



Identifying the benefits of managing the resources used in your business

Micro Business Fact Sheet: Benefits of Resource Efficiency

Improved resource efficiency can result in increased profits and a competitive edge for businesses.

This fact sheet explains what is meant by resource efficiency and highlights the resulting benefits.

What is resource efficiency?

Resource efficiency is about using and managing resources in an effective way, while minimising their impact on the environment. Resources used by businesses include:

- electricity;
- water;
- fossil fuels; and
- raw materials.



A business that focuses on maximising its production, whilst minimising its resource use as much as possible, can increase its profit by doing more with less and become more competitive at the same time.

What is the waste hierarchy?

The waste hierarchy provides an excellent framework for planning your approach to reducing resource use and saving money. The waste hierarchy classifies waste management options based on their desirability. For example, waste prevention is preferable to disposal, as it reduces waste and is less harmful to the environment. This is illustrated in the diagram below, the higher up the waste hierarchy an option is, the better it is from an environmental perspective.

The waste hierarchy



Benefits of Resource Efficiency

Why should I consider resource efficiency?

There are many compelling reasons. Cost is a significant factor, and it also makes environmental sense. Becoming more resource efficient leads to:

- greater profitability;
- compliance with legislation – avoiding fines and potential damage to your reputation;
- awareness of resource scarcity; and
- increased customer satisfaction.

Greater profitability

Businesses often only consider the cost of the waste management service provided by their contractor to deal with waste generated within the workplace. However, the true cost of waste is much higher than this, and also includes:

- the cost of raw material written off as waste;
- manufacturing costs; and
- lost product revenue.

Waste is often viewed as an inevitable consequence of running a business, whether it occurs as rejects, changeover losses, overruns etc. Studies have shown that the 'true cost of waste' typically amounts to 4% of a business's turnover. However, by simply adopting no-cost and low-cost measures, 1% can be turned into savings that go straight to the bottom line.

Reducing waste will pay even greater dividends in the future. A tax is applied to every tonne of waste sent to landfill, to encourage businesses to produce less waste and use alternative forms of waste management higher up the waste hierarchy. This tax is £56/tonne for this financial year (2011/12) and will increase by £8/tonne each year, reaching £80/tonne in 2014/15.



Legislation

The number of environmental regulations is constantly increasing, and applies to a range of waste streams including landfill, disposal of electrical and electronic equipment, and the use of packaging materials. The Zero Waste (Scotland) Regulations 2011 will require small businesses to segregate materials for recycling from 2015*. Further details on these regulations are available from Micro Business Fact Sheet – Legislation.

Resource scarcity

Many resources are becoming scarcer, and as this continues, prices will rise and supply will become more uncertain. This affects not only direct supplies to business, but also resources used in the equipment you may buy, such as mobile phones, laptops, and batteries. A recent report by the Scottish Government identified twelve key resources of particular concern:

- **aggregates** – coarse mineral materials used in the construction industry;
- **fish** – used primarily for food, but with additional uses in other areas;
- **palm oil** – used in processed foods, cosmetics, soaps and shampoos;
- **timber** – used in the construction industry;
- **copper** – used in electrical cables, transformers and other electrical items;
- **cobalt** – used in high-performance metal alloys;
- **indium** – used in touchscreen phones, solar cells and laptops;
- **lead** – used in lead-acid batteries and construction;
- **lithium** – used in rechargeable batteries;
- **phosphorus** – used in fertilisers and agricultural chemicals;
- **rare earth elements** – critical to high technologies such as rechargeable batteries; and
- **tin** – used to create metal alloys and for metal plating.

*For businesses with more than 49 employees the implementation date is 31/12/2013.

Benefits of Resource Efficiency

Reducing the resources wasted by your business will lower your demand for materials

Therefore, reducing the resources wasted by your business will lower your demand for materials and you will be doing your bit to help manage the risks associated with resource scarcity.

Customers

Not only are customers becoming more aware of the environmental impacts of the goods and services they buy, but also, significantly, they are becoming aware of the impact that their product choices can have on the running costs of items such as electrical equipment and vehicles.



Monitoring and measuring

Measuring your use of raw materials, waste production, water and energy consumption is essential. If you measure how much you are using (in terms of both quantity and cost), you can calculate potential savings, track progress and benchmark use against a standard unit, such as the number of employees, area of the building, turnover, production units etc.

The first step is to gather data from purchasing records and invoices, including:

- the cost and quantity of raw materials purchased;
- the waste service provided, i.e. types of materials collected, containers/ bin size emptied, frequency of collection, and cost of collection; and
- water and energy consumption in terms of both cost and meter readings.



This approach will enable your business to develop a better understanding of the resource use of your business operations. When you know your current resource use (your baseline), you can identify areas in which to make improvements.

There are several areas where you may be able to make improvements.

- More effective use of consumables
e.g. use duplex printing to reduce paper usage, or ensure accurate measurements are used for any cutting or weighing operations.
- Minimise packaging use
e.g. reduce packaging size rather than using fillers, or consider returnable packaging.
- Renegotiate your waste management services to save money
e.g. are your bins full when they are emptied, if not reduce collection frequency.
- Purchase materials in bulk to reduce container wastage
- Install automated lighting in areas with little use
e.g. avoid leaving lights on unnecessarily in toilets and corridors.

Benefits of Resource Efficiency

What you buy not only affects your recycling rate but also has an impact on the recycling market

Closing the loop

As well as recycling your own materials, you can also close the recycling loop by buying materials with a recycled content, e.g. paper and stationery products, toilet paper and refuse sacks. Using recycled materials helps stimulate the market for recycled products and supports the recycling process. What you buy not only affects your recycling rate but also has an impact on the recycling market. Before you buy any product ask the following questions:

- Is it made from recycled materials?
- Is it made from marked and easily recycled materials (e.g. paper, glass or wood)?
- Are its component materials easy to separate for recycling?
- Is its packaging easily recyclable?

Additional Reading

The following Zero Waste Scotland guides are also available:

- **Measuring to Manage Resources and Wastes - An introduction**

This guide will provide you with the tools to implement the six key stages necessary to measure and benchmark your business's environmental performance effectively.

- **Green Office - A Guide to Running a More Cost-effective and Environmentally Sustainable Office**

The guide provides practical solutions that cost nothing or little to implement and will enable office workers to identify their impact on the environment.

Further information

If you have a specific query or require more information on an area covered in this fact sheet, please visit www.zerowastescotland.org.uk or contact the free Helpline on **0808 100 2040**.

On Course for Zero Waste

Zero Waste Scotland offers a free online training course for Scottish small and medium-sized enterprises/organisations (SMEs) – On Course for Zero Waste. This training has been designed to give individuals the skills and tools they need to improve the resource efficiency and environmental performance of their organisation – and, of course, save money too. For more information visit <http://smetraining.zerowastescotland.org.uk/>



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