EU ETS: principles, experience and lessons learnt

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Outline

1. Cap-setting
2. Allocation methods
3. Competitiveness
4. Carbon leakage

1. Cap-setting

Each phase its own cap

- 2005-2007 (“pilot-phase”)
- 2008-2012 (1st Kyoto commitment period)
- 2013-2020 (2nd Kyoto commitment period)
- 2021-2030 (Paris NDC1)

Principles decided first

- CO2 only initially
- Concentrate on largest installations ("80-20" principle)
- Direct (scope 1) emissions only
- Overall cap will be a function of coverage of **sectors** & **gases**, and **desired environmental outcome**

Cap = total allocation + imported offsets allowed

Bottom up with cap on offsets

- 1st & 2nd phases (2005-2012)
- Consistency with Kyoto Protocol

Top down with offsets phased out

- 3rd & 4th phases (2013-2030)
- Economic modelling – cost-efficiency
- Consistent with international commitments

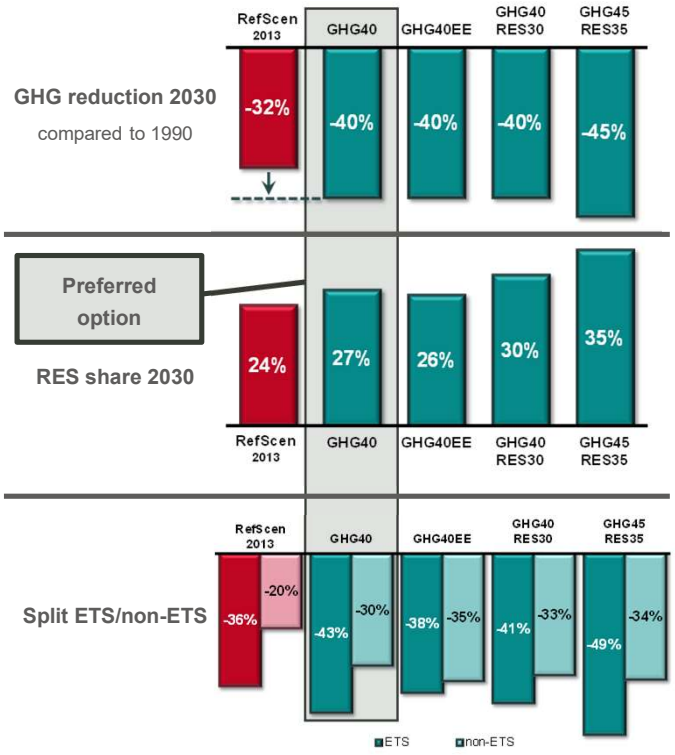
Cap in phase 4 (2021- 2030) & relative ETS non-ETS shares

Negotiations at Head of State/Government level informed by economic modelling

Joint model-setup used for the assessment

- PRIMES
- GAINS
- CAPRI
- GEM-E3
- GLOBIOM/G4M
- PROMETHEUS

Proposal:
EU GHG (incl. ETS/non-ETS split) and **RES targets** should be based on **'cost-effectiveness'** (=equal MAC)



Absolute cap set in relation to 2005 (approx. 2 Billion EUAs), thereafter subject to annual reduction

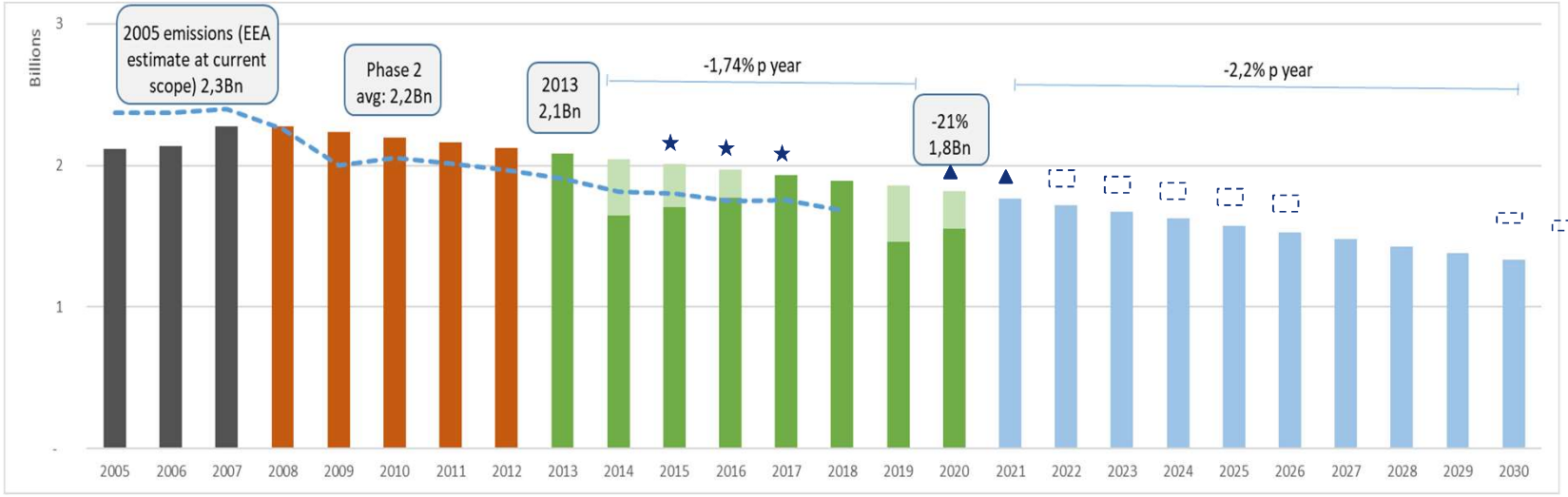
2013-2020

- Cap to deliver 21% reduction by 2020 compared to 2005

2021-2030

- Cap to deliver 43% reduction by 2030 compared to 2005

Absolute cap with Linear Reduction Factor of 2.2% as of 2021

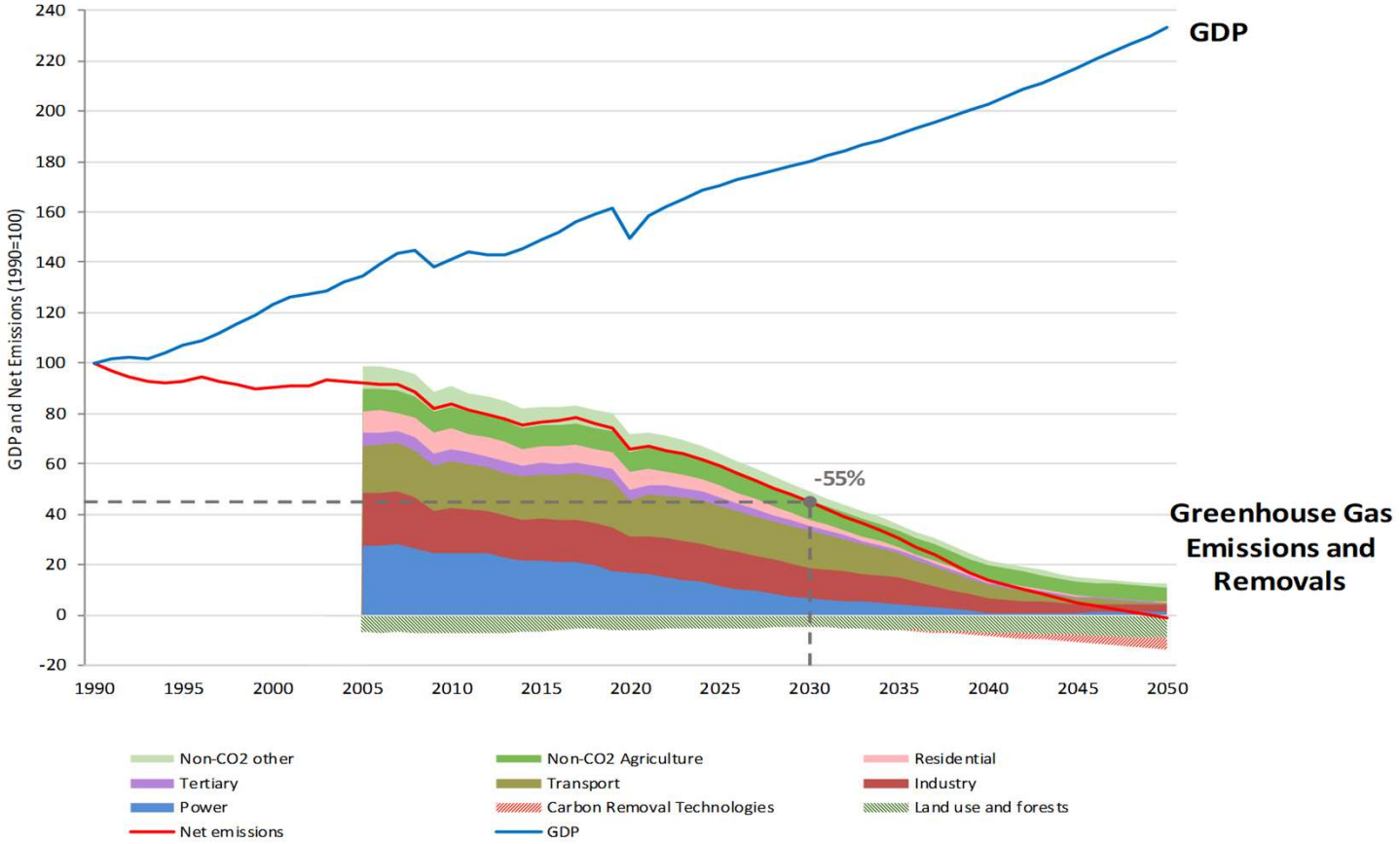


★ Backloaded allowances (total of 900 million)

▲ MSR feeds (total of 664 million so far)

⬚ MSR feed in/out depending on market surplus

Latest modelling from 2020: EU GHG Emissions 1990-2050



Early lessons on cap-setting

- ***Start MRV before cap-setting & allocation***
- ***Have modelling capability to help***
- EU started sub-optimally, but it got us going

2. Allocation methods

Allocation methods – variance over time

Free – historic emissions

- 1st & 2nd phases (2005-2012)
- National Governments, public scrutiny & Commission approval

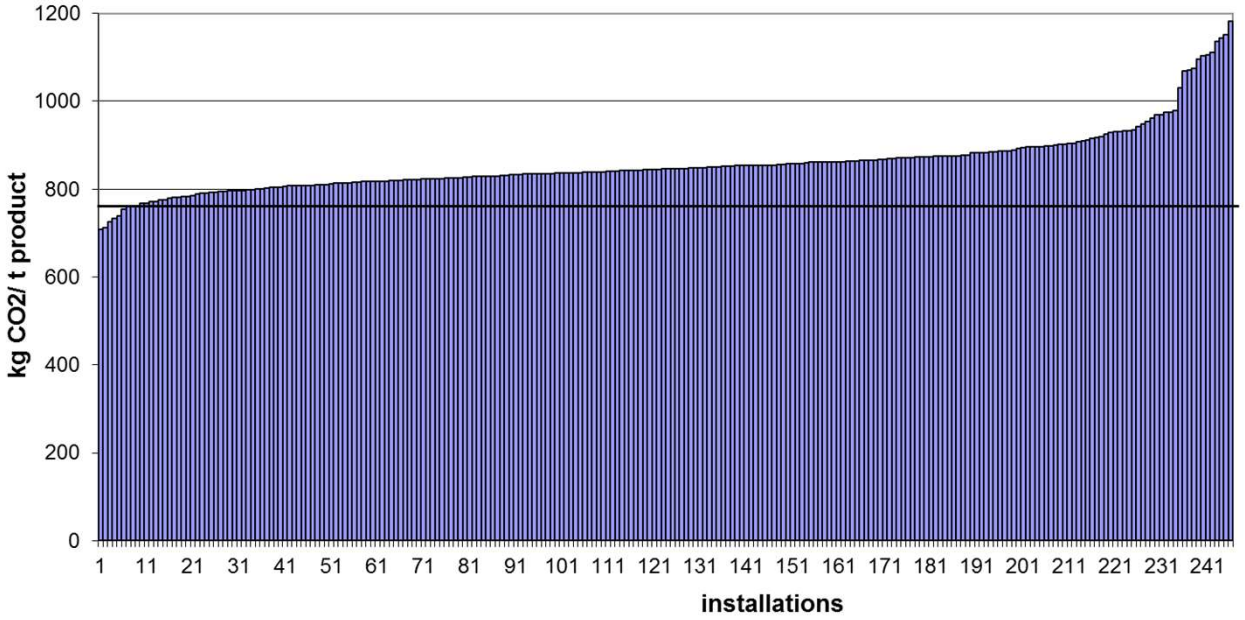
Free – benchmarking

- Harmonised across EU
- 10% best performing in sector (2013-2030) according to…

What is a benchmark?

- **Administratively driven allocation based on efficiency**

- Example of benchmarking for an industry: Cement



- Benchmarks *not* imposing emissions limit, just initial free allocation. Based on 2007-2008 production data.

- No need to buy allowances for the most efficient installations: rewards early action

Allocation methods – variance over time

Auctioning to power sector

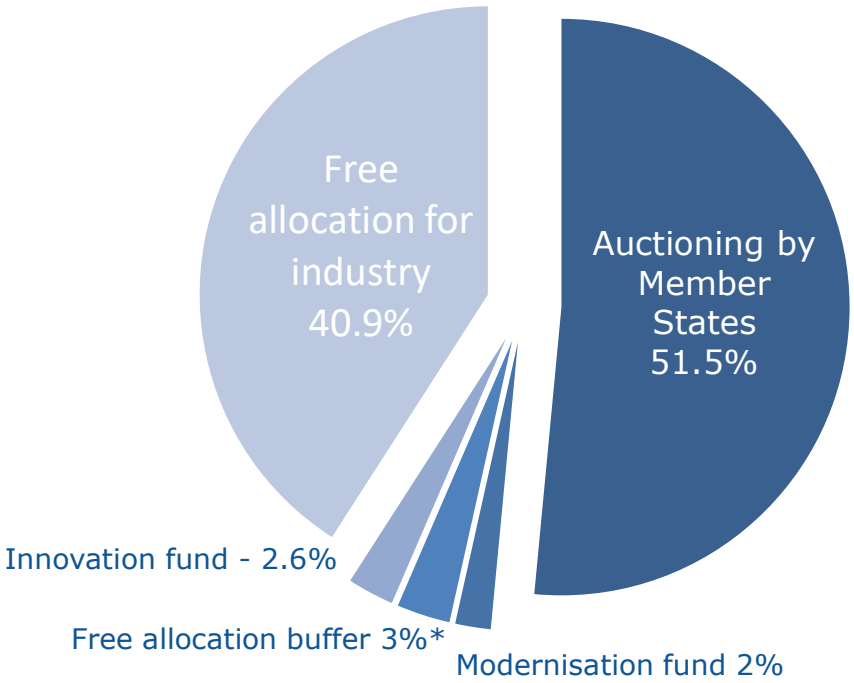
- 3rd & 4th phases (2013-2030)
- EU-wide auctions open to all – quantities determined centrally

Exceptions for less wealthy

- Free allocation for 10 Member States
- Revenue foregone to be reinvested in modernising energy system

Structure of allocation in 2021-30 (**Phase 4**)

(15.5 billion allowances cumulative, worth €460 billion at current prices of EUR 30)



** Allowances dedicated for auctioning that may be converted*

Early lessons from allocation

- You cannot hide low ambition / over-supply
- Compliance costs are very transparent - unlike performance standards, for example
- Over-allocation has implications for other parts of an economy-wide commitment (where costs may be higher – e.g. transport)
- Harmonised methodologies are key to non-distortion between competitors on the domestic market / EU Single Market

3. Competitiveness

3. What affects competitiveness?

- Depends on carbon price
- Extent of pass through
- Costs incurred by competitors
- Effectiveness of measures to preserve competitiveness

3. What measures to preserve competitiveness?

- Free allocation
- Indirect cost compensation
- Use of revenues to finance innovation
- Trade Agreements

3. Free allocation to trade exposed sectors

Conditions of eligibility

- both >5% increased production costs **&** >10% of exports, **or** >30% of either

Reducing number of beneficiaries

- Decisions in 2009 & 2014 by tightening eligibility criteria

How many sectors benefit?

- 54 technological product benchmarks

4. Carbon leakage

4. Is there leakage?

- Much talked about but little evidence
- Many factors more important
- Tends not to be relocation but redirected new investment
- Risk increases as climate ambition rises…

4. CBAM based on carbon content of imports

- WTO compatibility – similar goods must bear regulatory burden in EU
- First have to be covered by EU ETS (assuming CBAM based on EU ETS)
- Ideas to apply CBAM to electricity, cement, steel, hydrogen, ammonia…
- How to compare equivalence or regulatory burden?

Early lessons on competitiveness

- *For domestic producers, harmonization of treatment is important*
- *Free allocation worked well so far*
- *There is still a fear of carbon leakage as ambition increases & carbon price rises*

EU Allowance prices in Euros (€)
March 2008 – December 2020

Source: ICAP https://icapcarbonaction.com/en/ets-prices

Experimentation & learning goes on…

- Start with biggest sources to have biggest impact & extend gradually

- Auctioning is efficient and provides revenues that can further help

- Competitiveness effects depend on sector, how pricing is set, & what other jurisdictions do

- There are also competitiveness gains to be made – e.g. stimulate innovation

Thank you for listening

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