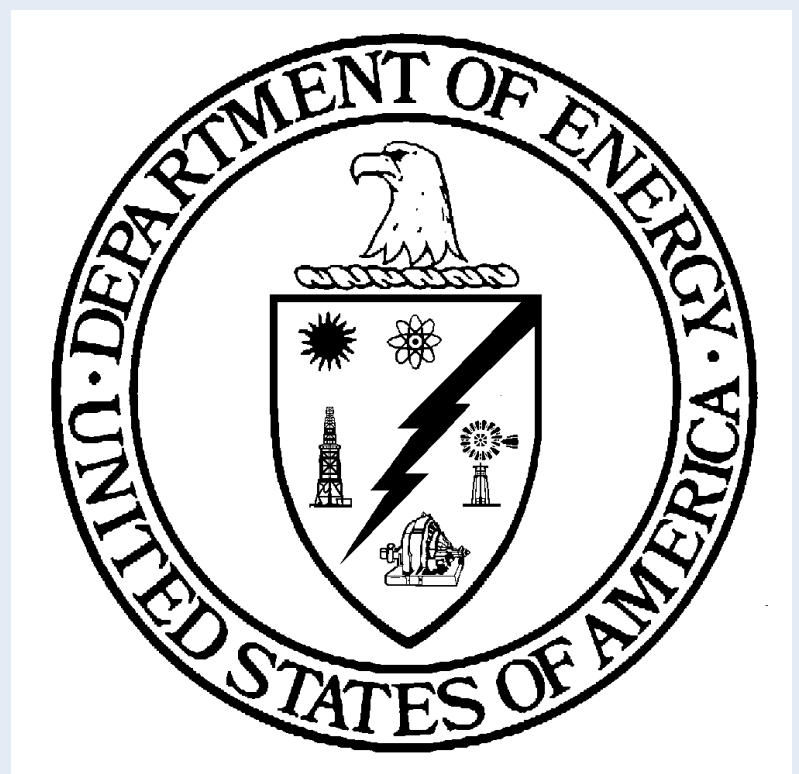# Composing Energy Policy:
The Influence of Low-Carbon Energy Technology Scientists and Engineers on Energy Policy

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Introduction

- For energy science, there is an inevitable link between science and society
- Controversies over climate change and energy demonstrate the connection between **science**, **society**, and **policy**
- **Low-Carbon Energy Technologies** (**LCETs**) hold potential to address global warming and change energy policy
- Understanding the **forms of reasoning** used by scientists and engineers in talk among themselves can enable productive avenues for developing **low-carbon energy** policy

Forms of Reasoning

- **Reasoning** is the act of constructing a logical argument with a claim and support
- **Technical reasoning** includes forms of argument that produce legitimate scientific and engineering knowledge
- **Prudential reasoning** involves forms of argument that produce judgments based on value
- Previous research indicates that **scientists and engineers** use technical reasoning in communication among themselves and prudential reasoning in communication with the public.
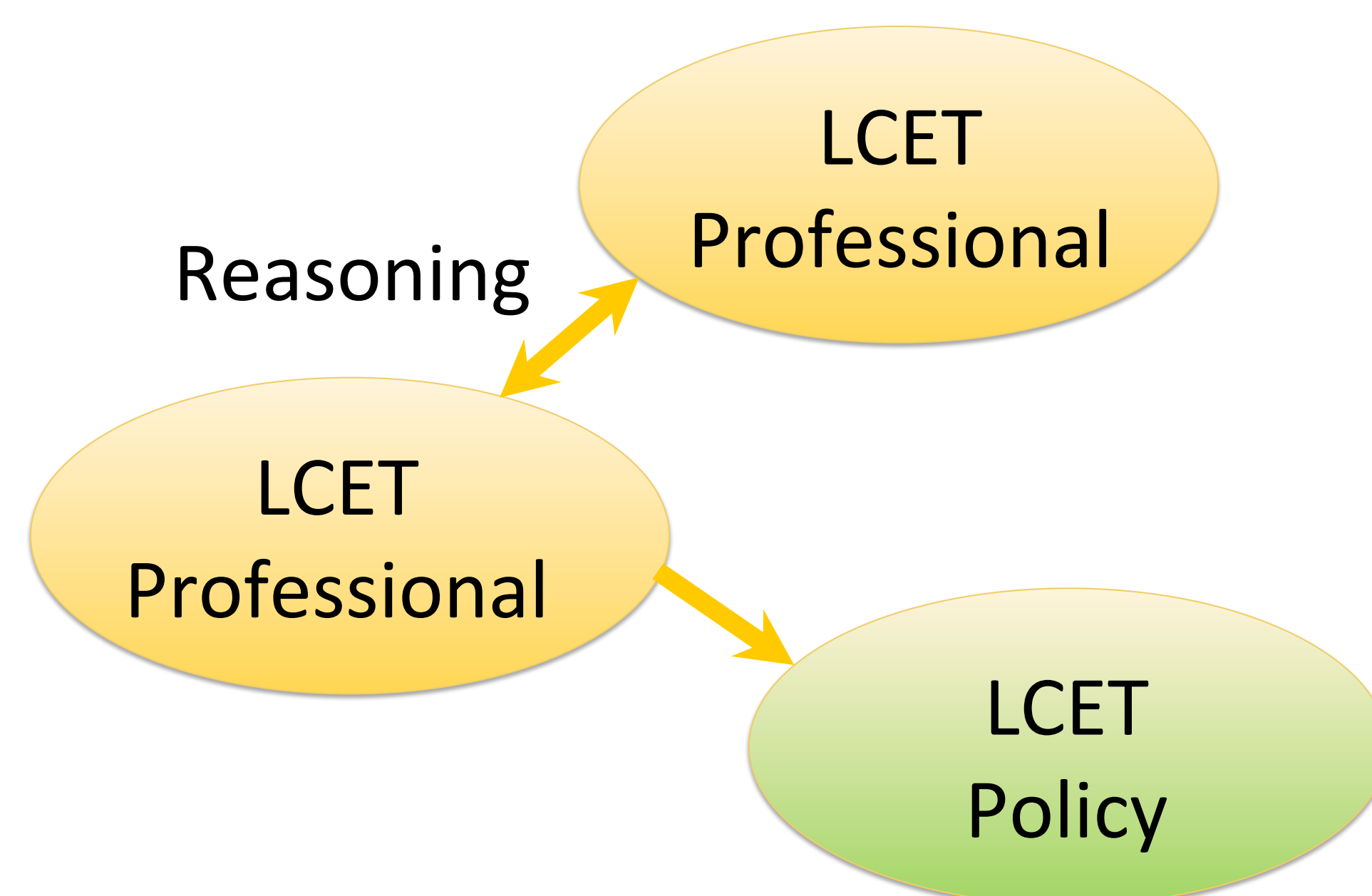
Who are LCET Professionals?

- **Interdisciplinary** scientists and engineers across **multiple sectors** engaged in **basic and applied** research, development, and subsequent deployment of low-carbon energy technologies
- They all have **scientific training** and may be working in academic, corporate, or industry settings

Research Questions

- **RQ 1**: What forms of reasoning do LCET professionals use when communicating among themselves?
- **RQ 2**: If LCET professionals make use of technical and/or prudential forms of reasoning when communicating among themselves, how is this reasoning composed?
- **RQ 3**: How does the composition of reasoning within LCET professional rhetoric enable and constrain energy policy?
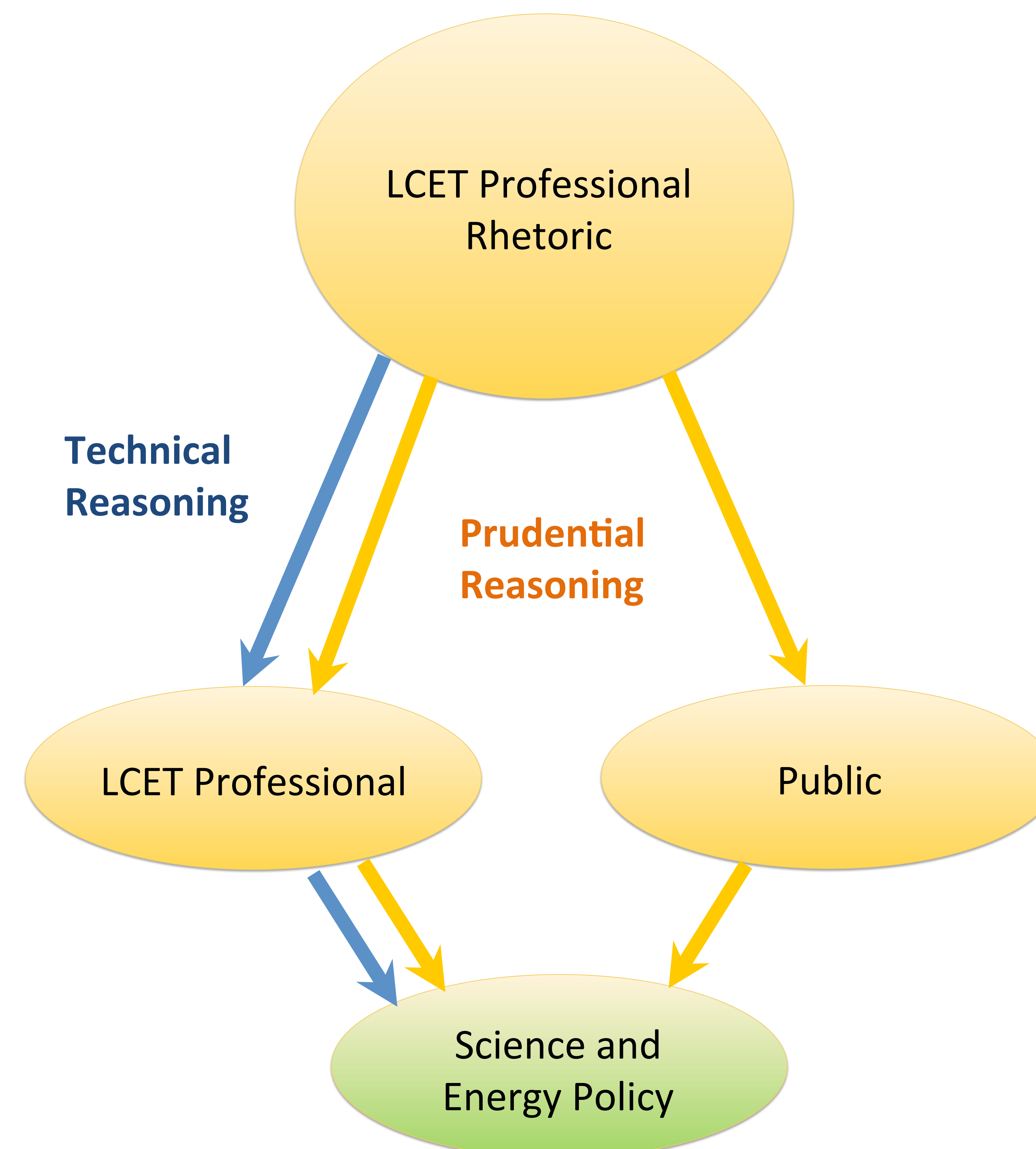
Studying LCET Communication

- Following scientists and engineers where they interact and communicate
- Gathered documented texts, ethnographic participant observations, and interviews
- Studied forms of reasoning among LCET professionals

Pilot Project Results

- 11th Annual CCUS Conference, Pittsburgh, PA, May 2012
- Observed **CCUS professionals** rely upon technical and prudential reasoning as they reacted to a framing shift in which "utilization" was actively incorporated into the naming system transforming CCS into CCUS
- Framing **CCS technologies** as CCUS for enhanced oil recovery shifts focus from low-carbon energy technology to promoting fossil fuels and has consequences for LCET professionals and policy
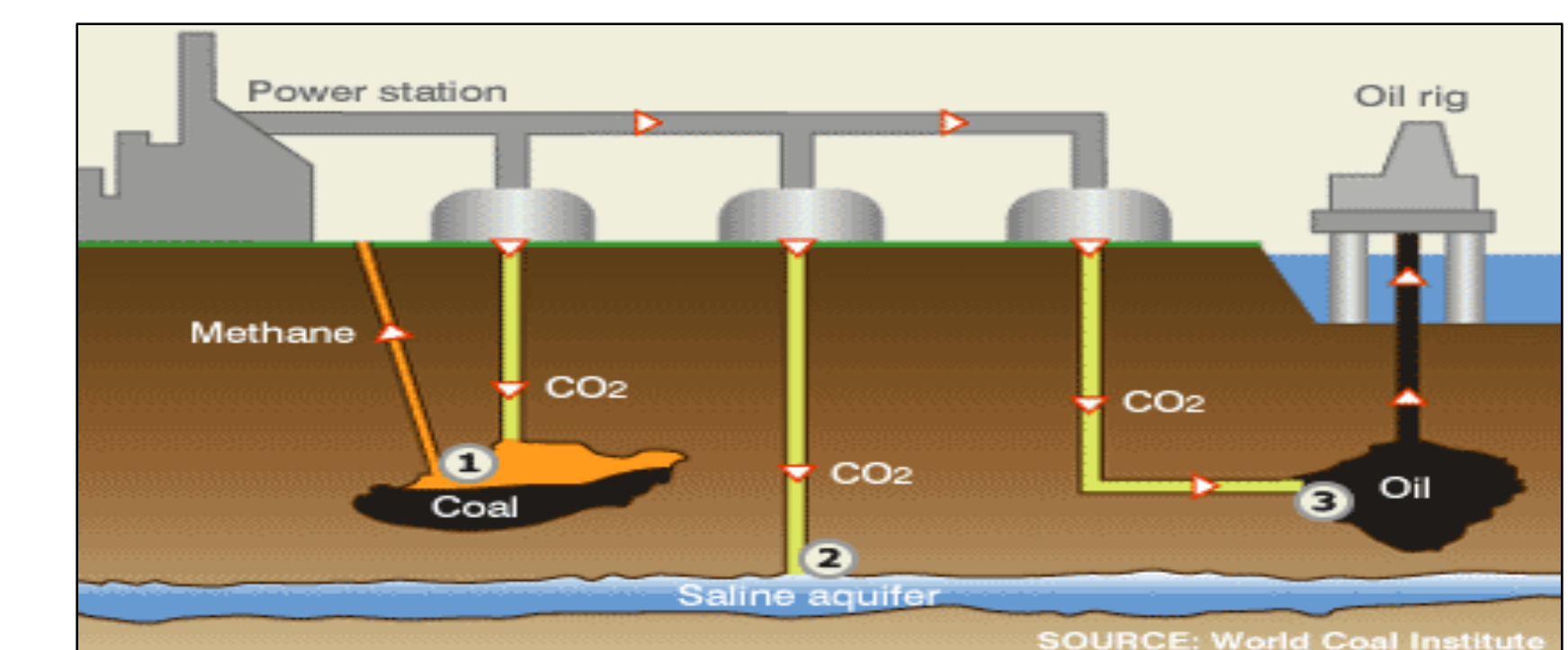
Current and Future Work

- The larger sample includes **nuclear** and **wind** professionals
- Observation of energy professionals across resources can inform how **scientists influence policy** through their forms of reasoning as well as **how energy R&D interact** across technologies

Acknowledgements