

A photograph of a steam train at a station. The train is dark green with yellow 'GWR' lettering. A large plume of white steam is rising from the engine. In the foreground, a young child with blonde hair, wearing a light-colored jacket, has their hands pressed against their face, covering their eyes. The background shows a building with a dome and some trees.

The Carbon Journey

an introduction

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The Carbon Journey – an introduction

The Carbon Journey is a framework used by organisations to develop a carbon strategy. It can be used by investors to evaluate corporate responses to the risks and opportunities associated with climate change. It can also be used to benchmark corporate performance and assess the integrity of corporate claims and actions.

The Carbon Journey was first developed and applied by CarbonSense in the course of an evaluation of strategic options for a corporate client in 2005. Leading businesses were instituting carbon management processes and a few were purchasing offsets and claiming to be carbon neutral.

At the same time, there was a growing recognition that in addition to cutting global emissions, there would be a need to reduce existing concentrations of carbon dioxide and other long-lasting greenhouse gases in the atmosphere.

In this context, managing operational emissions becomes a necessary and ongoing process for a business, but it is not a satisfactory end goal. After the most readily managed emissions are quantified, reported and reduced, the wider influence – up and down the supply chain and with other stakeholders – should be the concern of a responsible business.

It became apparent that business carbon leadership would, in future, require moving beyond just reducing emissions or paying others to do so. It would involve gearing a business to deliver products and services that could help customers, directly or indirectly, to decarbonise i.e. to cut emissions or take carbon out of the atmosphere.

To become sustainable, a business would need to consider not only commercial viability, social contribution and environmental impact. The overall net effect of a business - when a wider sphere of influence is considered - would need to be decarbonising. Leading businesses would aim to become ecologically restorative.

The Carbon Journey framework was developed to help organisations to map a pathway to achieve this and become 'carbon positive'.

Carbon unknown

Around the world, companies pay their energy bills but carbon remains an unknown. Some have a partial picture of the emissions associated with their operations, products and services but only a small minority are developing full carbon accounts.

However, it is increasingly expected that responsible companies, whatever their sector and size, will manage and report their emissions in future.

Reporting requirements are already being passed into law. In the UK, for example, the largest industrial and power-generating sources of emissions came within the mandatory EU Emissions Trading Scheme established in 2005. A further cap-and-trade scheme - the Carbon Reduction Commitment - has been proposed by the UK government. This will require several thousand additional companies and other organisations to account for the emissions associated with their energy use.

The UK government is also due to launch guidance on measuring and reporting greenhouse gas emissions by 1 October 2009. It is required by the Climate Change Act of 2008 to introduce regulations for the mandatory reporting of greenhouse gas emissions by 6 April 2012 (or to lay a report before Parliament explaining why this has not happened).

There is also growing commercial and social pressure for businesses to calculate a carbon footprint and take action.

Carbon management

For most companies, carbon accounting starts with the direct emissions of carbon dioxide arising from their own combustion of fossil fuels, and the emissions arising from the generation of the electricity they purchase - often referred to as indirect emissions.

In the Greenhouse Gas (GHG) Protocol, developed by the World Resources Institute and the World Business Council for Sustainable Development (and on which the UK government has based its draft guidance) these direct and indirect emissions are referred to as Scope 1 and Scope 2 respectively. For some organisations, other emissions such as leaking refrigerants or methane emissions from landfill may also be significant.

A carbon audit will identify the sources of Scope 1 and Scope 2 emissions and establish a baseline period from which reductions can be planned. It is common for organisations accounting for emissions for the first time to be able to identify energy efficiencies and changes in operational procedures. Relatively easy actions can often lead to annual emission reductions of 10% or more.

Forward plans and reduction targets can then be developed.

Some companies have claimed that some of their emissions are unavoidable, purchased offsets and claimed to be carbon neutral. Such companies have typically offset only their Scope 1 and Scope 2 emissions, or part thereof. Others just offset emissions associated with business travel. However, offset projects have often been flawed, markets have been poorly regulated, political spin and marketing hype have been prominent and many of the associated practices have not stood up to scrutiny.

There are strong arguments in favour of investing directly in efficiencies and emission reductions rather than paying others to reduce emissions. With the additional pressures of an economic downturn, many companies are now turning away from offsetting and seeking a more genuine pathway towards sustainability.

Carbon positive

For some businesses, significant emissions can occur elsewhere in the supply chain such as the extraction and processing of raw materials, or when customers use products or services.

For other companies, the emissions associated with business travel, employee commuting or contracted out services can be considerable.

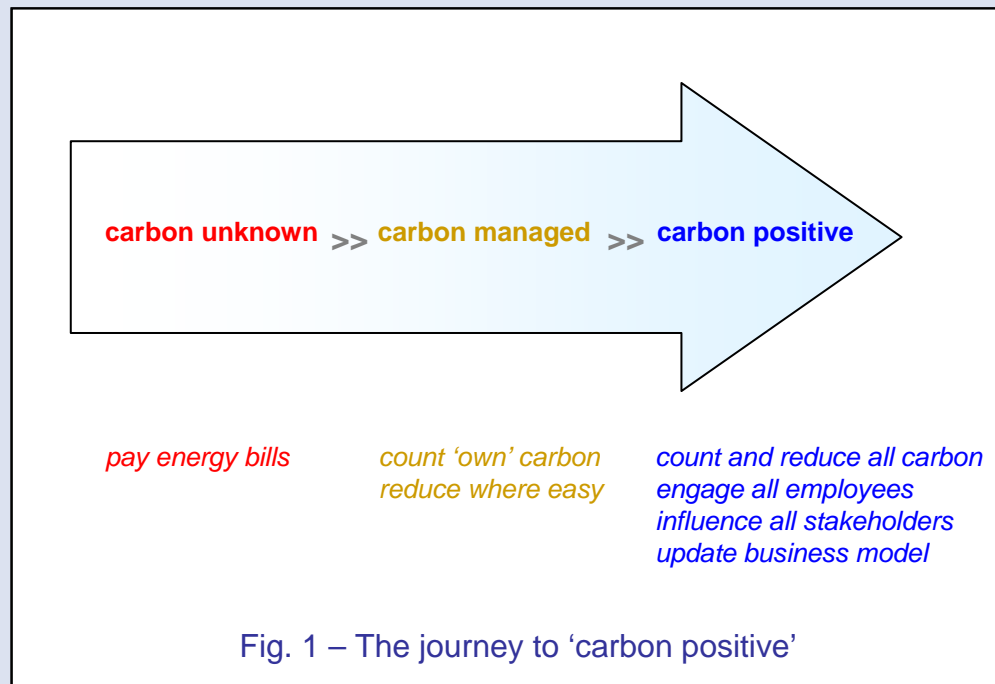
Once these emissions are accounted for, actions can be planned in the context of the whole rather than just on the basis of Scope 1 and 2 emissions.

This can't be done effectively in isolation. It requires a joined-up approach with other stakeholders to ensure that overall emissions are reduced and not simply displaced to elsewhere in the supply chain.

Similarly, while the self-referential approach of setting incremental targets based on past performance can make sense while carbon accounting procedures are being established, it is not satisfactory on an ongoing basis.

There is a need to take account of recent climate change science and 'natural limits' as key points of reference.

A further question to be answered concerns whether a company's products and services help or hinder decarbonisation?



A company that aims to be sustainable needs to:

- communicate about sustainability with customers, employees and other stakeholders;
- map a pathway to the provision of decarbonising products and services;
- ensure that the transition to becoming a sustainable enterprise is viable.

We have already seen growing contrasts between products that are blatantly polluting and others that can replace them in, for example, markets for road vehicles.

it appears likely that there will be a greater polarisation of perceptions.

Some companies will be seen to be adding to the climate problem while others will be contributing to solutions.

For some companies this will involve making changes to products or services but for many, staying in business will involve changes to business models (Fig. 1 – The journey to 'carbon positive')

Conclusion

Some established companies have begun to make reference to government targets or scientific findings reported by the Intergovernmental Panel on Climate Change. Others have begun to test their business models against scenarios of carbon constraint and climate change.

Some will need to reconfigure their operations or risk being eclipsed by new players with disruptive technologies and decarbonising propositions.

As investors seek climate change-related opportunities and a carbon literate society develops, it is clear that one way of measuring corporate leadership will be the extent of progress on the Carbon Journey.

CarbonSense has helped many companies to evaluate risks, opportunities and responsibilities, and to develop carbon positive strategies.

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