

## **Implications and risks of engineering solar radiation to limit climate change (IMPLICC)**

The overall goal of the IMPLICC project is to significantly increase the level of knowledge about the feasibility and implications of novel options (or 'geoengineering concepts'), proposed recently to limit climate change. Among these possibilities, a deliberate manipulation of the radiative budget of the Earth may allow a counterbalancing of the effects of continued greenhouse gas emissions on global temperature, but may also result in undesirable side effects for crucial parts of the Earth system and humankind. Three complex climate models will be used to quantify the effectiveness and side effects of such geoengineering concepts aiming at a reduction of the incoming solar radiation. Simulations of a climate modified through geoengineering will be performed based on IPCC type future emission scenarios. Economic modelling will be used to link benefits and side effects of the studied geoengineering concepts. The results of the study will be discussed with the scientific community, policy- and law-related communities and interested non-governmental organizations (NGOs).