

Creating value from CCS research: knowledge production & communication Utrecht University



Kevin Broecks k.p.f.broecks@uu.nl

- Project duration: 3.5 years
- Supervisor: Frank van Rijnsoever, Marko Hekkert
- Main research question:
 - How to communicate about CCS to the general public?
- Relevance for implementation of CCS:
 - Communication can facilitate public support for CCS.
- (First/expected) results:
 - Discuss personal norms.
 - Discuss role of CCS in energy mix, rather than just climate change.



Study 1: Research question

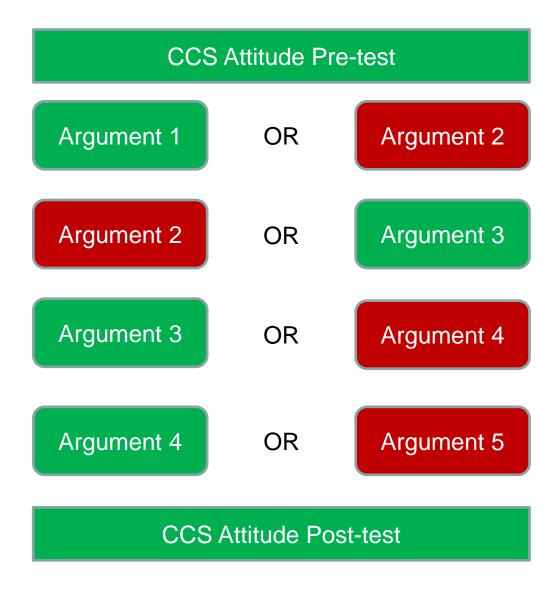
What arguments **for** and **against** CCS are most **persuasive**, **important** and **new** for **different groups** of people?



Method: Choice experiments

Argument 1	Argument 2
"CCS can be used in industries where no other possibilities for CO ₂ reduction exist".	"A waste product such as CO ₂ should be properly tidied up."
Which of the above arguments	
do you think is most persuasive?	
□ Argument 1	□ Argument 2
do you think is most important?	
□ Argument 1	□ Argument 2
is the most new to you?	
□ Argument 1	□ Argument 2







Survey 1: top 3 pro arguments

- 1. "CO₂-storage can be used in **industries** where no other possibilities for CO₂ reduction exist".
- 2. "A waste product such as CO₂ should be properly cleaned up."
- 3. "CO₂-storage is **safe**. It will be stored in gas fields where natural gas has been stored for millions of years."



Survey 1: top 3 con arguments

- 1. "It is better to **avoid** CO₂-emmisions than it is to store the CO₂."
- 2. "CO₂-storage is new and has never been applied on a large scale. The **risks** are therefore not fully known."
- 3. "CO₂-storage is more **expensive** than solar or wind energy in the long term."



Conclusions

- 1. Discuss personal norms (cleaning up garbage).
- Focus on role in the energy mix and the economics, rather than climate change in itself.
- 3. On average, arguments that present a lot of new information are unpersuasive (energy req., EOR)
- 4. People are different:
 - A segment of about 25% values the role of CCS in the energy mix.
 - 2. A segment of about 18% is responsive to (dread) risks.



Method: details

Discrete choice experiment

- Full factorial design (all combinations)
- 32 arguments (16 pro, 16 con)
- 8 choices p.p.

Sample & Data collection:

- Representative NL, >18, online survey
- Control for position & length of arguments
- Randomization

Seperate groups

- Pro arguments (N=465)
- Con arguments (N=455)