

## **Request for Evidence by House of Lords Science & Technology Select Committee, Sub-Committee 1 (Waste Reduction) – BSI British Standards Response**

### **British Standards Institution – Background**

BSI British Standards is the UK's independent National Standards Body, incorporated by Royal Charter, responsible for preparing British Standards and related publications. It presents the UK view on standards in Europe (to CEN and CENELEC) and internationally (to ISO and IEC).

Standardization is beneficial in a number of ways, including encouraging trade, reducing costs and enabling organizations to comply with regulation. BSI British Standards has an established tradition in managing complex stakeholder relationships, achieving consensus in these areas, and helping the stakeholders to achieve their desired outcomes.

The purpose of this response is to help the Sub-committee consider how standardization can be used to help meet the goals of waste reduction. The response is divided into a number of categories, each one relating to the categories of questions originally asked. Standardization presents stakeholders with a number of opportunities and an accessible route towards reducing the amount of waste produced.

### **Response**

#### ***Business framework***

An important step in encouraging organizations to change their behaviour is putting into place an appropriate standardization framework. ISO 14001, a standard aimed at helping organizations put into place an effective Environmental Management System has now been in existence for over ten years. ISO 14001 is an internationally agreed approach to managing all aspects of a business that relate to its impact on the environment, and the implementation of this has enabled companies and organizations to reduce this impact, whilst, as a direct result, reducing costs.

We have evidence of one organization which was operating over a number of sites situated within a number of different local authorities and which decided to implement ISO 14001 across all its sites. Each local authority had its own system for dealing with waste. As a result of the implementation of ISO 14001, the organization was able to manage and reduce its waste uniformly across all the different boroughs, implementing a single waste management solution without relying on the individual local authorities; this also had the effect of reducing local authority business rates. In addition, other organizations that have implemented ISO 14001 have reported a reduction in utility bills, as they

have characterized and measured how they consume resources and thus have been able to identify where they can make efficiency savings.

A major barrier to the successful implementation of a waste reduction strategy for organizations with multiple sites is the fact that different local authorities have different ways of dealing with this issue. The introduction of a standardized waste management process that could be adopted by all boroughs would enable larger scale programmes to be put into place that are manageable and less complex than the present scenario.

**Recommendation 1: Government should encourage the promotion and adoption of ISO 14001 as it promotes many outcomes that are deemed desirable, in a way that is transparent and transferable across different sectors and parts of the supply chain. Further to this, additional behaviours/methods to promote waste reduction should also be identified with a view to forming the basis for further standardized schemes.**

### ***Government procurement policy***

Government at all levels is a significant procurer of goods and services, and any change in practice in this area is likely to have a considerable influence on how providers manage their businesses and processes. Government has been making statements encouraging more efficient procurement for some time. The publication of Sir Peter Gershon's 2004 report "*Releasing Resources to the Front Line*" led to the Treasury setting a target for £21.4bn worth of efficiency savings by 2007/08.

To achieve this, public sector procurement professionals need a range of tools. Standards can be used in an unambiguous way to judge products and business processes that all concerned can understand. Many standards are already available, but where a gap is perceived, any organization can work with BSI to produce a standard designed specifically to meet its requirements. They remove the need to start from scratch on each specification and can be built easily into contracts. Standards can help in overcoming differences in policies that arise when people engage in similar work but are isolated from each other in some way.

A public procurement strategy built upon the effective and targeted use of standards could not only help the public sector meet its efficiency saving targets, but it could be used to help minimize waste. This would involve including in the standard a requirement for dealing with waste in such a way that works towards meeting the targets for reducing the amount produced. If such a significant procurer as the public sector could require its suppliers to conform to an agreed standard, this would encourage the promulgation of good practice in this area and thus meet the required outcomes.

**Recommendation 2: Government should develop and promote a public procurement strategy that enables public bodies to increase efficiency**

**whilst reducing waste through the effective and targeted use of standards.**

Much procurement, however, is supplied by overseas providers, and many UK producers supply abroad. It would be possible to agree internationally agreed procurement strategies in the waste reduction area through the links BSI has with CEN and ISO, thus linking in the activities with other countries.

### ***Better design and the use of materials***

Designers need to be able to make the appropriate choice of material in minimizing waste by selecting one that can, for example, be recycled. To make this choice in an informed way, they need to know if the material in question has the necessary physical properties and can be manipulated to perform the necessary function. This kind of information is not always readily available, although it is often part of a standard known as a specification. Where the information is yet to be available, well established standardization processes can be used to come up with a relevant specification that is of use to the designer. BSI can arrange this information in a number of innovative formats to present this kind of information usefully to interested parties, such as designers. Material specification data can also be combined with information relating to relevant regulation to provide the designer with a comprehensive and useful guide. It is imperative that the appropriate information is placed with the key stakeholders if designers are to select materials appropriately and reduce waste.

An important goal will be to aid the designer in establishing the energy content of the proposed material before manufacture, as well as during the product lifecycle and disposal. Whilst it is not possible to follow a piece of raw material and know its energy history precisely, it is possible to estimate these quantities and the best methods for doing this can be established using the standardization route. The first steps towards this are already being taken by BSI, in the form of a Publicly Available Specification (PAS) on measuring the embodied greenhouse gas emissions in products and services. This PAS is still being developed, but it is hoped that widespread adoption of the methods described within it will encourage people to measure and reduce the energy content of their materials.

Standards that currently exist for Life Cycle Assessment include ISO 14040 and ISO 14044. These standards provide a guide to the applications and the limitations of Life Cycle Assessment to a range of users and stakeholders, including those with a limited knowledge of the area. BSI is already engaged with the Waste & Resources Action Programme (WRAP), and other key stakeholders, to produce specifications and codes of practice in the management of waste in a number of circumstances. These include collection of glass and plastics, wood and paper recycling, and the reuse of materials such as tyre bales. The widespread adoption of such practices, and their further development, would aid the UK in reducing the amount of waste it produces.

**Recommendation 3: Government and BSI should collaborate to identify where new standardization efforts are required. This information to then be used to develop guides for designers to enable them to select an appropriate material, or range of materials, for the required application, and to keep energy use to a minimum.**

### ***Consumer Behaviour***

BSI has a long established practice of involving consumer and public interest experts (both individuals and representatives of relevant organizations) through its Consumer & Public Interest (CPI) Network. This forum allows the consumer and public interest view to be reflected in the formulation of standards, and those who belong to this network often participate actively in the standards-writing process, including participating in standards committees and working groups. These members of the CPI Network often also have relevant technical expertise in the areas of standardization in which BSI is active, for example, there are a number of experts on sustainability.

In September 2006, BSI held a workshop for the Network entitled “Improving Sustainability for Consumers – What Role for Standards?” The purpose of this event was to establish the potential for new standards to help deliver a more sustainable future. The CPI representatives at the meeting came up with a number of suggestions where standards could be used to help members of the public make an informed choice in promoting sustainable behaviour. These came under the following broad categories:

- Consumer Behaviour
- Energy Consumption
- Building Standards.

Some of the suggestions were relevant to the area of waste reduction, and this work can be explored further to develop good practice in informing the public.

Some relevant standards in this area already exist in the form of ISO 14020, ISO 14021, ISO 14024 and ISO 14025. These deal with environmental declarations and labels and are the first step towards ensuring the consumer can make an informed choice based on environmental information. While a number of presently used symbols are recognized by consumers, public understanding of what they mean is poor (see July 2007 report by the Better Regulation Executive: *Warning: Too much information can harm*).

**Recommendation 4: Government and BSI to collaborate in promoting initiatives to assist consumers in making informed choices, through proper understanding of environmental labelling and other schemes.**

### ***Skills***

An important part of changing behaviour will require the adoption of certain standards. Successful adoption of standards often requires an appropriately

skilled workforce to ensure their implementation. If the UK is to embed within itself the correct knowledge and behaviour to be able to reduce the amount of waste produced, then significant parts of the workforce need to be skilled in the knowledge that is contained within the standards and methods described above. This kind of training can take on a number of guises and BSI is actively involved in many of them. Consideration of the transfer of the knowledge contained within the standardization efforts should not be left until after the documents are produced. Changes in behaviour, and a reduction in waste, will be seen much sooner, training needs and suitable methods are defined at a reasonably early stage.

**Recommendation 5: In addition to the standardization requirements identified above, Government and BSI should consult suitable stakeholders about the most useful training regime for implementing desired changes. This would inform the format in which the information is presented, making the adoption of the changes more effective.**