



IMAGE ©Paul-André Belle Isle

## CAREFUL CLIMATE CARE

It seems that not a week can pass by without media coverage of a new report on climate change, but can it be seen as a driver for innovation and improving CSR performance? DR PAUL TOYNE, Director of Article 13, takes up the story.

It seems that not a week can pass without media coverage of a new report on climate change. In the UK, all the political parties have now identified it as a major issue for people, the environment and the economy. It seems a long way from the 1980s and early 1990s when 'global warming' struggled to make the headlines. A decade ago, most businesses were able to plan their futures without making reference to worldwide temperature changes, increasingly frequent extreme weather events and sea-level changes.

Fast forward to 2006 and scientific opinion is, at last, near-unanimous in its statements that climate change is happening, and that emissions of "greenhouse gases" from human activity are driving it. Carbon has emerged as a new currency, with greenhouse-gas emissions traded across Europe, and worldwide for some sectors. Investors and insurers have woken up to the price of climate change and are demanding that companies face up to the implications for their business. May this year saw the prices of the EU

Emissions Trading scheme shake down after the first full year of operation and the real costs of exceeding your permitted emissions are hitting hard.

With the issues now inescapable, Article 13 offers three key questions to think about in finding the path to innovation and value in climate change.

### HOW DOES CLIMATE CHANGE AFFECT BUSINESS AND THE SUPPLY CHAIN?

A changing climate affects the viability of enterprises up and down the supply chain. As oil prices rise to \$70 a barrel, a business buying energy will see costs escalate. It's worth remembering that suppliers may be at higher risk since energy is typically a higher proportion of total costs the further back along the supply chain. So questioning what kind of energy you need, as well as creative thinking about how much energy you need, is an area of innovation likely to pay dividends.

The London Climate Change Agency (LCCA) has been set up to support that sort of creative thinking in the

UK's capital. Working with businesses and buildings in specific geographic areas, the LCCA wants to help replicate the success of the town of Woking. Here a localised "private wire" system has made the town self-sufficient in its energy production, helped by technological innovation (*like a hydrogen fuel cell*<sup>1</sup>). LCCA envisages a number of these energy islands across the capital, each of which would spread risk of discontinuous supply and reward between energy users.

Climate change is altering the location, size and purchasing priorities of key markets too. The huge impact of energy provision in China and India features heavily in the business press – growth in these markets will swamp all others soon – and selling futureproofed, climate-friendly and energy-efficient products into these markets is a tremendous opportunity. To capitalise on the opportunity, businesses need to find new ways of working in cross-sectoral partnerships that are unlikely to be comfortable for anyone at first! Knowing the market

you're aiming for, and the challenges it poses, helps focus innovation effort where it will give greatest payback. This also means that innovation in technology will need to be matched by innovation in business models.

## HOW DOES CLIMATE CHANGE AFFECT PRODUCTS AND SERVICES?

Thinking about climate change, and particularly the focus on needing to reduce emissions associated with fossil-fuel use, means that you can start to categorise which are the products of the past and what are the opportunities of the future. Which products will be in high demand in a low-carbon economy? Which services will help people and business adapt to the new conditions imposed by climate change.

The energy company Ecotricity is an example of

amount of CO<sub>2</sub> emissions they generate in one year of driving and then buy an offset that supports the production of renewable, clean energy from wind or dairy-farm methane.

Earlier innovators will see the highest returns. Toyota and Honda hybrid cars command a price nearly 50 per cent higher than similar-sized and specified petrol or diesel cars in the UK – and yet demand still outstrips supply, with waiting times of several months for delivery. This extra price won't translate into 50 per cent extra profit because Honda and Toyota need to pay for their early investment in commercialising hybrid-fuel technology. But achieving strong sales with those high process costs is still a sign that markets are willing to pay more for climate-friendly products. That willingness-to-pay should translate into some level of increased profit, particularly for the first movers in a particular product field.

fast and relentlessly, waste management has a strong interest in climate change. Methane emissions from the disposal of biodegradable waste are potent greenhouse gases, 22 times more powerful than CO<sub>2</sub> in warming the planet. So some waste-management companies are recognising the need for innovation to reduce methane emissions, whether this means capturing the emissions for power generation or reducing the emissions by changing waste-disposal technology, as Severn Trent is considering. One particularly interesting example is Biffa Waste Services (soon to be separated from the Severn Trent group). Unusually for business, Biffa engages with government and society to make the case for higher taxation. It actively lobbies for increasing landfill tax, as it is Biffa's assessment that only increasing the cost of waste disposal will eventually provide sufficient

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how innovative thinking has led to a completely new business model for energy delivery. The traditional model of energy delivery is to put all the investment up front in large power plants like nuclear, oil, gas and coal. This model is, to some degree, being replicated by the huge wind farms aiming to mop up the UK's renewable-energy market. The plant operator then needs to find electricity contracts, which will use the megawatts generated by big plants. Ecotricity has taken an incremental approach. It sells electricity contracts that then enable it to fund small-scale renewable-energy generation (typically a handful of wind turbines or a small hydroelectric plant), which reflects the size of the contracts assured. This means that investment in smaller chunks, its generating portfolio is more flexible and resilient to changes in the financial markets, and that it has minimised its risk at every stage of the way.

In the healthcare industry, climate change, is seen as having a huge impact on human health due to the increase in both the range of diseases and growth in the number of vectors of transmission to spread them. Health education on issues of water quality and conservation will be important, as will new healthcare priorities. These are the kind of pointers that will shape products and services to maintain the health of a growing and, in Europe's case, an ageing population.

The aviation industry is under scrutiny for the climate impacts brought about by potent greenhouse-gas emissions from aviation fuel, and one way that a concerned traveller can appease their eco-conscience is by buying a "carbon offset" alongside their flight ticket<sup>2</sup>. A handful of organisations, like Climate Care, offer the chance to recoup your impact on the environment by doing something to absorb the emissions associated with your flight, or increasing energy efficiency and therefore reducing emissions somewhere else. In the automotive industry, Ford is the first vehicle provider to innovate and start actively promoting voluntary carbon offsets to its customers. At the end of April 2006, Ford launched its 'Greener Miles' programme, where drivers can calculate the

## HOW WILL CLIMATE CHANGE AFFECT INFRASTRUCTURE ESSENTIAL TO PRODUCT AND SERVICE DELIVERY?

Transport is going to become a high-profile issue for most businesses. Costs of transport are likely to rise in two ways: transport costs will increasingly reflect direct carbon emissions associated with moving goods and people around, and transport infrastructure itself will become increasingly vulnerable to the extreme weather events which climate change brings, increasing insurance costs at best, and isolating businesses from their markets at worst. So an organisation that starts to recognise the full costs of transport, using this as a lever to innovate into more distributed systems, or avoiding the need to move goods over ever-increasing distances, will see benefit.

Often overlooked, but a business cost that is rising

impetus for people to take seriously the radical innovation in waste-management methods and waste recycling or avoidance.

## NEITHER DENIAL NOR ROSE-TINTED GLASSES

The time for hoping that climate change will just go away, or that, at least, it won't affect your organisation appears well and truly past. Equally, simply assuming that facing up to a challenge is enough to overcome the challenge is optimism without any basis. Organisations need to structure a systematic approach to understanding climate change – how will it affect your organisation directly, the people in your supply chain, the use of your products or services? This understanding is essential as the basis for identifying where the opportunities lie, so that climate change offers you the chance not to increase costs, but to innovate and add value ■



**ADDITIONAL READING: 1** - Read our CBI CSR case study on First Group and their participation in the trial of hydrogen fuel cell buses for an example of innovation in climate change. **2** - See Article 13's CBI CSR case study on BA and their Climate Change Programme for further insight.

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