

Submission to the House of Lords Science and Technology Committee Enquiry into Waste Reduction

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1. There has been a remorseless increase in waste generation in the United Kingdom over many years. Improved waste management in recent years has resulted in more recycling and energy recovery and less waste sent to landfill. Although this has may have lessened the environmental impact of waste, it is important to recognise that the creation of waste always has a negative environmental impact even if the waste is well managed because of the transportation and processing involved in waste management.
2. The origin of waste in mass consumption is too rarely recognised in public policy, which has historically focussed on the management of waste rather than its reduction. At a national level, governments have always been wary of making the connection, perhaps because potential constraints upon consumption have implications for macroeconomic policy and challenge the notion of consumer sovereignty. Meanwhile, although local authorities may have a statutory responsibility for waste collection or disposal, their responsibility for shaping people's consumption patterns is somewhat obscure. Many assume a role in promoting local or regional economic development, perhaps in the context of encouraging industrial or retail developments, but few have taken significant action to influence consumption patterns within their communities.
3. The amount of waste generated by households is influenced by the life-span of items purchased. This submission focuses on products traditionally defined as consumer durables, the life-spans of which are often sub-optimal either from a consumer or environmental perspective. For example, the E-SCOPE survey, published in 2000, found that around one-half of consumers feel that, in general, household appliances do not last as long as they would like. One reason may be concern at the sheer volume of waste created through contemporary consumerism. Data published by Biffa a decade ago indicated that around 9 million tonnes of consumer durables were being discarded annually: 2.6mt of cars and car parts, 2mt of furniture and carpets, 1mt of clothing and footwear, 1mt of electrical items and 2.2mt of other durables; today's figures will be even higher.
4. In order to address product life-spans it may be helpful to distinguish different aspects of consumer durables that raise concern. First, there are products in general, whether classified as durables (such as vehicles, furniture, large appliances and floor coverings) or semi-durables (such as small appliances, clothing and footwear), for which average life-spans could be greater. Second, there are consumer durables that are increasingly subject to fashion (such as spectacles, watches and small appliances). Third, there are low quality products which are either sold cheaply or given away (such as those sold in discount stores, novelty products and free gifts) that often have short life-spans. Finally, there are products that could be designed to last but which are also sold as disposables (such as nappies, razors, biro's and single use cameras) for reasons which may not be justifiable in the context of excessive waste.
5. Many factors have led to our throwaway culture. Neither governments, manufacturers and retailers, nor consumers, are immune from blame. Since Vance Packard's influential *The Waste Makers*, first published in the early 1960s, planned obsolescence in various forms - especially technological or psychological - has been attributed to producers. At the same time, however, consumers often choose to discard functional products: our research has indicated that many consumers do not carefully maintain possessions, whether footwear, appliances or furniture.

6. Designers have increasingly taken an interest in product life-spans and are a key community in finding solutions to excessive waste. One theme that some have recently highlighted is product attachment and replacement, on the basis that the causes of obsolescence are as much behavioural as technical. In the Netherlands, where the Eternally Yours network has brought together designers concerned about product life-spans, design researchers such as Nicole van Nes and Ruth Mugge have explored how designers could respond to the tendency of users to replace functional products. Meanwhile in Britain a recent book by Jonathan Chapman has argued the case for 'emotionally durable design'.
7. Despite these hopeful signs, many designers have yet to embrace the sustainable design agenda. The possibility that several key raw materials will not be available beyond 2050, recently highlighted in research by Thomas Graedel published by the US Academy of Sciences, has received scant attention. The 'cradle to cradle' thinking of William McDonough and Michael Braungart is still beyond the mainstream. The 'design for durability' concept remains underdeveloped and underutilised.
8. Moreover, designers often consider themselves relatively powerless, subservient to marketing directors driven by commercial pressure to supply according to prevailing market conditions rather than within an alternative, more sustainable, economic development model. Hence many products are not designed to be readily repaired. Indeed much marketing aims deliberately at accelerating the product replacement cycle. By contrast, our research has found that product information that could enable consumers to select particular models according to their intended life-span is often unavailable.
9. The policy, regulatory and legal framework has led to some significant advances in industry towards more sustainable types of product, notably today's more energy-efficient household appliances, whereas trends in life-spans for most types of consumer durable appear at best to suggest stability and, in some cases, decline.
10. In order to achieve a reduction in waste, measures need to be taken by governments, at all levels, to promote increased product life-spans. These need to address both the intrinsic durability of products and how long they are maintained and kept in use by consumers. Influences upon product life-spans vary by type of product and a range of measures will be needed.
11. The proposals summarised below, if developed and implemented, could help to transform our throwaway culture:

a. Regulation and enforcement:

Minimum standards relating to product life-spans could be introduced. Alternatively, statutory life-span labels could be required on certain products as proposed by Lord Beaumont during a debate on the *Sale and Supply of Goods Bill* in the House of Lords in 1994. The operation of the warranties market and terms under typical repair contracts should be reviewed to ensure that these markets are operating efficiently and consumers are not being disadvantaged.

b. Economic instruments:

Ecological tax reform, involving increased taxes on raw materials and waste and reduced taxes on labour, would help to improve resource productivity in the economy and could influence the price of repair work in relation to replacement. Discussion should take place with European Union partners concerning the possibility of introducing zero rated VAT on repair work, or variable rates of VAT according to the length of manufacturers' product guarantee.

c. *Voluntary approaches:*

Improved training and continuing professional development is needed to promote understanding of 'design for durability'. Business managers should incorporate optimal product life-spans within the corporate social responsibility agenda. Voluntary life-span labelling should be encouraged and life-span criteria included within existing environmental labelling schemes. Companies could use longer guarantees to signify products designed for increased durability and operate by codes of conduct to assure consumers about the long term availability and fair pricing of spare parts.

12. Action in some of these areas is already being taken in Scotland. The Scottish Executive and Scottish Environmental Protection Agency (SEPA) undertook a consultation, *Preventing Household Waste in Scotland*, in 2006. A review of responses identified support for undertaking work on the waste profiles of products with other government departments across the UK. In terms of product life-spans specifically, a need was defined for providing better information to consumers and providing more support to companies. There were also suggestions for changes in marketing to encourage consumers to move away from a 'disposable' lifestyle to one based on repair and recycling. For disposable products specifically, respondents supported the introduction of producer responsibility legislation for disposable products. One of twenty 'action points' in the subsequent *Household Waste Prevention Action Plan*, published in February 2007, was that the Scottish Waste Awareness Group should "work with consumer protection bodies, retailers and others to provide better information to consumers on the expected lifespan of key household products, product guarantees and availability of spare parts."
13. The European Union's *Thematic Strategy on the Prevention and Recycling of Waste* in 2005 did not address product life-spans directly but recognised that "By applying the life-cycle approach, priorities can be identified more easily and policies can be targeted more effectively so that the maximum benefit for the environment is achieved relative to the effort expended." The UK Government's *Waste Strategy for 2007* recognised that "Producers and retailers can reduce waste impacts through designing and marketing products that use less material and avoid the use of harmful substances, last longer and are easy to disassemble and recycle." Evidently public authorities recognise that any attempt to prevent and thereby reduce waste must address the issue of product life-spans. Appropriate policies are now needed to translate such aspirations into reality.

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Footnote: The submission is largely based on work undertaken by staff and members of the Network on Product Life-Spans, which was established in 2004 by the EPSRC (Engineering and Physical Sciences Research Council) to promote knowledge and understanding in this field. Although our work focuses on households, many similar issues apply in a commercial or public sector context.