



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

**Melanie Hobson**

**NAEI stakeholder meeting - Monday 16th July**

# What's in this presentation

---

- 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
- Looking further ahead...the next contract

# Introduction

---

- The NAEI is the standard reference air emissions inventory for the UK
- Pollutants covered: 44 pollutant species.
- Time series: 1970: 2005 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

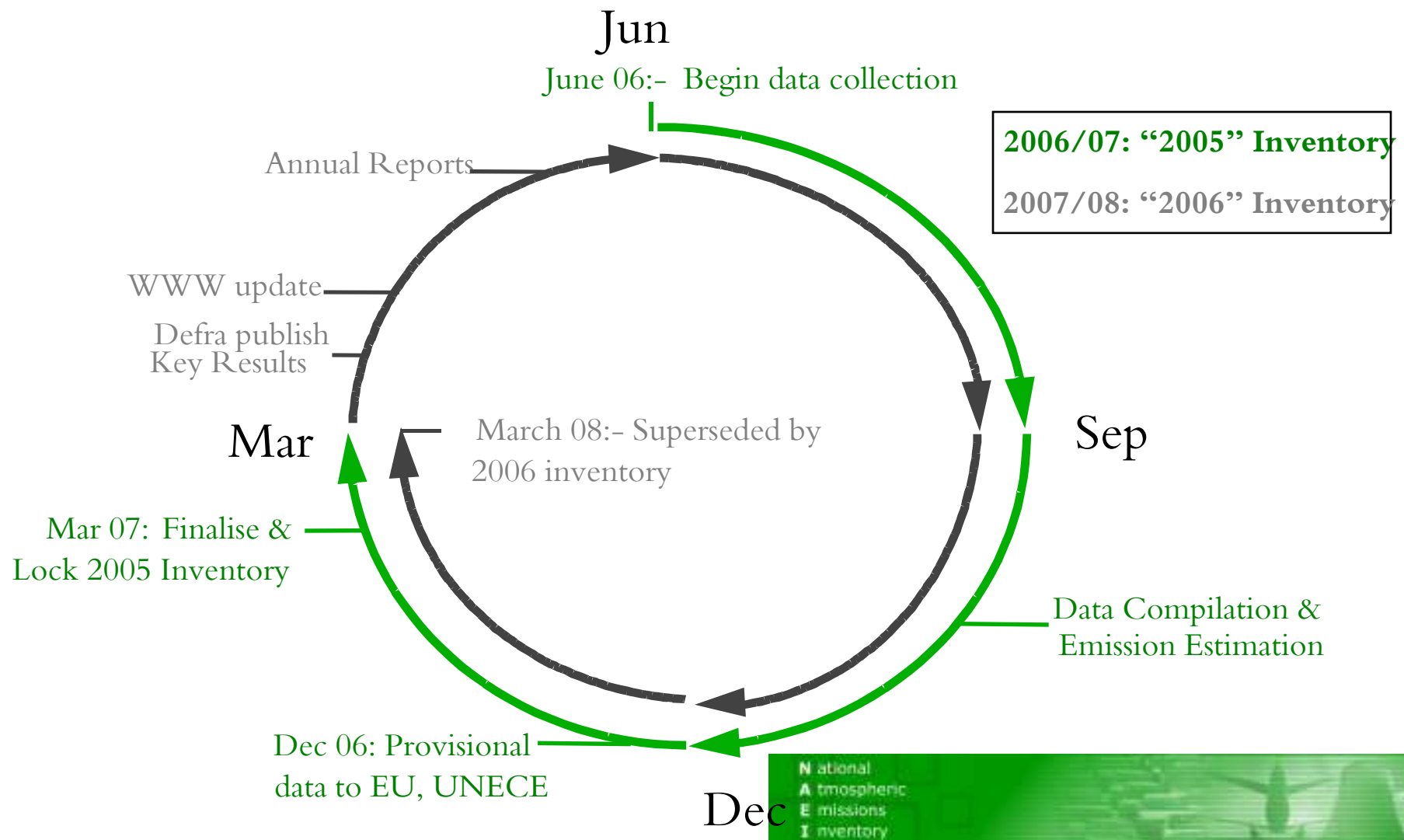
PM<sub>10</sub> PM<sub>2.5</sub> PM<sub>1</sub> PM<sub>0.1</sub>  
NMVOC → Over 500 Species  
PAH PCB → individual species  
Cr Ni Hg → chemical speciation

## 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

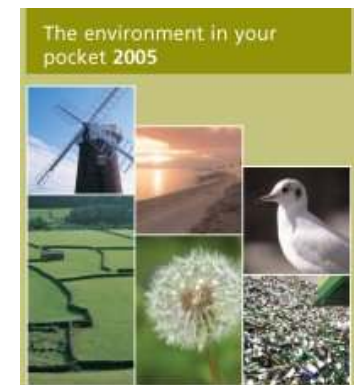
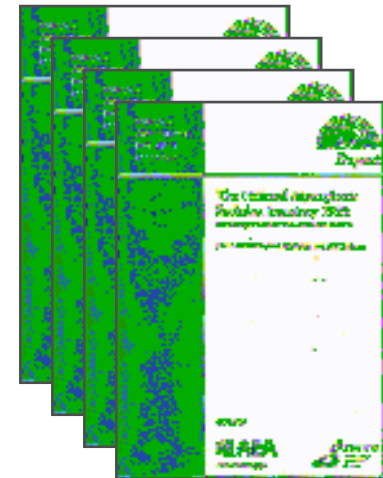


National  
Atmospheric  
Emissions  
Inventory



# National reporting commitments

- **NAEI Annual Report (October)**
- **Digest (March)**
  - ⇒ all\_poll\_XX.xls
  - ⇒ emissions\_by\_fuel\_2005.xls
  - ⇒ Fuel\_Consumption\_1970-2005.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

National  
Atmospheric  
Emissions  
Inventory





# Reporting Commitments

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

NAEI Home	Data Warehouse	FAQ's	Local Air Quality Management
Reports	Inventory Methodology	Related Sites	UK Air Quality Archive

**Welcome to the NAEI Website**

**What is being done about Air Pollution**

UK Air Quality Strategy  
 Assessment and Control  
 Local Air Pollution Control (LAPC)  
 Integrated Pollution Control  
 Integrated Pollution Prevention and Control  
 European Community Action to protect the ozone layer  
 1998 Kyoto Protocol on Emissions of Atmospheric Gases and their Transboundary Flows  
 1997 Geneva Protocol on the Control of Emissions of Volatile Organic Compounds  
 1994 Oslo Protocol on Further Reduction of Sulphur Emissions  
 1991 Geneva Protocol  
 1989 Aarhus Protocol on Persistent Organic Pollutants (POPs)  
 1979 Gothenburg Protocol to abate acid rain

**Emissions of Air Pollutants in the UK**



This is the website for the UK's National Atmospheric Emissions Inventory (NAEI). The NAEI is funded by Defra, The National Assembly for Wales, The Scottish Executive and The Department of Environment, Northern Ireland. The NAEI compiles estimates of emissions to the atmosphere from UK sources such as cars, trucks, power stations and industrial plant. These emissions are estimated to help to find ways of reducing the impact of human activities on the environment and our health.

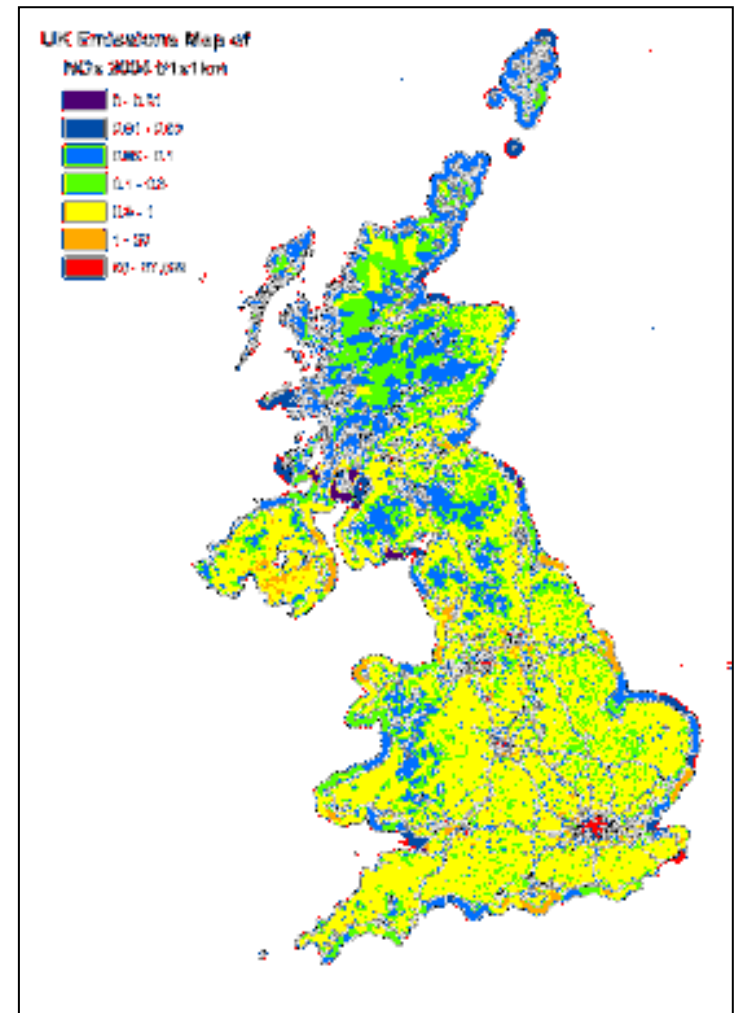
**What is Air Pollution?**

If you are interested in seeing a particular pollutant then select it here and click go

**Different types of Air Pollution**

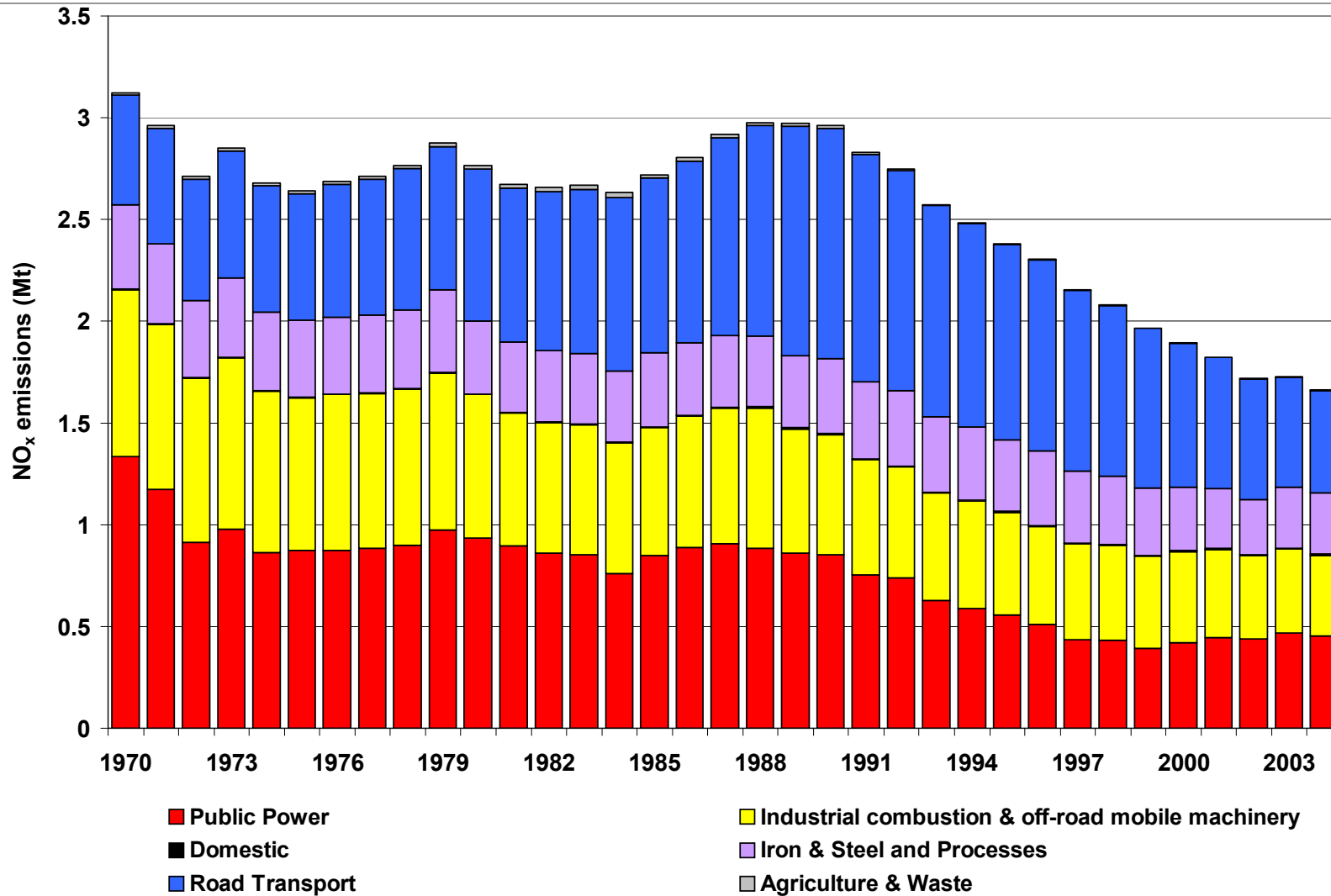
- Identification and Registration
- Climate Change
- Groundlevel Ozone
- Acidic Deposition
- Atmospheric Ozone Depletion
- Local Air Pollution
- Transboundary Air Pollution

**Latest News**

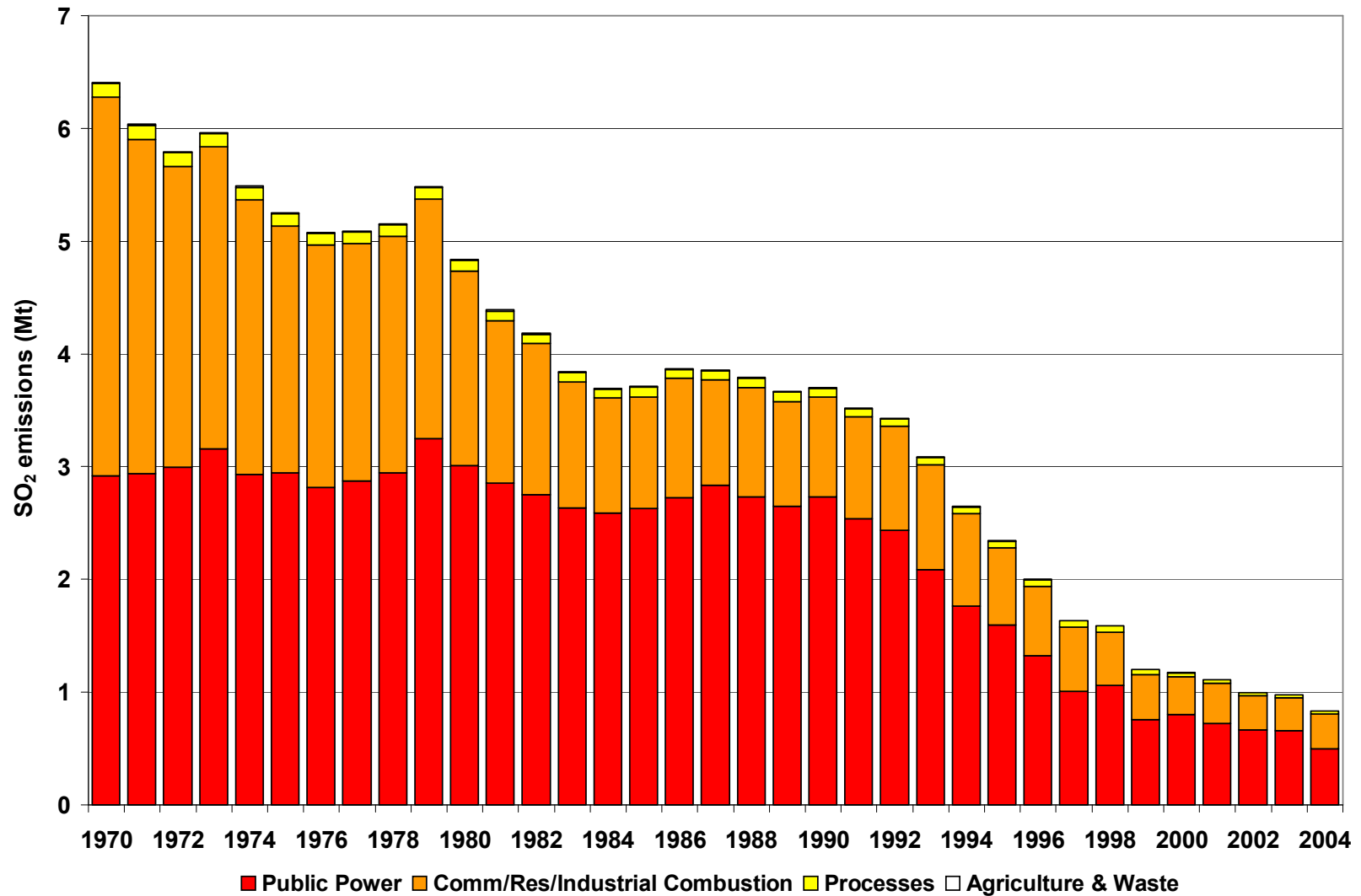


**N**ational  
**A**tmospheric  
**E**missions  
**I**nventory

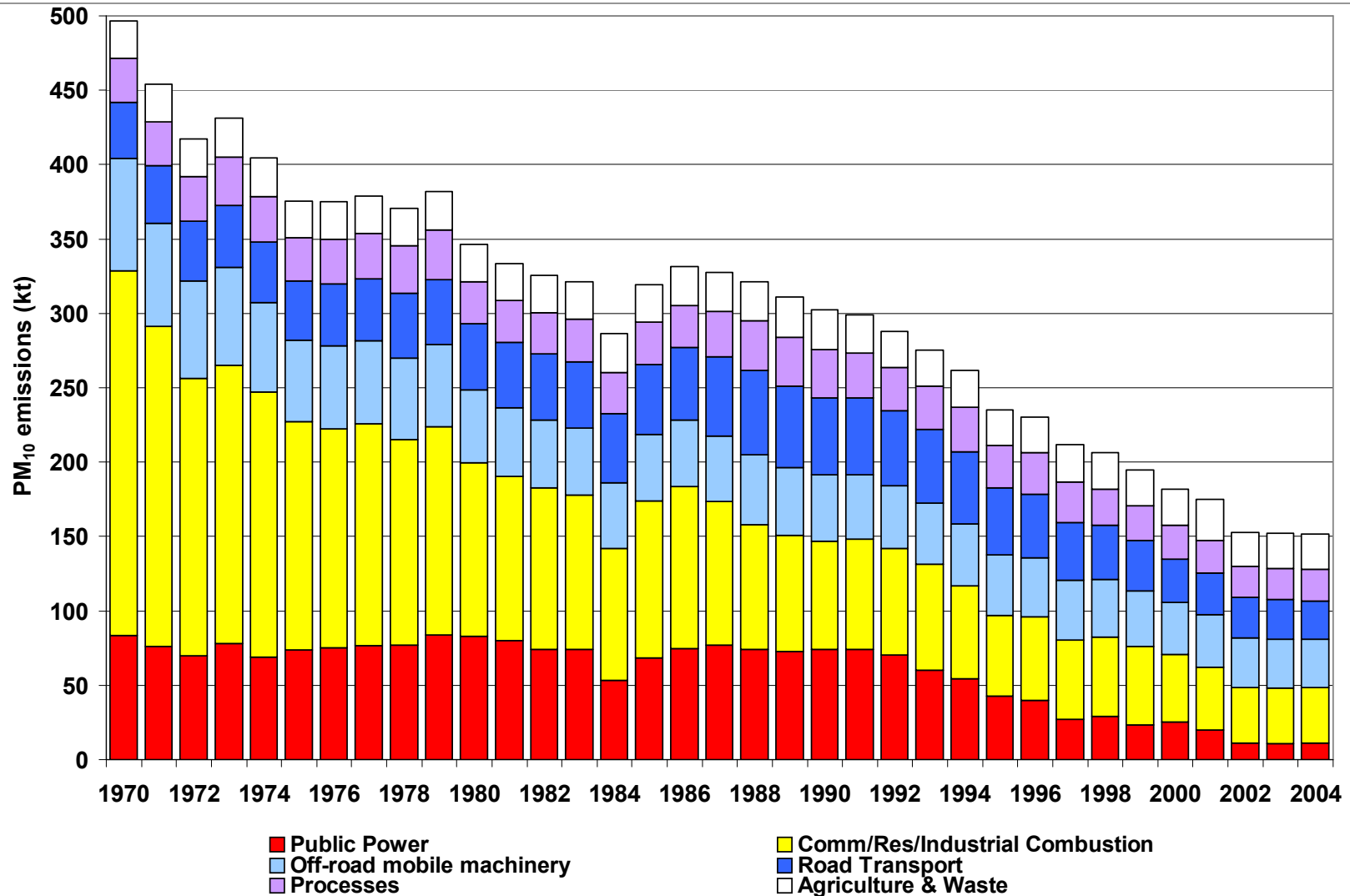
# Trends - NOx



# Trends – SO<sub>2</sub>



# Trends – PM<sub>10</sub>



# Achievements over the last year

---

- Delivery of reporting commitments
- Improved database functionality
- Improvements to the point source database
- Further research undertaken on biofuels, primary NO<sub>2</sub> and HONO
- Improvements made to domestic fuel combustion, shipping, cold start emissions and railways mapping methodology

# The year ahead...

---

- Improvements will be made to the mapping of landfill, minor roads, airports, petrol stations & industrial emissions
- Further research will be undertaken on biofuels, fugitive metals, organic nitrogen and dibenzo(a,l)pyrene and shipping emission estimates
- We are currently working with CEH to improve the NH<sub>3</sub> inventory and maps
- A review will be undertaken on the NAEI website and suggestions made for improvements

# Looking further ahead...

---

- Improvements to the road transport emissions methodology following TRL's review
- Further work on metal emissions
- Further improvements to the shipping estimates
- Re-vamp of NAEI annual report

*Any Questions ?*

---



N ational  
A tmospheric  
E missions  
I nventory

