



# The Carbon Trust: Product Carbon Footprinting & Labelling

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# The Carbon Trust



- Set up by UK government as independent “not-for-profit” company
- We help organisations reduce carbon emissions and develop low carbon technologies



**Insights**



**Solutions**



**Innovations**



**Enterprises**



**Investments**

## Last year we:

- Worked with >5,000 companies
- Identified savings of 4.6 million tCO<sub>2</sub> per year worth £1 billion

# Need To Reduce Emissions



- Need to make dramatic reductions in GHG emissions...  
... and quickly
- But how?
- Where can the biggest reductions be made quickly/cheaply?
- **Need tools to measure and predict reductions**
- Need to use all 'levers' to ensure reductions happen **throughout supply chains**
  - Need each player in that supply chain to make the right decisions
- Need Carbon Footprinting
  - Corporate Carbon Footprinting
  - **Product Carbon Footprinting**

# Why try to understand and reduce carbon footprints?



## Financial benefit:

A low-carbon product is a low energy product is a low-cost product

## Employee engagement:

They know that it is the right thing for you to do

## Customer demand:

Consumers and businesses are starting to ask questions

## Risk management:

Threat of future regulation and supply-chain disruption

# Product Carbon Footprinting



- Product Carbon Footprinting views the impact on climate change from the perspective of:
  - Every product **made**
  - Every product **consumed**
  
- Each **manufacturer** reduces footprint of what they make
- Each **supplier** through supply chain reduces footprint of what they make/grow/mine
- Each **retailer** reduces the footprint of what they sell
- Each **consumer** reduces footprint of what they buy

# What is the footprint of a product?

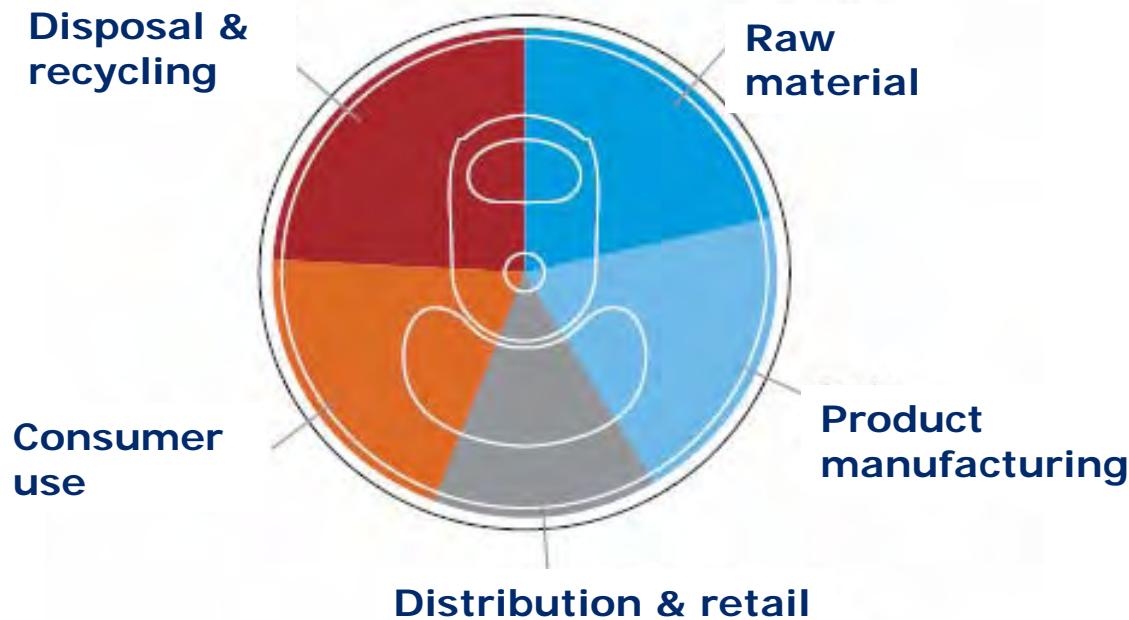


## Supply chain / value chain of a can of cola



- Aluminium Production
- Sugar farming
- Cola production
- Packaging
- Transportation
- Chilled storage
- Refrigeration
- Can collection
- Recycling or disposal

## Total carbon footprint of the can of cola (illustrative)



# What about “transport miles”?



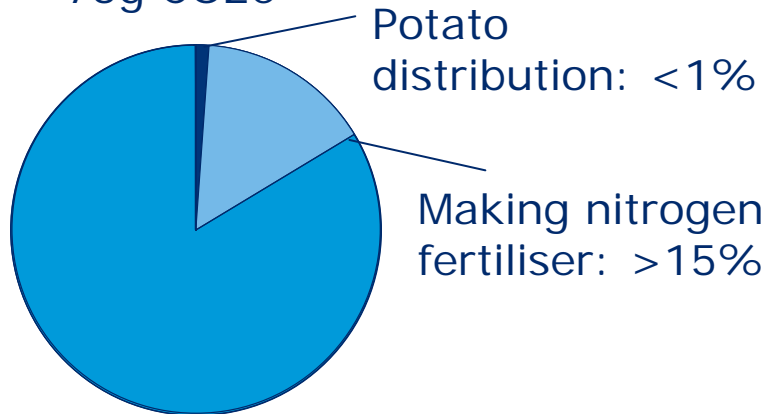
- Cutting transport miles is important
- BUT**
- Transport miles is a poor indicator of the overall impact



## Walkers

34.5g Cheese & Onion

Total = 75g CO<sub>2</sub>e



## Innocent

250ml Mango & Passion Fruit

Total = 294g CO<sub>2</sub>e



# Product Carbon Footprinting



- To have maximum impact it needs:
  - **Common methodology**
    - upon which footprints are calculated
    - and reductions measured/predicted
  - **To produce comparable results**
    - to pass results through supply chains
    - known to have been calculated in the same way
    - publishable
  - **One communications method**
    - to provide comparable information
    - repetitive education program
  - **One certification process**
    - to ensure maximum consistency

# How do you actually do it?

➤ Measure

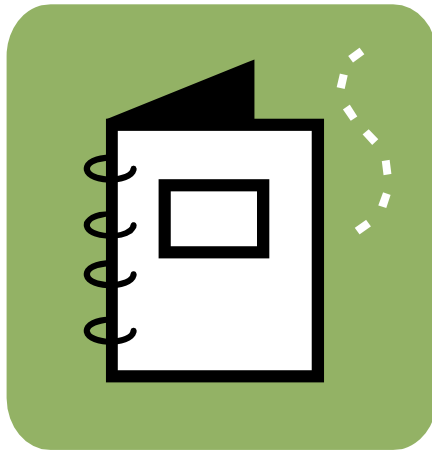
➤ Reduce

➤ Communicate

# Measure: PAS 2050 Standard



## Standards Development



Developed public standards to:

- **Measure;**
  - **Reduce;** and
  - **Communicate**
- the GHG emissions from goods & services

- Worked with BSI British Standards, One World Standards & Arup on the development of standards (PAS 2050)
- Aims to be internationally applicable
- Links to existing (ISO14040-44 & 14064) LCA standards
- Steered by independent steering groups of academics, NGO, government and business
- Consultative process:
  - ~1,000 national & international stakeholders
  - Specialist working groups
  - Pilots with companies across sectors, size, complexity
- Published on October 29<sup>th</sup> 2008

# We are working in partnership with business



Transforming Britain's Landscapes



# How do you actually do it?



➤ Measure

➤ Reduce

➤ Communicate



# Reduce: Case studies of our results



## Boots: Shampoo

- UK's leading pharmacy chain
- 8 shampoos, 4 packaging types and 2 distribution options
- 90% of footprint from consumer use
- Identified 33% savings opportunities in supply chain
- Boots implemented 20%
  - 10%: recycled bottle
  - 10%: distribution upgrade

## Continental Clothing: T-shirts

- B2B wholesaler of clothing for corporate, leisure and promotional wear
- Footprinted supply chain of 7 t-shirts & tops
- Sponsored building of wind farm to power the India factory
- Yielded 90% saving to the B2B carbon footprint

# Food component is amongst the most active sector



## Portfolio

### Milk

- Ca 300 dairies supplying Sainsbury's. Add. work taking place
- Developed guidelines for comparability. Reduce cost, measure progress, gain consistency
- Extending to related products (meat)

### Fruit & Veg

- Major producer going live with B2B. B2C to follow (citrus, grape, stone fruits, top fruits) => fruit juices
- Ad-hoc work done depending on final product assessed (potatoes, strawberries, tomatoes, etc...)

### Others

- Completed project with 2 leading sugar producers, B2B & B2C
- Model for calculating total GHG emissions up to farm-gate from growing and harvesting agricultural crops
- Barley and hop
- Additional work with confidential partners

Strong uptake with agricultural product is a major factor towards the development of a chain of custody

# How do you actually do it?



➤ Measure

➤ Reduce


➤ Communicate



# Communicate: The Carbon Reduction Label



## Customer Communication

Required	Optional
<p><b>working with the Carbon Trust</b></p>  <p><b>100g CO2 per xxxx</b></p>	<p>The carbon footprint of this product is <b>xxxx</b> per (functional unit). This is the total carbon dioxide (CO2) and other greenhouse gases emitted during its life, including production, use and disposal</p>
	<p>This compares to the carbon footprint of <b>xxxx</b> which is <b>xxxx</b> per (functional unit)</p>
<p>We have committed to reduce this carbon footprint</p>	<p>You can reduce this carbon footprint by <b>xxxx</b></p>

- Carbon Reduction Label being used on pack, at PoS, online, ...

- The Carbon Trust will award the Carbon Reduction Label upon verification of the results of the product carbon measurements
- Standards, certification, and label will provide comparability and harmonization of product carbon footprint numbers that companies put into the public domain
- Label is ISEAL Compliant (like FairTrade, MSC, FSC, Organic)
- Options for communications:
  - ‘On-pack’
  - ‘In-store POS’
  - ‘In-brochure’
  - ‘Web-sales’

# Communicate: How the label is being used?



Our launch partners are using the carbon reduction label in different ways to test consumer reaction



Walkers are displaying it front-of-pack with a short description on the back...

...Boots are using it on in-store advertising materials to help them "tell the story"...

**We've reduced the carbon footprint of Botanics shampoo by 20%**

You can help too. Using cooler water to wash your hair cuts CO<sub>2</sub> emissions, reduces your energy bills and is actually better for your hair.



# Communicate: How the label is being used?



...and Innocent are using their website.

This allows them to describe the project and "tell the story" in much more detail



# Communicate: How the label is being used?



➤ Tesco using the label on 20 own-brand products across (*on pack, at POS, education booklet*):

- Orange juice
- Potatoes
- Washing detergents
- Light bulbs



# Potential benefits



- Ability to identify hotspots (materials, energy use, transport, etc.) and drive operational cost savings into the business
- Ability to convey environmental messaging to consumers and drive consumer actions
- Ability to differentiate products from competition and be seen as leaders in the space
- Ability to influence and drive the development of international standards around product carbon footprinting and labelling

# Ultimately, this initiative can drive changes in market behaviour



## Enabling companies:

- To improve their efficiency and influence up the supply chain
- To begin to switch away from carbon intensive products
- To compete fairly on green credentials

## Enabling consumers:

- To understand the carbon footprints of their products
- To differentiate between specific products on the basis of their carbon content





# Making Business Sense of Climate Change

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# Most Americans are concerned about climate change, but don't understand it and are unsure of what actions to take



- 50% of all Americans surveyed indicated that reducing climate change was "extremely important" or "very important" to them individually. Another 22% indicated that it was "important."

*[Climate Change and Consumers: The Challenge Ahead," EcoPinion Survey Report, November 2008, 1,000 U.S. consumers]*

- 38% of U.S. consumers surveyed agree or strongly agree that "global warming will worsen daily life within a lifetime."

*[National Geographic GreenDex 2008: Consumer Choice and the Environment - A Worldwide Tracking Survey, 1,000 U.S. consumers]*

- An HSBC survey of 8 world economies asked respondents to rank the world issues they were most concerned about: "Among other world issues tested, climate change is the joint fourth with ["children's future"] issue in the U.S. - the only economy surveyed in which climate change ranks below number three."

*["HSBC Climate Confidence Index 2007", 1,000 U.S. consumers]*

# Consumers respond to green marketing, but only if price stays the same



- “More than 50% of respondents saw value in retailers putting carbon labels on their food products, with the vast majority willing to encourage the labels only if their costs did not increase. However, more than 60 percent of respondents would not pay more for a produce item that contributes 50% fewer greenhouse gas emissions.”  
*[“Food, Fuel and the Future: Consumer Perceptions of Local Food, Food Safety and Climate Change in the Context of Rising Prices,” 755 U.S. consumers]*
- Participants in both a “convenience store” (182 participants) and “online” (1,051 participants) shopping phases purchased products that were associated with a cause as opposed to generic corporate advertisements.  
*[“Past. Present. Future. The 25th Anniversary of Cause Marketing”, 1,233 U.S. consumers]*
- In the Greendex “goods” category, which measures issues like purchasing environmentally friendly products, willingness to pay for an environmental premium and recycling, U.S. consumers ranked last (44.9 out of 60) out of the 14 countries surveyed.  
*[National Geographic GreenDex 2008: Consumer Choice and the Environment - A Worldwide Tracking Survey, 1,000 U.S. consumers]*

# Consumers value product labels, but require more information



- The "Energy Star" label is extremely important to 31 percent of consumers and is very important to another 37 percent, for a total of 68 percent of consumers indicating that the "Energy Star" label has value in regard to their purchasing decisions.  
*["Banking the Green: Customer Incentives for EE and Renewable," EcoPinion Survey Report, 1,000 U.S. consumers]*
- A 2007 AccountAbility study found that, "56.3% of respondents in the US want companies to provide more product based information at the point of sale."  
*["What Assures Consumers on Climate Change? Switching on Citizen Power," 2,734 U.S. and U.K. consumers]*
- "Large majorities [of consumers] say that it is either important or essential to have eco-labels that describe the environmental impacts caused by product manufacture (73%), use (73%), and disposal (79%). Respondents were most familiar with the USDA organic and Energy Star labels."  
*["The GfK Roper Yale Survey on Environmental Issues, Summer, 2008: Consumer Attitudes Toward Environmentally-Friendly Products and Eco-labeling," 2,010 U.S. consumers]*