

A New Mindset for **Corporate Sustainability**



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A New Mindset for Corporate Sustainability



Executive summary

This paper presents a vision of corporate sustainability, which places an emphasis on innovation as the means to add value, not just to the bottom line, but to the environment and society at large.

The research and case studies summarised here build on more than three decades of experience and insight. As far back as 1972, the Club of Rome, an international think-tank, recognised that depletion of the Earth's natural resources at the current rate would, eventually, lead to severe economic fallout.¹ Fifteen years later, the Brundtland Commission to the UN laid down the most well-known definition of what had by then become known as sustainable development:

*"Meeting the needs of the present without compromising the ability of future generations to meet their own needs"*²

This paper draws on these early lessons, and builds on the solid foundations laid by initiatives including the Dow Jones Sustainability Index, Tomorrow's Global Company, SustainAbility and others, all of which have impressed upon the business world the need to look beyond shareholder value, to consider social and environmental impacts, as well.

We have called this approach: S²AVE (Shareholder and Social Added Value with Environment restoration), to emphasise how organisations can successfully and profitably address all three elements of the 'triple bottom line' simultaneously – becoming increasingly agile and *innovative* as they do so. This view reflects our conviction that sustainability is not an objective so much as a journey, one which may see the business undergo radical transformation.

We demonstrate how, effectively wielded, innovation can help open the doors to radical new business

models, engage profitably with previously untapped markets, and enable the business to become a truly agile, strategic entity through a systemic and integrated approach.

We also consider how the opportunities presented by this approach create new complexity for managers: sustainable strategies can lengthen value chains, and require the business to engage with local communities, governments, NGOs and even competitors in ways many may still consider taboo.

Finally, we conclude that the steps to achieving S²AVE do not rely on extensive re-engineering of the corporate structure, but require conviction and vision. These steps can be initiated immediately and indeed, given the speed with which the markets are changing, must be addressed by companies with some urgency.

1. Make innovating for sustainability a part of your company's vision
2. Formulate a strategy with sustainability at its heart
3. Embed sustainability in every part of your business
4. Walk the talk: emphasise actions, not words
5. Set up a body at board level with the power to make sustainability matter
6. Set firm rules
7. Bring your stakeholders on board
8. Use people power
9. Join the networks
10. Think beyond reporting: align all business systems with the company's vision of sustainability

¹ Meadows et al., 1972

² Report of the UN World Commission on Environment and Development, November 1987
<http://www.un.org/documents/gares/42/ares42-187.htm>

Introduction

Management strategies driven by shareholder value objectives have been highly successful for businesses of all sizes in the past fifty years. Focusing on shareholder return fostered the creation of a fast-moving, responsive business culture in which the priorities were clear and the measure of success was apparent. As a result, such objectives have been a powerful engine in creating value.

But, despite the clear benefits of this traditional model, driving businesses by shareholder value alone is now also a largely unsustainable one. The weight traditionally placed on shareholder return means a whole range of concerns that shouldn't be overlooked frequently have been in the past. This emphasis made it hard for executives to effect real change in areas that didn't affect the share price, no matter how deeply they may have desired it.

Use of resources, waste management, pollution, climate change and biodiversity are all issues of great importance which, in the traditional business model, have had to give way to the maximisation of shareholder return.

Today that approach is no longer viable in the long term. Business practices that result in products with huge amounts of waste embedded in them; that involve the consumption of large amounts of energy; that undermine local communities or contaminate the environment can no longer be justified on the basis of shareholder return.

This paper advocates a new approach to corporate sustainability, one that takes into account corporations' obligations not just to investors, but to the communities they serve and the environment as well. We have called it S²AVE, which stands for Shareholder and Social Added Value for Environment Restoration. We discuss how critical it is for organisations to add value in all three areas simultaneously as an integrated system (as opposed to sequential steps), and, we emphasise how driving corporate sustainability strategies can generate innovation across all parts of the organisation.

But the corporate mindset needs to change in order to unlock these opportunities. It requires leadership by example, meaningful action as well as words of encouragement. We discuss how to facilitate this change amongst suppliers and partners and employees at every level of the organisation.

We also argue that corporate sustainability should be viewed more as a journey than an end-state. This journey has prompted many of the global enterprises we profile to radically alter their business models or consider strategic options which may have been taboo until now. As such, we advise executives and investors to ready themselves for a further, extended period of radical change, which will see many of those who fail to take action suffer.

The business opportunity presented by sustainability is - in many respects – equivalent to the highly disruptive innovations enabled by the Internet. Despite some major setbacks, the Internet's evolution has created immense value from business models which barely ten years ago were utterly inconceivable. We believe sustainability to offer opportunities on an even larger scale.

The diagram below depicts how the three key drivers of added value combine together as an integrated 'triple bottom line' to drive innovation.

Figure 1: Balancing demands of investors, environment and society



1 The strategic opportunity



We believe the following three statements encapsulate the drivers of innovation within corporate sustainability strategies:

- Boardroom commitment to sustainability helps build a framework for robust corporate governance
- Investors are becoming increasingly receptive to sustainability
- Sustainability offers a proven and legitimate framework for exploiting new avenues for innovation

1.1 How business is benefiting from sustainability

Sustainability and its alter-ego, corporate social responsibility (CSR), have long fallen under the aegis of risk management.³ This view is changing, with investors and customers increasingly rewarding organisations which wholeheartedly embrace sustainability with superior sales and shareholder value.

1.1.1 Corporate governance and sustainability

A recently published analysis⁴ of investors' views of sustainability initiatives found that efforts in this area do not inhibit growth. The chart below, based on a "study of studies" comparing financial performance with commitment to corporate responsibility demonstrates how, increasingly, responsible companies make good investments.

This close connection between investment potential and responsibility has led to the emergence of several investor-led sustainability initiatives, including the Carbon Disclosure Project (see box below), and the Dow Jones Sustainability Index (DJSI).

Table 1: Research summary comparing financial performance and CSR commitment⁵

	Griffin and Mahon (1997)	Roman et al., Mahon (1997)	Margolis and Walsh (2003)	Otlitzky et al. (2003)
Positive correlation	33	32	54	27
Negative correlation	20	5	7	2
Inconclusive	9	14	28	-
Mixed results	-	-	20	23
TOTAL	62	51	109	52

Shareholder value from carbon reductions: the Carbon Disclosure Project

The Carbon Disclosure Project, in which over 300 large institutional investors around the world, representing more than \$41 trillion US of funds under management, investigate the emissions strategy of companies, is one example of investor pressure for sustainability, leading in the direction of different costs of capital depending on the level of emissions.

www.cdproject.net

Shareholder-led initiatives such as these are making their presence felt in the boardroom. Research carried out in 2005 found that, while 83 per cent of leading DJSI performers have appointed a CSR committee, the same can only be said for 21 per cent of the Dow Jones World Index of all companies (graph 1). Thus, the adaptation of the structure of the board to address sustainability issues turns into a fundamental factor for ensuring a better quality and depth of overall formulation and implementation of sustainability strategy (see graph 1 overleaf).

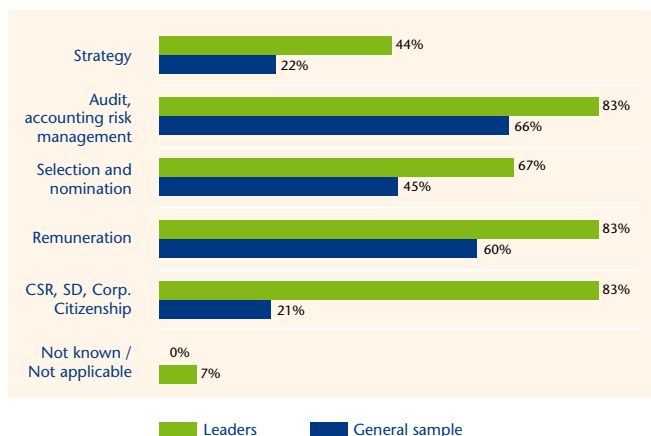
³ Grayson and Hodges, 2004

⁴ Real Academia de Ciencias Económicas y Financieras (Royal Academy of Economic and Financial Sciences), June 2007

⁵ Allouche and Laroché, 2006, cited in Real Academia de Ciencias Económicas y Financieras (Royal Academy of Economic and Financial Sciences), June 2007.

Correlation indicates the strength of relationship between two random variables. In table 2, we can see that the correlation between those companies who perform well financially, and those who have a strong CSR commitment grew stronger between 1997 and 2003. It should be stressed that correlation is not the same as causality – we are inferring that that if an organisation strengthens its CSR efforts that it will automatically perform better financially.

Graph 1: Appointment of board committees⁶



A report released by Goldman Sachs⁷ in June 2007 showed clearly how sustainability translates into commercial benefit.

The study of six industrial sectors – energy, mining, steel, food, beverages and media – found that companies considered leaders in implementing environmental, social and governance policies designed to create sustained competitive advantage had outperformed the overall stock market by 25 per cent since August 2005. Within their own sectors, 72 per cent of these leading companies had outperformed their peers over the same period.

A separate study⁸ released at the same time by McKinsey & Company showed that more than 90 per cent of chief executives are doing more now than they did five years ago to incorporate environmental, social and governance issues into their companies' strategy and operations.

These studies indicate a fundamental shift in the relationship between business and sustainability and a clear sign that many quoted corporations are starting to pursue sustainability approaches.

The signs have been there for some time. One pioneer of sustainable practice, 3M, says its 30-year-long Pollution Prevention Pays programme has not only stopped the creation of 2.5 billion lbs of pollution, primarily solvents and paper waste products, it has also saved the company more than \$1 billion.⁹

Today many of the world's leading companies are taking significant steps not only to improve their sustainability performance but also to turn it into a central part of their offering and identity and drive their own processes of innovation.

1.1.2 The Role of Government

Ratifying international initiatives such as the Kyoto Agreement on Climate Change, or the UN Global Compact, enable policy makers to set baseline

standards, which, when written into government procurement processes, drive their adoption across the wider economy. In some cases (see the box on Lake Tai in China below), governments can be extremely effective. However, companies making greater commitments to sustainability can do so without policy support.

Governments, on their part, must provide adequate regulation and enforce those regulations in order to create a functioning market with good basic standards. Additionally, governments must recognize that there are limits to regulation, and should consider incentives and other means to encourage the private sector, and recognize and reward companies that go beyond the legal requirements for better environmental practice (see the Hyflux case study below). Their industrial and economic strategies and policies, and not just their environmental regulations, should actively encourage steps to find the synergies between profit, environmental protection and innovation.

Hyflux – Water for the world

When Singapore was separated from Malaysia in 1965, an agreement was made that Malaysia would continue to pipe water to Singapore, which had no way of meeting its own water needs. Depending on another country for such an essential resource was clearly unsustainable, prompting Singapore to begin developing a number of schemes to find alternative water supplies.

The most successful and innovative of these schemes have been Singapore's water recycling plants, which use a variety of treatments to extract drinkable water from residual and salt water and sewage.

Hyflux, the largest company behind these highly successful water recycling plants, has used the programme as a platform for going public and transforming itself into a big international company with global ambitions. It became the first water treatment company to be listed on the main board of the Singapore Stock Exchange, has built a thriving presence in China, begun operations in Middle Eastern markets and has expansion plans for India, South-east Asia and Africa.

The success of Hyflux illustrates how a situation of scarcity and an urgent need for a sustainable response can trigger the kind of innovation that can create a world-class business.

China – Government forecloses on unsustainable practice¹⁰

Around the foreshores of Lake Tai in Jiangsu province, China, thousands of finishing, dyeing and chemical plants use the water from the lake and discharge waste

⁶ Sustainability Asset Management Research, 2004, quoted in Rodriguez et al. Data compares DJSI and Dow Jones World Index

⁷ Goldman Sachs, 2007

⁸ McKinsey & Company, 2007

⁹ http://solutions.3m.com/wps/portal/3M/en_US/global/sustainability/management/pollution-prevention-pays/

¹⁰ June 19, 2007, Xinhuanet, Nanjing

water back into it even though it is used as the source of drinking water for a wide area. In May 2007 the state of the lake became so bad that drinking water for 2 million people was cut off for several days, and Jiangsu Province government ordered more than 2,150 companies to close or relocate before end of 2008 to avoid further contamination.

The case was a striking example of the impact of unsustainable business activities across environmental, social and economic aspects. As well as the environmental damage, the pollution of the lake had a substantial social impact by affecting the health and living conditions of millions of people, and ultimately had an economic price, with the closure of thousands of businesses that believed they were benefiting from the pollution in the first place.

The government's response, and the public awareness of the event, will only add further to the growing pressure for sustainable practices in business all around the world.

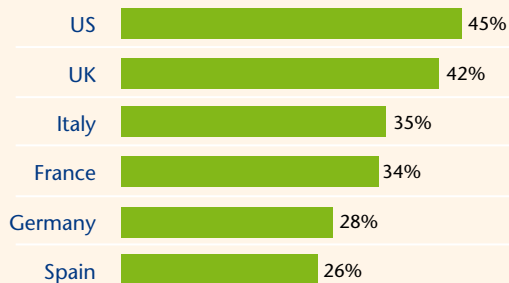
1.1.3 Public appeal

Besides the opportunities sustainability unlocks, being a leader in implementing sustainable strategies can strongly improve perceptions of the business among customers. Recent research (see graph 2) shows consumers' strengthening preference for brands which can demonstrate their sustainability credentials. This is also true in the business-to-business sector where procurement tenders often require details of environmental and CSR initiatives.

Sustainability is also an aspect of corporate culture that an increasing number of prospective employees consider when sizing up possible employers.

Graph 2: Influence of corporate sustainability on consumers¹¹

Q: Consumers who have chosen to buy a product or service because of the company's ethical, social or environmental reputation – % yes



Base: a representative sample of c.1,000 adults per market, February 2006

1.2 The role of innovation

This section focuses on three key areas of innovation which can help businesses unlock the value of sustainability as a core business strategy: R&D within the business; supply chain innovation; and go-to-market strategies.

Innovation creates new avenues for value creation and revenue improvement, but has, in larger corporations, often been associated solely with the imperative to improve the use of capital. Harnessed correctly, innovation can provide a wide variety of new strategic choices, which enhance the shareholder and societal value accruing to the business while enabling environmental restoration. In order to identify these opportunities, managers should ask themselves the following key questions.¹² Successfully addressing them can have a truly transformative effect on the business, as US office supplier Staples found (see box below).

- How do our prices compare with the total cost of product manufacture / development, sale and disposal at the end of its life?
- Are our technological advances mostly incremental?
- Where can we remove material content from our products?
- How can our service content be dramatically increased?
- Where can our waste products be added to other processes?
- How do our products and services create social value?
- How can our own operations create social value?

Staples – Rethinking the office

According to its 2006 CSR report, US office supplies retailer Staples is "focused on serving as the world's best office products company by differentiating our brand, gaining a leadership position in all markets and operating our business in the most efficient and cost-effective way." It recognizes that it cannot achieve and maintain these objectives without considering how its business impacts global societal trends and how they affect its business.¹³

The company has reconfigured all of its warehouses to significantly reduce energy use, including re-engineering conveyor belts so that they only run when needed, significantly reducing overall energy usage. It has made a substantial investment in renewable energy installations, both wind and solar, at its facilities, allowing it to generate onsite the energy it needs. Between 2001 and 2006, the company reduced its total electricity consumption per square foot by 14 per cent. In 2006 it also purchased more than 121 million kilowatt-hours of electricity from renewable sources and was ranked third out of the top 10 corporate retail purchasers of "green power" by the US EPA's Green Power Partnership.

Staples has also worked with one local farming community to reconfigure its products to make them more sustainable. Traditionally, when that community

¹² Amended from Hart and Milstein, 1999

¹³ Staples Soul Report 2006, http://www.staples.com/sbd/img/content/soul/pdf/2006_staples_soul_report_20070803.pdf

harvested its crops there would be a large amount of leftover plant materials that would usually be burnt, releasing particulates and CO2 in the process. Staples worked with the farmers to develop a technology to create a slurry out of the plant mass, which is now being used to produce paper.

Meanwhile in China, research is underway into how businesses can bring traditionally product-oriented innovation approaches to bear on employees' own skills and capabilities (see box below)

Innovation in emerging markets – “leapfrogging” the developed world

The common expectation for development in some emerging markets, particularly China, is centred on manufacturing. With China having become the world's leading low-cost manufacturing base, many foreign observers expect the Chinese economy to develop primarily as a manufacturer while increasing its efficiency and productivity through greater use of high technology, using the Japanese transformation from the 1950s onward as the model.

However, a new approach¹⁴ is being researched in China that suggests developing countries can leapfrog the developed world, arriving at economic maturity more quickly and more sustainably, by focusing on what is being called “soft technology” and “soft environment”.

Rather than trying to catch up with developed countries by investing the bulk of funds, resources and energy into traditional hard technology, developing countries can treat skills in areas such as finance, management, service and marketing as “technologies” in the same way as a new IT application. A strategy of consciously developing soft technologies and improving the soft environment (e.g. improving the regulatory and cultural landscape through institutional reform and investment) could open the way for a new model of development.

1.2.1 Innovation within the business

Two emerging disciplines stand out as compelling enablers of this approach:

- Product Service Systems (PSS) – the introduction of taxi cabs is an early incarnation of the PSS model and ‘Software-as-a-Service’ a more recent one. Here multiple customers share a resource to save money, increase access, and, increasingly, to reduce their carbon footprint. This approach is increasingly gaining ground within the business mainstream. It draws on the growing convergence of “services” (e.g. bank accounts), which are becoming increasingly productised, and “products” (e.g. printers) which have a growing “service” dimension. In many cases, the value of this element eclipses the value of the manufactured product itself. The “car clubs” which are appearing in many cities exemplify this concept. Rather than owning cars outright,

members “share” the use of a single vehicle. Fuel, maintenance, insurance, vehicle tax and other expenses are covered by the service provider, and subscribers pay a small monthly subscription, as well as hiring fees based on the duration of the loan and mileage. Thus, a single manufactured item facilitates the growth of multiple business models.

Interface – A radical approach to PSS

The US company Interface, which manufactures carpets and carpet tiles for offices, shops and aircraft, came up with an entirely new business model in the face of pressures in the industry and the search for more sustainable alternatives.¹⁵

Under the traditional arrangement, purchasers simply buy carpets and, when they are worn out, throw them away, and they usually end up dumped in landfill sites. Interface pioneered the practice of carpet leasing under its “Mission Zero” concept, whose objective is to “ensure that very creative, manufacturing and building decision we make will move us closer to our goal of eliminating any negative impact [we] may have on the environment by the year 2020”.¹⁶ The company leases the carpet out to customers for a yearly fee, recycling it into new product when it's worn out. The recycling saves on landfill, and it also reduces the amount of energy used in a highly energy-intensive industry.

The result is an environmental benefit and lower costs for the company, both in terms of energy and cost of raw materials. Interface's bold new concept created a new market and illustrates how thinking about sustainability can drive a shift to a new and successful business model.

- Product re-use – Waste and hazard based legislation, e.g. Waste Electrical and Electronic Equipment Directive (WEEE) in Europe and Restrictions on Hazardous Substances (RoHS) legislation in the USA, has compelled many companies, particularly within the high technology and white goods sectors, to radically re-evaluate their approach to product end-of-life. This is yielding some novel business models, of which the recycling of mobile phones for re-use abroad is perhaps the best-known in Europe. Product re-use not only reduces solid waste, but can open new markets through providing services to communities that otherwise may not be served. However a similar approach can be brought to bear at all levels of the supply chain, as the case study below demonstrates:

ScotAsh Limited – “Upcycling” for sustainability¹⁷

Recycling waste ash from power stations into low-carbon cements, UK joint venture ScotAsh has saved 1.6 million tonnes of ash going to landfill and conserved more than

¹⁵ *The Journal Record*, October 22, 1997

¹⁶ *Interface website*: <http://www.interfaceinc.com/what/>

¹⁷ *Business in the Community awards 2007*: http://www.bitc.org.uk/resources/case_studies/afes_1483.html

2 million tonnes of primary aggregates, preventing the creation of 120,000 tonnes of CO₂.

Power station ash, known as pulverised fuel ash (PFA), has been sold to the construction industry for many years but it has been used mainly in low-value applications, It is not considered for high-value cement products due to its variable carbon content and matching supply with demand.

ScotAsh, a joint venture between ScottishPower and Lafarge Cement UK, innovated to overcome these issues. By constructing massive storage capacity to ensure year-round supply of product and by installing electrostatic separation technology that removes carbon from the ash, ScotAsh created a versatile core material suitable for use in advanced cement products. They were the first company in Europe to utilise this technology.

Impact

- *1.6 million tonnes of ash diverted from landfill*
- *82% of ScottishPower's ash output sold in products*
- *2 million tonnes of primary aggregates conserved*
- *120,000 tonnes of CO₂ saved – equivalent to taking 38,000 cars off the road for a year*

1.2.2 Evangelising sustainability into the supply chain

This section focuses on the supply chain and how leading organisations are working, and, in some cases, working together, to ensure that their suppliers and partners adopt sustainable business strategies.

1.2.2.1 Setting the standard

The supply chain presents many barriers and challenges to sustainability. Differing economic climates, cultural values and legal systems may make phenomena like child labour, utterly unacceptable in many parts of the world, an unfortunate fact of life in others. Meanwhile, constant cost pressure may drive many suppliers to provide no more than token 'PR' gestures in the field of sustainability or the bare minimum their customers demand. In response to the consumer, business and investor pressures described earlier, many companies are joining forces, not just to impose common standards on their suppliers, but also to evangelise the benefits to them. Regardless of the approach, these companies' intention is the same: to adopt a code of conduct across the wider business, which holds sustainable practices above all others.

Promoting rather than imposing sustainability criteria on the supply chain is important as it requires a very different mindset: as discussed earlier in this paper, meeting targets is a risk management approach, and often does little, if anything, to reduce the environmental and social impact of their operations. Traditional approaches to supplier management rely on balancing the requirements of the business with the supplier's ability to meet them: the supplier is

retained or fired depending on their ability to meet these criteria. Whilst this model can temporarily ensure high levels of quality, it also depends on the organisation being able to continually secure new suppliers who can fill the gaps.

Evangelising the value of sustainability, and encouraging the adoption of an integrated mindset that addresses stakeholder and societal value in the context of environmental restoration is very different, and overall far more valuable. It recognises that each supplier must balance the needs of its own stakeholders and the community as a whole, and when this is achieved, productivity can be enhanced. Critically, it requires businesses to take a more collaborative approach with their suppliers to identify and implement sustainability strategies and innovations. It may take longer, and cost more, to implement change, but the business stands to benefit far more in the long run. Such an approach is exemplified by UK retailer Marks and Spencer (see box below).

Marks & Spencer – Sustainable shopping

UK retailer Marks & Spencer's Plan A – so called because it's the only option and there is no Plan B – is a five-year project involving 100 detailed commitments around issues including climate change, waste reduction, safeguarding natural resources, ethical trading and promoting better health.

Among the initiatives involved, this year M&S has undertaken a knowledge interchange with 12,000 suppliers around the world to try and share good practice or emerging practice and build the suppliers' capacity for identifying how new environmental and social standards can be put into the supply chain.

Simply laying down standards and leaving suppliers to meet them or be cut off the list can seriously damage local communities in economic and social terms, so in cases where an investment may be required before suppliers can meet the new standards M&S is helping them to identify sources of funding, including public and charitable sources, allowing suppliers in developing markets to remain part of the chain and build their businesses.

The aim of the plan is not only to dramatically increase the sustainability of the company's operations and vastly improve its offering to consumers, but also to build M&S into a more attractive business in terms of retaining staff and building customer loyalty.¹⁸

1.2.2.2 A collaborative approach

There has also been a rapid growth in recent years in the number of collaborative initiatives among organisations and their suppliers aimed at improving supply-chain standards across a wide range of industries. They include:

¹⁸ www.marksandspencer.com/plana

- The Marine Stewardship Council - Originally set up by Unilever with the WWF, but now fully independent, the MSC runs an environmental standard scheme for sustainable and well managed fisheries, aimed at preventing overfishing.
- The Forest Stewardship Council – The FSC sets international standards for responsible forest management, and over the past 13 years more than 90 million hectares in more than 70 countries have been certified according to its standards.
- The Electronic Industry Code of Conduct – This code has been adopted and implemented by some of the world’s leading electronics brands and their suppliers.
- The Business Social Compliance Initiative - A broad business-driven platform for the improvement of social compliance in all supplier countries and for all consumer goods, with a membership comprising more than 80 companies.
- The Suppliers Ethical Database Exchange (SEDEX) - A web-based system for companies to maintain data on labour practices at production sites, supported by a group of UK retailers and suppliers including Geest, Marks & Spencer, Northern Foods, RHM, Sainsbury’s, Tesco, Uniq and Waitrose. SEDEX covers 13,000 suppliers and is adding 500 each month.
- In 2005, Nike became the first major brand to publicly disclose the names and addresses of the factories in its global supply chain. It has since been joined by Levi Strauss, Puma and Timberland.

Wal-Mart – Cleaning up the supply chain

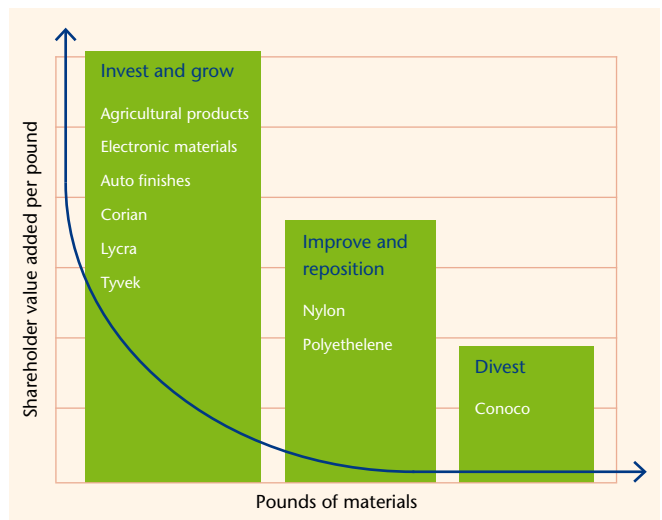
US retailer Wal-Mart has begun auditing its suppliers’ carbon footprints on the basis of methodology developed by the Carbon Disclosure Project. The overall objective is supplier efficiency: minimising carbon emissions – which equates to energy use and hence cost – enables the retailer to keep its prices to the customer to a minimum. A control group of 30 suppliers has begun the programme, although the retailer plans to extend it to cover all of its 68,000 suppliers. When complete, Wal-Mart’s suppliers will be the largest single group of companies yet to disclose their emissions.¹⁹

1.2.3 Investor-driven innovation

As we saw in section 1.1, integrating sustainability into corporate governance can increase a company’s standing amongst investors. This section discusses how investor demands can also provide an important driver for sustainability-driven innovation.

Chemicals group DuPont is one of the best-known examples. In 1999, the group carried out a detailed audit of its operating companies, comparing the quantity of raw material consumed to make each product, with shareholder value added (SVA) per pound of finished product. The resulting analysis divided the businesses into three distinct groups, and helped frame the group’s strategy for the coming decade (graph 3).²⁰

Graph 3: Reducing carbon footprint at DuPont



DuPont took very timely, strategic steps to realign its business on a more value-oriented, sustainable path. Many enterprises, however, simply do not have this luxury: instead, increasingly vocal shareholders are compelling executives to become more sustainable in shorter timescales. Several independent organisations have emerged, such as Ceres, described below, that are available to both monitor and help companies in this area. Whilst companies may find themselves pursuing strategies that may be counter-intuitive to conventional business logic, we believe that, in the long run, investors will favour such companies.

Ceres – Sustainable investment

Ceres is a US network that brings investors, environmental groups and other stakeholders together to encourage companies and capital markets to incorporate environmental and social challenges into their day-to-day decision-making.

Ceres launched the Global Reporting Initiative for corporate reporting on environmental, social and economic performance, which is now used by more than 850 companies. It was closely involved in Nike’s decision to become the first global apparel company to release the names and locations of all of its 700-plus contract factories around the world, in the decision by Dell Computer last year to support national legislation for electronic product recycling, and in Bank of America’s \$20 billion initiative in March 2007 to support the growth of environmentally sustainable business activity to address climate change.

Ceres also launched the Investor Network on Climate Risk, a group of more than 50 institutional investors with collective assets of over \$3.7 trillion.²¹

1.2.4 The role of innovation in emerging markets

A good source of some innovative, sustainability-driven ideas are enterprises operating at the so-called “base of the pyramid”, providing goods and services to the world’s four billion poorest people. Addressed successfully, a focus on the base of the pyramid brings sophisticated expertise and advanced technologies to bear on very pressing local problems. However, it is important to point out that engaging with base of the pyramid markets does not automatically *make* a company’s activities sustainable: the attention to shareholder value and economic development must also explicitly balance the societal and environmental impacts. In the past, many market developments in emerging economies – weaving and clothing manufacture are a good example – have been *unsustainable* because they have ignored the long term needs of the communities in preserving their social fabric and natural environment.

In this section, we discuss some successful examples of large organisations working with communities at the base of the pyramid to mutual benefit. Each of them demonstrates the business in question fundamentally reconsidering their core purpose. Both companies re-engineered their processes to support not just the delivery of a product (food containers, in the case of Tetra Pak, or Grameen Phone’s mobile phone services), but the entire service that wraps around it: safer food consumption and better telecommunications in some of the world’s most deprived areas.

Tetra Pak – Developing local markets²²

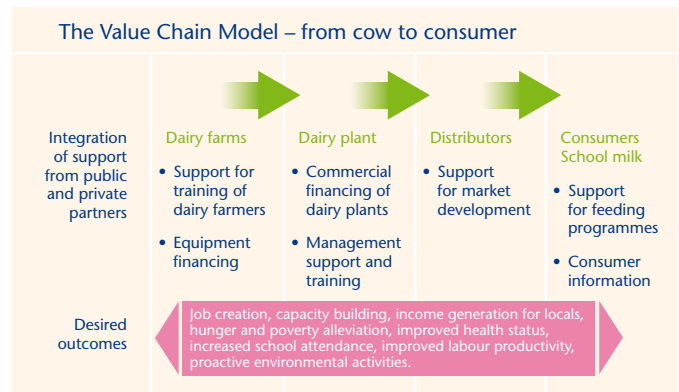
The Swedish-based packaging company Tetra Pak has developed two different business models for its activities in the two different spheres of premium and low-income or emerging markets.

In premium markets, Tetra Pak supplies equipment to its customers and works together with them as well as with suppliers in product development. This close relationship is important in maintaining long-term contracts in an industry where a few customers represent a big portion of sales. Five per cent of Tetra Pak’s customers represent 50 per cent of the company’s sales.

In low-income markets, Tetra Pak also works closely with its customers but for different reasons. In these markets, the business of local food production and processing is normally in its infancy. Sometimes only about a third of the total volume of liquid foods is sold in packaged form, with the remainder often sold untreated on the street after making its way down a long and complex distribution chain, frequently with detrimental health effects.

There are also needs in low-income markets that are absent from premium markets, such as creating distribution channels, promoting education for children, improving food security and nutrition and fostering sustainable farming.

Tetra Pak collaborates with local partners and NGOs in all these areas, helping to support the growth of the market for packaged liquids from which it can benefit. The company helps provide finance and training for farmers and processors, and education and waste management systems, supporting the local communities while creating a demand for its products.



Tetra Pak’s ‘Cow to Consumer’ model is today the base for public-private partnership solutions in agricultural development and feeding programmes. By combining training and education of farmers, equipment financing based on commercial terms with consumer education activities and addressing all links in the value chain, a base for sustainable economic development is established.

Tetra Pak’s example demonstrates how the right resources, mobilised effectively, can create a thriving market for its own products, where previously there was none. It did so by implementing a complex value chain of food producers and processors, education providers and health organisations, which together helped create awareness and demand. This is not to say, however, that a company’s own infrastructure and processes are entirely redundant at the base of the pyramid, as the example below demonstrates.

Cemex – Accessing a new market²³

Mexican cement manufacturer Cemex has developed a specific business model to address the needs of its home country’s low-income do-it-yourself homebuilding market. The programme uses the company’s financial strength, technological know-how and distribution network to access and provide services to consumers who would otherwise have great difficulty meeting their needs.

The Cemex programme is built around lending raw construction materials to poorer individuals who then make regular loan payments for the materials. The

²¹ www.ceres.org

²² Rodriguez et al., 2005

²³ Rodriguez et al., 2005

company also provides technical advice, helping to keep construction costs down by ensuring efficient use of materials and professional-quality construction. As a result of the project, home building costs are 30% less while the construction period averages 1.5 years instead of 4 to 6.

The programme is socially sustainable in that homes are built for a part of the community that would not otherwise have them, and economically sustainable because Cemex is generating revenue from a market that did not previously exist.

In markets where costs of entry remain high, a different approach, one which emphasises the service element of the products in question, is needed. A classic example of this is mobile telephones, which require both the operator and the subscriber to make significant investments, in infrastructure and handsets respectively. The example below considers how a mobile telecoms operator, Grameen Telecom, found itself needing to radically reconsider its entire business model to address the hitherto untapped demand for telecommunications services across Bangladesh's isolated rural communities.

Grameen Phone – Village communication²⁴

In 1997 Grameen Telecom of Bangladesh began providing a mobile phone service targeted at rural villages. With only 2.5 million telephone lines (mobile and land lines combined) in a country of 147 million, Bangladesh offered a huge opportunity for telecom companies. But the vast bulk of the villagers – who make up three quarters of the country's population – exist on very low incomes, limiting business potential.

Grameen Bank, which aims to alleviate poverty through development, used its established micro-finance network to set up the 'Village Phone' programme in partnership with the Norwegian cellular phone company Telenor. The scheme provides phones to individuals who then sell access to the phone service in their villages.

The program has been a dramatic success. It now covers more than 35,000 villages, with more than 62,000 so-called 'phone ladies' selling mobile phone services. Even though the village phones constitute only 3.5 per cent of Grameen Phone's subscriber base by number, the revenue of \$4.6 million they provide represents more than 15 per cent of the company's total revenues.

The 'phone ladies' earn nearly 50 per cent more than the average national income. The system provides crucial access to communications in areas of widespread poverty, dilapidated infrastructure and often dependence on remittances from relatives living overseas, for which regular contact is highly important.

This section has explained that, whilst investors and high-value customers respect companies for embarking on S²AVE strategies, and innovation offers a powerful mechanism for driving it, fresh thinking from management is needed. We will discuss a number of approaches which will help achieve this change in the next section.

2. Embracing sustainability



As well as introducing corporate governance requirements whilst adding complexity to the value chain, the integrated approach to sustainability encourages companies to be truly strategic and “agile”. This section discusses some of the management tool-kits executives should consider.

The following principles will guide corporations as they look to create innovation-driven sustainability strategies

- Examine operations from a sustainability perspective
- Harness strategic narrative to instil a shared purpose
- Make a clear leadership statement on sustainability
- Set up a board committee to take charge
- Embed a focus on innovation for sustainability within every aspect of the business’s purpose and strategy
- Link up with like-minded companies

The Indian company ITC is a good example of these principles in action.

*ITC – An Indian sustainability champion*²⁵

Indian consumer goods and agribusiness conglomerate ITC has placed “triple bottom line” methodologies at the heart of its business – the first Indian company to do so. This strategic initiative has slashed the group’s dependency on natural resources, whilst maximising returns to shareholders and local communities, which include subsistence farmers in some of the world’s most deprived areas. ITC has embarked on a number of initiatives including:

- *Internationally benchmarked specific consumption of water, dedicated pursuit of the goal of zero discharge and scaling up of rainwater harvesting in several moisture-stressed districts of India have enabled ITC retain its enviable position as a ‘water positive’ company for the fourth successive year. The water harvesting potential created so far is over four times the company’s net water consumption.*

- *Becoming ‘carbon positive’ during 2007 on the back of several energy conservation measures, usage of carbon-neutral fuels and carbon sequestration through large-scale agro-forestry programmes.*
- *Making rapid strides towards attaining ‘zero solid waste’ status.*
- *Providing direct employment to 20,000 people and indirect employment across the value chains to nearly 5 million.*

2.1 Take a fresh look

The steps that less resource-intensive businesses can take may initially appear less clear, but taking a fresh look at a business’ operations can reveal all kinds of opportunities.

During 1999, the people of the USA accounted for approximately 80 tonnes of materials in the products and services they consumed *per capita*, seventeen times more than their Mexican counterparts.²⁶ This is a woeful use of manufactured resources.

It is here that elements of Life Cycle Analysis come into play. The process by which those products are manufactured or those services provided needs to be examined, piece by piece. Where and how are the raw materials produced and how are they transported? What resources are consumed in the manufacture of each item and where and how are they produced? What waste products are created in the process, and what becomes of them?

These are questions most company executives would feel they already know the answers to, but they are traditionally asked purely in terms of revenue and cost, with decisions then being made on the basis of their impact on the bottom line. Asking these same questions in terms of sustainability can be a surprising and revealing exercise. It can also be frustratingly difficult to find reliable data, but even so can help paint a very different picture of a company’s operations and open the way for significant innovations, whether in the nature and use of the product or service or in the way it is produced.

Sustainable thinking can translate into something as simple as asking how much travelling employees do, and whether it’s all necessary. Is it vital for everybody

to fly to that meeting in Bangalore, or could attendees participate remotely? Face-to-face meetings are very often the easiest option, and that can make it easy to assume that they are always the best option. But a close examination could well reveal that many meetings, and the travel involved, could be handled a different way, providing financial savings, lowering the environmental impact and causing less disruption to the personal lives of employees.²⁷

2.2 The power of narrative

“Storytelling” has been an important element of scenario planning for decades and all the more so where social and environmental issues are concerned as the drivers and benefits can be more subjective than pure shareholder value-driven strategies. The technique’s value in helping managers balance a wide array of influencing factors and for communicating their organisation’s past, present and possible futures – all vital for scenario planning – also make it highly valuable for describing and implementing sustainability strategies.

Four key questions in the strategic story²⁸

Direction	<i>What do we want to achieve?</i>	
Analysis	<i>What is our current situation?</i>	
	<i>Internal</i>	<i>External</i>
Choice	<i>What options do we have?</i>	
Implementation	<i>How are we going to make it happen?</i>	

Strategic story development is very helpful for creating a sense of shared purpose around corporate sustainability, as the Serco case study below illustrates, but it is important that the talk is consistently supported by prompt and decisive action.

Serco – Story-telling into Action

Chris Hyman is the CEO of the global outsourcing company Serco, which has 40,000 staff spread across 36 countries. 85 per cent of its business is in the public sector. He discussed how his organisation uses story-telling during his keynote address to the 2005 Business in the Community (BITC) summit in the UK.

He said, “We have spent a lot of time at Serco taking time to understand what our values are, as a business ...we call them our governing principles. We take time to explain them in real down to earth terms where people can recognise them and use them in every day lives, not just at work.”

In his BITC speech, Hyman went on to argue that employees “don’t just expect it; I think our employees want it. All of our employees, regardless of background, like to have an emotional belief in what it is we do,

²⁷ This paper was co-authored by academics based in the United States, China, the UK, Singapore and Spain: the group met several times to discuss its content, but no international flights were needed. Instead, editorial meetings were held “virtually” via Cisco’s real-time video TelePresence solution.

²⁸ Kemp, Stark, Tantram, 2004

the delivery of public services grounded in values. Tell someone they are building a back office system and that is exactly what they will do and that is exactly what you will get. Tell them that the work they are doing enables a youngster on an at risk register to get urgent support, when he or she turns up at a homelessness unit and what you get is something quite different, we find, you get service delivery with a passion. Something that goes beyond and doesn’t watch the time clock.”²⁹

2.3 Lead from the top

The individual executive can play a crucial role in driving innovation for sustainability within a business, as illustrated by the City Developments case study below. A strong individual can have a profound effect on the culture inside an organisation, and outside the organisation the credibility conferred by building or running a commercially successful business carries a critical amount of weight with peers and among governments and other organisations.

Those doing business with that company, whether as customers, suppliers, expert consultants, agencies or regulators, are in a position to examine whether the company’s statements about issues to do with sustainability are reflected in the organisation’s behaviour. If so, the overall impact in terms of leadership can be substantial, as the example below demonstrates.

City Developments Ltd – Property and the Passion of a CEO³⁰

The economic boom in Asia, the Middle East and many other parts of the world is synonymous with buildings and property development. Energy and resource efficiency can do so much to lessen the environmental impacts of buildings. Yet, the regulation of their environmental impacts is often minimal, especially in how they operate after completion.

City Developments Limited (CDL) in Singapore has however gone beyond regulation to design and construct buildings that have been recognized as being among the most energy efficient in the country and in Asia. Part of the Hong Leong Group, CDL operates in 17 countries spanning Asia, Europe, North America and Australasia, with over 200 subsidiaries and associated companies including eight companies listed in Singapore, London, Hong Kong, Amsterdam, New Zealand and Manila.

The company has won a number of awards for supporting environmental causes and has also brought green issues into the core of its business. This effort flows from the personal conviction of its Managing Director, Kwek Leng Joo, who has a personal love for the environment and is an avid and recognized nature photographer.

²⁹ http://www.davidgrayson.net/display_speech?id=1759

³⁰ Elements, 2006

In an interview with the newsletter for the Singapore Environment Council, Mr Kwek said, "We have only one Earth and all of us must play our part in conserving and protecting our precious resources for future generations. Companies can contribute by acting responsibly and being conscious of how their operations have an impact on the overall environment. It is not only the right thing to do, but it also ensures the sustainability of our business in the years to come."

Yet while going green is a personal conviction for Mr Kwek, a member of the family that started the Hong Leong group and CDL, he has recognized the need to involve all his company. The passion to design, develop and build properties that are greener, and also profitable, has come to permeate the management team in CDL.

2.4 Into the boardroom

Section 1.1.1 discussed how the formation of board-level CSR committees can demonstrate robust corporate governance. This committee should determine the business's sustainability narrative and establish links between the corporate vision and bottom-up initiatives (e.g. waste recycling, energy efficiency). Novozymes, featured in the case study below, exemplifies this observation very well. Successful engagement with employees at all levels is important, as the next section discusses.

Novozymes – Sustainable structures

Danish company Novozymes, the world leader in "green chemicals", was this year for the fifth time named one of Sustainable Business's 20 most sustainably innovative companies.³¹ The company's work in reducing energy use and the release of toxic material by replacing synthetic materials with biological enzymes in a host of industries has made it a recognised world leader in sustainability-driven innovation.

Novozymes, whose tagline is "Rethink Tomorrow", places sustainability at the very heart of its structures and decision-making processes. Sustainability is a fixed agenda item at every board meeting. The company has a sustainability development strategy group, comprising vice presidents from different lines of business and geographical entities, which sets direction and monitors implementation on sustainability.

A dedicated sustainability development centre, consisting of specialists in the fields of social responsibility, human rights, the environment and ethics, supports the strategy and helps different parts of the company integrate sustainability development into their operations.³²

2.5 Pulling it all together

The narrative aspects referred to in section 2.2 are useful tools for articulating the company's sustainability "vision". Putting that vision into

practice so that it can encourage innovation is another matter: such visions often peter out before they can percolate throughout the organisation.

Functions such as corporate social responsibility, community affairs and diversity, which may all be operating separately within a large organisation, should be recognised as interdependent parts of the same overall concern and brought together under one explicit corporate position to increase their effectiveness and raise the overall importance of sustainability within the company's operations.

Different businesses may offer different levels of freedom and scope to these new functions, depending on the circumstances. Some may simply increase the funds available for sustainability programmes and retarget and coordinate them as effectively as possible, which is a relatively easy process and can show immediate effects. Others can overhaul their internal operations, changing what happens in the production process, changing what products are made and what resources are used – a more significant approach in the long term but one that might show little benefit for some time.

Another critical step in effectively ingraining sustainability into the body corporate is to ensure that programmes and initiatives being undertaken at headquarters are being felt at all levels. Sustainability officers report that it is often a challenge to reconcile overall organisational goals with what's happening at ground level, where such initiatives can sometimes be regarded as fads unlikely to have a lasting impact. A determined effort needs to be made to overcome that problem. Developing a systematic and integrated approach for corporate initiatives is a good way to address this issue.

Having systems in place to capture data on the effects of innovation is also crucially important. Regular monitoring and measuring will allow corporations to work out what is being done better and more cheaply as a result of these innovations. The data these systems provide should be used to motivate people power across the business, for example through reward systems that recognise staff who contribute innovations and encourage others to do the same.

Part of the effort to integrate innovation for sustainability throughout the organisation is through regular communication. Both within and outside the organisation, a systematic process should be in place to spread the word about any achievements being made, in as solid and quantifiable a way as possible, to encourage everyone involved and give those associated with the company something to boast about and identify with.

2.6 Strength in numbers

Fostering relationships – with suppliers, NGOs, local communities, sometimes even with competitors through industry initiatives – is central to

³¹ Sustainable Business, July 19, 2007

³² <http://www.novozymes.com/en/MainStructure/SectionMainRethinkTomorrow.htm>

encouraging innovation for sustainability. However, these relationships risk evolving into little more than sophisticated talking-shops unless the following issues are borne in mind:³³

- Exploring complementarities between products/services, and clustering efforts.
- Sharing information about supply and distribution networks, for example through the creation of supplier databases.
- Supporting supply and distribution networks for mutual benefit, for example by jointly sourcing products, developing standardised supplier training modules, or aligning local procurement policies.
- Carrying out joint needs assessments and impact evaluations in communities.
- Visiting other companies' projects to determine whether there are opportunities to contribute to scaling models that have already been developed.
- Developing mechanisms for locating and vetting NGOs and other potential partners

3. Barriers to sustainability-driven innovation



The principal barriers to the integrated triple bottom line approach all spring from the same root uncertainty: the extent to which sustainability is seen as an agent of change for the better. The following statements summarise our joint view on how these barriers can be overcome.

- Looking for prime movers in sustainability will help secure executive buy-in
- Innovation is a sign of strength – markets will respond positively
- Avoid focusing on sustainability exclusively in terms of targets and objectives – it is a wider issue
- Sustainable innovation leads to “higher quality” developments of firms, markets, and communities
- Total Quality Management offers many lessons for tracking and enhancing sustainable innovation

There are plenty of barriers that can prevent companies opening themselves to the opportunities of sustainability. As a recent survey³⁴ shows, even leading companies in the area have a substantial gap between what senior management know they need to do and what they themselves acknowledge that they are doing. The systemic issues raised by the survey point to the need for sustainability to be reflected in business strategy formulation.

McKinsey survey – Performance gap among sustainability leaders

A survey published in July 2007 by McKinsey & Company of CEOs who have signed up for the UN Global Compact identified a broad range of areas where they were having problems in their drive for greater responsibility and sustainability.

The survey found that more than 90 per cent of the CEOs said they were doing more than they did five years ago to incorporate environmental, social and governance issues into their strategy and operations.

However, even though 72 per cent of them said they thought corporate responsibility should be embedded fully into strategy and operations, only 50 per cent

thought their firms actually did so. And, although 59 per cent of them said corporate responsibility should be embedded into their global supply chains, only 27 per cent of them thought they were doing that.

The problem areas identified by the CEOs included board oversight, stakeholder engagement and linking sustainability issues thoroughly into business purpose and strategy.

The survey found that these committed CEOs regarded competing strategic priorities as the biggest barrier to implementing a systemic approach to sustainability across their companies. The complexity of implementing these issues across different business functions also posed problems, as did the lack of recognition from financial markets.

3.1 Prime movers encourage others

Whilst the view that “sustainable business is good business” has gained widespread favour in the West, companies in emerging markets have a harder mission. There is a widespread view that spending organisational resources on innovations driven by sustainability will place a business at a competitive disadvantage. Only when the leading companies in these regions implement their own initiatives in this direction does it become acceptable for the mainstream to follow.

This view is increasingly being played out in China.³⁵ Some of its largest companies, including oil giant Sinopec and white goods manufacturer Haier Group, are now tracking their progress using the Global Citizenship 360 audit system. The example they have set is spurring companies across China to follow a similar approach.

Shenzhen Water – Shaping the Future of the Chinese Water Industry³⁶

Supplying over 7 million tons of drinking water a day to the area in and around Shenzhen, close to Hong Kong, Shenzhen Water is the largest water company in China. It prides itself on the quality of its drinking water and the rate of sewage treatment, which at over 85 per cent is the highest in China.

³⁵ <http://www.future500china.org>

³⁶ <http://www.future500china.org>; Annual report 2006, by Shenzhen Water(Group) Co.,LTD

Over the past ten years, the company has concentrated its innovation efforts on areas including sewage treatment, decontamination of bedload and water recycling. These initiatives alone contributed over 21 per cent of the Group's sales in 2006.

In order to accelerate the process of innovation for sustainable use of water resources, the Group established the Institute of Water Technology Research Center for Safe Drinking Water. The research work undertaken here has already led to 19 patent applications, and has been so successful that Shenzhen Water has established a research periodical, *Water Service Technology*, whose aim is to further scientific research into sustainable water use. The Group also sponsors the Chinese water industry's first post Ph.D research post.

3.2 Short-termism

Whilst social and environmental concerns have moved up the corporate agenda considerably in the past twenty years, the demands of short-term profit are still paramount, particularly in today's markets where the companies who don't optimise their earnings become immediately vulnerable to take over. In those conditions it's very easy for innovations relating to the longer-term future to be pushed down the list.

However, markets also respond to signs of strength and, increasingly, as we have signalled through the S²AVE approach, favourably to corporations who try to balance long-term sustainability strategies with short-term margin enhancement approaches. The challenge for companies is to find a way to dovetail the immediate demands of the markets with the fact that taking the sustainable route will mean innovation, and that will create a stronger company.

General Electric - Balancing conflicting priorities³⁷

As a conglomerate selling everything from aircraft engines to light bulbs, General Electric faces serious challenges in becoming a force for environmental sustainability. However, chairman Jeffrey Immelt has pledged to make GE one of the leading companies addressing climate change.

His commitment has been met with resistance from some big customers, who remain focused solely on cost and availability of goods as well as scepticism from employees over whether carbon-dioxide emissions are a proven cause of climate change.

Immelt admits there are limits to how far he can push the company, which continues to sell coal-fired steam turbines and engage more deeply in oil and gas production. However, he is pushing ahead with a campaign to find innovative solutions to environmental challenges.

Under this "ecomagination" campaign, GE is on track to sell \$14 billion of what it describes as environmentally

friendly products this year, projecting that the total will grow by more than 10 per cent a year to 2010. The company also says it reduced its own greenhouse-gas emissions by 4 per cent between 2004 and 2006, while revenue grew by 21 per cent.

3.3 Culture, not targets

As stated in the introduction to this paper, we believe sustainability should be viewed as a journey, rather than an end in itself. It is the company's culture that needs to change for the true potential of an integrated, systemic approach to sustainability to be unlocked. The use of metrics, incentives and badges to help affect this change should, therefore, be considered with the following caveat: reducing your footprint is *not* the same as becoming more sustainable. Targets provide a useful means for checking process and identifying issues. They cannot of themselves effect cultural change.

Making the most of the opportunities presented by sustainability requires a change in corporate culture, but many senior corporate leaders have a mindset developed for different times, one that has served them very well so far and so they see no reason to change it. As discussed in section 1, however, altering the corporate mindset to consider social and environmental issues as well as shareholder value is not only prudent, but also advantageous.

The contrasting experiences of the National Industrial Symbiosis Programme (NISP), a UK-based initiative to promote the re-use of industrial waste, and Citigroup, the global finance group, indicate the differences – and potential value – in achieving cultural change (see boxes below). In the case of NISP, a culture of innovation for sustainability, implemented in the DNA of a new organisation, has facilitated the discovery of a previously untapped market for supposedly waste products. Meanwhile, Citigroup's journey follows a longer path. The example below explains how, having set out to reduce its overall power consumption by 10 per cent of its 2005 levels by 2011, it has carried out an exhaustive analysis of how the entire group uses energy. This has led it to collaborate with property developers and IT hardware manufacturers, amongst others, as it pushes for ever greater energy efficiency.³⁸

National Industrial Symbiosis Programme – from Waste to Reward

Modelled on the By-Product Synergy Process in the US, the UK's National Industrial Symbiosis Programme is a major project aimed at enabling companies within a particular region to identify their waste streams and re-direct the waste to feedstock for other organisations.

In just two years of operation, the programme has created new markets worth £99 million, provided industry cost savings of £71 million, diverted landfill

waste of 1.8 million tonnes and reduced carbon dioxide emissions by 2 million tonnes. It has eliminated nearly 500,000 tonnes of hazardous waste, saved 5.4 million tonnes of virgin material and 2.5 million tonnes of water and saved or created nearly 1,200 jobs.³⁹

Citigroup – \$100m a year from energy savings

US financial services giant Citigroup expects to be able to save almost \$100 million a year through a programme it is currently undertaking to reduce energy use in its offices around the world.

The banking group has office space totalling 92 million square feet, and after taking an inventory of its energy use believes it can save \$1 per square foot. Its methods include turning off escalators in lobbies for certain periods of the day, switching off unnecessary lights, changing the settings on thermostats and redesigning branches to include more natural light and use more recycled materials. It also intends to introduce solar heating, glare controls, timed lighting and storm-water recycling.

Citigroup is also considering extending its mission to its landlords. The group currently leases about three-quarters of its world-wide office space, for which it is planning to gather and compare power consumption data.

The company says its inventory of energy use threw up some surprising information, such as that 10 per cent of its buildings were consuming 80 per cent of its energy. Data centres and office buildings were the biggest users of energy.⁴⁰

3.4 Development versus sustainability

Another barrier stems from different levels of development around the world. While many Western countries may be prepared to adopt standards that limit unsustainable behaviour, many in developing nations, particularly China and India, make the point that it is unfair on them to be expected to adopt far higher social and environmental standards than the West adopted at a comparable stage in its industrialisation.

Even within China, often held up as the case of “least sustainable” development but home to no shortage of environmental and social pressures, promising developments are taking place. In the last three years, the number of Chinese companies publishing annual sustainable development reports, harnessing toolkits such as the Global Citizenship 360 audit (see box below) has risen from none to 26⁴¹. There are also developments at the local level, such as in villages where the mayors have decided that solar or wind energy is the way forward or challenged every neighbourhood to be more energy-efficient. This kind of grassroots innovation could provide a substantial base on which to build a broader acceptance of the possibilities of sustainability.

³⁹ http://www.nisp.org.uk/about_us_approach.aspx

⁴⁰ WSJ, September 5, 2007

⁴¹ Syntao report on Sustainability Reporting in China, Beijing, 13 July 2007

Global Citizenship 360 – Improving sustainability in China⁴²

Despite China’s reputation as a part of the world where the pressures for development are likely to outweigh any shift towards sustainability, there are a number of promising trends.

One of these is the growing use among Chinese companies of the Global Citizenship 360, a system enabling companies to benchmark their own performance on sustainability, improve their reporting, identify areas of performance and come up with an action list for improvement.

The process allows companies to measure their performance against a combination of internationally recognised 24 standards including the Dow Jones Sustainability Index and the UN Global Compact, and is aimed at improving their behaviour with regard to corporate governance, the workplace, markets, product quality, the community and environmental sustainability.

A growing number of Chinese companies, from sectors as diverse as oil, water and agriculture, have been using the Global Citizenship 360 as a way of harmonising economic profits with social and environmental benefits.

In other developing economies, there are good examples of companies identifying and exploiting lucrative new markets by using innovation and sustainability thinking to guide their approach. Hindustan Unilever is a case in point.

Hindustan Unilever – Going local⁴³

The experience of Hindustan Unilever, the Indian subsidiary of Unilever, in breaking into the rural Indian market for home detergents is a good example of how fresh thinking on sustainable lines can be used for clear commercial advantage.

The first step the company took was requiring all management trainees to spend six to eight weeks living in rural villages, eating, sleeping and talking with the locals. The intimate insights into the needs and preferences of the market provided by this programme were fed into the company’s research and development process, resulting in changes to products and formulas that made the products more appealing to the market as well as cutting costs.

While its leading competitor had adopted a centralised mass-production approach to the market, Hindustan Unilever used the social and economic sustainability of the local communities as the key to further innovation, setting up small local factories and using local labour. As well as producing a trained local labour force, this also cut transport costs.

This strategy aimed at meeting the everyday needs of local people and taking a sustainable approach to its operations resulted in Hindustan Unilever generating 55 per cent of its Indian revenue from rural areas.

⁴² <http://www.future500china.org>

⁴³ International Graduate School of Management, University of Navarra, 2003

3.5 Measuring sustainability impacts

Instilling a fresh attitude based on sustainability requires a shift in culture, but it also requires a systematic approach and real data.

One of the challenges in this area is that many of the initiatives that companies, governments and organisations have taken with respect to sustainability have been ad-hoc and opportunistic. Somebody has a good idea, they figure out how to do it and it gets done, but not because it's regarded as the most significant or highest-priority thing to do. As a result, the evidence of the effectiveness of such initiatives is often anecdotal rather than fully data-based.

Having a systematic approach to sustainability-driven initiatives, with fully data-based methodologies and tools, will allow organisations more clearly to see if those expectations have been realised, to intervene to guide the action towards the predicted outcome, and to learn from the process. Achieving this degree of transparency or, better still, calculating the financial value of these initiatives, remains a far-off prospect.

However, a variety of approaches are emerging, including the development of the Sustainable Balanced Scorecard, a broader version of the traditional Balanced Scorecard, which helps companies to achieve strategic alignment by linking strategic objectives with measures and actions.⁴⁴

We have seen that conventional management strategies can only take a business so far on this journey. Conviction – backed by a compelling narrative and the introduction of structures that can effect change – will work more effectively than one based on business cases, forecasting, and cost/benefit analyses alone.

Although a widely accepted measurement system for sustainability activities is yet to emerge, there is every reason to believe that useful metrics will be developed in the near future. The position of sustainability can be compared with the early days of the Total Quality Management movement, when it suffered heavily from the criticism that quality can't be measured. Today, TQM is a standard tool widely taken for granted and is deeply embedded in the way we do business. There's no reason to believe that making key decisions using sustainability guidelines won't become just as central a feature of business practice.

Sainsbury's - Total Responsibility Management⁴⁵

The development among major corporations of sustainability management systems has been labelled by some commentators as Total Responsibility Management, an explicit parallel with Total Quality Management. Like total quality management systems, TRM involves systematic approaches for setting and managing responsibility goals, enabling companies to be more explicit about how they respond to all kinds of new external pressures and opening up opportunities for innovation.

The UK retailer Sainsbury is a leading exponent of TRM. From board level down, the company is committed to driving responsibility into the core aspects of its business, integrating it into its strategies, employee relations and management systems. It has developed specialised functions dedicated to the broad spectrum of corporate responsibility issues, ranging from director-level jobs such as environmental management and community affairs functions down to direct operations positions like the socially responsible sourcing manager, charged with coordinating ethical trading activities.

The company sets key performance indicators for 12 priority areas of responsibility relating to stakeholder concerns on issues ranging from animal welfare to energy efficiency. It has also developed a sophisticated auditing system to support the implementation of its principles throughout its supply chain.

Sainsbury's approach has generated considerable accolades. It was a leader of the food retail sector in the Dow Jones Sustainability Index for three successive years, was the only UK food retailer to be included in the new Global 100 index of the world's most sustainable corporations, and was named 2005 Organic Supermarket of the Year by the Soil Association.

4.0 Instituting sustainability-led innovation



Many leading companies around the world are convinced that finding new ideas to meet the challenges of sustainability will be a key part of their future.

Environmental, social and economic sustainability, they believe, will be among the most important drivers of innovation across their businesses as they move forward, and they are transforming their operations to make the most of it. The steps below outline our guidance for companies looking to follow their example.

10 steps to turning your company into a sustainability-driven innovator

1. Make innovating for sustainability a part of your company's vision

Update your company's stated visions, mission and list of values or principles to ensure that sustainability is at the heart, so that your company is publicly identified, both internally and externally, as sustainability-driven.

2. Formulate a strategy with sustainability at its heart

To really be effective, sustainability must be included in a new formulation of your business strategy. Simply bolting it on to an existing strategy is likely to leave it marginalised and insignificant.

3. Embed sustainability in every part of your business

Create an ongoing process for getting each part of the company to recognise and understand its environmental, economic and social impacts, and get each part thinking about how they can use that knowledge to innovate through a systematic and integrated approach.

4. Walk the talk

Top leadership in the business has to believe in it. Staff and other stakeholders need to hear their leaders explain regularly what responsibility and sustainability mean for the business and the innovation possibilities they hold, and see the actual programs implemented.

5. Set up a body with the power to make sustainability matter

Many of the leading sustainability-driven companies have a board committee devoted to the area ensuring that things move ahead. Others have a leading non-executive director in charge, while others still have a mixed committee of executives and non-executives. Whatever the arrangement, it is essential that the company regularly addresses sustainability and its strategic opportunities at the very highest level of decision-making.

The most effective sustainability committees fulfil the following purposes:⁴⁶

1. Consider, review, evaluate and supervise integrated environmental, social and ethical policies.
2. In collaboration with top management, make sure that responsibility and sustainability are taken into account during strategy formulation process.
3. Advise Board of Directors on responsibility and sustainability issues.

6. Set firm rules

Establish a code of conduct on sustainability covering both your employees and other stakeholders in your business, stating clearly that anyone who doesn't adhere to it has no place in your company or connected to your company.

7. Bring your stakeholders on board

Identify all the stakeholders in your business – shareholders, employees, suppliers, customers, the communities in which you operate – and engage with them on thinking about sustainability. Actively encourage them to participate in your innovation and encourage them to develop sustainable opportunities themselves.

8. Use people power

Ensure that sustainability is a clearly stated value at every stage of your people management process, whether it's advertising for staff, hiring, induction, performance appraisal, remuneration or promotion. Create a training organisation that includes a strong

focus on creativity and innovation based on sustainability.

9. Join the Networks

A growing number of organisations, networks and other bodies dedicated to encouraging sustainable business are emerging. Get involved with groups such as the World Business Council for Sustainable Development, the UN Global Compact, the International Business Leaders Forum and similar local bodies. Take part in sustainability investment rankings and monitors such as the Dow Jones Sustainability Indexes and the Corporate Responsibility Index.

10. Think beyond reporting: align all business systems with the company's vision of sustainability

Corporate social responsibility reporting helps focus the business on S2AVE, but it should not be viewed as an end in itself. Sustainability should run through every core system, from talent management to supplier evaluation, customer relationship management (CRM), and, of course, the balanced scorecard. This approach can turn focus into coordinated action that matters.

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EDITORIAL BOARD BIOGRAPHIES

Professor David Grayson



David started his working life trying to persuade people to buy a certain brand of washing-up liquid - in marketing management with the multinational Procter and Gamble. For most of his career, however, he has been a social entrepreneur - starting and /

or running a number of public-private-community partnerships. He was co-founder / director of Project North East - an innovative British NGO which has now worked in 40 countries. (www.pne.org). He chairs Housing 21 - one of the leading providers of sheltered and extra care housing and care for older people (www.housing21.co.uk)

He is a former joint Managing-Director of Business in the Community and remains a part-time Director of Business in the Community (www.bitc.org.uk) where he particularly focuses on small businesses as founder chairman of the UK Small Business Consortium. (www.smallbusinessjourney.com) and the international dimensions of responsible business. Much of his recent work has focussed on how to shift Corporate Responsibility from being a bolt-on to business operations to being built-in to business purpose and strategy.

In April 2007, David became Chair of Corporate Responsibility, and founding director of the Doughty Centre for Responsible Business. His major research focus is on how businesses successfully embed a genuine commitment to Sustainability and Corporate Responsibility; and how this can become a source of creativity and innovation, producing new business opportunities.

He has Masters degrees from the universities of Cambridge and Brussels (ULB, where he was Wiener-Anspach Scholar) an MBA from Newcastle; and has an honorary doctorate of laws from London South Bank University. He was the first German Marshall Fund Employment Fellow. He has been a Visiting Fellow at several UK and American business schools.

His publications include: "Corporate Social Opportunity: Seven Steps to make Corporate Social Responsibility work for your business" (Greenleaf - 2004 www.greenleaf-publishing.com); "Everybody's Business - Managing Risks and Opportunities in to-day's global society" (Dorling Kindersley and The Financial Times 2001) - both co-authored with Adrian Hodges. He has also contributed chapters to several other books including "The Accountable Corporation;" the Financial Times "Mastering Enterprise;" "The Financial Times Handbook of Management;" "The Directors' Manual;" and "What if?" He was awarded the OBE for services to industry

in 1994 and the CBE for services to disability in 1999. He is happiest on, in or - preferably - under water - in hot climates. Speeches, articles and other resources are regularly posted at (www.davidgrayson.net).

Professor Zhouying Jin



Professor Zhouying Jin is a senior researcher and professor at the Chinese Academy of Social Sciences (CASS) and a Director of Center for Technology Innovation and Strategy Studies (CTISS) of CASS. She is president and founder for the Beijing

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She graduated from the Chinese University of Science and Technology in 1965; and began her career as a researcher, Institute of Mechanics, Chinese Academy of Sciences (1960s); Deputy Chief Engineer of Changchun Electric Industrial Administration (1970s). She studied Management and Consultancy at the Japan Productivity Center and was awarded the title of Management Consultant by JPC in 1980 and 1984; Vice secretary-general, China enterprise Directors (Managers) Association of State Economic Committee of China (1980s). From 1988 to present, she serves for the Chinese Academy of Social Sciences.

Professor Jin was visiting professor at Case Western Reserve University and University of Nebraska-Lincoln, U.S.A (1993-1994); Senior Research Fellow, Institute For The Future (U.S. CA, Menlo Park 1996); Special researcher, Institute of Science and Technology policy of Japan (2002); and visiting professor at the University of Aix-Marseille III, France (2003).

Over the past fifteen years she has led more than 20 important projects, of which 16 projects have been mandated by central government ministries, Chinese academy of social sciences, or international organizations. For example, she was the Team Leader for Strategy Research for China's High-Tech Research & Development Plan (Nation's S863 Plan, 2001-2010); she organized a cross-disciplinary team to lead the "Long-term strategy integration and sustainable development" project, as well as taking part in government initiatives including the National strategy for Petroleum and Natural Gas; Evaluation of Nation's High-Tech Research & Development Plan, Assessment for The Breakthrough Project; Service innovation and NGO organizations in China; Strategic Management and institutional innovation on Coal bed Methane industry; Green Car Development Guideline and Environmental policy in China; Environmental strategy for transnational Auto companies, etc.

Professor Jin has published 13 monographs, 6 translated books, 60 major theses and 30 research reports. Her monographs include: Management and Enterprise Diagnosis, The Essence and Space of Innovation, Service Innovation and Social Resource, Virtual Institutes and Organizational innovation, and Global Technological Change--From Hard Technology to Soft Technology.

She holds two copyrights on Enterprises Evaluation and Benefit & Risk Evaluating System for Technological Project.

Dr Mark Lemon



Mark Lemon is a social scientist with the Centre for Resource Management and Efficiency at Cranfield University in the UK. He is course director of the Masters in Innovation and Design for Sustainability and has research interests in a range of policy relevant issues relating

to the human – technical interface particularly as it affects sustainable development and the natural environment. Within this area of sustainable development research he has focused on the factors that influence organisational culture, knowledge management and the way that multi-disciplinary and multi-agency teams define and respond to a wide range of environmental problems. Mark has managed teams of hydrologists, agronomists, archaeologists, anthropologists and policy specialists in their work with farming communities on desertification processes in Southern Europe. This has demonstrated the specific requirements and value of integrative research alongside the need for developing the trans-disciplinary (generic – cross cutting) skills to facilitate this integration. He has published extensively in this area and has used the knowledge derived from it to undertake work into systemic and cultural change with a number of corporate, governmental and NGO clients.

Mark has supervised over forty Masters and Doctoral theses and in previous lives has established and run his own London based scaffolding and cradle company and worked in social work and community development in the North East of England.

Dr Miguel Ángel Rodríguez



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He earned his Ph.D. in Business Administration from the Polytechnic University of Catalonia and his MBA from Santa Clara University. He also holds Bachelor degrees in Classical and Hispanic Philology from the Universities of Barcelona and Zaragoza respectively.

Miguel A. Rodríguez's most recent book is *The Sustainable Enterprise: Learning from DJSI Leaders (2005) and Handbook of the Responsible and Sustainable Enterprise*, McGraw Hill, in press (forthcoming in 2008). Recent academic papers include "Corporate governance and labor management: A cross-national study of firm governance and employment contracts"; "Maximizing stakeholders' interests: An empirical analysis of the stakeholder approach to corporate governance"; "Does stakeholder engagement promote innovation orientation?"; "Using stakeholder dialogue as a source for new ideas: A dynamic capability underlying sustainable innovation"; "The 'sponge' organization: A creativity-based reflection on the innovative and sustainable firm"; "Influential Factors in Becoming Socially Embedded in Low Income Markets"; and "Meeting unmet needs at the base of the pyramid: mobile health care for India's poor" in *Business Solutions for the Global Poor*.

He is director of IESE's Base of the Pyramid Learning Laboratory and co-director of IESE's Forum on Business and Sustainable Development. In 2003, he was recognized as a Highly Commended Runner-Up at the first "European Faculty Pioneer Award" by the Aspen Institute, the European Academy of Business in Society and the World Resources Institute for his work in integrating environmental and social issues into the management education curriculum.

As a consultant, he has collaborated in the integration of sustainability and corporate responsibility in the governance and strategic processes with, among others, the following companies: Adecco, BASF, BASF Coatings, BSH Home Appliances, Cemex, Ericsson, Gas Natural, Mutua Universal, Red Electrica de España, Siemens, SCH, Tetra Pak and Unión Fenosa.

Professor Sarah Slaughter



Professor Slaughter is currently Senior Lecturer in the MIT Sloan School of Management, coordinating the Sustainable Business Laboratory. She also works with companies and public organizations on sustainability and disaster resiliency of infrastructure and the built environment.

Prior to this position, Professor Slaughter founded MOCA Systems, Inc. based on research she conducted as a professor at MIT on construction process simulation, and led the company from 1999 to 2005 as CEO and President. Before founding MOCA,

Professor Slaughter was a professor at MIT in the Department of Civil and Environmental Engineering in Construction Management, and researched innovations in the built environment. She was previously a professor of Civil and Environmental Engineering at Lehigh University, and the Center for Advanced Technology for Large Structural Systems.

Professor Slaughter has published over 50 articles and books, and has served on numerous international and national committees related to infrastructure and the built environment. She is on the Board on Infrastructure and the Constructed Environment in the National Research Council, National Academies of Science, and on the Board of Directors for the Civil Engineering Forum for Innovation, American Society of Civil Engineers. Professor Slaughter received her SB, SM, and PhD degrees from MIT.

Professor Simon Tay



A world-renowned lawyer, political adviser and environmental policy expert, Professor Simon S.C. Tay teaches international law at the University of Singapore, and is Chairman of the Singapore Institute of International Affairs.

He gained a Masters degree from Harvard - in the process winning the Law School's Laylin Prize for the best thesis on international law - and practiced for four years in one of Singapore's largest commercial law firms before leaving to help set up the Singapore International Foundation.

As well as being leading figure in Singapore public life - he served three terms as a Nominated Member of the Singapore Parliament, and has sat on numerous government boards and committees - he has gained an international reputation for his work on environmental and human rights issues.

He has acted as a consultant to, among others, the United Nations Environment Programme, the United Nations Development Programme, the Asian Development Bank and the Asia-Pacific Forum on Environment and Development. In 2000 the World Economic Forum (Davos) named him a 'global leader of tomorrow', while the Far Eastern Economic Review featured him as one of 'ten people to watch in Asia' in its 50th anniversary issue.

In addition to his legal, academic and public work he is a prolific journalist and also a published poet and author - his collection of short stories, Stand Alone, was short-listed for the Commonwealth Prize.

He is married with one son.



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