

## The normative evaluation of CE techniques

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The paper is based on work done within EuTRACE and CEMICS. It is tackling the subject of session 3 from the normative side. Instead of asking what normative principles would individual metrics interfere with, it will present normative criteria for the evaluation of CE techniques. Of course, such criteria need to be based on already well-established metrics as the underlying aims of techniques like the reduction of global mean temperature or the removal of greenhouse gases, the potential side-effects, the estimated costs, or questions of encapsulation, reversibility and scalability. At the same time approaching those metrics from the normative perspective shifts the focus to certain questions that are of use for establishing more normative oriented criteria. For example the estimated impacts – understood as intended and unintended potential consequences – can be evaluated in respect to their spatial and temporal distribution. This brings them into the context of global and intergenerational distributive justice. Other examples are questions raised by decision-making and governance. Here CE techniques can be viewed from the perspective of procedural justice, looking at the legitimacy of decisions or political feasibility constraints. This indicates that setting up such normative criteria is not a one-way street, but also leads to the further reflection of our normative assumption. Such feedback processes can be understood in the context of the debate of ideal and non-ideal theory. The usefulness of the normative criteria will be demonstrated for one or several climate engineering options in the context of CEMICS. Until July the normative criteria should have been discussed with scientists from economics and natural sciences, elucidating their potential inclusion for the evaluation of results of Integrated Assessment Models (IAMs) as well as their possible future integration in those models.