



# The Challenges in the UK of Building a Low Carbon Society

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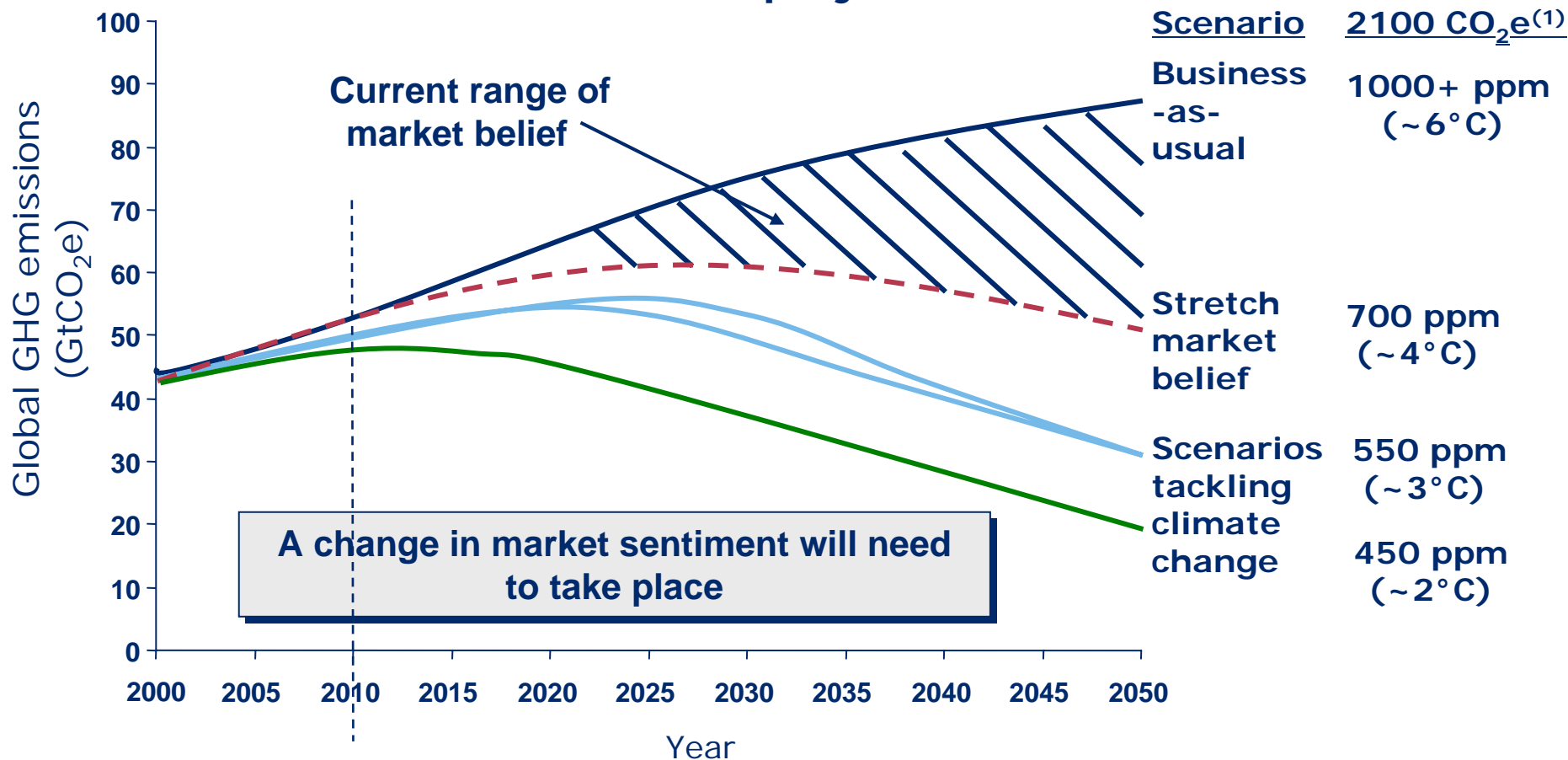
November 2009



# Investor and business assumptions are not yet aligned to a low carbon economy



## Global GHG emissions projections



Note: Equilibrium temperature projections using the median of the climate sensitivity ranges based on the IPCC TAR  
 Source: Oxera and Carbon Trust analysis

# Carbon Trust



## Carbon Trust

- Set up 8 years ago to decarbonise the UK economy
- To cut Carbon now and to cut Carbon in the Future
- 2.5 years ago looked into importance of supply chains
- 1 Year ago have moved internationally in US and China

## How has the Carbon Trust helped businesses in the UK:

- To reduce carbon emissions and save money through energy efficiency programmes;
- To bring forward new and emerging clean energy technologies;
- To support early stage low carbon businesses;
- To provide a clear long term, policy and regulatory framework which encourages low carbon, sustainable growth.

# Our policy research suggested approx 3/4 of emissions caused by a consumer



Directly by our actions

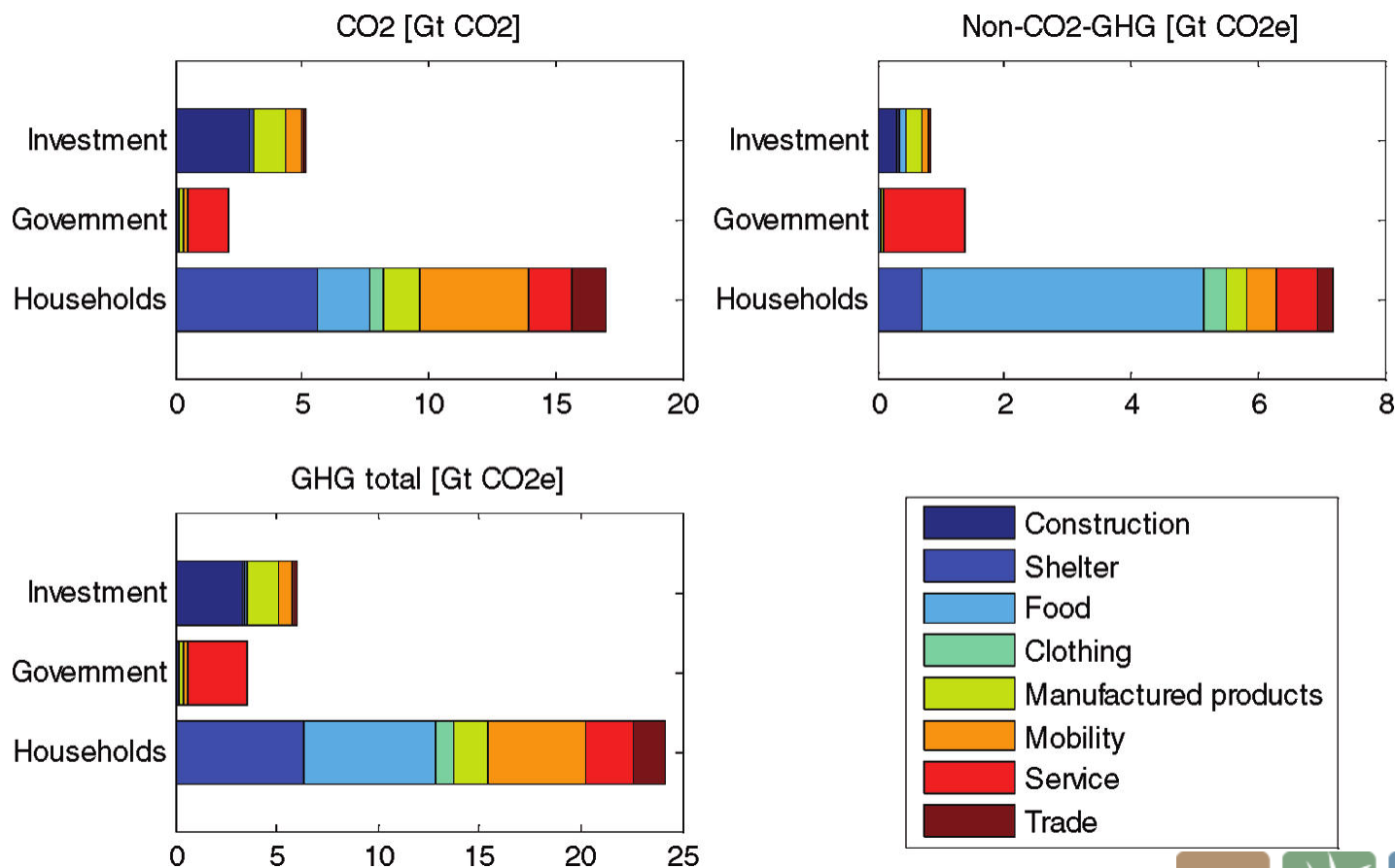
- Travel
- Using Energy products
- Heating and cooling

Indirectly through what we buy

- Embodied in the products and services we consume.

known by the term 'Product Carbon Footprint'

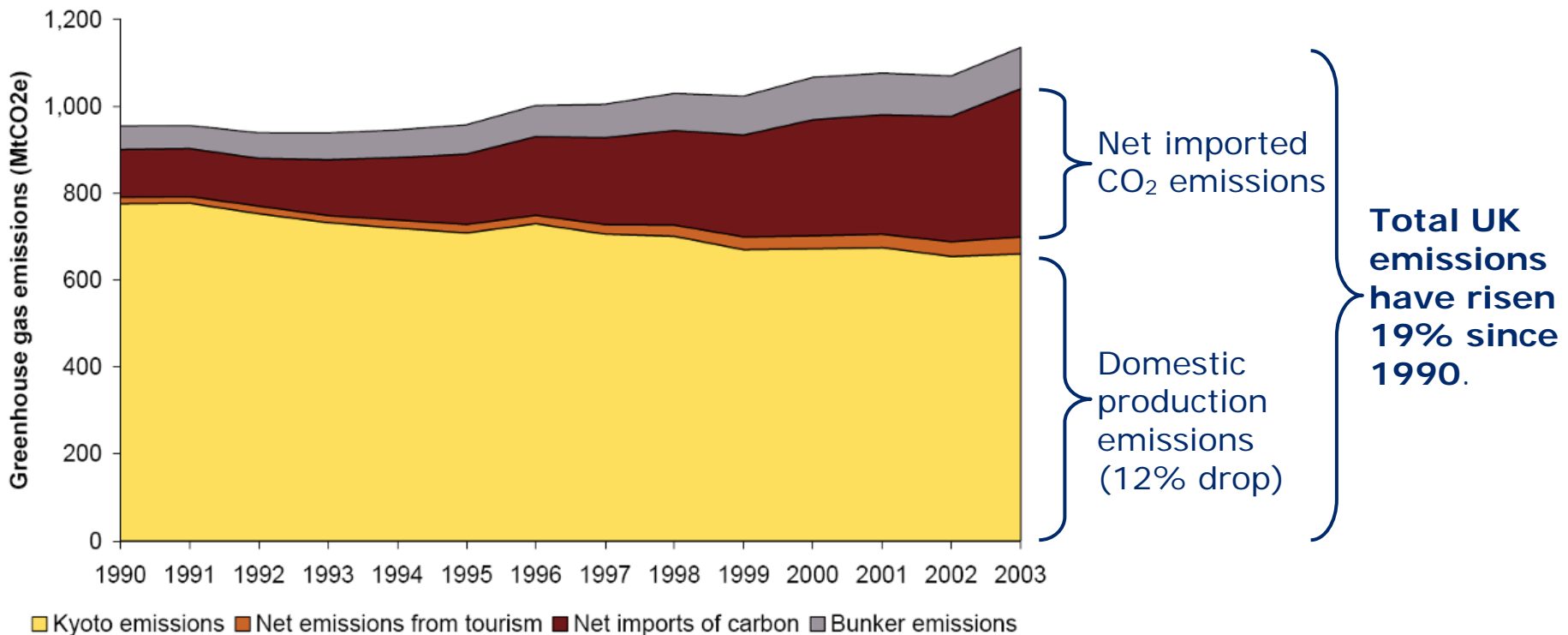
# Consumption perspective – the carbon embedded in products and services – Householder actions



# Production, consumption and emissions assessment can be seen at a UK level

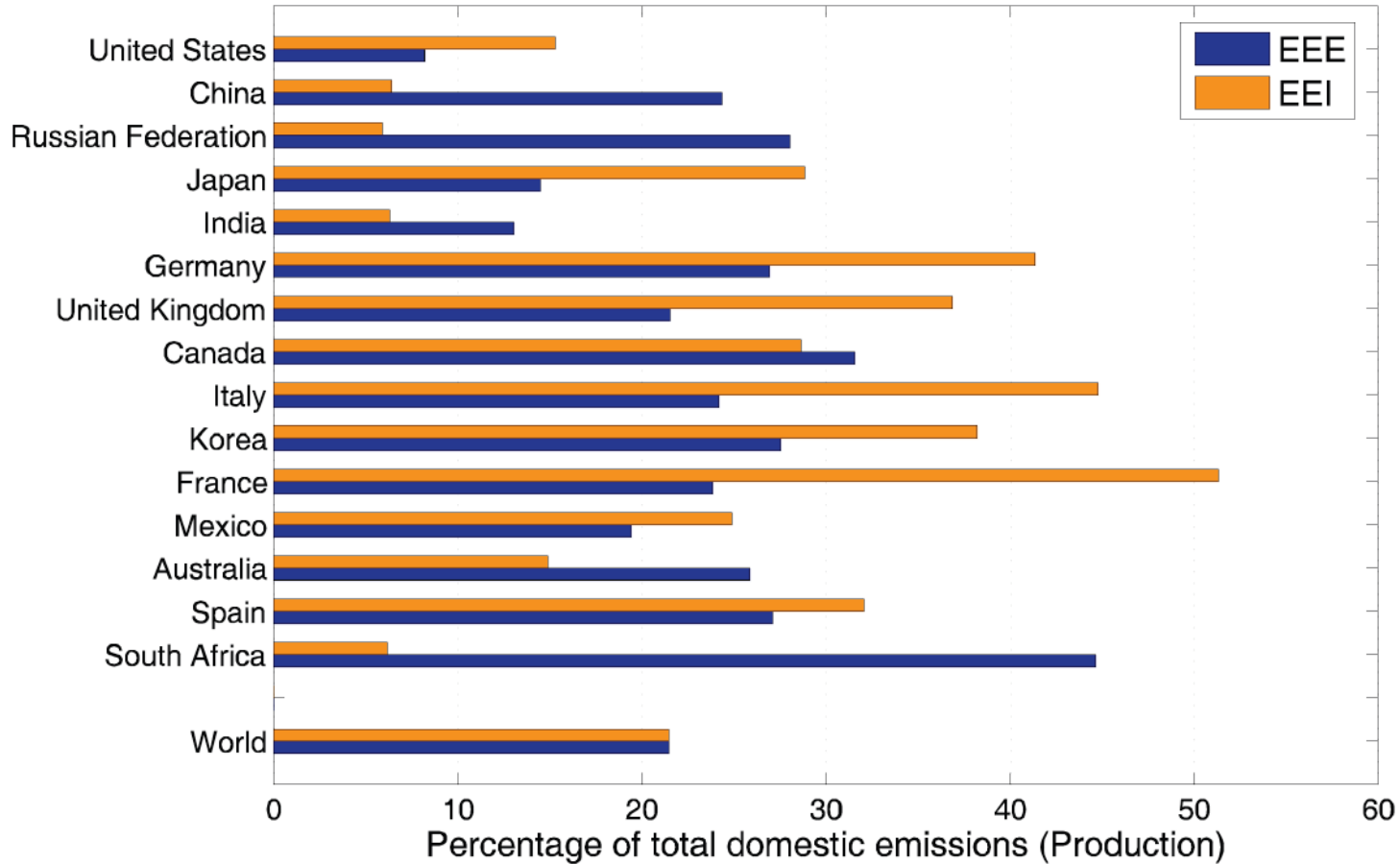


- When measured on a domestic **production** basis, UK emissions **appear** to have fallen
  - However, on a domestic consumption basis, emissions have risen



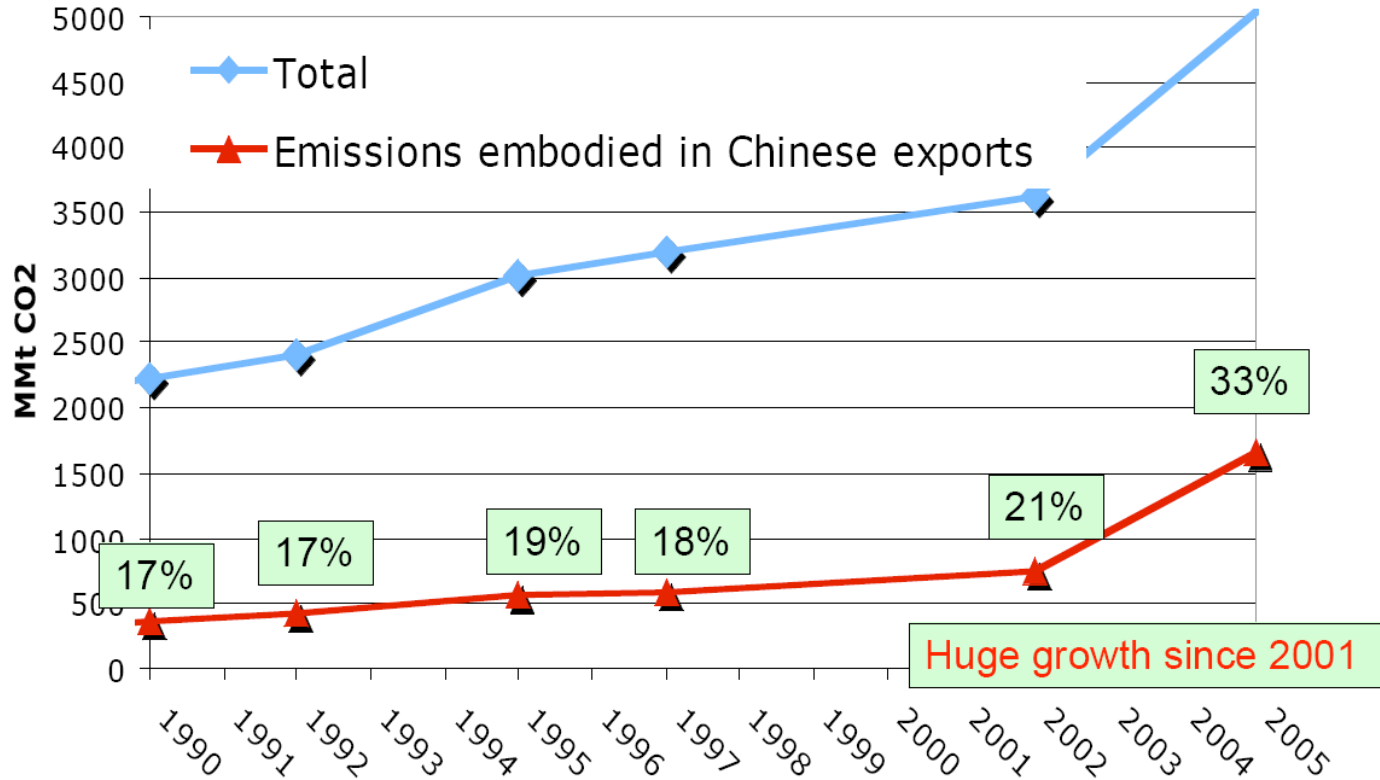
Source: Helm, Smale & Phillips (2007) – Too good to be true; the UK's climate change record

# GHG emissions embedded in exports and imports



Source: Peters and Hertwich, Env. Sci. Tech. 2008

# Carbon embedded in Chinese export



# What is the embodied carbon - Product Carbon Footprinting

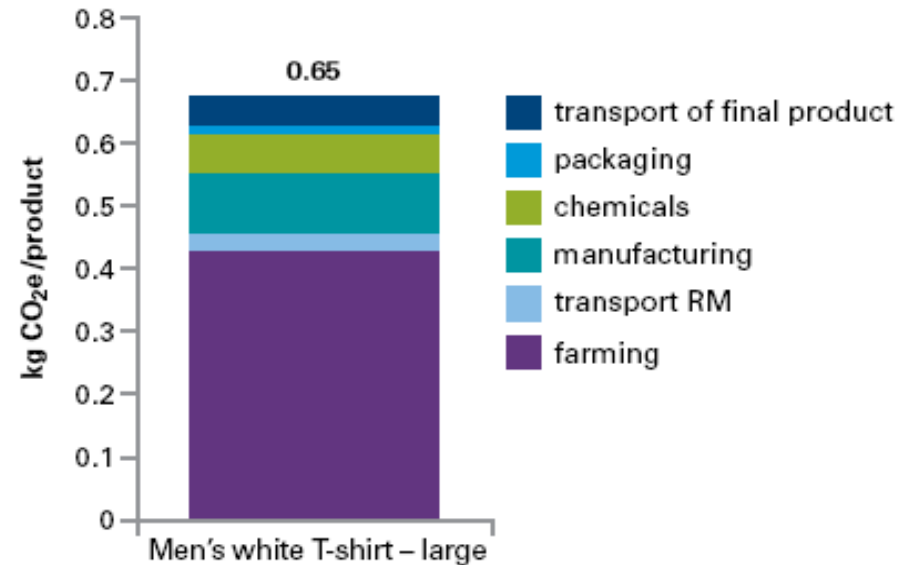


## Supply chain of a T-Shirt



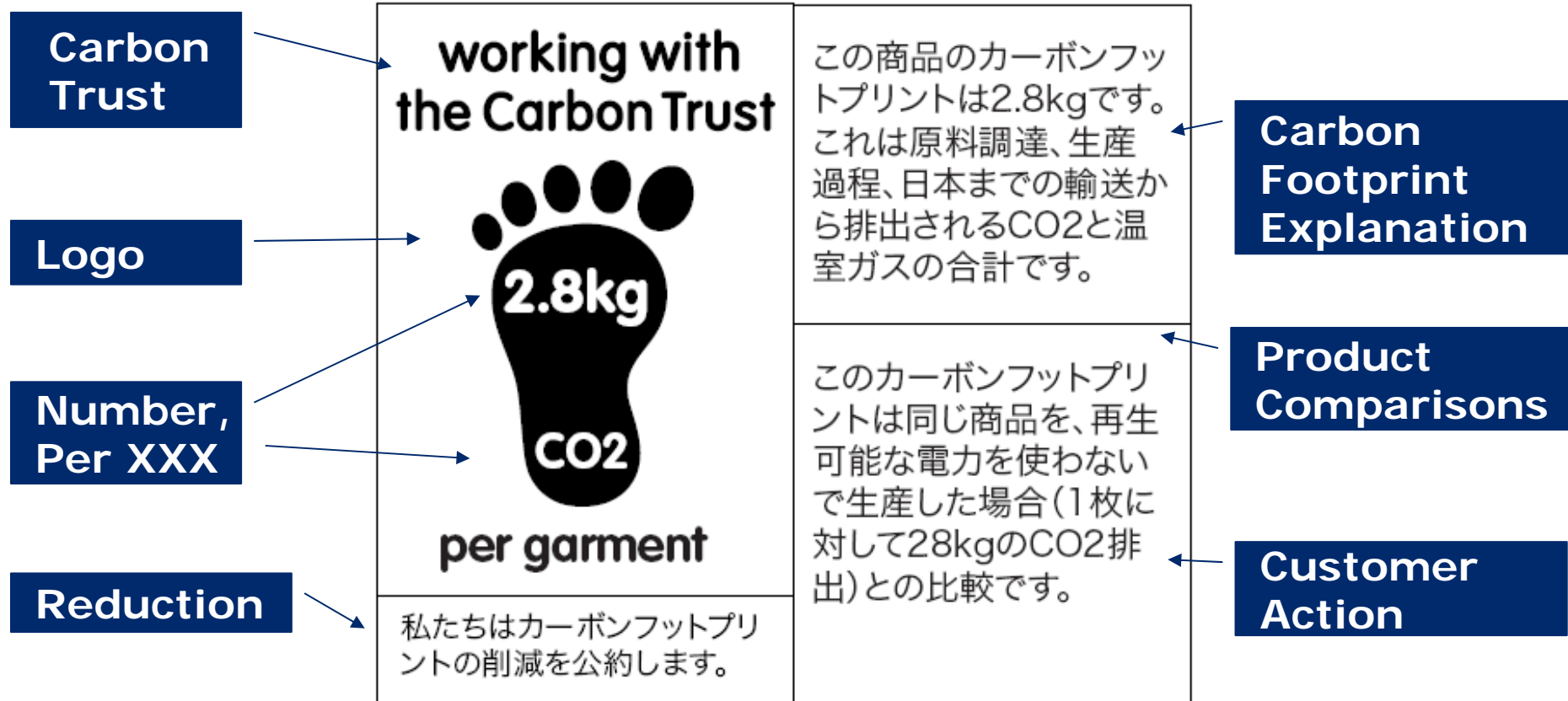
- Growing Cotton
- Spinning & weaving
- T-Shirt production
- Transportation
- Washing
- Drying
- Ironing
- Disposal

## Total carbon footprint of a Continental Clothing T-Shirt (B2B excludes use phase)



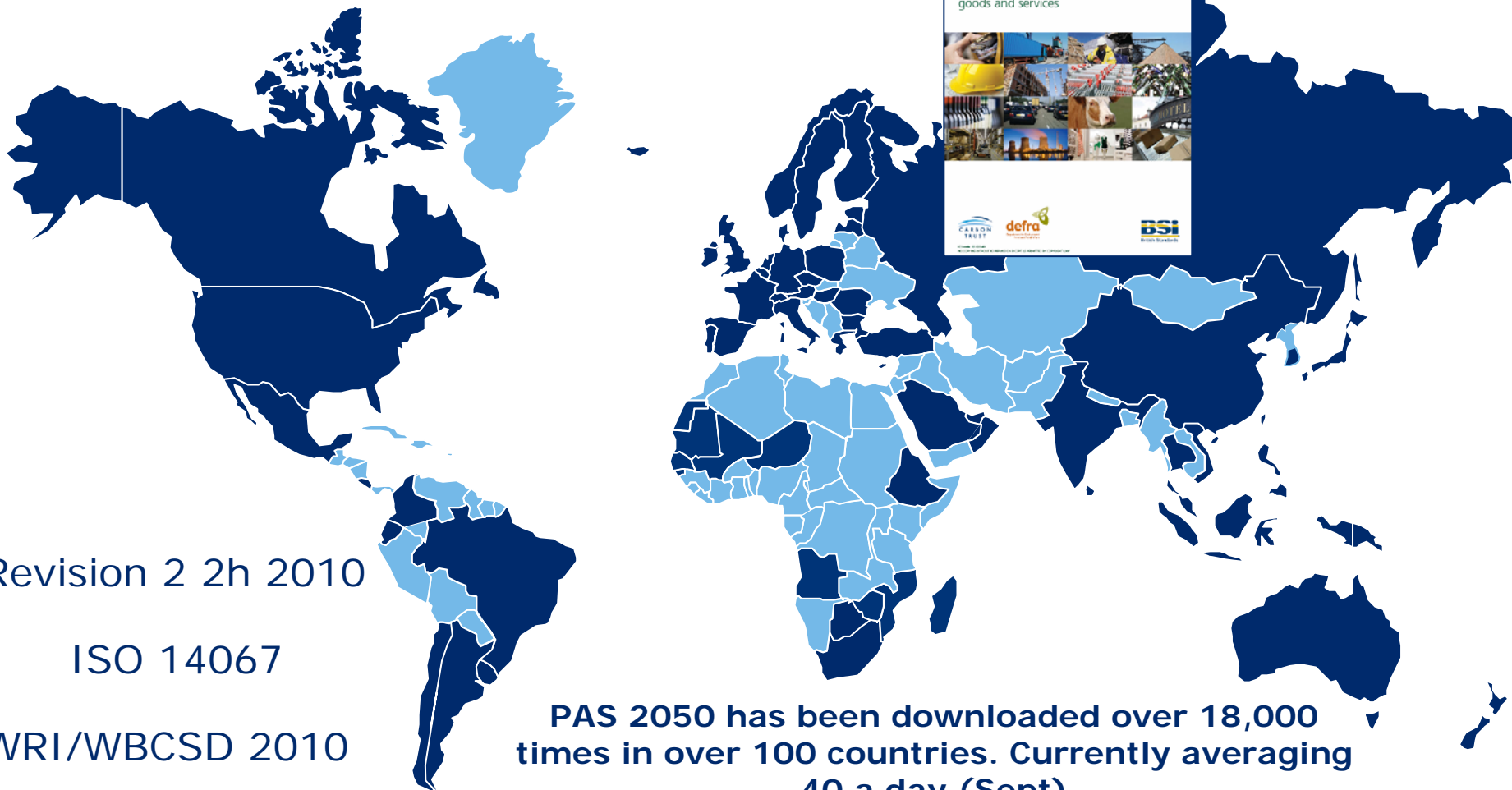
# The Carbon Reduction label <sup>TM</sup> from a Carbon Trust subsidiary

Helping you drive the change  
to a low carbon economy



Alliance of companies working to reduce product carbon

# Need a common method to compare - PAS 2050 specification



Revision 2 2h 2010

ISO 14067

WRI/WBCSD 2010

**PAS 2050 has been downloaded over 18,000 times in over 100 countries. Currently averaging 40 a day (Sept)**

**(Direct downloads only; 1 year to Nov 2009)**

# Footprint Expert™

Need a baseline to compare different numbers



Footprint Expert™ Technical Spec

Primary Data

Primary Data

Defined Use Phase

Secondary Data

Secondary Data

Allocation Rules

Functional Unit

Footprint Expert™

Transport Calculator

Footprint Expert™

Transport Calculator

Footprint Expert™

Domestic Preparation Calculator

Footprint Expert™

Crop Emissions Calculator

Footprint Expert™

Carbon Storage & End-Of-Life Calculator

Footprint Expert™

Distribution & Chilling Calculator

Footprint Expert™

Carbon Storage & End-Of-Life Calculator

Footprint Expert™ Workbook Templates

Footprint Expert™ Carbon Footprint Registry

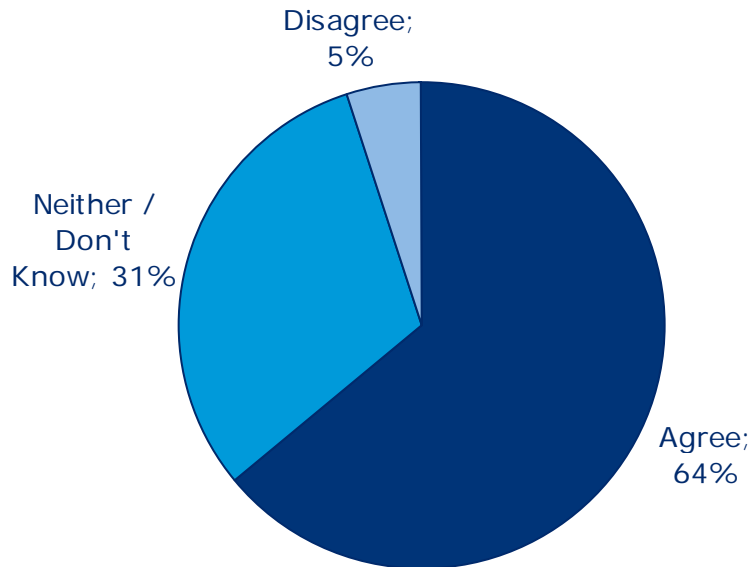
Footprint Expert™ Reference Data

Opening up the system

# Reduction V Number

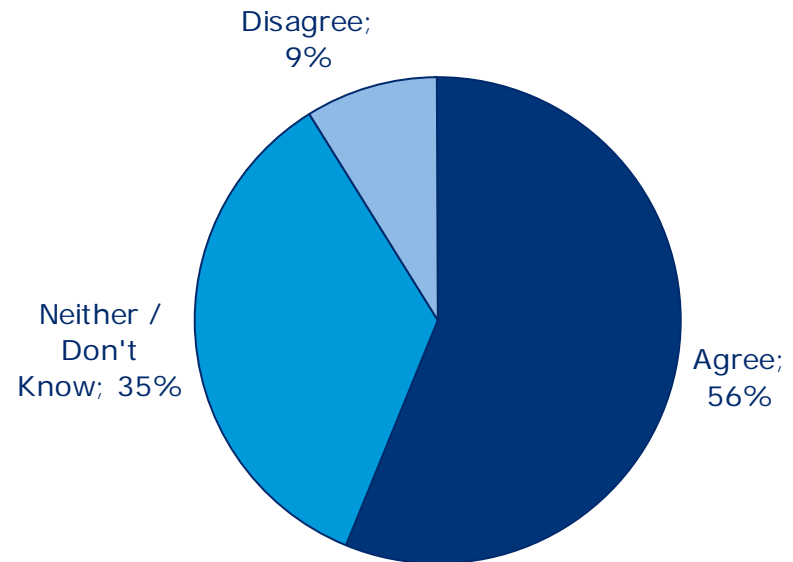
## Consumer Perception

“Working to reduce carbon, it is something companies should be doing”



## Consumer Preferences

“I would prioritise a product with the Carbon Reduction Label if the price was the same as those without it”



# New label options



Focus on Reduction without a number on the symbol  
(though it must be published)



# Benefits of Footprinting and Reduction



## Walkers re-certification

- 2-year anniversary of original footprint launch
- Products analysed: Walkers Crisps (Potato Chips)
- Identified that 59% of carbon emissions were outside their operations and 41% inside
- Recertified footprint: shows 7% reduction on 2007
  - Mix of supplier & Walkers internal initiatives
- Saved £400,000, to reinvest in carbon-saving initiatives
- [www.walkerscarbonfootprint.co.uk](http://www.walkerscarbonfootprint.co.uk)



# Hamper December 08

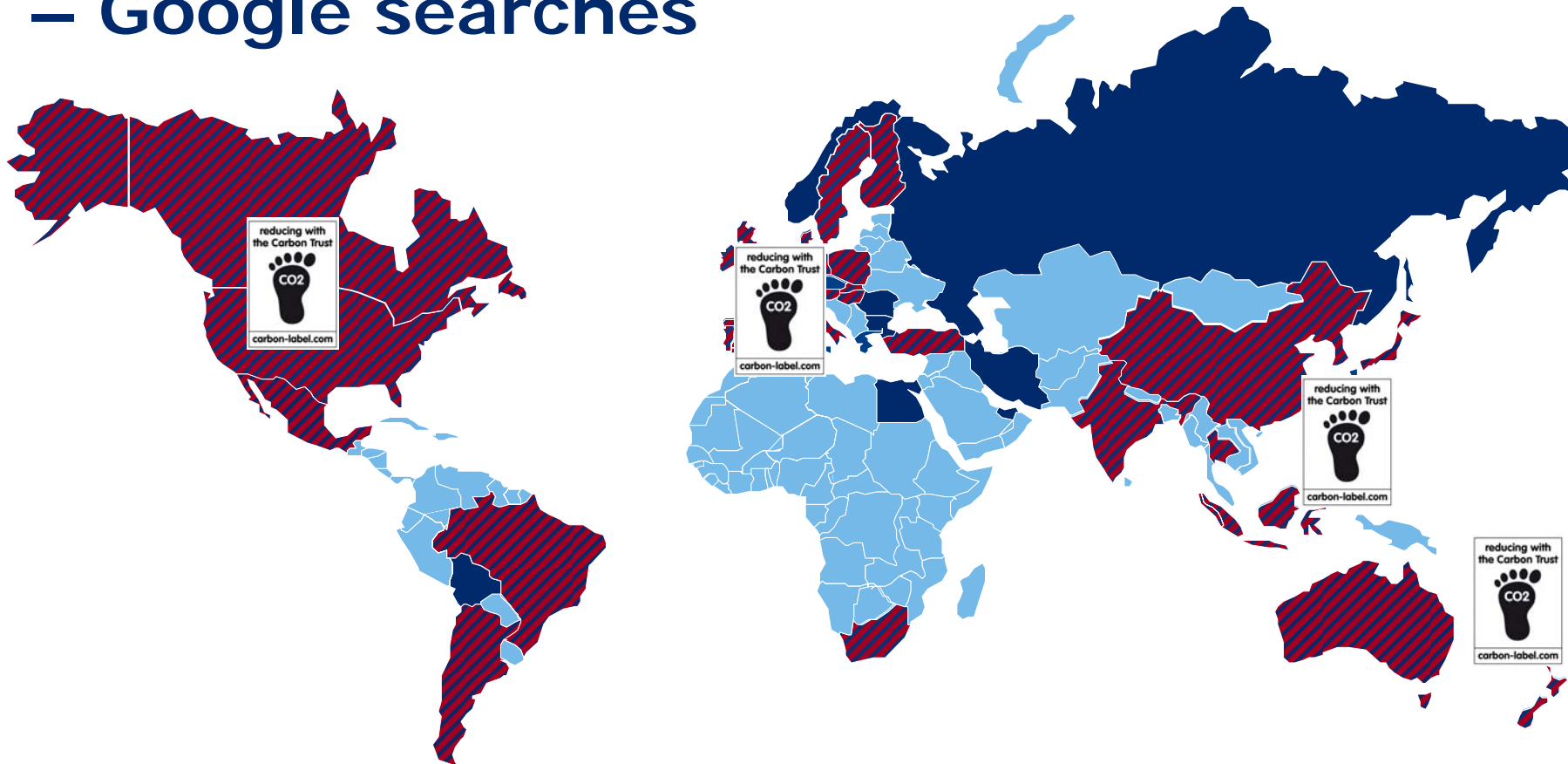


November 09

5500 products (SKU) Footprinted

\$4.6 billion dollars worth of products labelled

# Coverage of 'Carbon Trust' brand and 'Carbon label' concept – Google searches



CLC are active in all Carbon Label geographies



'Carbon Trust' only Google search since 2004

'Carbon Label' Google search since 2004 all cover 'Carbon Trust' area

# Many ways to communicate to consumers

Orange Juice



Labels on pack



Washing Detergents

Orange Juice



Point of Sale

Light bulbs stand



# Consumer communication UK



One of the top 3 UK bread brands  
Labelled in store  
across all supermarkets

Getting labels into  
most shopping  
baskets

Milk

Sugar



# TIPs for lowering your individual carbon footprint



## Directly

- Save money by using low energy light bulbs and not leaving tv etc on stand by
- Insulate your homes so less heat needed in winter and less cooling in summer
- Use more public transport and bicycles

## In directly – try and change the market

- Buy/rent energy efficient houses and cars
- Choose lower carbon footprint products and services when shopping

With the right information you can make a difference

# Making Business Sense of Climate Change

[www.carbontrust.com](http://www.carbontrust.com)  
[www.carbontrust.co.uk](http://www.carbontrust.co.uk)