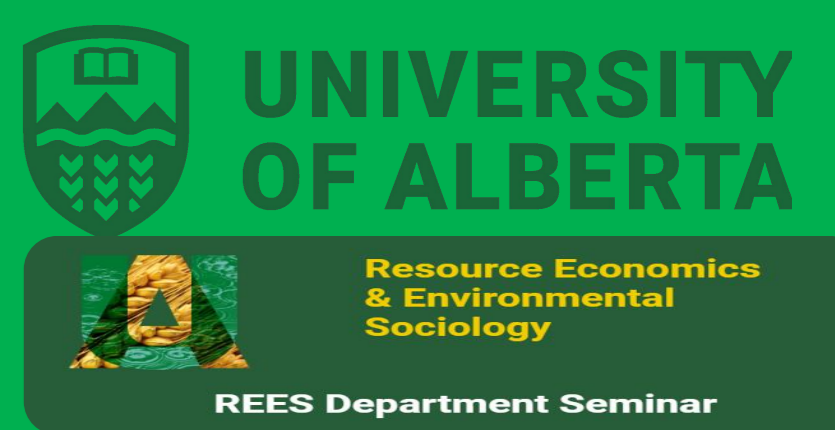


Public Perceptions and Preferences for CCS Development in Canada

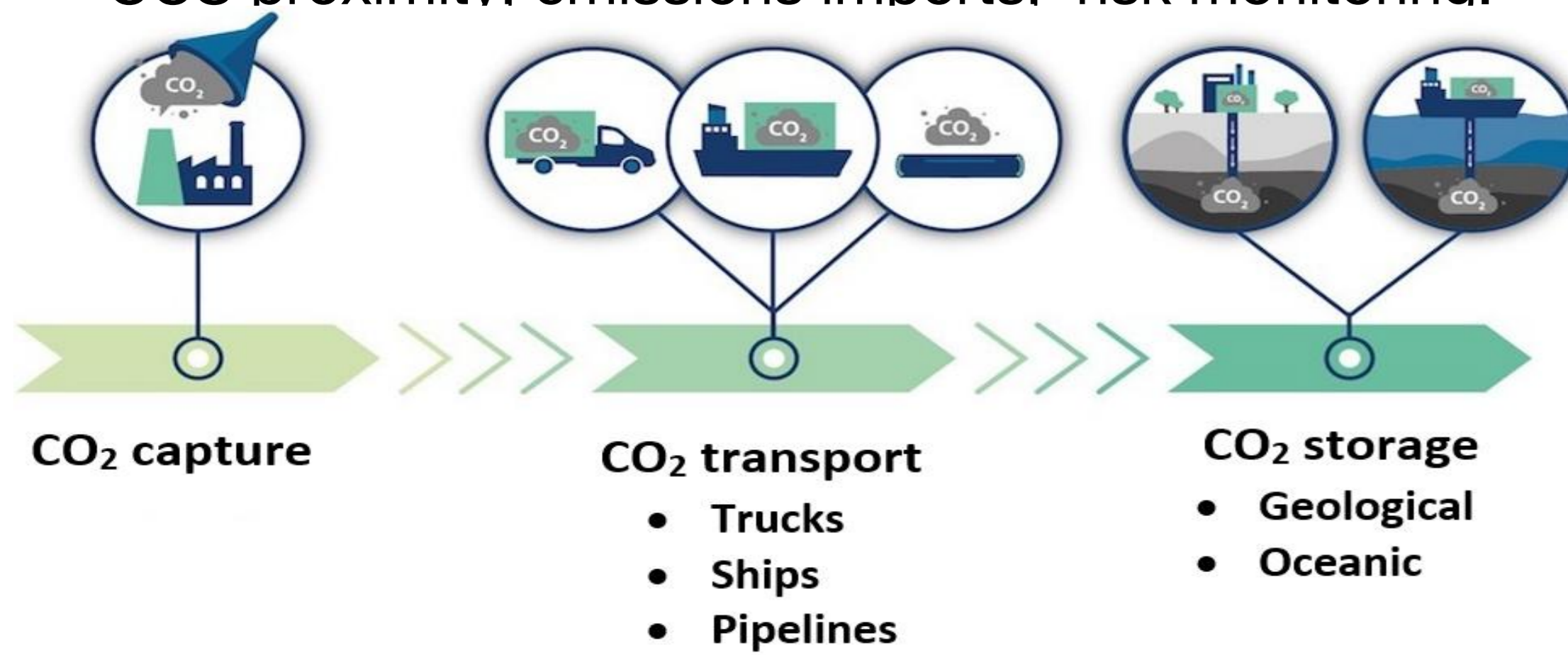
Abdul-Hamid Mohammed & Sven Anders



BACKGROUND AND OBJECTIVES

- Experimental study exploring Canadians' willingness to accept Carbon Capture & Storage (CCS)
- Vignette experiment to elicit preferences for alternative CCS development scenarios
- Scenario attributes: consultation, compensation, risk monitoring, CCS proximity, emissions imports.

The CCS Process



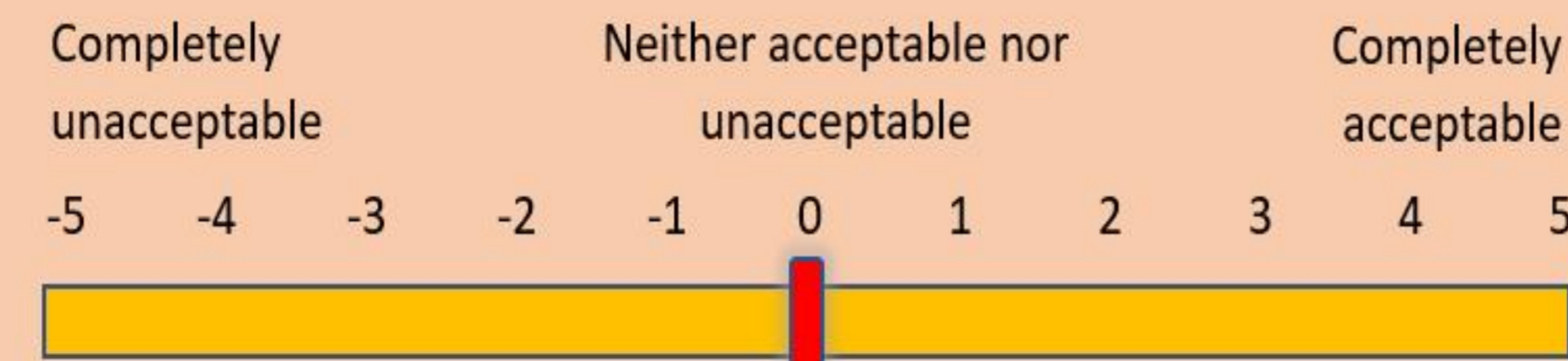
DATA & METHODS

- Factorial survey experiment** with vignettes
- Survey covered socio-demographics, knowledge, risk & benefits, trust, climate beliefs etc.
- Online **survey** (n=1002) conducted in Canada by *SurveyEngine*
- National **representativeness** achieved through age, gender, education, and income profiles
- Ethics approval** - University of Alberta Research Ethics Board
- Random effect** models estimates: attribute and respondents' effects on CCS acceptance ratings.

Example of a Vignette Scenario

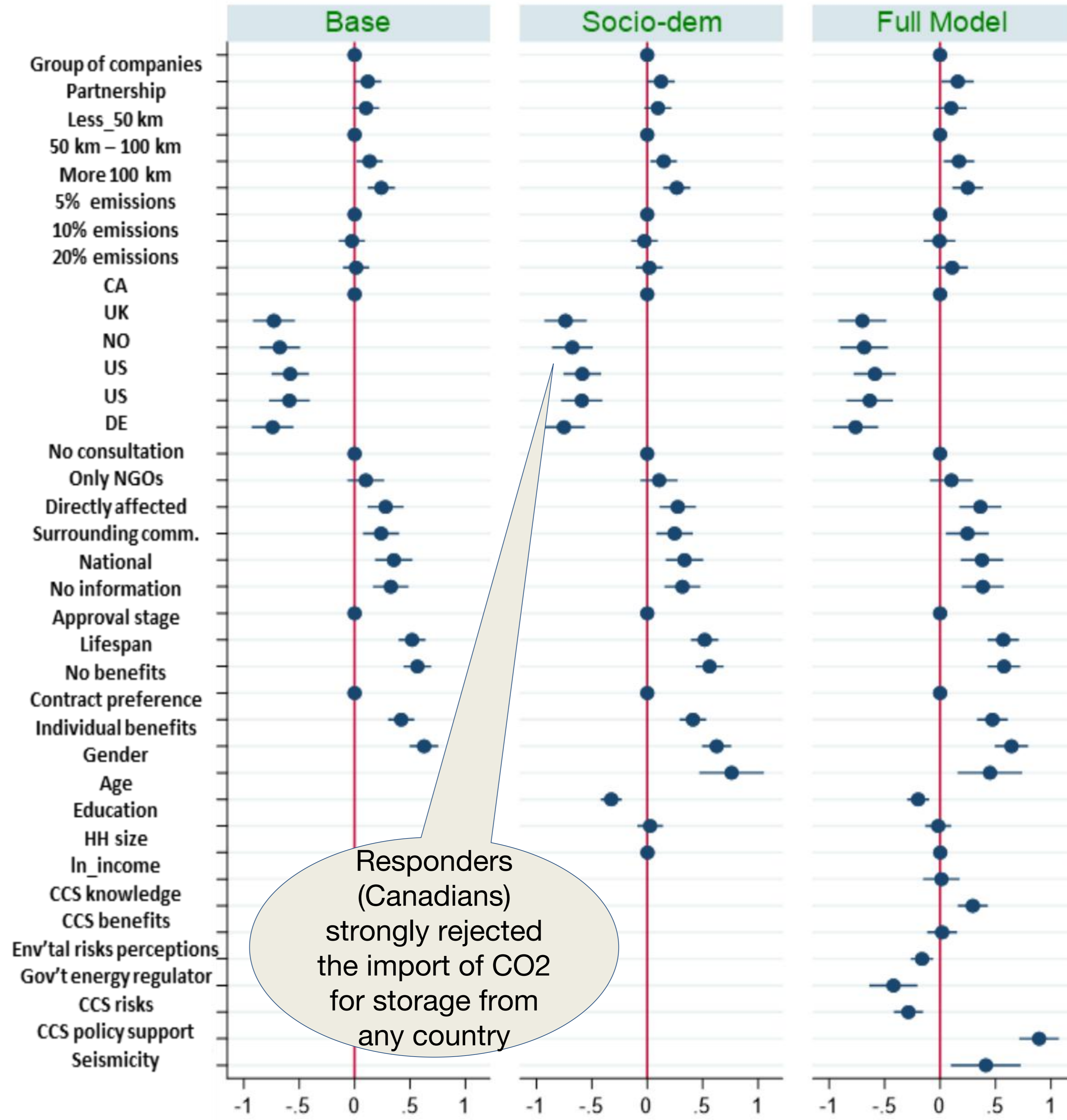
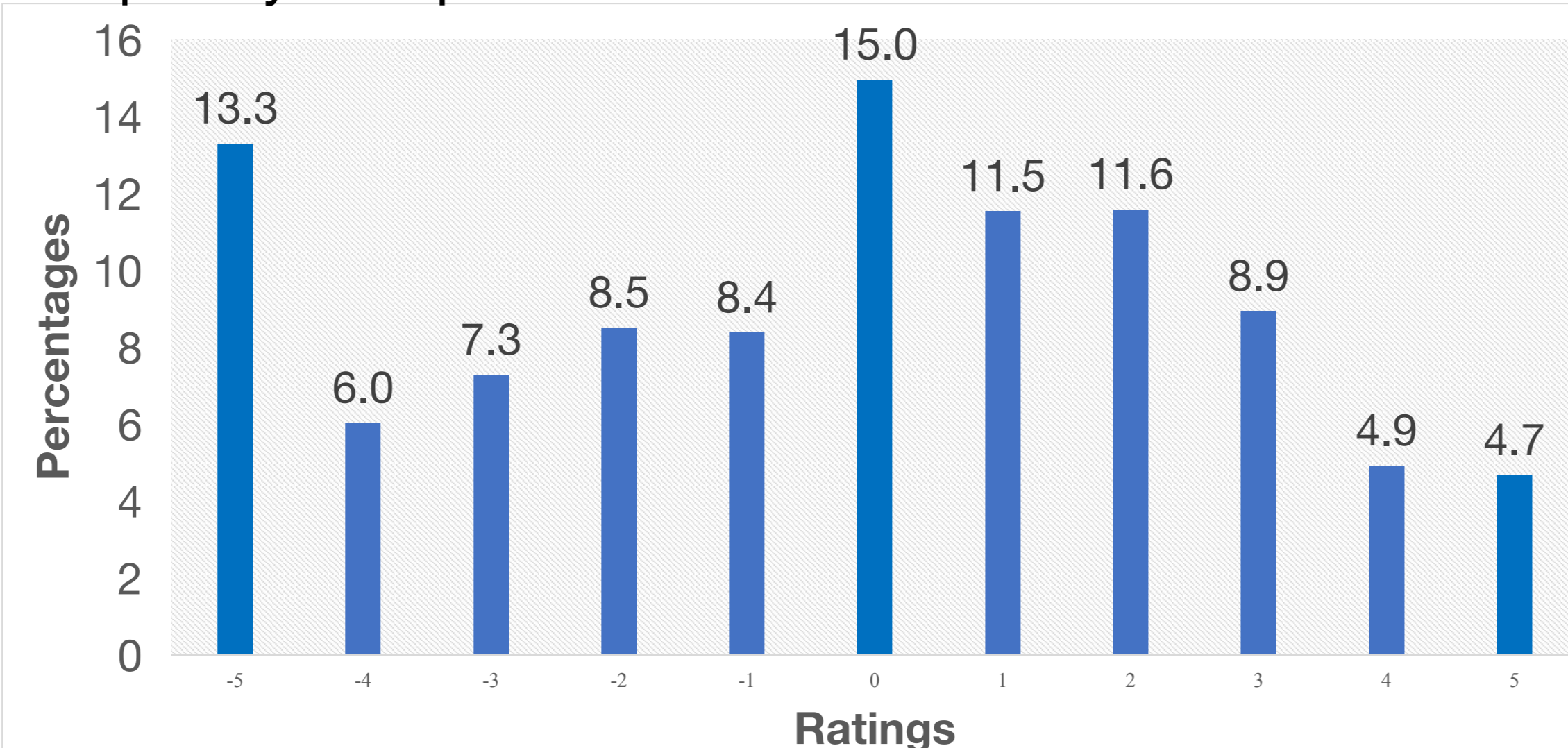
[Project oversight institution] has been tasked to build a carbon capture and storage (CCS) plant [distance to the CCS plant] from your home. The plant can store [% of emissions] generated by households in your state. It will store CO₂ from [source of CO₂ emissions]. [Public consultation] as part of the regulatory approval process. [Public access to information] on the seismicity risk assessment. Host communities will receive [benefits].

How **acceptable** is this CCS development scenario to you?



RESULTS

13.3% of CCS development scenarios were rated as completely unacceptable and 4.7% were rated as completely acceptable.



Respondents highly value consultation, compensation, and transparency in risk information sharing. But are also very sensitive to CCS risks especially induced seismicity.

Key Messages

- CCS is falling short of expectations
- Cross-border transport of CO₂ for storage has a significantly large effect on CCS acceptance
- Other drivers include:
- Consultation, compensation, induced seismicity, information transparency, CCS knowledge, and environmental risk perceptions

Acknowledgement

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