

Earthly Gains

RESOURCE EFFICIENCY: SETTING THE SCENE

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Introduction

This short guide is the first in a series designed to help organisations to improve the efficiency with which they use resources and to gain the wider benefits of doing so. It draws together many of the lessons that I have learnt from helping companies for over 20 years.

While I rarely come across anyone who purposely sets out to waste resources, most of us do so simply because the systems that we manage and use are not designed to use resources efficiently. So we end up using more material, water and energy than are needed to achieve the objectives that we want. This series of guides calls on a wealth of knowledge to help organisations be resource efficient.

Who should read the guides?

The guides are aimed primarily at business decision-makers and budget holders but can help anyone who is keen to change the way that they work. Many resource efficiency improvements require time rather than direct expenditure. So if you have authority to allocate time, you can often make great improvements.

Defining resource efficiency

There are many definitions of resource efficiency but I will use the following in these guides:

Resource efficiency is a management approach to minimise the use of materials and energy in producing a product or delivering a service.

It is important to note that this should not alter the quality of the product or service. From a company perspective, it is often helpful to think how to produce the *outcome* for the customer using the least amount of material and energy.

Why be resource efficient?

There are many reasons for a business being resource efficient. Some key ones that have been demonstrated by companies are:

- Reducing costs
- Reducing environmental impacts
- Meeting customer sustainability and environmental requirements
- Complying with legislation
- Engaging staff
- Enhancing reputation
- Meeting company policies

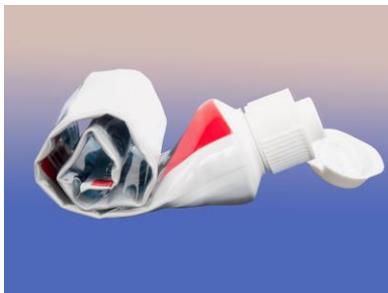
In later guides in this series, I will give more details of how resource efficiency can help to deliver against sustainable development goals, reporting requirements and standards. I will also show how it can help to generate innovation.



At a global level, we use more resources than the Earth can support in the longer term. The effects of our over-use of resources are already being felt and will become greater unless we dramatically reduce our use of resources. Various studies have shown that it is possible for everyone to have a high quality of life using fewer resources than we do at present.

So why aren't we more resource efficient already?

In working with many people over the years, I have observed that most people are focussed on the objectives of the task that they are set. Those objectives are usually to do with the how effective a product or service is for the intended customers or users. Delivering on budget is usually one of the objectives but, as long as this is achieved, resource efficiency is not considered.



As chairman of an Institute of Directors' event on resource efficiency, I found that the analogy of a toothpaste tube seemed to resonate with people.

With a new tube of toothpaste, there seems little restriction on how much can be put on your ordinary toothbrush. Most people will squeeze enough to cover the length of the toothbrush.

As the toothpaste tube becomes nearly empty, you might start to think you can use less toothpaste to prolong the tube's life. At this point you often just put a pea-sized amount on the toothbrush and find that this is sufficient to do the job that you need.

Just think of how much longer the toothpaste would have lasted if you had only used a pea-sized amount right from the start! You would have been able to clean your teeth just as well for a lot longer, saving money and meaning you spent less time on purchasing toothpaste.

So, the system for brushing teeth is not designed to be toothpaste efficient; its focus is to get your teeth clean.

Some tooth brushing systems are inherently more efficient in the way they use toothpaste. Most electric toothbrushes have small heads that tend to naturally restrict the amount of toothpaste that you use. This type of approach to guiding the use of a resource could have wider applications.

Embedding resource efficient thinking

Understanding a hierarchy can help to drive resource efficient thinking. I have seen this make an immediate change to how people approach a task. Try following the steps below and embed it into everyday decision-making on purchases and operation.



1. Do I need to use a particular resource at all?
 - For example, is there an element of product packaging that can just be omitted without changing the effectiveness of the packaging?
 - Are we ordering things that we don't need?
2. Can I reduce a particular resource?
 - Can something be made with a narrower gauge of material?
 - Can fewer parts still have the same effect?
3. Can I reuse a material?
 - For example, can packaging from orders received be used to protect orders being dispatched?
 - Can I reshape a component slightly to get more parts from my material?
4. Can I use a recycled material instead of a virgin one?
 - While using recycled materials may only marginally reduce costs, it can have a big environmental benefit by avoiding the use of virgin materials.

Thinking through these steps can help to ensure that materials and energy are minimised.

The resource hierarchy here is derived from the waste hierarchy of Eliminate, Reduce, Reuse, Recycle and only then dispose. Over the years, I have noticed that if you start by thinking about waste rather than resources, you tend to take longer to become resource efficient. Many people think of waste from the bottom of the hierarchy and stop once they have done some recycling. The big cost and environmental improvements come from using less resource, rather than simply reusing waste.

Rate your organisation

It is helpful to understand where you are on the journey to resource efficiency. The matrix below is designed to help you do this. Rate yourself for each column and colour in up to your mark. This will give you a visual indication of your starting benchmark and will show which issues need the most work.

Try to get other people in your organisation to fill in the matrix so that you get a wider view of people's perceptions and understanding.

Resource Efficiency Assessment Matrix					
Policy	Organising	Training	Performance Measurement	Communication	Investment
Resource Efficiency Policy led by Board Member, clear responsibility for Action Plan, KPIs available publicly	Fully integrated into senior management structure with clear accountability for resource efficiency KPIs	Appropriate and comprehensive staff training tailored to identified needs, with evaluation	Comprehensive performance measurement against targets and company performance reports include clear resource efficiency metrics	Extensive internal and external communication of resource efficiency issues and improvements	Resources routinely committed to resource efficiency issues in support of organisational objectives
Formal policy but no evidence of active commitment from top management	Clear line management accountability for each KPI and responsibility for improvement	Resource efficiency training included in induction and targeted training following training needs analysis	Decision-making uses data from regular performance measurement for KPIs related to consumption	Regular staff briefings, performance reporting and resource efficiency promotion	Same appraisal criteria used for resource efficiency improvements as for other projects
Vague reference included in other company policies	Some delegation of responsibility but line management and authority unclear	Ad-hoc internal training for selected people as required	Monthly monitoring of KPIs	Some use of organisational communication mechanisms to promote resource efficiency	Low or medium cost measures considered if short payback period
An unwritten set of guidelines	Informal, some positive actions but not consistent	Technical staff occasionally attend specialist courses	Inconsistent measurement of some resource efficiency performance indicators	Ad-hoc informal contacts used to promote resource efficiency	Only low or no cost measures taken
No clear policy on resource efficiency	No delegation of responsibility for resource efficiency	No resource efficiency related staff training provided	No measurement of resource efficiency indicators	No communication or promotion of resource efficiency issues	No investment in improving resource efficiency

What the first attempt might look like...

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Conclusion and next steps

Businesses control more of the world's financial resources of the world than governments. The influence that business has on our current and future quality of life is therefore considerable. We all have a role to play in using resources sustainably to allow everyone, now and in the future, to have the opportunity of attaining a high quality of life. By improving the resource efficiency of your business, you can help it to be more financially successful and more environmentally responsible.

If you completed the resource efficiency matrix in this guide, you will understand where you should focus your efforts. It helps if you review your current position by getting data on resource use and, perhaps looking at what other companies are doing. Pick one or two key resources to focus on and identify ways of reducing them. Try to embed the use of the resource hierarchy into routine decision-making.

Don't forget to measure and communicate the benefits as they accrue.

Please contact me at mgibson@earthlygains.co.uk to explore how I can help you to improve your company's resource efficiency.

About the Author

Martin Gibson has extensive knowledge of business sustainability approaches and has been helping companies to be more successful for over 20 years. One of the ways he helps companies is by guiding them to become more resource efficient. He gained practical expertise in this by working with hundreds of companies from a range of sectors during his time as director of the UK Government's Envirowise programme. Martin helped to develop many of the programme's highly successful guides, always focussing on making sure that there were positive outcomes for both business and the environment.

Martin is a self-employed consultant trading under the name Earthly Gains.

Feedback

Please let me know if you find this guide useful or have feedback on what else you would like to see. You can email me at mgibson@earthlygains.co.uk.