MANAGING RISK

ACCSEPT Project
Exploring gaps

Second Stakeholder Workshop – Bonn - May 2007

Gudmundur Sigurthorsson

ACCSEPT Project Workshop on the Acceptability of Carbon Dioxide Capture and Storage: Devising Appropriate Policy & Regulatory Frameworks in the EU

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Thursday, May 10th, 2007

14:30 - 14:35	Welcome
14.35 - 15.15	Opening Address and discussion
	Pierre Dechamps, DG Research, European Commission
15.15 - 15.40	The ACCSEPT Project and analysis of gaps
	Gudmundur Sigurthorsson, DNV
15:40 - 16:30	European stakeholder perceptions of CCS
	Simon Shackley, University of Manchester
16:30 - 18:00	Best practice, standards and regulation at local, national and international level
	Jason Anderson, IEEP
19:00 - 22:00	Dinner

Friday, May 11th, 2007

09:00 - 10:30	Balancing CCS and renewable energy
	Heleen de Coninck, ECN
	Respondent: Pieter Viebahn, DLR
10:30 – 12:00	Liability and risk management
	Christopher Norton, Baker & McKenzie
12:00 - 14:00	Lunch & informal discussions
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About the ACCSEPT project

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Acceptance of **C**O_2 **C**apture and **S**torage **E**conomics, **P**olicy and **T**echnology =>**ACCSEPT**

Initiated by the European Commission (6th FP - Scientific Support for Policy) :

- To address **social, economic, legal and regulatory implications** of implementing CCS technology in the EU and at the world level,
- To **measure the social acceptance** of CCS,
- To **assess the costs** of CCS at the EU and world level,
- To **provide recommendations for policies** on CCS
  - in the context of the EU Emission Trading Scheme, and
  - in the framework of broader policy developments (CSLF etc)

ACCSEPT - Consortium

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- **Coordinator:**
  - **DNV** is a global certifier within a broad range of industrial activities and standards, and is a world leader in verification for GHG emissions trading schemes.
- **Partners:**
  - **Baker & McKenzie** is a leader in environmental law and one of the world's experts on legal issues related to emissions trading and has contributed to the development of several trading systems.
  - **ECN** is the largest energy institute in the Netherlands with technological expertise on CCS and technical experts in economic and policy aspects of GHG mitigation.
  - **IEEP** focuses on the implementation of European regulations and is an independent non-profit institute with close relationships to a range of stakeholders whom it regularly consults.
  - **Tyndall Centre** (University of Manchester) is one of the world's leading research centres on climate issues, spanning activities from predictive climate modelling to social science studies.
  - **Cambridge/Judge Business School** is a leading partner on research activities combining social and technological aspects

Escalating interest and engagement

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- As the threat of Climate Change becomes better understood and broadly communicated, the interest in CCS as part of the way forward grows.
- The political, economic, technical and practical environment around the Accsept project is dynamic:
  - " From 30 to 300 to 3000 FTE's "
  - G8/IEA/CSLF
  - Zero Emission Platform
  - EU Research and (ETS) Regulatory preparations
  - US Initiatives and changes in political scenario
  - Geopolitics (EU China, AP6…..)
- **This means that there is an increasing need to ensure that CCS policies develop within a framework that takes account of all stakeholder interests both those directly involved as well as the interest of society in general.**
- Communication in an atmosphere of factual knowledge, openness and transparency is essential.

Importance of Public Acceptance

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- Public perception may have a very significant, effect upon major planned projects involving new technologies and structures.
  - Brent Spar disposal
  - Ongoing debate over genetically modified organism
- Importance has been expressed at the highest levels, including as apart of the Gleneagles Plan of Action (G-8 meeting).
- “Although a number of technical issues dealing with storage safety, monitoring and longevity are still outstanding, the public acceptance of geological storage is probably the overriding issue”

  The Royal Society of Chemistry

Greenpeace inflatable at Brent Spar. Water canon used by M.V. REMBAS and M.V. TORBAS at base of platform to prevent boarding. Copyright Greenpeace / David Sims June 1995

Social and Public Acceptability

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- The ACCSEPT Project will consider acceptability to the public and “stakeholders” separately
- Stakeholders are agents which have an professional interest in CCS through employment or personal engagement in a voluntary capacity,
  - i.e. industry, industry associations, environmental and other non-governmental organisations, governmental and research organisations.
- Stakeholders contrary to the lay public, have a defined agenda or set of preferred policy objectives in mind when evaluating CCS
- Lay public cannot be expected to hold an viewpoint before the “project” becomes important to their every day life. Their opinions and perceptions are shaped by the media and other marketing efforts of stakeholders

Project Organisation and Methodology

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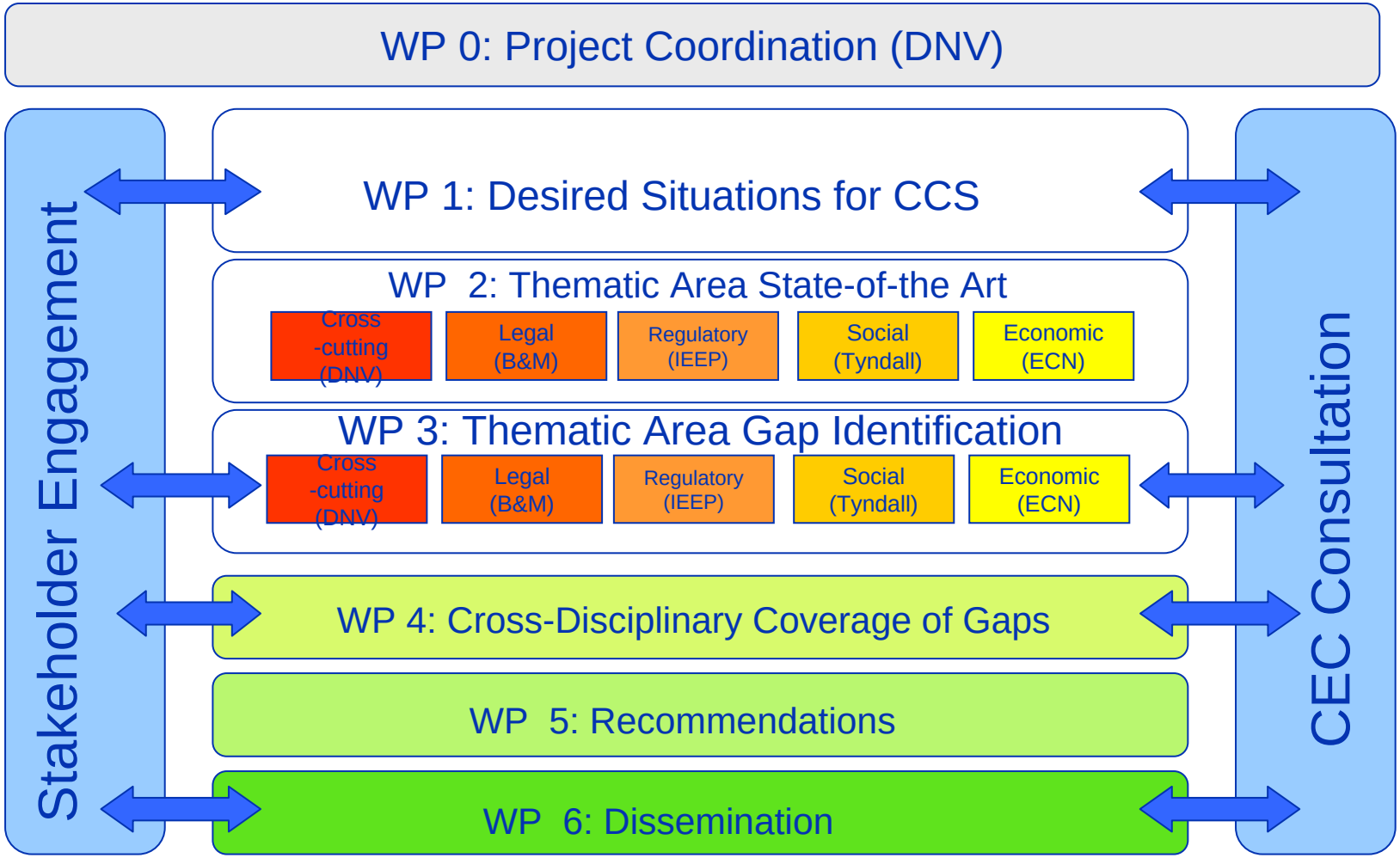
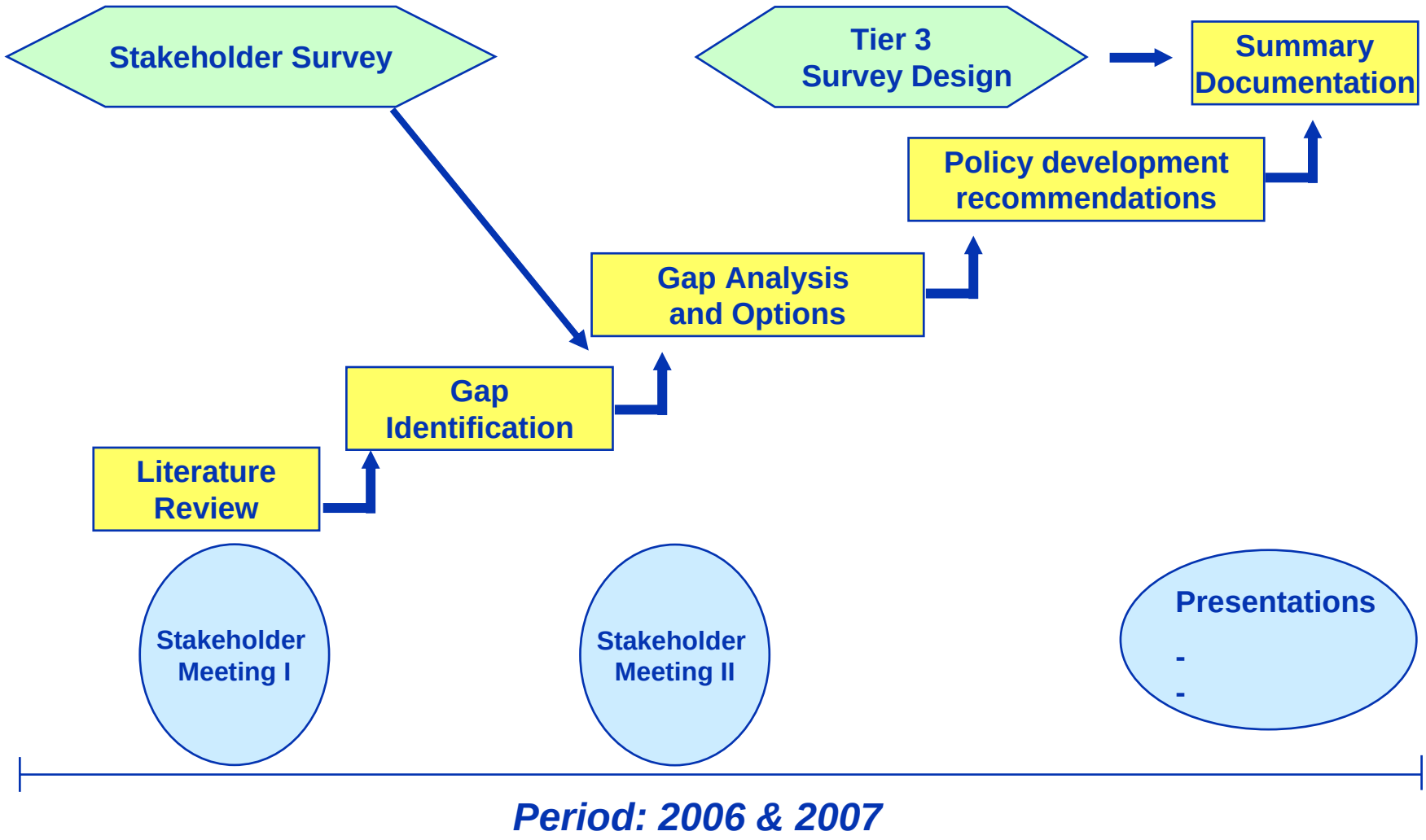


Accsept main activities overview



Gap Identification

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Prioritised gaps on legal issues:

- Clear interpretation of international treaties.
- Liability
- Legal rights
- Relationship between CCS activities and EU Directives

Prioritised gaps on regulatory issues:

- Framework that links site selection, management, closure and post-closure best practices
- Establishing the link between monitoring technology and levels of certainty required under regulation
- EIA/SEA criteria
- A methodology for inclusion in the EU ETS
- Appropriate levels of action

Gap Identification

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Prioritised gaps on social field issues:

- Better geographic coverage and time evolution of public attitudes
- Interaction between awareness and perceptions of climate change and energy policy upon support of CCS
- Effectiveness of different types of educational materials, methods of communication and messengers
- Case studies of public reaction to actual storage sites are lacking

Prioritised gaps on economic issues:

- Impact of high upfront (capital) costs on investment
- The cost-effectiveness of developing the CO_2 transport infrastructure is an economic as well as a regulatory gap in knowledge
- Provisions for interim support for CCS to bridge the uncertainty gap in the ETS
- The use of CCS in the CDM is a regulatory gap as well as an economic gap in knowledge

Gap Identification

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Prioritised gaps on cross-cutting issues:

- It is unclear how CCS can contribute to timely transition to large-scale renewable energy systems
- There is a general lack of “best practices” for many crucial elements in the overall CCS value chain
- Competing uses of the same pore space in the underground
- Fossil fuel power plants involve externalities across the entire lifecycle many of which CCS will not solve/account for

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