

CCS in the EU



★ Regulatory Framework

↪ **Member States determine whether and where CCS will happen**

↪ **To be transposed by 25 June 2011**

★ Key Elements

↪ **Exploration and storage permit**

↪ **CO₂ stream composition**

↪ **Monitoring and verification**

↪ **Closure and post-closure obligations**

↪ **Transfer of responsibility**

↪ **Financial security and financial transfer**

★ Support coherent implementation of the CCS Directive across EU Member States:

- ↪ **GD1 - CO₂ Storage Life Cycle Risk Management Framework**
- ↪ **GD2 - Characterisation of the Storage Complex, CO₂ Stream Composition, Monitoring and Corrective Measures**
- ↪ **GD3 - Criteria for Transfer of Responsibility to the Competent Authority**
- ↪ **GD4 - Financial Security (Art. 19) and Financial Mechanism (Art. 20)**

- ★ **Addressing CCS economics:
NER300, EEPR**
 - ★ **Continued technology development:
European Industrial Initiative**
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- ★ **NER 300:** 300 million allowances reserved in new entrants reserve (NER) of EU-ETS for the financing of commercial-scale CCS and innovative RES demonstration projects, Art. 10a(8) EU-Emissions Trading Directive
- ★ 300 million allowances (depending on carbon price, worth some €4-5 billion) will be distributed through two rounds of Call for proposals (200/ 100 million allowances)
- ★ Wide range of technologies: 8 CCS and 34 RES projects
- ★ Geographically balanced locations: 1 to 3 projects per MS

- ★ 50% of relevant costs will be funded, per project max.
15% of the total number of allowances
- ★ NER 300 not part of EU budget – can be combined with other instruments, including EEPR and Structural and Cohesion Funds
- ★ Implementation at EU level, but with strong role for Member States, and with support from the European Investment Bank

- ★ Launch of first Call for proposals on 9 November 2010
- ★ Project Sponsor phase completed on 9 Feb 2011
- ★ According to reports from MS, 153 proposals received, including 22 CCS proposals (see next slide)
- ★ MS now have until 9 May 2011 to check eligibility of projects and submit those eligible projects they wish to support to EIB for further assessment
- ★ Award decisions for the first tranche envisaged for the second half of 2012

TOTAL NUMBER OF CCS PROJECTS	22
power generation: pre-combustion 250 MW [CCSpre]	6
power generation: post combustion 250 MW [CCSpos]	8
power generation: oxyfuel 250 MW [CCSoxy]	4
industrial applications implementing (a) CCS on refineries with 500 kt/y stored CO ₂ from one or more sources within the refinery; (b) CCS application to cement kiln with 500 kt/y stored CO ₂ ; (c) CCS application for primary production routes in iron and steel production with 500 kt/y stored CO ₂ ; or (d) CCS application for primary production routes in aluminium production with 500 kt/y stored CO ₂ [CCSind]	4

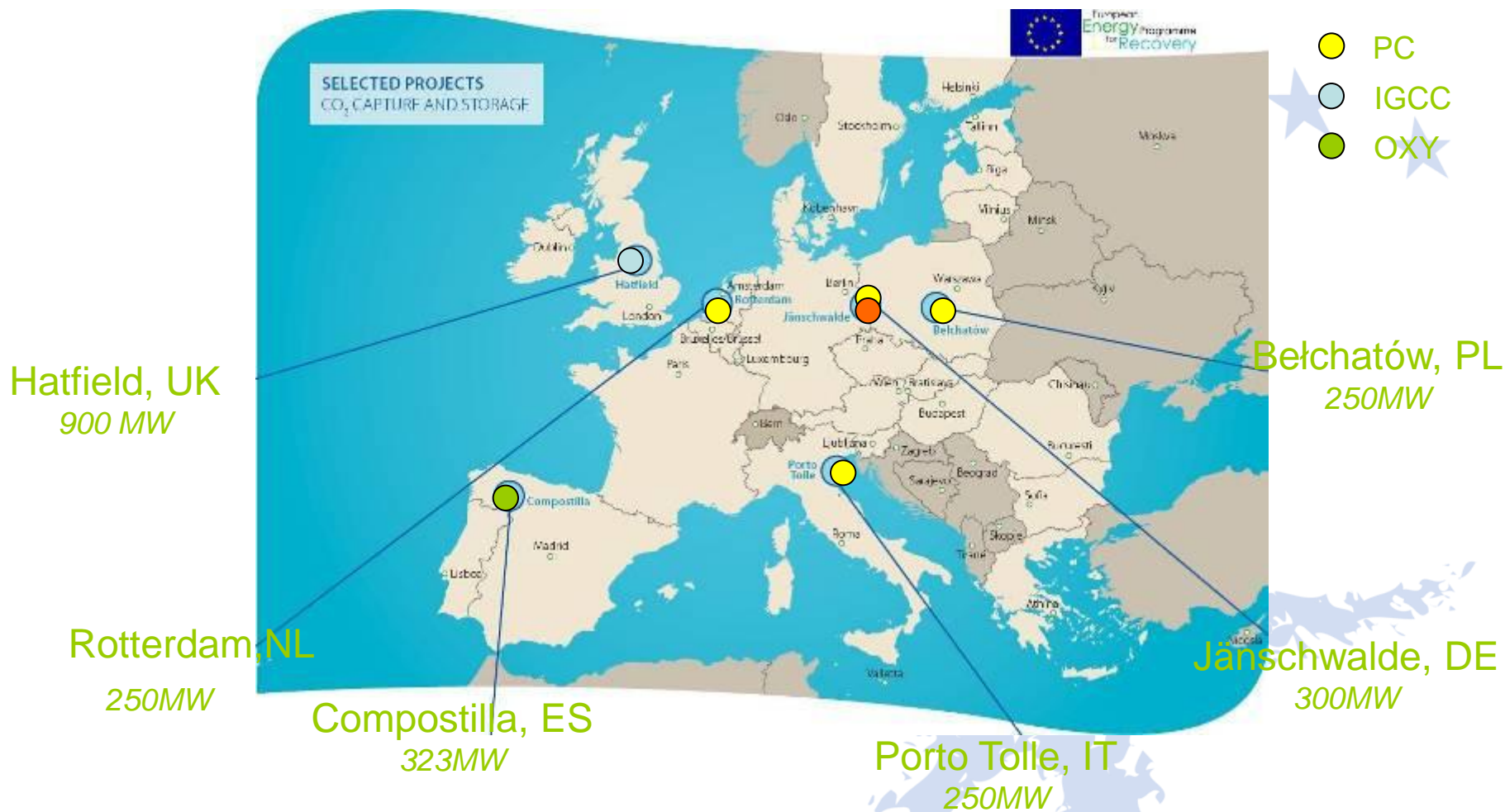
★ **€1bn for large-scale CCS demos**

↪ **Max. €180m per project for incremental CCS investment costs**

★ **6 projects have signed grant agreements in 2009/10**

↪ **Jänschwalde, Hatfield, Porto Tolle, Rotterdam, Bełchatów, Compostilla**

EEPR projects - locations



★ Dual Approach followed

- ↪ Large demonstration programme
- ↪ R&D building on & complementing CCS demo activities

★ Innovative, industry-driven, co-operation

- ↪ Industry, EU Member States, EC, European Energy Research Alliance (EERA), Research Institutes, NGOs

★ Better use of public-private resources

- ↪ Identify synergies
- ↪ Synchronise agendas (timeline, actions)

★ Next steps - from planning to implementing

- ↪ EII Meeting in spring 2011
 - Identify top R&D priorities for 2011
 - Discuss financing schemes and governance

- ★ EU has set up a regulatory framework to ensure the environmentally safe geological storage of CO₂
- ★ Funding for large-scale demonstration programmes (NER 300 and EEPR) provides important stimulus for the development of CCS
- ★ NER 300 unprecedented in scope and magnitude (covering CCS and RES demonstration projects, €4-5 billion)
- ★ European approach will ensure highest possible quality of demonstration projects in terms of technological and geographical balance

★ **CCS Directive:**

CLIMA-CCS-DIRECTIVE@ec.europa.eu

★ **NER 300 website:**

http://ec.europa.eu/clima/funding/ner300/index_en.htm

★ **NER 300 mailbox:**

CLIMA-NER300@ec.europa.eu

Thank you for your attention!

