

# Reducing the carbon footprint for non-domestic buildings - a priority for the Carbon Trust

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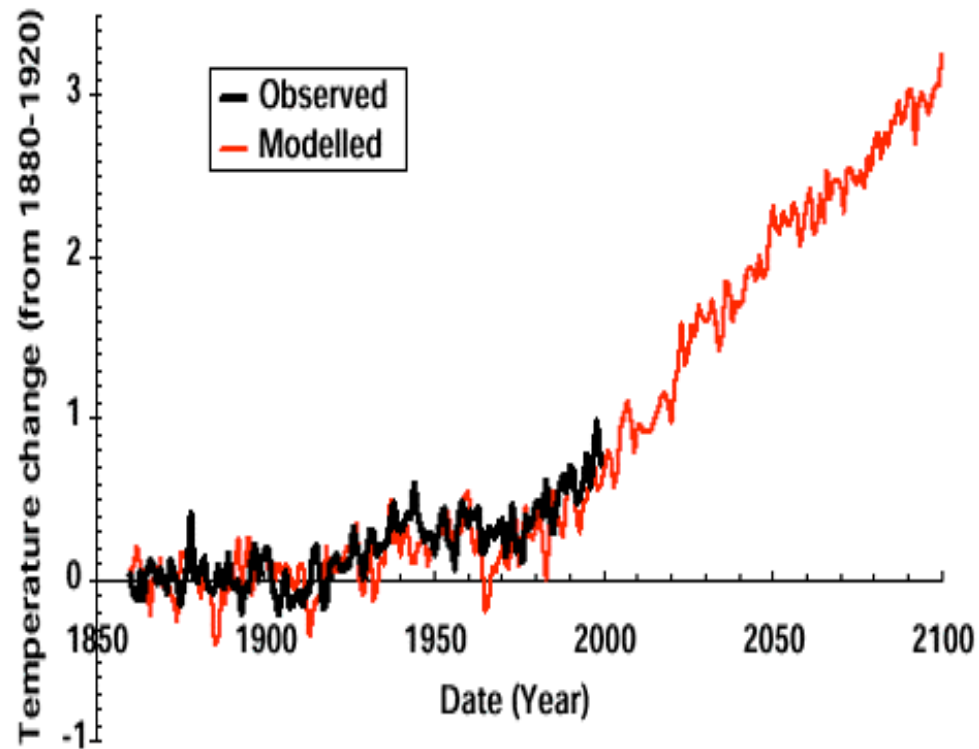
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- The Carbon Trust
- Why buildings' carbon footprints are important
- Carbon Trust buildings initiatives and service offerings:
  - Carbon Vision – with EPSRC
  - Design and Construction Advice
  - Low Carbon Buildings Accelerator
- The bigger picture
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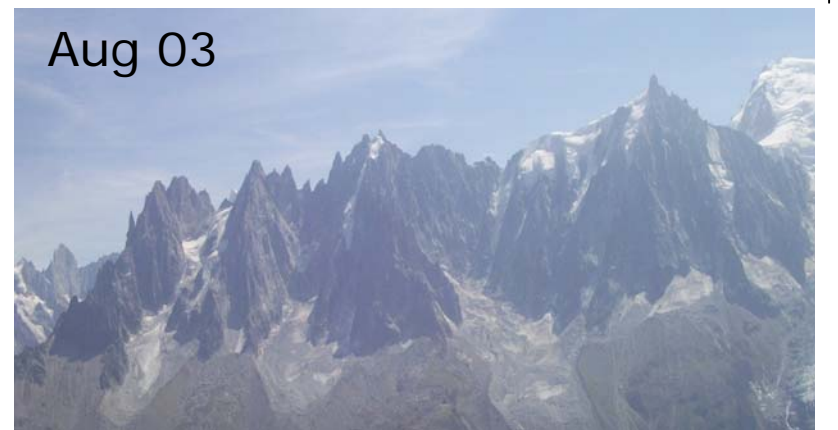
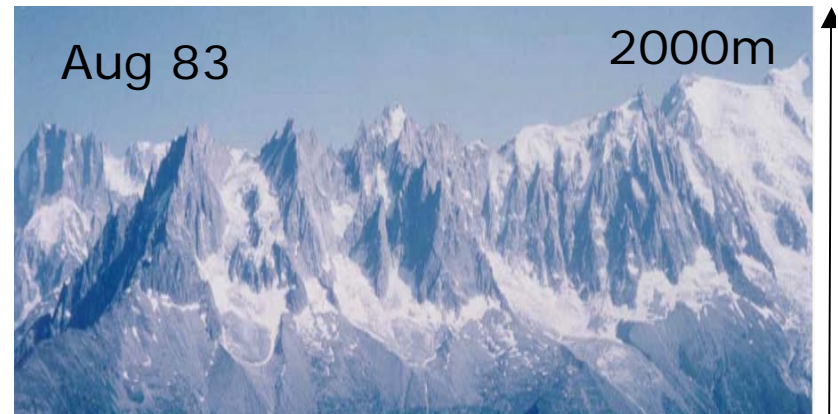


# Climate change is happening

## Observed and predicted global temperature change



Source: The Met Office's Hadley Centre for Climate Protection and Research



Photographs courtesy of Enviros

**CARBON TRUST**  
Making business sense of climate change

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## The Carbon Trust is a business-led, Government backed company

- Set up in 2001, the Carbon Trust is an independent UK-wide company funded by the Climate Change Levy, Defra and, going forward, the Landfill Tax
- Budget was £66m in 2004/05 rising to around £100M pa over 3 years
- > 100 staff
- Not part of Government
- Own governance and Board comprising business, Government, NGOs and the research community
- We use public funds flexibly – grants, loans and equity
- We work with Government to help inform policy development

**Our mission is to accelerate the transition to a low carbon economy by helping organisations reduce their carbon emissions and develop commercial low carbon technologies**

# The Carbon Trust is helping to making business sense of climate change in the private and public sectors



## **Direct engagement**

Carbon Management  
LA Carbon Mgmt  
Standard site visits  
SME General service  
Design etc Advice

## **Indirect engagement**

Networks, 3<sup>rd</sup> parties  
Marketing

## **Financial incentives**

SME loans  
Public sector loans  
ECA support



## **RD&D**

Carbon Vision (EPSRC JV)  
Open call RD&D

## **Technology acceleration**

Marine Energy Challenge  
EMEC (Orkney)  
Micro-CHP trials  
Smart metering  
Low Carbon Bldgs Accelerator

## **Investment**

Incubators  
Venture capital portfolio  
3<sup>rd</sup> party funds



***Low Carbon Technology Assessment***, December '02

***Developing and managing sustainable offices***, April '03

***Investor perspectives on renewable power in the UK***, December '03

***The European Emissions Trading Scheme: Implications for Industrial Competitiveness***  
July '04

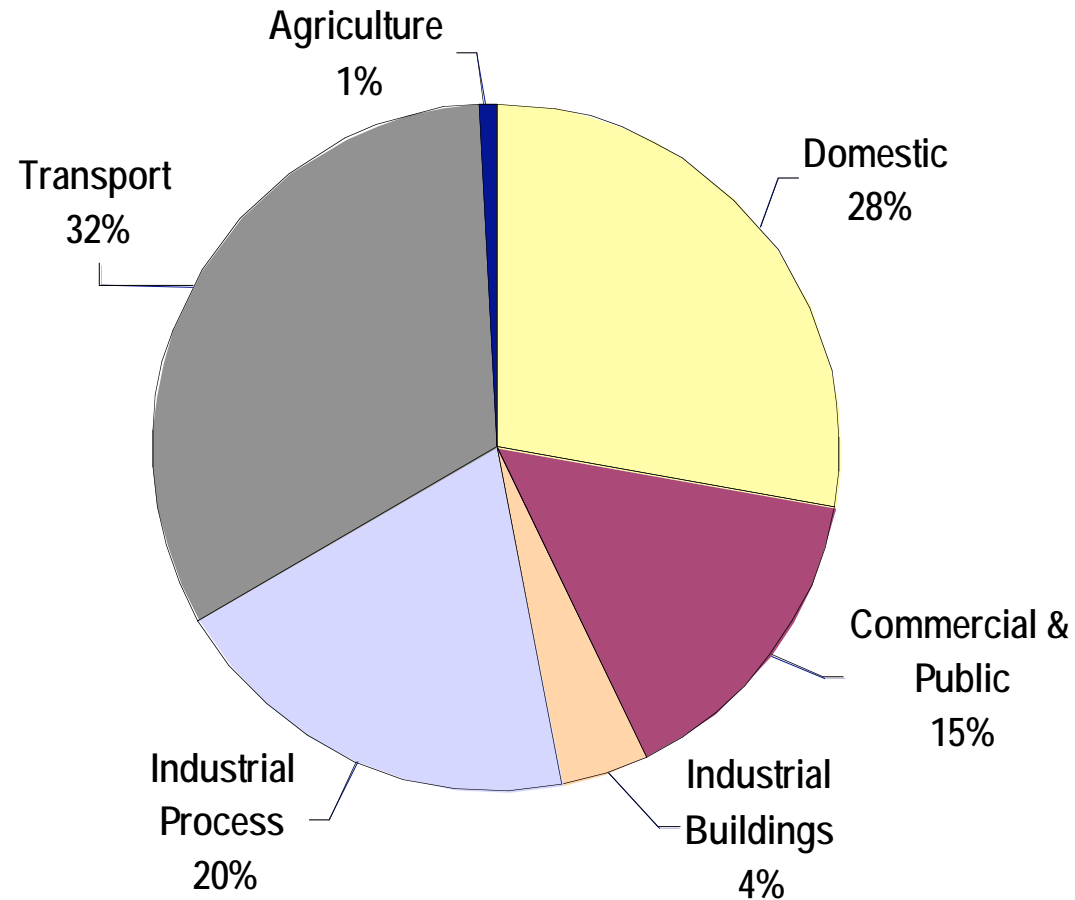


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Buildings accounted for ~ 47% of carbon emissions in 2001 out of a total of ~ 152 MtC



*Government goal is to cut carbon emissions by >80MtC pa by 2050 on 1997 levels*

# The Government's Energy White Paper commits to reducing carbon dioxide emissions by 60% by 2050

Buildings represent a huge potential for energy, carbon and running cost savings:

10%

20%

30%

50%

more?



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# Carbon Vision Buildings programme

- To develop understanding which will enable a 50% reduction in carbon emissions from buildings by 2030
- Three coordinated projects in a £5M 4 year package:
  - CARB: A socio-technical longitudinal study of carbon use in buildings
    - DMU, UCL, Reading, Newcastle, Sheffield
  - TARBASE: Technology assessment for radically improving the built asset base
    - Heriot-Watt, Ulster, Nottingham, Surrey
  - BMT: Building market transformation
    - Oxford, Bath, Cardiff, Strathclyde

# Design & Construction Advice Service

- Printed guide to low carbon design and procurement, for buildings < 2500m<sup>2</sup>
- Design Review (2-8 days) including specialist advice for buildings 2,500-10,000m<sup>2</sup>
- Phased Advice for larger buildings >10,000m<sup>2</sup> with interventions at various stages
- Specific advice for estates, chains, LAs & other users of standard specifications
- New service will be launched in October
- Further details will be on [www.thecarbontrust.co.uk](http://www.thecarbontrust.co.uk)

# Low Carbon Buildings Acceleration Programme

– £5M over 3 years

- Addresses the huge potential represented by buildings scheduled for refurbishment;
- Focus on retail, hospitality and public sector;
- Features simple, straightforward energy efficiency and low carbon measures – packaged impartially and objectively by building professionals working together;
- Portfolio currently includes: John Lewis, M&S, etc;
- We are looking for more flagship buildings and owners to join our programme.
- Interested parties should contact Keiran Allen at the Carbon Trust: 020 7170 7041 or [keiran.allen@thecarbontrust.co.uk](mailto:keiran.allen@thecarbontrust.co.uk)



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# The bigger picture

## **The regulatory framework**

- Legislation
- A regulatory framework for buildings work
- Planning Guidance to encourage sustainable construction and communities

## **The market**

- Investors and developers
- Building and planning professionals
- Construction companies, sub-contractors
- Public and private sector owners and occupiers

# Key elements of the regulatory framework

- Building Act
- Building Regulations – Part L under review
- Sustainable and Secure Building Act 2004
- Planning policy and requirements for sustainable development
- EU Energy Performance in Buildings Directive

# The market – a selection of owners and occupiers



# The Carbon Trust is working with regulators and the market to reduce carbon emissions

- Regular dialogue with ODPM, Defra and DTI to help inform the development of policy.
- Support for positive action by the building professionals and others. CIBSE is a notable example.
- Development of a growing cadre of “carbon aware” clients and tenants. We now have relationships with ~ 200 top public and private sector names;
- Provision of tailored guidance on how to design, construct and manage low carbon buildings.

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# Conclusions

- Climate change is happening now. Mitigation and adaptation strategies will be required to avoid the worst impacts;
- Buildings represent a huge untapped potential for CO<sub>2</sub> emissions reduction;
- The regulatory framework has the potential to be more effective but cannot leave it all to regulation.
- Carbon Trust is working with market leaders to raise awareness and reduce CO<sub>2</sub> emissions;
- We will not achieve our carbon dioxide emissions targets unless we build a partnership between the regulators, agencies and the market.



# Making Business Sense of Climate Change

[www.thecarbontrust.co.uk](http://www.thecarbontrust.co.uk)

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