



PROJECTS: Research

KEI is running interdisciplinary projects in the area of “Global change and social-economic consequences”. Finding solutions for social problems caused by global change and transporting them into the society is the main task of KEI. KEI identifies research topics and will pass relevant information on the topics to the project partners. All project partners work together on the solutions to the problems addressed in the project proposal. KEI as a virtual institute serves as an organizational platform and is responsible for the internal and external communication.

All projects are governed by the principles of “Safeguarding Good Scientific Practice” by the German Research Foundation. The project results are open to the public.

CDR Model Intercomparison Project

The first stage of this project will focus on the shorter-term impacts of CDR. To quantify the impacts and feedbacks on atmospheric carbon dioxide levels requires an interactive carbon cycle, driven by emissions to the atmosphere. The first stage of CDR-MIP will undertake four sets of experiments ...

[Read more ... CDR Model Intercomparison Project](#)

Priority Program Climate Engineering

The term climate engineering (CE) specifically describes large-scale technical methods that can be used to reduce the concentration of CO₂ in the atmospheric or to reduce incoming solar radiation. Recently, some scientists and politicians have begun discussing the possibility of using CE to deal with climate change. This discussion has taken place against a background of unabated (despite efforts to reduce CO₂ emissions), rising atmospheric concentrations of greenhouse gases. However, despite the interest in CE there is no reliable information about its effectiveness, risks, and side effects. Thus, the debate is both complex and controversial.

[Read more ... Priority Program Climate Engineering](#)

EuTRACE

Climate Engineering (CE) is rapidly gaining scientific, political, commercial, and public attention, and the first national and international assessments of CE schemes have already been published. However, a distinct European perspective, particularly with regard to the EU and how CE relates to its ambitious climate targets, is still missing. The project “European Trans-disciplinary Assessment of Climate Engineering” (EuTRACE) has been formed to fill this gap.

[Read more ... EuTRACE](#)

Scoping report Climate Engineering

Climate engineering – a collective term for large-scale technical interventions in the Earth’s climate system – is increasingly discussed as an option to respond to anthropogenic climate change.

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and Research

Climate engineering technologies cover technologies both for the causative reduction of and the symptomatic compensation for anthropogenic climate change. The former are called carbon dioxide removal (CDR) technologies because they reduce CO₂ in the atmosphere, the latter radiation management (RM) technologies because they directly influence radiation balance and therefore temperature. As the definition implies, any application of climate engineering has potentially global effects: climate and ecosystems would be changed across the world, affecting the environments of whole societies. For this reason, a purely scientific or economic analysis of the topic falls extremely short, precisely because climate engineering affects so many environmental media, societies and areas of human life.

[Read more ... Scoping report Climate Engineering](#)

GLUES

GLUES is a consortium of project partners for the scientific coordination and synthesis of the BMBF "Sustainable Land Use Management" program.

The "Sustainable Land Management" program supports regional research projects. These projects work in different regions world-wide while being connected through international research programs.

The GLUES project aims to support the international cross-disciplinary collaboration of research projects dealing with the issue of land use, greenhouse gas emissions and ecosystem services. (Photo: Gernot Klepper)

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