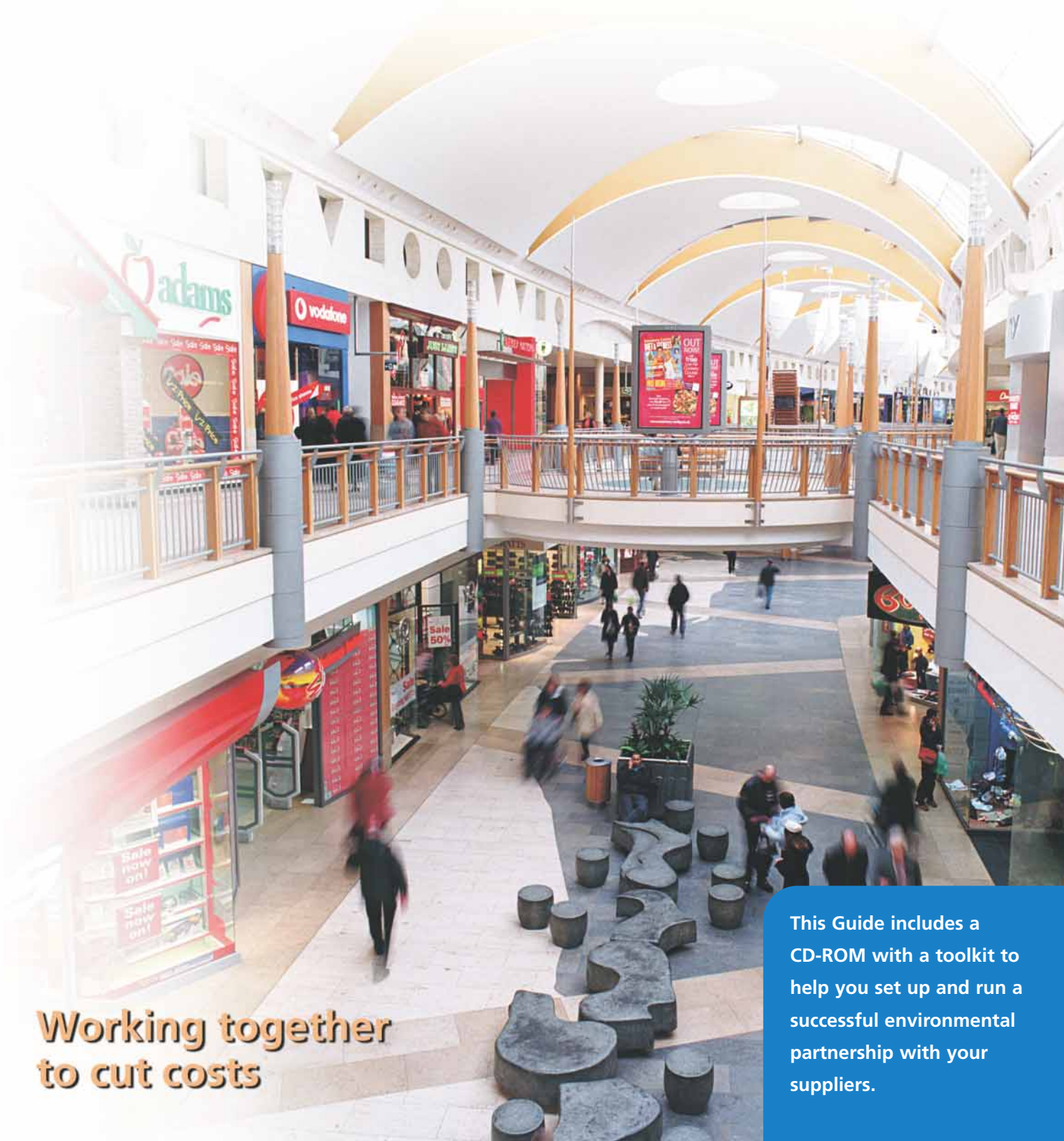



*Practical tools to help retailers
manage a supply chain partnership*



**Working together
to cut costs**

This Guide includes a CD-ROM with a toolkit to help you set up and run a successful environmental partnership with your suppliers.



*Practical tools to help retailers
manage a supply chain partnership*

This Good Practice Guide was produced by
Envirowise

Prepared with assistance from:

Enviromentor Ltd

Thank you to Bluewater for permission to use the front cover photograph.

Summary

All retailers produce waste - even efficient ones. This Good Practice Guide will help your business to work with others in your supply chain to start reducing waste and saving money. It will also help you to identify and prioritise opportunities to reduce waste and to develop a systematic action plan to save at least £1 000/year for every employee within your business.

The Guide contains everything you need to set up and manage an effective retail supply chain partnership. As a retailer, the Guide asks you to take a different look at the way you operate. A partnership approach allows all parties within the supply chain to share opportunities for improvement, but acknowledges the need for respect and confidentiality. Both you and your suppliers can achieve cost savings and other benefits from sharing experiences and taking a closer look at how you interact with others. The key factor in the success of the approach will be to view the supply chain relationship based on partnership and shared learning.

The Guide contains information to support a toolkit provided on the CD-ROM in the back pocket of the Guide. This toolkit provides everything you need to:

- run a half-day awareness-raising event for your suppliers;
- initiate a successful partnership approach to reduce waste and costs throughout your supply chain.

The toolkit includes an agenda and a slide presentation with speakers' notes provided as a Microsoft® PowerPoint® 97 presentation. The agenda and the other tools are provided as Microsoft® Word files. The slide presentation, notes and other material can be used in full or in part, or customised to your own needs.

The agenda and slide presentation allocate time to three practical exercises, which you can complete with your suppliers. These exercises will help to break down any barriers, encourage the sharing of ideas and experiences, identify the key focus for your own supply chain partnership and give each supplier the opportunity to prepare an individual action plan.

The Guide encourages suppliers to make use of the free support available from Envirowise and Action Energy, formerly known as the Energy Efficiency Best Practice Programme. The toolkit contains forms to request a free on-site waste review (known as a *FastTrack* visit) from Envirowise and to order relevant publications from both Envirowise and Action Energy.

Contents

Section	Page
1 Introduction	1
1.1 Why develop a partnership with suppliers?	2
1.2 Purpose of this Guide	2
1.3 Support from Envirowise	3
2 The drivers and benefits of supply chain partnerships	4
2.1 Drivers for retail supply chain partnerships	4
2.2 Benefits of retail supply chain partnerships	5
3 Getting started	8
3.1 The partnership approach	8
3.2 Obtain senior management commitment	9
3.3 Appoint a project champion	9
3.4 Set up your team	10
3.5 Set goals	10
3.6 Identify key environmental issues	11
3.7 Get suppliers on-board	11
3.8 Technical support for suppliers	13
3.9 Set targets	17
3.10 Get results	17
4 Partnership initiatives	19
4.1 A programme for continual improvement	19
4.2 Waste minimisation	19
4.3 Water minimisation	21
4.4 Packaging optimisation	21
4.5 Cleaner design	24
4.6 Energy management	25
4.7 Transport logistics	26
5 What next?	27
5.1 Develop an action plan	27
5.2 Useful free publications	29
5.3 Useful contacts	31
5.4 Contents of the toolkit	33
Appendix Tips to help you improve your environmental performance	35

With over 200 000 retailers operating in the UK, reducing costs and overheads are key to staying in business in a competitive marketplace. For many retailers, the cost of waste is often hidden. It may surprise you to learn that it is typically 4% of turnover and, in some businesses, it can be as high as 10%. Implementing waste minimisation measures can reduce these costs by a quarter - often with little or no investment. Across the retail sector as a whole, this could result in cost savings of £2.25 billion/year.

Quick savings can be made through better waste management (eg recycling cardboard), but the real savings are made by preventing waste from occurring in the first place. To do this effectively as a retailer, you will need to liaise and work in partnership with your suppliers, distributors and store managers.

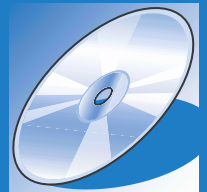
This Good Practice Guide is designed to help retailers create and manage an effective environmental supply chain partnership. Such a partnership involves sharing experiences and ideas through meetings, site visits, workshops, collaborative and in-house projects, discussions and networking. Successful environmental supply chain partnerships are based on trust, commitment and sharing between equal partners. The Guide will also help you to identify and prioritise opportunities to reduce waste and develop a systematic action plan to save at least £1 000/year for every employee within your business.

The CD-ROM in the back pocket of the Guide contains a **toolkit** to help you set up and manage an effective supply chain partnership. It includes:

- a slide presentation with speakers' notes that can be used at a half-day awareness-raising event to launch the partnership (see section 3.7.1), together with guidance for facilitators and handout material for delegates;
- a form to request a free *FastTrack* visit from an Envirowise consultant (see section 3.8.1);
- a form to order free publications from the Environment and Energy Helpline (see section 5.2);
- a waste account worksheet to help suppliers start measuring and recording waste amounts and costs.

The slide presentation is provided as a Microsoft® PowerPoint® 97 file and the other tools as Microsoft® Word files. The templates provided on the CD-ROM can be modified as you wish and can be used either in full or in part.

The Guide is aimed at store managers, environmental managers and purchasing managers of large and medium-sized retailers and department stores to help them develop their role as a mentor to provide guidance, advice and assistance to their suppliers. It is complemented by *Cost and environmental benefits from supply chain partnerships: supplier guide* (GG318)¹, which is designed to be given to key suppliers to help them achieve results by responding to the initiative in a positive and effective way. *Easy money: a self-help guide for small retailers* (GG365)¹ is an information pack covering all areas of resource efficiency designed specifically for small retailers.



¹ Available free of charge through the Environment and Energy Helpline on freephone 0800 585794 or via the Envirowise website (www.envirowise.gov.uk).

1.1 Why develop a partnership with suppliers?

Many retailers have previously relied on an ad hoc approach to environmental issues and have tended to consider issues such as health and safety, waste and the inefficient use of raw materials, water and energy in isolation. However, adopting a more integrated approach to managing all these concerns has many advantages.

Working with your suppliers can help you to achieve cost savings by reducing waste. Setting up a supply chain partnership will provide your business with a framework to control and improve environmental performance. Working with your suppliers will also help you to identify opportunities to reduce waste and lower your operating costs.

In the retail sector, setting up a supply chain partnership can reduce the costs associated with:

- packaging;
- waste disposal;
- water use;
- heating and lighting;
- warehousing;
- product returns;
- damaged goods;
- transport.

1.2 Purpose of this Guide

The retail sector generates a wide variety of waste material. Reducing waste is a low-cost path to higher profits and improved environmental performance.

This Good Practice Guide contains a toolkit and supporting information to help you explain to colleagues and suppliers how to achieve cost and environmental benefits through a partnership approach to waste minimisation.

The Guide:

- describes the benefits and drivers for developing a retail supply chain partnership;
- takes you through the steps involved in developing a successful supply chain partnership²;
- suggests environmental initiatives that will lead to cost savings and improved performance;
- gives examples of how retailers and their suppliers have achieved cost savings and other benefits by adopting a supply chain partnership to reduce waste and the inefficient use of resources;
- describes the free support available from Envirowise and Action Energy, formerly known as the Energy Efficiency Best Practice Programme, to help retailers set up and operate a successful supply chain partnership;
- provides a list of general tips to help companies start improving their environmental performance (see the appendix).

² Described in more detail in *Cost and environmental benefits from supply chain partnerships: supplier guide* (GG318).

The approach described in the Guide is based on the implementation of a systematic programme to reduce environmental impact throughout the supply chain by considering improvements in the following key areas:

- waste minimisation;
- water use;
- product and packaging design;
- packaging management;
- energy management;
- transport logistics.

1.3 Support from Envirowise

A wealth of free material is available from Envirowise with practical advice on how to save money through minimising waste (see section 5.2). All Envirowise publications are available free of charge through the Environment and Energy Helpline on freephone 0800 585794 or via the Envirowise website (www.envirowise.gov.uk).

For companies new to waste minimisation, Envirowise recommends:

- *Cutting costs by reducing waste: a self-help guide for growing businesses (GG38C);*
- *Finding hidden profit - 200 tips for reducing waste (EN30);*
- *Unpack those hidden savings - 120 tips on reducing packaging use and costs (EN250);*
- *WasteWise: increased profits at your fingertips (IT313).*

Envirowise offers free advice to all UK companies. Companies employing fewer than 250 people can benefit from a *FastTrack* visit - a free, on-site waste review from an independent Envirowise consultant (see section 3.8.1). Contact the Environment and Energy Helpline for access to these services and for details of free best practice seminars and practical workshops on waste minimisation organised by Envirowise.

For free advice on any aspect of waste minimisation, contact the Environment and Energy Helpline on freephone 0800 585794 or visit the Envirowise website (www.envirowise.gov.uk).



The drivers and benefits of supply chain partnerships

2.1 Drivers for retail supply chain partnerships

Retailers are under increasing pressure to act in an environmentally responsible way and to ensure that their business is not exposed to environmental risk. This is primarily within their own operations, but is also increasingly through interaction with their suppliers. There are a number of reasons why retailers decide to take a closer look at the environmental performance of their suppliers.

These economic, legal, environmental and market incentives include:

■ **Environmental liabilities.** Key drivers include the year-on-year increase in waste disposal costs and regulation. For example, the EU landfill directive has implications for the disposal of some packaging wastes to landfill and will inevitably increase the cost of disposal. The packaging waste regulations, the forthcoming waste electrical and electronic equipment (WEEE) directive and the possible introduction of an Integrated Product Policy (IPP) by the EU also affect the retail sector.

There are also pressures from financial institutions, stakeholders and the public to improve the sustainability of retail operations. Customers and pressure groups are demanding more sustainable products and practices.

■ **Government policy.** More packaging waste will have to be recycled and recovered in the UK to:

- meet the recycling targets set out in the Waste Strategies for England and Wales, Scotland and Northern Ireland;
- help the UK meet EU targets;
- help local authorities meet their statutory targets for recycling.

■ **Climate Change Levy.** This tax, which was introduced in April 2001, applies to all UK businesses and public sector organisations. It includes retailers that pay utility bills for energy use. The levy, which is part of the Government's climate change programme, will increase energy costs in most companies by 5 - 10%. The revenue will be used to promote energy efficiency and new technologies to reduce greenhouse gas emissions in the UK. The rate charged on each kWh of energy supplied varies between fuels and will rise in line with inflation. For more information about the Climate Change Levy, contact the Department for Environment, Food and Rural Affairs (DEFRA) or HM Customs and Excise (see Section 5.3).

■ **Environmental management standards.** ISO 14001 and EMAS³ are seen as valuable management tools to encourage companies to make savings, improve efficiency and demonstrate their commitment to managing their environmental impacts. Many major retailers are also using supply chain pressure to ensure that all their suppliers embody the principles of continual improvement and develop an environmental management system (EMS) designed to reduce waste, reduce raw material use, reduce utility consumption and employ renewable resources.

■ **Retail sustainability strategy.** The Government is working with trade associations and other representative bodies to develop and implement sustainable development strategies for different sectors. For example, the British Retail Consortium (BRC) is currently consulting on the development of key environmental performance indicators for the retail sector as part of its sustainability strategy. For more information, contact the BRC (www.brc.org.uk) or visit the Government's sustainable development website (www.sustainable-development.gov.uk).

³ Eco-Management and Audit Scheme.

2.2 Benefits of retail supply chain partnerships

Companies can save money by working together - Envirowise and Action Energy endorse this approach.

Working together will bring many benefits to the retail supply chain, eg:

- more control over energy, water and waste costs;
- a more efficient way of doing business with your customers and suppliers;
- cheaper and easier compliance with environmental regulations;
- a competitive edge to maintaining a sustainable business.

The industry examples in Table 1 overleaf and throughout the Guide demonstrate the clear financial, environmental and market benefits from working together in a retail supply chain to reduce waste and resource use.

Table 1 Examples of cost and other benefits from reducing waste in the supply chain

Name of company	Type of company	Measures	Benefits
Comet plc	Nationwide chain selling electrical and electronic goods	<ul style="list-style-type: none"> Standardised, simplified and minimised packaging use Benchmarked use of packaging materials by suppliers 	<ul style="list-style-type: none"> Minimised packaging use Maximised recycling of packaging materials
Distribution Resources Limited (DRL)	Returnable transit equipment rental specialists	<ul style="list-style-type: none"> Design of modular tote boxes for small clothing items 	<ul style="list-style-type: none"> Reduced landfill charges Reduced labour effort to handle waste Less damage to garments
Marks & Spencer plc	Nationwide clothing chain (also sells food, toiletries and household items)	<ul style="list-style-type: none"> Stock holding eliminated Outer packaging stripped off by third party Unwanted coat hangers returned for recycling Unsold food donated to local charities 	<ul style="list-style-type: none"> Cost savings because stock now stored at a cost of £108/m² compared to £1 615/m² Waste reduced by 2 000 tonnes/year - £1 million donated to charity since 1998 Food waste reduced by 1 200 tonnes/year - 250 000 carrier bags worth of usable food
Marks & Spencer plc and Tibbett & Britten Group	Nationwide clothing chain and logistics and supply chain management company	<ul style="list-style-type: none"> Transit packaging used for groups of products (instead of packing them individually) Cardboard and plastic waste sent for recycling Most outer packaging eliminated; replaced by re-usable plastic tote boxes and nylon zipper bags 	<ul style="list-style-type: none"> Reduced packaging waste sent for landfill each year by 78% Improved garment handling
Sainsbury's and Tibbett & Britten Group	Nationwide supermarket chain and logistics and supply chain management company	<ul style="list-style-type: none"> Chilled products supplied in re-usable plastic crates tracked using 'smart' tag system; tags allow product identification and monitoring of crate pool 	<ul style="list-style-type: none"> Wastage avoided through quicker and more efficient distribution to customers

Table 1 Examples of cost and other benefits from reducing waste in the supply chain (continued)

Name of company	Type of company	Measures	Benefits
Tesco and Montagne Jeunesse	Nationwide supermarket chain and supplier of natural toiletries	<ul style="list-style-type: none"> ■ Tesco introduced system using plastic returnable crates (these make at least 100 return trips instead of a single journey) 	<ul style="list-style-type: none"> ■ Minimised amount of waste cardboard arriving at Tesco stores ■ Tesco saves approximately 46 000 tonnes/year of cardboard
The Boots Company	Nationwide retailing chain of cosmetics, pharmacy products and toiletries	<ul style="list-style-type: none"> ■ Reduction in packaging use 	<ul style="list-style-type: none"> ■ Plastic use reduced by approximately 200 tonnes/year ■ Cardboard use reduced by approximately 270 tonnes/year ■ Estimated savings of over £125 000/year ■ Reduced packaging waste obligation

Getting started

Each retailer will operate slightly differently, but the typical format of an environmental supply chain partnership is based on a four-step approach, ie:

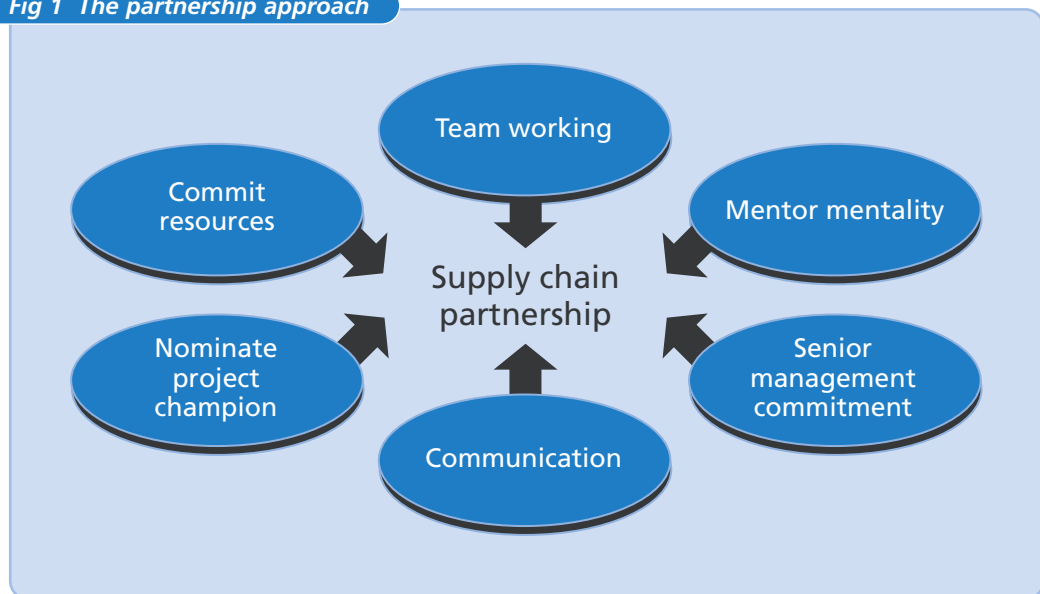
- frame the partnership;
- assemble the team and the tools;
- obtain results;
- strive for continual improvement.

Cost and environmental benefits from supply chain partnerships: mentor guide (GG317) describes in detail the steps involved in setting up and running a supply chain partnership. *Cost and environmental benefits from supply chain partnerships: supplier guide* (GG318) is a complementary guide designed specifically for suppliers. Both publications are available free of charge through the Environment and Energy Helpline on freephone 0800 585794 or via the Envirowise website (www.envirowise.gov.uk).

3.1 The partnership approach

Successful supply chain partnerships follow the approach outlined in Fig 1.

Fig 1 The partnership approach



To achieve success, you need to:

- obtain support and commitment from senior management;
- appoint a project champion to organise and facilitate;
- set up a team to assist;
- identify the key environmental issues, eg packaging use, waste minimisation and energy efficiency;
- set goals for improvement, eg reduce packaging waste by 50%;
- communicate effectively with staff at all levels within your company.

You will need to raise awareness about the partnership and identify ways to motivate others to participate. The challenge is to remove any barriers to progress and to create the right atmosphere and working relationships to release ideas, creativity and energy to solve common problems.

3.2 Obtain senior management commitment

Senior management commitment is vital to ensure sufficient time and resources are available to implement your supply chain partnership and to achieve continual environmental improvement.

Commitment is needed to ensure that all staff within your business work together in a positive manner to achieve maximum benefits from the initiative. It is also important to get **all employees involved**. Senior management endorsement is an essential component of any plan to gain the full co-operation and support from all staff.

Explain to senior managers that worthwhile savings can be made and that these will help to overcome some of the barriers commonly experienced in an organisation. Start by estimating the potential cost savings your company could make. In a recent survey, 80% of UK companies believed that improving environmental efficiency led to real benefits. Benefits mentioned by respondents included reducing costs (26%), increasing or safeguarding sales (14%), and improving the working environment with corresponding higher productivity and lower staff turnover (14%).

Deciding priorities, setting targets for improvements and recording performance are core elements of the supply chain partnership. Regular reviews will help you to quantify the savings made and maintain the momentum for implementing your ideas. However, it is important to involve senior managers in providing feedback to staff and in the reporting process.

A similar commitment from the senior management of your key suppliers is also vital and you will need to convince them that the partnership will bring mutual benefits.

3.3 Appoint a project champion

An effective environmental supply chain partnership usually includes workshops, site visits and on-site reviews (see section 3.8). To achieve results, it is important that these are productive and proactive. This requires someone with the authority and respect to lead meetings and to act as a focal point for the initiative. It is, therefore, usual to appoint a company champion to co-ordinate and facilitate the planning and implementation of the initiative.

Appointing a project champion will help to:

- ensure smooth organisation of the supply chain initiative;
- unite and target the teams within the mentor and supplier companies;
- capitalise on individual strengths;
- identify barriers and actions to overcome them;
- motivate suppliers to participate in the initiative.

The champion's role is to co-ordinate and facilitate the supply chain initiative. Champions are not required to complete all the tasks on their own. The champion should provide the key focal point for communications, resources, action, programmes and training - to create conditions for success.

Although the champion is essential as the key focal point, it is often the project team(s) who actually achieve results. Involving teams and champions at an early stage helps to increase staff awareness at all levels and to motivate individuals to take action and participate.

For more advice about project champions, ask the Environment and Energy Helpline on freephone 0800 585794 for a free copy of *Saving money through waste minimisation: teams and champions* (GG27).

3.4 Set up your team

Ideally, teams should be cross-functional - people with different roles and experiences bring different skills and ideas. This approach can also be beneficial when implementing improvements, as it can help to overcome any barriers to change. By working together, staff awareness and understanding are improved, leading to further opportunities for environmental improvements and cost savings.

- Consider setting up separate teams for specific issues such as waste minimisation, packaging use, water use and energy efficiency.
- Make sure that employees are involved at all levels of the business. This will ensure that opportunities for reducing impacts and saving money will be owned and implemented by your staff.

Your suppliers' main contact with your company is probably through the purchasing department. The role of the purchasing department is, therefore, crucial. An environmental supply chain partnership involves a shift in emphasis from short-term opportunism and frequent competitive tendering on price alone to long-term profitability and co-operative, collaborative, proactive relationships.

It is important that:

- this change is recognised and the purchasing department is comfortable with the change;
- the purchasing department is aware of the new sensitivities in the relationship and the spirit of collaboration and thus does not unwittingly compromise the initiative.

3.5 Set goals

As a mentor, you need to decide what you want to get out of the environmental supply chain partnership. Costs and environmental liability are the main drivers for many retailers. But the challenge is to not only look at what you do now and try to improve it, but also at why things are done in a particular way and whether you can do them better.

Typical goals for a retail supply chain partnership include:

- redesigning packaging to enable retailers and suppliers to be below the threshold for the packaging waste regulations (ie handle less than 50 tonnes/year of obligated packaging);
- rethinking product design and processes so that they no longer use organic solvents, PVC and other hazardous materials or contain materials from unsustainable resources;
- redesigning the product and production process using cleaner design techniques to enable full product re-use or recycling and thus reduce costs.

It is essential that goals have been approved by senior management and discussed with all your team and your suppliers. This will help to ensure sufficient resources are allocated and induce a sense of ownership of the project. The co-operation of all departments in your business is vital for the success of the supply chain partnership.

3.6 Identify key environmental issues

Before talking to your suppliers, identify the environmental issues you think are important for your company. Focus on the issues with the highest associated costs or the potential for a significant increase in costs. These issues may include the amount of solid waste sent to landfill, packaging use, solvent use and associated volatile organic compound (VOC) emissions, water consumption, the hazardous nature of a product component, energy use and transport costs.

Increasingly, environmental legislation could require capital investment and increased administration. However, opportunities for improved performance are also substantial. Experience has shown that most companies can reduce their costs by 1% or more of turnover by implementing a systematic approach to waste minimisation. These increased profits are more easily achievable when people within the company and key suppliers are motivated to work together to explore opportunities to achieve environmental improvements and cost savings.

Get your key employees - managing director, store managers, health and safety managers, purchasing manager, etc - together to assess your company's environmental position, identify any weaknesses and prioritise issues for action. Concentrate on opportunities to:

- reduce your environmental liabilities;
- reduce the environmental liabilities of your suppliers;
- safeguard and improve your environmental performance;
- save money by reducing waste and other operating costs, thereby improving resource efficiency;
- find ways of reducing your suppliers' costs and improving their environmental performance;
- work together to streamline processes and improve product quality;
- improve continuity of supply.

3.7 Get suppliers on-board

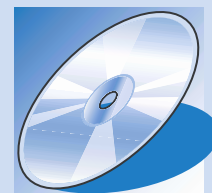
Different suppliers are likely to have different attitudes to waste minimisation - it is your job as mentor to adapt your approach to suit individual companies and to move them to a common position. Some suppliers may be prepared to be more proactive than others, and some may need more persuasion and individual attention.

3.7.1 Initial launch

Consider how to share your vision and goals with your key suppliers and how to invite them to 'buy in' to the initiative. A good starting point is to invite representatives of your key suppliers to come along to an initial launch where you can outline the principles of environmental supply chain partnerships and their benefits.

The toolkit provided on the CD-ROM in the back pocket of this Guide contains all the material you need to host an awareness-raising launch entitled *Supply chain partnership: working together to cut costs*. This material can be customised to your own needs and you may feel that you do not need to use all of it.

The launch can be presented as a half-day morning event (with the option of a site tour of your business in the afternoon) or in separate sessions. The toolkit includes a Microsoft® PowerPoint® 97 slide presentation and instructions for three practical exercises or workshops. Completing these exercises with your suppliers will help to stimulate action and to develop a successful partnership approach to reduce waste and costs throughout your supply chain. The exercises will enable each supplier to make an individual action plan and benefit from the approach.



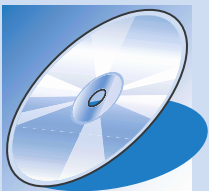
The toolkit to launch the partnership contains:

- an invitation letter to send to suppliers;
- an agenda for a half-day awareness-raising event;
- a form to request multiple copies of key Envirowise publications (see below) to give to suppliers attending the launch to take away with them;
- facilitators' notes with tips for making the launch a success and running the workshops;
- handout material for delegates describing the tasks for three practical workshops;
- a form to request a free *FastTrack* visit from Envirowise (see section 3.8.1);
- a form to order free Envirowise and Action Energy publications;
- a feedback form for the event;
- a worksheet for suppliers to start recording information about their wastes;
- a slide presentation with speakers' notes.

You may want to order a selection of Envirowise publications before the launch. To do this, contact the Environment and Energy Helpline on freephone 0800 585794. To help them get started, give each supplier copies of:

- the Helpline flyer *Free help to save your business money* (EN342);
- *Cost and environmental benefits from supply chain partnerships: supplier guide* (GG318);
- *Reducing waste and utility use in managed shopping centres* (EN336);
- *Profiting from waste reduction in retail stores* (GG325).

The toolkit supplied on the CD-ROM in the back pocket of the Guide contains a form you can use to request the appropriate number of copies of these Envirowise publications.



The appendix contains a list of tips divided into key areas for action that suppliers may find helpful. (NB: not all the ideas will apply to all suppliers.)

At this stage, it is important to emphasise:

- That participation does not need to cost your suppliers money - only time and effort.
- The free support available from Envirowise and other business organisations. For example, if your suppliers are small to medium-sized enterprises (SMEs), they could benefit from a free on-site waste review (a *FastTrack* visit) from Envirowise (see section 3.8.1).

3.7.2 Follow-up meetings

Ask your key suppliers to reconvene once they have achieved the following:

- Obtained commitment from their senior management for participation in the initiative.
- Appointed their own champion and team.
- Identified their key environmental issues.

- Carried out an initial survey of waste in their business. As explained on the interactive CD-ROM *WasteWise* (IT313) and shown in the video *A fresh pair of eyes* (V217), a walk-round review is often the best and simplest way to identify where waste is occurring. The waste opportunity checklist in appendix 1 of *Cost and environmental benefits from supply chain partnerships: supplier guide* (GG318) is designed to help suppliers at this stage.

This may take several months, some suppliers will be faster than others. To maintain the momentum, set up a list of dates for meetings to report progress, perhaps once a month or quarterly, and encourage the development of a 'waste minimisation club' where members exchange experiences and ideas.

3.8 Technical support for suppliers

To provide a structure for the partnership, concentrate on some or all of the following key areas with your suppliers:

- environmental liabilities;
- waste minimisation;
- water use;
- cleaner design;
- packaging optimisation;
- energy management;
- transport logistics;
- recycling.

Some suppliers may need more support than others to implement changes and improvements in their own businesses. Envirowise publications can show them how to get started with these key areas. Useful publications at this stage include:

- *Waste minimisation pays: five business reasons for reducing waste* (GG125);
- *WasteWise: increased profits at your fingertips* (IT313) - an interactive waste minimisation CD-ROM that brings together all the essential information companies need to reduce waste and increase profits;
- *Waste mapping: your route to more profit* (ET219);
- *Cutting costs by reducing waste: a self-help guide for growing businesses* (GG38C);
- *Savings in store* (EN276) - advice for retailers to help them get started on the road to cost savings from waste minimisation;
- *Reducing waste and utility use in managed shopping centres* (EN336);
- *Profiting from waste reduction in retail stores* (GG325).

These and other useful publications (see section 5.2) are available free of charge through the Environment and Energy Helpline on freephone 0800 585794 or via the Envirowise website (www.envirowise.gov.uk).

Various types of action will help the partnership achieve success. These include:

- site visits;
- workshops;



- supplier environmental reviews;
- mapping and tracking waste as part of a systematic waste minimisation programme.

Your role as mentor is to encourage and support your key suppliers - providing resources and participating as necessary in projects and initiatives to help your suppliers make a fast start to reducing waste and costs. This will provide them with the incentive to continue working to achieve further improvements and give them some results to share at future meetings. In addition, the ideas that emerge from this process may also reduce your operating costs and your impact on the environment.

For advice on training and other aspects of waste minimisation, contact the Environment and Energy Helpline on freephone 0800 585794.

3.8.1 *FastTrack* visits

To reduce waste in any business, it is necessary to understand where and how it occurs, and how much it is really costing. Start by encouraging your suppliers to request a *FastTrack* visit from Envirowise.

FastTrack visits are available for companies with fewer than 250 employees. The visits are free, confidential on-site waste reviews carried out by an independent Envirowise consultant. They are intended to identify waste minimisation opportunities on the spot and to help companies increase profits quickly. At the end of the visit, the consultant provides the company with a report on the day's findings, together with a suggested action plan.

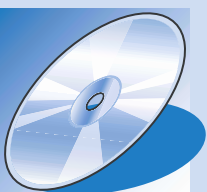
Urge your suppliers to contact the Environment and Energy Helpline on 0800 585794 or visit the *FastTrack* area of the Envirowise website (www.envirowise.gov.uk). Companies with more than 250 employees may be eligible for a *FastTrack* visit at the discretion of the Helpline manager.

To obtain a *FastTrack* visit, companies need to demonstrate their commitment to minimising waste by:

- nominating a waste champion who will be responsible for planning the visit and implementing the recommendations;
- arranging a meeting with the finance team or finance director;
- providing information about the company, including:
 - the number of employees;
 - the size of the operation;
 - annual raw material, waste, water and effluent costs.

All information obtained by Envirowise and its consultants during *FastTrack* visits is treated as confidential.

The toolkit supplied on the CD-ROM in the back pocket of the Guide contains a form that can be completed by your suppliers to request *FastTrack* visits from Envirowise.



3.8.2 Supplier environmental reviews

Carrying out an environmental review of each supplier's operations is one of the mentor's major tasks. Companies with an EMS certified to ISO 14001 and/or verified under EMAS are required to assess the environmental impact of their suppliers. Undertaking supplier environmental reviews will help to fulfil this condition.

A typical supplier environmental review involves:

- a pre-survey questionnaire;
- a site survey by an experienced person, eg a trained auditor from your company or an external consultant (employed at your expense);
- a report outlining existing procedures, current environmental performance and suggestions for action.

More information about supplier environmental reviews is given in *Cost and environmental benefits from supply chain partnerships: supplier guide* (GG318).

The results of the environmental review will allow individual suppliers to focus their efforts to identify and implement opportunities to reduce waste. The reviews may also suggest topics for workshops and collaborative projects.

SAVINGS IN ACTION: Questionnaire helps suppliers assess their environmental performance

Many major retail chains provide environmental reviews for their key own-brand suppliers. For example, Sainsbury's encourages over 1 100 suppliers to complete self-assessment questionnaires regarding their environmental and waste initiatives. Sainsbury's also provides guidance to help drive initiatives within the supplier's company. Having identified four priority areas (packaging, waste, energy and transport), Sainsbury's intends to analyse the questionnaires and work out how to help suppliers implement best practice.



3.8.3 Mapping and tracking wastes

Urge your suppliers to make use of the many free tools and publications produced by Envirowise (see Section 5.2) to help companies save money by reducing waste.

The toolkit supplied on the CD-ROM in the pocket at the back of the Guide contains a form that can be completed by your suppliers to request relevant publications from the Environment and Energy Helpline.



The findings from the initial waste review and supplier environmental review will help suppliers to focus their efforts and identify priority areas for action. Suppliers that have benefited from a *FastTrack* visit from an Envirowise consultant will have a head start - as the consultant will have already highlighted priority areas for action.

- Encourage your suppliers to record base-line information about resource and waste costs. An initial base-line is vital to allow future progress and benefits to be measured. Ask your suppliers to list the quantities and costs of raw materials, water, waste, packaging, effluent and energy. This will help them determine the true cost of waste to their company.



The toolkit supplied on the CD-ROM in the pocket at the back of the Guide contains a waste account worksheet that your suppliers can customise to start recording information about wastes and to measure progress and savings.

- Advise your suppliers to take a detailed walk around their site and produce a waste map. *Waste mapping: your route to more profit* (ET219) contains example maps, a blank map and a sheet of stickers to help companies produce a waste map and thus identify problem areas.
- Ask your suppliers to track wastes by producing a process flowchart as described in *Cutting costs by reducing waste: a self-help guide for growing businesses* (GG38C). A waste-tracking model of the inputs and outputs for each stage of their production process, together with the quantities and costs, will help your suppliers develop a clearer picture of what is happening at each stage of their process. *Tracking water use to cut costs* (GG152) applies the same approach to water and effluent.
- Help and encourage your suppliers to brainstorm improvement opportunities through:
 - following the waste hierarchy (see section 4.2.2);
 - looking at Envirowise publications for the retail sector;
 - informal, in-house sessions;
 - discussions with employees;
 - visiting other sites and attending workshops organised as part of the environmental supply chain partnership;
 - collaborative and in-house projects⁴.

3.8.4 Training workshops

Envirowise can offer support to retailers and their suppliers through targeted training. Workshop guides are available with slides, speakers' notes and delegate handouts on a number of key areas (see Table 2). Each workshop is for a half day and retailers may wish to run two workshops on one day.

Contact the Environment and Energy Helpline on freephone 0800 585794 or visit the Envirowise website (www.envirowise.gov.uk) to obtain free copies of these workshop guides and for free advice on training suppliers.



⁴ For more information, see *Cost and environmental benefits from supply chain partnerships: mentor guide* (GG317).

Table 2 Workshop training guides available from Envirowise

Topic	Reference number	Title
Waste minimisation	GG106	<i>Cutting costs by reducing waste: running a workshop to stimulate action</i>
	GG174	<i>Profiting from practical waste minimisation: running a workshop to maintain the momentum</i>
	IT341	<i>Seven practical workshops: helping companies to profit from reducing waste</i>
Water minimisation	GG229	<i>Profiting from reducing water use: running a workshop to stimulate action</i>
Packaging optimisation	GG218	<i>Profiting from reducing packaging costs: a workshop guide</i>
Cleaner design	GG296	<i>Cleaner product design: a practical approach</i>

3.9 Set targets

Targets are necessary to give everyone something to aim for and to provide a yardstick against which to measure progress. When setting targets, bear in mind your company's goals, your initial discussions with your suppliers and the priority areas you have identified. Your suppliers should, in due course, set their own targets for improvement at their sites.

When setting targets, you need to:

- set realistic, numerical targets for improvement and revise these as necessary;
- document targets clearly and communicate them to everyone;
- set a realistic timescale for achieving each target.

Typical targets include:

- reduce waste costs by 15%;
- reduce packaging levels by 30% and costs by 30%;
- reduce stock levels by 50% by improving logistics and information flows between departments and suppliers;
- reduce energy costs per production unit by 10 - 20%;
- increase resource efficiency by 10%.

3.10 Get results

Regardless of the extent of suppliers' existing waste minimisation initiatives, it is always beneficial to take a fresh look at each business. Use the support available to cherry pick quick savings - these demonstrate improvement and achieve results without major disruption or capital investment. Quick savings that achieve results immediately or within weeks will demonstrate the benefits of the new partnership to all concerned. The next stage is to develop and implement longer-term initiatives that bring even more cost savings and other benefits. Teamwork and prioritisation remain vital.

3.10.1 Key tasks

Tasks necessary to get results include:

- Identify the training needs of your team and your suppliers (see section 3.8.4 for details of Envirowise training workshop guides).
- Carry out supplier environmental reviews (see section 3.8.2).
- Help your suppliers set up a systematic waste minimisation programme (if they do not already have one) (see section 4.2).
- Implement no-cost and low-cost measures to reduce waste and utility use - see *Reducing waste and utility use in managed shopping centres* (EN336) and *Profiting from waste reduction in retail stores* (GG325)⁵ for tips and suggestions.
- Review and improve packaging use and logistics (see section 4.4).
- Implement an environmental management system (EMS)⁶ and encourage your suppliers to do the same.
- Identify the material, energy and waste flows (ie a life-cycle assessment) of products and services during their life-cycle (from 'cradle to grave') to determine their environmental impact - see *Life-cycle assessment - an introduction for industry* (ET257)⁵ for advice on how to do this and information about the benefits of life-cycle assessment (LCA). Use this information to prioritise ways for redesigning products to reduce costs and environmental impact.

3.10.2 Prioritise actions

To make sure that the initiative becomes part of a programme of continual improvement, prioritise actions to ensure that resources and effort are used cost-effectively. Consider:

- What are your business and operational goals?
- Can savings be made through good housekeeping, training and other low-cost measures?
- Is capital investment available?
- What are the costs and payback for any proposed investments?
- Who should be involved and what level of commitment is needed?

Knowing the big picture is vital. Senior management support and well-motivated staff involved in making the change will help to ensure successes on a continual basis.

⁵ Available free of charge through the Environment and Energy Helpline on freephone 0800 585794 or via the Envirowise website (www.envirowise.gov.uk).

⁶ For free practical advice on implementing an EMS, contact the Environment and Energy Helpline on freephone 0800 585794.

Partnership initiatives

4.1 A programme for continual improvement

To be successful, the supply chain partnership needs to become part of a programme of continual improvement in the environmental and business performance of all partners.

- **Regular meetings** of the project champions from the different companies are essential to maintain the momentum and to allow company representatives to raise issues of concern and to request help.
- **Quick savings** that achieve results immediately or within weeks will demonstrate the benefits of the new partnership to all concerned. This helps to build confidence and motivate partners to achieve more. The next stage is to develop and implement longer-term initiatives that bring even more cost savings and other benefits. Teamwork and prioritisation remain vital throughout.
- An **on-going monitoring** strategy to measure progress is essential. This should be agreed by team members and implemented by all the partners. However, the mentor may need to take the lead and chase up suppliers that fail to deliver.
- The key to communication and networking is **trust**. The aim of the partnership is to create long-term business relationships where each company has the goal of 'making our customer profitable'. However, any shared information must be kept in confidence within the supply chain partnership.
- A number of **key areas** typically provide cost savings and environmental improvements for all partners operating within the retail supply chain. Contact the Environment and Energy Helpline on freephone 0800 585794 and ask for examples of how retailers have profited from supply chain partnership initiatives.

4.2 Waste minimisation

Responsibility for implementing actions to reduce waste will tend to lie with your suppliers. As a mentor, retailers have a role to play in providing support and encouragement.

4.2.1 The true cost of waste

All companies produce waste - even efficient ones. The true cost of waste is typically 4% of turnover - but with the right measures, this can easily be reduced to only 1%. Waste minimisation represents a major opportunity for companies to cut their costs for much less effort than is needed to generate the same increase in profits from increased sales.

Your company may not realise the full or true cost of waste - often only the expense of disposal is recognised, eg the cost of skip pick-ups. The true cost of waste is often hidden and includes much more than the materials that appear in the skip.

Hidden wastes include:

- the raw material costs of materials that are wasted;
- the energy and water used to produce off-cuts, rejects and other wastes;
- wasted time and effort;
- wastes from non-process operations such as packaging and consumables;
- inclusion of product components that are not required by the customer.

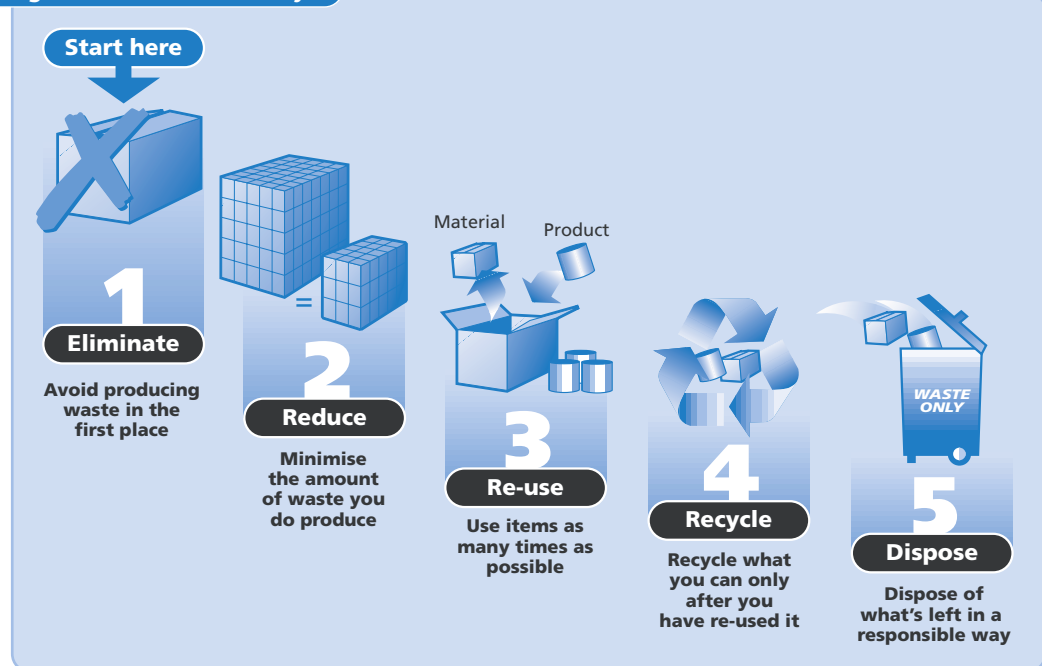
Hidden costs make up by far the greatest portion of the total waste costs in any business. As a rule of thumb, waste is usually ten times a company's original estimate. For example, the ten companies involved in the Leicestershire Waste Minimisation Initiative originally guessed that their joint waste costs totalled £500 000/year. Following a survey, this figure was revised to over £13 million/year - equivalent to 4.5% of their joint turnover.

4.2.2 The waste hierarchy

The principles underlying good waste minimisation practice are based upon the waste hierarchy (see Fig 2). The higher up the waste hierarchy that action is taken, the greater the cost savings.

Quick savings can be made through better waste management (eg recycling cardboard), but the real savings are made through preventing waste from occurring in the first place. To do this effectively as a retailer, you will need to liaise and work in partnership with your suppliers, distributors and store managers. Encourage your suppliers to adopt a systematic approach to waste minimisation - this will lead to cost-effective improvements and yield the greatest savings in the long run.

Fig 2 The waste hierarchy



SAVINGS IN ACTION: Working together brings benefits to all partners

Initially launched as a pilot scheme, a partnership approach between a distribution company (Securicor Omega Express), a book publisher (Macmillan Distribution Ltd) and a book retailer (Waterstone's) to design a custom-built re-usable tote box as a replacement for cardboard cartons resulted in significant cost and environmental benefits. The benefits of the new tote box, which are spread across the retail supply chain, include:

- elimination of the need for 21 720 cardboard cartons (initial trial saved £7 000/year and 15 tonnes/year of waste);
- an estimated 95% reduction in the amount of paper packaging used as in-fill;
- reduced damage to stock during transit;
- reduced cost of compliance with the packaging waste regulations.

For more details, see *Retail supply chain distributes cost savings from improved packaging* (CS332).



4.2.3 Recycling

Recycling is an easy and cost-effective way of reducing waste costs and improving environmental performance for retailers and their supply chain. Materials that can be recycled include:

- waste card and paper;
- polythene and other plastic wrappings;
- metals;
- glass;
- plastic bottles;
- magazines and glossy brochures;
- carpet and other textiles.

However, successful recycling depends on segregation. Materials that are uncontaminated and unmixed will have the most value.

SAVINGS IN ACTION: Segregation brings cost savings

A contract packaging company for UK food companies investigated all aspects of its packaging, including waste disposal. Through careful segregation of its general waste and replacement of a large skip with three smaller ones (for cardboard, plastic and general waste), waste removal costs fell by 45%. The company is now recovering around 30% of its packaging.



4.3 Water minimisation

Minimising water use is an area that retailers and their suppliers often ignore but should consider carefully. Reducing water use also means that less domestic sewage and trade effluent are produced. Trade effluent charges in some areas of the UK have increased by 100% since April 2001, eg in Dumfries and Galloway typical charges are now 53 pence/m³ instead of 25 pence/m³. Energy costs could also be higher than necessary if water is being heated and then wasted. Minimising water use, therefore, results in direct savings which, in turn, impact on the bottom line.

Minimising the unnecessary use of water is one of the easiest ways of achieving cost savings. Companies that adopt a systematic approach to water reduction typically achieve a 20 - 50% decrease in the amount of water used - and the volume of wastewater generated.

Significant savings can be achieved by simple solutions, eg fitting simple water saving devices in washrooms and toilets can reduce water use by up to 40%. For example, water displacement devices such as a cistern bag or water 'hippo' can be placed into toilet cisterns to reduce the volume of water used per flush. Further cost savings can be achieved by fitting an automatic flush controller on urinal systems to ensure that the system flushes only during opening hours rather than continually. This type of device can reduce water costs by 50%. Alternatively, installing a waterless urinal (with potential savings of about £70/year) can result in even greater savings.

4.4 Packaging optimisation

The retail sector and its suppliers is the largest industrial consumer of packaging materials in the UK. Packaging typically represents up to 13% of production costs and total use of packaging in the UK is about 9 million tonnes/year. About a third of packaging materials are recycled, but the



remainder is still sent to landfill after a single use. Many retailers have identified opportunities to reduce the amount of packaging used (particularly transit packaging) and have made significant savings, often through no-cost and low-cost measures.

SAVINGS IN ACTION: Re-use of sandwich trays brings significant cost and material savings

The Boots Company has developed a system for re-using the plastic transit trays for the delivery and display of its sandwiches without the need for any alteration or redesign. The trays are no longer used only once, but are re-used about three times. Broken trays are returned to the supplier for recycling.

The benefits have included:

- estimated savings of over £125 000/year;
- savings of approximately 200 tonnes/year of plastic;
- savings of approximately 270 tonnes/year of cardboard;
- reduction in the packaging obligation for Boots and its suppliers.

Optimising packaging is a key area for retailers to work in partnership with their suppliers. When assessing the benefits of optimising packaging, consider the full cost of the packaging system including the cost of buying materials such as:

- corrugated cartons;
- plastic bags;
- filler materials;
- shrink-wrap;
- stretch-wrap;
- layer pads;
- pallets and slip sheets;
- other containers.

Other costs that should be included as part of the packaging costs are:

- handling and unpacking goods and products;
- handling, segregating, treating (eg compaction) and storing wastes;
- managing packaging waste (recovery, re-use, recycling and disposal);
- complying with the packaging waste regulations;
- transport and fuel for the delivery of materials from the packaging supplier to the manufacturer;
- on-site storage and warehousing;
- labour for packaging conversion (eg folding cardboard boxes);
- running the packing and filling process;
- disposal of trimmings and damaged packaging;
- suppliers complying with their obligations under the packaging waste regulations;
- transport and fuel to deliver goods to your business.

The first four of these are direct costs to your business - the others are indirect costs passed on through your suppliers. All these areas can be targeted for cost savings.

SAVINGS IN ACTION: Packaging analysis by Comet plc

To help meet its obligations under the packaging waste regulations, a leading electrical retailer, Comet plc, has policies designed to standardise, simplify and minimise the packaging used in its 260+ retail stores. Comet has acquired high-quality packaging information from its suppliers for more than 50% of its products. The data have been analysed to determine the average weight of packaging for each type of product supplied. This has allowed Comet to identify those suppliers with packaging that deviates from the norm and, hence, to encourage them to optimise their packaging. Comet is carrying out further supplier audit work, gathering data and encouraging design for both packaging minimisation and recycling.

- Start by considering measures to avoid or reduce the packaging used, eg eliminating an unnecessary layer. This can save on material, transport, storage and processing costs. Minimising packaging use can also save on a business's obligation under the packaging waste regulations.
- Then consider measures to re-use packaging, eg returnable transit packaging. This can save on:
 - material costs;
 - transport costs;
 - storage costs;
 - packaging waste obligations (packaging is included only the first time it is used, thereafter it is exempt).
- Once the amount of packaging used has been reduced as far as possible, look at opportunities for recovery or recycling of waste packaging.
- As a final option, consider using a waste exchange scheme to locate organisations that may be interested in using your packaging materials or that of your suppliers to pack their own products. This will avoid landfill tax charges and increase the potential to re-use the materials. Contact the Environment and Energy Helpline on freephone 0800 585794 for details of waste exchange schemes.

SAVINGS IN ACTION: Re-usable packaging results in efficiency and cost benefits for Debenhams

The introduction of re-usable packaging by Debenhams plc to transport stock from its suppliers to its warehouses and department stores has improved operating efficiency and reduced waste costs. In its search for ways to improve efficiency and reduce the risk of injury to warehouse staff, the Debenhams' logistics team began by looking at the existing use of packaging. The team found that stock arrived at the warehouses from suppliers in cardboard boxes and was then unpacked into new or re-used cardboard boxes for onward transport to the stores. This process was inefficient and required staff to handle goods in bulky cardboard boxes, often with an uneven load.

The team selected two types of transit packaging - roll cages and plastic totes - for the new packaging system. The durable, plastic totes can be stacked easily for storage and transport back to the warehouse. They protect stock from damage, and are easier and safer for the staff to handle. Wheeled roll cages are used for larger items. Debenhams is now working with its suppliers and concession holders to widen the scheme to give efficiency benefits for the supply chain.





4.5 Cleaner design

Life-cycle assessment⁷ is a valuable tool for retailers where the main environmental impacts of a product occur upstream with suppliers or downstream with the consumer. Suppliers that produce environmentally friendly products can help retailers minimise their environmental impact.

SAVINGS IN ACTION: Working with suppliers to reduce the environmental impact of products

B&Q has a well-established system of working with its suppliers to reduce the environmental impacts associated with its key product groups such as timber, paint, peat and toxics. In consultation with its suppliers, the company reviews the life-cycle factors of products to identify the most important environmental issues for each product group and to set targets to stimulate improvements in environmental performance. For example with timber:

- By 1993, B&Q had identified sources of timber (a major task that was undertaken in partnership with suppliers).
- By the end of 1995, virtually all timber products came from well-managed forests based on their own internal scrutiny.
- By the end of 1999, the majority of B&Q timber products carried independent certification, most of which were certified by the Forest Stewardship Council (FSC) that B&Q had a key role in creating. An independent organisation, the FSC's role is to set principles and criteria for good forest management.
- To reflect continuous growth and action, B&Q revised its Timber Policy in 2000. To support its vision of one standard and to encourage the availability of timber that could carry FSC certification, B&Q now works with other certification schemes that, in its view, have standards, criteria and the commitment to obtain recognition by the FSC.

By tracking energy, raw materials and wastes through production processes, it is possible for suppliers to identify where efficiency can be enhanced. Increased efficiency leads to cost savings by reducing:

- quantities of materials and energy used;
- amounts of waste generated;
- rejected materials and the need for rework;
- disposal costs.

Product designers need to consider issues such as cost, raw material selection, weight, end-use requirements and ease of handling. Significant design improvements can follow from identifying improvements in environmental performance. For example, LCAs of washing machines have found that use gives rise to the most significant impacts, ie more energy and water are used throughout the machine's lifetime than during its manufacture. Washing machine manufacturers, therefore, concentrate on making design changes to improve the machine's in-use performance. This also makes the product more appealing to customers by reducing the cost of use.

⁷ For information on LCA, see *Life-cycle assessment - an introduction for industry* (ET257), available free of charge through the Environment and Energy Helpline on freephone 0800 585794 or via the Envirowise website (www.envirowise.gov.uk).

SAVINGS IN ACTION: Redesign of transit trays results in significant cost savings

A pet food manufacturer lowered the sides of the cardboard transit trays used for the grouping of individual product boxes. This reduced the amount of corrugated cardboard used in the design by 49%, reduced ink use by 49% and provided an overall net reduction of 12% in the use of white kraft board. The result was cost savings totalling £100 000/year.

4.6 Energy management

Energy consumption is another area over which you and your suppliers have direct control.

There are two important reasons why you and your suppliers should invest time and effort in energy efficiency. First, saving money has always been a persuasive argument for energy efficiency and the introduction of the Climate Change Levy in April 2001 made this argument even more convincing. Successful energy management will reduce your business's levy and increase profits. Second, energy efficiency will improve the environmental credentials of your supply chain.

- The key to energy efficiency is management - it doesn't matter how much you spend on technology, you will waste money if you don't manage your energy resources efficiently. Encourage your suppliers to follow *The manager's guide to reducing energy bills* (FOCUS). This and other free publications from Action Energy are available through the Environment and Energy Helpline on freephone 0800 585794 or via Action Energy's website (www.actionenergy.org.uk).

SAVINGS IN ACTION: Energy management scheme reduces energy costs by 33%

A DIY company with 242 stores had an annual energy bill of £6.2 million - equivalent to about £25 600/store. Five years later, the energy bill of 192 stores was just £3.3 million/year (or about £17 200/store) - a reduction of 33%. This was achieved by adopting a systematic approach to energy management and by introducing energy saving initiatives such as:

- new lighting schemes in some stores;
 - improved space heating controls;
 - greater staff awareness of energy costs and better housekeeping;
 - appointing energy officers in each store and providing them with appropriate training;
 - monitoring and controlling energy use using a comprehensive reporting system.
- Working practices have a major impact on the energy efficiency of a business. This presents a challenge for managers as few employees give much thought to the need for energy efficiency in the workplace and those who do tend to view it as peripheral to their core responsibilities. Setting up an energy management team and launching an energy campaign can result in energy savings of up to 20%.





SAVINGS IN ACTION: Staff awareness programme boosts profits

As part of a programme to increase staff awareness of energy and environmental issues, a major retail group implemented phased improvements at its 2 000 retail stores. The group's annual energy use has been reduced by around 7%, with savings at some stores as high as 20%. Financial savings for the group as a whole are around £600 000/year - equivalent to a £6.8 million/year increase in sales.

Savings have been achieved by simple good housekeeping measures that have required little or no investment other than staff training and awareness. For example, at one store in Walsall, an electric door heater was left on continuously. Staff training in its operation resulted in a 24% reduction in electricity consumption. At another store in Sheffield, training staff to reset time switches to prevent display lights operating all night achieved an 8% reduction. The cost of the awareness programme was recovered within a few months.

4.7 Transport logistics

The cost of vehicle fuel forms a significant percentage of the expenditure of most companies operating within the supply chain. Introducing a few simple measures can save money. In a recent survey, the average large goods vehicle (LGV) in the UK travels 80 000 miles/year and uses about £20 000/year of diesel.

Most fleets that develop a fleet management programme achieve savings of at least 5% - equivalent to an average saving of about £1 000/year for each vehicle.

Using fuel more efficiently means:

- lower costs;
- improved profit margins;
- reduced emissions;
- improved environmental performance.

Assess how well your business is managing its fuel by using the self-audit checklist in the updated *Fuel management guide* (GPG307)⁸. GPG307 will also help you to identify the priorities for action.

SAVINGS IN ACTION: Supermarket benefits from switching to pallets from roll cages

Safeway has achieved considerable benefits from its programme of phasing in pallets to replace roll cages, including:

- an increase of up to 40% in the load carried per vehicle;
- reduced product damage;
- more options for back-hauling used packaging from stores and products from suppliers.



⁸ Available through the Environment and Energy Helpline on freephone 0800 585794 or via the Action Energy website (www.actionenergy.org.uk).

5.1 Develop an action plan

Make a fast start by using the action checklist in Table 3 overleaf as a prompt to write a simple action plan that:

- identifies who is responsible for taking action to get your supply chain partnership started;
- sets a target date for completing each action.

Table 3 Action checklist

Action	Responsible person	Completion date
First steps		
Obtain senior management commitment.		
Appoint a project champion.		
Set up a project team.		
Get your suppliers on board		
Invite key suppliers and your team to launch the environmental partnership. Use the toolkit supplied with this Guide to organise and conduct the launch.		
At the launch, identify key environmental issues for the partnership.		
At the launch, ask your suppliers to draw up a simple action plan.		
Arrange a schedule of meetings with your suppliers.		
Arrange support for suppliers, eg free <i>FastTrack</i> visits and <i>Envirowise</i> publications.		
Measure the base-line		
Use the waste account in the toolkit to record information on costs and quantities of waste, energy, water and raw materials.		
Ask your suppliers to do the same.		
Walk around your site and take photographs of waste and opportunities to reduce waste.		
Encourage your suppliers to request a <i>FastTrack</i> visit from <i>Envirowise</i> and to implement the consultant's recommendations.		
Offer to conduct environmental reviews at suppliers' sites.		
Get results		
Identify training needs for your team and your suppliers.		
Help suppliers implement a waste minimisation programme.		
Hold training workshops and/or arrange to attend <i>Envirowise</i> training events.		
Undertake collaborative and in-house projects.		
Rank priorities for reduction and set targets.		
Monitor performance		
Measure results (monthly, annually) and compare with base-line figures.		
Provide feedback to staff, suppliers and senior management.		
Hold quarterly meetings with your suppliers.		

5.2 Useful free publications

5.2.1 Envirowise publications

The publications listed below are available free of charge through the Environment and Energy Helpline on freephone 0800 585794 or via the Envirowise website (www.envirowise.gov.uk).

Waste minimisation

- *WasteWise: increased profits at your fingertips* (IT313) - interactive CD-ROM that provides an easy-to-use resource that takes a structured but flexible approach to waste minimisation
- *Reducing waste and utility use in managed shopping centres* (EN336)
- *Profiting from waste reduction in retail stores* (GG325)
- *Increasing profits by reducing waste in managed shopping centres* (GG324)
- *Finding hidden profit - 200 tips for reducing waste* (EN30)
- *Cutting costs by reducing waste: a self-help guide for growing businesses* (GG38C)
- *Saving money through waste minimisation: teams and champions* (GG27)
- *Waste minimisation interactive tools* (IT96) - easy to use software to help you implement a waste minimisation programme
- *Waste minimisation pays: five business reasons for reducing waste* (GG125) - everything you need to present your case (includes presentation on disk)
- *Cutting costs by reducing waste* (V159) - video that introduces the benefits of waste minimisation
- *A fresh pair of eyes: identifying waste minimisation opportunities* (video) (V217)
- *Waste mapping: your route to more profit* (ET219)
- *Waste account: count the cost of waste for your business and measure your savings* (ET225) - gives details of software that can be downloaded from the Envirowise website (www.envirowise.gov.uk).
- *Cost and environmental benefits from supply chain partnerships: mentor guide* (GG317)
- *Cost and environmental benefits from supply chain partnerships: supplier guide* (GG318)
- *Green efficiency: running a cost-effective, environmentally aware office* (GG256)
- *Finding hidden profit for smaller companies* (GG253)
- *Easy money: a self-help guide for small retailers* (GG365)
- *Seven practical workshops: helping companies to profit from reducing waste* (IT341)

Water minimisation

- *Water bills... are you splashing out too much?* (EN323)
- *Reducing waste and utility use in managed shopping centres* (EN336)
- *Saving money through waste minimisation: reducing water use* (GG26)
- *Cost-effective water saving devices and practices* (GG67)
- *Tracking water use to cut costs* (GG152)

Packaging optimisation

- *Unpack those hidden savings - 120 tips on reducing packaging use and costs* (EN250)
- *Cutting costs and waste by reducing packaging use* (GG140)

- *Choosing and managing re-usable transit packaging* (GG141)
- *Profiting from reducing packaging costs: a workshop guide* (GG218)
- *Retail supply chain distributes cost savings from improved packaging* (CS332) - a case study from the book industry

Cleaner design

- *Cleaner product design: an introduction for industry* (GG294)
- *Cleaner product design: examples from industry* (GG295)
- *Cleaner product design: a practical approach* (GG296)
- *Life-cycle assessment - an introduction for industry* (ET257)

5.2.2 Action Energy publications

The publications listed below are available free of charge through the Environment and Energy Helpline on freephone 0800 585794 or via the Action Energy website (www.actionenergy.org.uk).

Energy

- *The manager's guide to reducing energy bills* (FOCUS)
- *Energy efficiency for shopping centres* (GPG134)
- *Introduction to energy efficiency in shops and stores* (EEB3)
- *Energy efficient lighting in the retail sector* (GPG210)
- *Saving money with refrigerated appliances* (GPG277)
- *Energy efficiency for food retailers* (GPG202)
- *The energy management advisor* (EMMA) - software that can be downloaded from the Action Energy website (www.actionenergy.org.uk)
- *Marketing energy efficiency - raising staff awareness* (GPG172)
- *Energy management pathfinder* (GIR63)
- *Maintaining the momentum: sustaining energy management* (GPG251)
- *The bottom line* (video) (VI14)

Transport and logistics

- *Fuel management guide* (GPG307)
- *Fuel-efficient fleet management* (GPG218)
- *Benchmarking vehicle utilisation and energy - measurement of key performance indicators* (ECG76)
- *Energy savings through improved driver training* (GPCS311)
- *Travel plan resource pack for employers* (GD41)
- *Save it! The road to fuel efficiency* (VI15) - video with a general introduction to fuel efficient operations

5.3 Useful contacts

Envirowise

Environment and Energy Helpline

Tel: 0800 585794

E-mail: helpline@envirowise.gov.uk

Web: www.envirowise.gov.uk

Offers a range of free services including:

- free advice from Envirowise experts through the Environment and Energy Helpline;
- a variety of free publications that provide up-to-date information on waste minimisation issues, methods and successes;
- free, on-site waste reviews from Envirowise consultants, called *FastTrack* visits, that help businesses identify and realise savings;
- best practice seminars and practical workshops that offer an ideal way to examine waste minimisation issues and learn about ways of reducing waste;
- guidance on waste minimisation clubs and other partnerships across the UK that provide a chance for companies to share best practice on waste minimisation.

Action Energy

Environment and Energy Helpline

Tel: 0800 585794

E-mail: help@actionenergy.org

Web: www.actionenergy.org.uk

Helps businesses and organisations of all sizes to save money by improving their energy efficiency. Provides the information, advice, practical help and financial support needed to start reducing energy costs.

Environment Agency

General Enquiry Line

Tel: 08459 333 111

E-mail: enquiries@environment-agency.gov.uk

Web: www.environment-agency.gov.uk

Regulates the implementation of environmental legislation in England and Wales, and provides a single point of contact for companies in England and Wales for packaging waste and other waste-related matters. Contact details for local offices are given on its website.

Scottish Environment Protection Agency (SEPA)

SEPA Corporate Office

Tel: 01786 457700

Web: www.sepa.org.uk

Regulates the implementation of environmental legislation in Scotland and provides a single point of contact for companies in Scotland for packaging waste. Contact details for local offices are given on its website.

Scottish Energy Efficiency Office (SEEO)

Tel: 0141 242 5835

Web: www.energy-efficiency.org

Provides information and advice on energy and environmental issues in Scotland.

Northern Ireland Environment and Heritage Service (NIEHS)

Environmental Protection
Tel: 028 9025 4754
E-mail: EP@nics.gov.uk
Web: www.ehsni.gov.uk

Implements environmental legislation in Northern Ireland and provides a single point of contact for companies in Northern Ireland. EHS is an Executive Agency of the NI Department of the Environment.

Environmental Enquiry Point for Northern Ireland

Tel: 0800 262227
Web: www.investni.com

Provides an environmental information and signposting service for companies in Northern Ireland. Part of Invest Northern Ireland.

Department for Environment, Food and Rural Affairs (DEFRA)

DEFRA Helpline
Tel: 08459 335 577
E-mail: helpline@defra.gsi.gov.uk
Web: www.defra.gov.uk

Responsible for drawing up environmental legislation and formulating Government policies to protect the environment (including the UK climate change programme).

Department of Trade and Industry (DTI)

Enquiry Unit
Tel: 020 7215 5000
E-mail: dti.enquiries@dti.gsi.gov.uk
Web: www.dti.gov.uk

Helps businesses respond to environmental challenges and market opportunities.

HM Customs and Excise

National Advice Service
Tel: 0845 010 9000
Web: www.hmce.gov.uk

Administers the operation and collection of the landfill tax and the Climate Change Levy.

British Retail Consortium (BRC)

Tel: 020 7854 8900
E-mail: info@brc.org.uk
Web: www.brc.org.uk

Represents all types of retailers in the UK. It produces publications on all aspects of the retail industry and lobbies government and regulators on behalf of its members.

Industry Council for Packaging and the Environment (INCPEN)

Tel: 0118 925 3466
E-mail: info@incpen.org
Web: www.incpen.org

Carries out research into the environmental and social impacts of packaging.

Save Waste and Prosper (SWAP)

Tel: 0113 243 8777

E-mail: swap@geo2.poptel.org.uk

Web: www.swap-web.co.uk

Provides practical advice on sustainable waste management. Co-ordinates the 'Greening the High Street' campaign - an innovative partnership of retailers seeking ways to improve their environmental performance.

Waste and Resources Action Programme (WRAP)

Tel: 0808 100 2040

E-mail: info@wrap.org.uk

Web: www.wrap.org.uk

Works to remove barriers to waste minimisation, re-use and recycling, and to create stable and efficient markets for recycled materials and products.

BIO-WISE Programme

BIO-WISE Helpline

Tel: 0800 432100

E-mail: biowise.help@aeat.co.uk

Web: www.dti.gov.uk/biowise

Offers free, independent information and advice about composting and other types of biotechnology.

The Composting Association

Tel: 01933 227777

E-mail: membership@compost.org.uk

Web: www.compost.org.uk

Promotes best practice in composting and works to develop compost markets.

5.4 Contents of the toolkit

The CD-ROM in the back pocket of the Guide contains a toolkit to help you set up and run a supply chain partnership. The toolkit includes a Microsoft® PowerPoint® 97 slide presentation (with speakers' notes) for you to use at the launch of the partnership. The suggested agenda for the launch includes three workshops with practical exercises for the delegates to encourage participation and interaction.

All the files on the CD-ROM (see Table 4 overleaf) can be modified and adapted to suit your requirements. With the exception of the slide presentation, all the tools are provided as Microsoft® Word files. Please contact the Environment and Energy Helpline on freephone 0800 585794 if you have any problems accessing either the CD-ROM or its contents.

Please adapt and print out the files as you wish to suit your requirements.

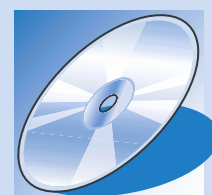


Table 4 The contents of the toolkit

File name	Item
GG362-01 Invitation.doc	■ Invitation letter to send to suppliers
GG362-02 Agenda.doc	■ Agenda for a half-day awareness-raising event to launch the supply chain partnership
GG362-03 Launch Order.doc	■ Form for mentor companies to order multiple copies of key Envirowise publications to give to their suppliers at the launch
GG362-04 Facilitators.doc	■ Notes for facilitators with tips to help make the launch a success and ideas for the three workshops
GG362-05 Handouts.doc	■ Handouts for delegates describing the tasks for the three practical workshops included in the programme for the launch
GG362-06 FastTrack.doc	■ Form to request a free <i>FastTrack</i> visit from an Envirowise consultant
GG362-07 Publications.doc	■ Form for suppliers to order free Envirowise and Action Energy publications
GG362-08 Feedback.doc	■ Feedback form for the launch
GG362-09 Waste Account.doc	■ Worksheet that suppliers can customise to start recording information about wastes and measure progress
GG362-10 Slide Presentation.ppt	■ Slides and speakers' notes for presentation at the launch

Tips to help you improve your environmental performance

This list is a collection of general advice for reducing waste. It is intended to act as a prompt to companies - however, not all the tips will be relevant to all suppliers.

Waste

1. For advice and information about current and forthcoming legislation governing the disposal of solid and other wastes, contact the Environment and Energy Helpline on freephone 0800 585794.
2. How many of the ideas in the free Envirowise publication *Finding hidden profit - 200 tips for reducing waste* (EN30) apply to your company? Ask the Environment and Energy Helpline on freephone 0800 585794 for a copy.
3. Publicise the success and progress of waste minimisation plans on the company notice-board or in a newsletter.
4. Appoint a waste minimisation champion to co-ordinate your cost-saving efforts. *Saving money through waste minimisation: teams and champions* (GG27) explains how to choose a company champion and involve others in a waste minimisation team.
5. You need to measure the amount of waste before you can start to reduce it.
6. Use problem-solving teams to develop solutions to waste problems. Well-run team sessions can help to identify improvements, create involvement and build understanding.
7. Talk to other employees about their ideas for reducing waste.
8. Take photographs of waste generation, handling and storage to convince others of the extent of the problem. Photographs can also be used to encourage people to take action to improve their particular area of operation or responsibility, and for subsequent comparisons.
9. Purchasing managers, site managers and accountants can be invaluable sources of information. Encourage them to participate in your supply chain partnership.
10. Does your company appreciate the true cost of waste? A Leicestershire company estimated its waste costs at around £50 000/year, but the true cost of waste was found to be over £150 000/year.
11. Find out if your waste could be re-used or recycled at another site or part of your group.
12. Let your customers know what packaging materials you have used. Materials should be identified and clearly marked on packaging to help segregation, re-use and recycling.
13. Sort waste according to type, grade and colour. This will help you to identify re-use and recycling opportunities.
14. Provide advice on how to make double-sided photocopies.
15. Set up procedures to allow teams and individuals to report wastes and leaks.

16. Maximise use of storage space. Flatten damaged or unsuitable cardboard boxes for waste storage, so that they take up the minimum space. Similarly, squash other containers not destined for re-use.
17. Steel cans are 100% recyclable. Check if your local authority/contractor recovers steel cans from mixed waste or, preferably, if separate collection is available.
18. A plastic liner costs a tenth as much as a new can or drum. Plastic liners can be used to line cans and drums for carrying waste materials (such as filters and rags) to disposal points. The drum can then be re-used.
19. Eliminate - avoid producing waste in the first place.
20. Reduce - minimise the amount of waste you produce.
21. Re-use items as many times as possible.
22. Recycle what you can but only after you have re-used it.
23. Dispose of what is left in a responsible way.
24. Begin by implementing no-cost and low-cost measures, eg good housekeeping and staff training. Then consider options that require greater capital investment.
25. Devise a monitoring programme to collect data, eg meter readings. This information will help you manage and reduce waste more effectively.
26. Remember: If you don't measure it, you can't manage it.
27. Campaigns to raise awareness vary, but simple techniques and tools are usually the most effective, eg quarterly newsletters and annual reports sent to tenants with a regular feature on waste minimisation initiatives and the benefits achieved.
28. One of the best ways of getting your staff involved in waste minimisation initiatives is to provide incentives and rewards for best practice and improved performance.
29. Avoid over-ordering by taking account of local factors and sale patterns.
30. Draw up a returns policy covering both undamaged and damaged/faulty items.
31. Put undamaged or unworn returns back into stock (if appropriate) or send to head office or back to the supplier.
32. Return faulty items as appropriate to head office or the manufacturer.
33. Find outlets for worn or damaged textile returns, eg a charity or textile recycling company.
34. Send used electrical appliances (eg rental returns) to suppliers for reconditioning or to a specialist recycling company.
35. Return used display materials and display stands to head office or recycle them.
36. Return surplus hangers to suppliers, eg one clothes retailer is reimbursed by half the value of the hangers.
37. Minimise food waste by careful ordering and defrosting of minimum quantities of frozen food.

38. Empty all bags and containers properly. Often it is a matter of providing the right equipment, eg shaking equipment for bags. Weigh a sample of empty containers, then estimate how many are used in a year. In one large paint plant, 200 tonnes of liquid raw materials were left each year in containers at a cost of £150 000/year.
39. Tank wagon cleaning may cause filling errors. Tank wagons are often cleaned on the move with a little solvent or water. If this is not drained before the wagon goes across the weighbridge, you will end up giving away or contaminating product.
40. Pigs or gas? Product can be recovered cheaply and effectively from pipework before cleaning by using pigs or by pumping with an appropriate gas. Pigging is a simple and cheap technique than can prevent product build-up in pipework and reduce waste.
41. Flexible connections are often too long. When full, a typical 25 mm internal diameter flexible hose can contain 3 kg of product for every 5 m length. Why use a 5 m tube when a 2 m one would do? The saving could be 2 kg/use.
42. Dedicated piping runs are cost-effective. Common tubing is the bane of the plant engineer as cleaning is required each time the product is changed - with corresponding time, solvent and waste costs. The additional investment for dedicated piping to, for example, a filling head can pay back many times over.

Water

43. Installation of infrared flush control devices in 2 000 buildings reduced water consumption at a large telecommunications company by over 1 million m³/year.
44. A Manchester brewery's three-stage action plan for minimising water use led to savings of over £650/week. For more details, see *Saving money through waste minimisation: reducing water use* (GG26).
45. In the UK, we use water at the rate of about 147 litres per person per day. Only 1% of this is drunk.
46. You can reduce your water consumption just by stopping a dripping tap. SO TURN THEM OFF.
47. Find out from your bills how much water is used and sewage/effluent discharged.
48. Install meters and read regularly to monitor water use. If you're using water even when the building is unoccupied, you could have a water leak.
49. Storing lots of hot water is generally wasteful. Check how many hot water storage cylinders are necessary.
50. Good housekeeping routines in kitchens can significantly reduce water consumption. They can also reduce energy costs.
51. Insulating unlagged storage cylinders will reduce heat losses by 75%.
52. Make immediate savings through no-cost and low-cost measures, eg push taps, timers, flow regulators, cistern volume adjusters and passive infrared (PIR) detection in urinals.

Packaging

53. If you need advice on the legislation governing packaging and packaging waste, contact the Environment and Energy Helpline on freephone 0800 585794.
54. Where practical, use returnable packaging rather than cardboard and shrink-wrap. Ask your suppliers to do the same.
55. Design packaging to prevent damage. Make sure that all packaging fulfils its purpose, particularly when it comes to product protection. Otherwise, this may lead to wasted product, wasted packaging or both.
56. Could your suppliers improve filling procedures? Carry out tests to find the optimum balance between filling rates, loss of contents and loss of packaging.
57. Avoid double-skinned containers. Do not use them unless there is a clear technical justification. Their cost per unit volume is high.
58. Keep the outer layer of packaging simple and standardise as much as possible. For fragile items, use customised inner liners to fit the outer packaging.
59. Assess the ease of unpacking. You should be able to remove the contents easily, ensuring minimum damage. If problems occur, consider options for redesign and discuss ideas with your suppliers.
60. Keep records on packaging re-use. Monitor the number of times packaging material is used to transport items around the site.
61. Re-use materials such as bubble wrap, boxes, pallets and crates for regular deliveries.
62. If the food and beverage industry reduced in-process packaging waste by an average of 1%, it would save the sector about £50 million/year in raw materials purchased. This does not include the avoided costs of waste disposal and the further £50 - £80 million saved on other factors such as fuel and energy, labour and resources.
63. Operate a policy of just-in-time delivery to avoid unnecessary storage and unsold goods (with their associated packaging).
64. Segregate different waste streams to facilitate re-use and recycling. Take action to prevent contamination and damage so that the packaging is suitable for re-use or recycling.
65. Encourage suppliers to exchange waste with others or to contact a waste exchange organisation.
66. Discuss packaging options with suppliers and distributors.
67. Eliminate unnecessary packaging, eg avoid the use of protective layers between goods on a pallet and use self-stacking boxes rather than shrink-wrap.

Cleaner design

68. Dismantle your products. Do they use minimum raw materials? Are all plastics labelled for recycling? Are the minimum number of components used? Could any hazardous materials be eliminated? Could the weight of a product be reduced? Could recycled materials be used as raw materials?

69. Consider a redesign programme to reduce waste, improve resource efficiency and increase competitiveness. Eighty per cent of the environmental impact of a product is a result of the design. Redesign could minimise costs during production and use, providing your product with a competitive advantage.

Energy

70. More than £100/year can be saved by fitting a time clock to a photocopier that would otherwise be left on 24 hours a day.
71. It is always cheaper to turn lights on and off than to leave them switched on. The wear and tear involved in switching is minimal with modern units.
72. Light levels fall by 50% in 18 months unless light fittings are cleaned regularly.
73. Energy saving bulbs use a fifth of the electricity of an ordinary tungsten bulb and can last 8 - 10 times longer, leading to cost and maintenance savings.
74. By turning down thermostats by just 1°C, you can reduce your heating bills by as much as 7 - 10%.
75. Your workplace should not be heated above 19°C.
76. A door with a 3 mm gap will let in as much cold air as a hole in the wall the size of a brick.
77. Check heating controls, timers and thermostats - most are usually set incorrectly.
78. Make sure that heating, boiler, air-conditioning and lighting systems are correctly programmed and maintained. They should switch off at night and at other times when premises are unoccupied. During the spring and autumn, heating and air conditioning can be found running in some stores at the same time.
79. Set budgets and benchmarks for key materials, utilities and waste management costs. Develop reward schemes to encourage improved energy efficiency and waste reduction.
80. Immediate savings in energy costs can be made easily by making sure you are on the right tariff. Check if there are alternative, cheaper energy suppliers.
81. Most people are unaware of the high cost of compressed air - ten times more than electricity. Simple routines to check and repair leaks will lead to dramatic savings.
82. Buildings that are properly draught-proofed and insulated are more comfortable for staff and save you money. Effective insulation can reduce heat losses by up to 90%.
83. Boilers are not 100% efficient - around 20% of heat generated is lost up the chimney. Heat loss can increase to 30% or more if the boiler is poorly maintained or operated.
84. Heating can account for around 50% of the energy used in offices. You can save money by using simple time and temperature controls.
85. In offices, lighting accounts for around 50% of the money spent on electricity. Turning off lights when they are not needed is one of the most effective ways of saving money.
86. Install meters and read regularly to monitor energy use. You could be using up to a third of your average daily energy use when your building is unoccupied - just by leaving lights, air conditioning and pumps switched on.

87. Make immediate savings through no-cost and low-cost measures, eg good housekeeping and installation of energy efficient lighting. For example, replacement of over 2 000 mall lamps at the Merry Hill shopping centre at Dudley in the West Midlands reduced energy consumption by 40% and doubled lamp life.
88. Set targets to reduce energy consumption, eg 5% reduction/year.
89. Train staff to turn lights off at night, during closed periods and in unoccupied areas.
90. Use timed switches and movement detectors to prevent lights and equipment operating out-of-hours or in areas which are infrequently used, eg stock rooms.
91. Install energy efficient lighting, eg compact fluorescent lamps provide superior lighting quality and reduce energy consumption by about 70%.
92. Programme heating, lighting (including outside lighting), ovens, refrigeration, ventilation and air conditioning correctly. Check thermostat settings.
93. Develop a planned programme of preventative maintenance for boilers, lifts, escalators, ovens, refrigerators, freezers, air conditioning systems and other equipment.
94. Insulate hot water tanks and pipes.
95. Recycling aluminium cans saves 95% of the energy used for producing the aluminium from its raw materials.

Transport and logistics

96. In an average rush hour, it would take 62 cars to transport the same number of people that can be seated on a full double-decker bus.
97. Regular servicing (including tuning) will save money and reduce exhaust emissions. Most inefficient vehicles (90%) can be retuned in 15 minutes.
98. Co-ordinate transportation and collection. Make it a policy to collect empty containers at the same time as delivering full ones. If your company has its own in-house transport fleet, try to ensure that vehicles never return empty to your site.
99. Arrange for returns and unsold products to be sent back to suppliers.

General

100. Encourage everyone to take part in activities to reduce their environmental impact at work.
101. Keep messages fresh and interesting, but build on what has already been done to raise environmental awareness.
102. Use marketing and business skills to promote the project.
103. Use environmental initiatives to bring other business benefits, eg cross-fertilisation of ideas between different departments.
104. Start with achievable initiatives that will have tangible results. Success fires up people's enthusiasm for positive environmental change.

105. Make sure environmental and energy improvements are considered and included in refurbishment projects.
106. Record progress and take photographs of successes to boost team morale when the going is slow.
107. Encourage lateral thinking to problem-solving through incentives and rewards.
108. Make environmental matters part of total quality.
109. Think about information that is currently sent using paper. Could it be more useful as an e-mail or on an intranet? Make the most of the new communication technology to improve the quality (not just the quantity) of information.
110. There is a great deal of free environmental information available - use it.
111. Appeal to employees' children - they are often the best catalysts for changing adult behaviour.
112. Train all staff in good practice issues. Include relevant issues in induction briefings and carry out refresher training every year.
113. Significant savings can be achieved by simple solutions, eg fitting simple water saving devices in washrooms and toilets can reduce water use by up to 40%.

DISCLAIMER

You may use the free Microsoft® Word 97, Microsoft® PowerPoint® 97, PDF and Acrobat® Reader™ 5.0 files supplied on this CD-ROM only if you agree to the terms and conditions of use given below. The legal terminology on the left is similar to that found on almost any software product. The text on the right explains what it means in everyday language.

The files are not warranted as suitable for any particular purpose or use and the User shall assume full responsibility for his/her use of the files. The User hereby indemnifies and holds harmless the Government and its agents against any claim which may arise out of the use of the files or the medium upon which they are supplied.

This means that by using the files, you are accepting full responsibility for anything that happens in the unlikely event that a file causes any problems. We have taken great care to make sure everything is correct, but we do not accept liability for use of the CD-ROM.

Microsoft and PowerPoint are registered trademarks of Microsoft Corporation.

Acrobat is a registered trademark of Adobe.



Envirowise - Practical Environmental Advice for Business - is a Government programme that offers free, independent and practical advice to UK businesses to reduce waste at source and increase profits. It is managed by AEA Technology Environment and NPL Management Limited.

Envirowise offers a range of free services including:

- ✔ Free advice from Envirowise experts through the Environment and Energy Helpline.
- ✔ A variety of publications that provide up-to-date information on waste minimisation issues, methods and successes.
- ✔ Free, on-site waste reviews from Envirowise consultants, called *FastTrack* visits, that help businesses identify and realise savings.
- ✔ Guidance on Waste Minimisation Clubs across the UK that provide a chance for local companies to meet regularly and share best practices in waste minimisation.
- ✔ Best practice seminars and practical workshops that offer an ideal way to examine waste minimisation issues and discuss opportunities and methodologies.



Harwell International Business Centre | Didcot | Oxfordshire | OX11 0QJ
E-mail: helpline@envirowise.gov.uk Internet: www.envirowise.gov.uk



© Crown copyright. First printed November 2002. Printed on paper containing a minimum of 75% post-consumer waste. This material may be freely reproduced in its original form except for sale or advertising purposes.

*For further information
please contact the*

**Environment
and Energy
Helpline
0800 585794**