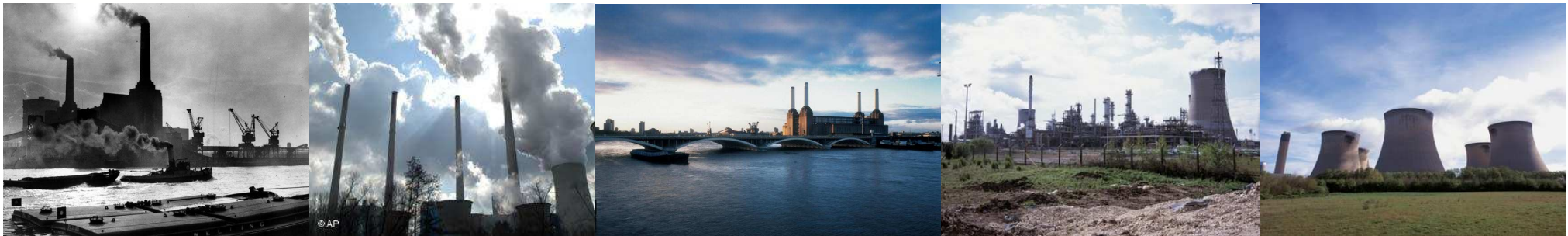


# EU Emissions Trading



Jill Duggan

Carbon Market Insights

Washington DC, November 08

 Department of Energy  
and Climate Change

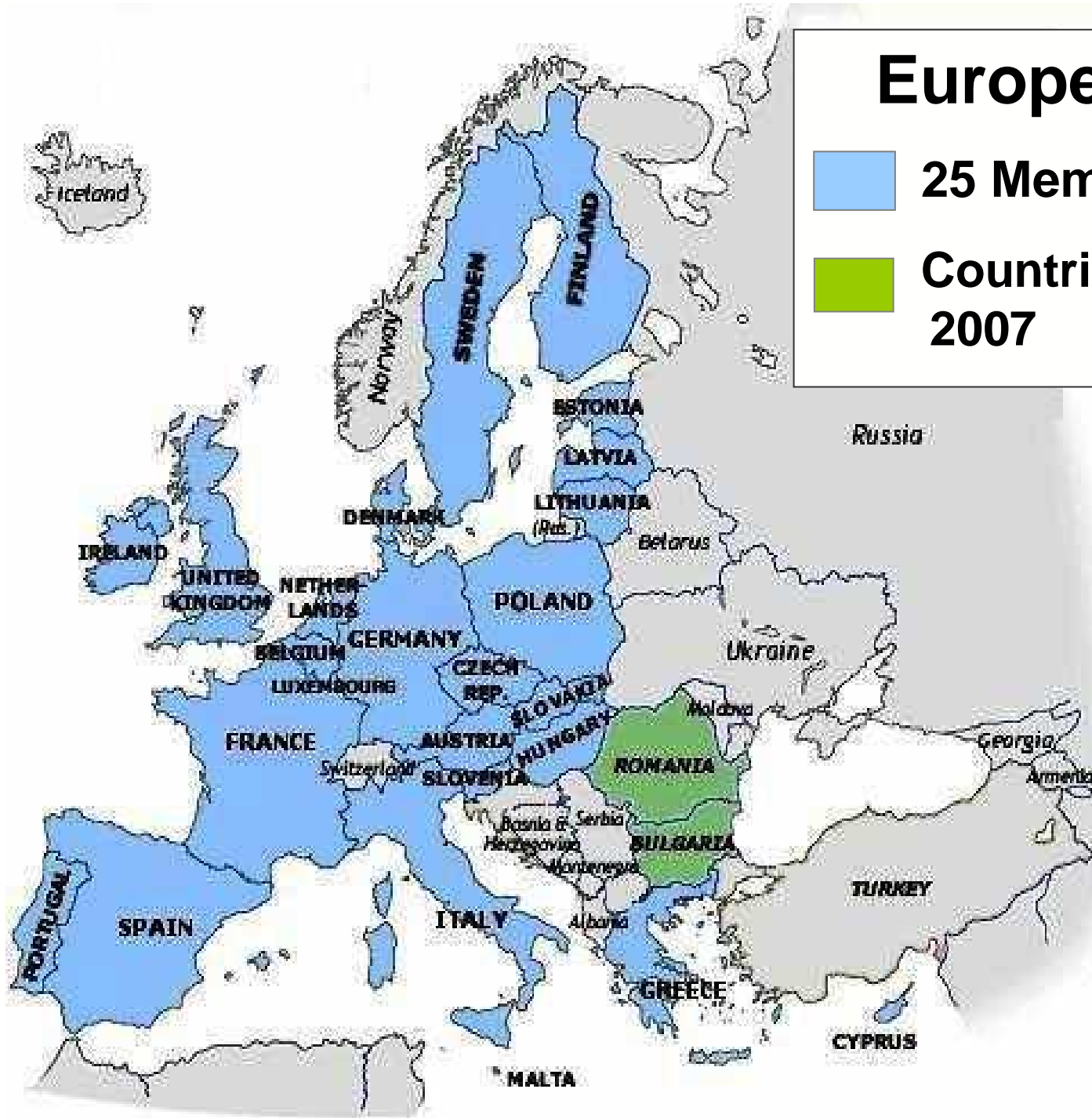
# European Union



25 Member States



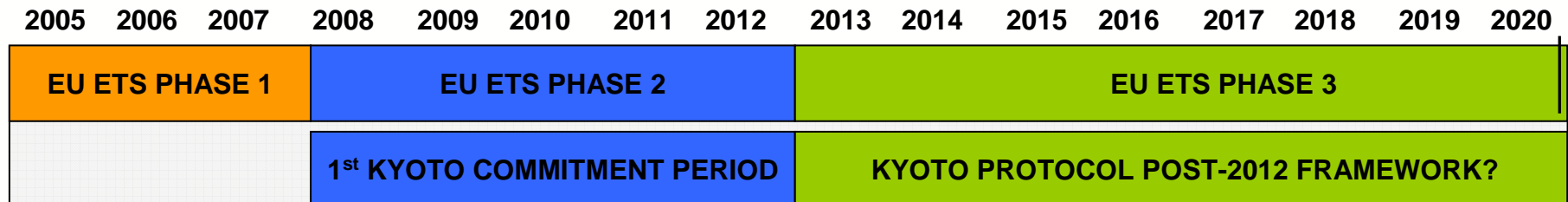
Countries joined EU in 2007



# Key features of EU ETS

- “Cap and trade” scheme covering energy intensive industries
- Direct emissions approach - liability placed on the entity responsible for emissions and therefore most able to take action
- Currency is European Union Allowances (EUA)
  - One EUA = one metric tonne of CO<sub>2</sub>
- Allowances freely tradable throughout EU states

# EU ETS Timeline



January 2005 - EU ETS commenced

- Phase 1 EU ETS– 2005-2007 ‘learning phase’
- Phase 2 EU ETS– 2008-2012 ‘Kyoto Commitment Period’
- Phase 3 and beyond....

# Sector Coverage

- Covers CO<sub>2</sub> emissions from combustion processes (approximately 50% of EU CO<sub>2</sub> emissions, 30% of EU greenhouse emissions)
- Covers approx 12,000 installations across the EU from these sectors:
  - Electricity generators
  - Other combustion installations (heat & steam production)
  - Mineral oil refineries
  - Iron and steel production and processing
  - Cement & lime
  - Glass & ceramics
  - Pulp & paper sector

# Some Experience to date...

- Majority of allowances allocated for free – auctioning restricted by directive, and then by low carbon price in first phase
- First learning phase overallocated data - lobbying
  - but good basis for Second Phase
  - Limited use of credits from Clean Development Mechanisms for compliance – trying to balance European abatement with investment in DCs
- Member States used a range of methods for allocation – including historical emissions, projected emissions, sector benchmarks etc

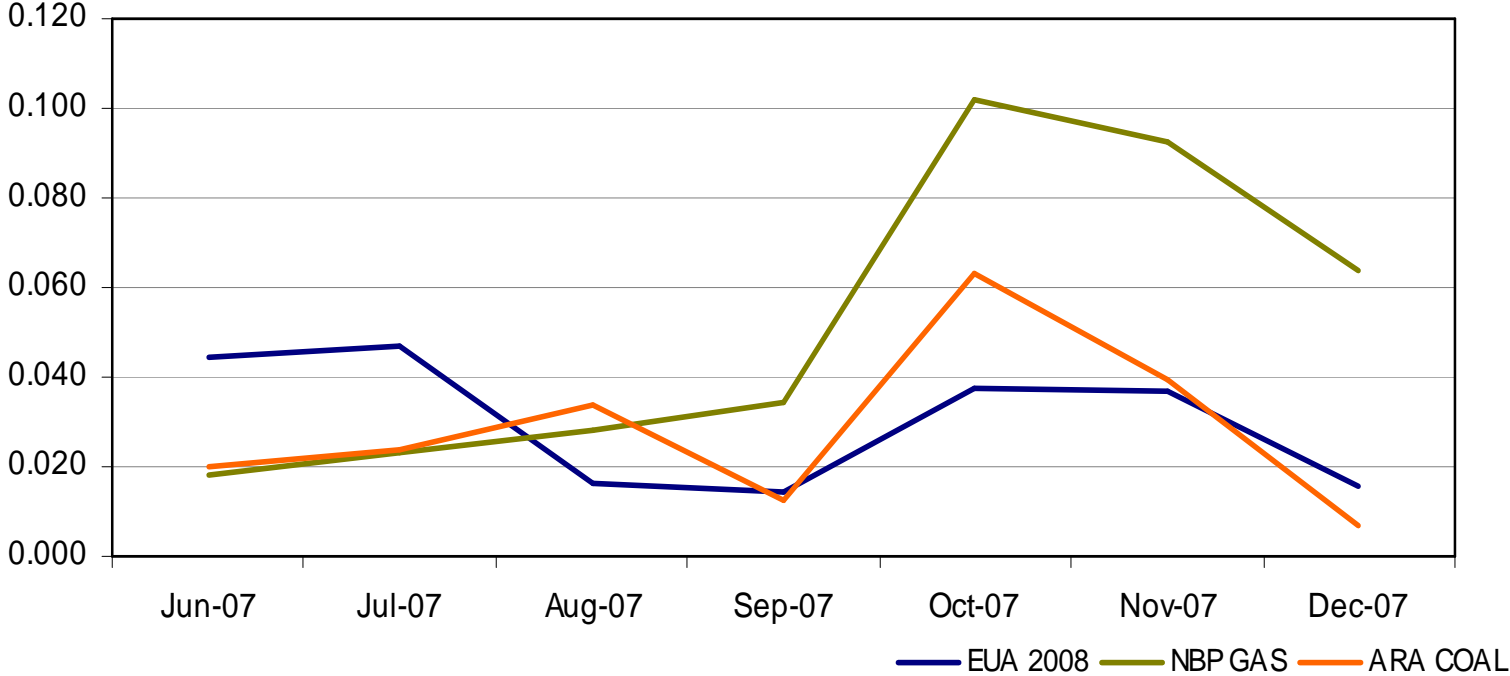
# Impact of EU ETS to date

- Very high compliance in first phase
- Improved emissions data across Europe
- Internalising cost of carbon in price of electricity generation
- Driving investment in Kyoto project credits (CDM)
- Behavioural change – mainstreaming? – Point Carbon found 65% of EU ETS participants take cost of carbon into account in making investment decisions
- Market worth \$63 bn in 2007 (€40 bn) EU ETS 70%, CDM 30%

# Key short term drivers of carbon price

- Relative fuel prices (natural gas vs coal)
- Weather
  - Drought reduces hydro-electricity production
  - Unusually hot/cold weather increases energy demand
- Policy and regulatory issues
  - Announcement of National Allocation Plans
  - First year compliance results (indicates market long/short)
- Future trades

# The Phase II carbon price is less volatile than other related commodity markets...



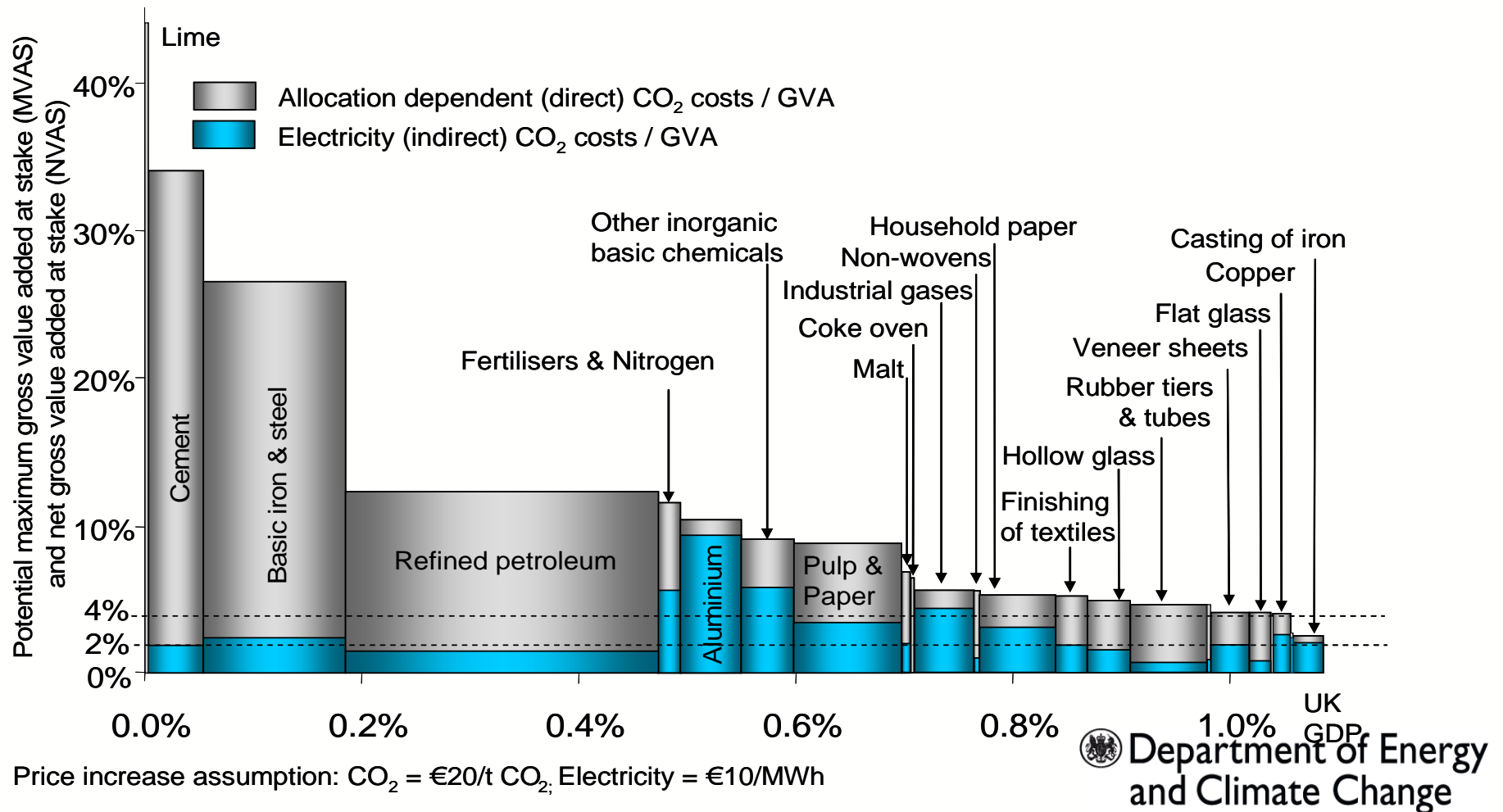
# EU ETS – Volumes and Prices

	Volumes (Millions)			Phase II Prices (EUA 2008, €)		
	Total	Average Daily	Highest Day	Average close	Lowest	Highest
Jan-08	178	7.7	16.0	21.02	19.10	23.70
Feb-08	167	8.0	16.0	20.66	18.90	21.70
Mar-08	130	7.6	12.5	21.75	20.63	22.58
2007	1441	5.5	12.7	19.48	12.25	25.28

# Carbon Leakage

Climate Strategies study 159 subsector activities and identified a “top 20+3” - impacts a few specific sectors

CO2 cost screen: Sectors potentially exposed under unilateral CO2 pricing

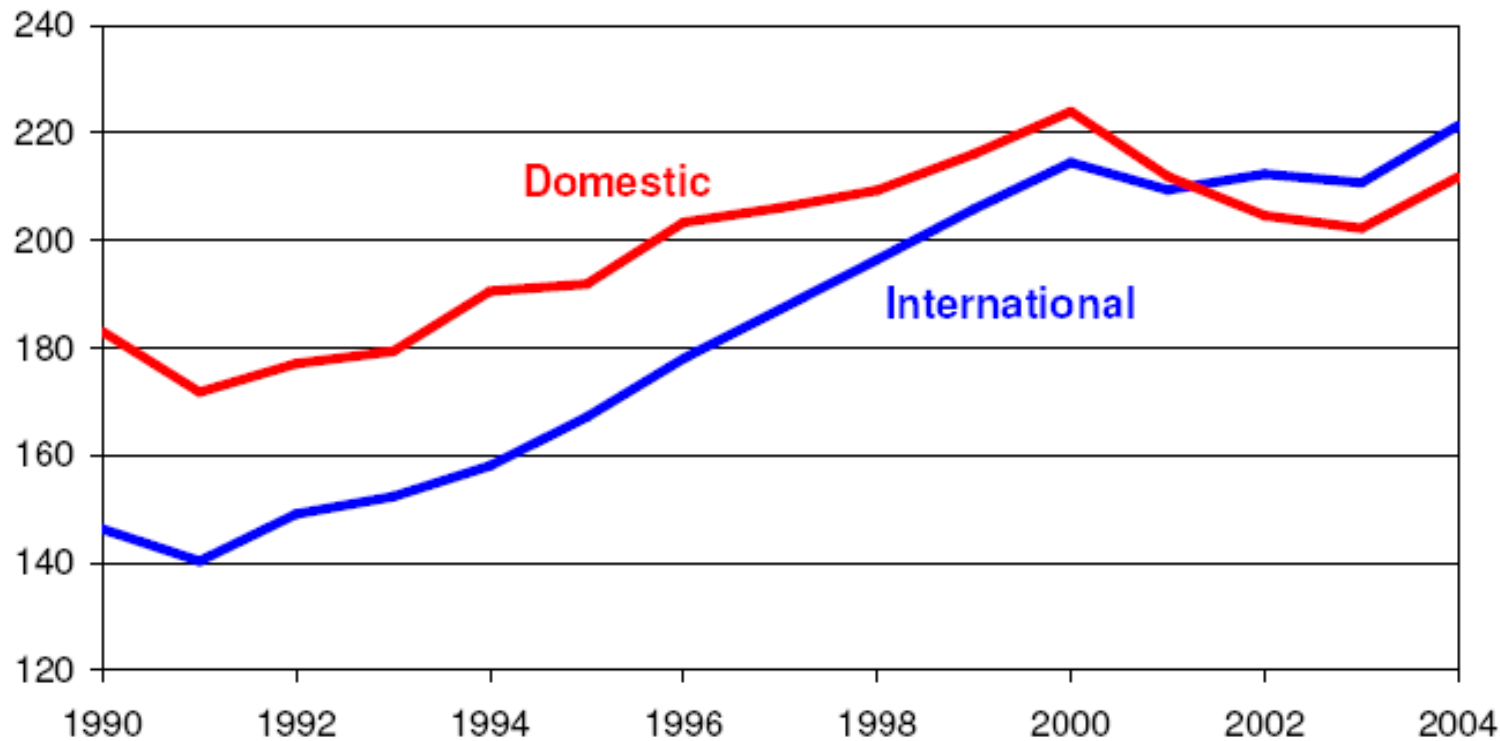


# Aviation in EU ETS

- 2012 all flights arriving at or departing from an EU airport
- Emissions capped in 2012 at 97% of average 2004-6 emissions and in 2013-20 at 95% of 2004-6 emissions
- Allocation - 2012: 85% free of Aviation Allowances  
2013: Balance of free/auctioning still being negotiated as part of 2020 Package
- Exemptions
  - Non- EU Heads of State flights – eg Air Force One!
  - Some public service flights to outlying areas
  - Low activity operators (eg less than 10,000 tCO<sub>2</sub> pa/243 flights)

# Why include aviation in EU ETS?

International aviation emissions of CO<sub>2</sub> grew by 52% over 1990 to 2004  
(Annex I countries)



Source: UNFCCC (excludes the Russian Federation)

**Steeply rising emissions & minimal progress in ICAO** Energy and Climate Change

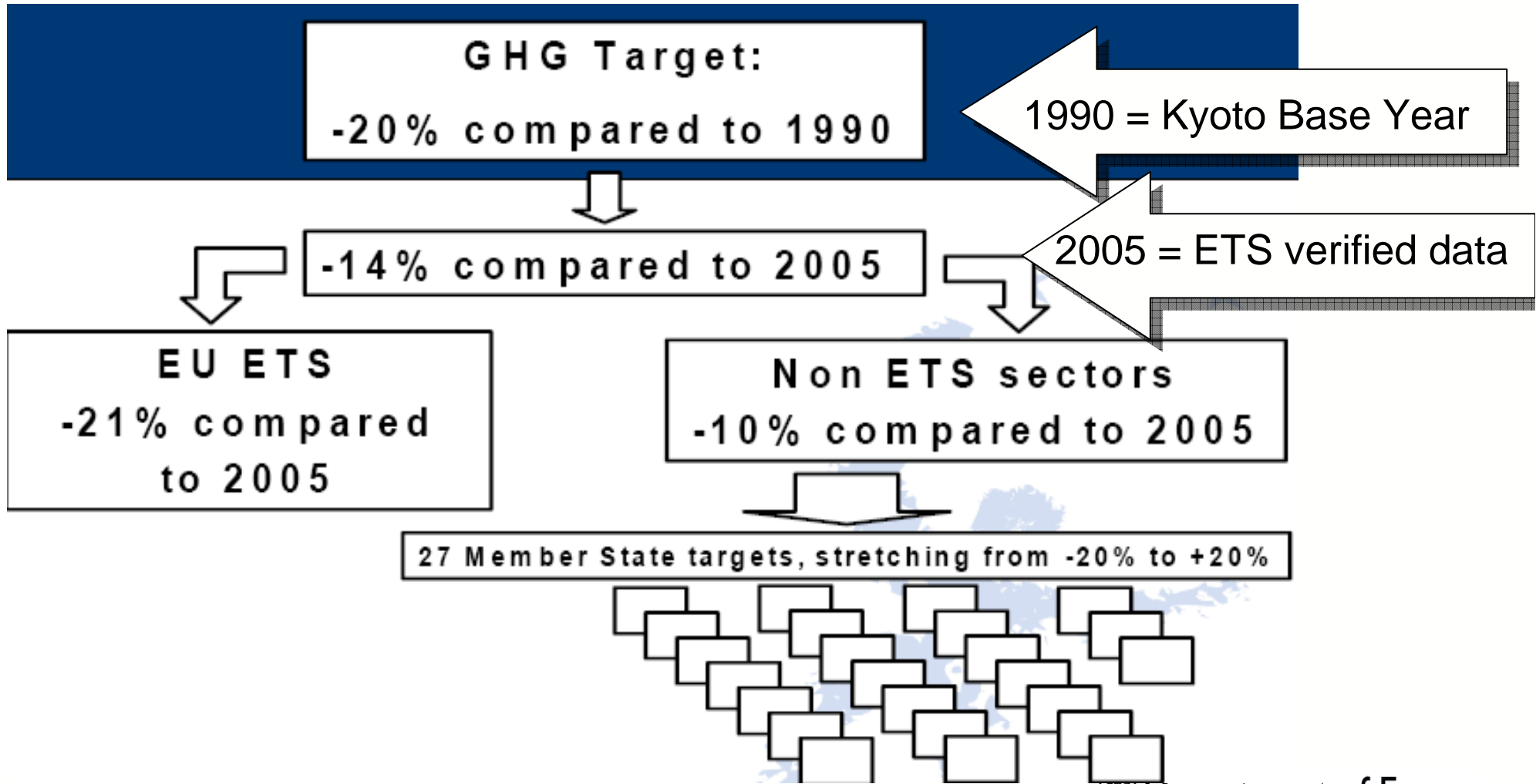
# Lessons learned for 2013 and beyond

- Central cap – linear decrease from 2008-12 of 1.74% in average annual emissions
  - 1720 mtCO<sub>2</sub>e in 2020 = 21% below 2005 emissions
- Full auctioning for electricity generators and CCS
- Community wide rules for free allocation for industrial sectors in line with 2005-7 verified emissions
- Full auctioning for all sectors by 2020 (unless carbon leakage)
- Tighter limits on use of project credits (JI/CDM) in EU until international agreement reached

# Post 2012 Future of Mechanisms

- CDM has been useful in engaging developing countries
- Process needs to be streamlined and reformed
- Major developing economies move away from CDM to sector no lose targets, hard sector targets towards national caps
- EU ETS only guarantees future acceptance of CDM for Least Developed Economies, otherwise subject to international agreement

# Overall mechanics of GHG elements of 2020 package



# EU Climate and Energy Package – 20/20/20 by 2020

- 20% reduction in GHGs on 1990 by 2020
- 20% renewable energy by 2020
- 20% reduction in energy demand by 2020
- EU ETS – central cap, more harmonisation
- Non ETS effort sharing Eg UK -16%, DE -14%, Portugal +14%

# Creating a global carbon market - should emissions trading systems link?

- Greater liquidity,
- More abatement options
- Price stability
- Political certainty
- Level playing field
- But need to create trust and transparency through common building blocks – International Carbon Action Partnership

# For further information

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