

How efficient IT **PAYS ITS WAY**

Transitioning to a low carbon business in challenging times

Sustainability is becoming increasingly important to organisations despite fears of an economic slowdown, as governments introduce measures designed to reduce our overall environmental impact. It's our opinion that going green can make good business sense when carefully targeted actions are allied with initiatives to reduce costs. Shrewd investments in processes and practices can produce immediate economic benefits as well as long-term positive impacts on the environment – and on customer relationships.

Juliet Silvester

GREEN LIGHT, RED INK

The credit crunch, high commodity prices and accelerating global competition are bringing an acute focus to short-term business decision making. Under normal circumstances we might expect organisations' commitment to sustainability to waver in the face of more urgent issues, but these are not ordinary circumstances. The debate on climate change has, as far as most governments are concerned, been concluded and the focus is now on meeting targets to reduce their CO₂ emissions in line with various international agreements.

For both the public and private sector this means that environmental sustainability will become an increasing important focus. But green practices can be compatible with financial virtue. Sustainability and sound management can be firm allies – as long as the sustainability agenda is treated as a business programme with the same accountabilities and performance standards that are applied elsewhere in the business. It's also important that a vague green glow isn't used to obscure activities that are economically damaging, or to sugar-coat cost-cutting exercises.

However, apparently simple alignments between the business's economic and environmental goals may not be all that they seem. Opportunities must be analysed with care, using the same rigour you would apply to any other business case. For example, at the macro level, the greater use of biofuel in Europe may be having a negative environmental impact because the bulk of supplies are shipped from North America. It may also contribute to rising food prices.

The challenge is to be able to assess the opportunities so that decision makers avoid taking cost-driven decisions that ignore longer-term investment issues. In other words, they need to think systemically about the changes they want to make in the business and consider the investments that deliver the best returns, only in this case the returns now include an assessment of the environmental impact of the proposal as part of the overall mix.

IT'S OUR OPINION...
ENVIRONMENTAL SUSTAINABILITY

GREEN OPPORTUNITIES: REDUCING ENERGY CONSUMPTION

Enterprises can advance cautiously by finding natural alignments between environmental benefits and economic advantage, and investing their resources in these places. For example, energy reduction programmes will reduce your carbon footprint while lowering fuel bills. Electricity consumption has acquired a high profile in an era of rising prices and increasing concern for the environment, so energy reduction activities score on both the economic and the environmental scales. In our own business we used smart meters to enable us to understand and reduce energy consumption across our office estate: this has meant a 19% reduction in the last two years and we are aiming for a further 5% this year.

We have also had a similar programme running in our data centres. Estimates in 2006 from the US government showed that 1.5% of all US energy was consumed by data centres; however an Intellect report published in February 2008 suggested that the same figure for the UK is between 2.2% and 3.3%. The data centre is therefore an obvious target for both internal action and external pressure from governments and planning authorities. We reduced consumption of the mechanical and electrical plant within our data centres by 20% in 2007/08 through a combination of changes including optimising the cooling and air handling systems, altering the temperature and humidity settings, creating hot and cold aisles within the floor layout and reducing the lighting. With new technology developments coming on stream soon we expect to be able to monitor the environment across the data centre in real time and react dynamically to changes as they occur.

LEAN AND GREEN?

What sounds like a convenient rhyme can have profound implications for business and the environment when lean thinking is applied to green issues. Crucially, lean practices belong to and are enacted by all an organisation's people. Lean is a way of working, rather than a short-life programme imposed from above or from outside.

The lean approach is to continually attack waste. This focus on waste reduction derives ultimately from the scarcity of materials and skills in post-war Japan and the need to produce low-cost goods for a market recovering from absolute zero. The sustainability movement is a response to the new worldwide recognition of coming scarcities and the interdependencies between human behaviour and the environment. In both cases, individuals are motivated to challenge existing practices and to look for ways of producing high-quality outcomes with fewer resources. Lean is about eliminating waste – in this case it is environmental waste – but done against a background of understanding the value being delivered to the client and looking to maximise that value. The use of lean thinking therefore ensures that eliminating environmental waste is considered within the overall context and is demonstrably in support of business goals.

Organisations that seek to cut costs without considering the full impact on business goals effectively substitute 'mean' for lean and end up chasing point solutions when they could be streamlining their business processes and removing waste. The most energy efficient IT in the world is worth nothing if it isn't serving your business, just as a low-consumption, hybrid car isn't 'better' than a gas-guzzler if it's travelling in the wrong direction.

CHIP AWAY AND CHALLENGE THE NORM

The obvious opportunities for green-economic alignment may be used up quickly but once you have addressed these headline areas you will be better placed to discover new opportunities. You will also be generating savings that can be used to fund new projects.

The aspiration of 'low carbon' IT provides the catalyst to change the way the organisation thinks and operates. The consolidation of servers or printers or use of thin client devices rather than full specification PCs has made good technical sense for some time but the challenge has been to demonstrate that such approaches were worthwhile. In many cases the accepted norm has been based on 'ownership': my PC, my printer and my departmental server. When costs and CO₂ emissions weren't such an issue this was an easily defended position. Now, with suggestions that the average data centre server pollutes at the same rate as a 15 miles per gallon 4x4 or that the three year energy bill for a server will probably exceed the initial capital outlay, this is not such an easy position to sustain.

A good example comes from our operation in France where we replaced 197 printers, copiers, scanners and fax machines with 23 multi-function devices. The reduction in energy and paper reduced our printing bill by 42% with projected savings of almost £700,000 per annum when deployed across the whole organisation. Having improved the environmental and cost profiles of our printing activities we are now well positioned to challenge the effectiveness of our information usage. Once you're printing less, it becomes easier to question the value of what remains – and to see opportunities for process improvements that may remove more paper, speed the business process and add more value to the customer.

We recently developed a system for the UK government based on delivering office and business applications to end-users from a shared service and using all the ideas outlined above. It was designed to consume typically 40% less energy than the traditional approach with associated savings in CO₂ emissions. It was also more cost effective for the customer and it becomes increasingly so as more users sign up.

Schemes to reduce travel by introducing more people to remote working and virtual meetings can also generate revealing data about business processes and collaborative practices. Simple productivity benefits associated with home working are generally thought to apply to staff with well-defined, repetitive tasks – a shrinking population in our multi-skilled, multi-tasking world. But once physical meetings become harder to arrange, it's noticeable that fewer projects are constructed 'by committee'. The cycle of duplication and alignment that often passes for collaboration is replaced by a genuinely co-operative, but more serial, style of working. The door is then open for confident reassessment and redesign of business processes.

Using the 80:20 rule repetitively is a simple but effective way of managing performance improvement and reducing environmental impact. As you apply it, be clear on the kinds of benefits you are accruing from each action. We found that a 10% reduction in meetings would reduce our carbon footprint by the equivalent of a village of a thousand people, but it would also save us over £5m per annum in travel costs. But whereas cutting the number of commuting miles travelled by your people may be a green benefit, cutting the number of 'make-work' meetings they attend is just sheer good sense.

PRAGMATICALLY GREEN

- Discover the synergies between lean thinking and green goals
- Recognise the differences between lean and mean practices
- Insist that changes to the business are defined by comprehensive and credible business cases

SEEDS FOR THE FUTURE

Green interventions can generate immediate benefits, but they can also seed longer-term benefits – at low cost. Small, targeted investments in the right green activities can also produce handsome rewards in terms of market positioning, alliances and talent acquisition. For example, recruiters report that issues of environmental performance and social responsibility figure prominently in the decisions graduates make about which employers to approach. The best talent is increasingly ignoring organisations with poor track records in this area, and positive spin is unlikely to repair the credibility deficit. An organisation that is making tangible and understandable efforts to improve its green credentials is also speaking to this important audience.

Future needs can also be served by decisions that delay or remove the need for large new investments. So, for example, rationalisation of equipment and applications may push back the need for a wholesale IT refresh. Greater use of mobile technologies may avoid the need to build or rent larger premises. Awareness of the environmental impact and growing expense of car use may help companies to reduce their fleets – and bring more choice to their benefits packages. The lean, green mindset helps decision makers see the value of not doing some of those things that have become, by default, part of the way business is done.

MORE WITH LESS

Taking green issues to heart doesn't mean reversing technological progress or destroying the foundations of our industrial society: it just means making more of the resources we have and recognising the potential limitations on those resources. In fact, most commentators expect to see an increase in the use of technology as it is applied intelligently to reducing the impact of the way business operates and how we lead our lives.

The transformation to an environmentally sustainable business should no longer be considered as a sustainability movement. It is an economic movement in the sense that it seeks to account for things that have traditionally been seen as free, or as externalities underwritten by some distant – probably unborn – group. People increasingly recognise the interconnectedness of human activities and our shared responsibilities for the resources we exploit. We must now account for them within the scope of our increased economic understanding and we can do this even during an economic slowdown.

Whose **OPINION?**

JULIET SILVESTER



Juliet heads our environmental programme. Based in Staines, UK, she is responsible for ensuring that we are an environmentally responsible business and that we are able to help our customers achieve their own commitments to the environmental agenda. Outside of work, Juliet can often be found encouraging her two (nearly teenage) boys to disconnect themselves from their technology and enjoy some family time.

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YOUR OPINION

Juliet would welcome your comments by email (juliet.silvester@uk.fujitsu.com) or at uk.fujitsu.com/opinion



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