November 14th, 2023 Brussels, Belgium

1



PUBLIC PERCEPTION AND BUSINESS MODELS JOINT EVENT

Organised by the Carbon Capture, Utilisation and Storage (CCUS) & Alternative Fuels Horizon 2020/ Horizon Europe CLUSTER projects

Supported by CINEA - European Climate, Infrastructure and Environment Executive Agency

Joint event for CCUS & Alternative fuels CINEA cluster projects organised by: Martina Fantini <u>fantini@eucore.eu</u> (CLEANKER, CALBY2030 & HERCCULES); Jose M. Serra <u>jsalfaro@itq.upv.es</u> (eCOCO2); Laura Almar <u>lauallia@itq.upv.es</u> (eCOCO2); Ana M. García C <u>amgarcia@itq.upv.es</u> (eCOCO2)





Case study - MOF4AIR

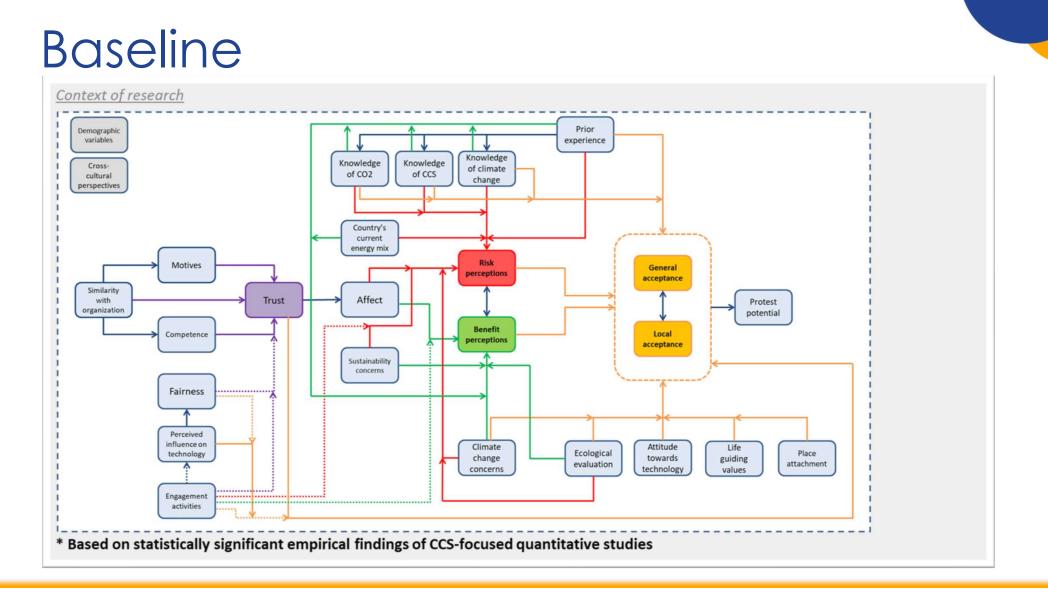
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Methodology

Research questions

- Differences between countries (BE, FR, GR, IT, NO, TU, UK)?
- Differences between different phases (capture, transfer, storage)?
- Differences between national and local acceptance?
- Effects of diverse factors (knowledge, prior experience, risk/benefit perceptions, trust, justice, engagement activities, etc.) on acceptance?
- CCS sector conditions & technical and safety standards?

Target groups

- General population: examination of public perceptions, social acceptance and determinant factors;
- CCS experts (e.g., government representatives national, regional, local -, project developers/operators, relevant industries, researchers, NGOs): provide a set of recommendations towards social acceptance of CCS projects.

Operative tools

- General population -> quantitative survey -> questionnaire survey;
- Key-stakeholders -> qualitative survey -> interview protocol.



Summary

Quantitative study

- Differences between the 7 countries in the vast majority of the themes under investigation;
- Overall level of CCS knowledge was rather balanced;
- General perceptions of CCS were mainly positive;
- CCS acceptance is positive on a national level, negative on a local level;
- Differences between the different phases of CCS, in terms of local acceptance;
- Perceived acceptance is found to be affected by sociodemographic characteristics; knowledge; perceived positive and negative impacts; trust of stakeholders and institutions; and procedural and distributional justice.

Qualitative study

- Stakeholder engagement (provision of information, collaboration with local communities, channels of communication, the role of public involvement);
- Provision of compensatory benefits to local communities;
- Identification of the main technical and safety specifications contributing to CCS projects' social acceptance;
- Benefits that the utilization of captured CO₂ could offer to the social acceptance of CCS infrastructure;
- Results should be treated with caution, as the interviewees (25) do not represent a random or representative proportion neither of the general population nor of all CCS experts.



Policy impact

Take-away for policymakers

- Different approach per country;
- Different approach per CCS phase (capture, transport, storage);
- Importance of procedural and distributional **justice** / positive and negative **impacts** / stakeholders' **trust**;
- Importance of stakeholder **engagement activities** (provision of information, collaboration with local communities, channels of communication);
- Utilization of captured CO₂ over storage.



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