
IT and the Environment: Part 3

Helping the business become green

By David Tebbutt, January 2008

In a nutshell:

ICT can help the organisation achieve its environmental objectives in numerous ways

Key points:

- Dematerialisation – doing the same things without physical impact – offers many options;
 - A holistic view is essential: Raw materials, manufacturing, logistics, are all part of the mix;
 - It is unlikely that all opportunities will be apparent at once: let your employees have a say;
 - If in doubt, take the bottom line impact route to green, and build from there.
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Let's be clear about one thing, if the developing world wants to emulate the western world's way of life, we will need multiple planets to supply the raw materials and absorb the waste. EMC's Dick Sullivan points out that China has nine motor vehicles per thousand heads of population, India has eleven and the USA has 1148.

Huge changes need to take place and many of them are quite beyond the scope of the IT department. But, having said that, ICT generally can make a substantial difference and have a positive effect, not only on the planet, but on society and on company profitability.

In the last item in this series, we saw how changes in the data centre and at the desktop could make a substantial difference to energy consumption, space usage and the bottom line. Today we'll look at how ICT can support the organisation in its pursuit of environmental objectives.

Broadly speaking, ICT can help run a more efficient and less energy-consuming organisation. It can also help 'dematerialise' a company's products and the means by which it delivers its services. To take a simple example of dematerialisation, remember when we had telephone answering machines? Now the same function is delivered as a service, either by the telecom service provider or by software inside the organisation. More recent examples are online music and eBooks.

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Another form of dematerialisation is to substitute travel with videoconferencing. We can transport people as bits instead of atoms. And save the economic and environmental costs of ground and air transport as well as accommodation expenses. EMC uses Cisco's TelePresence system and finds meetings very realistic. The worst aspect is that you can't all go down the pub together when the session's over.

Forrester Research suggests that, in future, the cost of a product or service will be measured not only in price, but also in terms of energy consumed over its lifecycle. No doubt a product's inherent recyclability and use of hazardous chemicals could also be taken into account. Such information would need to be recorded and maintained by IT systems. And it will apply to both the purchase, processing and supply activities of a company. All companies will need to account for their environmental performance.

IT can't act alone and its impact will vary in proportion to the type of organisation it is supporting. It must be difficult if you're the CIO of a coal-burning power station to know that 60 percent of the energy produced goes straight up the chimney. But we all have to do our bit and hope that others, with bigger carbon deficits are doing something about theirs.

The important thing is to look at the business as a whole, along with the CEO, facilities, HR and anyone else with a vested interest. Raw materials, manufacturing, logistics, staff travel and buildings are all part of the mix. IT applied intelligently can reduce road and air miles, reduce commutes and eliminate many business trips altogether. In America, UPS plans its routes to maximise the number of right turns. It estimates that this, and its package flow technology, saved it three million gallons of fuel last year.

Cutting the carbon footprint is a question of motivation at the top. Once a company has decided to act, every aspect of the business can be re-examined in this light. The trick, certainly in the early days, is to look for the big wins. These usually deliver net economic, environmental and social benefits.

An IP communications network can put antennae in every part of a business. Instead of separate monitoring and control systems, they could be consolidated into a single all-embracing network, in theory at least. Building security, cctv, presence sensors, lighting, elevator control, air conditioning, fire alarms, remote sensing of reservoir water levels, railway points and so on could be integrated and automated. But common sense needs to be applied with regard to the investment needed and the payoff expected.

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It's unlikely that anyone in the organisation will be familiar with all the potential opportunities. So why not create online meeting places where employees can discuss and share information and opinion? Especially in identifying opportunities for the beneficial application of ICT. The more ICT is seen as value-adding, the more it will attract budget and raise its importance to the organisation.

In order to keep the planet ticking over and to recover lost ground, we need to shift as many of our desires as possible away from material things and towards services. It all sounds terribly idealistic, but when you think that an iPod is probably thousands of times more environmentally friendly over its life than a conventional music system with its collection of records, CDs and tapes, then it's not such a big leap. We still get the pleasure we crave but with a much smaller environmental impact. The short term hit of retiring the old equipment and buying the new ought to lead to a long term net benefit.

IT can help at many levels. Not least in environmental accounting for all the companies inputs, processing and outputs, in the effective operation of the buildings and services and in the minimisation of travel, accommodation and commuting.

But, it has to be said, if your company does not take any of this stuff seriously then your best bet is to show how environmental actions can actually benefit the bottom line. And take it from there.

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