

A Climate Engineering Research Registry

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Project Partners:



What I will Talk About Today



1. What is governance and what are we governing?
2. Perspectives on transparency
3. What is a research registry?
4. Case studies
5. A registry's form and function

What Are We Governing?



Definition of Climate Engineering (CE):

The **large scale, intentional** manipulation of the global climate system.

- What makes **research** in this area special and requires special governance attention is the **intent**
- The concern at this stage is not of the immediate, direct effects of research, but **the path that it takes us down**
- Crucial to this are considerations of the **power dynamics** that may emerge in such a future

What is Governance?



- Much broader than hard laws and international treaties
- Governance shapes the research environment by influencing and introducing **norms, procedures** and **practices** that are **responsive** to societal concerns

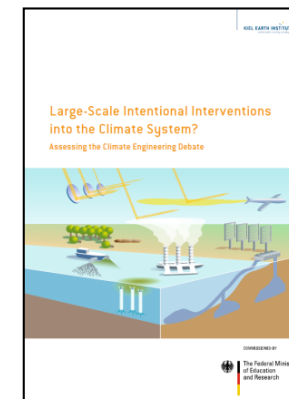
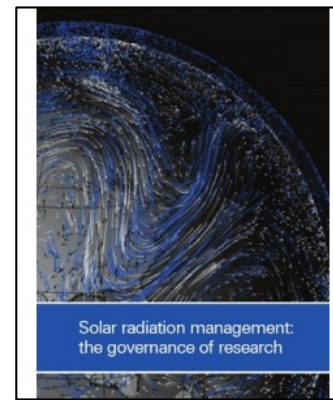
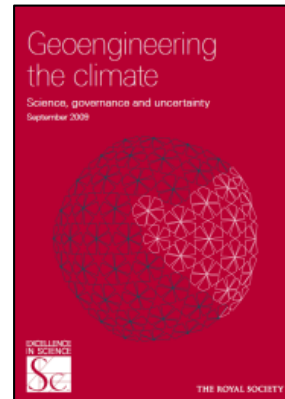
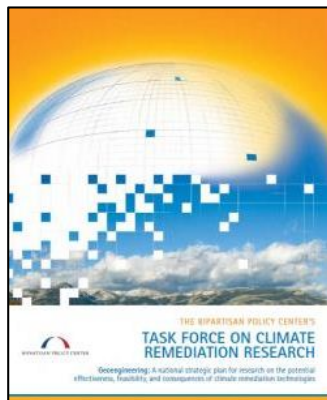
An Objective for Near-Term CE Research Governance



- A primary goal of research governance at this stage should be to develop **processes** for making the intentions of actors **explicit** and **open forums** for these intentions to be **declared and scrutinized efficiently**.
- Such governance is tasked with gauging—through a broad assessment utilizing numerous social science techniques and analytic tools—whether or not the intentions of research transgress acceptable social norms, considering how these norms and the intentions of research itself might evolve over time.

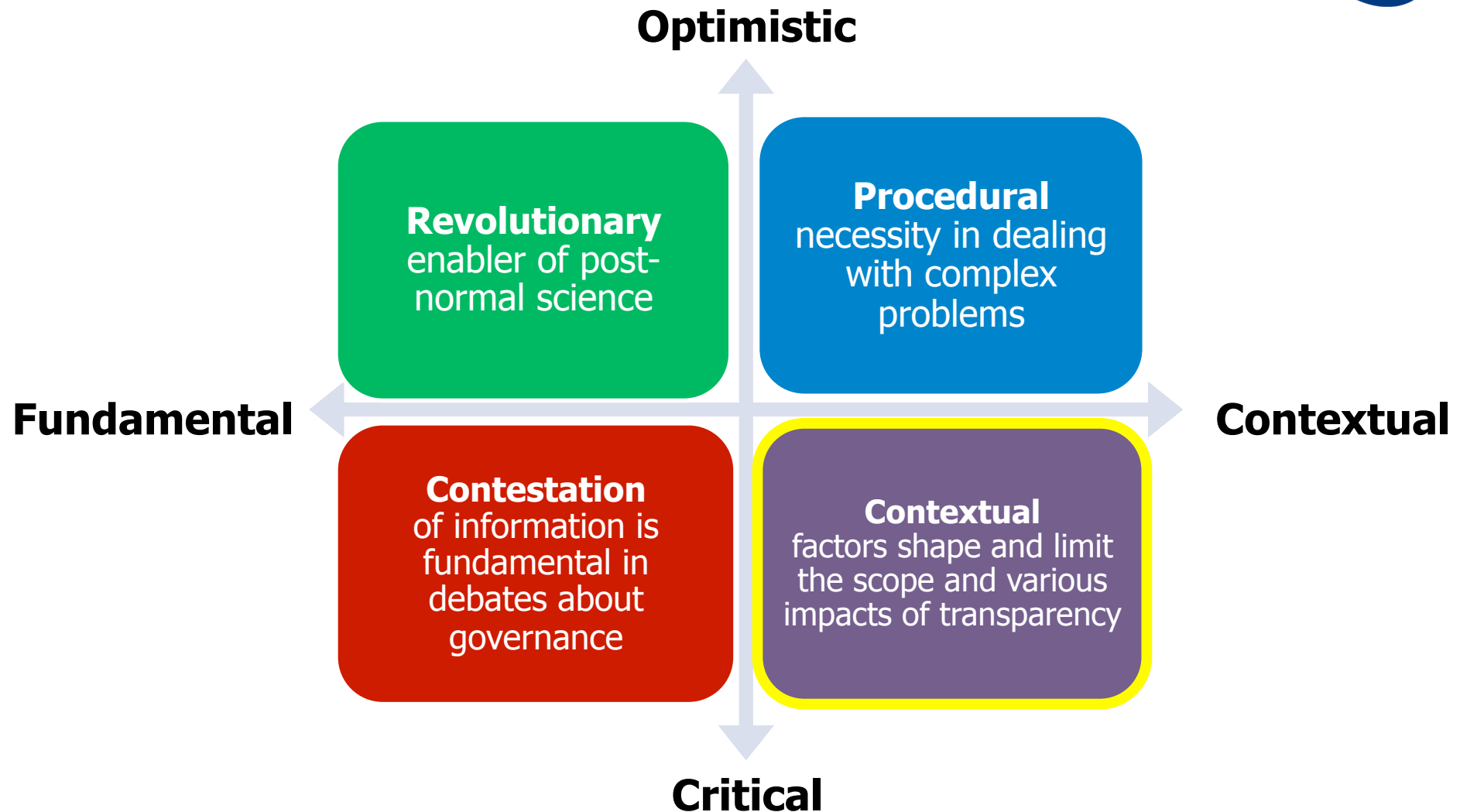
Transparency's Promise

- Transparency is a popular normative principle in the CE discourse



- While generally treated quite shallowly in the literature, it has significant **promise**, as disentangling intentions requires transparent information about past and present activities.

Relevant Perspectives on Transparency



An appropriate targeting of transparency in the CE domain requires the evaluation of possible forms that specific transparency mechanisms may take and the possible relation between such mechanisms and the CE context.

What is a Registry?



- Online **database** providing reliable, easy to find information about research activities
- **True ease of access**
 - Public
 - Organized simply
 - Single location

**EMPOWERMENT THROUGH ACCESS TO
INFORMATION**

Conceptualizing a Registry



Categories of Information

Projects/Activities

α - Climate Engineering Research Registry														
Project Title	Current Status: Planned, Confirmed, Ongoing, Completed	Project Timeline	Technologies under Investigation	Countries in Which Research Conducted	Affiliated Institutions	Investigators and Contact Information	Funding Sources and Description	Location and Description of Field Testing	Intellectual Property Claims	Submission to Ethical Standards and Review	Public Engagement Activities	Results	3rd Party Assessments of Research results	Additional Comments from Investigators
Example Title	Ongoing	September 2012 - April 2014	Stratospheric aerosol lofting techniques	United Kingdom, Germany	University of xxx, yyy Institute	Dr. Smith (PI), Dr. Jones, Dr. Doe	The Climate Engineering Research Fund, The Government of the UK	Release of 1000L of solution of SO4 and water over field in Oxfordshire, UK planned November 2013	IP sought by all investigators	Approved by University xxx and yyy institute research ethics department	Led by Dr. Doe, consultation with focus groups containing members of Oxford public is complete	Expected results are to learn about how aerosols can be lofted into the atmosphere and the effects they have	The field testing component of this research has undergone an environmental assessment, carried out by zzz consultancy	Please contact person vvv if you have any questions about our project
		Detailed Project Timeline	Justification of research methods; Replicable Research methodology			Additional information about the research team	Description of funding	Detailed Description of Field Testing Activities	Description and justification of IP sought	University xxx approval; yyy Institute approval	Report on focus group findings	Expected Results; Dataset #1; Dataset #2	EA report	Key references

Case Study: Trade in GMOs



- Biosafety Clearinghouse created under Cartagena Protocol of the Convention on Biological Diversity
- Aim was to provide GMO importing nations (in the developing world) information about GMOs to aid their decision-making
- Lacked involvement of many key exporters and burden of providing information was put on importers, creating adverse effects
- Objective should have been to **alleviate inequalities in access to information**

Case Study: Clinical Trials



- Problems of **publication bias**, need for **systematic reviews** and creation of **evidence-base for medical interventions** led to push in USA and Europe for clinical trials registries
- Significant movement toward **comprehensiveness** and **standardization** despite **barriers** including resistance from industry and lack of financial support, awareness or an enforcement mechanism
- Various examples include the Cochrane Collaboration which goes beyond a simple register to conduct systematic reviews that are **responsive** to needs of public and medical community

The Function and Form of a Registry for CE Research?



- **Function:**
 - Who are the stakeholders?
 - What are their interests?
 - What information do they want and/or lack?

- **Form:**
 - Scope
 - Ownership
 - Enforceability
 - Openness
 - Flexibility
 - Validation
 - Dissemination

Thank you!



To all of you for listening!

To Jason Blackstock, Tim Kruger, Neil Craik, Achim Maas, Stefan Schafer, Sean Low, Anna-Maria Hubert, David Reichwein, Peter Irvine, Jerry Ravetz, Simon Driscoll, Ed Pitt, Phil Renforth, Clare Heyward, Jack Stilgoe and Jane Long for their help and guidance

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