

Social acceptability research (D6.5)

Objective

The aim was to generate evidence on social acceptability of CEEGS: the technology itself, how it would work, where it could be located, etc., among citizens in Spain, Portugal and Germany.

Methodology

The research team applied an innovative qualitative methodology, based on reconvened focus groups, but adding the participation of an expert to answer participants' questions about the technology. We organized two groups per country, one met face to face, the other online. We had 18 participants per country, 54 in total. We held two sessions with a 7-to-10-day interval. In the first session, we framed the CEEGS technology in the context of decarbonisation, renewable energies and carbon capture and storage. Participants were then given information material (video, leaflet, FAQ, news article, maps) and had the opportunity to send questions to an expert. In the second session these questions were answered and risks, benefits and acceptability were discussed. For the analysis, we did thematic coding of the full transcriptions with a shared codebook in MaxQDA, to allow for cross-country comparison.

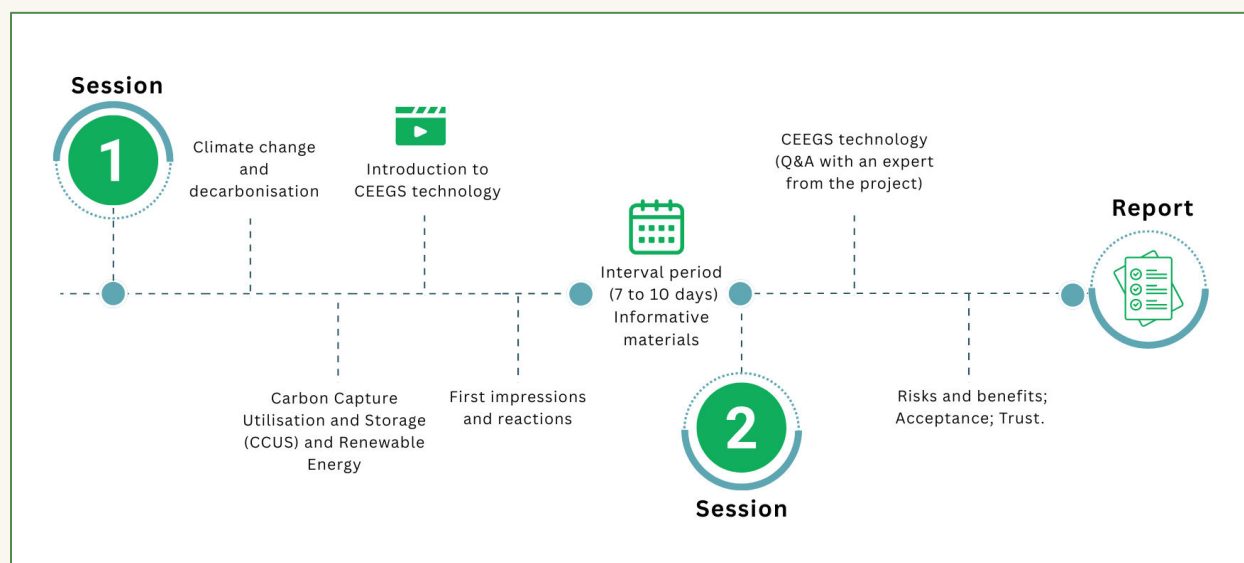


Figure 1. Methodology of the social acceptability research in CEEGS.

Findings

- Participants in Spain, Portugal and Germany all voiced a **strong concern about climate change** and an acknowledgment that major efforts are needed to mitigate it. Participants shared **pragmatic doubts about the current trajectory of renewable energy**, frequently raising questions about the feasibility and practicality of relying solely on renewables, citing familiar challenges such as intermittency, storage limitations, and the slow pace of grid improvements.



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- **Baseline awareness of CCS** was very low in all three countries at the outset. Few participants had more than a cursory notion of carbon capture or similar technologies.
- When first introduced to the CEEES technology **participants' first reactions** ranged from intrigued to cautions. Many participants likened CEEES to a “double-edged sword”.
- **Concerns** surfaced quickly, indicating that safety and environmental risks were front-of-mind. Memories of past experiences amplified these worries, mainly in Spain due to the Castor experience. In Portugal and Germany people drew on analogies, comparing CEEES to nuclear waste storage, fracking, or other high-stakes subsurface. Common was an appeal to *the precautionary principle*: if CEEES carries, even a small chance of grave harm society should approach it very carefully.
- Participants did acknowledge a suite of **potential benefits** that CEEES might offer. One of the most frequently cited was environmental: CEEES could help reduce greenhouse gas emissions and contribute to climate change mitigation. Another was on the energy-system side: CEEES might enhance grid stability and efficiency. Economic and social benefits were also identified: investment and jobs to local areas; new market opportunities, skilled employment, and regional development.
- Participants emphasized certain **conditions that must be met for acceptability**: safety is non-negotiable; there is a need for independent oversight and transparency; careful siting emerged as a key condition; tangible benefits and guarantees for host communities must be part of any CEEES project; and early and ongoing public engagement is needed.
- A critical factor threading through all the above is **trust**. Many are sceptical of corporate and governmental motives, given past experiences of “*greenwashing*” or policy reversals, yet they are not cynically opposed to innovation.
- The **governance of CEEES** emerged as pivotal: participants need to see transparent decision-making, opportunities for public oversight, and contingency plans.
- Participants in Portugal, Spain and Germany were **mostly supportive** of the technology, though considering this is not the ideal option for decarbonisation. In Spain, they were also often distrustful of the procedural justice at the local level, whereas in Portugal and Germany there is more unconditional support to the technology.



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Recommendations

Taken together, these findings carry several **practical implications** for the development and potential deployment of CEEES:

- The technical project design and site selection should be carried out with an **acute awareness of public risk perceptions**.
- On the siting front, choosing a location for a pilot or full-scale CEEES facility will require **balancing technical suitability with social considerations**.
- Establishing a **framework for independent oversight** is essential.
- **Public engagement processes** need to be built into the life cycle of CEEES projects from the very beginning.
- **Inclusive decision-making** is also key: national and regional authorities might establish advisory councils or engage with local governments, and citizen representatives when developing regulations or strategies for CEEES and related technologies.

Overall, the main advice for policy makers, promoters and other relevant stakeholders distilled from this study is to **proactively engage and inform**, rather than assuming that a sound technology will be automatically embraced. History, with technologies ranging from nuclear power to wind farms, has shown that early and earnest engagement can make the difference between projects that succeed and those that stagnate due to public opposition.

How do I find out more about the project?

Video teaser: <https://youtu.be/fvH5HlrsJME?si=d1-IGwywE8CAJZN3>

Project Brochure: <https://tinyurl.com/2p9hc9n4>

Project Website: <https://ceegsproject.eu/>

Social Media:

Facebook: <https://www.facebook.com/ceegsproject>

X: <https://twitter.com/ceegsproject>

LinkedIn: <https://www.linkedin.com/company/ceegs-project/>

Instagram: <https://www.instagram.com/ceegsproject/>

YouTube: <https://www.youtube.com/channel/UCDcsrOEr4MQssP8IH4dKVWQ>

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