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D6.3.2: Developing and testing new core messages (ALIGN-CCUS)

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ALIGN ALIGN CCUS

Accelerating Low carbon Industrial Growth through CCUS

Deliverable Nr. D6.3.2: Developing and testing new core messages



Dissemination level	Public
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Information requests

The full version of the D6.3.2 report will be made publicly available on the ALIGN-CCUS website once the studies reported have been published in peer-reviewed scientific journals. Until then, the full version of the D6.3.2 report is available upon request.

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Executive summary

The aim of ALIGN-CCUS Task 6.3.2 was to identify current and past messages disseminated about CCUS in several European countries, and to test new core messages in order to reconsider how CCUS is discussed and positioned. We used a two-step approach to reach these aims. In Step 1, we focused on the identification of past and current core messages used in society about CCUS. In Step 2 we tested new core messages.

In Step 1 of Task 6.3.2, we conducted media analyses in three countries (Germany, the Netherlands, and Romania) and website analyses in four countries (Germany, the Netherlands, United Kingdom, and Romania) to identify current and past core messages about CCUS used in society, using a similar approach in each country. The results of the media and website analyses show that coverage levels and type of discourse about CCUS differ between the four countries investigated.

More specifically, the results of the media analyses conducted as part of Task 6.3.2 show that media coverage and media representations of CCUS differ between Germany, the Netherlands, and Romania. Media coverage about CCUS for the time periods analyzed can be considered as moderate in Germany, as relatively high in the Netherlands, and as low in Romania. The overall tone of the articles identified, as expressed by the division of arguments in favor of CCUS versus arguments against CCUS, was relatively critical in Germany (68.2% of the arguments identified were arguments against CCUS), somewhat more mixed/balanced in the Netherlands (59% of the arguments identified were arguments against CCUS) and relatively positive in Romania. The results further showed that similar arguments are used for and against CCS by proponents and opponents. For example, proponents state that CCS is a sustainable and proven technology, whereas opponents present CCS as not sustainable and unproven. This potentially makes it difficult for the public to form an opinion about an already complex subject. Further, results showed that CO₂ utilization attracts little media coverage so far.

In line with the results for the media analyses, the comparison of the results of the website analyses conducted in Germany, the Netherlands, United Kingdom, and Romania shows very different pictures: the CCUS topic is scarce on stakeholder websites in Romania, whereas it is moderately present, but negatively evaluated, on stakeholder websites in Germany. On the other hand, the topic is very present with a broad spectrum in views and evaluations on stakeholder websites in the Netherlands, while in United Kingdom the CCUS topic is moderately present on stakeholder websites, but with a merely positive evaluation. In terms of most used categories of arguments the results of the website analyses also demonstrated some overlap between the countries investigated: overall, most used CCUS arguments used related to *environment and safety* and *economic costs* of CCUS implementation.

In Step 2 of Task 6.3.2 we tested new core messages by means of focus group research among citizens in Romania, and experimental survey research among citizens in the United Kingdom, aiming to identify core messages that allow citizens to form an informed opinion about CCUS, that are trusted, and in this way may increase societal support for CCUS implementation. The objective of the focus group study and experimental survey study was to identify the effects and reception of specific message frames (environmental versus economic frames; gain-frames versus loss-frames) that were built based on Step 1 research, and findings of ALIGN-CCUS Task 6.1 (Broecks et al., 2020), Task 6.2 (Ter Mors et al., 2020) and Task 6.3.1 (Belka et al., 2020), enabling the premises for formulating solid core messages for a future strategy of CCUS communication at a European level.

The results of the focus group study showed that participants in the 'industrial area' Craiova focus group considered both environmental and economic benefits important and saw these as interconnected, whereas participants in the 'non-industrial area' Bucharest focus group considered environmental benefits more important. Findings also overlapped between the two focus groups, for example regarding perceptions of risks and costs: most of the participants in both focus groups expressed concerns on the safety of storage and transport. Also,



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most participants in both focus groups agreed that there is a need to prevent further climate change (only the measures proposed were different) and that the alternatives to produce sustainable energy need further research and development. In this study, we also tested public responses to four potential CCS messages and found that what was key for the focus group participants was that messages are clear, accessible, and appeal to citizens' personal interests.

Finally, in the experimental survey study on gain-loss framing conducted among citizens in the UK we did not find any evidence that loss framing a pro-CCS message leads to a more positive attitude towards CCS than gain framing a pro-CCS message. Further, we did not find any empirical support for a potential added value of providing economic arguments in addition to providing environmental arguments in the study. The results did show a negative relationship between perceived risk of CCS technology and attitude towards CCS implementation: the higher the perceived safety risk associated with CCS technology, the more negative participants' attitudes towards CCS implementation were.