ORACLE

# GOING FOR GREEN IN IT

# GOING FOR GREEN IN IT

If you've been in the business world for any time, it's unlikely you can recall a period when issues relating to the environment and sustainability have been more prominent. Indeed, green is all around you: from business bestsellers like *Green to Gold* and ever-multiplying conferences on the subject, to an outpouring of media coverage and new business incentives (and regulations) around the world.

In fact, John Doerr, the Kleiner Perkins Caufield & Byers investment banker behind such business successes as Google and Amazon.com said that "Green could be the largest economic opportunity of the 21st Century."

And according to Australian research firm, S2 Intelligence, local companies will spend up to US$6.5 billion on green initiatives by 2015.

So how can an enterprise – with responsibilities to shareholders, employees, customers, partners, and the community it serves – sensibly implement sustainable business practices that will have a long-term effect without inviting significant short-term hardship?

While that answer may still be on the horizon, here is a collection of content that will help you think about the business value of green and the strategic advantage it could give your enterprise.

# RUNNING LEAN AND GREEN
## SUSTAINABILITY IS REACHING THE TIPPING POINT.

by **Dr Jim Newcomer**

In recent years, some of the most far-sighted companies worldwide – such as Apple, HP, and Toyota – have led the way in environmental and social responsibility.

Originally they may have done it for moral and humanitarian reasons, to comply with increasingly strict environmental laws, to avoid future regulations they anticipated, or even to avoid customer and stockholder protests. But reasons for social and environmental commitment have changed rapidly in the last year from basic compliance or altruism to just plain good business.

### Four Steps to Sustainability

First, companies with clear environmental and social policies are leading their industries: Profits typically go up, operating costs go down, workers are enthusiastic, and the public looks upon them positively. Even though reducing emissions and waste, redesigning processes, enhancing employee benefits, or cutting energy use may require investment, the changes can provide good returns.

Many firms are now going sustainable just to stay competitive, and some experts are saying that the tipping point has been reached. Within a decade it is possible that attention to the environmental impact of a company's decisions will be just as important to assuring its future as its financial bottom line or its executives' integrity.

Second, for business-to-business sales, sustainability has begun to offer tangible marketing rewards by attracting and retaining good customers who are interested in more than the lowest price and who share the common goal of a commitment to human values.

Third, defending against environmental regulation becomes less of a problem for companies whose production values are designed to enhance sustainability.

Redesigning production is neither easy nor cheap, but it can eliminate environmental compliance problems. This trend will grow when companies doing business in Europe, Japan, and soon California begin complying with new, tougher environmental laws in electronics and chemistry by rethinking their production techniques – and their suppliers.

Fourth, many companies that embrace sustainability also report that they can attract and retain better employees. Young engineers, economists, designers, and other skilled workers are eager to work for companies that do good in addition to doing well, and sometimes they will even give up higher wages for the privilege. They are attracted to companies that commit to sustainability.

### A Comprehensive Plan

A further consideration is the set of intangible assets such as market valuations and relations with all kinds of stakeholders, such as employees, unions, suppliers, regulators, customers, and the media. If an executive tries to frame policies toward each group independently, complications can multiply as actions in one field unexpectedly affect others.

What often works is integrating all values to develop a single strategy that can guide and coordinate action across all fields. The stock price of one retail giant provides a clear example: Sales were up strongly at the end of 2005, yet the stock was down, largely as a result of investor reluctance to

bet on the company's future based on some of its policies toward stakeholders and communities.

Most successful companies take time to develop an effective blanket statement of policy for quality and integrity against which all company decisions can be weighed. That statement would be empty if it did not specify both environmental and social standards.

## Rethinking Old Practices

The surprise is really how long it took for companies to discover that incorporating sustainability makes business sense. After all, financing, insuring, attracting employees, and maintaining markets are vitally important. These reasons are as compelling as simple humanitarian concerns or compliance with tightening government regulations.

In the last year, of course, they have become more pressing than ever, as a combination of hurricanes, fuel prices, air and water pollution reports, chemical spills, and class action suits have aroused public concern for both social conditions and the environment as never before. The issues will not go away, for the conditions that draw increasing attention to them will persist and increase in importance.

Financial companies now must anticipate global warming and its effects. Besides the energy crunch, pollution and health have become issues for more companies, especially since the revolution in communications has enabled ordinary people all over the world to create photographs and transmit them instantly across continents, and this has created a whole new sensitivity to social as well as environmental effects.

A corporate decision to develop a set of sustainability goals or an environmental responsibility statement is not a simple decision. To ensure uniform application of the principles, successful companies have reorganised within; cross-functional teams under the guidance of the core executive group meet and select potential improvements, explore the ways and costs of implementing them, and assess the effects of any given change on other parts of the organisation.

The process resembles the lean organisational practices already familiar to many people. Perhaps it is more than coincidence that two major innovations in management in the last few decades, first Total Quality Management-Lean and now sustainability, require the same reorganisation of company policy-making, devolving major decisions to teams working day-to-day for improvements far from – but coordinated by – central management.

In fact, the initiative for adopting sustainability sometimes originates from work teams or even individuals outside of central management.

## The Business Circle

A Chinese government policy called the Circular Economy might provide a framework for thinking within a company.

By viewing the business as a circular process, targets can be established for periodic review and redesigning, if necessary, and every stage in the circle can be used to track progress – product design, purchasing of raw materials, production, sales, use and maintenance, and finally, end of life as the product, now used up, becomes raw material for a succeeding process.

A company can begin with small steps that, taken alone, would only be tokens. But in the context of the company's commitment to sustainability, small steps are seen as vital contributions to reaching the ultimate goals.

The circular economy, as an image of the company's business, gives all decision-makers a basis for a complete vision from start to finish and on to start again – and a way to measure progress over the entire range.

The results? Stakeholders understand and support the company. Government environmental regulations no longer inspire fear. Stockholders' support of management's policies tends to grow, and the increasing number of socially responsible investors takes an interest in the company.

Frustration on the part of shareholders, NGOs, environmentalists, and other potential targets of bad publicity tends to disappear. And best of all, the company gains a reputation as a leader, and that can be translated into market share, stock prices, and profitability.

An article in Oracle *Profit* magazine pointed out the value of corporate responsibility by citing a study indicating "85 percent of executives and investors rank corporate responsibility as a key consideration in investment decisions." It also noted, "That percentage is almost double the figure from a similar survey five years ago."

Furthermore, if based on clear corporate sustainability goals and the lean organisation structure, if innovation bubbles up from the bottom to meet good corporate prioritisation from top management, the results can reinvigorate a company, stimulate productivity, and motivate workers.

There may be some companies that don't care if they have eager, responsible workers, or product innovation, or lower costs of production, but we have been unable to find them. Maybe that's because they are disappearing.

Dr. Jim Newcomer is a partner in ConfluencePoint, a collaborative consulting group in Portland, Oregon, that specialises in applying principles of sound management, productivity, and financial gain to designing a process to become sustainable. Learn more at www.confluencepoint.org.

# THE GREEN DATA CENTRE

by **Tony Sceales, Celona Technologies**

We've heard so much about green IT initiatives recently you'd be forgiven for thinking that everybody had this under control. You might be surprised to learn that storage vendor ONStor found that 58% of the companies they surveyed were either still talking about what they were going to do, or still have no plans as yet to do anything.

Green IT hasn't had the headline profiles of recycling carrier bags, or not using your car, but the fact is that IT is a major contributor to $CO_2$ emissions. The UK's Department of Trade and Industry (DTI) estimated last October that the UK's PCs and servers were already consuming 14% more power than the entire power consumption of Luxembourg, and of course the figure is still rising. All this power is also costing businesses dearly. IDC's John Humphreys, for example, estimates that power, cooling and other operational costs account for 70% of a server's lifetime cost. Yet all too frequently this has not been taken into account when servers were bought.

The penny is dropping though. A study by Sun Microsystems showed that since the first quarter of 2006 more than three-quarters of executives involved in buying decisions for data-centre equipment in enterprises have prioritised energy efficiency; although 63% admitted they didn't know what their energy costs or carbon emission rates were. Sun is one of the companies walking the walk, announcing in August that it had just completed a consolidation of one of its data centres which had seen 5,000 old servers, network switches and storage devices being switched off. ONStor's Bob Miller says: "Whilst the vendors appear to be taking this issue seriously the overall end user community is some way behind."

So what encourages end users to do something about this? Well according to OnStor's survey 48% of organisations felt that a drying up of energy supply would drive a reduction in power consumption at their data centres; while higher power bills were driving business decisions in 66% of companies. "Ultimately, if energy costs continue to rise, more businesses will be forced to look at this by their shareholders. Longer term we can also expect regulators and governments to use big sticks to drive better efficiency in the name of environmental protection," notes Simon Sherrington, founder of Innovation Observatory, a company that specializes in tracking opportunities in green technology markets.

A central plank of green IT is server consolidation. According to OnStor's statistics, fifty-five per cent of respondents stated that storage consolidation would be a central element of their green policy. While an even more upbeat Gartner survey found that 92% of respondents had a data centre consolidation planned for, in progress or completed.

Storage consolidation is really important, although equally essential to reducing energy consumption is ensuring companies have streamlined their applications and data. Duplicated data and applications is a major problem in many organizations and these cause a range of operational inefficiencies, including demand for more storage space. Most companies know that at the data and applications levels they are far from efficient, but the problem has been that the risk, cost and time to consolidate applications has put them off. Celona recently conducted a survey amongst telecoms executives and 59% said they'd been so

discouraged by an application migration that they decided not to go ahead with it. The new-generation of migration technology overcomes these problems, making the long-awaited benefits of application consolidation a reality.

Many vendors have cottoned on to the fact that there is a sea change in the air, and this is not the oceanic smell of green altruism – there is a distinct whiff of hard business reality about it. "Environmental sentiment is all well and good, and it helps that environmental issues currently enjoy a high media profile, but few companies have the financial freedom to go green overnight" says Simon Sherrington. "They simply can't justify decommissioning equipment unless there is a clear cost benefit in terms of saved opex, or unless the kit is becoming obsolete anyway. That is why companies with comparatively high energy costs, and companies in markets with high rates of technology obsolescence, have been swifter out of the blocks than peers in other industry sectors."

BT is just such a company, being a major energy consumer and operating in a highly competitive market. It has already cut its carbon emissions by 60% since 1996, saving more than one million tonnes of CO2 per annum. This drive extends from data centres to applications-level consolidation. BT's One IT consolidation project, and similar projects in other large operators, is all about delivering business benefits. There are huge opportunities within large Telco's to consolidate IT infrastructure and thereby enhance efficiency, which should deliver the ability to bring new services to market more quickly, but also savings in terms of both cash and carbon.

This point is underlined by BT's Steve O'Donnell who comments that to date One IT has enabled BT to decommission and consolidate over 1000 racks of servers, resulting in a net saving of 22GW hours per year. "We calculate this translates to a cost saving of just under £1.8 million per annum or around 3,110 metric tonnes of carbon per year," says O'Donnell.

BT is using its supply chain to drive change by incorporating environmental and efficiency goals into its procurement process. It expects suppliers to work to reduce the energy consumption and impact of each new generation of products or services, and this will become a mandatory criterion in all tender adjudication. Donna Young, BT's head of Climate Change, notes that the extended supply chain is a powerful force for positive change. "About three years ago our large business customers started coming to us and asking about our carbon status. They understand the need to drive efficiency down their own supply chains. The power of the supply chain, and of competition, to drive this sort of change should not be underestimated."

Notes:

* Celona's survey was conducted in May 2007 amongst 212 telecoms IT professionals (see www.celona.com).
* ONstor's survey was conducted across 440 companies between July and August 2007 (see www.onstor.com).

**Tony Sceales** is CEO of Celona Technologies.

**About Celona Technologies** – www.celona.com
Celona is the leading provider of Application Data Migration software specifically developed for Communication Service Providers (CSPs). Celona Evolve is an integrated software platform comprehensively solving the application data migration challenge for large and complex operations – the only built-for-purpose product of its kind.

Operators can dramatically lower the risk and timescales traditionally attached to data migration activities by making use of Celona's technology.

Headquartered in London, and with offices in mainland Europe and Asia-Pacific, Celona was founded in 1997 and is privately held.

# SUSTAINABLE ENERGY

by **Kate Pavao, February 2007**

## Environmental thinking powers companies to profitability.

In Green to Gold: How Smart Companies Use Environmental Strategy to Innovate, Create Value, and Build Competitive Advantage (Yale University Press, 2006) Andrew S. Winston and Daniel C. Esty interviewed hundreds of managers and executives about their environmental strategies - finding out what works and getting practical advice for every kind of business. Oracle *Profit* magazine spoke with Winston, a Fellow at the Center for Business & Environment at Yale University.

***PROFIT:*** **What got this book started?**

**WINSTON:** Environmental issues have come on like gangbusters. You don't see many people denying climate change anymore. Are there water shortages? Are there concerns about forests and habitat? That's all pretty easy to see. But the canon of green business books is very cheerleading. It just wasn't believable that if you think green, it's always going to work. Our idea was, let's tell the story of what works and what doesn't when going green and provide a real road map.

***PROFIT:*** **Who should drive the strategy?**

**WINSTON:** The easy answer is everybody, and the second easy answer is the CEO or other executives. One of the critical success factors includes having top-level support. When Dupont's CEO stands up and says, "I'm the chief safety officer, I'm the chief environmental officer," that sends a pretty clear message. Then you need the line management to own it.

***PROFIT:*** **How should executives respond to the skeptical shareholders?**

**WINSTON:** Shareholders should realize that you're going to lose value – sometimes very quickly – if you're not onboard with green thinking. Most shareholders wouldn't have a problem with eco-efficiency and clear cost savings; it's hard to argue with a payback within six months on changing the lighting in your stores. It's also hard to argue with companies removing toxins, because new regulations can cost a lot of money down the road. It's the upside stuff, though, that's the real story. Executives need to say to shareholders, "Hey, there are real revenue possibilities," and look at the companies that are starting to really reap the rewards. Look at Toyota. A lot of its success has to do with their environmental cars and the fact that even in the regular product lines, they have the most efficient cars.

***PROFIT:*** **What do you want readers to walk away with?**

**WINSTON:** Taking your company green takes focus, energy, strategy, and execution. The upside is there, but it's not easy. But there are always surprises in how you can innovate and create a new kind of product or service, or do things in a way you hadn't really thought of before. And that's very hopeful and really exciting.

Andrew S. Winston and Daniel C. Esty suggest that business leaders start by analysing their company's specific strengths and weaknesses. They name this process AUDIO, Winston says, because the process is about listening to your business:

**A is for aspect.** Think of the specific ways your business touches this issue. How does climate change or energy use impact your business?

**U is for upstream.** How do these issues affect your suppliers? If you're a big business with a big brand and a lesser-known supplier starts dumping toxic waste, you can bet the article's going to be written about you, not the supplier.

**D is for downstream.** What are the issues for your customers? If you're an auto company, the climate change has aspects that are important to you, but downstream, where customers burn gas and produce emissions, is really the issue.

**I is for issues.** Looking at your first three answers, what are the major sticking points for your business?

**O is for opportunities.** Most people focus on risk reduction and threat control, but you should also consider how environmental thinking opens doors. How could you solve a problem for your customers?

For more, visit eco-advantage.com/pdf/AUDIOAnalysis.xls.