

Working with Boots

Product carbon footprinting in practice



As one of the first companies to pilot the original Carbon Trust product carbon footprinting method that became the base for BSI PAS 2050¹ and the Carbon Reduction Label, Boots offers an early example of a 'best practice' footprinting process, the potential to achieve real product-level emissions reductions quickly and the opportunity for product footprints to change consumer behaviour.

¹ BSI Publicly Available Specification (PAS) 2050 is based on the product carbon footprinting method originally developed by the Carbon Trust and trialled with Walkers, Boots and innocent. The Carbon Trust later co-sponsored, along with the UK Department for Environment, Food and Rural Affairs (Defra), the development of PAS 2050 by BSI British Standards.

Company background

Boots is the UK's leading health and beauty retailer, with approximately 2,600 stores and 71,000 employees in the UK and Ireland. The company is a member of Alliance Boots, which was created through the merger of Alliance UniChem Plc and Boots Group Plc.

Boots takes a strategic approach to corporate social responsibility, focusing on four areas that align with its core values: community, environment, marketplace and workplace. The company's environmental priorities are clear: "At a time when climate change is of increasing concern to us all, our highest environmental priority is to improve our carbon management".

Boots has been working extensively with the Carbon Trust since 2003 on its Carbon Management Programme, aimed at reducing direct carbon emissions at the corporate level. For Boots, carbon management activities were aligned with objectives for corporate social responsibility, but also with business goals for cost-efficient energy and transport. Site surveys have been used to identify a list of specific carbon reduction projects. With the help of the Carbon Trust, Boots developed a five-year carbon management strategy to improve its carbon footprint, with initiatives falling into two categories: technical solutions and changing behaviours.

As a result of these initiatives Boots has already reduced carbon emissions by more than 10,000 tonnes and identified cost savings opportunities worth more than £1 million. In 2006, Boots won a 'Big Tick'² from Business in the Community for its approach and achievements in carbon management.

The product footprinting pilot: motivation

Driven by early success at reducing its own carbon footprint, Boots became interested in learning more about the climate impact of its products across their life cycles.

Boots decided to work with the Carbon Trust to measure the carbon footprint of its Botanics range of shampoos. This product line was selected based on the opportunity to:

- Reduce carbon by comparing the carbon footprints and supply chain efficiency across the range – shampoos within the Botanics range use a variety of raw materials and manufacturing processes, allowing for useful comparisons to identify emissions hot-spots and reduction opportunities.
- Engage with and influence the supply chain. Boots controls a significant part of the supply chain for its own-label shampoo line, including product design and manufacturing, distribution and retail; therefore, access to data and subsequent emissions reduction initiatives were made easier.
- Influence consumers and get their feedback – shampoo is a standard, everyday product that allowed Boots and the Carbon Trust to engage a wide cross-section of consumers on product footprinting and labelling.

Given the importance of consumer reactions to the product footprint, Boots was motivated to work with the Carbon Trust to develop and test its Carbon Reduction Label.

² The 'Big Tick' Awards are peer assessed and given in recognition of the positive impact a business has made on society through the use of responsible business practice.

Product footprint assessment and opportunities for reduction

The Boots case offers an early example of an effective and efficient process for calculating product carbon footprints. At the highest level, internal engagement across all the functions of the business and a formal approach to managing the project led to a process that was effective right from the beginning.

Key elements of Boots' approach were the following:

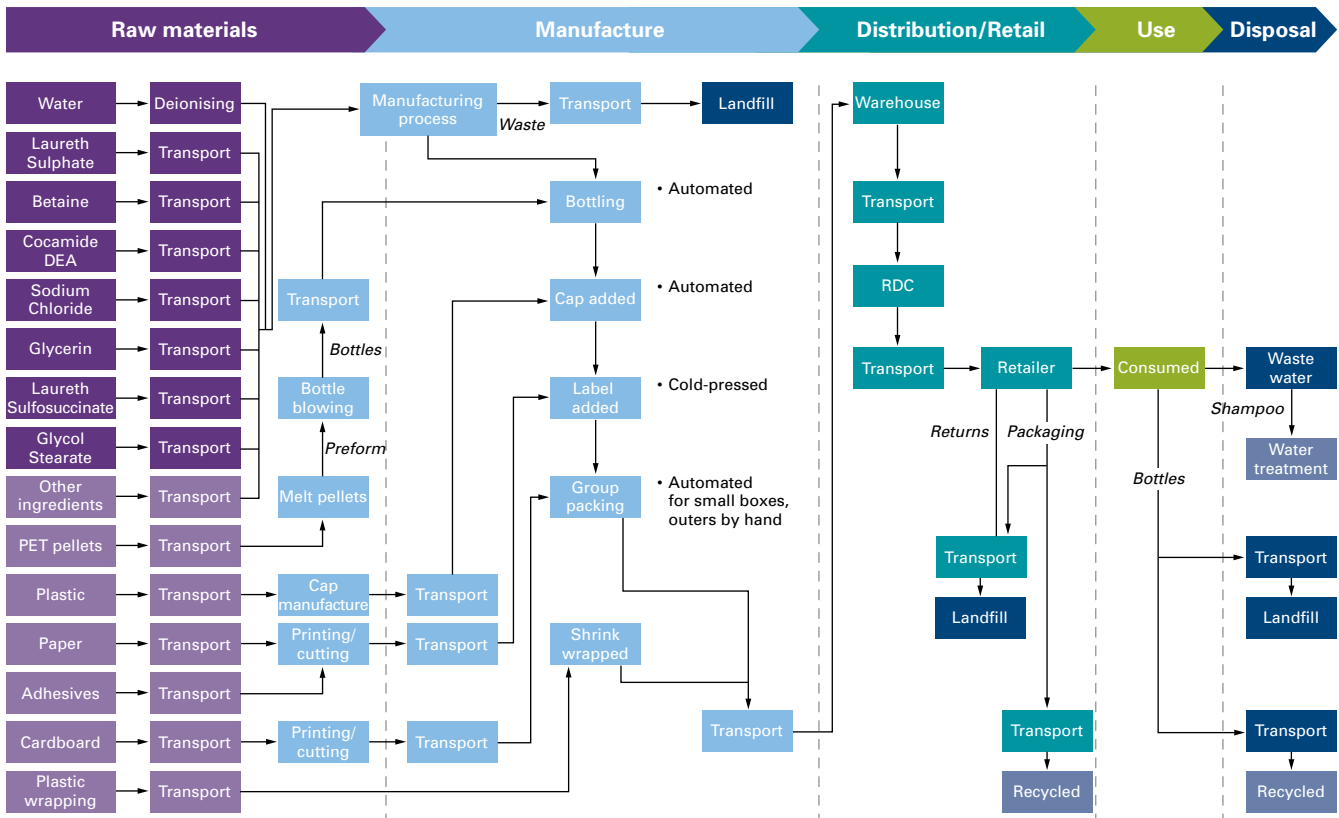
- Identified all individuals across the company that could potentially contribute to the pilot.
- Required that they participate on the project team, but gave everyone a formal time allocation so that their involvement was officially credited (i.e. part of their 'day job'), and other activities were postponed or reduced to compensate.

- Strong leadership from the project manager, who was heavily involved in driving the early data collection process, analysis and identifying/implementing emissions reductions and cost savings after the footprinting was complete.

In addition to these internal processes, Boots invested considerable effort in working with its suppliers to collect the necessary data.

The process map for Boots Botanics shampoo is illustrated in Chart 1 below.

Chart 1 Supply chain process map for Boots Botanics shampoo



- Raw materials analysed
- Disposal of waste
- Raw materials not analysed*
- Non-activity step

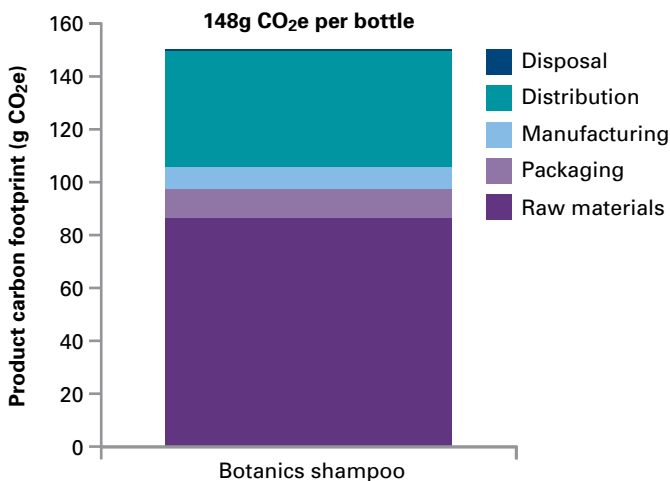
*Not analysed because immaterial impact on overall product footprint.

Boots worked with the Carbon Trust to assess Botanics shampoo's carbon footprint across a range of products and potential scenarios in order to understand fully the potential for different actions to reduce emissions and generate cost savings. Prior to launching the Carbon Reduction Label, Boots completed the implementation of two key actions which had a positive carbon benefit:

- Introducing use of 30% post-consumer recycled plastic in its bottles (10% reduction in overall product carbon footprint).
- Redesigning the logistics network to allow individual products to be shipped direct to stores, removing the need for additional distribution centres and reducing road miles, packaging and inventory levels at stores:
 - Eliminated cardboard and plastic case packaging on 80% of items.
 - Reduced its overall carbon footprint by a further 10%.

After these initiatives were implemented the carbon footprint was re-assessed and resulted in 148g³ – a reduction of 20% over that prior to the improvement actions (Chart 2). This figure was used in the Carbon Reduction Label displayed in stores at point of sale.

Chart 2 Product carbon footprint: Botanics shampoo (excluding Consumer Use phase)

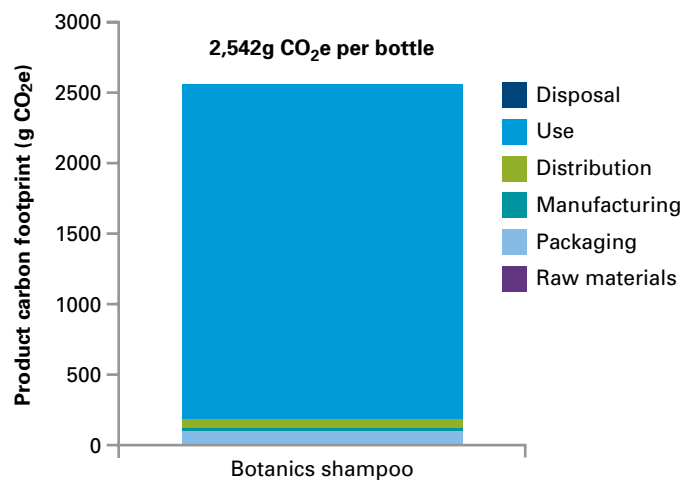


Use phase emissions

Although the original product footprinting method which became the seed document for PAS 2050 did not include the use phase, Boots felt strongly that consumer use should be included. When it is added, use phase emissions actually contribute ~93% of the total footprint (Chart 3).

Boots believes all the phases of a product's journey – including use – should be included in its carbon footprint. This argument has been incorporated into later versions of the product carbon footprinting method, and is now a requirement of PAS 2050. Its reasoning was driven by consumer research⁴ showing “a high level of understanding of the part individuals can play in reducing carbon footprints”. Boots has continued working to understand what this inclusion would mean in terms of the total product footprint and identifying opportunities to empower consumers to reduce their contribution.

Chart 3 Product carbon footprint: Botanics shampoo (including Consumer Use phase)



³ Note that at this time carbon footprint did not include the consumer use phase. For Botanics shampoo, this measurement of its carbon footprint included all materials used, manufacturing, distribution, disposal and recycling, but it excludes emissions from use of the product.

⁴ Base: 1,029 Boots Advantage Card Users, surveyed w/c 7th September 2007.

Communicating the results: using the Carbon Reduction Label

In July 2007, Boots introduced point-of-sale material showing the Label of the Botanics range of shampoos in over 250 stores in the UK. It chose point-of-sale in order to get the Label in front of consumers as quickly as possible, and avoid waiting for the turnaround time required for packaging changes. Also, as a retailer Boots recognised the flexibility provided by point-of-sale rather than on-product Labels – the opportunity to add commentary and explanation around the footprint Label, change the Label in response to customer feedback or questions, as well as the ability to tailor messages to different audiences.

Boots used its carbon footprint banners to provide additional context and information to its consumers, including:

- Reduction achievement – “we’ve reduced the carbon footprint of Botanics shampoo by 20%” to demonstrate its commitment and results.
- Suggestions for consumers to show what they can do to reduce emissions.
- The actual carbon footprint and commitment to continue reducing, summarised by the Carbon Reduction Label⁵.

Chart 4 Point-of-sale display of Carbon Reduction Label



Achievements

Boots constantly looks to improve its business performance and was already investigating bottle recycling and changes to its distribution network. The project with the Carbon Trust fast-tracked these efforts by showing the carbon benefit possible and helped to secure the funding and management approval to implement. In aggregate, they yielded a 20% reduction to the Botanics product level footprint. Should Boots roll out these initiatives and the other opportunities identified in the project across all of their products, this will deliver a 4% reduction in Boots’ overall corporate carbon footprint.

Andrew Jenkins, Boots’ Sustainable Development Manager says: “Working with the Carbon Trust has enabled Boots to measure and subsequently reduce the carbon footprint of everyday products such as shampoo by as much as 20 per cent... Providing this information and advice to consumers on reducing personal carbon footprints will raise public awareness about the part we can all play in combating climate change and protecting the environment”.

Further opportunities have been identified to reduce emissions in the manufacturing process through more efficient water and energy use. Boots is now doing further feasibility studies to prepare for implementation.

In addition to this measurable impact on carbon emissions, Boots achieved a positive consumer reaction to labelling their products using the Carbon Reduction Label. Some key findings from Boots’ market research⁶ include:

- 82% of consumers believe they, as individuals, can help to reduce carbon footprints.
- 65% are positive that a product label indicating its suppliers are working to reduce carbon would make them more likely to buy the product (only 11% would not be more likely to buy).
- 72% of consumers surveyed believe showing the actual number of grams of carbon is important.

⁵ Boots trialled the first version of the Carbon Trust Carbon Reduction Label, which was subsequently modified following consumer and business feedback.

⁶ Research conducted using optional questionnaire on card readers in Boots stores across the UK; survey was open for 2 weeks beginning 7 September; n = 1,029 respondents

The way forward

Boots is now in a position to develop a number of products with lower carbon footprints thanks to the insights gained from the Botanics footprinting exercise.

Boots is also committed to developing new products based on sustainable development principles. As well as focusing on reducing its carbon footprint, Boots is engaged in a number of other initiatives focused on the 'product journey' concept, including the continued roll-out of its logistics network redesign to eliminate cardboard and plastic sent to stores on 80% of products.

Boots has also found that its product carbon footprinting exercise has improved supply chain co-operation on issues such as logistics and supplier energy efficiency. An increasing number of suppliers are collaborating with Boots to improve the sustainability of the products and services they all provide.



Key lessons from the Boots experience

As one of the first pilot partners, Boots provided valuable insights across several aspects of product carbon footprinting, including improvements to the method, examples of best practice process management and success in reducing emissions.

- Product carbon footprinting method – Boots demonstrated the importance of adding use phase emissions to the calculation, both because it can be an essential component of the product's footprint (estimated to be 93% in the case of Botanics shampoos), and because this information helps consumers understand how their own behaviour can make a difference.
- 'Best practice' footprinting process – the Boots project highlights the benefits of engaging an internal team across all relevant functions, and providing them with sufficient time and leadership to contribute to the analysis and to drive subsequent reductions opportunities.
- Successfully reduced product carbon footprint – Boots managed to reduce the carbon emissions of its Botanics shampoo range by 20%. Using information gathered during the analysis it prioritised two initiatives – using recycled plastic and transforming its distribution and logistics process – each contributing a 10% reduction in emissions.

This example represents a clear success story in how carbon footprinting can lead to real and significant emissions reduction opportunities.

The Carbon Trust was set up by Government in 2001 as a private company.

Our mission is to accelerate the move to a low carbon economy by working with organisations to reduce carbon emissions and develop commercial low carbon technologies.

We do this through five complementary business areas:

Insights – explains the opportunities surrounding climate change

Solutions – delivers carbon reduction solutions

Innovations – develops low carbon technologies

Enterprises – creates low carbon businesses

Investments – finances clean energy businesses.

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ACT ON CO₂ is the Government's initiative to help individuals understand and reduce their carbon footprint. Visit <http://actonco2.direct.gov.uk> for more information.

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