



Your easy guide to managing sustainability

A practical guide from
Integrated fm

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introduction



‘There is a great deal of information available about sustainability and what makes for a sustainable organisation. However, there is considerably less guidance on the practical, everyday management of a sustainability strategy in a real working environment.’

Yet it is becoming clear that the management of sustainability in general, and carbon in particular, is rapidly becoming as important to many organisations as their financial management – and will require the same attention to detail.

However, our research with a number of private and public sector organisations shows that the ability of many organisations to implement such a strategy is severely limited by the following:

- Not understanding what data is essential to capture
- No data auditing process in place
- Supply chain information needs to be searched out manually
- Data requires close human scrutiny to check for inaccuracies
- Verification of data also needs to be performed manually
- Reports need to be ‘hand-crafted’ through manipulation of various data sources, resulting in considerable time input

This publication has been produced as a simple, easy to use guide to address the following practicalities:

- What information is needed to measure and manage sustainability?
- How can I be sure I am collating the correct information to ensure I am working to legislative guidelines?
- Where is this information located – and in what format?
- How can this information be assimilated, verified, analysed and reported on?
- How can this be achieved in real time, so that the information is current and meaningful?

At the heart of all of these considerations is a fundamental truth, namely:

YOU CAN'T MANAGE WHAT YOU CAN'T MEASURE

The following section provides an overview of the elements that contribute to an overall picture of sustainability. Readers who are already familiar with this can skip to the next section by clicking [here](#).

1 the complexity of sustainability



'There are many factors that impact on an organisation's sustainability and all of these will need to be measured.'

Initially, most organisations focus on their own environmental impact but, increasingly, it is also necessary to extend sustainability criteria to the supply chain and the environmental impact of suppliers. It is also becoming increasingly common to include sustainability as a criterion in the selection of suppliers and procurement of goods and materials.

The following are all factors that contribute to environmental impact.

Energy consumption

Energy consumption has the highest profile of all sustainability elements, for a number of reasons.

Firstly, the energy consumption of the UK's building stock makes a significant contribution to our overall CO₂ emissions and the UK's ability to meet its obligations under the Kyoto Protocol⁽¹⁾.

Secondly, and partly as a consequence of the above, there is extensive legislation pertaining to energy consumption of buildings, with considerably more in the pipeline.

Examples include:

- The Carbon Reduction Commitment Energy Efficiency Scheme⁽²⁾
- Energy Performance Certificates (EPCs) and Display Energy Certificates (DECs)⁽³⁾
- Building Regulations, Part L – (new version 2010)⁽⁴⁾
- The Energy Performance of Buildings Directive (new version 2010)⁽⁵⁾
- Mandatory inspection of air conditioning systems
- BREEAM (BRE Energy Assessment Method)⁽⁶⁾ - applies only to new build and major refurbishment projects

Thirdly, energy consumption has a direct impact on an organisation's overheads and this is set to grow as a proportion of total overheads. It has been estimated that 21% of the total spent by UK businesses on energy is wasted – amounting to around £2.4bn.

'Consequently, any measures taken to reduce energy consumption have both financial and environmental benefits – but the Return on Investment can only be calculated if the energy consumption can be measured accurately.'

waste management



Waste management also has environmental impact, again in several ways:

- Direct impact on the environment through landfill
- Potential pollution by harmful substances in discarded products (e.g. fluorescent and other discharge light sources, batteries, CRT monitors)
- Some of the environmental damage caused by obtaining raw materials (e.g. mining, forestry) can be offset by recycling
- Recycling can reduce the energy required for manufacturing products, compared to using raw materials

There are also national and local compliance issues relating to waste management, such as the WEEE (Waste Electrical and Electronic Equipment (Directive)⁽⁷⁾, and league tables are beginning to operate in some parts of the public sector.

To address these issues many organisations are adopting a philosophy of ...

REDUCE, RE-USE, RECYCLE

In this way, an holistic waste management programme will include reducing consumption of consumables, re-using/repairing items rather than replacing them and diverting as much waste as possible to recycling waste streams.

'Thus, a range of parameters has to be measured to assess the success of any initiative to reduce environmental impact through improved waste management.'

water consumption



'Water is a valuable (and expensive) resource in its own right, and water consumption also has an impact on energy consumption at both building level and infrastructure level.'

For example, energy is used to distribute (pump) all water (around a building or through the water infrastructure) and additional energy is used to produce hot water.

In addition, sewage treatment consumes energy at the treatment works, while chemical treatment of potable mains water and water in building services (heating and cooling systems) has the potential to cause pollution.

The BREEAM assessment scheme awards points for measures that conserve water and the Code for Sustainable Homes⁽⁸⁾ focuses heavily on reducing water consumption, which will be enforced through Part G of the Building Regulations.

'Additionally, the Planning Policy Statement on Climate Change and Defra's (Department for Environment, Food and Rural Affairs) Future Water⁽⁹⁾ document calls for Local and Regional Planning Bodies to set relevant local standards for water efficiency.'

Initiatives to reduce water consumption will typically include the following:

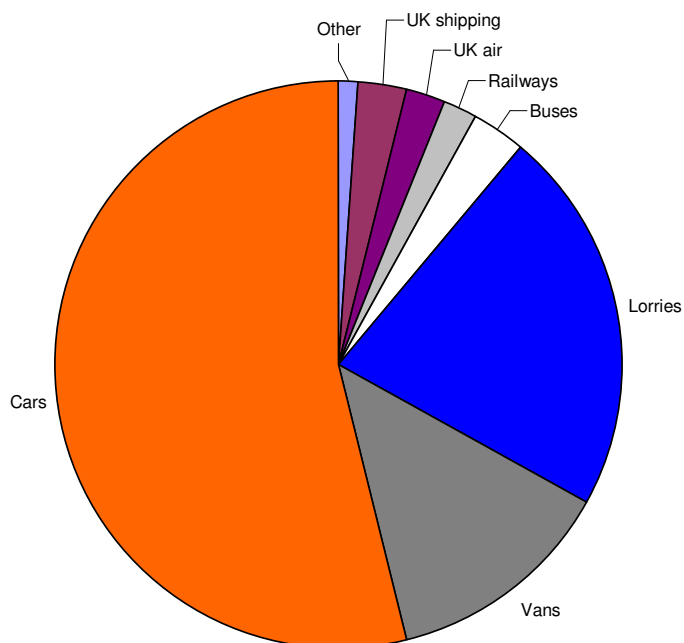
- Re-use of grey water
- Rainwater harvesting
- Low water volume showers and taps
- Waterless urinals
- Low flush and vacuum WCs

Consequently, water consumption within each system needs to be measured to gauge the success of water conservation initiatives.

transportation



Emissions from fossil fuels used in transportation are a major contributor to the UK's emissions of CO₂ and other greenhouse gases. These emissions also include a number of other hazardous chemicals that damage health and the environment.



Consequently, all organisations are being encouraged to take measures to reduce this through initiatives such as:

- BREEAM
- Corporate Social Responsibility (CSR)
- The need/desire to 'be seen to be green' as part of the corporate image
- Opportunity to reduce costs associated with business mileage

Organisations seeking to reduce the environmental impact of transportation will typically adopt some or all of the following:

- Encouraging use of public transport
- Providing facilities for cyclists
- Increased use of telephone/video conferencing
- Reducing number of deliveries (outbound and inbound)

As a result, an accurate measure of these factors is becoming an important part of many sustainability management programmes.

embedded carbon



'All manufactured products have an environmental impact and procurement strategies are now beginning to focus on what has become known as the 'embedded carbon', favouring products with lower embedded carbon.'

In fact, the environmental impact is more than the 'carbon' element, which relates to energy consumption during the life cycle of the product.

To take just one simple example, a painted door will have environmental impact, and embedded carbon, through:

- Harvesting and processing wood
- Quarrying and processing sand for window glass
- Extracting and processing ores for metal fittings
- Producing plastic from oil for plastic fittings
- Chemical processing of paints and finishes
- Packaging of all these elements prior to installation
- Transportation of all these elements
- Disposal at end of life

The growing focus on embedded carbon is creating a requirement to better understand the environmental impact resulting from the activities of suppliers, adding another strand of information that has to be examined and analysed.

And, of course, many companies will also be required to calculate these figures for their own products to meet customers' sustainability assessment requirements.

Carbon footprint

All of the above contribute to an organisation's carbon footprint, as well as its overall environmental impact through non-energy-related factors.

2 practical considerations



‘CSR commitments develop from the assessment and the strategy and come into play when the planning turns into doing.’

It is clear from the examples given above that measuring sustainability issues with a view to managing them effectively will require access to a great deal of information. The following are just some of the measurements that need to be included:

- Energy consumption, system by system and plant item by plant item, ideally on a floor by floor or zone by zone basis
- Water consumption
- Car/van/lorry journeys
- Efficiency of fleet vehicles
- Air travel
- Commuting patterns of staff
- Consumption of everyday consumables (e.g. paper, toner)
- Consumption of cleaning chemicals
- Recycling levels, broken down by separate waste streams
- Percentage of waste consigned to landfill
- Carbon footprint/environmental performance of suppliers

‘In order to meet reporting criteria, it will often be necessary to have these figures to hand both at a whole estate level and building by building, department by department, etc – month by month and year by year’

Accessing this information is very complex because of the following issues:

- The information will be housed in many different systems
- These systems may be operated by other departments or by external suppliers
- The information will be in many different formats (e.g. spreadsheets, manual systems, other software packages and back-office systems)
- These disparate formats will need to be converted to a common format for analysis and reporting
- All data needs to be verified for accuracy and completeness (ideally compliant with the AA1000AS or comparable assurance standards)
- Various stakeholders will require reports on different sustainability issues and in different formats
- Analysis and reporting has to be completed in a timely manner so it is current and meaningful

‘And, in many cases, this work will be over and above existing duties and responsibilities.’

‘So it needs to become an integral part of day-to-day activities.’

summary



‘Managing sustainability effectively is now vital to all organisations It also has the potential to be very time-consuming and expensive.’

Use of specialist tools, combined with the necessary expertise to implement them, makes sustainability management an integral part of everyday processes – gathering, validating and analysing data in almost-real time with very little extra time input and minimal financial investment.

Useful links

1. Kyoto Protocol
2. CRC Energy Efficiency Scheme
3. EPCs and DEC
4. Building Regulations
5. Energy Performance of Buildings Directive
6. BREEAM
7. WEEE Directive
8. Code for Sustainable Homes

Integrated fm has unique experience in this field and can offer skills and knowledge that make us the ideal partner in sustainability management.

For more information contact the Sustainability iQ team on **0845 250 4540** or email iqteam@integratedfm.com.

Alternatively please feel free to browse our website:
www.integratedfm.com/sustainabilityiq