



**ENVIRONMENTAL  
TECHNOLOGY  
BEST PRACTICE  
PROGRAMME**

# WASTE MINIMISATION PAYS: Five business reasons for reducing waste

*Everything you need to present your case*



# WASTE MINIMISATION PAYS:

## Five business reasons for reducing waste

*Everything you need to present your case*

This Good Practice Guide was produced by the  
Environmental Technology Best Practice Programme

Produced in collaboration with:

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'Competitiveness' is the watchword for UK industry, and in 1992 the Engineering Employers' Federation (EEF) launched an industrial strategy to help increase the competitiveness of UK manufacturing. Part of this strategy is to maximise industry's gains resulting from process efficiency and waste minimisation. In 1994 the Environmental Technology Best Practice Programme was started by the Department of Trade and Industry and the Department of the Environment (now Department of the Environment, Transport and the Regions), with the aim of encouraging UK industry and commerce to reduce waste at source.

Waste is estimated by the Best Practice Programme to cost UK industry at least **£15 billion/year** - equivalent to some **4.5% of total turnover**. Much of this money could be saved - quickly and simply, in some cases - through waste minimisation.

This Guide has been produced by the Environmental Technology Best Practice Programme, in conjunction with the Engineering Employers' Federation and Lloyds Bank Commercial Service.

It is designed to help you demonstrate to the Board of your company (or indeed, another audience) the key financial reasons why it should make a full commitment to **the minimisation of waste**. Obtaining top level commitment is the first and most important step in developing a successful waste minimisation programme that will deliver major benefits to your company.

The presentation is intended to run for 40 minutes (or longer if you wish).

In this Guide you will find the following:

- All the background information you require and a suggested **commentary** for your presentation to the Board (or any other audience).
- Thirteen **overhead projector templates** to aid your presentation. These templates are bound into the Guide and can be found in Appendix 3. A set of templates is also provided loose in the wallet at the back of this Guide, to allow you to produce acetates if necessary.
- A **disk**, giving a copy of all the templates in Microsoft® PowerPoint 4.0 for Windows®. This can be found in the flap in the back cover of the Guide.
- A single sheet **handout** to give to your audience before or after the presentation, summarising the key points and suggesting the action to be taken. There is a copy bound into this Guide opposite. A copy can also be found loose for photocopying in the wallet at the back of this Guide.
- Appendix 2 provides a brief outline of key legislation concerning solid waste and effluent.

## 2.1 HOW TO USE THIS PRESENTATION

The presentation is probably best made to the Board by one of its members - perhaps the finance director or the company secretary. If your company has one, the senior manager with responsibility for waste control, energy use or the environment, may be better still.

Whoever is chosen, that person should feel comfortable and confident in presenting the benefits of waste minimisation to the given audience.

# HANDOUT FOR PARTICIPANTS

## WASTE MINIMISATION PAYS - FIVE BUSINESS REASONS FOR REDUCING WASTE

The purpose of this presentation is to encourage you to consider the contribution that waste minimisation can make to your company's bottom line. It was produced jointly by the Environmental Technology Best Practice Programme, the Engineering Employers' Federation and Lloyds Bank Commercial Service.

The presentation expands on the following five reasons for investment in waste minimisation:

### 1. **Waste costs**

The cost to UK industry of solid wastes, liquid effluents, emissions to air, and time, is at least £15 billion annually, but could be reduced.

### 2. **The true cost is often hidden - reduce waste, reduce losses**

Your company may not realise the full cost of waste: often only the expense of disposal is recognised. Throwing out waste is throwing out money.

### 3. **Waste minimisation is good business**

Cost-effective waste minimisation can be a valuable *investment* which pays handsome dividends to your company: boost your bottom line by cutting waste and associated expenses.

### 4. **Your reputation**

Customers, financial institutions, employees and suppliers have a growing interest in companies' environmental performance: waste minimisation will show them how effectively and efficiently you control operations.

### 5. **Legal consequences**

Companies - and key directors and managers - can face stiff penalties for failing to comply with environmental legislation, which gets tougher year by year.

Some of the points in this presentation may be obvious, but others may be new to you. Consider the relevance of each reason to your company, and question whether you are doing enough to cut the cost of waste to a minimum.

The benefits of minimising waste result only from action. If you believe your company is **sustaining losses** which you can do something about, organise a follow-up meeting with colleagues to draw up an action plan. You may decide to do a little, or a lot. But whatever action you take, the benefits to your company could be much more than you think.

Thank you for taking the time to listen to *Waste Minimisation Pays*. The Environmental Technology Best Practice Programme, the EEF and Lloyds Bank Commercial Service welcome your feedback on the presentation. Please contact the Environmental Helpline on 0800 585794 with your comments.

## WHAT ARE THE MAIN OBJECTIVES OF THE PRESENTATION?

- To show that the costs of failing to minimise waste are both high and **avoidable**, so the company should not simply try to absorb them.
- To demonstrate that investing in waste minimisation will bring **real** business benefits.
- To gain **commitment** to action on waste minimisation **now**.

You do not need a detailed technical knowledge of waste minimisation to present the arguments contained in this pack. What you **do** need is the ability to present them clearly, confidently and with conviction: if you don't sound convincing, you will not persuade the Board.

### 3.1 WHAT PREPARATION IS NECESSARY BEFOREHAND?

Slides 7 and 8 and their accompanying notes in this Presenter's Guide refer to your own company's record on waste and potential savings. **Use of the slides is optional but they will make your presentation more convincing and help you gain management commitment to minimising waste.** The Microsoft® PowerPoint or acetate slides need to be completed in advance: see Appendix 1 for details.

If you lack information, or do not have enough to feel confident in presenting it, **omit Slides 7 and 8.**<sup>1</sup> You will see that the suggested commentary in this Guide allows for this.

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<sup>1</sup> If you are having difficulty preparing these slides, the Environmental Helpline may be able to offer guidance. Call free on 0800 585794.

## 4.1 FOR SCHEDULING YOUR PRESENTATION

- Make firm arrangements for the place, date, time and occasion. Consider whether to gather your audience specifically for the presentation (which could give it more impact), or to make it an item on the agenda of a Board meeting.
- If it is to be part of a Board meeting, do your best to have it placed high on the agenda. If it comes at the end or under 'Any Other Business', your audience may be tired and you will risk having the presentation postponed, or cut short, because of overruns elsewhere.

## 4.2 FOR GIVING THE PRESENTATION

### DO

- Ensure sufficient time is allotted (40 minutes including question time).
- Prepare yourself in advance.
- Check that any equipment you need is available, ready and working.
- Speak clearly, convincingly and with enthusiasm.
- Be positive at all times and show that you believe in what you are saying.
- Note any audience questions which you can't answer, say you will provide answers later - and do so.

### DON'T

- Apologise for anything.
- Overrun.
- Stray off the point.
- Allow interruptions. Forty minutes isn't long, so the audience should be asked at the start to note any questions for the end. If the audience interrupts, you will find at the end of your allotted time that you have only covered half the material, and will have failed to get **commitment to action**.

## 5 WHAT HELP IS AVAILABLE?

The Environmental Technology Best Practice Programme publishes a number of **free Guides**, which provide detailed explanations of waste minimisation techniques, their costs and benefits. Numerous Industry Examples are provided, showing how real companies have achieved significant increases in profits through waste minimisation. The following are just some of the publications available:

- Good Practice Guide (GG25)      *Saving Money Through Waste Minimisation: Raw Material Use*
- Good Practice Guide (GG26)      *Saving Money Through Waste Minimisation: Reducing Water Use*
- Good Practice Guide (GG27)      *Saving Money Through Waste Minimisation: Teams and Champions*
- Good Practice Guide (GG38C)      *Cutting Costs by Reducing Waste: A Self-help Guide for Growing Businesses*
- Good Practice Guide (GG82)      *Investing to Increase Profits and Reduce Wastes*
- ET30      *Finding Hidden Profit: 200 Tips for Reducing Waste*
- Good Practice Case Study (GC16) *Sites Set on Cost Savings*
- Good Practice Case Study (GC19) *Waste Minimisation Pays Major Dividends*
- Good Practice Case Study (GC20) *Environmental Review Helps Raise Profits*

To obtain these or any other Environmental Technology Best Practice Programme publications, phone the Environmental Helpline free of charge on **0800 585794**, or fax a request on **01235 433066**. Written requests can be sent to: ETBPP Publications, ETSU, Harwell, Didcot, Oxfordshire OX11 0RA.

For free practical help and advice over the phone, call

Environmental Helpline **0800 585794**

e-mail address: [etbppenvhelp@aeat.co.uk](mailto:etbppenvhelp@aeat.co.uk) world wide web: <http://www.etsu.com/etbpp/>

section  
5

### Presenter's Note

*The following commentary covers the points you should mention in the appropriate order, but it is not intended to be read out verbatim. If you intend to use it as a script, it is an idea to practise reading it aloud and make the words sound as if they are your own.*

*Private cues to the presenter will be shown in italics, like this note.*

## 6.1 INTRODUCTION TO THE ENVIRONMENTAL TECHNOLOGY BEST PRACTICE PROGRAMME

In 1992 the Engineering Employers' Federation launched an industrial strategy to help increase the **competitiveness** of the British manufacturing industry. Improved resource efficiency and waste minimisation are two important elements in this strategy.

Then, in 1994, the Department of Trade and Industry and the Department of the Environment (now Department of the Environment, Transport and the Regions) launched the Environmental Technology Best Practice Programme. This Programme promotes the use of better environmental practices that reduce business costs for UK industry and commerce.

*(Tell the audience if the company has used any Environmental Technology Best Practice Programme services, such as the Environmental Helpline.)*

One of the main areas highlighted by the Best Practice Programme is **waste minimisation**. Effective waste management cuts costs, sometimes with minimal investment. Even when an outlay is required, the payback period can be short and the returns can be high. What's more, the money saved goes straight to the company's bottom line, irrespective of trading conditions. The message is: cut waste, and you will boost profit.

The Environmental Technology Best Practice Programme estimates that UK industry loses **at least £15 billion annually** through resource inefficiency and waste. This is equivalent to our manufacturing industry **throwing away 4.5% of its total turnover**. Much of this money could be saved - simply and cheaply, in many cases - by taking action on waste. However, since this is a management issue, the action must come first from the top. That is why the Best Practice Programme, the EEF and Lloyds Bank Commercial Service have worked together to produce this presentation.

## 6.2 ABOUT THE PRESENTATION

The presentation runs for 40 minutes, and is called:

*(Show Slide 1)* **Five business reasons for minimising waste**

These are listed on your handout.

The objectives of this presentation are to:

*(Show Slide 2)* **Objectives**

- show that the cost of failure to minimise waste is both high and avoidable, so the company should not just absorb it;
- demonstrate that investing in waste minimisation will bring real business benefits;
- gain your commitment to action on waste control now.

*(Ask the audience to keep questions until the end.)*

## 6.3 THE BUSINESS REASONS FOR MINIMISING WASTE

What are the good business reasons for our company to minimise waste?

*(Show Slide 3)* **(Reason 1) Waste costs money**

The first reason is, quite simply, that **it is costing us money**. Calculated on a very conservative basis, the cost to UK manufacturing industry and commerce of lost time, and raw materials lost through solid wastes, liquid effluents and emissions to air, is at least **£15 billion** annually. This is roughly equivalent to 4.5% of total turnover.

*(Show Slide 4)* **(Reason 2) Most of the cost is hidden**

Waste costs are either direct or indirect. Direct costs are those which are immediately visible, like the waste that appears at the top of this skip (*point to illustration on slide*). They include waste collection and disposal costs, which should show up as items in the company's profit and loss account. Disposal costs now include landfill tax, which may continue to rise.

## 6.4 INDIRECT COSTS OF WASTE

But the bulk of waste costs are **indirect**, and therefore hidden. They include:

*(Point to and read out the list of indirect costs on the slide.)*

These costs arise whether we like it or not, and whether we realise it or not. They are hidden within the profit and loss account because they do not appear as separate items, but they are there. For example:

- **raw material** costs will include the cost of those materials which were wasted;
- **salaries** will include paying employees for time spent collecting waste, arranging for its disposal or moving it to storage and for wasted time and effort.

Indirect, hidden costs of this kind make up by far the largest portion of total waste costs in any business, like the quantity of waste hidden in the skip in the picture. And even efficient companies produce waste. The true cost of it is typically at least **4.5% of turnover** (*point to figure on the side of the skip*).

*(Below are detailed several real-life Industry Examples. If you want more information on any of the cases mentioned, please contact the Environmental Helpline on 0800 585794.)*

Here's a real example of an indirect waste cost and the way in which it was reduced - this time for water. The electroplating firm N T Frost used large quantities of water for rinsing components, until someone realised that this was like pouring money down the drain. Frost employed consultants on a 'payment-by-results' basis. They undertook short-term monitoring to establish rinsewater requirements, then recommended a series of good housekeeping measures, including the installation of flow restrictors and increased control of water use. The benefits of these simple measures include:

*(Show and read out Slide 5)* **N T Frost Electroplating**

For N T Frost it's **an extra £45 000 of pre-tax profit**, and the value of just **one** item in a wide range of possible cost savings through waste minimisation.

You may think that our company doesn't produce much waste, but detailed investigation produces surprising results. Throughout the UK there are many regional waste minimisation initiatives conducting detailed investigations into waste costs, and the results have consistently surprised the companies involved.

In one such initiative, the ten participating companies - mainly small to medium-sized, from the engineering, building materials, textiles, food and brewing sectors in Leicestershire - initially estimated their total waste costs at about £500 000 a year, but this figure covered only collection and disposal. When, as a result of the initiative, raw materials, energy and other previously overlooked factors were included, the true figure was **£13 million**, or **4.5% of the companies' combined turnover**. Potential savings of **£3 million** - nearly 25% of waste costs - were identified, many of which could be achieved **with no capital outlay**.

## 6.5 FACTS ABOUT WASTE MINIMISATION

*(Show Slide 6)* **Facts**

So the fact is that waste usually costs more than you think. Here are some other important facts about waste minimisation:

*(Point to item 2)* **Savings needn't require high capital spending.** In another initiative, 14 Merseyside companies have achieved savings of £4.2 million a year, at least half of which are from projects with paybacks of less than one year.

*(Point to item 3)* **Companies of all sizes can benefit.** Walkers Snack Foods Ltd, whose annual turnover is £500 million, saved **£960 000** in just one year at its Peterlee site. At the other end of the scale, a small precision castings firm doing business worth £4.5 million a year cut its costs by £98 000.

*(Point to item 4)* Such success is possible in all sectors of industry, and **it can often be shared**. Engineering, chemicals, food and drink, metal casting, metal finishing and glass companies in the West Midlands shared their ideas on waste minimisation and added **£2 million** to their bottom lines as a direct result.

*(Point to item 5)* Finally, **waste minimisation is catching on**. Over 500 companies have joined waste minimisation clubs. Among these companies, eleven on Humberside saved **£1 million** in their first year as members of a waste minimisation forum. Within five years, their forum expects to help another 140 companies.

*(Use the next section only if you have completed slides 7 and 8. Otherwise, go straight to the section marked \*\* below.)*

So how can we become one of these success stories? To find out, let's start by looking at an example of waste in our company.

## 6.6 WASTE MINIMISATION AND OUR COMPANY

*(Show Slide 7)* **Calculation**

*(You will have prepared this in advance [see Appendix 1]. Talk them through the figures.)*

It's important to note that these calculations simply show the **purchase** cost of the wasted raw material. The **true** cost will also include wasted production costs, labour, storage and so on. So this is not the full cost, and it's for just **one** item of waste: if we considered all areas of waste in our company, we would probably end up with a much higher figure.

We can gain a rough idea of our company's waste saving potential from the Best Practice Programme's extensive experience, which has shown that a waste minimisation programme can usually reduce operating costs by over 1% of company turnover.

*(Show Slide 8)* **Calculation continued**

*(You will have prepared this in advance.)*

It's perhaps worth remembering at this point that our profit margin (*point to figure*) was [ ]% of turnover last year, which should help to put this 1% saving in perspective. Given that our turnover last year was £\_\_\_\_\_, we should be able to save £\_\_\_\_\_.

\*\* But, you may be thinking, waste minimisation is going to cost time and money. In other words, we need to make an investment. What is our cost/benefit from doing so?

*(Show Slide 9)* **(Reason 3) Waste reduction is good business**

Wolstenholme International Ltd is a foundry employing 260 staff. It manufactures metallic pigments and inks, using a foundry and milling operation to produce bronze and copper powders. Wolstenholme minimised waste as part of the development of an environmental management system.

The *net* cost for setting up the system was £36 300. This amount includes costs of £71 300 for equipment, labour and consultancy, off set by one-off savings of £35 000.

Annual savings at 1995 prices were £103 600 with labour and maintenance costs of £7 500 giving a net annual saving of £96 100 and a payback period of 4.5 months. The savings arose from reduced costs of raw materials, reduced waste disposal costs and reduced energy use.

Of course, our figures will vary from those on this slide, but if we are satisfied that money could be put directly on the bottom line in this way, we cannot deny that money spent on waste reduction is a sound investment. My purpose here is not to establish exactly how much we could save, but to convince you that waste minimisation has the **potential** to save a significant amount of money.

## 6.7 OUR REPUTATION AND THE LAW

*(Show Slide 10)* **(Reasons 4 and 5) Our reputation and the law**

And here's another reason for minimising waste: our reputation with the people and organisations listed here.

- Employees expect us to run the company efficiently. They also know first hand where materials and resources are being wasted, although they may not realise the financial implications. When they are made aware of them, and see the cost benefits that will make the company more competitive and help safeguard their future, they will be keen to get involved. In a Best Practice Programme survey of companies that have established waste minimisation programmes, most businesses listed increased employee satisfaction among the top five benefits of their schemes.
- Customers expect us to keep prices down: if they can get our product cheaper elsewhere, they may well go elsewhere. To be competitive, we must cut avoidable costs that have no bearing on product quality. Customers expect such efficiency, and their loyalty will increase when we can show them what we've done to ensure that they're not paying for wasteful practices. Increasingly customers are asking their suppliers for evidence of good environmental performance. Waste minimisation is an excellent way to demonstrate such performance and commitment. Waste management is also a key part of overall environmental management.
- Shareholders want us to achieve the highest possible return on capital and high dividend growth. Also, banks want us to make efficient use of borrowed capital - and stay in business. Effective waste minimisation measures will help to show them that we are striving to do so.
- The Government and the European Union make clear their concern for waste minimisation through legislation and economic instruments such as the 'landfill tax'. Waste reduction measures will help reduce our tax bill, keep us one step ahead, and possibly save us from having to make rapid, disruptive and expensive changes in future to keep us within the law.<sup>2</sup>

## 6.8 THE WAY AHEAD

*(Show Slide 11)* **The way ahead**

So where do we go from here? This slide suggests a practical approach.

*(Explain that this is based on the Best Practice Programme's useful short Guide Saving Money Through Waste Minimisation: Getting Started.)*

First, we can appoint someone as a Waste Manager with responsibility for waste minimisation - and please note that this does not have to be a full-time job. This Manager will establish how much waste we're producing and its true cost.

Next, we analyse our data on raw material consumption and identify where waste is generated. This will allow us to identify and prioritise opportunities to reduce the waste. Many of the opportunities for waste reduction will come from talking to employees. The Best Practice Programme's free Environmental Helpline is on hand to help with ideas to keep employees motivated and involved.

In the light of our findings, we can draw up an action plan, including realistic and achievable waste reduction targets which have been agreed by top management. We then explain the plan to the employees, making them aware of the potential benefits of waste minimisation. This will help them

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<sup>2</sup> If you want more information on how the laws on waste handling and disposal relate to your company, see Appendix 2 or contact the Environmental Helpline on 0800 585794.

to feel involved in its implementation - most important, given that we rely upon their co-operation for the plan's success - and encourage them to offer their own ideas for minimising waste. Also, as the plan takes effect, we should provide all our employees with feedback. We should consider ways of encouraging the employees by, for instance, a suggestion scheme perhaps linked with incentives.

The next stage in the cycle is to review progress against our targets, initially after six months and then at least annually. Our findings are then fed back into the cycle to make any necessary changes or start new initiatives.

This approach is consistent with that used for ISO 14001, the environmental management standard.

I would like to emphasise the importance of **involving employees** at Step 4. If all our people believe that senior managers are serious about waste minimisation, improvements are much more likely. Furthermore, if we convince them of their **individual responsibility** for waste control, we will get not only their co-operation but also their ideas. Companies involved in waste minimisation initiatives find that shop-floor employees often come up with the most ingenious ideas, which are both simple and cheap in practice.

So the commitment to waste minimisation must come from the bottom up, as well as from the top down.

There must be compelling reasons to divert resources into a new activity, even one that is going to boost the bottom line. I suggest that the five reasons given here for minimising waste **are** compelling. However, the Environmental Technology Best Practice Programme, the EEF and Lloyds Bank Commercial Service are not asking us to commit ourselves unquestioningly to the task of waste minimisation. Rather, we should undertake a waste review to find out what wastes we produce and how much this costs, and what opportunities exist for us to minimise waste and increase our bottom line.

A small blue square icon with the word 'section' in white above the number '6' in white.

## 6.9 DO WE NOW HAVE A CONSENSUS FOR ACTION?

*(Show Slides 12 and 13)* **Making waste minimisation work**

These are the actions which the Best Practice Programme recommends to the Board (*run through them*). Now that we have taken the first action, we can take steps to set the others in train. I suggest that we fix an appointment now with senior and middle managers to review this presentation and existing waste control measures, and to appoint a project Champion with authority to proceed. We should then investigate the **true** cost of our waste and its disposal, with help from the Best Practice Programme if needed.

*At this point the appointment should be fixed.*

*Note: Colleagues may remark that the idea of minimising waste is not new. Try responding with: The idea is certainly common sense, but is it **common practice**? Do we believe that our people and our systems are cutting waste as far as possible?*

*You can reiterate the example of the Leicestershire Waste Minimisation Club. There, companies found their waste costs were 26 times higher than they thought. Information from the Environmental Technology Best Practice Programme indicates that under-estimating such costs is very common.*

*The formal presentation ends here, **but you should attempt to get a firm decision to act, there and then**. If the meeting is minuted make sure this decision is recorded within the minutes. Many companies also include a list of actions and name the person or persons who can carry them out - if this is the case in your company, check that the decision about proceeding with a review of waste control measures and appointing a project Champion appears in the list of actions.*

# 7 FEEDBACK

Thank you for participating in the *Waste Minimisation Pays* initiative. Your feedback on the impact of the presentation would be welcomed by:

Ms D Maslin  
ETSU  
Harwell  
Didcot  
Oxfordshire  
OX11 0RA

Fax: 01235 433066

Please fax this page, or you can call the Environmental Technology Best Practice Programme with comments by contacting the Environmental Helpline on freephone 0800 585794.

The Guides below are designed to give practical advice to reduce waste at source and save money.

### For all companies:

*Tick Box*

Saving Money Through Waste Minimisation: Getting Started	GS25	<input type="checkbox"/>
Cost-effective Water Saving Devices and Practices	GG67	<input type="checkbox"/>
Finding Hidden Profit - 200 Tips for Reducing Waste	ET30	<input type="checkbox"/>

### Good Practice Guides on Saving Money Through Waste Minimisation

#### For larger companies:

Raw Material Use	GG25	<input type="checkbox"/>
Reducing Water Use	GG26	<input type="checkbox"/>
Teams and Champions	GG27	<input type="checkbox"/>

#### For smaller companies & workshops:

Cutting Costs by Reducing Waste: A Self-help Guide for Growing Businesses	GG38	<input type="checkbox"/>
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Other.....

### Feedback

1. Who was the audience for the presentation? .....
2. Has your company carried out waste minimisation previously?.....
3. Were you able to obtain commitment to action? .....
4. What negative/opposing comments or issues were raised? .....



# PREPARING (OPTIONAL) SLIDES 7 AND 8

**Slides 7 and 8** will need to be prepared in advance by you to enable you to include information about your company. Note. If you are used to using Microsoft® PowerPoint for your presentations, it is possible to enter information about your company on Slides 7 and 8 on the disk provided.

**Slide 7** looks at a raw material in one product line used by your company last year, and reveals the purchase cost of the wasted portion. Your Accounts Department should be able to provide you with the figures you need to complete this slide. In the instructions below, the example of beans used in the production of tinned baked beans is employed as an illustration (see Table 1).

First, taking the main or the most expensive raw material used in your company's product(s), enter the amount (eg tonnes of beans) used last year in box A. Next, enter the amount of product (eg tins of beans) your company produced last year in box B, and the unit of the raw material per unit of product (eg weight of beans per tin) in box C. Your figure for D can then be determined by multiplying B by C.

Calculate the amount (eg tonnes) of wasted raw material by subtracting D from A and enter this figure in box E. Write the purchase cost (eg £/tonne) of the raw material in box F, then multiply E by F to obtain a figure for the cost of wasted raw material. Enter this in box G.

**Table 1** Calculating the cost of wasted main raw material, eg tonnes of beans

A.	Amount of main raw material used last year, eg tonnes of beans
B.	Amount of product produced last year, eg tins of beans
C.	Unit of main raw material per unit of product, eg weight of beans/tin
D.	Quantity of main raw material in product last year, eg tonnes (B x C)
E.	Wasted main raw material, eg tonnes (A - D)
F.	Purchase cost of main raw material, eg £/tonne £
G.	Cost of wasted raw material (E x F) £

**Slide 8** requires figures for last year's annual turnover and the company's profit margin as a percentage of this. Again, these should be easily obtained from the Accounts Department.

# FURTHER INFORMATION ON LEGISLATION

All companies need to be aware of their Duty of Care for waste and many, particularly in the field of engineering, will also need to know about Special Waste<sup>3</sup>. These tables are taken from Appendix V of the 1998 *EEF Register of Environmental Regulations*, more details are available from the:

Marketing Section  
Engineering Employers' Federation  
Broadway House  
Tothill Street  
London  
SW1H 9NQ  
(Fax: 0171 222 2782)

### ***Duty of Care/Registration of Carriers***

Ref or ISBN	Title	Available from	Other information
0-11-753210-X Note: This is a 1996 re-issue	The Duty of Care - A Code of Practice	The Stationery Office	Recommends a series of steps which should normally be enough to meet the duty. This is a key document.
95 EP 159	Duty of Care	DETR Publications Despatch Centre	A leaflet providing an introduction to the duty. Available free.
HO-6/96-7k-C-AUVN	The Registration of Waste Carriers	DETR Publications Despatch Centre	A leaflet providing an introduction to registration. Available free.

### ***Special Waste***

Ref or ISBN	Title	Available from	Other information
1996 WP 147	Special Waste Regulations 1996 - how they affect you	DETR Publications Despatch Centre	A leaflet providing an introduction to the regulations. Available free.
Information Sheet No 1	Classification of Special Waste	Environment Agency	A booklet providing an assessment system based on a flowchart and staged set of questions. Available free.
Information Sheet No 2	Use of the Consignment Note	Environment Agency	A booklet outlining the procedures, it includes the form of the note. Available free.
Information Sheet No 3	Obtaining and Sending Consignment Notes	Environment Agency	A leaflet explaining how to obtain codes and notes and where to send copies. Available free.
DoE Circular 6/96 (WO 21/96)	Special Waste Regulations 1996	The Stationery Office	DETR/Welsh Office guidance on the 1996 regulations (SI 1996/972).
DoE Circular 14/96 (WO 39/96)	Special Waste (Amendment) Regulations 1996	The Stationery Office	DETR/Welsh Office guidance on the 1996 regulations (SI 1996/2019).

The Environment Agency is also producing a series of Technical Assessment Sheets for specific waste streams (eg acids, oils, filter cakes) to help determine the circumstances in which these should be treated as special waste. These are available from the Agency's offices or by telephoning its fax back service ECOfacts on Tel: 0881 882 288.

<sup>3</sup> For more information on how this legislation affects your company, please contact the Environmental Helpline on 0800 585794.

## OVERHEAD TEMPLATES

There is a disk provided in the flap in the back cover of this Guide, giving a copy of all the templates in Microsoft® PowerPoint. This disk will allow you to add information on your own company where appropriate on Slides 7 and 8.

This Appendix contains a complete set of templates for producing overhead projector transparencies. A further set is also provided loose in the flap in the back cover of this Guide, to allow you to photocopy them onto acetates as necessary.



# ENVIRONMENTAL TECHNOLOGY BEST PRACTICE PROGRAMME

**ENVIRONMENTAL  
TECHNOLOGY  
BEST PRACTICE  
PROGRAMME**

## Waste Minimisation Pays

Five business reasons  
for reducing waste

GG125/E1983/1



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# Objectives

**ENVIRONMENTAL  
TECHNOLOGY  
BEST PRACTICE  
PROGRAMME**

- ◆ Show that poor waste control means high costs
- ◆ Demonstrate the business benefits of effective waste minimisation
- ◆ Gain commitment to act now

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# Reason 1: Waste Costs Money

**ENVIRONMENTAL  
TECHNOLOGY  
BEST PRACTICE  
PROGRAMME**

Cost to UK industry      £15 billion/year

% of total turnover      4.5%

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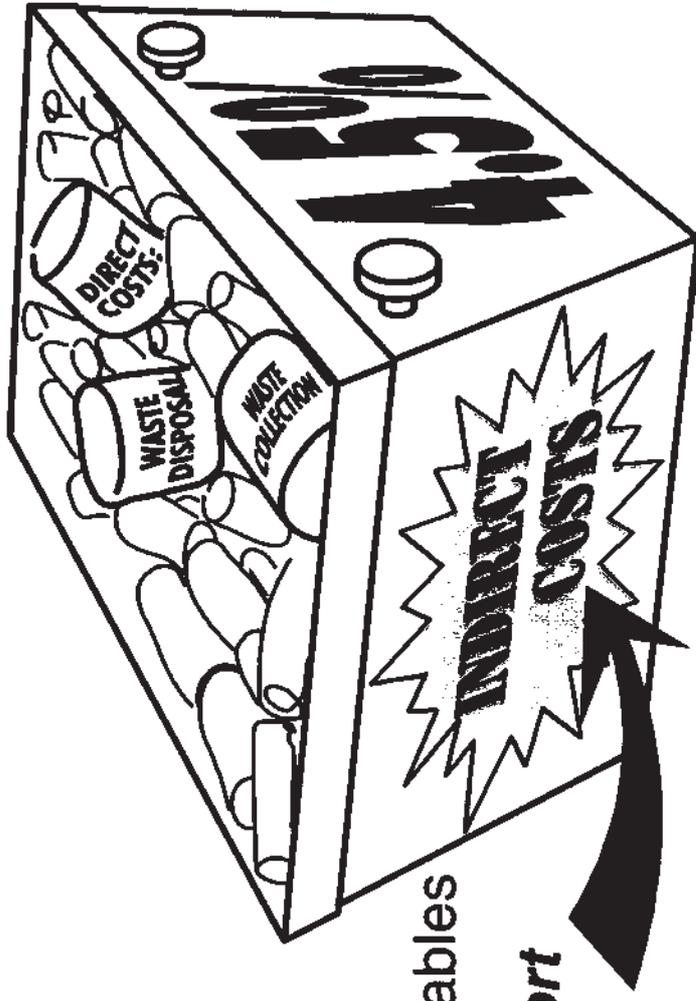


# Reason 2: Most of the Cost is Hidden

**ENVIRONMENTAL  
TECHNOLOGY  
BEST PRACTICE  
PROGRAMME**

- ◆ Raw material/ingredient cost
- ◆ Energy consumption
- ◆ Water consumption
- ◆ Effluent generation
- ◆ Packaging
- ◆ Factory/office consumables
- ◆ *Wasted time and effort*

**THE WASTE SKIP**



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# NT Frost Electroplating

**ENVIRONMENTAL  
TECHNOLOGY  
BEST PRACTICE  
PROGRAMME**

Net cost savings/year (1995)      £45,000

Payback period      6 months

Reduction in  
water consumption/year      60,000 m<sup>3</sup>

Reduction in  
trade effluent volumes      Significant

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# Facts

**ENVIRONMENTAL  
TECHNOLOGY  
BEST PRACTICE  
PROGRAMME**

- ◆ Waste costs more than you think
- ◆ Savings needn't require high capital spending
- ◆ Companies of all sizes can benefit
- ◆ Success can be shared
- ◆ Waste minimisation is catching on

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**ENVIRONMENTAL  
TECHNOLOGY  
BEST PRACTICE  
PROGRAMME**

A. Raw material used last year
B. Amount of product produced last year
C. Unit of main raw material per unit of product
D. Quantity of main raw material in product last year (B x C)
E. Wasted main raw material (A - D)
F. Purchase cost of main raw material
G. Cost of wasted raw material (E x F)

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**ENVIRONMENTAL  
TECHNOLOGY  
BEST PRACTICE  
PROGRAMME**

**Our company's waste saving potential:  
1% of turnover**

**Profit margin as % of turnover      \_\_\_\_\_%**

**Turnover last year      £\_\_\_\_\_**

**Potential saving = turnover ÷ 100 =    £\_\_\_\_\_**

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# Reason 3: Waste Reduction is Good Business

**ENVIRONMENTAL  
TECHNOLOGY  
BEST PRACTICE  
PROGRAMME**

**Example:**

**Net implementation cost      £36,300**

Annual savings	£103,600
Annual labour and maintenance costs	<u>£7,500</u>
<b>ANNUAL NET SAVINGS</b>	<b>£96,100</b>

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# Reasons 4 and 5: Our Reputation and the Law

**ENVIRONMENTAL  
TECHNOLOGY  
BEST PRACTICE  
PROGRAMME**

- ◆ Employees
- ◆ Customers
- ◆ Shareholders
- ◆ Banks
- ◆ Regulators

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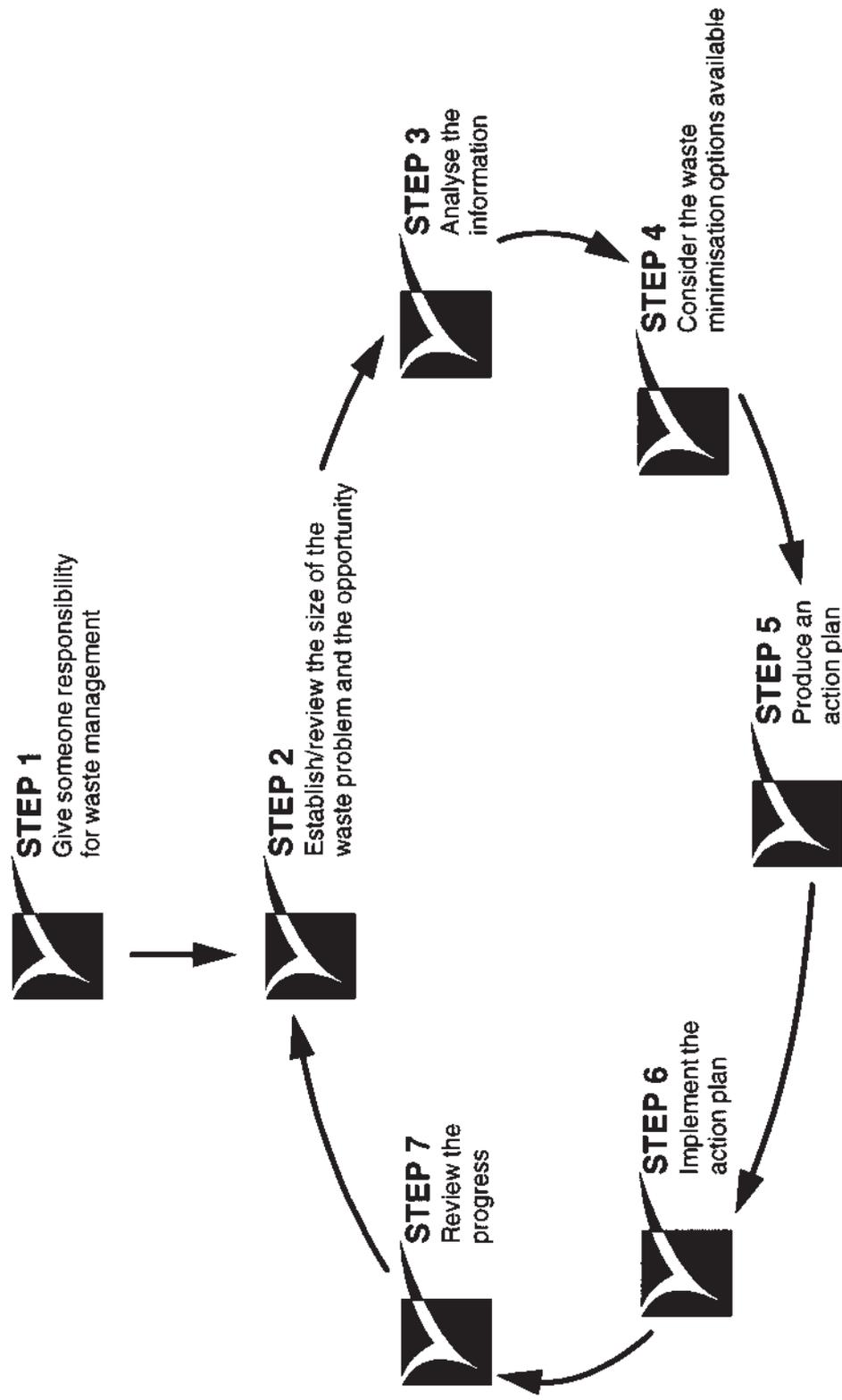
  
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# The Way Ahead: Suggested Approach

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BEST PRACTICE  
PROGRAMME**



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# Making Waste Minimisation Work Recommended Actions for the Board

**ENVIRONMENTAL**

**TECHNOLOGY**

**BEST PRACTICE**

**PROGRAMME**

1. Establish Board level commitment for waste minimisation
2. Appoint waste minimisation 'Champion' to:
  - *review the true cost of waste*
  - *motivate the workforce to reduce waste*

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# Making Waste Minimisation Work Recommended Actions for the Board

**ENVIRONMENTAL  
TECHNOLOGY  
BEST PRACTICE  
PROGRAMME**

## 3. Regular financial one line reports on:

- *the cost of waste collection and disposal*
- *the total cost of waste*

## 4. Be seen to support the initiative and praise successes

## 5. Inform suppliers of your commitment and guide them to sources of help

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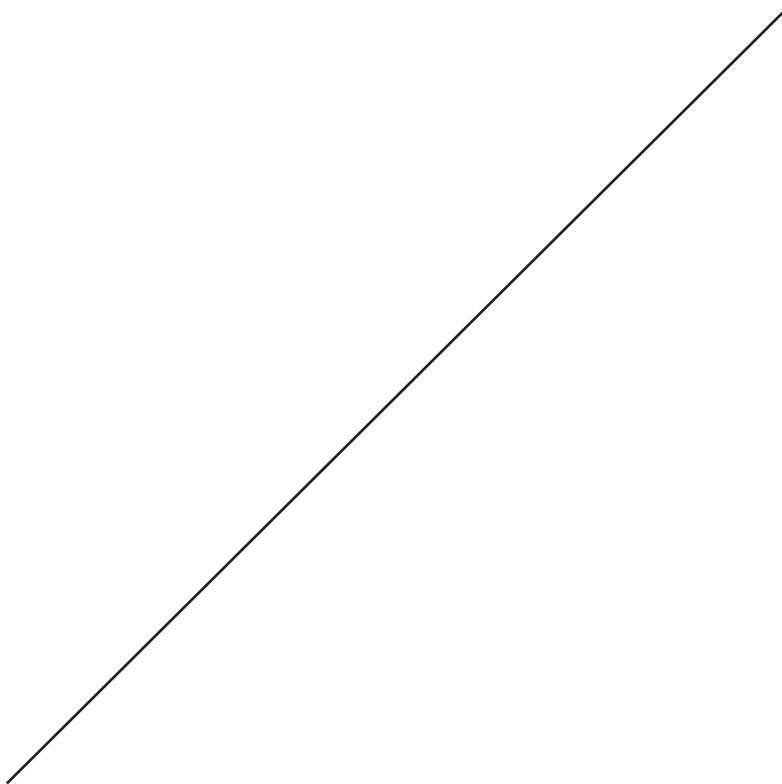
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The Environmental Technology Best Practice Programme is a joint Department of Trade and Industry and Department of the Environment, Transport and the Regions programme. It is managed by AEA Technology plc through ETSU and the National Environmental Technology Centre.

The Programme offers free advice and information for UK businesses and promotes environmental practices that:

- **increase profits for UK industry and commerce;**
- **reduce waste and pollution at source.**

To find out more about the Programme please call the Environmental Helpline on freephone 0800 585794. As well as giving information about the Programme, the Helpline has access to a wide range of environmental information. It offers free advice to UK businesses on technical matters, environmental legislation, conferences and promotional seminars. For smaller companies, a free counselling service may be offered at the discretion of the Helpline Manager.

FOR FURTHER INFORMATION, PLEASE CONTACT THE ENVIRONMENTAL HELPLINE

**0800 585794**

e-mail address: [etbppenvhelp@aeat.co.uk](mailto:etbppenvhelp@aeat.co.uk)

world wide web: <http://www.etsu.com/etbpp/>

