



The National Atmospheric Emissions Inventory (NAEI): Greenhouse Gas Inventory

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Introduction

What is included in this presentation?

- Introduction to the UK Greenhouse Gas Inventory – what we produce and who the users are
- Linkages between the GHGI and the AQ inventory
- Reporting Commitments
- Trends – where we are now
- Achievements over the last 12 months
- The future – looking ahead to the next 12 months
- Looking further ahead...the next contract

Introduction

What is the UK Greenhouse Gas Inventory (GHGI)?

- Contains UK emission estimates for the basket of 6 Kyoto Protocol Greenhouse Gases: Carbon Dioxide, Methane, Nitrous Oxide, HFC's, PFC's, SF₆
- Time series from 1990 to 2005 (latest year) and updated annually
- Geographically covers the UK and the Crown Dependencies and Overseas Territories who have joined the UK's instruments of ratification to the UNFCCC and the Kyoto Protocol

Introduction

What do we produce?

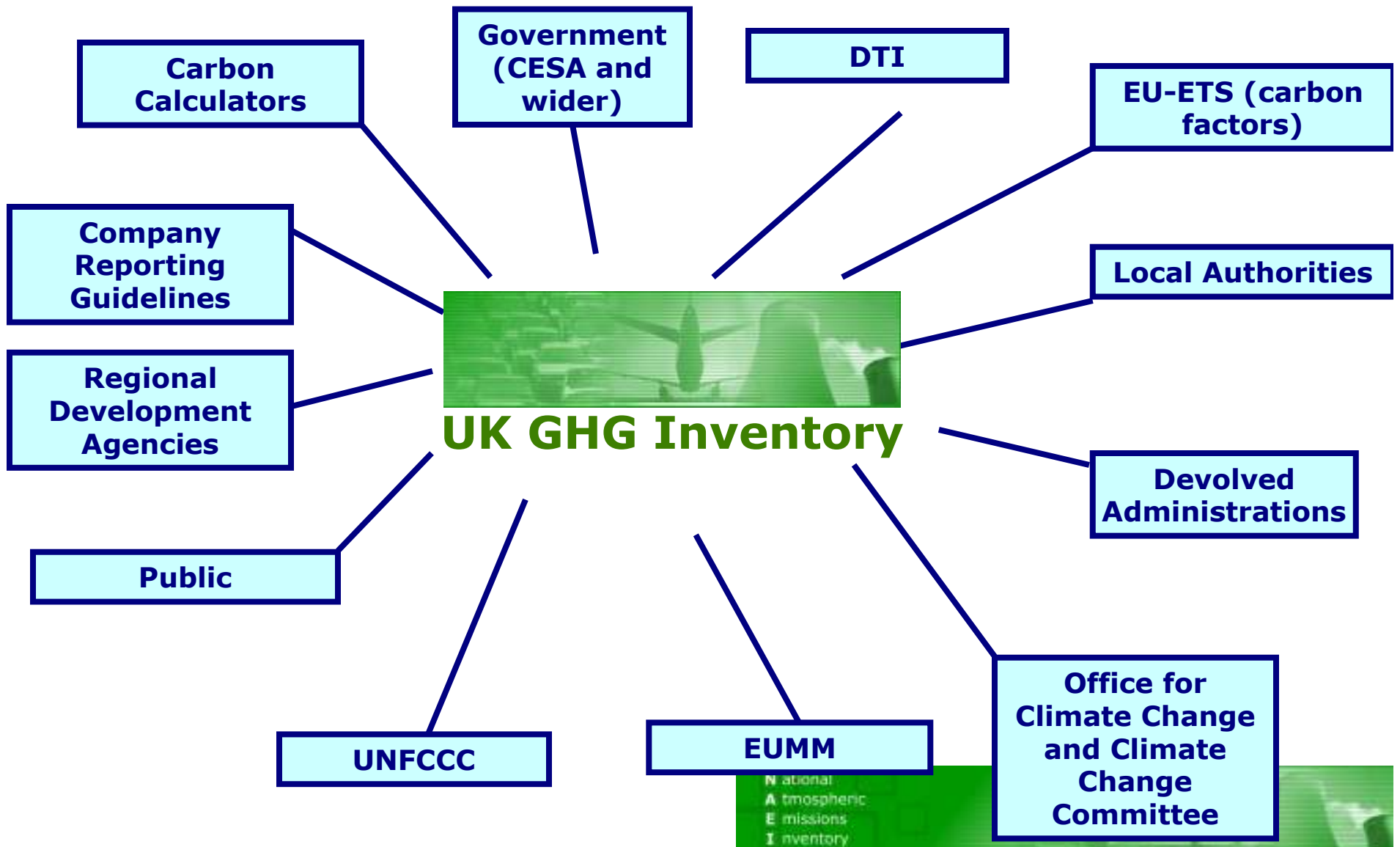
- **International reporting**
 - UK Greenhouse Gas Inventory for the EUMM and UNFCCC
- **National reporting**
 - Devolved Administrations Greenhouse Gas Inventory
 - Data for annual report to UK parliament on Kyoto progress
 - Data for the OCC and the Climate Change Committee
- **Fine spatial scale data**
 - Mapped emissions at 1 by 1km resolution
 - Local Authority estimates of CO₂ emissions
- **Other formats**
 - By source and End User estimates
 - Emission projections for non-CO₂ greenhouse gases
 - Input data for National Statistics



National
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Inventory

Introduction

Users of the GHG inventory



Linkages between GHG and AQ inventories

Systems:

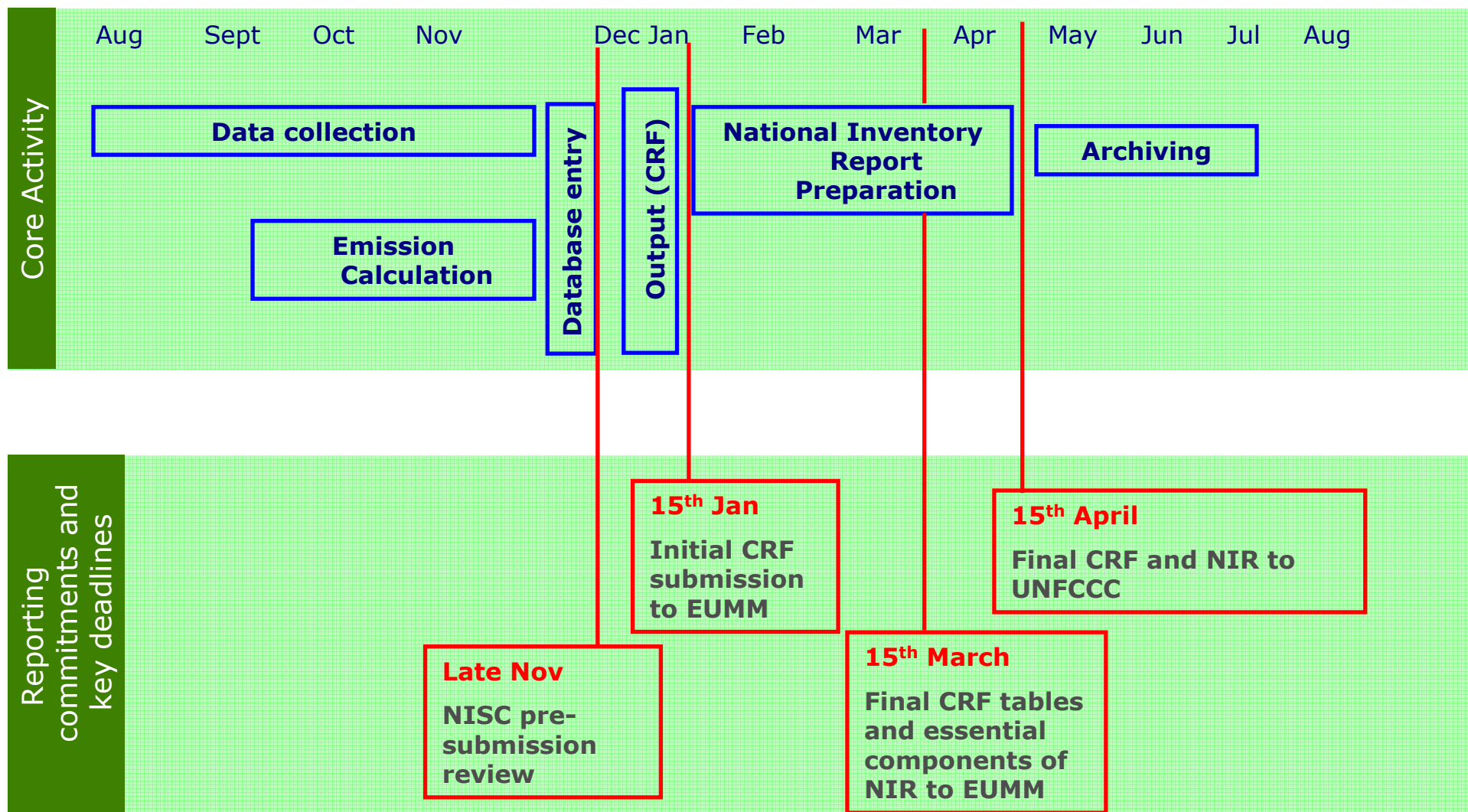
- Reporting cycle – Identical until the point of reporting
- Compilation process – joint activity data, spreadsheets, database
- QA/QC procedures
- Documentation

People:

- AEA team work across both inventories – sector experts prepare emission estimates for both inventories

Linkages

Annual cycle and reporting commitments

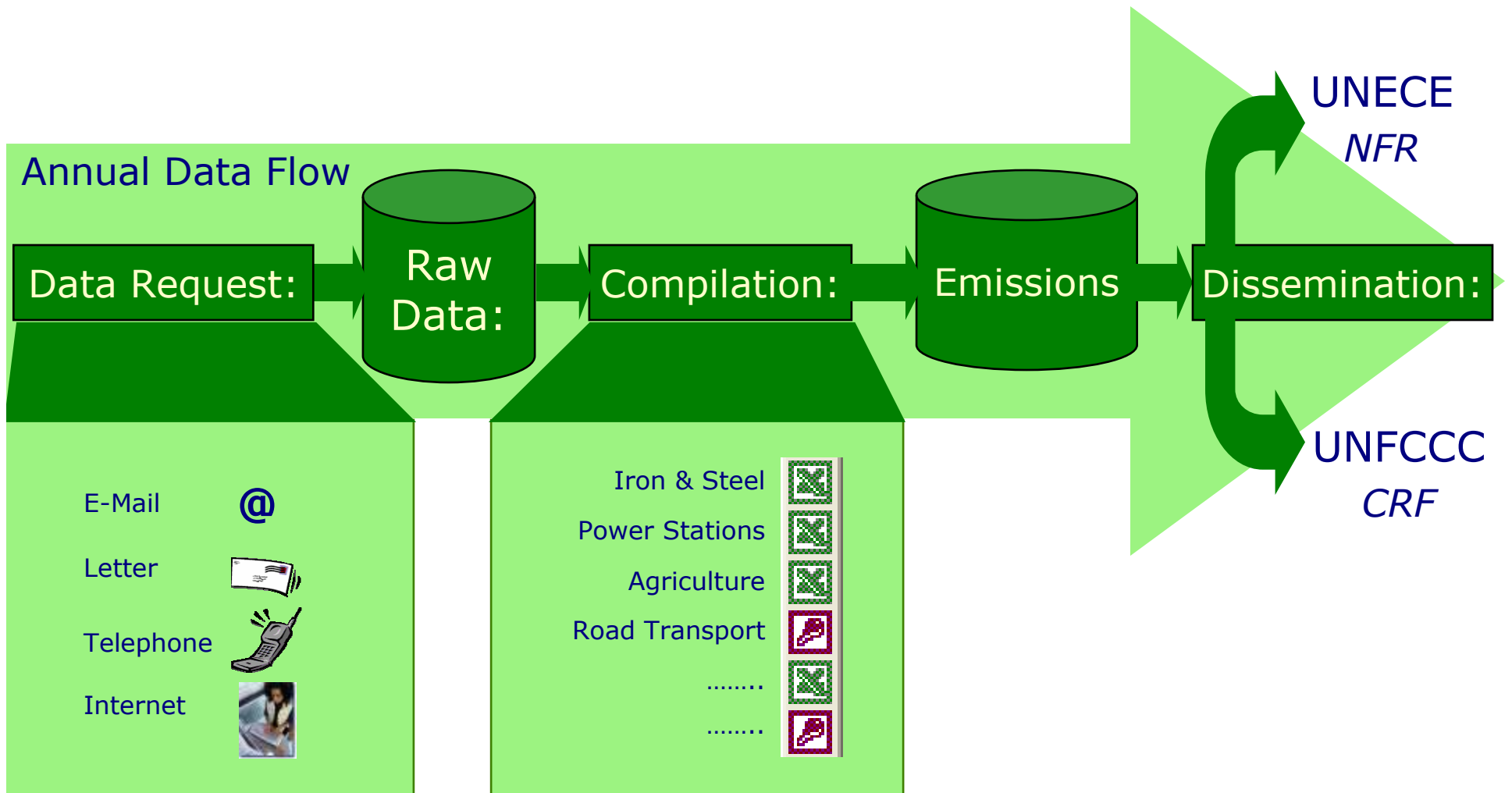


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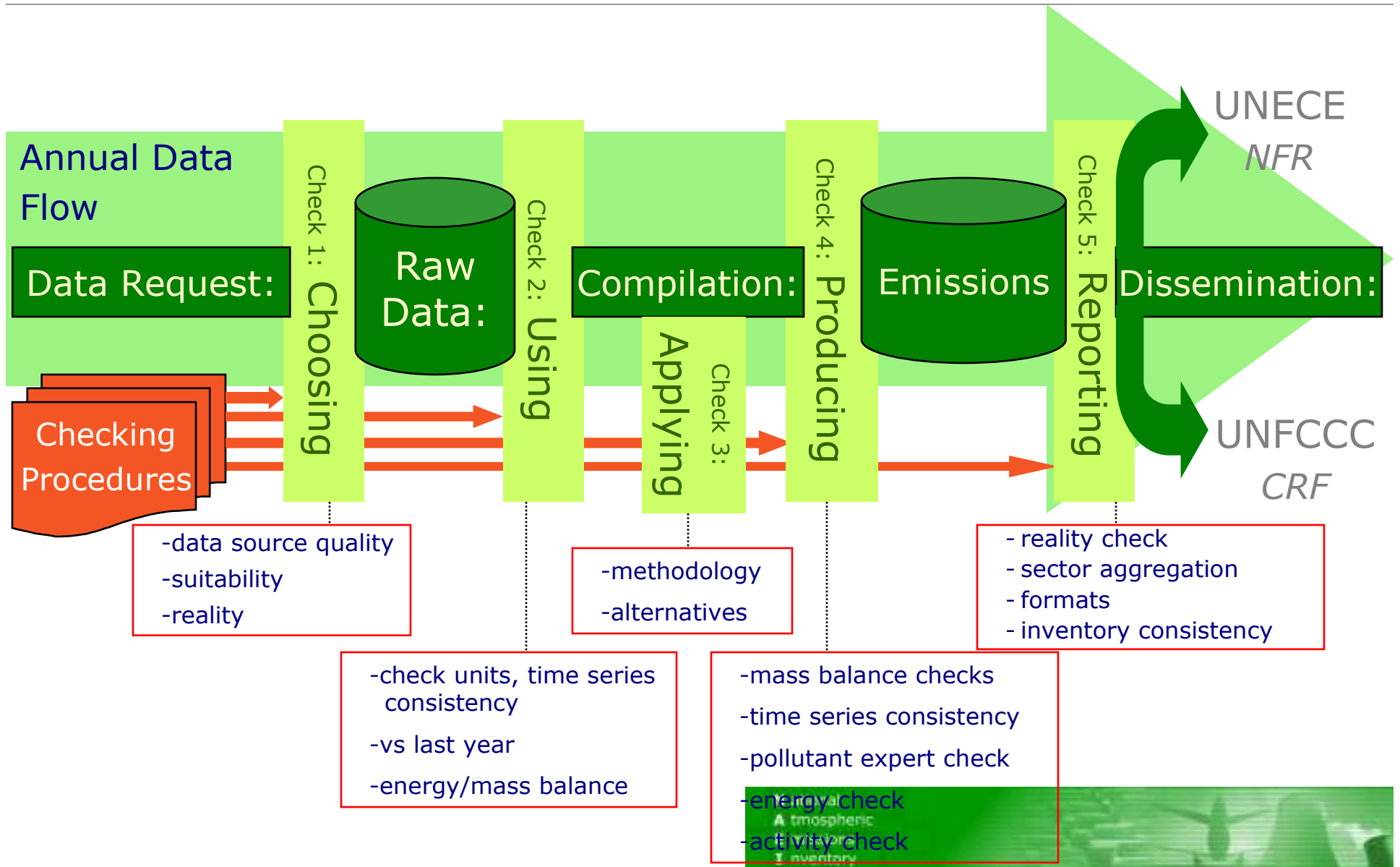
Linkages

Compilation & Emissions Inventory Data Flow



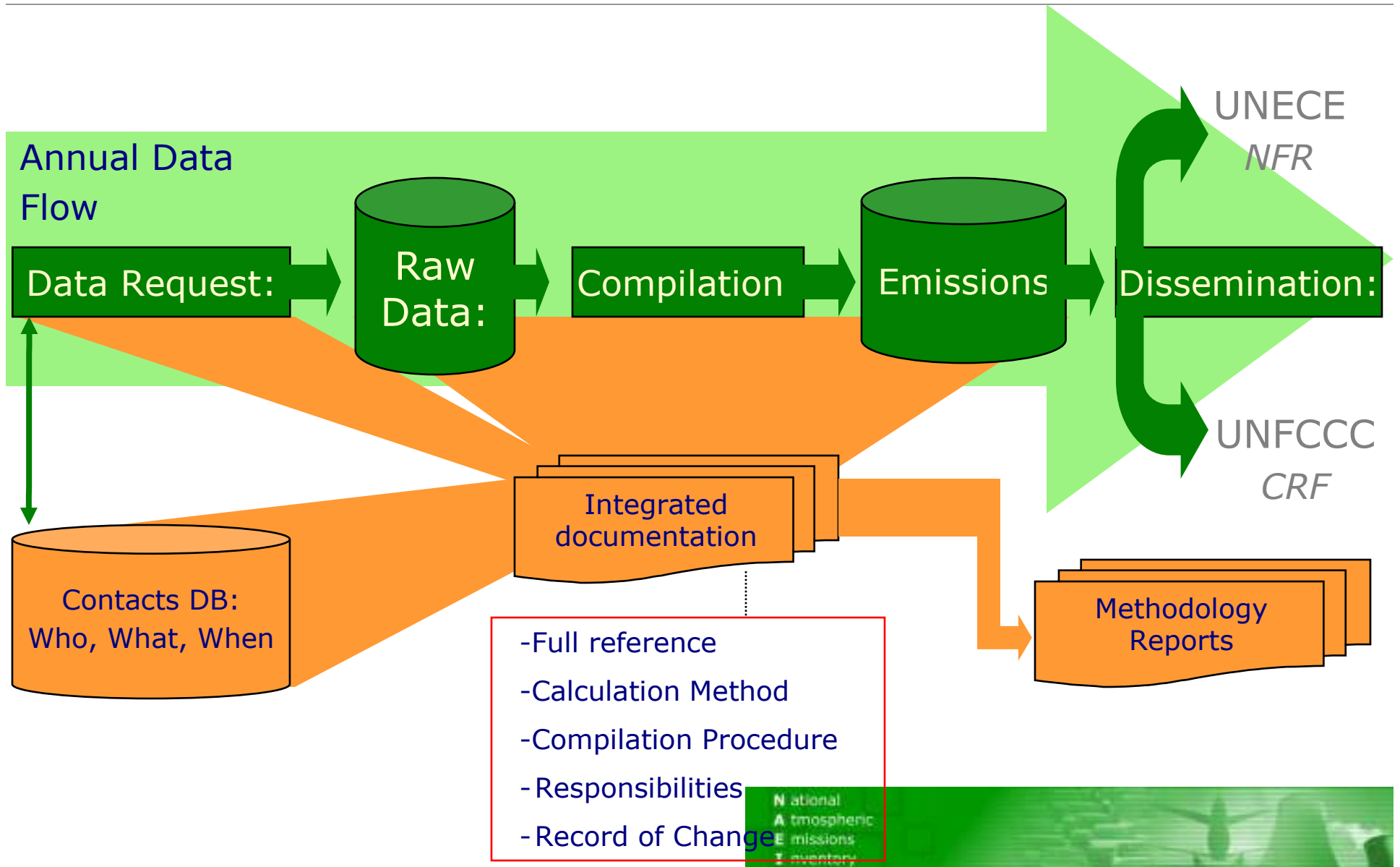
Linkages

Compilation process – QA/QC



Linkages

Compilation process – Documentation



UK Reporting Commitments

Where does the GHG inventory fit in?

Google Earth

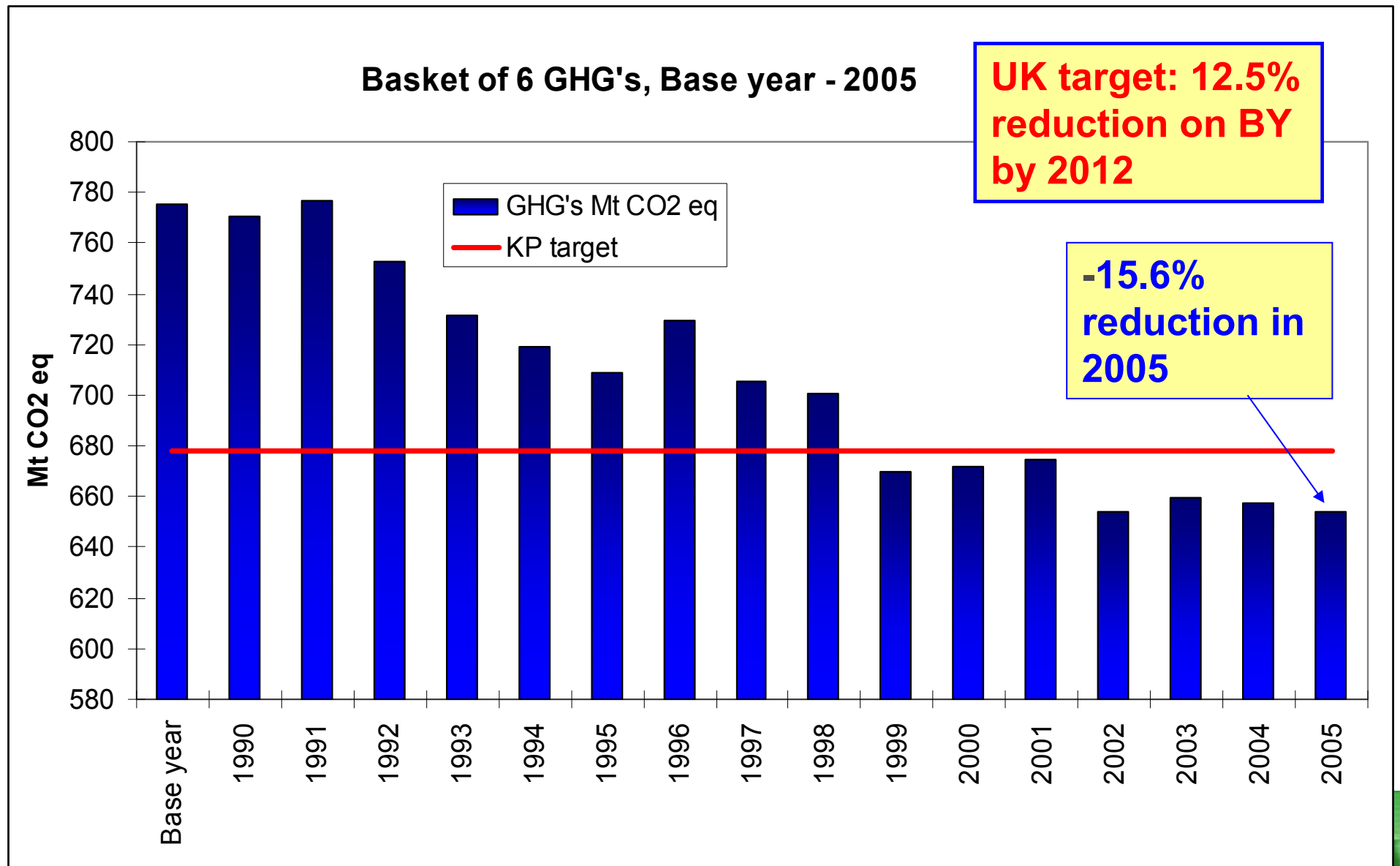
The screenshot shows the Google Earth interface with a map of Europe. An orange arrow points from Harwell, Didcot, Oxfordshire, UK to Bonn, Germany. Two yellow text boxes provide context:

From here ...
GHG estimates reported to the EUMM on **15th January** and to the UNFCCC (Bonn) **15th April** each year

To here ...
Estimates are used as the **official UK GHG totals** and are used to assess whether or not the UK is meeting its targets

Trends

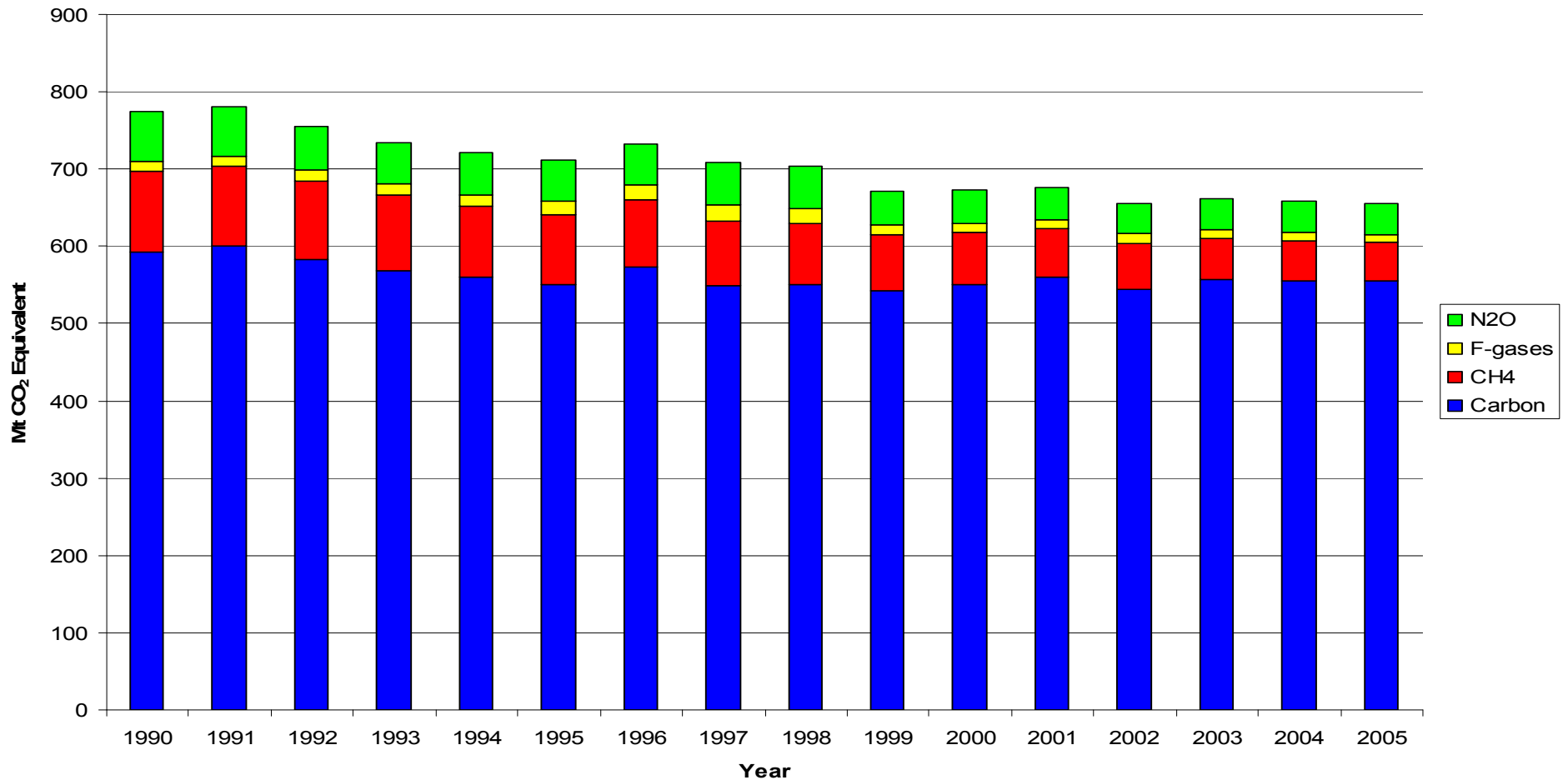
Where are we now?



Trends

UK GHG's by gas, 1990-2005

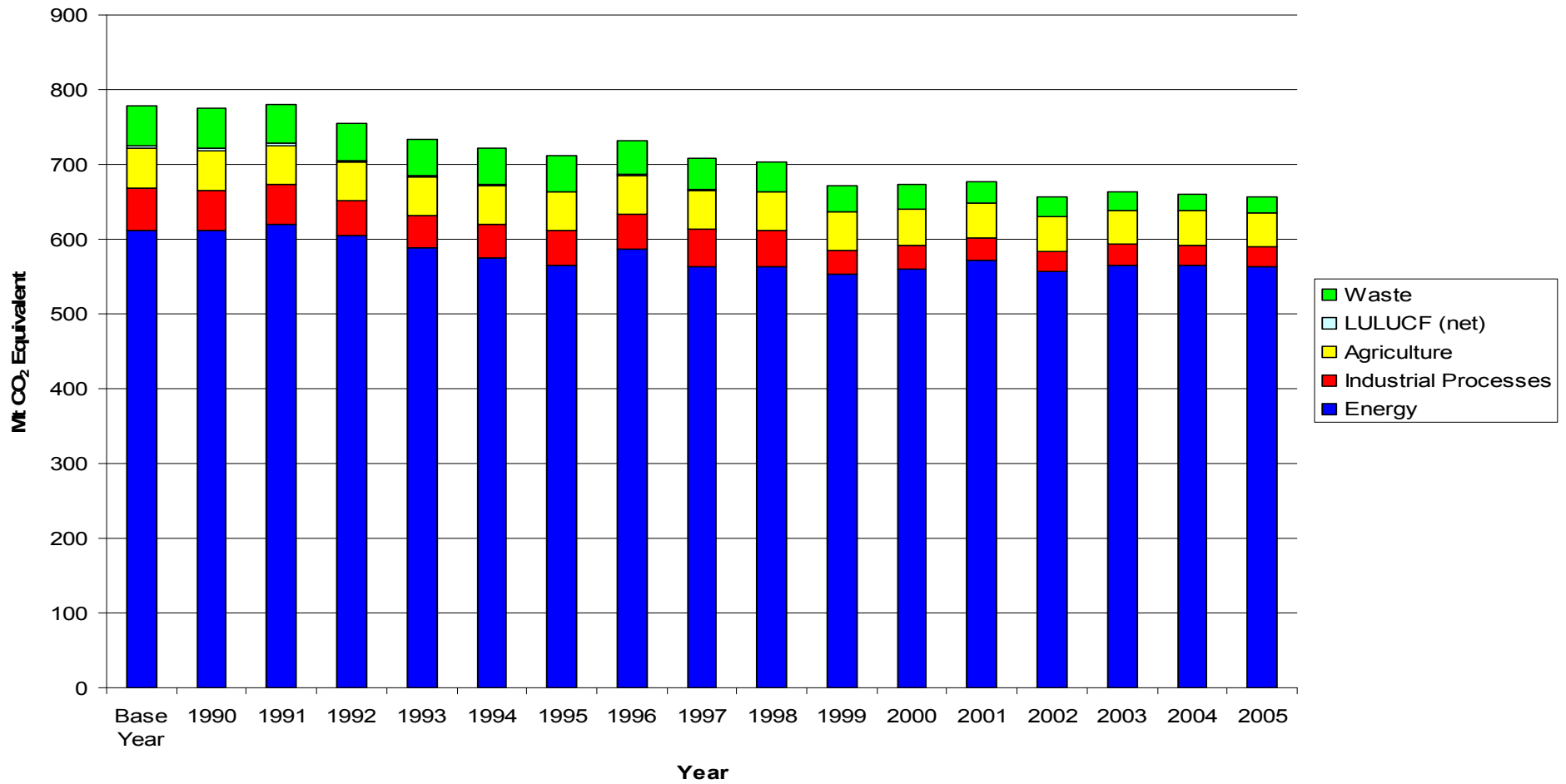
UK Net Emissions of Greenhouse Gases Weighted by GWP



Trends

UK GHG's by source, 1990-2005

UK Net Emissions of Greenhouse Gases by Source



Achievements over last 12 months

- All international reporting requirements met to time
- In-Country review of the 2004 GHGI completed
- National Inventory System Committee formed
- One to One meetings with Data Suppliers to develop good working relationships
- Development of the uncertainties method used in the national inventory

Achievements

In-Country Review

- Panel of international experts spent a week in the UK reviewing the 2004 UK GHGI
- Very important as this inventory was used to calculate the UK's Assigned Amount, which is the basis of the UK's 12.5% emission reduction target.
- Panel have the authority to make adjustments if unhappy
- Even a 1% error in the base year could be very costly

Conclusion: UK's GHG inventory is sufficiently accurate and no adjustments were necessary

Achievements

National Inventory Steering Group Committee (NISC)

- NISC formed as part of the National Inventory System
- Committee meets twice yearly
- November (to review upcoming inventory due for release in January)
- June (to review the inventory cycle and look forward to the next cycle)
- First pre-submission review of the inventory took place Nov 2006
- More information on the web site www.ghgi.org.uk



Future

The year ahead....(Oct 07-Sep 08)

- Provisional GHG estimates review by NISC (late Nov 07)
- GHG emissions estimates to the EUMM (15th Jan) and UNFCCC (15th Apr)
- GHG Inventory Report to EUMM (15th Mar) and UNFCCC (15th Apr)
- Summary data to Defra for National Statistics release (End Jan)
- Report to EUETS team on key inventory changes affecting ETS sectors (30th Apr)
- Draft inventories for Devolved Administrations (30 June 08)
- Local authority estimates of energy consumption by road transport and other activities (End Aug 08)
- Local Authority estimates of CO₂ emissions (End Sept 08)

Future

Looking further....the next contract

One of our main aims is to meet the needs of the users of the inventory

- Are we doing what you need us to do?
- What could we do to help you meet your needs?
- What are your top priorities?

Ideas, suggestions and questions welcome! Now is the time to start providing your ideas so they can be considered for the next contract

Future

Please bear with us – improvements take time

- We welcome your ideas
- We have made large changes following stakeholder suggestions
 - Major method improvements to the UK GHG inventory over recent years
 - EU ETS data now considered
 - Great improvements to the DA inventory
 - New local authority CO₂ inventory
- But some improvements take time and need resources - we are making steady progress

Acknowledgements

- UK NAEI/GHGI funded by Defra AEQ and Defra CESA, and the Devolved Administrations
- With thanks to all the stakeholders (too many to mention on one slide) who provide data and make recommendations for improvements to the inventory
- With thanks to the NAEI team