



Directorate-General
for Energy
and Transport



EUROPEAN
COMMISSION

- Making early demonstration of CCS a reality soon

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● CCS - Policy Context

- **2007 Spring European Council**
 - » target of 20% cut in greenhouse gas emission by 2020
 - » enabling low-CO2 power generation from fossil fuels by 2020
 - » Policy goal = up to 12 CCS demonstration progress to achieve commercial viability of the technology by 2020:
 - CCS in retrofits and newbuild thereafter
 - capture-readiness in the meantime
- **November 2007:** Strategic Energy Technology Plan
- **January 2008:** CCS Directive and Communication
- **December 2008:** 300m allowances from ETS-NER for CCS and innovative renewables
- **Spring 2009:** Adoption of EERP ?

● **Obstacles / EC Proposals**

- **Legislative Hurdles**

- **CCS Directive**

- **Non legislative Hurdles**

- » Long term economic viability

- **Emission Trading System (ETS)**

- » Industrial Scale CCS Demonstration Projects
(all main technology routes (Pre-, Post-,
Oxyfuel-Combustion))

- » Public Acceptance

- **CCS Communication & Financing**

● Supporting Early Demonstration

- Two possible approaches for financing and coordinating CCS demonstration in Europe
 - » Centralised European Approach (Joint Undertaking / Joint Technology Initiative)
 - » De-centralised approach: Making best and immediate use of available European and national resources and co-ordinate on a European level

● **Centralized scheme JU / JTI**

- Establishment of a new legal entity that finances and coordinates centrally CCS demonstration projects
- Founders/Members of this entity would be EC, MS and industry
- Expected problems
 - » Launch of JU would take several years
 - » No dedicated budget available for centrally financing the projects

● De-Centralised Approach

- Advantages: More flexibility, Shorter Delays
- European co-ordination through “Project Network”
- European Resources Available:
 - » FP7
 - » ETS-NER
 - » EERP ?
 - » SET-Plan, Financial Perspectives 2013+

● Project network

An immediate EU structure

● Main goal:

- » to stimulate the demonstration of CCS power plants
- » provide benefits to participating projects through knowledge sharing, joint communication activities and a European identity
- » The project network will be a central part of the European Industrial Initiative on CCS

● Main Tasks

- » Coordination of CCS demonstration projects
- » Information and communication
- » Actions to increase public acceptance
- » International cooperation

● **Financing – FP7**

- Funding of projects in the areas of CCS and Clean Coal Technologies to support early demonstration, prepare for commercial deployment and address public awareness
 - » Area 5, CCS: capture technologies, storage site development and public awareness
 - » Area 6, CCT: efficiency increase in power production with a view on CCS
 - » Area 5&6, cross cutting: integrated concepts of highly efficient power plants with CCS

● Financing – EERP

● Recovery Plan

- » Total budget: approx. €5bn
- » €1.05 bn for CCS demonstration projects
- » Up to 7 projects, 1 project max per MS
- » Max €180 million per project for additional investment related expenditures for CCS

● Recovery Plan – Indicative Time Schedule

- » Limited Call for proposals: mid May 2009
- » Submission Deadline: mid July 2009
- » Commission Decision: end 2009

● Financing - ETS

- General economic framework
- 300 million allowances from ETS (NER)
 - » Fully complementary to EERP
 - » Currently discussion in comitology on implementation. Decision by end 2009
 - » First funding decisions winter 2010/spring 2011

● Summary & Outlook

● Already achieved

- » European CCS directive
- » Decision on third phase on ETS that creates a CO₂ market in which CCS shall be operated commercially viable
- » CCS project network to coordinate demonstration projects
- » European financing mechanisms to be put in place: EERP / ETS

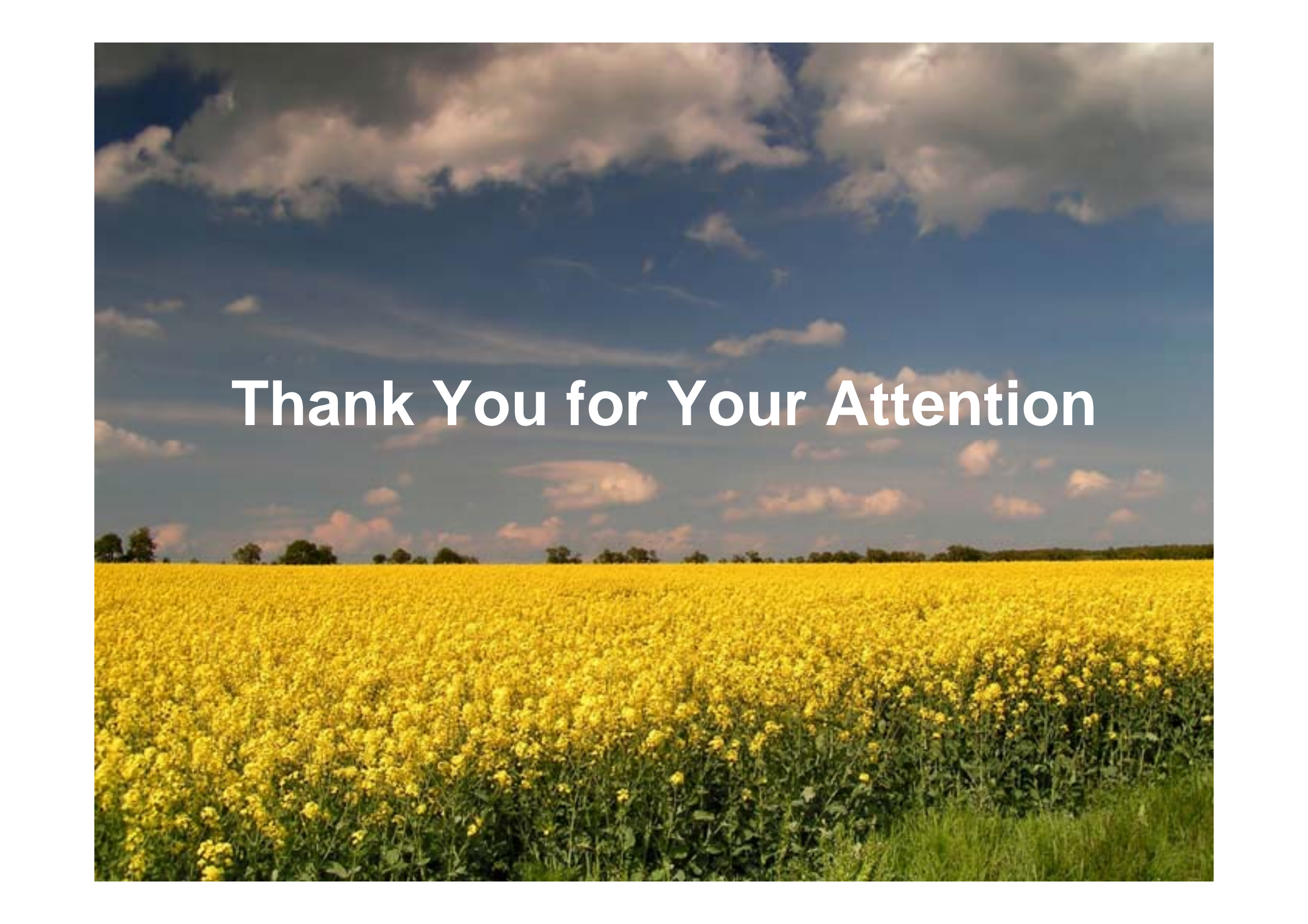
● Summary & Outlook

● What needs to be done

- » Directive to be transferred into national laws
- » Agree/adopt EERP => launch calls for proposals
- » Work out funding details for ETS

» FINANCING

- European funding will be limited and will not cover the full additional investment/operation costs for CCS
- Additional financing from industry and/or Member States is essential

A wide-angle photograph of a vast field of bright yellow flowers, likely rapeseed, stretching to the horizon. The sky is a deep blue, filled with soft, white and grey clouds. The foreground shows the green stems and leaves of the plants. The overall scene is bright and cheerful.

Thank You for Your Attention



Back-ups

● CCS-Directive

● Enabling Framework

- » Member States determine whether and where CCS will happen
- » Companies decide whether to use CCS on the basis of conditions in the carbon market

● CCS-not mandatory, but member states need to

- » verify, if storage capacities and transport facilities are available and retrofiting is technological feasible
 - **CAPTURE READINESS**

● EU Emission Trading System

- **ETS Phase III**
 - » from 2013 full auctioning of CO2 certificates for the power sector (with some exceptions)
- **CCS under the ETS:**
 - » CO2 captured, transported and safely stored considered as not emitted
 - » no allocation to capture, transport and storage
 - » ETS allowances must be surrendered for any leakage
 - » monitoring and reporting guidelines under preparation
- **ETS auctioning revenues**
 - » major potential source of funding for CCS demonstration projects
 - » 50% earmarking to low-CO2 technologies