

Memorandum by Envirowise

Introduction

This document sets out the experience and views of the managing contractors for the Envirowise programme. We have restricted our evidence to issues where we have relevant experience that we feel is key.

Envirowise is a UK wide programme designed to improve the efficiency of resource use, reduce waste production and reduce costs. It is primarily focussed on helping business by providing information, guidance and advice that allows businesses to implement improved practices. In Scotland and Wales, Envirowise also can also offer support to Public Sector organisations.

Envirowise is open to all sizes of business and all sectors (except agriculture). It produces advice through a helpline, web site, events, publications and site visits. Last year, Envirowise had more than 550,000 unique visits to the web site, distributed about 85,000 publications and gave specific advice to over 5,500 callers to the helpline.

Companies using Envirowise to help with environmental improvements saved £297 million in 2006. These cost reductions came from, amongst other things, using 84,000 tonnes less raw material and 17 million m³ less water and reducing solid waste by almost 550,000.

Fundamental issues

In much of the work of Envirowise, changing behaviour is key to improving the efficiency of resource use and the consequent reduction of waste. It is our view that few people understand how to use the 'waste hierarchy' within their approaches to decision-making. In addition, very few people in business seem to appreciate the need to reduce resource use or that their purchasing decisions have an effect on the use of resources. Even people who do want to reduce resource use may not have information on how to do it.

The scale of waste production is a function of the amount of resource available to be wasted. Therefore, reducing resource use will reduce the scope of waste production, although it may not lead directly to reduced waste. We have found that when organisations gain an increased understanding of resource use, this usually leads to lower waste production. There is a body of evidence showing that, for example, measuring the use of water leads almost immediately to changes in behaviour and more efficient use of water.

We believe that sustainable approaches to waste reduction require a change in attitude. In particular, there needs to be a greater appreciation that the efficient use of resources is not only desirable but that the decisions of individuals can make important contributions to improving the efficiency of resource use.

In changing attitudes and behaviours over waste, we feel it is essential to move the debate from 'outputs' to 'inputs'. In energy and water, people and Government talk about the resource being used – i.e. the input - but when it comes to materials, the terminology most often used is waste – the output. We would urge the sub-committee to consider the benefits of changing attitudes to help people to focus on resource use rather than simply waste reduction.

Better design and the use of materials

- What role can better design and materials play in minimising the creation of waste? Are there any barriers to how knowledge in this area can best be translated and applied?

Better design can play a very important role in the sustained reduction of waste. It is estimated that over 80% of a product's environmental impact across its lifespan is established or 'built in' at the design stage. This impact comes from the types and quantities of materials used, the efficiency of the product during the 'in-use' phase and end of life issues.

Envirowise works with product manufacturers and designers to help them appreciate the resource implications of their designs and has found a willingness to consider these issues. It appears that resource efficiency and waste has not, historically, been a priority issue for most designers. Designers often work to specifications that do not include any mention of resource use but rather focus on appearance and functionality.

- What factors influence the use of materials? In what way do considerations of sustainability feature in the selection of most commonly used materials?

On the factors influencing the use of materials, we would point out that perceptions of customer expectations are often very important. However, we see less evidence that producer perceptions of customer requirements are tested. For example, in paper use, producers may think customers want a bright, white, glossy finish when the customer might view the content of a document as more important.

In housing, we have anecdotal evidence that customer expectations are given considerable weight in making decisions on overall design. For example, one house builder has pointed out that a modern, thermally efficient house should not need a central heating system but most customers expect such a system. If attitudes were different, the resources used to make, install, run and dispose of the central heating system could be avoided.

We have seen increasing consideration of sustainability in the selection of some materials. Printers and print buyers are increasingly considering the use of recycled paper and, more recently, the carbon footprint of their product. The glass and glazing industry takes the use of materials very seriously and are keen to balance the benefits of improved thermal efficiency with the impact of production.

Manufacturers and designers usually think in terms of improving products rather than improving the delivery of the outcome that their customers require. This tends to lead to a focus which requires the use of materials. There are some examples of business models that reduce material use by focussing on the outcome the customers require. For example, online bookstores have helped meet customers' needs for books with less reliance on buildings and large amounts of stock. Similarly, a modern mp3 music player uses far less material than the stereo systems of 30 years ago but often produce higher quality sound.

- To what extent do product designers and engineers take into account the availability and the end of life impacts of raw materials?

We find that the end of life impacts of materials was not previously high on the agenda for product designers and engineers. However some designers are now

starting to consider these issues, particularly for consumer products. This change in approach has been partially due to legislation and partially due to changes in consumer attitudes towards the amount of packaging waste created.

- What impact does the development of new materials have on design? How much interaction is there between material scientists and designers?

New materials and new material development can offer more sustainable solutions for product designers, for example, the use of biodegradable packaging materials as opposed to EPS. However, most designers would not be aware of the types of new materials that are being developed. Many would not have links to material scientists or the academic institutions leading in this area.

- Can better-designed products offset the increase in consumption?

Improvements in product design can almost certainly lead to reductions in material consumption, for example, through using lighter materials.

Business framework

- Does the current policy, regulatory and legal framework support and incentivise the development of better, more sustainable products and processes? How is the framework communicated to businesses and what is the level of awareness and understanding among businesses?

As implied by our responses above, we feel that much of the policy framework focuses on the management of waste once it has been produced, rather than its reduction at source. The most recent waste strategies in Scotland, England and Wales have increased their focus on resource use but they remain primarily waste policies.

There appears to be limited incentive for the development of better, more sustainable products and processes. However, there have been successful stimulations of market improvements in the energy area through the labelling of energy efficient white goods. With sufficiently strong implementation, the analogous scheme for cars should also be successful.

An increasing focus on energy efficiency in the built environment has helped to drive the construction industry to focus on the energy their buildings will use. However, embedded energy and overall sustainability in construction are only considered by a few leading companies.

Recent legislation on producer responsibility has started to change attitudes in certain areas. For example, the Packaging Regulations have increased consideration of design for recycling and overall packaging use. The RoHS and WEEE Directives have also played a role. However, the implementation of regulations has not, in our opinion, always achieved the optimal outcome. For example, the aim of the Packaging Directive overall was to minimise packaging and increase recycling of what remained. However, when the regulations first came into effect, almost all of the calls that our helpline received were on how to recycle because compliance with the regulations required meeting recovery and recycling targets, net reduction. Over the last nine years, Envirowise have been able to stimulate more interest in optimising (which usually means reducing) packaging but this does not directly help compliance.

The Essential Requirements Regulations for packaging do help to reduce unnecessary packaging. However, they do not appear to be well known or regularly enforced. Increasing the knowledge of these regulations and the consistency of their enforcement could reduce unnecessary costs for industry and reduce material use.

We are concerned that the current implementation of the WEEE directive will also lead to a focus on how to meet recovery and recycling targets, rather than how to make the most sustainable use of the materials and components being recycled. Companies that design for more efficient recovery of components do not appear to benefit from doing so as they must pay the same recovery and recycling costs as everyone else. We know that officials in BERR are aware of this issue and hope to be able to improve implementation in future.

- How central is sustainable design to business thinking? What initiatives are in place to encourage this and are they meeting business needs?

We have seen few examples where sustainable design is central to business thinking. Envirowise runs design workshops and on-site visits with designers to help address this issue but the uptake of these services is small in comparison to the scope for businesses to benefit.

- What other measures can promote a focus on waste reduction among businesses?

We believe that a change in attitude to resource use is essential to reduce waste in the longer term. Efficient use of resources needs to be a part of every business decision in the way that cost currently is. In this regard, a concerted and longer term marketing campaign to raise the profile of resource efficiency as a business issue would be worthwhile. Government needs to provide a clear, consistent message that efficient use of resources is important.

We feel that there is currently too much focus on waste. The waste hierarchy is a sensible approach to reducing and managing waste but could equally be applied to resources. The majority of environmental impact from most resources comes from their production and use, rather than their disposal. If waste policy were refocused on reducing material intensity, it could lead to a more efficient economy.

Government policy

- What is and should be the role of Government in addressing the issue of waste reduction?

We see a role for Government in both helping to define and set the messages about resource efficiency and in educating suppliers. Government procurement is key to the latter role. Actively encouraging resource efficiency and waste reduction in all Government procurement would help to set the norm for business.

