

## **Boots – Carbon management, Environmental logistics and product stewardship**

### **Company background**

Boots Group plc is the UK's leading health and beauty retailer and manufacturer, and has a fast-growing international consumer healthcare business. The company has grown to over 68,000 staff and 1,400 stores, with sales of over £5 billion.

At the heart of the business is Boots The Chemists, a major high street retailer with stores in the UK and Irish Republic providing health, beauty, toiletry, photography, opticians and dental care products. Outside the UK, Boots Healthcare International markets its consumer healthcare brands in over 130 countries and Boots Retail International operates retail units selling a range of Boots branded and exclusive products. These businesses are supported by a product development and manufacturing operation that launches around 1,500 new products a year.

Half of its products are manufactured at Boots headquarters site in Beeston, Nottingham. The 300-acre Beeston site contains manufacturing, warehousing and logistics, and office space, including a number of Grade 1 and 2 listed buildings.

Boots has a long history of good environmental practice:

<b>Year</b>	<b>Activity</b>
1930	Boots invests in recycling machinery
1972	Appointment of first senior environment manager
1989	Amongst industry leaders in product CFC reduction
1991	Environmental aims policy statement issued
1993	Environmental awareness auditing of suppliers
1999	Published first external environmental report
2003	Achieved Premier League status in BITC Environment Index

Today, the company's environmental focus is primarily on chemicals, energy, waste and recycling, transport, sustainable products and biodiversity.

### **Carbon management**

Boots has had energy efficiency high on its agenda for many years. Although it is not an energy intensive company, rising fuel prices, energy taxes and the compliance and monitoring demands of increasing legislation mean that there is value in managing energy closely despite only accounting for around 0.4% of turnover.

Its Beeston site and 1,500 stores and stock rooms use around £20 million of energy per year from sources that produce over 250,000 tonnes of CO<sub>2</sub>. Around two-thirds of its CO<sub>2</sub> emissions stem from energy use in buildings, 90% of that from stores. The use of transport fuels for delivery vehicles is responsible for just over 10% of its emissions.

Boots stores, factories and warehouses have been designed with energy efficiency in mind, and it has had a dedicated energy management team since the mid-1990s. Its focus now is on reducing its carbon footprint and climate change impact from the

Beeston combined heat and power (CHP) system and site energy use, store electricity and gas use, and delivery transport emissions.

### **On-site energy generation**

Boots has generated electricity on the Beeston site since the 1920s using efficient CHP. Its existing energy centre was built in 1996, at a cost of £16 million, in order to replace the ageing power plant and meet higher environmental standards. It supplies the Beeston site with electricity, steam, medium-pressure hot water and compressed air. While the old station required a staff of 43 to manage, operate and maintain, the new energy centre employs only 13 people but generates twice the electricity. The company's new CHP plant saves over 20,000 tonnes of CO<sub>2</sub>.

The system's operation is optimised in order to maintain the best economics and efficiency. For example, it is not always economical for Boots to run all three turbines and export electricity. Moreover, in order to maintain its CHPQA status (Quality Assured CHP which certifies 'good quality' energy) the system's quality index must be kept above 100. By maintaining CHPQA status, Boots receive an exemption of £650,000 from the Climate Change Levy.

From January 2005, Boots has been part of the EU Emissions Trading Scheme (EUETS) and has had a carbon cap below which it must stay, buying carbon credits if it exceeds the limit or selling any surplus credits. At year-end, Boots must report its carbon emissions which in turn are verified by an accredited body before submission to the Environment Agency. Hence, good energy management on site is essential – now and into the future. In 2008, EUETS Phase II will see other greenhouse gases brought into the scheme.

### **Store energy management**

Boots has worked closely with The Carbon Trust and conducted site surveys and staff interviews to identify key opportunities to reduce carbon emissions and costs in its stores. These include:

- Building energy efficiency into design processes. This has been demonstrated by the specification of a new Building Management System, with energy efficiency at its heart;
- Building energy efficiency into the procurement process by drawing up an energy efficiency code of practice for inclusion in all requests for quotations from potential suppliers. Energy has also been built into procurement guidance notes;
- Developing energy efficiency advice for the Boots maintenance department;
- Reducing energy waste through a new monitoring, targeting and reporting approach, based upon good quality utility data collected directly from meters;
- Adopting a range of good housekeeping measures within stores, particularly focusing upon controls and Building Management Systems;
- Introducing a staff training and awareness programme.

Boots aim is to integrate carbon management activities throughout the company's operations by engaging all employees in understanding good environmental management and making it part of their routine in order to make carbon management 'business as usual'

Through a pilot project with Carbon Trust, Boots has identified opportunities for a further 10,000 tonnes of carbon dioxide savings and cost reductions of £1.35 million, and a plan is now in place to implement these. Low-cost opportunities with quick paybacks provide around half of the savings, with the other half requiring investment in order to implement.

## **Product stewardship**

Boots develops and manufactures a large proportion of its branded products, such as No 7, Botanics and Clearasil. Applying sustainability to product design and development presents a growing opportunity to drive real improvements for the consumer, company and the environment.

## **Product bank**

Work to understand the sustainable development issues affecting Boots products has been conducted for some time. Results are now being channelled through a new Product Bank team. This has been set up to understand future requirements, evaluate new technologies and develop them to a point ready for use in Boots products.

A four-phase process is used for technology development:

- Phase 1 – Technology research: Covers the generation of ideas to prove the principle behind a new solution
- Phase 2 – Technology development: Addresses the marketability of the idea
- Phase 3 – Product bank: Covers the manufacturability of the idea
- Phase 4 – New product development: The idea is developed into the retail product

Sustainability issues are addressed at each stage of the process, with Boots recognising the need for product and packaging solutions to meet society's needs, aligned to the company's responsible business strategy. The development of the product bank, a knowledge management system, is of particular significance in integrating social, environmental and economic criteria into Boots new product development processes.

The product bank has three key functions:

- Ensuring that products meet the company's core quality standards
- Acting as a gateway for sustainable innovation
- Helping to replicate innovations in other related product offerings.

Boots regards sustainable development as a catalyst for innovation, helping to create improved products that are unique to Boots and combine improved performance with customer convenience. Processes are now being introduced that will ensure new products undergo a comprehensive risk assessment that includes all aspects of sustainability. This is linked to a product sustainability assessment that identifies areas for improvement.

In the area of sustainable product design this has led to partnerships with the Department of Design and Technology at Loughborough University and Sheffield Hallam University through the Faraday Packaging partnership.

The commercial opportunities of sustainability-focused product development are now being realised in the company. For example, the redesign of the packaging for the Medisure monitored dosage system for tablets yielded a material reduction of up to 35%, saving around 34 tonnes of packaging material per year.

Overcoming perceived barriers to sustainable development is of paramount importance in aiding this process. At Boots, a programme to embed the company's responsible business strategy is now underway to ensure sustainability is core to new product development.

### **Chemicals**

The impact of chemicals on human health and the environment has long been a matter of concern for manufacturers and retailers in relation to product formulation, development and manufacture. Whilst the number of chemicals currently having their safety questioned appears to be increasing significantly, the situation itself is not new. Manufacturers of brands have for many years had to face the challenge of replacing a number of suspect chemicals, such as PCBs and CFCs.

Traditional methods of determining safety, such as risk assessment, are also being challenged and a more precautionary approach to the use of chemicals is being advocated. Retailers and brand owners must continue to place safety at the top of their agenda whilst still meeting and exceeding customer's high expectations of their products.

Whilst it might be beneficial to a company's reputation to make bold statements about excluding certain chemicals from their inventory, the reality is that a programme of successful replacement can be a long and resource-intensive process. Boots believes that there needs to be a strong scientific base underpinning the strategy for managing risky chemicals. Otherwise, there is a real danger of continually responding to events in a 'knee-jerk' manner, without a clear understanding of the implications to the customer, the environment or the business.

When dealing with such a complex subject, there are often widely differing interpretations as to the relevance and significance of much of the research reported. Retailers have traditionally found themselves in the middle – on the one hand getting reassurance from the chemical industry over the latest chemical, whilst on the other having its safety questioned and calls for immediate action to ban the offending chemical from pressure groups. But it is the brand owner who is ultimately responsible for the safety of the product.

Boots has established a Chemicals Working Group (CWG) that is responsible for interpreting the vast amount of information and making decisions on the use of chemicals on behalf of the Boots Group. The CWG is a cross-functional team of experts comprised of specialists in a number of disciplines including chemistry, microbiology and environment sciences.

The CWG has:

- Identified the chemicals issue as one of sustainable development. This will enable Boots to manage the issue sensibly whilst taking account of uncertainty.

- Conducted a stakeholder engagement programme managed independently by the Environment Council. This was intended to ensure that its policy is relevant and takes into account the views of its stakeholders.
- Consulted with the supply chain, which it views as a key differentiator for effective delivery of its policy.
- Recognised that Boots does not have all the answers and many of the important decisions are outside of its direct control. In these cases, the CWG develops appropriate strategic alliances.

## **Environmental logistics**

Boots warehouse complex in Beeston supplies 50% of the total lines stocked by the company. The warehouse covers an area of 37,000 m<sup>2</sup> – about 9 football pitches.

## **Warehousing waste management**

Boots aims to prevent the generation of waste whenever possible. Where this is unavoidable, it applies the waste management hierarchy of reduce, reuse, recover, recycle and dispose.

As long ago as the 1930s, Boots began a bottle salvage operation. A bottle washing machine was installed, and medicine and dispensary bottles were sorted, washed and returned to the warehouse for reuse. The first reusable wooden transit box was introduced by Boots the Chemist in the 1950s for store deliveries. More recently, Boots the Chemist was awarded a major commendation from Business Commitment to the Environment in 1992 for its 'reusable sandwich trays' initiative.

In 2003/4, stores and logistics operations generated 39,041 tonnes of waste. 34% of this waste was recycled by Boots and an estimated 16% was made available for shopping centre recycling schemes – resulting in a total rate of recycling of 50%. The materials recycled include cardboard, stretch wrap, bubble wrap, film pots, paper, glass, single-use cameras, printer cartridges, metal, wood pallets, confidential waste and sandwich trays. The remaining 50% is made up of waste from staff facilities (which is not recyclable), show material and old or damaged shop fittings made from multiple materials which are difficult to recycle unless dismantled in-store.

When commenting on performance, Boots quotes its 'total waste' (waste disposed plus waste recycled). The company aims to reduce 'total waste' as this is a more transparent measure of its environmental impact, rather than focusing on a decrease in disposal or an increase in recycling. Therefore, the best outcome is for total waste, waste disposed and waste recycled all to reduce.

Boots target for 2005/6 is to reduce like-for-like single trip packaging by 10% (a three-year target set in 2003). By 2007/8 it aims to reduce like-for-like waste for disposal by 20%.

Recycling currently saves Boots around £1.2 million per year. For example, the Strepils manufacturing area has seen a reduction in process waste of approximately one-third (around 200 tonnes) with equivalent cost savings of around £220,000 per year through improved process consistency and control. This same process has reduced the Strepils quality control failure rate.

## **Supplier verification**

Customers' trust of the Boots brand is essential to the company's success. Issues in its supply chain, such as poor labour standards or practices detrimental to the environment, will impact on the relationship with its customers. Therefore, it is essential that Boots manage these issues with robust processes to maintain and enhance trust and prevent brand erosion.

Since May 2003, Boots has been a member of the Ethical Trading Initiative (ETI), which promotes best practice amongst labour codes worldwide. ETI provides the company with a direct link to its stakeholders, as many of the trade unions and NGOs operate at the coalface.

Boots Supplier Verification Programme works hand in hand with key business requirements to create growth and produce value. Through a defined, robust process based on the principles of continuous development, Boots assesses its suppliers against standards set within the company's code of conduct, which includes environmental criteria. All external Boots brand suppliers will be fully assessed by April 2006. The company has already identified over 2500 actions against its code of conduct since the programme began.

A supply chain with a higher rate of compliance decreases the likelihood of issues affecting the Boots brand and, as a result, financial indicators such as share price. It also reduces the risk of prosecution for suppliers, which minimises reputation and sourcing risks for Boots. Furthermore, the process provides opportunities to build on supplier relationships, for example reducing transit packaging and moving towards multi-trip packaging.

Many companies have been through the Supplier Verification Programme and been signposted to other initiatives which help them gain financially. One such initiative is the Envirowise Retail Therapy Supply Chain Partnership. Envirowise is a government-funded organisation which aims to improve the environmental and financial performance of SMEs. Through Retail Therapy, Boots provides specific environmental guidance and information to suppliers in order to help them improve their own environmental performance.

Boots gain from having compliant, more efficient suppliers which can help meet the company's targets as a retailer - giving customers what they want when they want it. Several suppliers have reported increased efficiency in their operations by reviewing their processes. The involvement of workers in the process means they become more empowered, strengthening the link between worker and management.