

Carbon footprint measurement and labelling of products: UK activities

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PAS 2050 - a methodology to carbon footprint all products and services



Full title of PAS 2050: 'Specification for the assessment of the lifecycle greenhouse gas emissions of goods and services'

PAS 2050 – a methodology to carbon footprint all products and services



Joint initiative between BSI British Standards, the UK Department of the Environment, Food & Rural Affairs, and the Carbon Trust

- Development overseen by an independent Steering Group (SG) with academics, NGO, Government and industry representatives
- Two consultation periods with national and international stakeholders
- Technical development supported by expert Working Groups, Defra-commissioned research from LCA experts, market research, and Carbon Trust pilots with companies



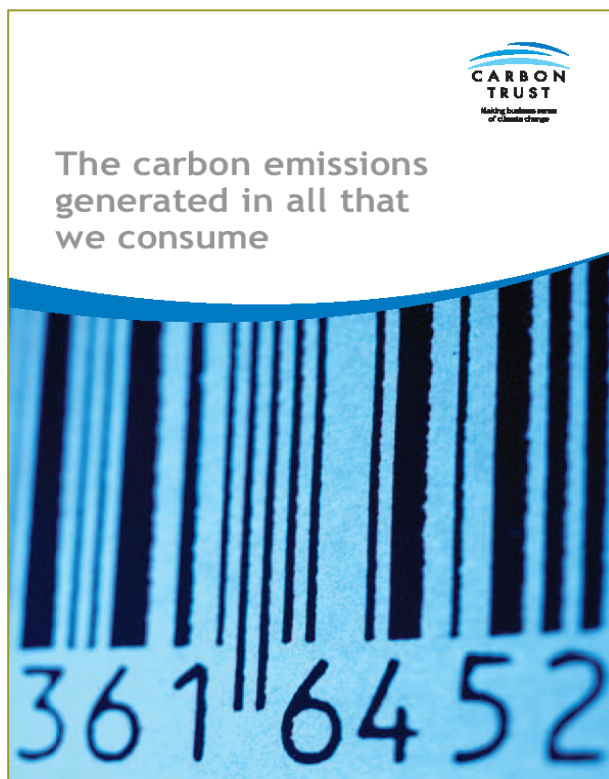
What is a British Standards Institute 'PAS'?



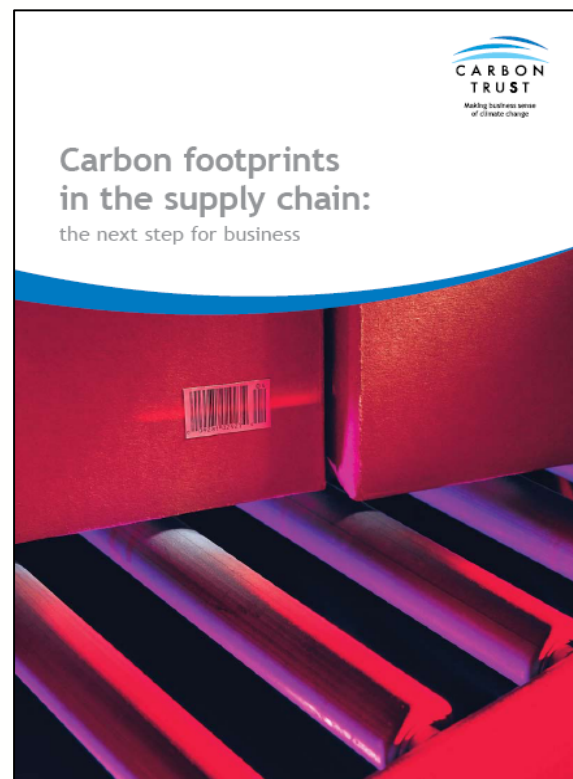
- PAS = Publicly Available Specification; differs from full British Standard
- A consultative document
- Focus can be wider than just UK
- A British Standard must reach full consensus; whereas a PAS invites comments from interested parties
- Time-scale for a PAS is 8-12 months; contrast to 12-18 months for a formal standard



PAS 2050 builds on >2 years research by the Carbon Trust

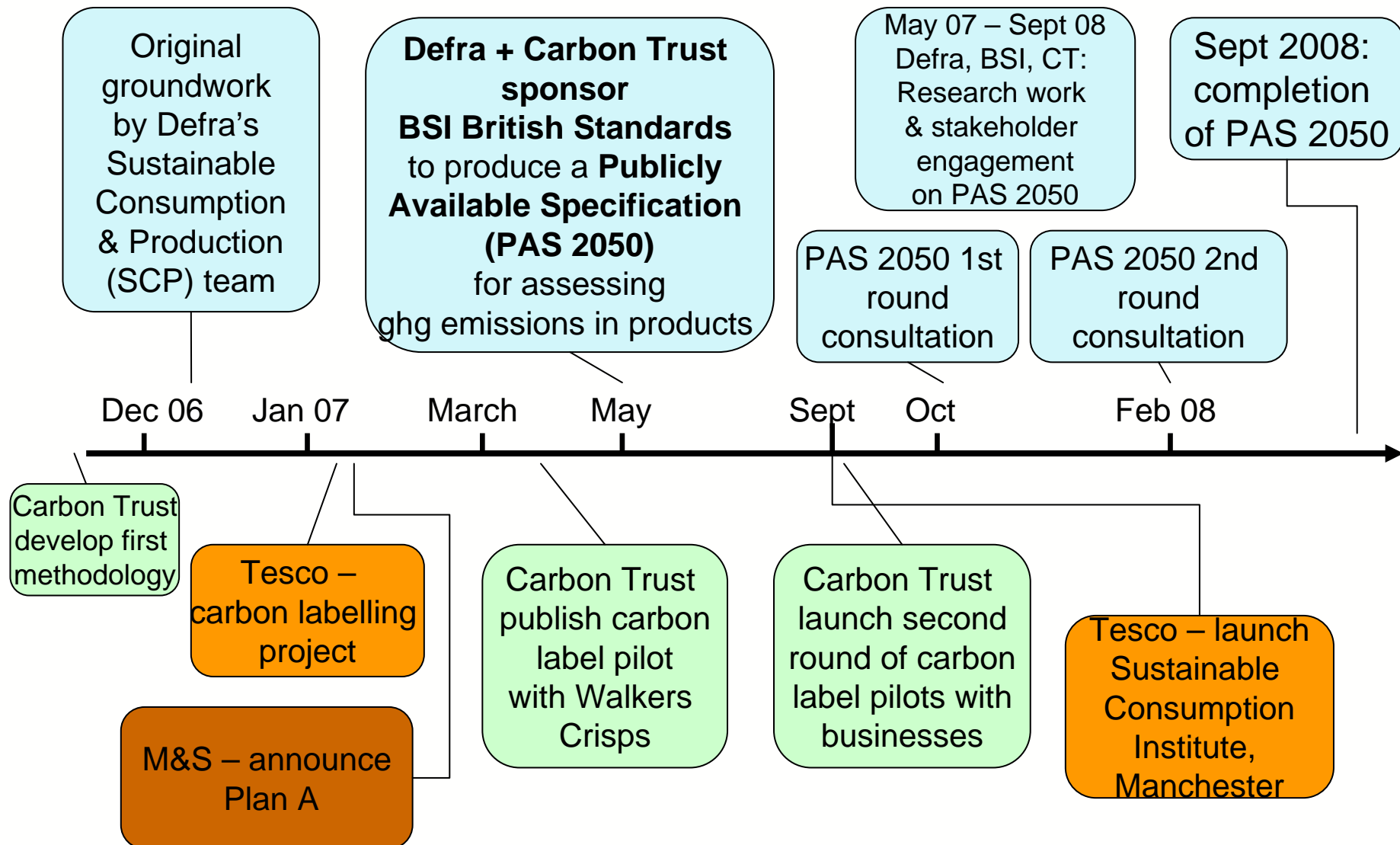


Analysis of carbon emissions across the supply chain by sector

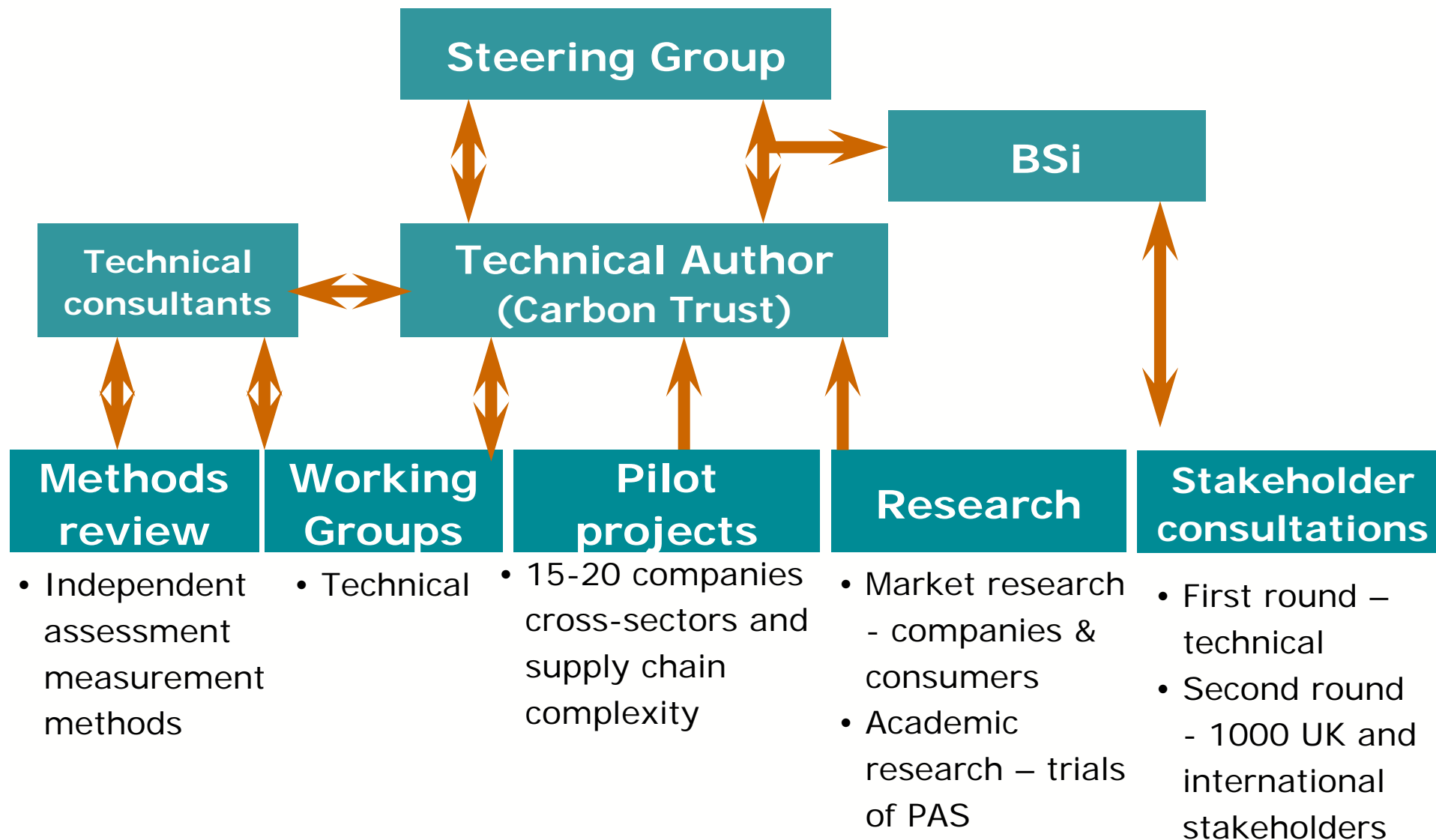


Pilot development of a methodology to measure GHG emissions on products

What happened when?



Structure



Process of developing the PAS



Working groups – expert opinion on topics such as: LCA, Data, Agriculture, Land Use, Waste, Renewables

Carbon Trust pilots – with 20 companies across 100 product ranges

Defra research – 4 academic projects testing the PAS on different phases of the supply chain

Carbon Trust Pilot Projects

Aggregate Industries	Hard landscaping products
Boots	Shampoo
Cadbury Schweppes	Dairy Milk bars
Coca-Cola	A still and a sparkling beverage
The Co-operative Group	Strawberries
Halifax	Halifax Web Saver Account
Innocent	Smoothies
Kimberly-Clark	Andrex and Huggies nappies
Marshalls	Hard landscaping products
Müller Dairy (UK)	Yoghurts
Pepsico	Walkers crisps, Tropicana juice
Scottish & Newcastle	Fosters lager & Bulmer's cider
Tesco	30 products: tomatoes, potatoes, detergents, light bulbs, orange juice
British Sugar plc	Granulated White Sugar
Colors	South African fruit supplied to UK retailers
Continental Clothing Co Ltd	EarthPositive™ apparel
Coors Brewers Ltd	Carling Lager
Danone Waters UK Limited	Evian and Volvic Mineral Water
Mey Selections	All Butter Shortbread, Honey
Morphy Richards	Covering a total of 12 Comfigrip, Turbo Steam and Precise Steam irons

Tesco's carbon labels



- Tesco about to release its first carbon labels (end of April)
- They have been one of the pilot companies working with the Carbon Trust
- Tesco are using the draft PAS method to calculate their carbon footprints
- The label they are using is an 'evolution' of the Carbon Trust label – all Carbon Trust carbon labels will now take this format (a footprint icon, rather than a downward arrow)

Details of Defra research projects

1) 'Scenario Building to Test the PAS' (Defra research project FO0404). *This will trial the draft PAS process on a number of food products during the farm and manufacturing stages, including: beef, lamb, pork, milk, potatoes, and bread wheat.*

2) 'Greenhouse Gas impacts of Food Retailing' (Defra research project FO0405). *This will assess the retail phase of a product's lifecycle, studying the energy expended for lighting, freezing, chilling and heating food in different store types.*

3) 'Understanding the Greenhouse Gas Impacts of Food Preparation and Consumption in the Home' (Defra research project FO0406). *This project will examine the in-use, 'consumer' phase of various products' lifecycles.*

4) 'Comparative life-cycle assessment of food commodities procured for UK consumption through a diversity of supply chains' (Defra research project FO01303), *is looking at the impacts of various imported foods, such as Brazilian beef, New Zealand lamb and Spanish strawberries.*

Consultations:

- **1st round technical consultation** – October 2007
– expert stakeholders in industry, academia and government
- **2nd round consultation** – 18th February to 28th March 2008 – nearly a thousand stakeholders from across industry, academia and government

The PAS will be supported by complementary guidance on reduction claims and communication



Method to assess GHG emissions – the PAS

Standard to measure the GHG emissions embodied in products and services

Reduction framework

Framework to define what constitutes reduction of GHG emissions embodied in products and services, to help companies make credible claims

Communications principles

Communication principles to underpin external communications, to help companies and their stakeholders make informed decisions

Other UK carbon footprinting and labelling initiatives



- **Carbon calculators**, for example:
 - UK Defra Act on CO2 Carbon Calculator
 - Carbon Trust Carbon Calculator for Business
 - Environment Agency Carbon Calculator for Construction
 - Country Land & Business Association – CALM carbon calculator for farmers
- **Carbon Footprinting London Olympics 2012**
 - Best Foot Forward's Footprinter tool
<http://www.footprinter.com/>



Other UK carbon footprinting and labelling initiatives



- **Defra – Sustainable Product and Materials team (SPM) and Food Chain Programme (FCP)** set up during 2007 – to better join up policy on consumption and environmental sustainability
- **10 Product Road maps** launched – see next slide
- **Retailer initiatives: Marks & Spencers, ‘Plan A’; Tesco’s Sustainable Consumption Institute at Manchester; Together.com**, encouraging sustainable buying



Defra's product roadmaps

Priority area	Product
Food and drink	<ul style="list-style-type: none">• Milk• Fish and shellfish
Passenger transport	<ul style="list-style-type: none">• Passenger cars
Buildings (including construction and appliances)	<ul style="list-style-type: none">• TVs• Domestic lighting• Commercial motors• Window systems• WCs• Plasterboard
Clothing and textiles	<ul style="list-style-type: none">• Clothing

Environmental and ethical labelling of products: a welter of information for consumers?



Fuel Economy	Low Carbon Car
CO ₂ emission figure (g/km)	
<100 A	
101-120 B	
121-150 C	
151-185 D	
186-225 E	
226+ F	
226+ G	



Green Flagship products
PHILIPS



The need for a standard method

- The need for clarity and public trust – motivated work to produce a single, agreed standard methodology (PAS 2050)
- The PAS does not mandate a single label, but Carbon Trust working to achieve buy-in to its carbon reduction label
- Methodology widely accepted by industry; label hopes to achieve similar acceptance

Over the coming years we hope to

- Achieve wide buy-in to the PAS within the UK, and see it become a **seed document for similar initiatives in other countries**
- See European collaboration to develop high quality, freely accessible **inventories of LCA / carbon footprinting data** – such as the JRC's ELCD (European Life Cycle Database)
- See the PAS **push changes through supply chains** – highlighting carbon 'hotspots' and encouraging businesses to reduce them
- Develop strategies for communicating lifecycle information to the public – **going beyond just a label** – so that consumers are clear about how they can reduce their personal impacts
- The potential to apply lifecycle footprinting to other problems: what about **embedded water footprinting?**

Further information



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