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The Future of Climate Policies and Emissions Trading. Post 2012 Framework ETS / Kyoto Interaction

7th Joint Cambridge–MIT Electricity Policy Conference

Policies for a Sustainable and Secure Electricity Market

London, 28 September 2007

Dr. Felix Chr. Matthes

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The international framework
Certainties & uncertainties

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- The global climate regime is developing
  - open process, but
    - probably more diversity (with the EU maintaining a Kyoto-1 style commitment section)
    - ETS will be definitely part of it
    - EU ETS is the ETS frontrunner – how and how long?

The EU framework
Policy package is emerging

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- CONS 8/9 March 2007 / COM proposals 5 December 2007
  - mandatory overall target (2020)
    - 20% unilateral commitment (compared to 1990 levels)
    - 30% commitment – if others join
    - target sharing among the MS
  - EU ETS Directive revision & ETS cap (2013-???)
    - EU cap / MS caps (?) and allocation
    - ETS cap is a sub-target of international commitments
  - Mandatory renewable energies target 20% (2020)
    - target sharing among the MS (primary energy)
    - sectoral target sharing by MS (power, heating & cooling, motor fuels)
    - however, mandatory ≥10% for motor fuels
  - Indicative efficiency target (20% below 2020 BAU)

Kyoto Mechanisms and the EU ETS
Strong ties

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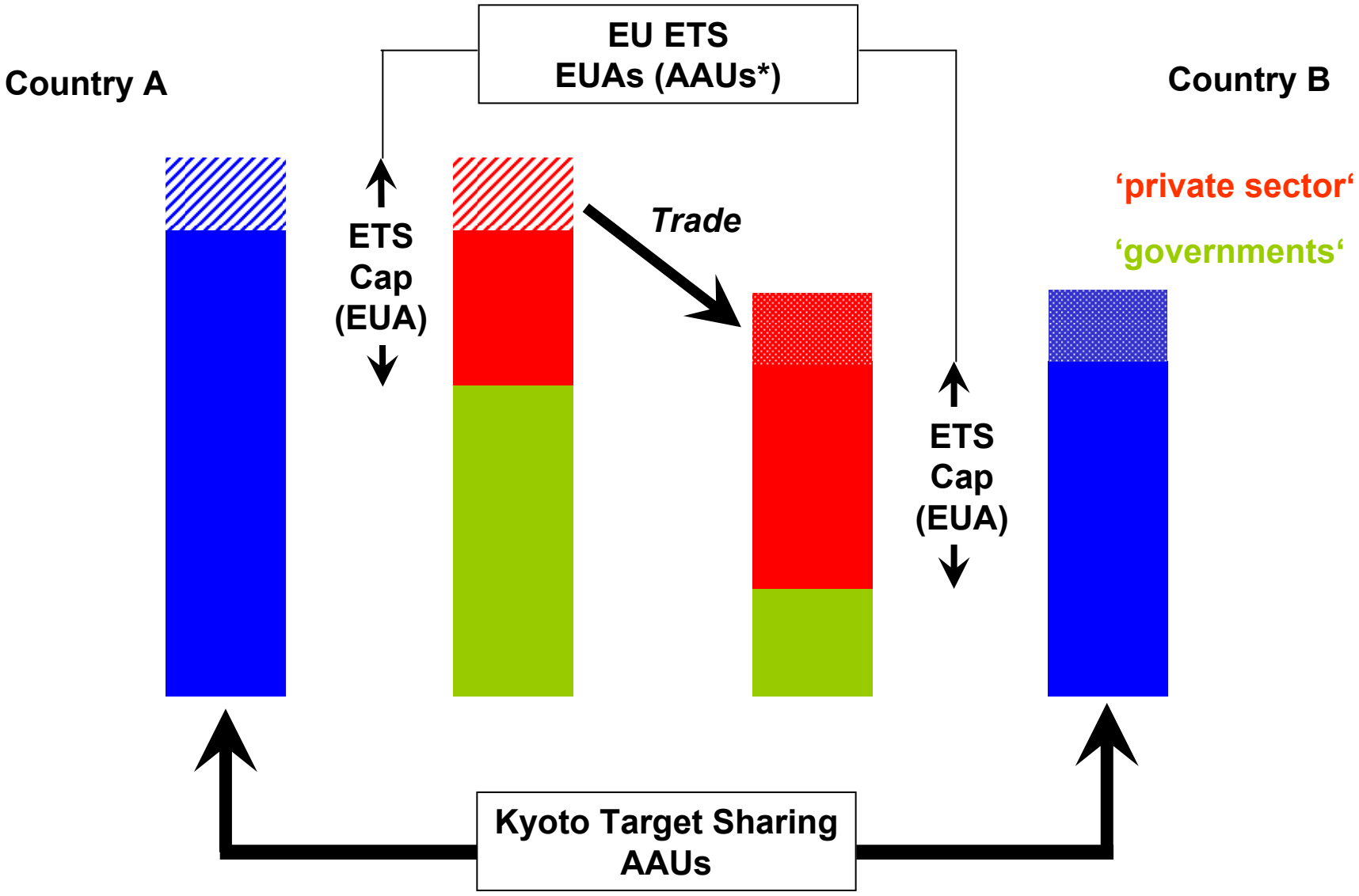

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Where do we stand?
GHG-6 (w/o bunkers, w/o LULUCF)

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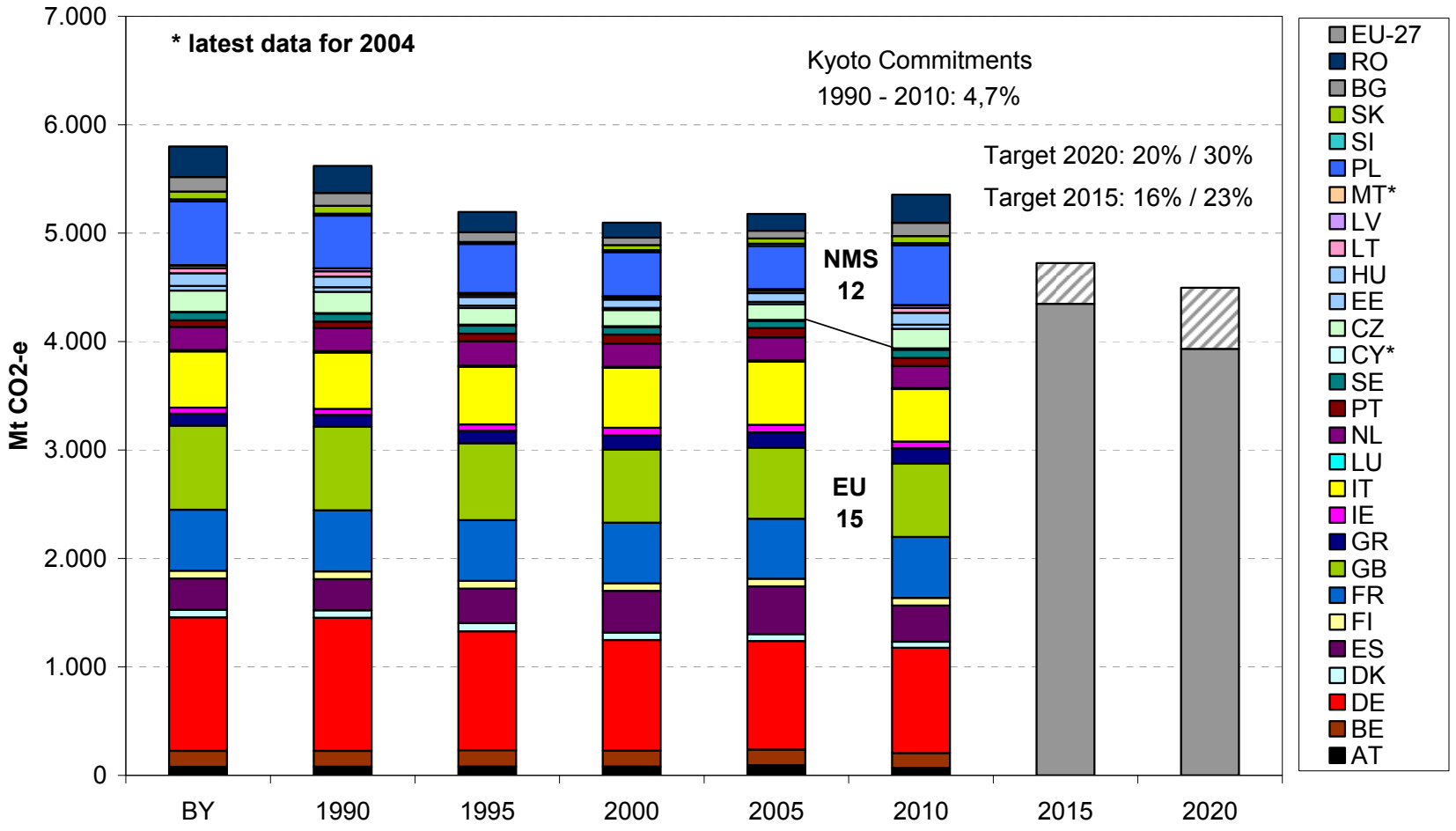

The phase 2 of the EU ETS
Significant contribution

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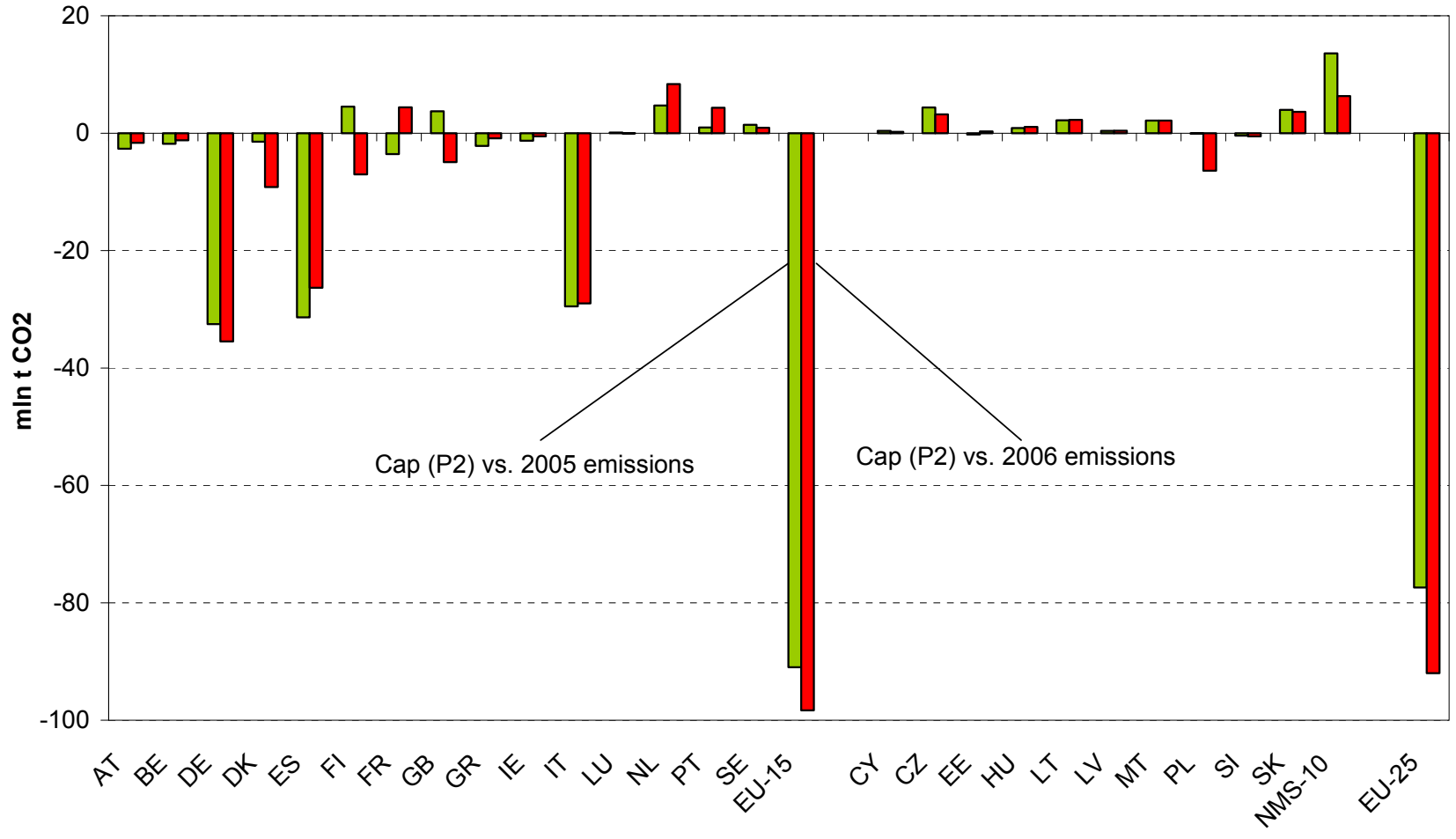

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The metrics of targets and interactions (1)

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- the 'multilateral' 30% reduction target
  - reduction 1,240 Mt CO2-e compared to 2005
  - 300 Mt CO2 increase projected by 2007 Primes baseline
  - 'the gap': about 1,540 Mt CO2-e compared to 2020 BAU
    - add'l biofuels: 30 Mt CO2
    - add'l renewables: 600 Mt CO2
    - other P&M: 910 Mt CO2
      - which share should be provided by the ETS? = ETS cap
      - What is the interaction between the ETS cap and the target for power from renewable energies?
        - » at the EU level and at the MS level
  - assuming 50% ETS share & 50% power from renewables: the Ø2013/2020 ETS cap should be 350+ million EUA below 2005 levels

The metrics of targets and interactions (2)

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- the unilateral 20% reduction target
  - reduction 680 Mt CO2-e compared to 2005
  - 300 Mt CO2 increase projected by 2007 Primes baseline
  - 'the gap': about 980 Mt CO2-e compared to 2020 BAU
    - add'l biofuels: 30 Mt CO2
    - add'l renewables: 600 Mt CO2
    - other P&M: 350 Mt CO2
      - etc etc
  - assuming 50% ETS share & 50% power from renewables: the Ø2013/2020 ETS cap should be 220+ million EUA below 2005 levels

Structure of total GHG emissions
Major differences

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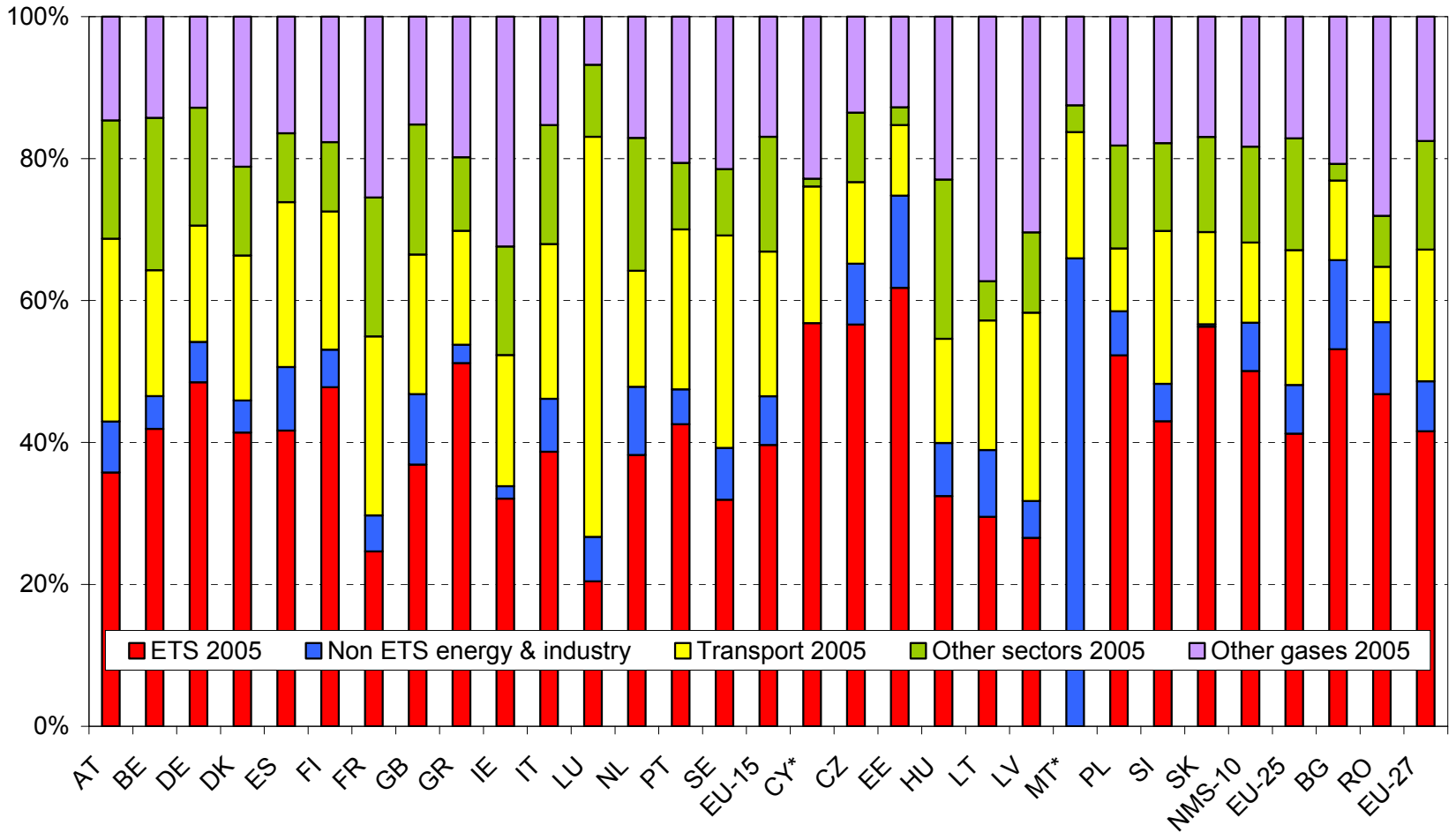

Structure of EU ETS emissions: Major differences between MS

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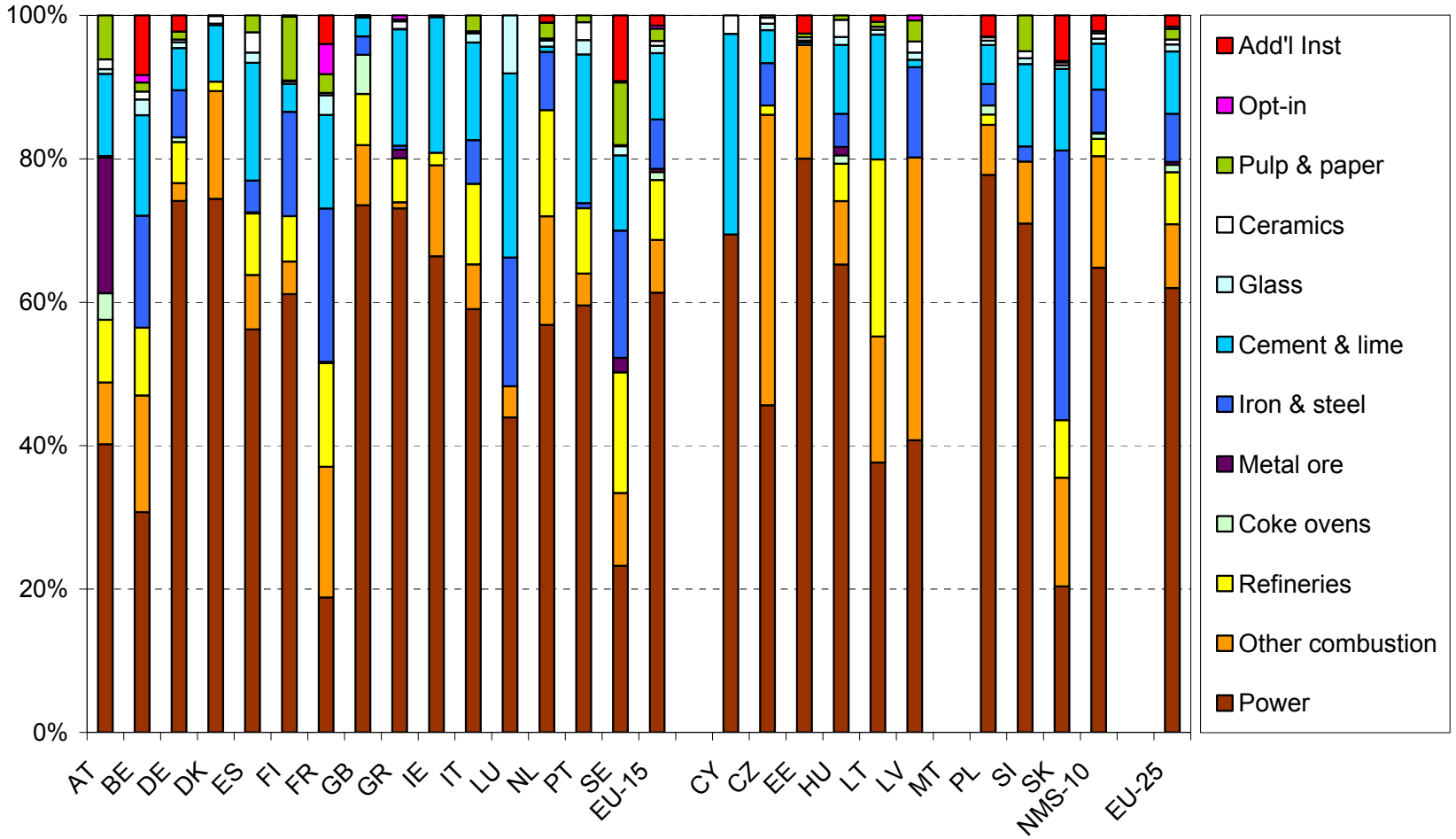

Structure of Non-ETS GHG emissions
Much less diversity among the MS

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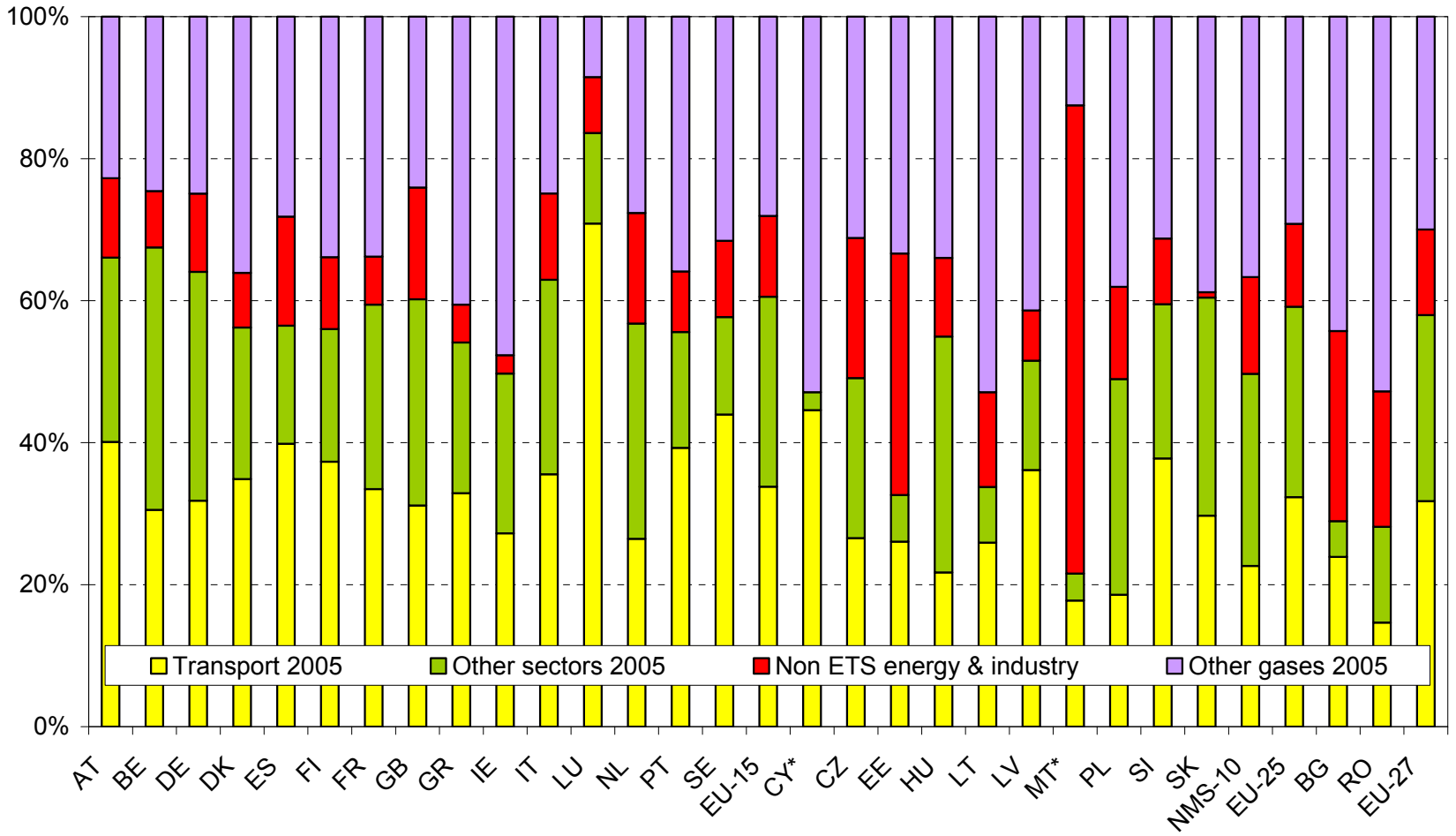

Some conclusions (1)

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- EU targets
  - (mostly) mandatory & (more or less) clear
  - complex & many interactions
  - (eventually) ambitious
- Complex interactions between targets & EU ETS
  - COM & MS decide on level of ambition (EU ETS cap), but do not influence the allowance price at this point …
  - MS influence the allowance price (by deciding on and complying with sectoral targets for power generation from renewables – and its cost beyond the EU ETS)
  - a complex challenge
    - complex modelling vs transparency & robustness
    - extremely difficult to communicate

Some conclusions (2)

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- **The EU ETS must deliver significant emissions reduction contributions – in the framework of (ambitious) overall emission reduction targets and even if the ETS is complemented by (ambitious) targets for renewable energies (in the power sector) – the carbon price signal will be significant**
- **Sectoral approaches for defining ETS and Non-ETS caps & targets could make things easier**

Closing remarks on other aspects of the emerging debate on the revision of the EU ETS Directive

- **Allocation is crucial for non-distorted price signal – auctioning**
- **Exposure to international competition is a limited problem. However, complementary political instruments for (a few) sectors must be discussed in-depth (BTA, etc etc)**

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Thank you very much

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