

## **NAEI: current and long term policy commitments**

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**NAEI stakeholder meeting - Monday 29<sup>th</sup> September**

# What's in this presentation

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- Introduction to the UK National atmospheric emissions inventory – what we produce and who the users are
- Reporting Commitments
- Trends – where we are now
- Developments over the last 12 months
- The future – looking ahead to the next 12 months

# Introduction

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- The NAEI is the standard reference air emissions inventory for the UK
- Pollutants covered: 44 pollutant species.
- Time series: 1970: 2006 and projections for 2010, 2015 & 2020

# Pollutants covered

## Greenhouse Gases

CO<sub>2</sub> CH<sub>4</sub> N<sub>2</sub>O  
HFC PFC SF<sub>6</sub>

## AQ Strategy Pollutants

PM<sub>10</sub> CO Benzene  
1,3-Butadiene PAH

## Acidifying Pollutants & Ozone Precursors

NO<sub>x</sub> SO<sub>2</sub> NMVOC  
NH<sub>3</sub> HCl HF

## “Heavy Metals”

As Cd Cr Cu Pb Hg Ni Se  
V Zn Be Mn Sn

## Base Cations

Na K Mg Ca

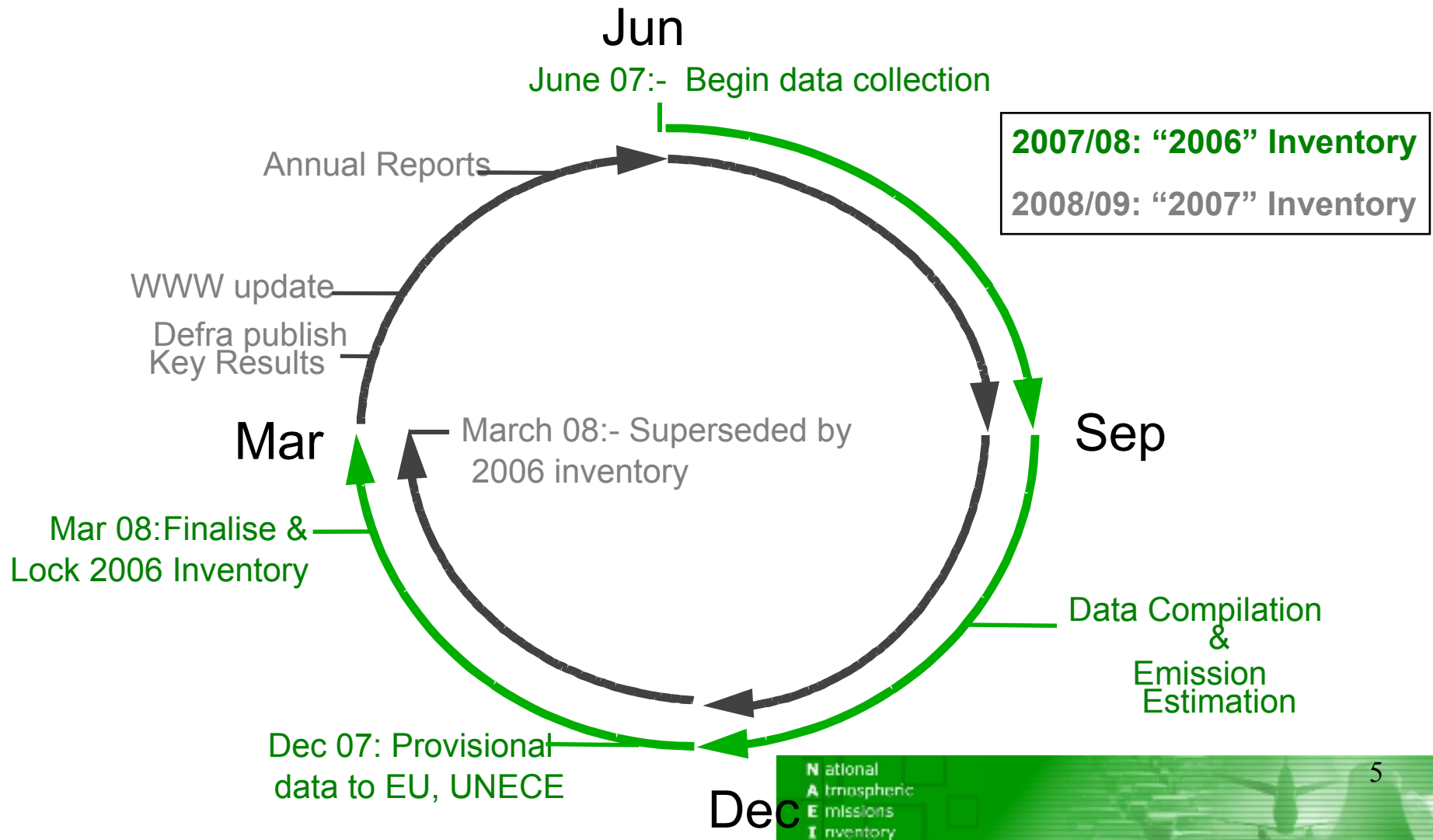
## Pollutant Speciation

PM<sub>10</sub> PM<sub>2.5</sub> PM<sub>1</sub> PM<sub>0.1</sub>  
NMVOC → Over 500 Species  
PAH PCB → individual species  
Cr Ni Hg → chemical speciation

## Persistent Organics

PAH PCDD/F PCB Pesticides  
SCCPs PCN PBDE

# NAEI Compilation Cycle



# International reporting commitments

- **National Emission Ceiling Directive**

⇒ NO<sub>x</sub>, NMVOCs, NH<sub>3</sub>, SO<sub>2</sub>

⇒ Yearly, 31 December



- **UNECE Convention on Long-range Transboundary Air Pollution (CLRTAP):**

⇒ SO<sub>2</sub>, NO<sub>x</sub>, NMVOCs, NH<sub>3</sub>, CO, HMs, POPs, PM

⇒ 1980 onwards

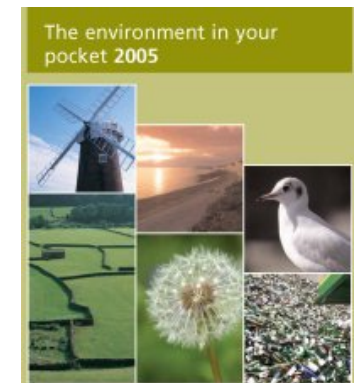
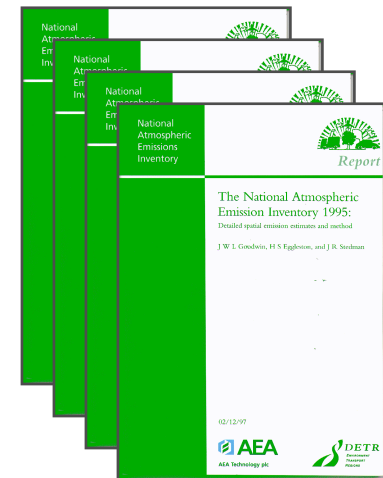
⇒ Emissions data: Yearly, 15 February

⇒ Gridded data: 5 Years, 1 March



# National reporting commitments

- **NAEI Annual Report (October)**
- **Digest (March)**
  - ⇒ all\_poll\_XX.xls
  - ⇒ emissions\_by\_fuel\_2006.xls
  - ⇒ Fuel\_Consumption\_1970-2006.xls
  - ⇒ Final Users dataset
- **Expert Groups (AQEG)**
  - ⇒ Tailored Datasets



# National reporting commitments

- Wide variety of Stakeholders... requiring a wide variety of outputs!
  - Other international reporting (**OECD, EUROSTAT...**)
  - Input into **AQ Strategy** (maps, scenarios etc.)
  - Data provision for the **Devolved Administrations**
  - **ONS** Air Accounts
  - **DfT**- various data and scenarios
  - **DBERR** - emissions by fuel and fuel consumption
  - **Local Authorities**- mapped datasets for R&A
  - **Academia & Research Institutes**
  - **Trade Associations, NGO's & Private Companies**
  - **The Public**- data disseminated through the NAEI website



Department for  
**Transport**

**DEPARTMENT FOR BUSINESS**  
**ENTERPRISE & REGULATORY REFORM**



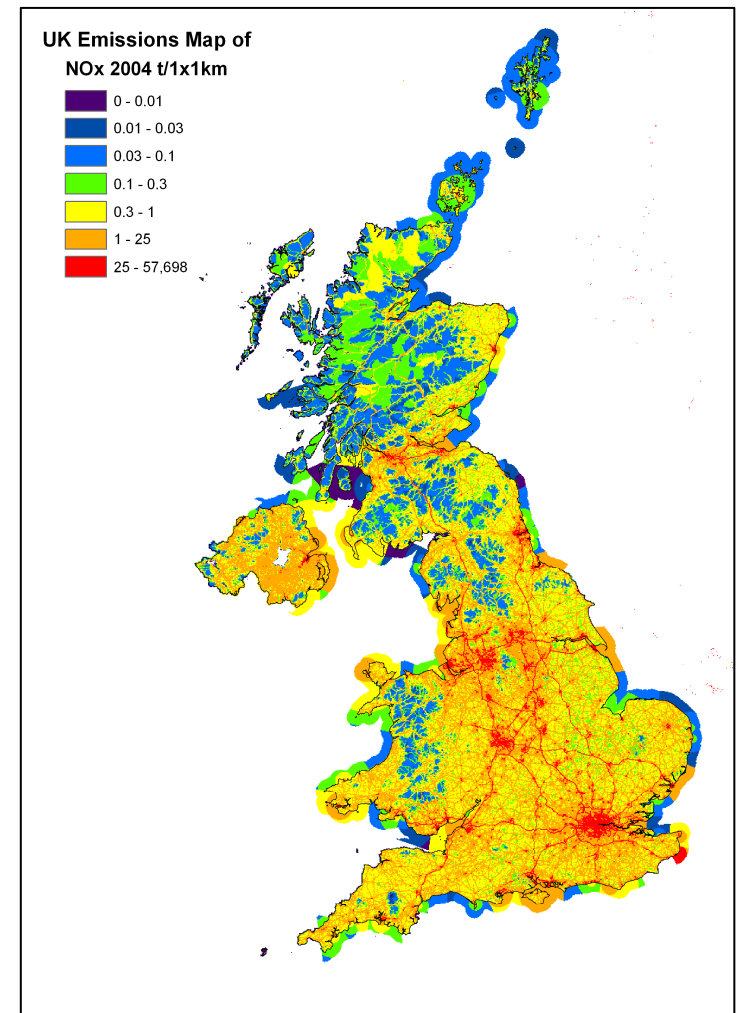
Llywodraeth Cynulliad Cymru  
Welsh Assembly Government



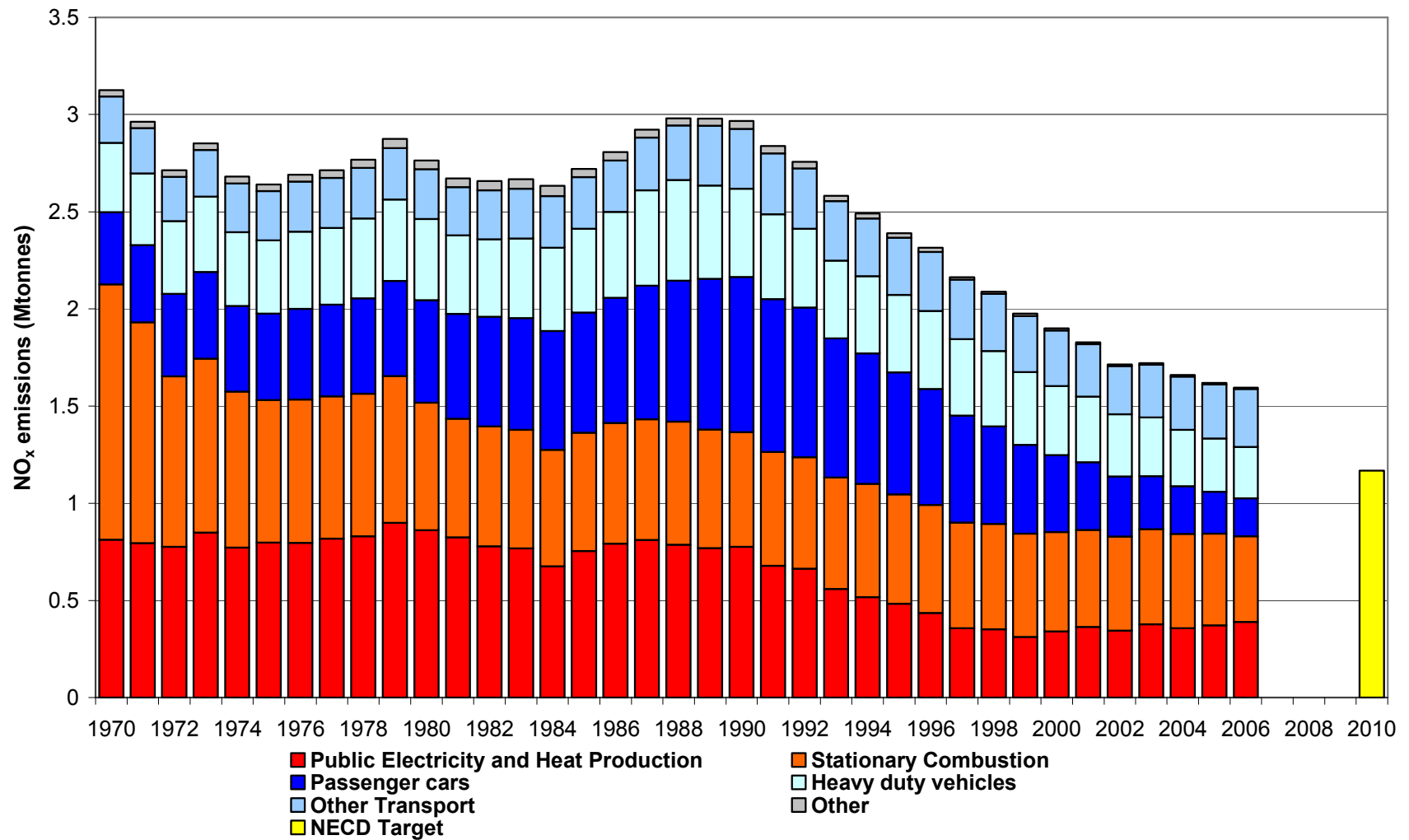
# Reporting Commitments

- Emission Maps
- Website <http://www.naei.co.uk/>

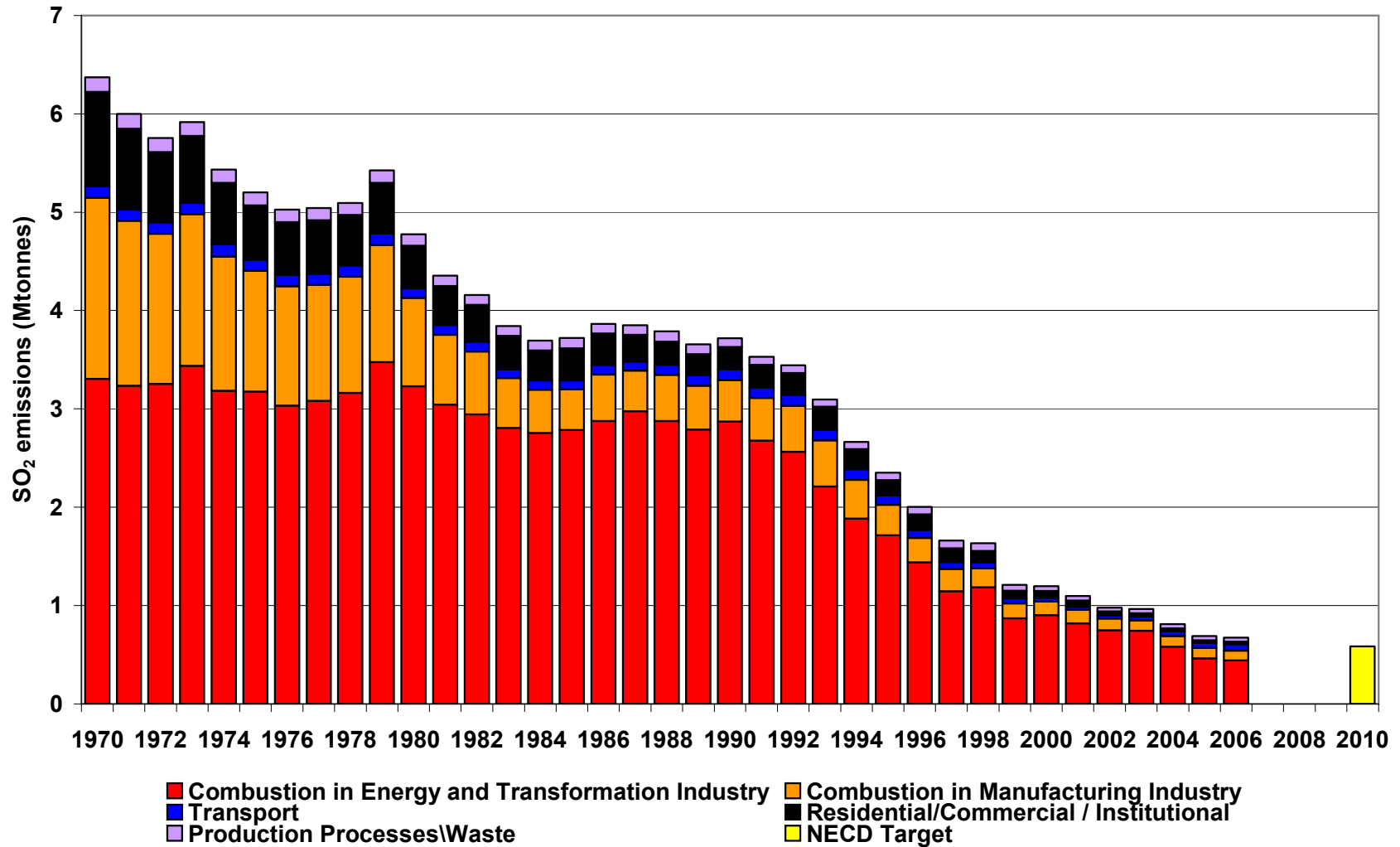
The screenshot shows the NAEI website interface. At the top, there are navigation tabs: 'Home', 'Data Warehouse', 'FAQs', 'Local Air Quality Management', 'Reports', 'Inventory Methodology', 'Related Sites', and 'UK Air Quality Archive'. Below this is a green banner with the text 'Welcome to the NAEI Website'. The main content area is titled 'Emissions of Air Pollutants in the UK' and features a central image of a globe. To the left, there is a section 'What is being done about Air Pollution' with a list of links. To the right, there is a section 'Different Types of Air Pollution' with a list of links. At the bottom, there is a search bar and a 'Latest News' section.



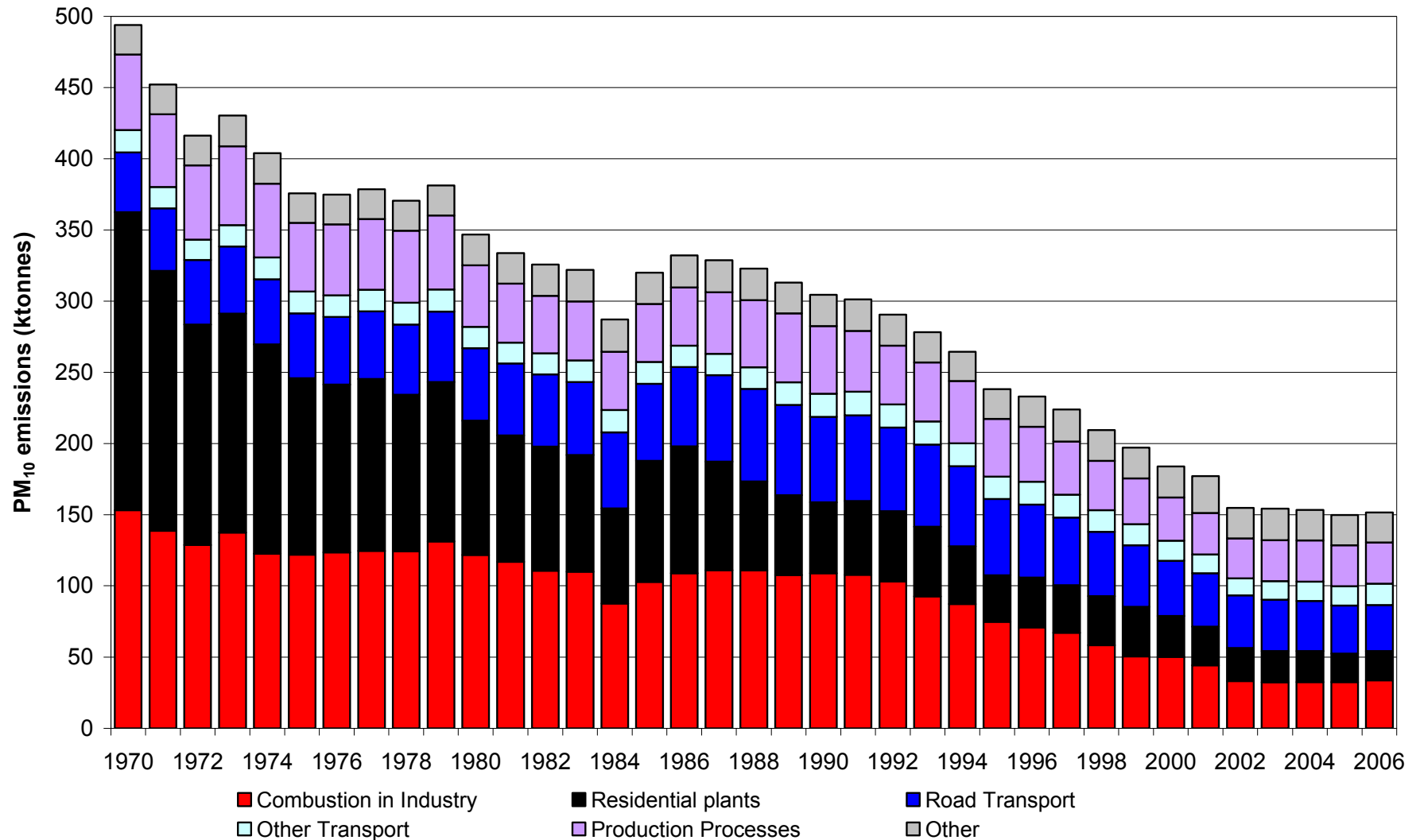
# Trends - NOx



# Trends – SO<sub>2</sub>



# Trends – PM<sub>10</sub>



# Achievements over the last year

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- Delivery of reporting commitments
- AQ mapping - significant update to the spatial characterization of fuel use for small industry & commercial sectors
- Road transport - new method for calculating fuel consumption by vehicle type using revised speed-related functions and survey data from DfT on fuel efficiency trends for HGVs
- Rail - use of more detailed passenger rail data from DfT's rail model and more specific factors for freight trains.

# Achievements over the last year

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- An emission estimate for PM<sub>10</sub> from the use of fireworks has been introduced into the inventory
- an improvement on the calculation method for estimating HCB releases from pesticides
- The methodology for deriving activity data for anode baking in the primary aluminium sector has been revised

# The year ahead...

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- New Inventory cycle
- Uncertainties in the emission estimates
- AQ Mapping Development
- An improved ammonia emission inventory
- A programme of continuous improvement on emissions factors for biomass plant
- Improving existing shipping inventory
- Better characterise emissions from 100kW-1MW and 1MW-20MW combustion plant.

*Any Questions ?*

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