



Directorate-General
for Energy
and Transport



EUROPEAN
COMMISSION

● CCS Communication

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● Background

- **2007 Spring European Council**
 - » target of 20% cut in greenhouse gas emission by 2020
 - » enabling low-CO₂ power generation from fossil fuels by 2020
 - » up to 12 CCS demonstration plants in operation by 2015
- **Summer-Autumn 2007**
 - » Evaluation and Impact Assessment period
- **November 2007: Strategic Energy Technology Plan**
 - » R&D efforts to focus on low carbon technologies
 - » CCS one of strategic technologies: large-scale demos next priority
- **23 January 2008:** Commission adopts a set of proposals including the CCS Communication and the CCS Directive

● Costs and benefits of CCS

● **Costs:**

- » R&D (€1bn) and demonstration (€10-20bn) to reduce costs
- » further investment to roll out CCS on a wide-scale

● **Benefits:**

- » 20-28% of the achievable global CO₂ emission reductions by 2050 (IEA)
- » solution for both power generation and energy intensive industries
- » for managing future CO₂ emissions of dynamically developing coal users (China, etc.)

● **Policy goal = CCS commercially feasible by 2020:**

- » CCS in retrofits and newbuild thereafter
- » capture-readiness in the meantime

● Overcoming obstacles

● Legislative hurdles

- » CCS Directive: comprehensive regulatory framework designed to
 - ensure public confidence in CCS installations
 - provide legal certainty to operators
- » International regimes accepting CCS

● Non-legislative hurdles

- » Economics
- » General and industry awareness
- » Public acceptance

● Communication's Key Points

- Focus on non-legislative issues
- Demonstration in power generation as next milestone
- Outlines initiatives to stimulate early large-scale CCS demonstration projects:
 - » an EU structure to support CCS demonstration projects
 - » catalyzing the finance for CCS
 - industry commitment
 - Member States' involvement
 - EU-level financing
 - » preparing infrastructure needed for wide-scale deployment

● An EU structure to stimulate the demonstration of CCS power plants

- **SET-Plan: proposes European Industry Initiatives (EII) in technologies needed for a decarbonized baseload**
- **Commission action:**
 - » proposes launching EII on CCS
 - » will launch a support action under FP7 to establish « project network »
 - joint platform for individual *early, large-scale demos in power plants*
 - close inter-action with ZEP TP, focus on projects
 - value to be generated through European approach:
 - Visibility and marketable identity (European logo) of projects
 - Mechanism for sharing information, know-how/experience exchange
 - Common actions: general public, third countries
 - can develop further into a financial-support tool

● Catalyzing the finance for CCS

● Economics of early demonstration

- substantial capital requirements
- increased operating costs

● Sources of financing

» Industrial commitments

- ETP-ZEP: a vital initiative with commitments to the issue
- still needed: clear, early and decisive commitments by individual players to concrete large-scale demonstration

» Member States' involvement

- MS-level crucial given budgetary reality and size of challenge
- Commission guidelines facilitate state aid to CCS
- ETS revenues + structural policies hinted as suitable

» EU-level financing

- limited availability for the time being
 - FP7 + EU structural funds
 - EU financial institutions for specialized cases
 - Communication on financing low-carbon technologies – end 2008

● Early start to infrastructure for wide-scale deployment

● New infrastructure

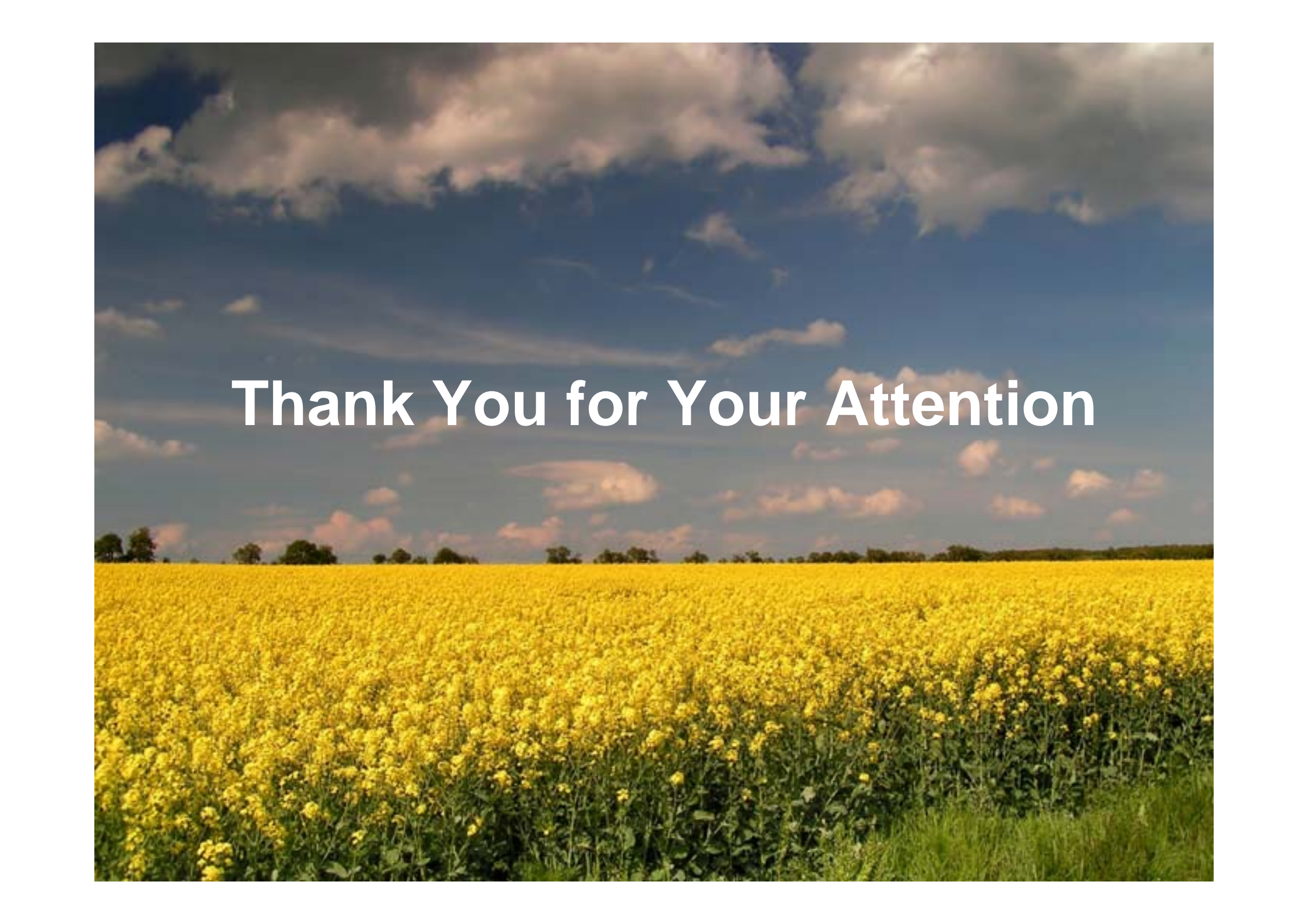
- » storage of CO₂
- » transport of CO₂
- » linking in of emission sources

● European dimension in these networks

- » revision of TEN-E guidelines to include CO₂ infrastructure

● Conclusion – Executive summary

- **CCS: priority of strategic importance**
 - » CCS can be commercially viable by 2020
 - » opportunities and challenges:
 - early effective demonstration
 - timely and bold industry and public investment
 - market-based stimuli to avoid CO2 emissions
- **Commission / Council / EP:**
 - » CCS regulatory framework
 - » CCS in ETS
 - » revised Community guidelines on state aid for environmental protection
 - » revision of TEN-E guidelines
 - » European Industrial Initiative on CCS
- **Early demonstrations**
 - » major financial commitments
 - decisive commitments from industry to trigger public contribution
 - national schemes by Member States
 - » continued R&D

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