

# Aviation and Environment

**Where are we now with reducing aviation emissions?**

**The EU ETS' approach to aviation**

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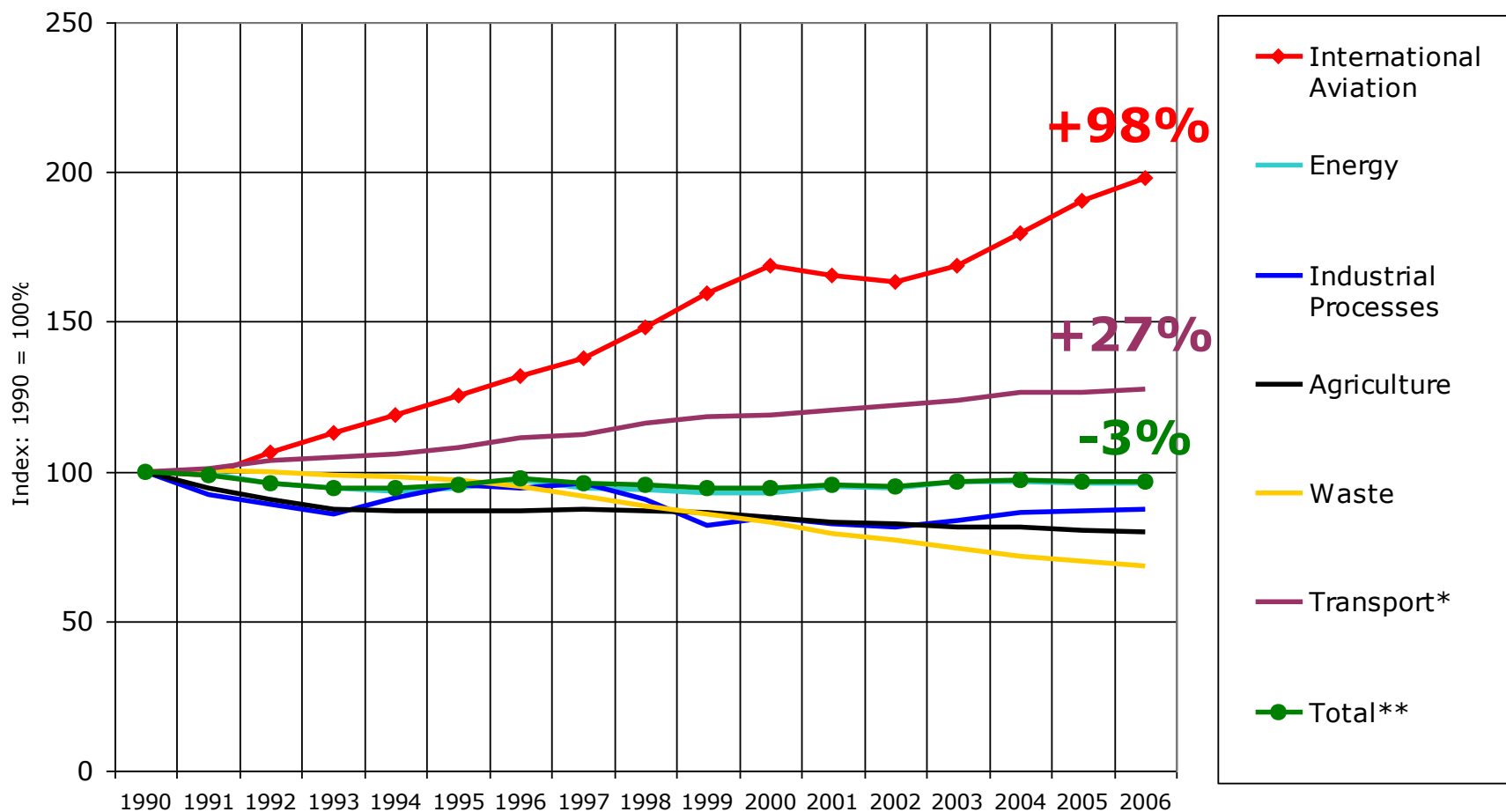
European Commission

# Overview

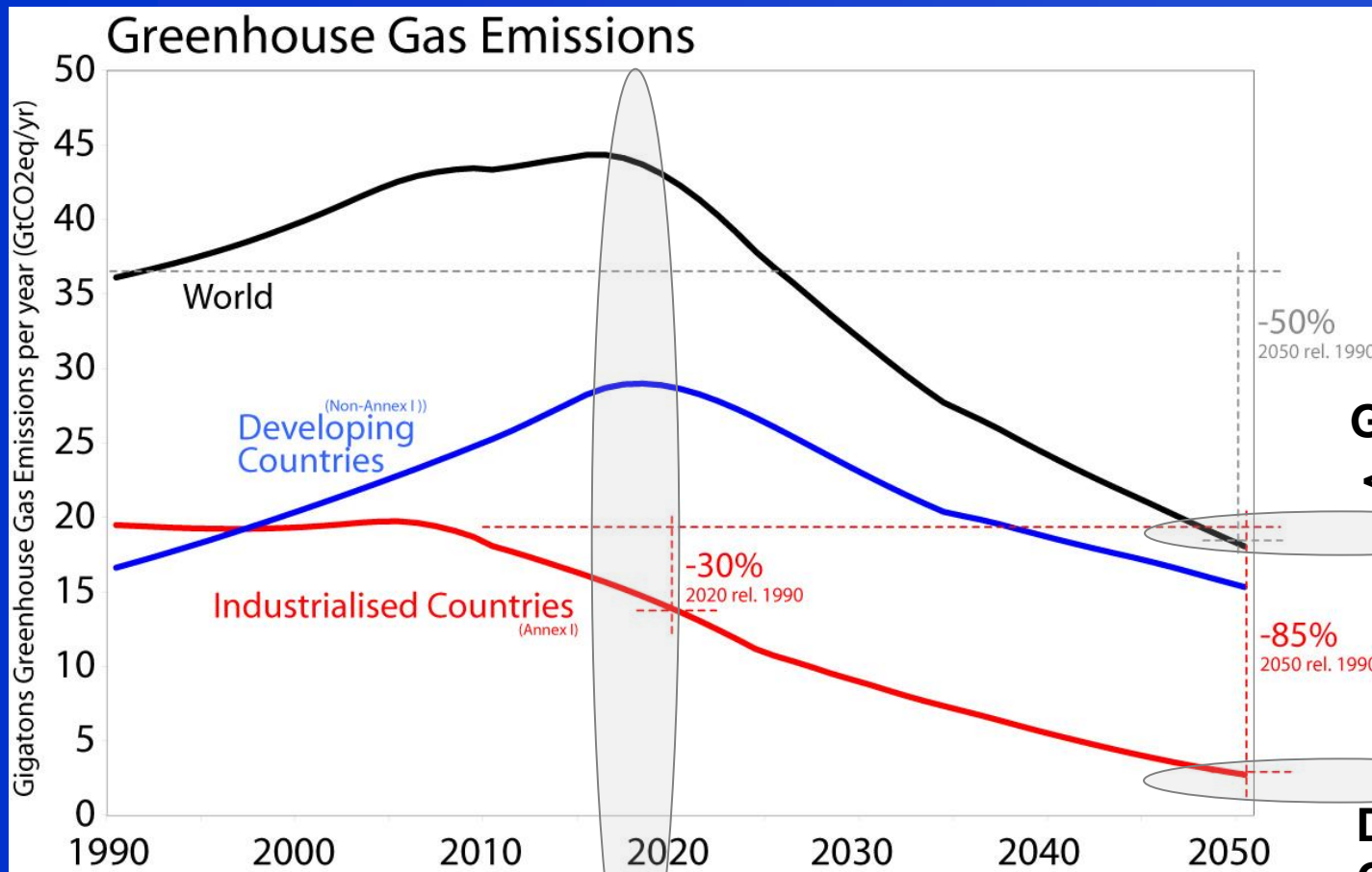
- ★ Aviation emissions and EU ETS legislation
- ★ EU ETS implementation activities
- ★ Next steps and international developments

# Aviation GHG emissions are growing rapidly

EU-27 GHG Emissions by Sector as an Index of 1990 Levels



# Necessary changes in emissions for staying below 2°C



**Global -50%  
< 1990 by 2050**

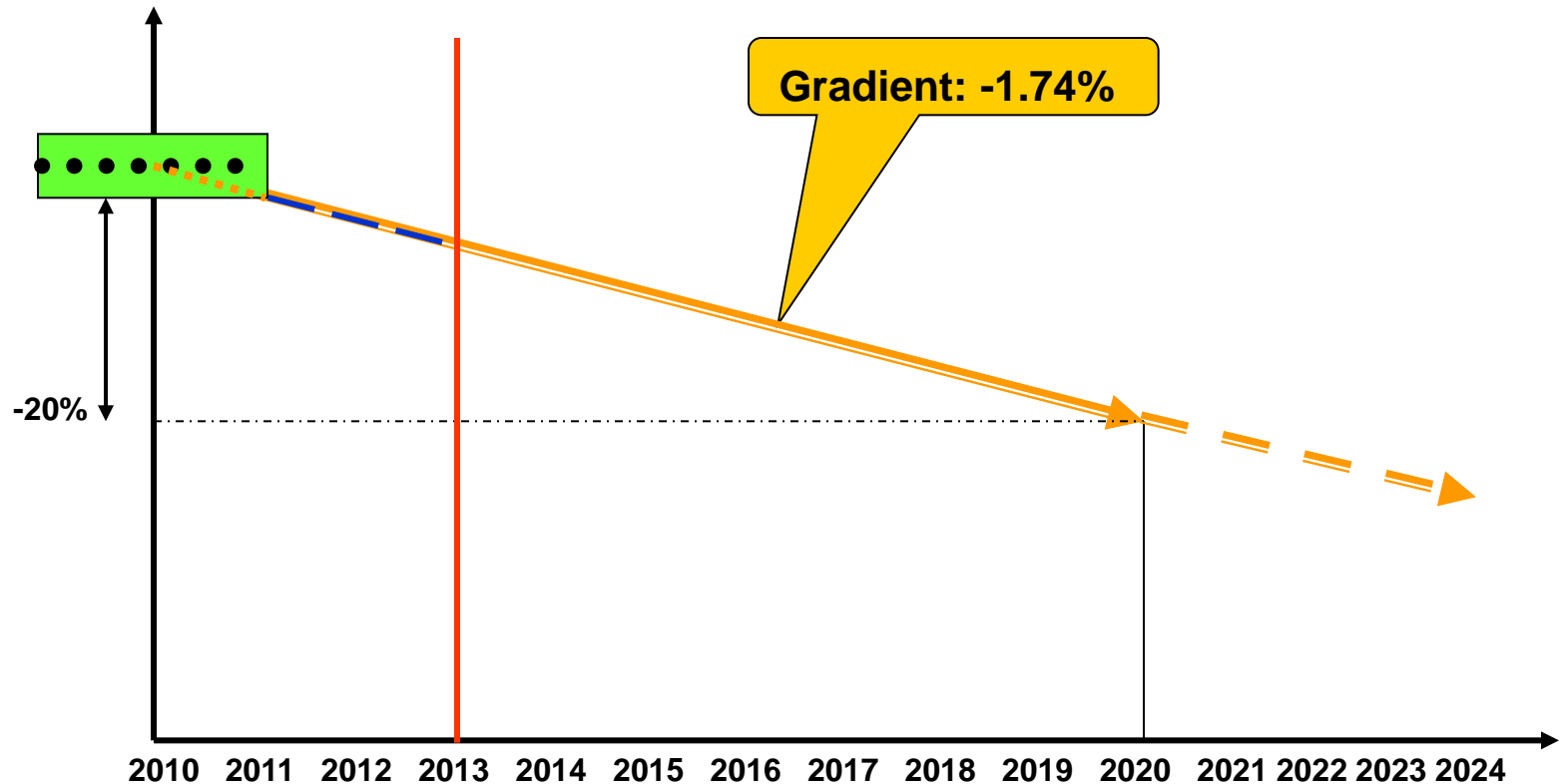


**Recent  
Science?**

**Developed  
Countries  
to cut by 80-95%  
< 1990 by 2050**

**Global peak for all  
emissions by 2020**

# 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
- Aviation is also included in the EU's 20% reduction commitment, with a 5% reduction in 2013-20

# Aviation CO<sub>2</sub> emissions are comparable to other EU business sectors

Combustion installations	1491
Mineral oil refineries	152
Iron or steel	133
Cement and lime	188
Pulp, paper and board	31
TOTAL	2092
<i>for comparison:</i> aviation emissions covered by the EU ETS	~220

Source: Verified 2008 EU-27 emissions for EU ETS installations (m tonnes of CO<sub>2</sub> equivalent).

# Aviation included in the EU ETS

- ★ Legislation covers all flights to and from EU airports
- ★ Airlines will be fully included in the scheme from 2012
- ★ Emissions cap based on historic average annual emissions between 2004 and 2006
  - 2012 cap set at 97% of historic emissions
  - 2013 - 2020 set at 95% of historic emissions
- ★ 15% of allowances to be auctioned in 2012
- ★ 3% of allowances reserved for new or fast-growing operators
- ★ 2010 tonne-kilometre monitoring to apply for free allowances

# Timeline for implementation

- ★ 31 December 2009: Monitoring plans approved by competent authority
- ★ **1 January 2010:** **Monitoring starts**
- ★ 31 March 2011: Submission of first verified reports to competent authorities
- ★ 30 September 2011: Commission calculates allocation benchmark
- ★ 31 December 2011: Commission publishes allocation of free allowances
- ★ 2012: First trading period starts

# Small emitters in the EU ETS

- ★ MRV legislation provides simplified procedures for small emitters. Namely those:
  - emitting less than 10 000 t CO<sub>2</sub> per year
  - operating less than 243 flights per 4 month period
- ★ Enables small emitters to model rather than measure emissions
  - Modelling tools to be approved by European Commission
  - Eurocontrol's modelling tool should be approved by the Commission in summer 2010
    - Simple spreadsheet model
    - Will be free to use
    - Available on Eurocontrol's website
  - Many business aviation operators will qualify to use the tools

# Eurocontrol's ETS Support Facility

- ★ ETS support facility intended to help operators comply with the legislation
- ★ Should allow for easy generation of operators emissions monitoring report by:
  - using the traffic data recorded by Eurocontrol
  - calculating emissions by applying small emitters tool
- ★ Currently awaiting approval by Eurocontrol on 6 May

# Verification of monitoring reports

- ★ Independent verification of emission reports is a fundamental requirement of the EU ETS
- ★ Plan to examine whether simplification of verification is possible with monitoring reports for small emitters
  - Especially with the monitoring reports generated using Eurocontrol's support facility

# Auctioning of allowances

- ★ The Commission has made a legislative proposal to harmonise the approach to auctioning allowances
  - Centralised auctioning platform, though some Member States may opt out to provide their own platform
  - Aircraft operators in the EU ETS and consortia/agents operating on behalf of aircraft operators may participate
  - Auctions for aviation allowances every 2 months
  - Minimum buying lot - 500 allowances

# Next steps

- ★ Expansion of the scheme to EEA EFTA States (Norway, Iceland and Liechtenstein) will be completed soon
- ★ Calculation of historic emissions
  - Determines the emissions cap for aviation
- ★ Guidelines on the implementation of operating bans for non-compliance
- ★ Equivalent measures?
  - Exclusion of incoming flights from EU ETS when third countries adopt equivalent measures

# International developments on reducing/ limiting aviation emissions

- ★ EU goals for international aviation:
  - Globally, a 10% reduction in CO<sub>2</sub> emissions below 2005 emission levels in 2020
  - At least 50% below 2005 levels in 2050
- ★ UNFCCC to set target and ICAO to develop mechanisms for States to deliver the target
- ★ Progress at the ICAO is slow: 2002 deadline missed, and still no sufficient action agreed between States

# Key messages

- ★ Aviation is a significant and growing emissions source and must contribute to efforts to tackle climate change
- ★ Aviation fully included in the EU ETS from January 2012
- ★ EU ETS for aviation provides:
  - a model for others to use
  - opportunities for equivalent measures

# Further information

Aviation and environment  
website:

[http://ec.europa.eu/environment/climat/aviation\\_en.htm](http://ec.europa.eu/environment/climat/aviation_en.htm)

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