CE-SciPol2

Responsible Research and Governance at the Science-Policy Nexus of Climate Change

New Discourses, Epistemic Communities and Climate Policy Regimes through Climate Engineering?

- Prof. Dr. Daniel Barben // Alpen-Adria-Universität Klagenfurt
- Dr. Silke Beck // Helmholtz Centre for Environmental Research – UFZ
- Nils Matzner //Alpen-Adria-Universität Klagenfurt
- Felix Wittstock // Helmholtz Centre for Environmental Research – UFZ

Summary

CE-SciPol2 empirically examines how potentials and risks of CE and responsible forms of research have been framed within and across multiple arenas of science, policy-making and civil society, how communities of scientists and policy relevant experts have emerged to conduct research on and assess CE, and it explores how their assessments are integrated into governance approaches and embedded in regime(s).

The project also addresses the consequences and implications of the Conference of Parties (COP 21) to the United Nations Framework Convention on Climate Change (UNFCCC) on CE discourses and the formation of the climate regime. It reviews the state of international research to identify the particular challenges how to govern CE research. It reconstructs the spectrum of guidelines, standards and criteria to evaluate responsible research and thus provides the baseline for the anticipatory governance of the SPP.
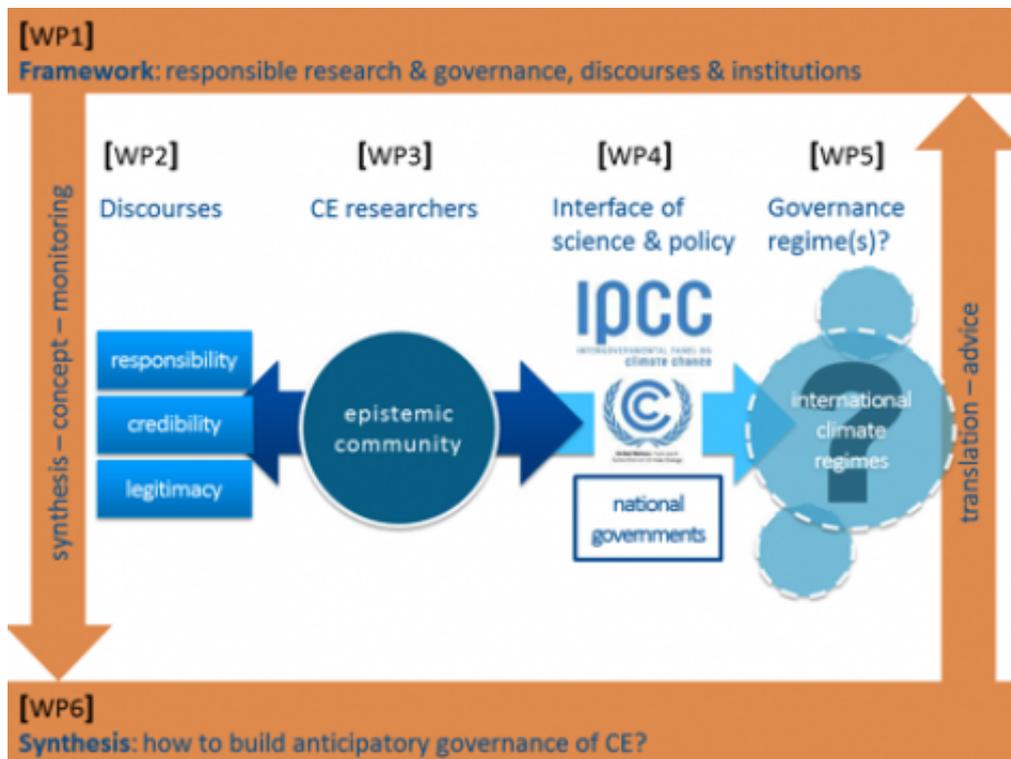
Fig. 1: Exemplary set of societally relevant target variables, which could enter an assessment of CE methods and emission reduction measures.

KEY QUESTIONS

WP1 : RESPONSIBLE RESEARCH AND GOVERNANCE OF CE: DISCOURSES IN SCIENTIFIC AND POLICY ARENAS

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  How are problems of responsible research and governance of CE articulated and communicated in arenas of science and policy-making?

- How do researchers, policy-makers, and civil society actors

  frame the potential risks, challenges, and opportunities of CE?

WP2 : ACCEPTANCE POLITICS FOR AND AGAINST CE: PROMISES, FEARS, AND CREDIBILITY OF ACTORS INVOLVED

- How are strategies for or against related to the controversies over the acceptability of CE, including the promises and fears mobilized, to those over the responsibility, credibility, and legitimacy of the actors involved, as well as to the institutional contexts and what is at stake for different actors?

WP3 : EPISTEMIC COMMUNITY AT

THE SCIENCE-POLICY NEXUS

- We identify distinct epistemic communities with respect to how they assess the acceptability of CE-related research, technology development, and governance approaches, along with the credibility and legitimacy of climate policy, including the established international climate change regime. The project explores the contested articulations and valuations of CE approaches against the background of different disciplines of science and engineering and of different institutional domains

WP4: EMERGENCE OF NEW CONFIGURATIONS OF EXPERTISE INSIDE THE IPCC

- WP4 explores

how CE is integrated into assessment reports (e.g. provided by the IPCC, IPBES and other related global assessments) as the knowledge base to inform policy-making under the UNFCCC and at the national level. It pays particular attention to how the IPCC evaluate the risks, challenges, and opportunities of CE approaches and its potentials as policy option. It also evaluates the impacts of the assessments on international politics.

WP5: EMERGING GOVERNANCE APPROACHES AND REGIMES

- WP5 examines how these CE assessments have been taken up by regulatory frameworks dedicated to govern CE research, experimentation,

technology deployment and how they have been adopted by the climate change regime and other regimes relevant for CE (e.g., Convention on Biological Diversity as well as the London Convention/Protocol).

WP6: ANTICIPATORY GOVERNANCE OF CE: SYNTHESIS AND OUTLOOK

- The project reviews the state of research on responsible CE research and it explains why particular concepts of CE resonate with particular national and societal contexts. It also includes public engagement experiments as they are conducted in the UK for instance, discusses the role of social sciences and humanities

and reflects their implications on the self-understanding and public role of CE research. It aims provide science-based input to, and opening up, policy debates on climate change and CE.These findings are also presented at a public workshop and exhibition in cooperation with Museum für Naturkunde Berlin.

Methods

WP1: RESPONSIBLE RESEARCH AND GOVERNANCE OF CE: DISCOURSES IN SCIENTIFIC AND POLICY ARENAS

Applying both quantitative and qualitative methods of discourse analysis, we further investigate how actors concerned with CE define problems and approach solutions in climate change research and governance, and how they position themselves to the various issues at stake, such as knowledge quality, risk management, acceptability, legitimacy, and climate policy design. In addition to the comprehensive corpus of documents from the natural sciences, we are systematically considering documents from the social sciences, law, and humanities, examining the distinct views on CE-related controversies they provide together with the argumentative dynamics across arenas.

WP2: ACCEPTANCE POLITICS FOR AND AGAINST CE: PROMISES, FEARS, AND CREDIBILITY OF ACTORS INVOLVED

We will conduct interviews with a selected group of vocal proponents and opponents of CE development. The interview partners will be chosen with regard to their prominence within, and possibly across, the arenas of science, policy-making and civil society. Because of the fundamental role science-based knowledge plays in the assessment of CE, we will pay particular attention to the controversies among CE experts from various disciplinary backgrounds in science and engineering.

WP3: EPISTEMIC COMMUNITY AT THE SCIENCE-POLICY NEXUS

WP3 will build typologies concerning the shared sets of normative and principled beliefs, the shared causal beliefs, the shared notions of validity of knowledge claims, and CE as a policy option. This research will be pursued following three methods: discourse analysis, qualitative interviews with researchers and practitioners, and participant observations in contexts where fundamental issues of climate science and climate policy are debated.

WP4: EMERGENCE OF NEW CONFIGURATIONS OF EXPERTISE INSIDE THE IPCC

WP4 synthesizes the state of research on global assessments and regulatory science to develop a framework and criteria for the analysis of expert organizations operating at the interface between science and policymaking. It analyzes IPCC reports and their uptake in international journals and conducts expert interviews to reconstruct and compare the assessments by IPCC working groups and special reports.

WP5: EMERGING GOVERNANCE APPROACHES AND REGIMES

WP5 reviews the state of research on multi-level governance and international regimes to develop a framework for the analysis of CE governance approaches and regimes emerging in the field of climate change, biodiversity and water, in combination with document analysis and expert interviews. It also uses a comparative approach to account for interactions, similarities and differences as well as forms of con- and divergence between single governance approaches and sectoral forms of regime building.

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International Research Partner

- Prof. Peter Healey (University of Oxford, UK)
- Prof. Mike Hulme (King's College, London, UK)
- Prof. Sheila Jasanoff (Harvard University, USA)
- Prof. Clark Miller (Arizona State University, USA)
- Prof. Arthur Petersen (UCL, UK/NL)
- Prof. Steve Rayner (University of Oxford, UK)
- Prof. Andrew Stirling (University of Sussex, UK)
- Prof. David Winickoff (Berkeley University, USA)