

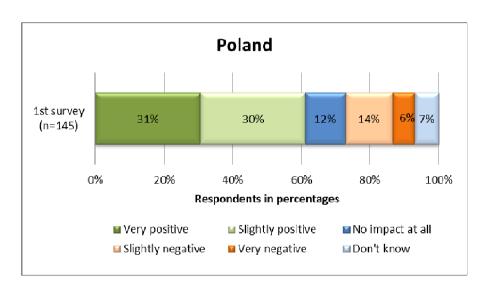
Characterisation of European CO₂ storage

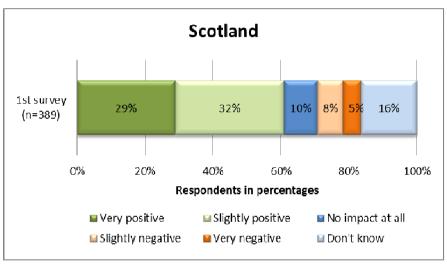
The added value of social research

Dr. René Zimmer, Independent Institute for Environmental Issues



Expectations of local impact of CCS

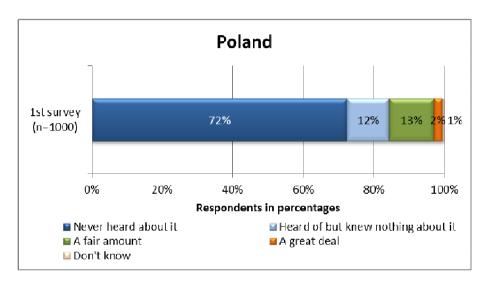


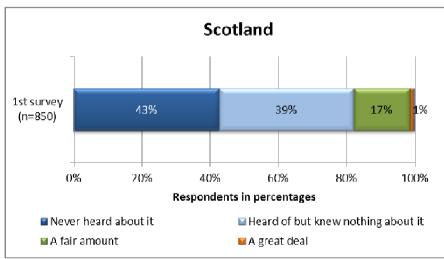


expectations of local impact of CCS are mostly positive

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Public awareness of CCS





basis: very low public awareness of CCS



What happens ...

... when things become the subject of public debate?





... people talk to each other





... ask experts





Public opinion is forming



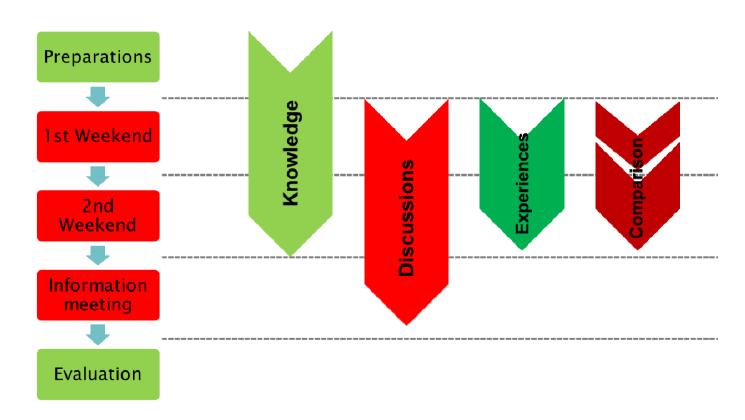


little by little structures are manifesting



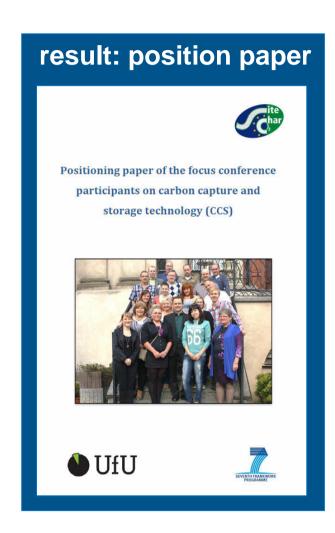
Why focus conferences?

Simulating a public debate





Exploring public opinion



- there is no right or wrong in the paper
- Question: How will the public perceive CCS?
- Aim: Find ways for adequate community engagement activities



Top-of-mind thoughts CCS (PL)

Economic benefits

Safe jobs
Chance for the region
Longer use of coal
National energy security
Recycling of CO₂

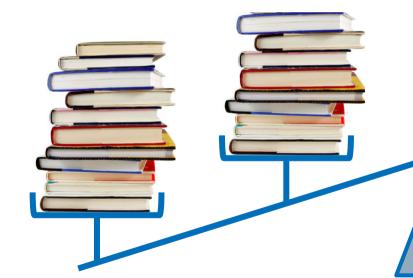
Environmental benefits

Climate protection
CO₂ emissions reduction
Reduction greenhouse effect

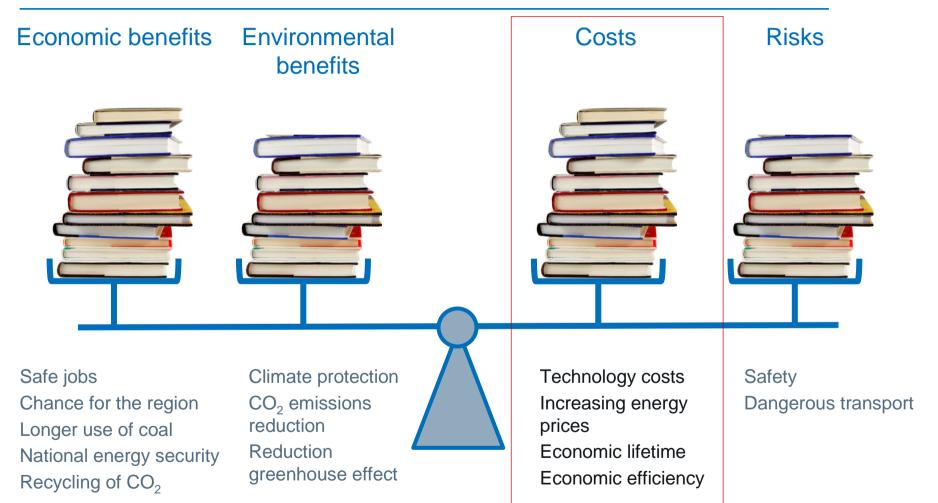
Risks



Safety Dangerous transport



State of debate after first discussions (PL)



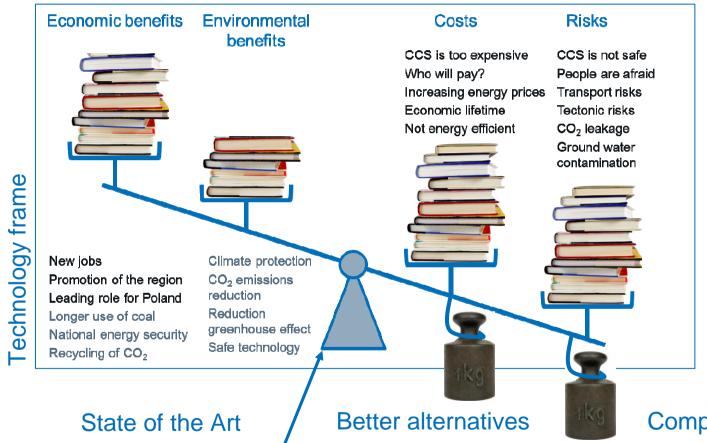


State of debate after World Café (PL)

Economic benefits Environmental **Risks** Costs benefits CCS is too expensive CCS is not safe Who will pay? People are afraid Increasing energy prices Transport risks **Economic lifetime** Tectonic risks Not energy efficient CO₂ leakage Ground water contamination New jobs Climate protection Promotion of the region CO₂ emissions reduction Leading role for Poland Reduction Longer use of coal greenhouse effect National energy security Safe technology Recycling of CO₂

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Opinion in the Polish position paper



Vote in Poland

11 persons: to many uncertainties to opt for CCS!

5 persons: reject application of CCS in the region!

Still in research state
Only one project in
Poland

Better technologies for CO_2 reduction

Comparison

Other countries prohibit CCS CCS only in Poland can't save the global climate

echnology frame

Opinion in the Scottish position paper



Economic benefits

New jobs
Leading role for
Scottland
Breathing space
for renewables
Exporting
technology,
consultants,
experts
Profits from

Environmental benefits

Short term
option for
climate
protection
Achieving
carbon reduction
targets

Costs

Major uncertainties
Corrosion & eruption of CO₂ pipelines
Risk of terrorist threat
Leakage of CO₂ into sea
.side-effect

Risks

Vote in Scotland

5 persons: want CCS along with other measures

4 persons: undecided or abstention

3 persons: don't want CCS

Fossil frame

Maintain status quo of high energy usage Further dependency on fossil fuels

State of the Art

Only 30 years experiences

storing CO₂

Better alternatives

Renewables
Carbon recycling
Increasing energy
efficiency

Comparison

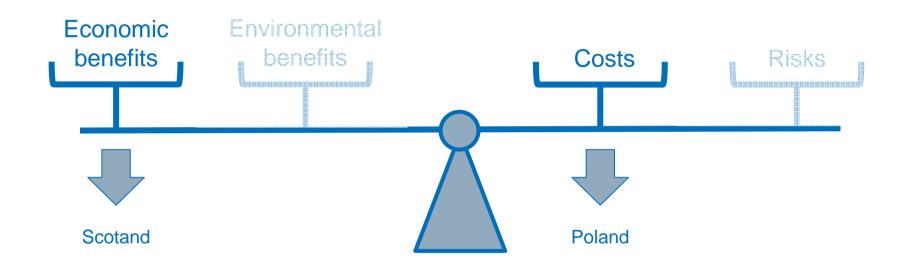
risks

Other countries prohibit CCS

CCS only Scotland can't save the global climate

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Cost-benefit considerations



- For assessment of CCS economic benefits and costs play a crucial role
 - In Poland: people putting more emphasis on costs
 - In Scotland: people putting more emphasis on economic benefits

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How to deal with these results?

- Economic benefits are important for people
 - Show where the economic benefits are
 - for themselves
 - for the region
 - for the country
- People want to know who will bear the cost
 - Communicate transparent
- People are afraid about risks
 - Communicate what is the state-of-art and how you will handle possible risks



How to deal with these results?

- People want to have a timeframe
 - Give people an idea for which period CCS an option is and what will you do in the meantime
- People don't want to see their region as dumping ground for CO₂
 - Communicate why CCS can be an option for Poland or Scotland despite the fact that Germany or The Netherlands rejected the technology



Many thanks for your attention!





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Topics for discussion

- Integration of the social research results with the techno-economic results from the SiteChar project
- Integration of social aspects in the licensing process for CCS projects
- Public engagement in the process of project development



Cost-benefit considerations

