



International Risk Governance Council



Session 1:

Providing confidence in CCS technology and its associated risks



Chair: Lutz Cleemann



International Risk Governance Council

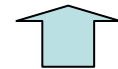
Objectives of Session 1

- Explore the potential developments in CCS technology
- Consider the possible risks
- Address challenges



Preconditions for the realization of

**Large scale
CCS**



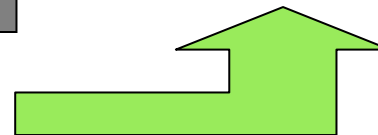
Investments

Confidence

Experience

Regulation

**Risk
Management**



Requirements ?

**CCS
Technology**



International Risk Governance Council

How to turn a high level of expectations towards CCS into a high level of confidence?

Or, how to make markets work for CCS?

- Performance and reliability of technology
- Quality of risk management
- Adequate regulation
- Clear responsibility and liability
- Stable climate regimes and incentive structures
- Transparency and communication of risks
- Public acceptance of CCS



International Risk Governance Council

The technological challenges of large scale CCS are manifold...

CO₂-Capture

- System efficiency and reliability

CO₂-Transport

- Infrastructure availability & operational safety

CO₂-Storage

- Site performance & security
- Leakage (prevention and detection)
- Long term stability



International Risk Governance Council

The risk management of CCS is particularly challenged by...

- technical failures during separation and transport
- possible leakage (slow or sudden)
- natural catastrophes
- unintended environmental impact
- bad governance and lack of risk awareness
- long term liability issues
- limited risk transfer solutions
- the cost of risk
- the threat of loss of public acceptance



The contributions

Current state of CCS technology and future challenges

- Dr. Dietmar Keller, Deputy Manager of the RWE IGCC CCS-Project, RWE Power AG

- **The risk management challenge**

- Dr. Wolfgang Heidug, General Manager CO2 Policy, Shell International B.V.

- **The commercialisation challenge**

- Iain W. Wright, CO2 Project Manager, BP Alternative Energy plc, UK

- **The communication challenge**

- Prof. Ragnar Löfstedt, King's Centre for Risk Management,
- King's College London

- **Panel and plenary discussion**

- **Assessment of risks of CCS**

- moderated by Dr. Lutz Cleemann, Director, Allianz Center for Technology