

The EU Emissions Trading System: experiences and future outlook

8 October 2010

Side event, UNFCCC session, Tianjin

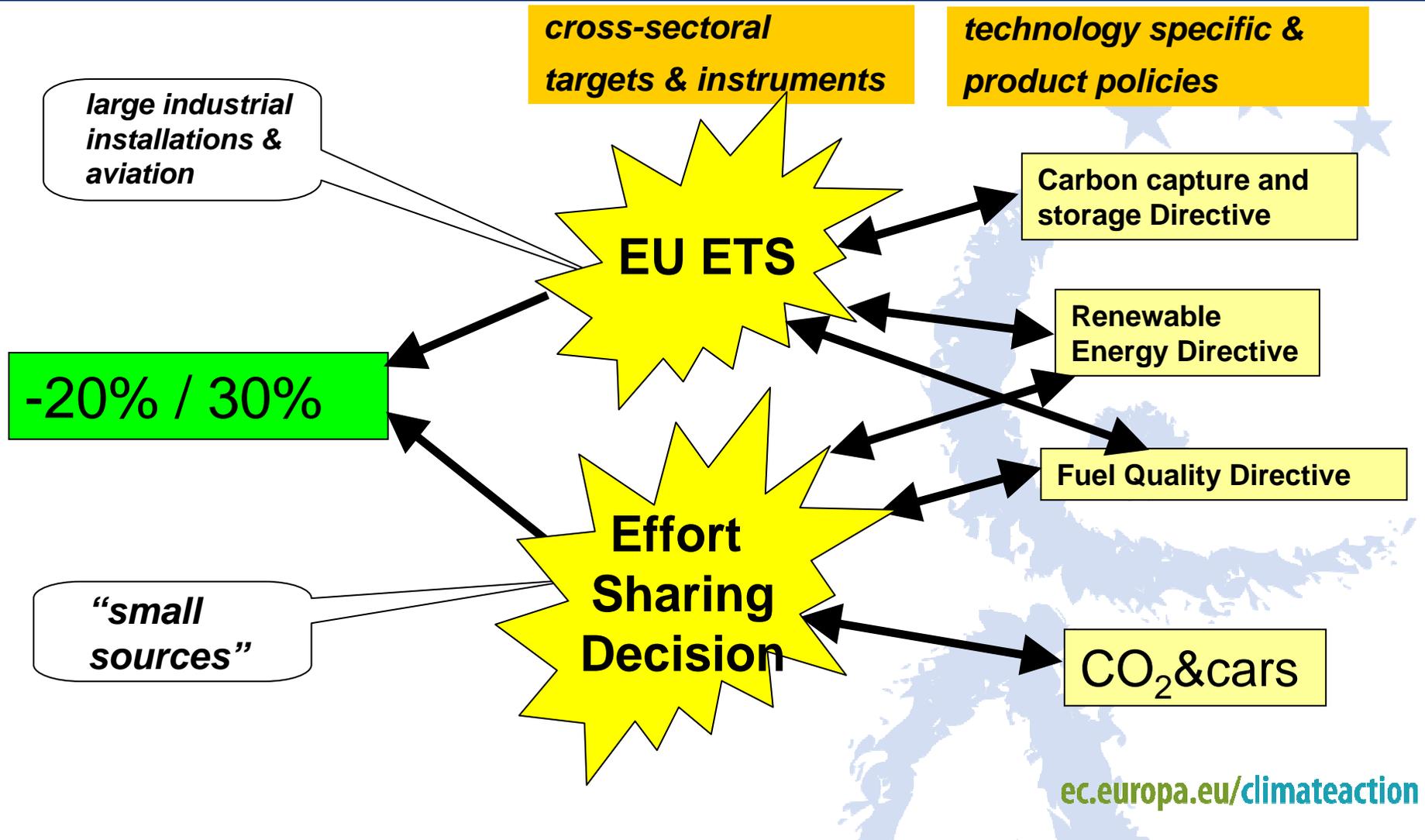
Liva ANDERSONE

**DG Climate Action
Unit B.3 International Carbon
Market, Aviation and Maritime**

European Commission

- EU ETS in wider policy mix
- EU ETS design fundamentals
- Experiences so far
- Future outlook:
 - Auctioning
 - Benchmarking
 - Potential for international credits





Initial design of the European Carbon Market phase I and phase II

- **“Downstream” mandatory cap-and-trade system**
- **Partial coverage (approx. 45% of CO2 emissions)**
 - **Power plants and large industrial point sources**
- **Decentralised and combined cap-setting and allocation via national plans (largely free allocation of allowances through grandfathering)**
- **Yearly compliance and robust penalties to ensure compliance (€100 + shortfall)**
- **Monitoring rules for direct emissions, independent verification**
- **Limited access to international credits (CDM/JI)**

- **2005: The world's largest carbon market gets off the ground and carbon enters the boardroom**
- **Carbon market infrastructure is established**
 - **Electronic registry system**
 - **Over 10,000 installations monitor and report emissions**
 - **Independent verification of reported emissions**
- **A liquid market emerges**
 - **Market intermediaries – brokers and exchanges**
- **However:**
 - **Over-allocation occurred**
 - **Allocations not based on verified emissions**
 - **Limited damage: absence of banking from phase 1 into phase 2**

- Cap set at 6.5% below 2005 verified emissions
- Aviation included as of 2012
- Iceland, Liechtenstein, Norway join EU ETS
- **However:**
 - cumbersome cap-setting and allocation process
 - long uncertainties on cap
 - no harmonised allocation
 - very limited auctioning (appr. 4%)
- **Conclusion of review process in 2007:**

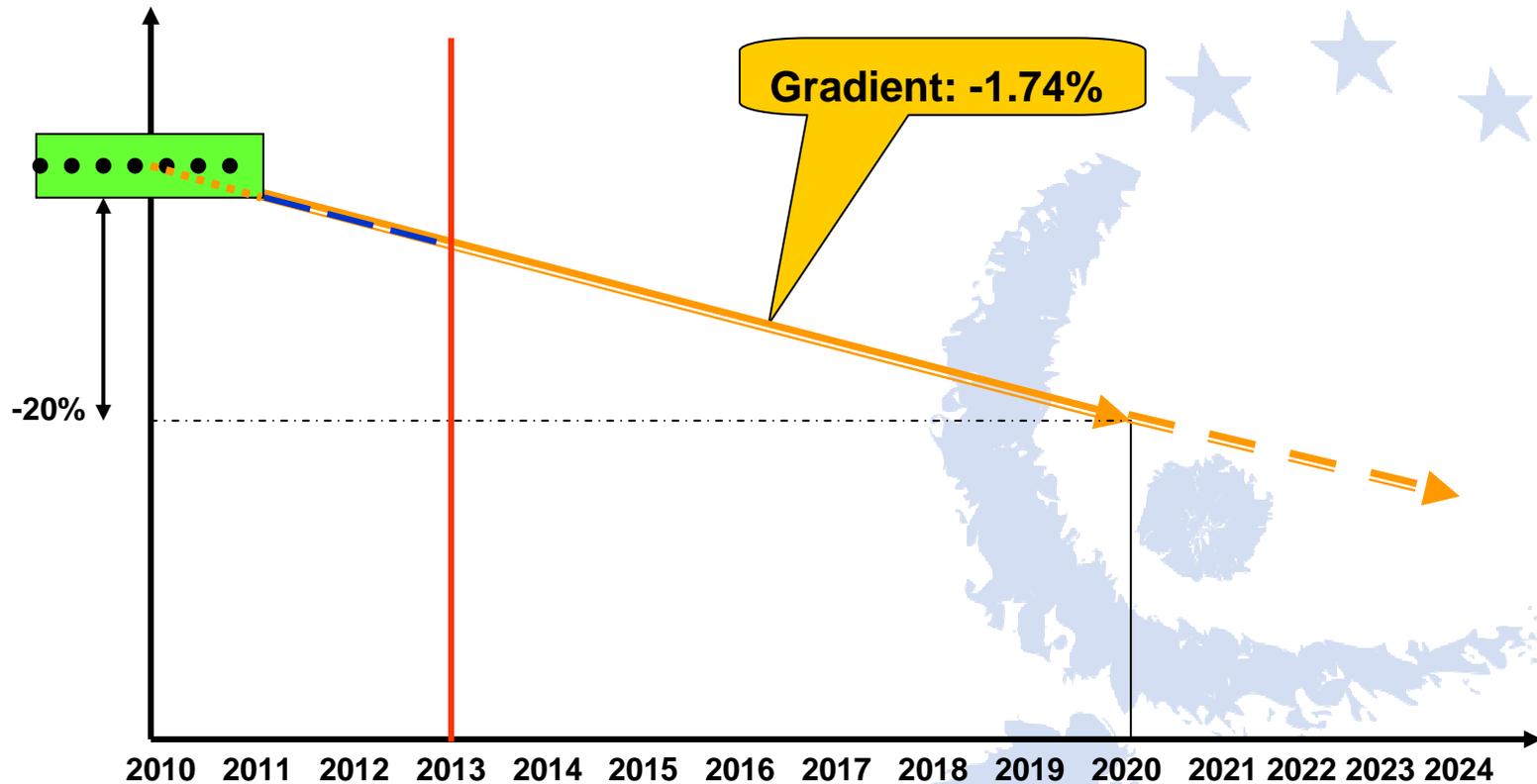
***More harmonisation and predictability
indispensable to fully reap benefits of ETS***

Inclusion of aviation in EU ETS

- All flights into and out of the EU covered by EU ETS from 2012
- Cap
 - 2012: 97% of 2004-06 emissions
 - From 2013 onwards: 95%
- Auctioning: 15% as from 2012
- Where non-EU ETS countries take action on aviation emissions, the EU ETS may recognise it as equivalent action

- **Strategic element of EU post 2012 climate and energy package**
- **Longer trading period**
- **Single EU-wide cap instead of 27 national caps**
- **Increased scope:**
 - **New industries (aluminium and ammonia producers)**
 - **New gases (nitrous oxide and perfluorocarbons)**
- **Fully harmonised allocation rules**

Inducing change: EU ETS puts a limit on emissions to 2020 and beyond



The linear factor continues after 2020, and will be reviewed by 2025

Fully harmonised allocation rules

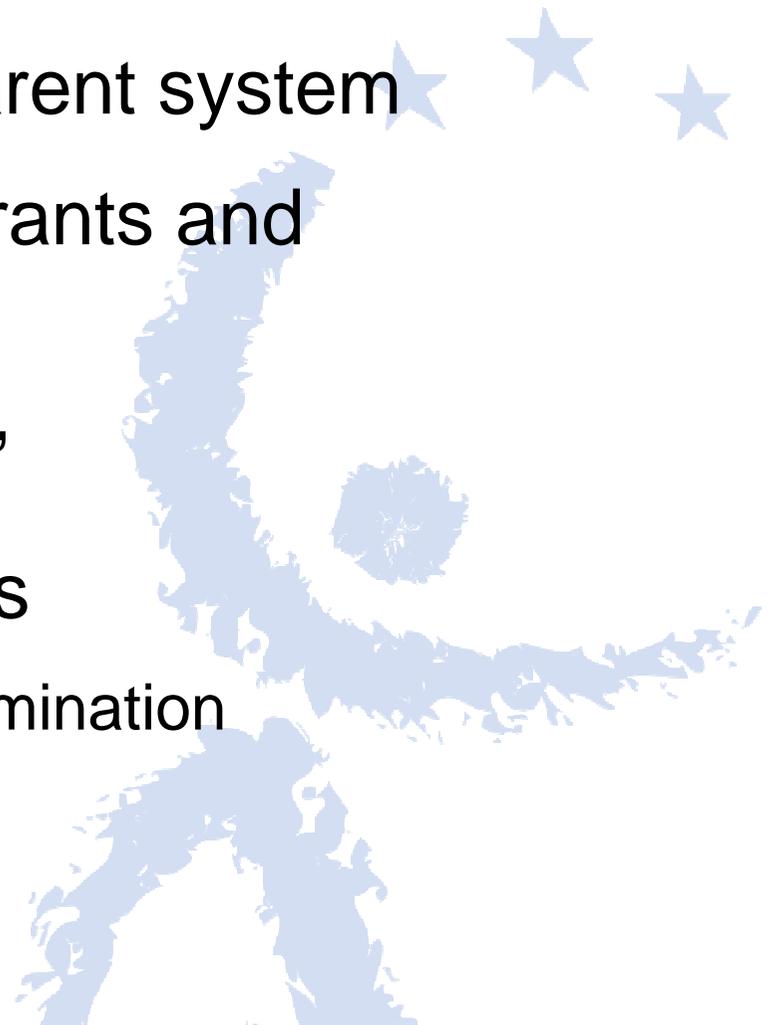
- **Auctioning is default allocation method:**
 - From 2013, more than 50% of allowances auctioned, gradually increasing thereafter with aim to reach full auctioning by 2027
- **Phasing out free allocation for sectors not exposed to risk of carbon leakage**
- **100% free allocation on basis of ambitious ex-ante benchmark for sectors at risk of carbon leakage**

Auctioning



Advantages of auctioning

- Simplest and most transparent system
- Levels playing field for entrants and incumbents
- Eliminates “windfall profits”
- Based on harmonised rules
 - Transparency and non-discrimination
 - Full access for SME



- As from 2013, full auctioning for electricity sector:
 - more than half of all allowances will be auctioned (and the EU ETS covers around 45% of total EU emissions)
 - i.e. at least some 1 billion allowances per year, at current market prices some € 15 billion euro of revenues for the Member States
 - Potentially some transitional free allocation to electricity producers in new Member States.
- Binding rules (Regulation) agreed and to be formally adopted soon

- A common auction platform for 20+ Member States
 - option for Member States to set up own auction platform
 - Platform could be an exchange: use existing experience
- Simple format: single round, sealed bid, uniform price
- Predictability:
 - annual volumes determined in the Regulation
 - auction calendar determined about a year in advance
- Adequate oversight: a single auction monitor, solid know-your-customer checks and provisions to mitigate risk of market abuse
- Next steps: procurement of auction platform and auction monitor

Who will participate in auctions?

- ETS operators
 - Parent or sister undertakings, associations
- Banks and investment firms covered by Anti-Money-Laundering and Financial Markets legislation
 - When bidding on account of clients, the latter must be accepted bidders
- Commodity traders exempted from Financial Markets:
 - E.g. oil and gas traders provided they are authorised
- Option to add further categories

Use of auction revenues

- Member States to determine use of revenues, but at least 50% should be used for climate related purposes
- Declaration by Heads of State and Government that revenues would be used for these purposes
- MS shall report to the European Commission on use of revenues through reports under GHG monitoring Decision 280/2004/EC

Benchmarking



Community wide rules for free allocation: benchmarking (1)

- **In terms of free allocation, two categories of operators:**
 - 100% of the benchmark (carbon leakage sectors) or
 - 80% reduced to 30% in 2020 of the benchmark for sectors not exposed to risk of carbon leakage
- **Carbon leakage list was determined in December 2009 based on criteria in the directive (increase in production costs and trade intensity)**
- **The free allocation has a large economic impact for industry**

Community wide rules for free allocation: benchmarking (2)

- **Free allocation for the industry sectors will be based on benchmarks, not historical emissions, and harmonised across EU (not different per MS) to ensure an EU-wide level playing field.**
- **Bottom-up approach, but there is a maximum total amount of free allowances for industry fixed in the Directive.**
- **If there are allowances left over, they should in principle be auctioned.**

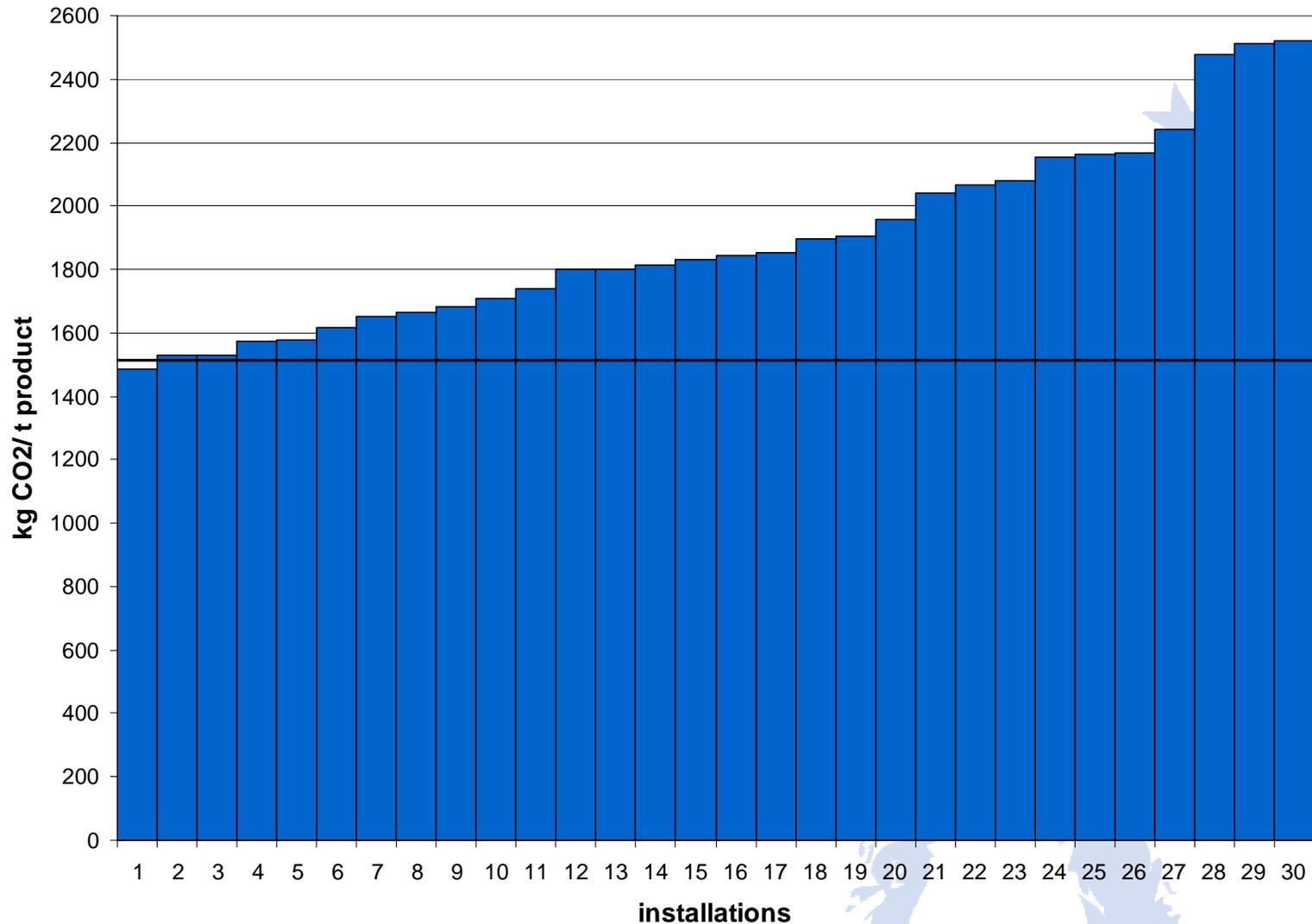
- A benchmark is not an emission limit or even a target, it is just the threshold for what amount of allowances an installation gets for free.
- Installations can buy more allowances if needed, or they can reduce emissions and finance such investments by selling allowances that they do not need.

- Not possible with hundreds of BMs! With around 50 BMs we will cover around 80% of the emissions
- Data collection for BM curves made by 3rd parties for each industry association: deadline for BM curves was end of March 2010
- Data based on 2007/2008 emission intensity per installation
- Verification/ plausibility checks performed
- For non-benchmarked productions, free allocation will be provided based on heat or fuel consumption – so called fallback approach. In addition free allowances for process emissions – if relevant.

Setting the BM values:

- **Starting point for the benchmark values: average performance of 10% most efficient installations in (sub)sector. This needs benchmark curves and determine the average of the best 10%**
- **Should also take into account i.a. most efficient techniques, high efficiency cogeneration, efficient energy use of waste gases etc.**

Example of a BM curve plus starting point



Calculation per installation

- Example: For product x the BM is 1.5 ton CO₂ per ton product
- For an installation free allocation per year will be 1.5 * average historical production 2005-2009 (still to be finally determined).
- That value will be multiplied by 0.8 if not a carbon leakage exposed sector.
- Allocation will thus in principle be known for every year until 2020.
- More allocation for new entrants and increased capacity. Less allocation for installations closing down.

Benchmarks: main principle

- Basic benchmark approach (one product – one benchmark) in general accepted
- Thus no modification based on which fuel is used, which technology is used, which inputs are used: only look at the product being produced.
- Otherwise, more emissions would lead to more free allocation, and necessary to look at fuel, technology and input use for each of 10.000 installations.
Impossible!

- Some sectors concerned about “outliers” (best installations lowers the BMs for all)
- However, it is normal that a few installations are the very best. The aim of the directive is that the best installations sets the benchmark.
- The only strong argument to remove installations from the benchmark curve is if the “best” do not produce an identical product (e.g. a simpler product with less emissions or only part of the process).
- To avoid this risk, allocation divided into traded intermediates (e.g. steel: coke, sinter, hot metal) and sometimes a quality factor is applied

Potential for international credits

- EU ETS in 2008-20: a quantity of approx 1600 million tonnes (under unilateral -20% target), with use standards foreseen.
- Approx. 800 million tonnes additional quantity under Effort Sharing Decision (ESD).
- Credits meeting certain conditions from countries that have signed an international agreement, once reached, or have agreement with EU
- EU can initiate other new market mechanisms (i.e. sectoral crediting), bilaterally or multilaterally, under Article 11a(5) EU ETS for use in EU ETS or in ESD
- Complementarity: use of CDM should not exceed 50% of reduction below 2005

Keep emissions trading simple

- **Need for strong regulator to ensure environmental integrity**
- **Cover installations/ gases at the outset where sufficiently accurate monitoring is feasible, extend later in line with technical progress**
- **Auction large share of allowances is fairest allocation method**
- **Use verified data as basis for any free allocation**
- **Use revenues from auctioning in fight against climate change**
- **Ensure further harmonisation of monitoring, reporting and verification**
- **Maximize transparency and legal certainty – no ex-post regulatory intervention**
- **Keep use of offsets (CDM/JI) in balance with incentives to drive investments in low carbon technologies at home**

Thank You !

Questions?

For more information on EU Emissions Trading System:

http://ec.europa.eu/environment/climat/emission/index_en.htm

For more information on benchmarking:

http://ec.europa.eu/environment/climat/emission/benchmarking_en.htm

For more information on auctioning:

http://ec.europa.eu/environment/climat/emission/auctioning_en.htm