integration of different disciplines – among and across natural sciences and social sciences/humanities – is a necessary but challenging tool for doing that.

Methodology

7. Compiling the empirical evidence on Societal Transformations

How can we explain the 'Arabic spring'? How can we explain than now everyone is 'swiping' their smart phones in the subway? Comparative case studies, on historical analogues of transformation as well as contemporary pilot projects can provide useful and required insights on the triggers, conditions and opportunities of societal transformation in the face of climate change, by providing and compiling empirical evidence on the phenomenon of societal transformation. Theory helps make sense of the world, but societal transformation in light of climate change ultimately will only succeed if based on empirical knowledge.

Perspectives

8. Transformations under Climate Change in Context

Any transformation that focuses solely on climate change as the problem, and avoids consideration of the political, economic, social, cultural and historical factors that underpin and drive the subordination of the environment for both political and economic goals and interests, is unlikely to achieve anything. Research of and for sustainability transformations in the face of climate change need to conceptualize and analyse transformation beyond the issue of climate change and take account other trends in a world of multifaceted societies. This includes accounting for diverging interests and resource situations ("best practices: best for whom?") as well as the long-term nature and complementarity of town-down and bottom-up processes in cultural change.

9. Transformative Research Programming

Research programming on societal transformation needs to be sensitive to direct application and utility of research, particularly if interpreted in an economic way. Since the application and utility of research results will be likely to be useful for the already established system a system change might be impeded. Research propositions on transformation typically address fundamental drivers in society, challenging vested interest of some stakeholders and are likely to be perceived as annoying rather than useful to most stakeholders. One way to rethink the 'societal relevance' objective of research programming would be to empirically understand the longer-term societal impact of research and to formulate corresponding criteria for research evaluation. This particularly relates to inter- and transdisciplinary research.

10. Relevance of Climate Change in Social Sciences and Humanities

Society is the main driver of climate change, which in turn is a major driver, creating serious and immediate and long-term threats to societies all over the world. Social sciences and humanities should thus be expected to contribute with ideas for meeting the challenge of climate change. The expected mutual relevance of climate change and social sciences and humanities has not been entirely reflected in research agendas. Greater dialogue between researchers, policy-makers, other stakeholders and the public seems warranted to enhance this mutual relevance in research.

Background

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Working Group 3 on Societal transformations in the face of Climate Change (WG3) has been established by the Governing Board of JPI CLIMATE to inform and prepare European research programming actions in JPI CLIMATE.

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References

JPI CLIMATE WG3 (Eds., 2013). Future Research Leaders' Forum: Session Reports, accessible online: www.jpi-climate.eu

JPI CLIMATE WG3 (Eds., 2013). Future Research Leaders' Forum: Position Papers, accessible online: www.jpi-climate.eu

JPI CLIMATE WG3 (Eds., 2013). Societal perspectives on Societal transformations in the face of climate change. JPI CLIMATE workshop report, accessible online: www.jpi-climate.eu

JPI CLIMATE WG3 (Eds., 2012). International Research Leaders' Positions on Societal transformations in the face of climate change. Research priorities for the next decade. JPI CLIMATE Position Paper, accessible online: www.jpi-climate.eu

JPI CLIMATE (2011). Strategic Research Agenda, accessible online: www.jpi-climate.eu

Pictures: Linn Bryhn Jacobsen