

## Lessons learned from the EU ETS Phase I and II

European Commission Side Event
COP-16 / CMP-6 / SBI-33 / SBSTA-33 / AWG-KP-15 / AWG-LCA-13

Dr. Felix Chr. Matthes Cancun, December 7, 2010

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#### The EU Emissions Trading Scheme Some background information



#### The world's largest GHG emissions trading scheme

- Largest economic area of the world (30 countries, 506 mln inhabitants, 12,064 bn €= 16,755 bn US\$ GDP in 2009)
- Regulates about 2.3 bn tons CO2e (power sector, refineries, large combustion installations, iron & steel, cement, pulp & paper, etc – from 2012/13 onwards: aviation & other sources)

#### Key features

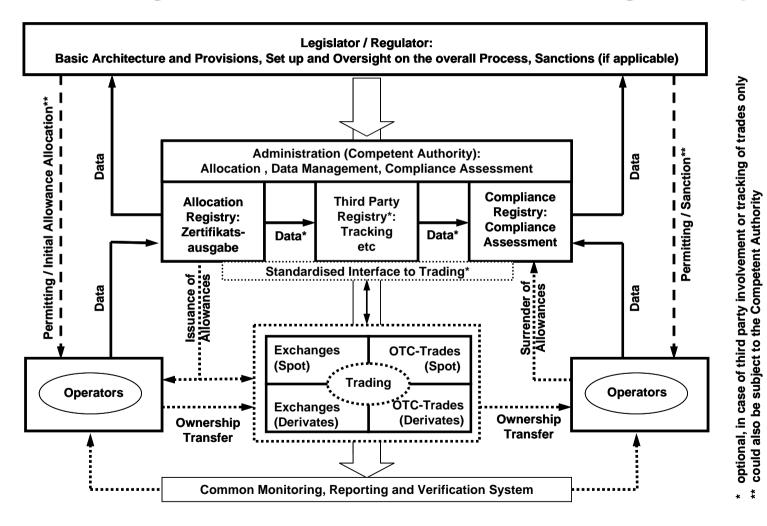
- Mandatory downstream scheme (release to the atmosphere is the point of regulation)
- Explicit multi-period scheme (1<sup>st</sup> phase 2005/2007, 2<sup>nd</sup> phase 2008/2012, 3<sup>rd</sup> phase 2013/2020, etc etc)
- Decentralized cap-setting and allocation (NAPs) in P1/P2
- Started with a large share of free allocation but strong decrease of free allocation form 2013 onwards

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#### Lesson #1: The system works well Regulatory & legal set-up in a short time

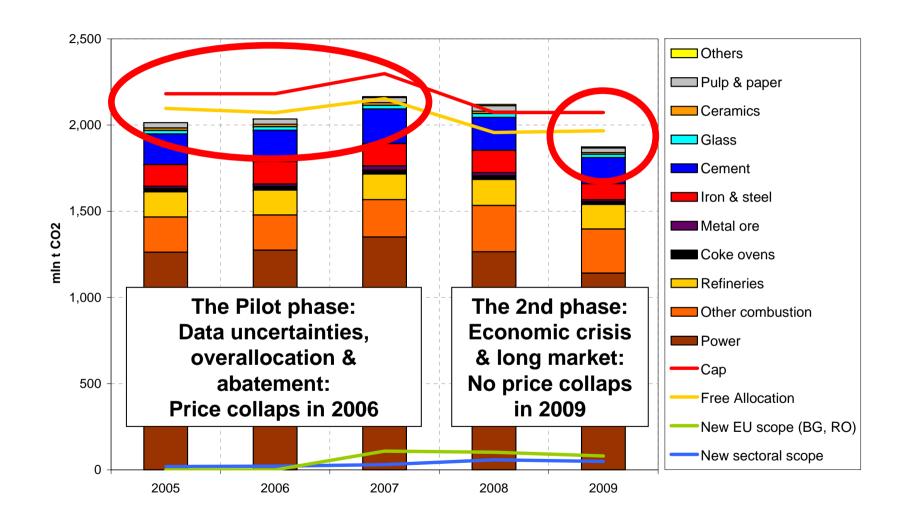


... and the knowledge on emissions and emissions abatement as well the range of interested entities broadened significantly

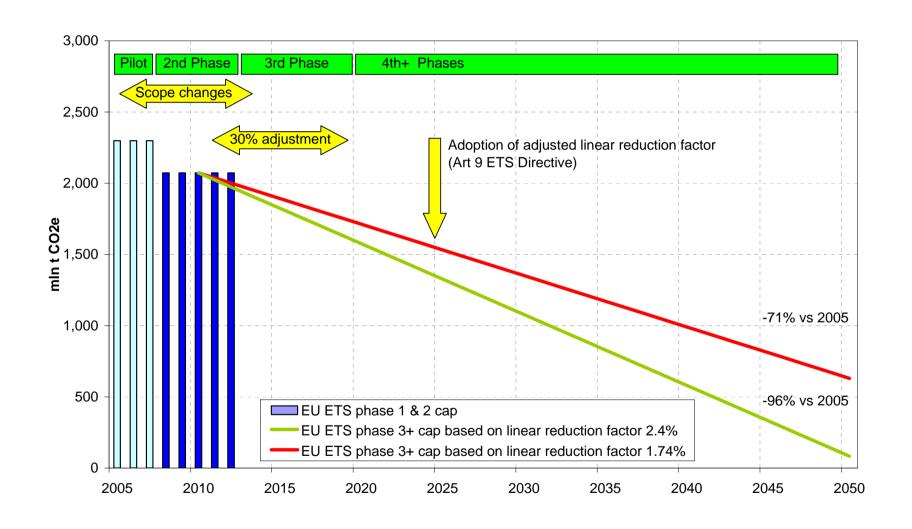


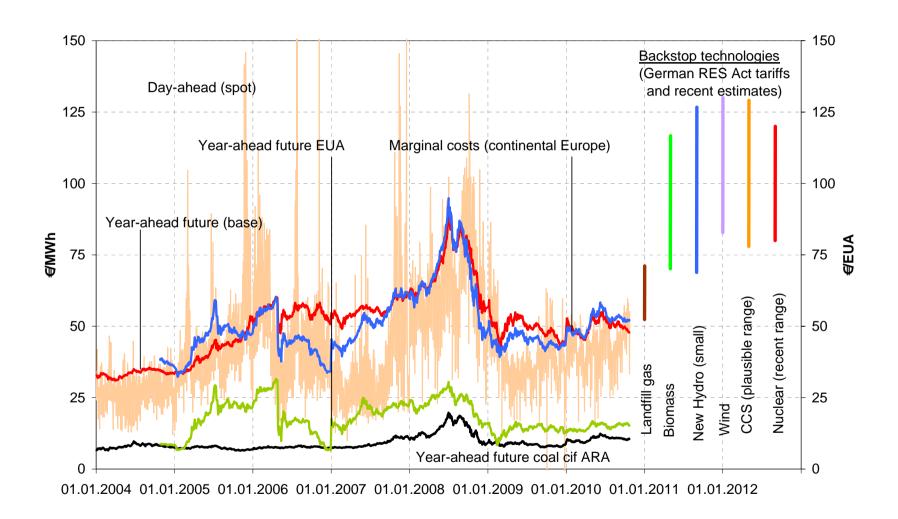
#### Lesson #2: Learning is necessary and the pilot phase was a good idea





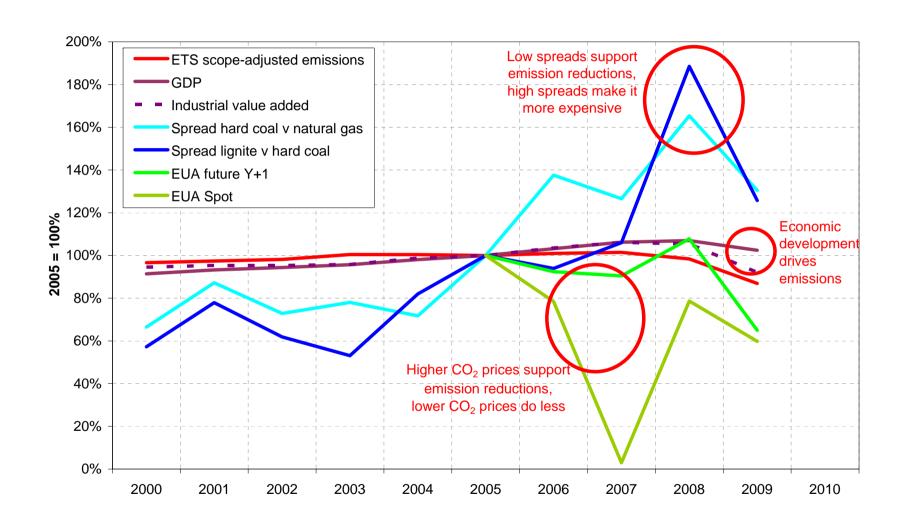
## Lesson #3: An accountable long-term cap **Oko-Institut e.V.** Institut für angewandte Ökologie Institute for Applied Ecology





### Lesson #5: Comprehensive analysis proves abatement





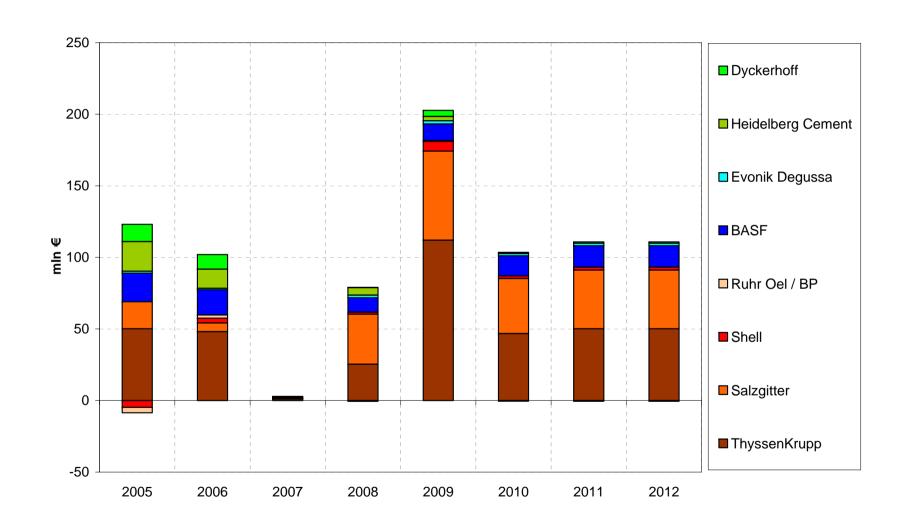
#### Lessons #6 and #7: Economics & awareness and efficiency & distribution



- Lesson #5: A new commodity and a liquid market emerged
  - (downstream) ETS creates a robust price signal
  - (downstream) ETS raised significantly awareness among the regulated entities (low cost abatement, innovation processes)
  - a liquid market emerged
    - ratio between primary and secondary market 1:6
    - volatile prices, but less than in other commodity markets
  - significant (and some unexpected) emission abatement proved
- Lesson #6: Allocation is much more than distribution
  - (free) allocation of allowances is not only an distributional issue, serious efficiency problems must be considered
  - however, allocation is suitable to address distributional concerns (which change over time, early action > leakage)

### Net economic benefit from allocation for selected German industrial companies



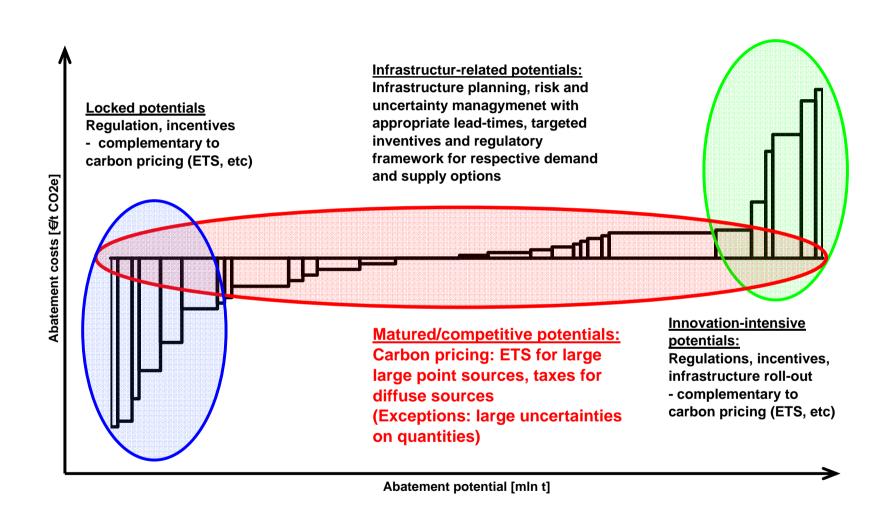


#### Lesson #8: Large-scale CO2 allowance auctions can work properly



- Since phase 2 large-scale auctions and sales were introduced
- E.g. German sales and auctions
  - 40+ mln EUA annually
  - 2008 and 2009
    - sales to the market by KfW
    - carefully planned schedule to avoid market distortions
    - no problems, no price distortions
  - since January 2010
    - weekly auctions by the electricity exchange EEX (won public tender for the auctioning platform)
    - Weekly 300,000 EUA to the spot market and 570,000 EUA to the futures market
    - no problems, no price distortions

### Lesson #9: EU ETS is a central pillar of an **Oko-Institut e.V.** Institut für angewandte Ökologie Institute for Applied Ecology



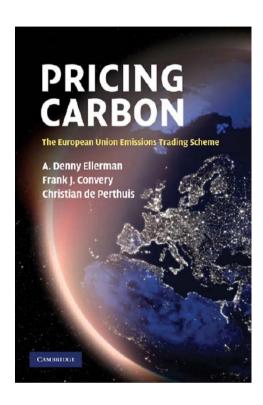


# Thank you very much

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#### **Further reading**





Pricing Carbon: The European Union Emissions Trading Scheme Cambridge University Press, 2010

A. Denny Ellerman, Frank J. Convery, Christian de Perthuis, Emilie Alberola, Richard Baron, Barbara K. Buchner, Anaïs Delbosc, Cate Hight, Jan Keppler, Felix Chr. Matthes



Greenhouse gas emissions trading and complementary policies. Developing a smart mix for ambitious climate policies Federal Ministry for the Environment, Nature Protection and Nuclear Safety / Öko-Institut, 2010
Felix Chr. Matthes