AEA Energy & Environment
From the AEA group

The needs of Local Authorities

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With thanks to Justin Goodwin, Beth Conlan, Hazel Peace and Clare Downing

Introduction
What is included in this presentation?

Overview

- Presumptive title! But I will present our ideas based on feedback from LA training and selection of work we have done – and then Q&A session to receive your views
- How long is the presentation – about 20 minutes

Key items we will cover

- Some suggestions about needs – concentrating on climate change
- Recent government work and thinking
- What data is available to help local authorities?
- Recent examples of local authorities who have used national inventory data
- The future
- Question and answers

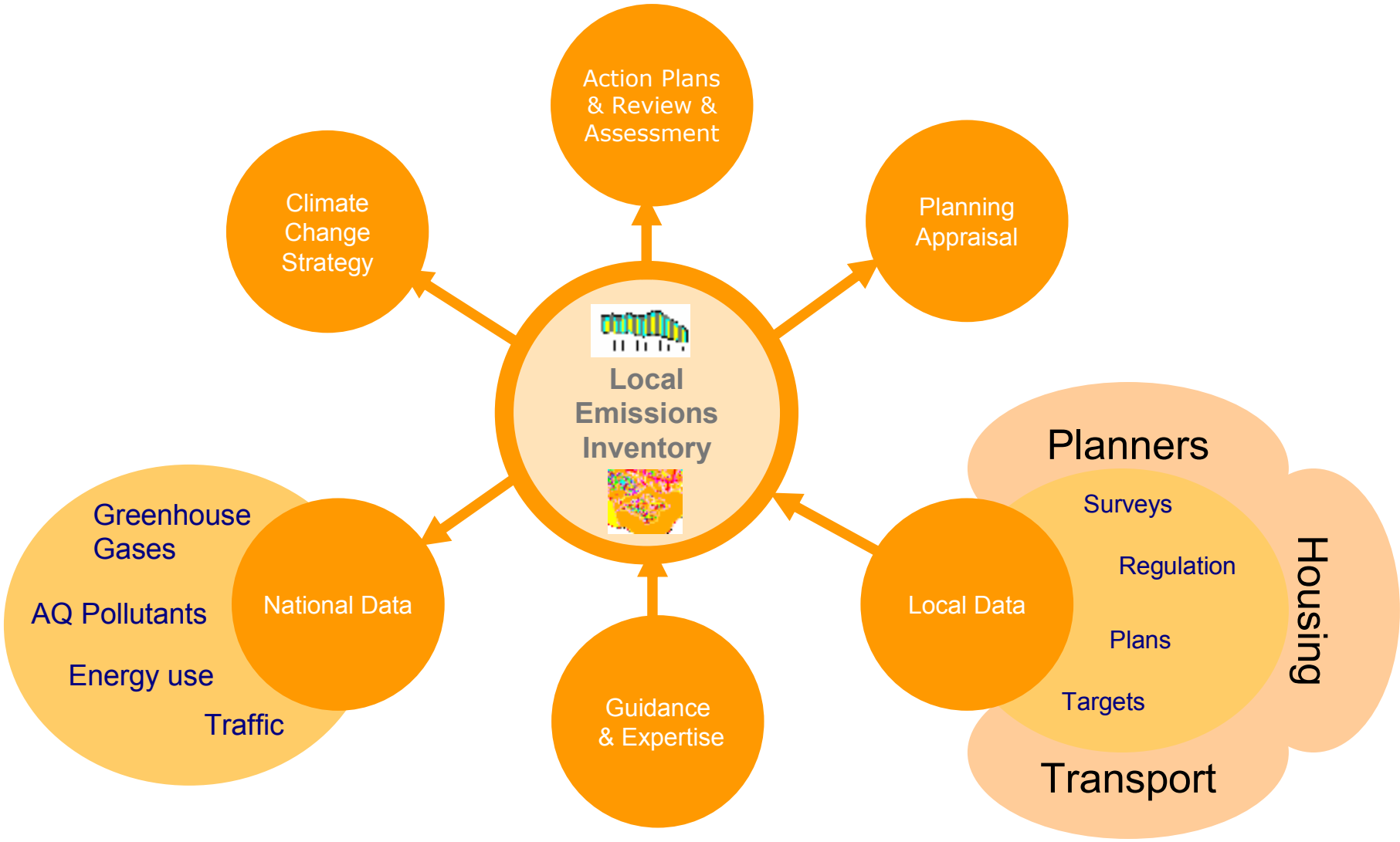
Some suggestions about needs of LAs
Air quality

- Detailed data available to support LAQM
- Emissions data warehouse and emission factors
- Complemented by monitoring data from the national networks
- What additional needs do you have?

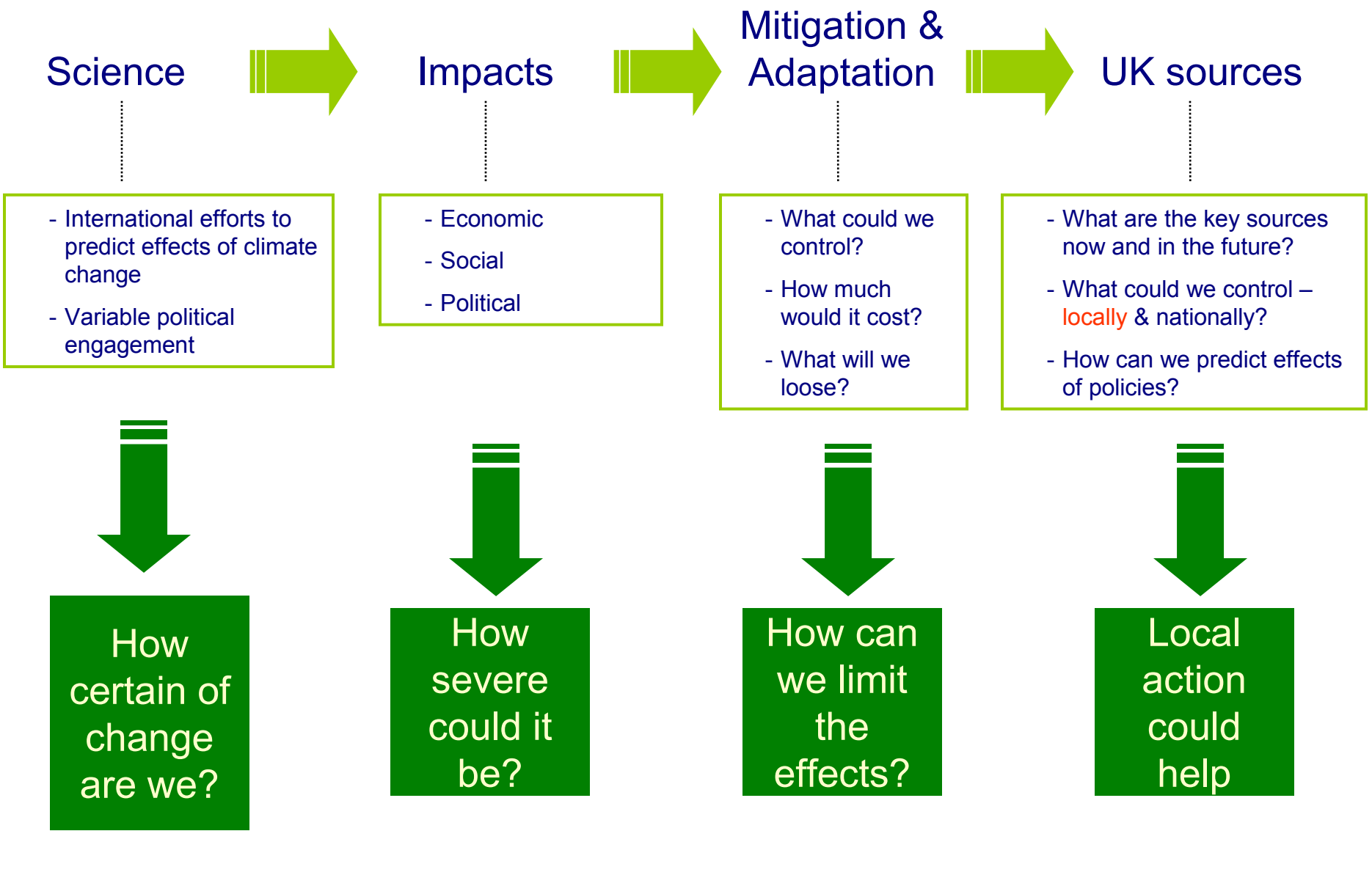
Air quality
Additional thoughts

- Action plans – linkages with CO_2 assessment
- Technical guidance LAQM.TG(03) update – no budget as yet
  - Need to update the emissions annex of the technical guidance and the emissions toolkit and emission factor database all for LAs - important as existing data is very old
- Also exposure reduction as a policy is in the new air quality strategy - so emissions of PM2.5 will be important - this won't be under LA control to do anything about it but inevitably the local actions will have an influence. Needs a reliable inventory….
- Indicators on mitigation and adaptation – part of the CPA

Linkages between air quality and climate change
Inventories



Climate change
What do we need to understand?



Some suggestions about needs of LAs
Climate change

A simple framework for LA climate change work

- What must you do?
  - Assessment and reporting
  - Deadlines

→ Stay legal!

- What do you aspire to do?
  - Go beyond the minimum?
  - Maximise monetary savings

→ Promote best practice locally

- How can you achieve all this?
  - What resources are available to support you?

→ Help define the resources you need

Vision for local authorities on the environment
Defra – Local Government Joint Environmental Prospectus

- Environment Secretary Mr Hilary Benn sets out vision for local authorities on the environment (5th July 2007)

- "*This practical checklist sets out how local authorities can:*
  - *Tackle climate change;*
  - *Protect the natural environment and resources, and break the link between waste and the economy; and*
  - *Improve the local environment.*"

- "*This is the new politics. Personal responsibility. Not leaving it to others. I am my planet's keeper.*"

- The core concept of all of this is sustainability

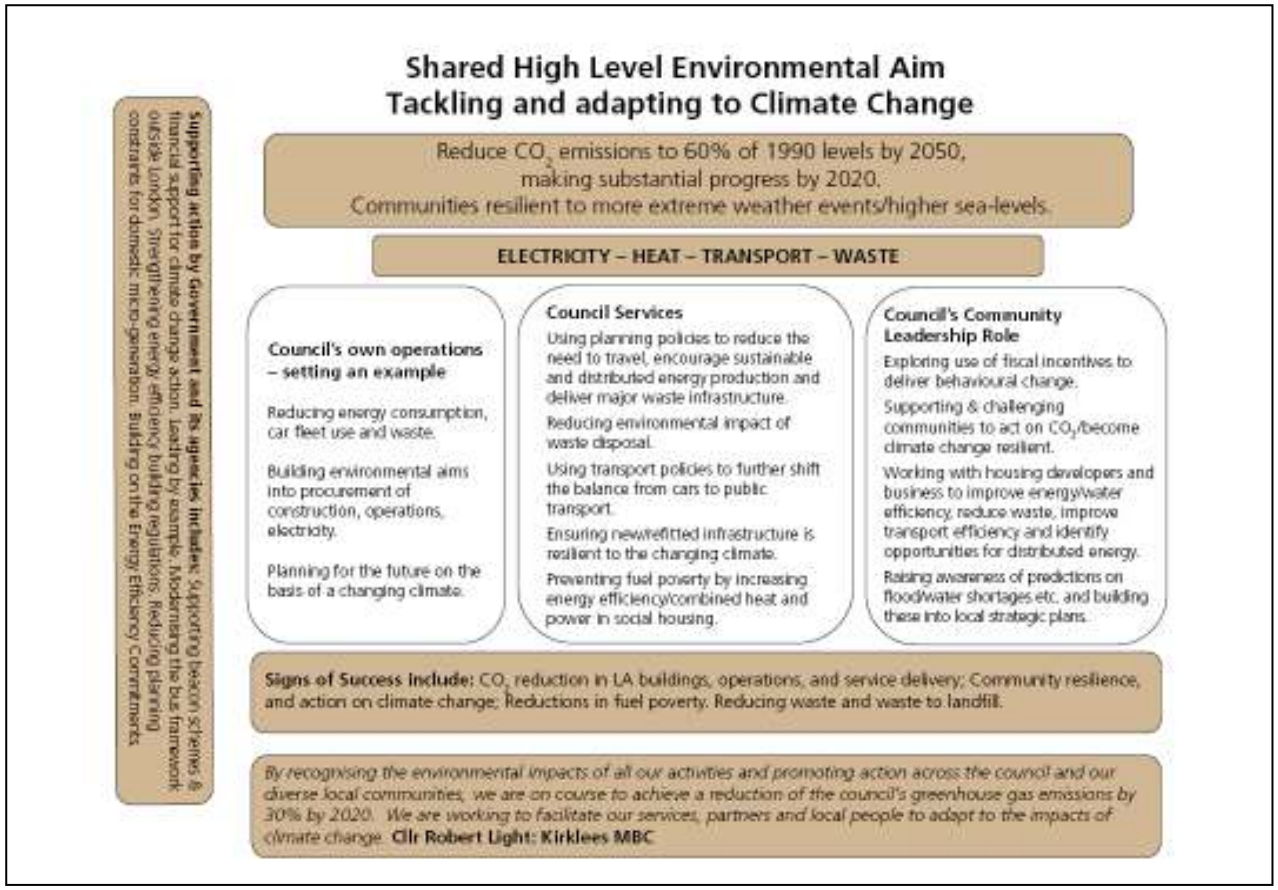
http://www.defra.gov.uk/news/2007/070705c.htm

Vision for local authorities on the environment
Joint Environmental Prospectus

- Collaboration between Defra and LGA
- Issued in July 2007

http://www.defra.gov.uk/corporate/delivery/landscape/pdf/joint-environment-prospectus040707.pdf

Joint Environmental Prospectus
Tackling and adapting to climate change

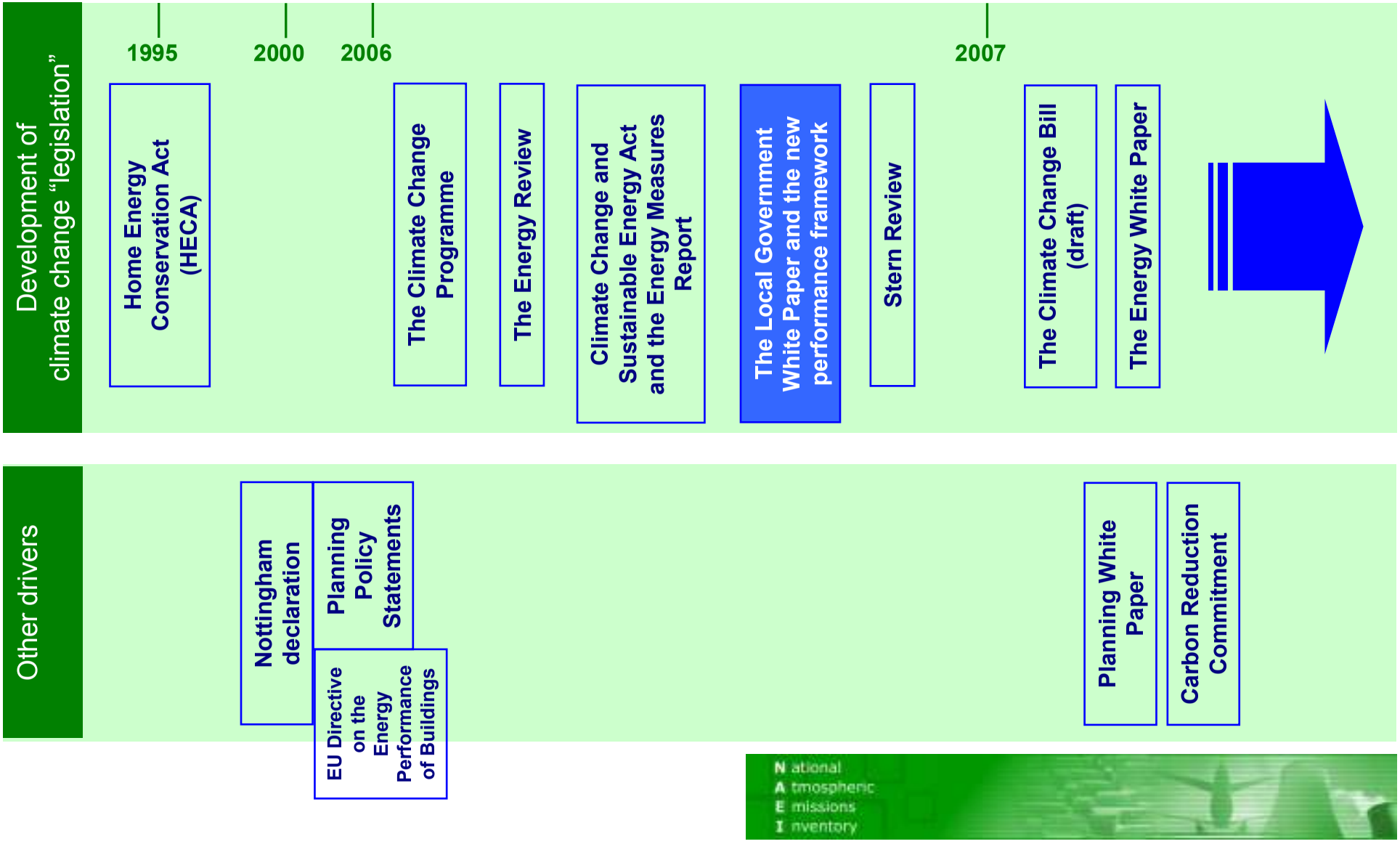


"Signs of success include"

- CO_2 reduction in LA buildings, operations, and service delivery; Community resilience,
- and action on climate change; Reductions in fuel poverty. Reducing waste and waste to landfill.

Recent UK government legislation

Evolution of legislation affecting LAs – An overview



Tools for estimating GHG emissions

Table 4.1 Tools, programmes and methodologies – an initial list

Tools, programmes and methodologies			
Classification	Name	Producer	Comment
Tools, models and toolkits	Resource and Energy Analysis Program (REAP) Software	Stockholm Environment Institute (SEI) / Scotland's Global Footprint Project	An integrated resource environment modelling tool based on policy scenarios
	Harmonized Emissions Analysis Tool (HEAT)	International Committee for Local Environmental Initiatives (ICLEI)	Emissions inventory tool based on local energy use, transportation demand, and waste practices. Scenario setting capability.
	EMIT	Cambridge Environmental Research Consultants (CERC)	Tool to compile emissions inventories. Companion to atmospheric dispersion model ADMS.
	Baseline & Targeting tool for LAs	Carbon Trust	Spreadsheet tool to help establish emissions of CO_2 from LA's own activities
	Community Level GHG reporting tool	South East Climate Change Partnership (SECCP)	Calculates GHG emissions from LA's own activities
	GHG emission calculator	South East Climate Change Partnership (SECCP) Emissions Monitoring Group	Partner to the Community Level GHG reporting tool
	Adaptation tool	UK Climate Impacts Programme (UKCIP)	Four step tool: scoping the impacts, quantifying the impacts, decision making and action plans, and adaptation strategy review
	Nottingham Declaration: Action Packs	Carbon Trust, EST, IDEA, LGSA	Guidance on mitigation and adaptation strategies for LAs
	South West Climate Change Impacts Partnership	South West Climate Change Impacts Partnership	Resource base of information and guidance towards a sustainable future for south west England
	Company Reporting Guidelines	Department for Environment, Food and Rural Affairs (Defra)	Initially designed to provide a tool to allow companies to estimate their GHG emissions, but components often used in to the calculators
	Regional Economy-Environment Input-Output (REEIO) model	Cambridge Econometrics	An econometric model using a variety of drivers such as economic (i.e. GVA data) to establish changes in a regions environmental impact.
	Greenhouse Regional Inventory Project (GRIP)	Tyndall Centre	Has been applied in Scotland – rapid technical developments in this area may mean the approach has been superseded by more recent models.
	Carbon emissions calculator	Defra	Forthcoming carbon calculator designed to be the definitive calculator
	Carbon emissions calculator	Various	Varying qualities; will be briefly review
Programmes	The Local Authority Carbon Management Programme	Carbon Trust	Provides councils with technical and change management support and guidance to help them realise carbon emissions savings. The primary focus of the work is to reduce emissions under the control of the local authority.
	The National Atmospheric Emission Inventory (NAEI) including the GHG inventory	AEA Technology	We hold the contract to compile this inventory
	The NAEI LA CO_2 inventory	AEA Technology	We hold the contract to compile this inventory
Methodologies	Ecological Footprinting	Stockholm Environment Institute/Scotland's Global Footprint Project	Complex and evolving methodology

The good

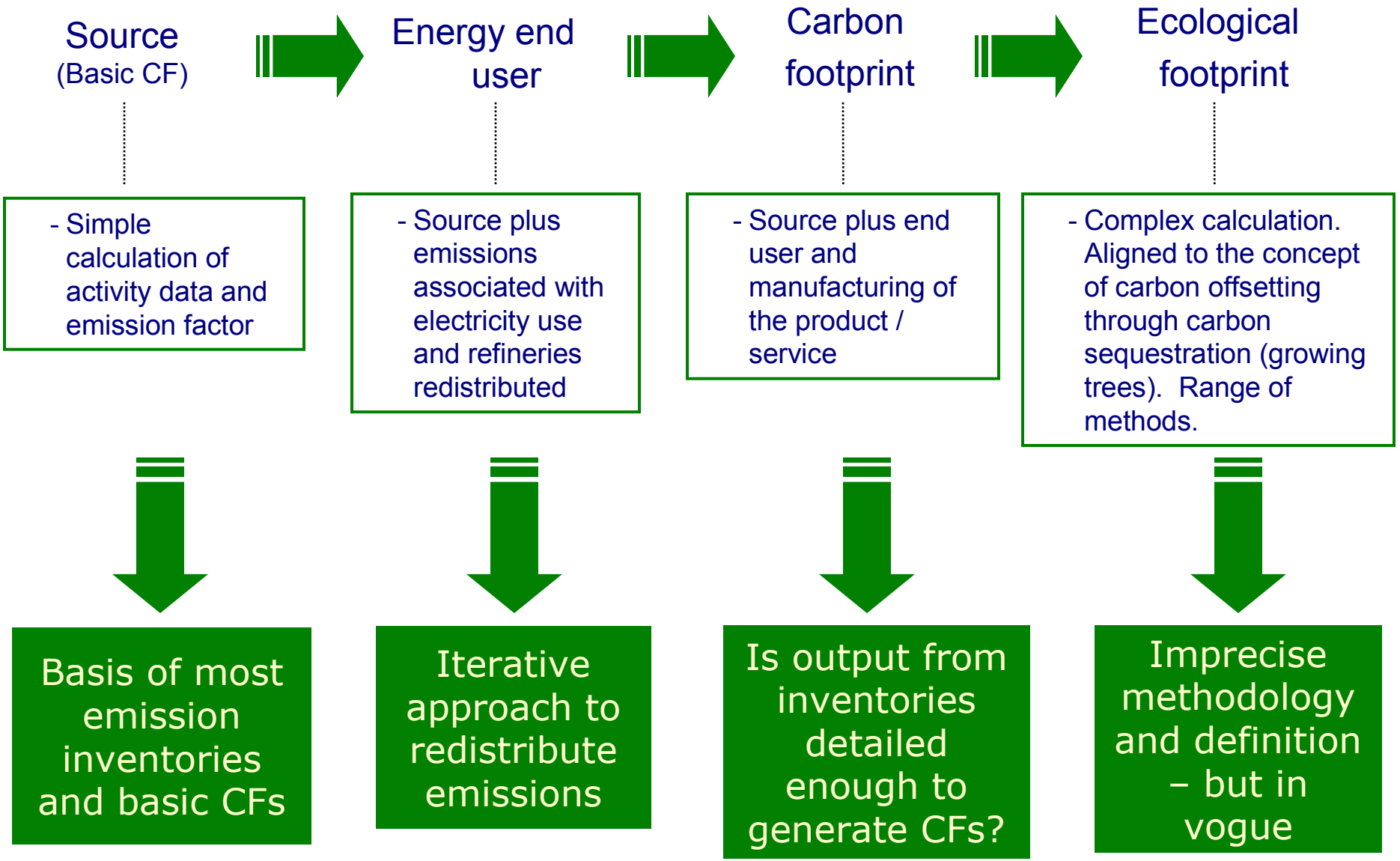
- Wide range of tools
- Some tools specifically designed for LAs
- Some use data from the UK GHG inventory

The problems

- Emission factors used not always traceable
- No tool covers all the sources that LAs would be interested in
- Different tools give different answers from the same inputs

Carbon Footprinting

Can we define it? Can LAs calculate them?



Local GHG inventories – Case study

Two recent inventories completed. Here we are concentrating on …

Yorkshire and the Humber

- Detailed 1 km spatial inventory – presented at ward level
- Web based interface

Y&H - Yorkshire and the Humber GHG inventory

One of the first local GHG inventories in the UK, and now further developed to be ready to accept and integrate local activity data

Steps to creating the inventory …

- **Task 1:** Review of current emissions inventory data and experience in the Yorkshire and Humber Region
- **Task 2:** Workshop run to obtain feedback on proposals for procedures, data flows and formats for future inventory development and updates
- **Task 3:** Web based interface developed
- **Task 4:** Report summarising findings, methods and progress and recommend future inventory development

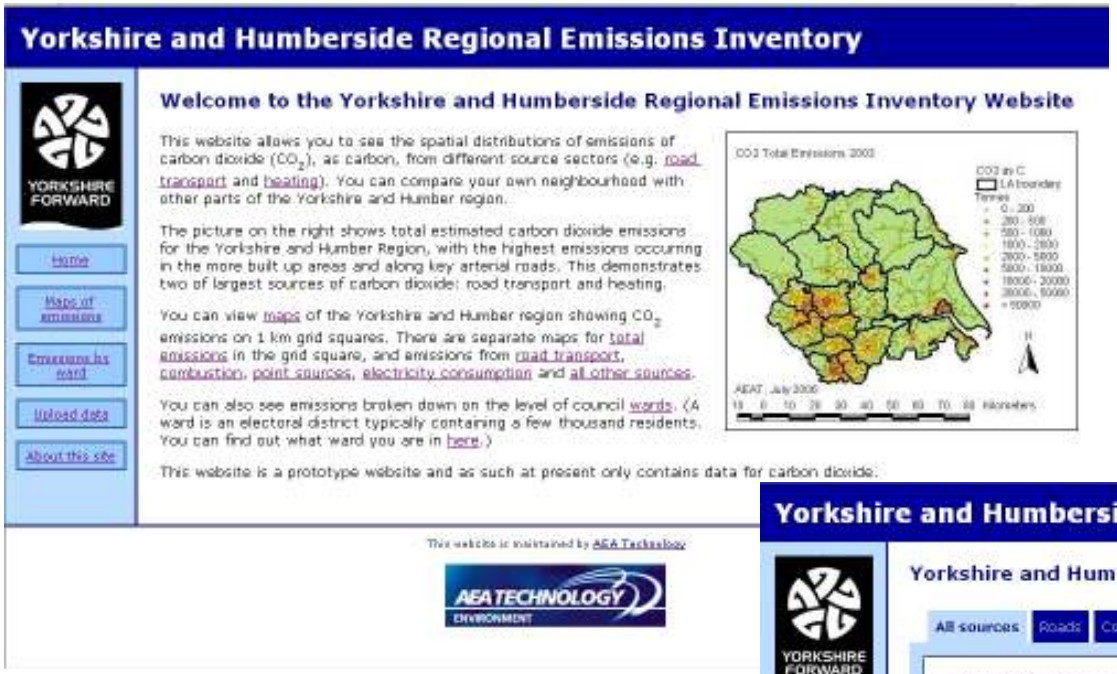
Y&H - Authorities included …

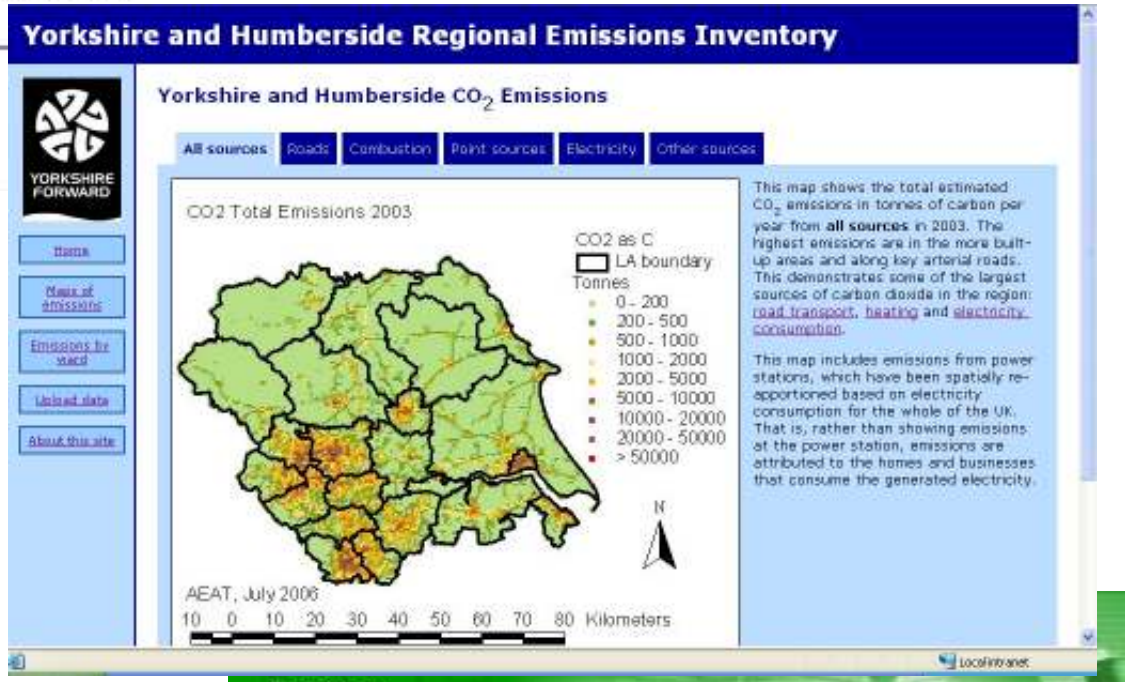
- Project had limited funds – so only a limited number of authorities could be included in this initial pilot stage
  - Leeds City Council
  - Harrogate Borough Council
  - Kingston upon Hull City Council
  - Kirklees Metropolitan Council
  - Wakefield Metropolitan District Council

Y&H - Underlying inventory data

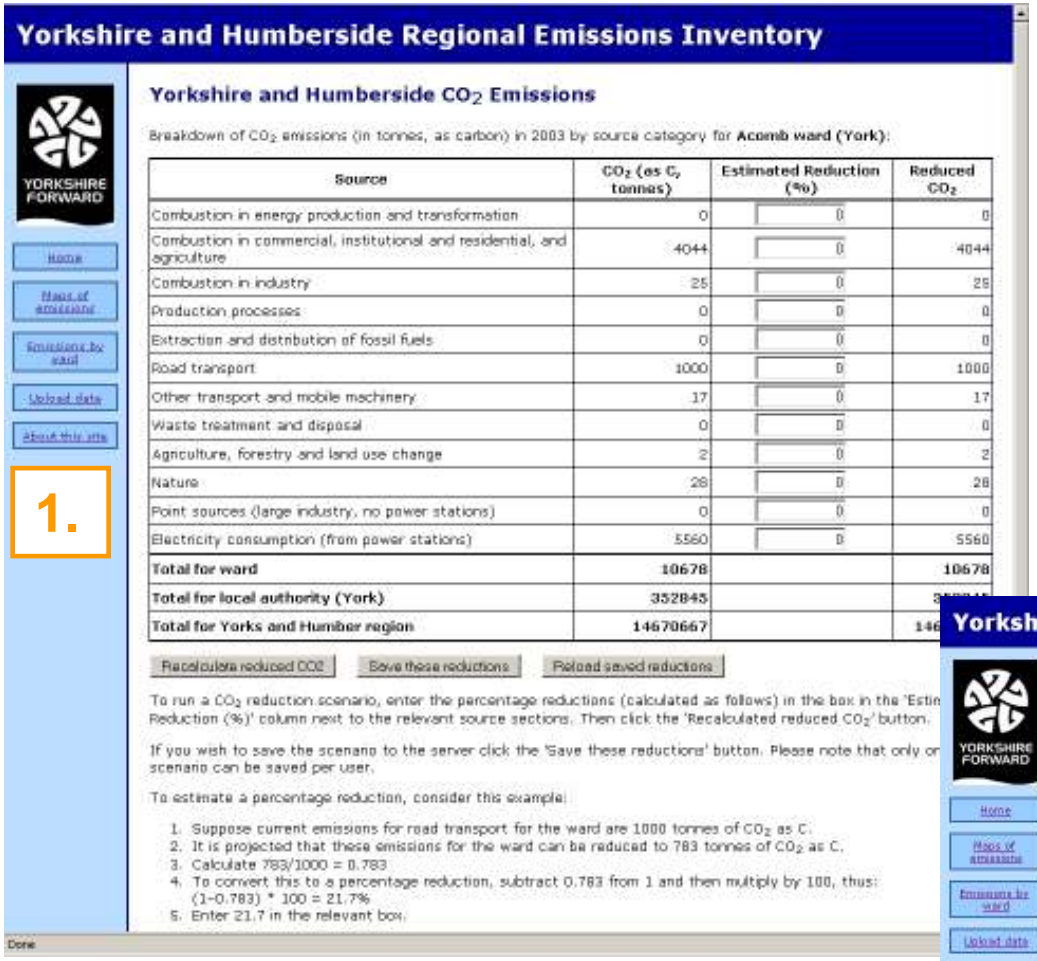
- Based on NAEI and the LA CO_2 scoping study carried out Defra/DTI (for electricity – end user)
- A prototype web based emissions inventory has been constructed, which is consistent with the NAEI and accessible and updateable by each Local Authority
- Additional data sets identified (roads, HECA) - hard to integrate – but methods developed

Y&H - Web based interface

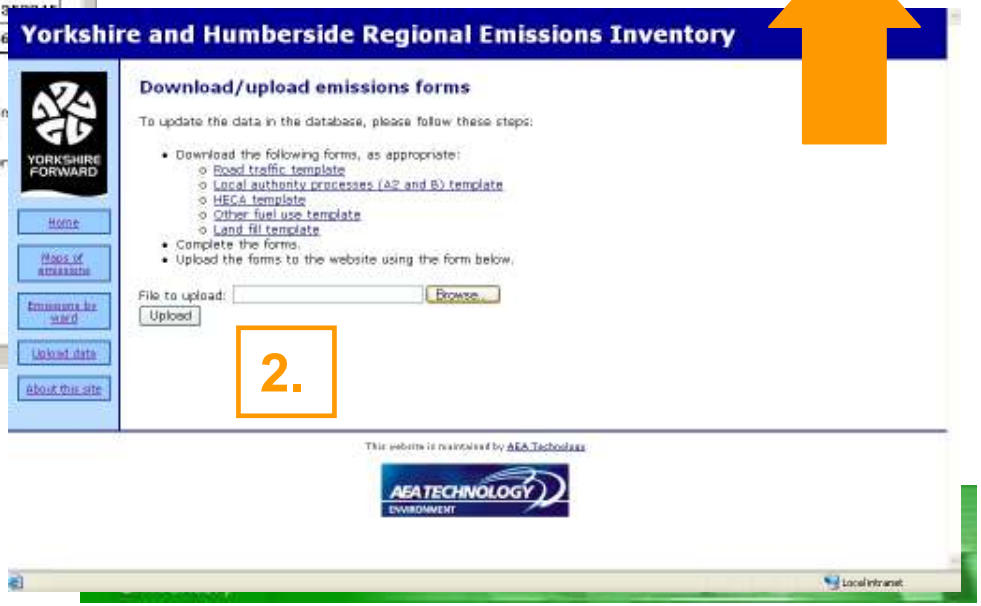




Y&H – Input of local data



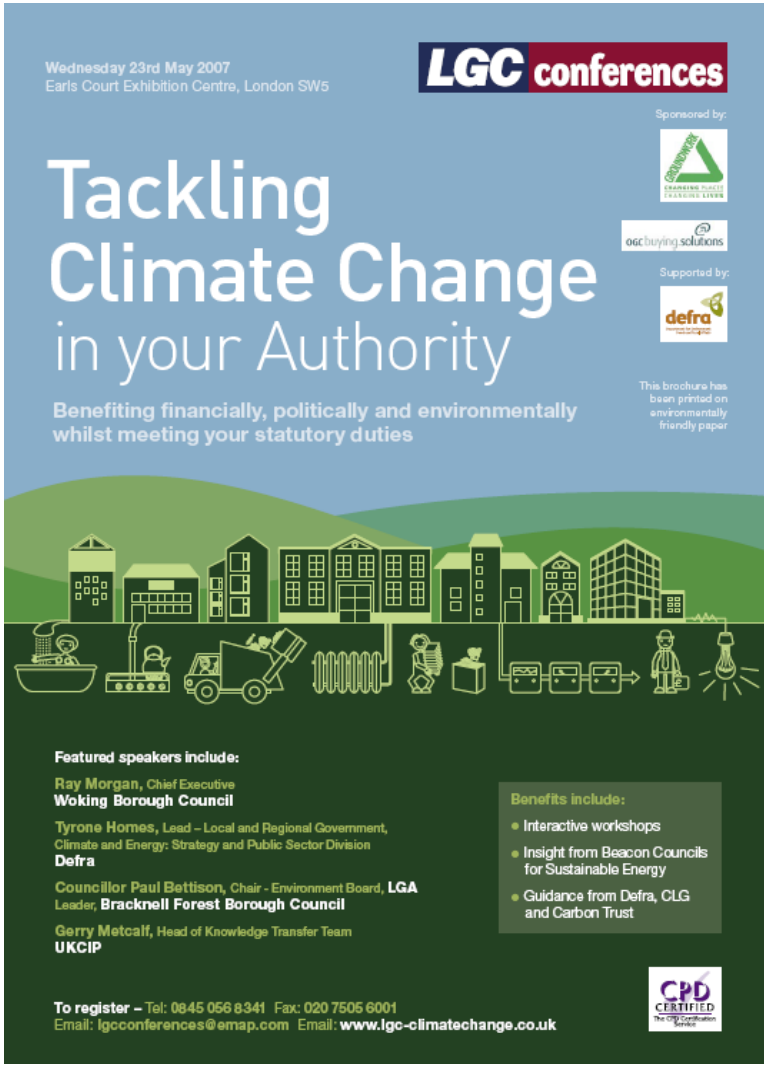
- Road traffic (nodes (location), AADT, speed, fleet mix, year);
- Authorised processes and fuel use surveys (Fuel use per annum, fuel type, other data, post code/grid reference, year);
- HECA data (postcode, fuel usage total (can be estimated), fuel type, year);
- Landfill (type of waste, location, age).



Where now for Y&H?

- This project is a prototype
- Issues arising
  - Integration with LAQM
  - Collation of more local data
  - Integration of local data
  - Action plan to target areas of GHG emissions that Y&H could reasonably control or influence
  - Climate change "champion"
  - Consider the data flows and architecture of the LAs in Y&H to optimise CC activities

Feedback from recent conference



http://www.lgc-climatechange.co.uk/homepage.asp?m_pid=0&m_nid=17113

Key LA needs identified from conference feedback

- How do LAs estimate emissions?
- How do LAs generate a baseline for 1990?
- LAs want an agreed, consistent methodology from Government such that LAs can compare against each other and can be benchmarked across the country

Recent international developments

EU climate change adaptation strategy

- Long-awaited green paper suggests how Europe should integrate adaptation to climate change into domestic and foreign policy

- The Green Paper sets out four lines of priority actions to be considered:

  - Early action to develop adaptation strategies in areas where current knowledge is sufficient;
  - Integrating global adaptation needs into the EU's external relations and building a new alliance with partners around the world;
  - Filling knowledge gaps on adaptation through EU-level research and exchange of information;
  - Setting up a European advisory group on adaptation to climate change to analyse coordinated strategies and actions.

- Some key questions:
  - How do policy priorities need to change for different sectors?
  - Which policy approaches should be taken at national, regional or local level?
  - Where is European action needed?

Brussels, 29.6.2007 COM(2007) 354 final GREEN PAPER FROM THE COMMISSION TO THE COUNCIL, THE EUROPEAN PARLIAMENT, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS. Adapting to climate change in Europe – options for EU action. {SEC(2007) 849}.
http://eur-lex.europa.eu/LexUriServ/site/en/com/2007/com2007_0354en01.pdf

Summary of needs … for discussion

- **Climate change to become embedded in LA organisational structure**
  - The Energy Review showed that successful LAs actions can be attributed to willful individuals not the LA as a whole.
- **Mitigation indicators**
  - Part of the revised Comprehensive Performance Assessment (CPA)
  - Need guidance and tools to achieve reductions in
- **A Best Practice Programme for LAs**
  - Likely to be established to provide advice and support around the CPA Comprehensive Performance Assessment (CPA)
  - Likely to be funded by central government but through the delivery partners of CT/EST/IDeA/UKCIP and provide things like toolkits/benchmarks/energy measures and CO2 inventory (the plan is the have a consistent non-changing calculation e.g. from 2005)
- **Adaptation indicators**
  - Defra are considering
  - Indicators are being developed but are process-based and are likely to assess progress against the Nottingham Delaration action pack 5 stage process. It may also use CTCM derived info.

Points to note

- **Launch of the LGA Climate Change Commission**
  - The climate change commission's interim report, Strengthening local action on climate change launched at the Local Government Association's annual conference 3 July 2007
  - Report states "climate change must be at the heart every local area's ambitions. The report urges authorities to take a leading role to help people adapt their lifestyles to cut their carbon footprint."
  - http://campaigns.lga.gov.uk/climatechange/home/

Your questions and ideas of needs…

- Please contribute!