4

TOWARDS SUSTAINABLE BUSINESS?

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Many people believe that the phrase 'sustainable business' is an oxymoron. But it is hard to implement the ideals of sustainable development if they cannot be applied to the business world. Section 4.1 examines some of the issues that arise in doing this. Section 4.2 describes the elements of a sustainable value chain (i.e. the organisational activities that contribute to the objectives of sustainable business). Section 4.3 discusses the importance of values to sustainable business, and Section 4.4 identifies ways in which business sustainability can be evaluated. Finally, Section 4.5 considers the future of sustainable business and the relevance of the concept to the emerging 'new economy'.

4.1 What is sustainable business?

The three central pillars of sustainable development are:

- **Economic development:** the generation of wealth (especially for poorer people) in ways that are compatible with the other pillars
- **Environmental protection:** avoiding adverse impacts on natural and social systems from pollution and other environmental impacts
- **Social inclusion:** avoiding gross inequalities of wealth, health and life chances

However, it is very hard, if not impossible, to apply these at the firm level and define a sustainable business. The reasons for this are:

- Sustainability is a property of systems (e.g. the economy) rather than of system components (e.g. companies).

- The nature and importance of sustainability varies between sectors: chemical companies, for instance, have more pervasive and longer-lasting impacts and tend to be more enduring entities than, for example, hairdressers, and so must be judged by different criteria.
- It is still unclear what sustainability means, both because of a lack of data and because of social and cultural disagreement.

On the third point, the consultancy SustainAbility has observed, in a briefing paper for Shell International, that:

> A key question which will face any company deciding how to respond to the sustainability agenda focuses on which of the two following options to adopt:
>
> - A social accountability process largely driven by stakeholder-defined targets and indicators of performance; or
> - A triple bottom line process focusing on targets and indicators relevant to each Shell business—and specifically designed to build competitive advantage and long-term shareholder value.
>
> This is probably going to be a case of both/and, rather than either/or, but the emphasis chosen will be crucial (Shell 1998b: 1).

This distinction tends to reflect another, which is the difference between 'strong' and 'weak' notions of sustainability. Advocates of strong sustainability tend to see environmental protection and social inclusion as absolutes and are unwilling to trade them off against economic development. The hallmark of weak sustainability is its willingness to accept such trade-offs.

Despite these difficulties, the following sections nonetheless attempt to define some distinguishing features of firms that are at least becoming more sustainable, even if they can never reach an ultimate destination or satisfy all of their stakeholders.[1] This chapter draws on a growing literature on the topic (see e.g. Elkington 1997; Frankel 1998; Romm 1999; Willums 1998).

4.2 A sustainable value chain

The fundamental purpose of a private-sector business is to create value for its customers so that its financial stakeholders can be rewarded. This is equally true of a sustainable business, which has to meet established criteria of business 'fitness' if it is to survive in the long term. The creation of economic value also has a broader social benefit in that it provides a growing stock of financial capital which can be deployed by future generations.

1 For convenience, however, the term 'sustainable business' is used in the remainder of this chapter.

However, a sustainable business also has other objectives (which some will see as being equal in importance to profitability, others as subsidiary to it). Two of these follow directly from the definition of sustainable development. The first is environmental protection, which can be seen as at least maintaining, and preferably enhancing, the stock of natural capital. The second is social inclusion, which can be seen as improving the stock of social capital. As economic development increasingly rests on human knowledge and skills, many would also add a fourth sustainability objective, that of enhancing the stock of human capital through education, training and other means.

Michael Porter's concept of the value chain provides a well-known model of the key elements of a business that create value for customers (Porter 1985). The central square of Figure 4.1 adapts this model to take account of the additional sustainability objectives identified above. It supplements Porter's original eight elements with five additional ones

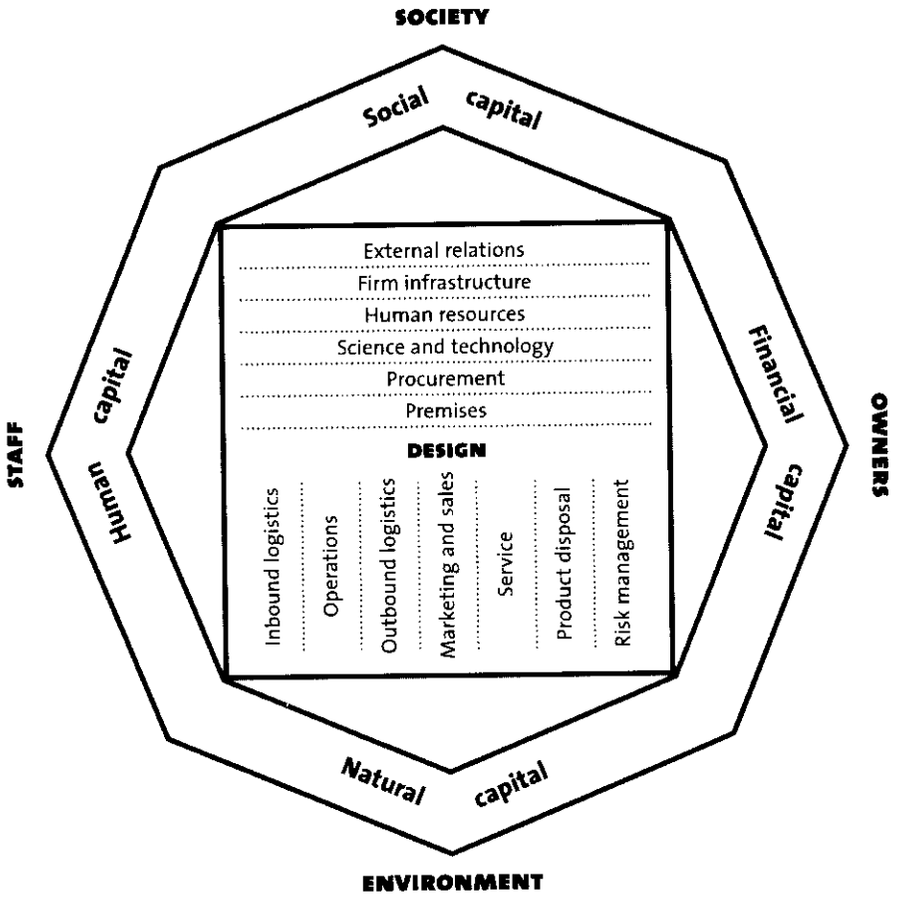

Figure 4.1 **The sustainability octagon**

Source: Adapted from Porter 1985: 37

that are especially significant for sustainable business: external relations, premises, design, product disposal and risk management. The following sections discuss each in turn.

4.2.1 External relations

Many companies have a long tradition of community involvement and/or contributions to charity. In general, however, the initial business response to sustainability concerns—especially those created by specific incidents such as environmental disasters—was to treat the issue as a public relations problem. As the company was 'obviously right', the aim was to demonstrate that opponents were wrong. With time, however, at least some companies have come to see that a more productive approach is to engage in a dialogue with their sustainability stakeholders.

This approach grew out of the application of quality principles to environmental management during the 1990s. Total quality management (TQM) extended the definition of 'customer' from its original meaning of a buyer of goods and services to include any user of business processes or outputs. The 'total quality environmental management' (TQEM) movement added a further refinement by considering regulators, communities, environmental groups and other external stakeholders to be important customers for business environmental management activities.

The next stage in this process has been its extension to the social arena and the creation of dialogue mechanisms with stakeholders such as non-environmental non-governmental organisations (NGOs), community groups, local government and other activities.

These mechanisms have been increasingly underpinned by external reporting of actions and progress. The first environmental reports by business were published during the late 1980s and early 1990s. Their evolution of environmental reporting has been tracked in a sequence of reports produced by the 'Engaging Stakeholders' research partnership between the Industry and Environment initiative of the United Nations Environmental Programme (UNEP) and SustainAbility (SustainAbility/UNEP 1996a, 1996b, 1997, 1998a, 1998b, 1999a, 1999b). One point that emerges from these and many other publications on the topic is that corporate environmental reporting remains an unsystematic activity with a wide variation between the leaders and the rest. And, even though the amount of reporting is increasing, it continues to be only a small proportion of total companies and is likely to be confined to larger organisations as long as it remains voluntary.

Social reporting, which dates back to the 1970s, has tended to focus on employment issues (Gonella *et al.* 1998). A second stage began in the early 1990s when a number of organisations such as The Body Shop and Traidcraft started to produce a variety of disclosure formats to discuss issues of social performance. A third stage began in the late 1990s when mainstream companies began to issue social reports. Some common threads are large companies that have operations in potentially controversial industries and/or a significant impact on social life in particular countries or regions and/or traditions of consumer feedback. However, these reports are as prone to inconsistency as environmental ones, and, in many cases, set aspirations that are not achieved in practice.

Of course, the logic of companies committing to sustainable development is that they should create sustainability reports that integrate all the 'triple-bottom-line' issues of economics, environment and society into a holistic view of their progress towards sustainability. The first example of this was the 1998 publication that helped to bring the issue of sustainability reporting into the mainstream, Shell International's *Profits and Principles* report (Shell 1998a). This model has now been emulated by a number of large multinational corporations (MNCs).

Of course, not everyone is convinced that such reports make a difference. One commentator on Shell's report, for example, observed that:

> It is clear that Shell is serious about responding to the increasing demand for greater corporate accountability . . . However, one is tempted to ask whether all this work represents an especially sophisticated way for Shell to repair its battered corporate reputation, justify the continuation of its core business-as-usual, and renew its 'licence to operate'. Shell's problem is that it has not yet managed to set up a rigorous process by which it can claim to be interacting meaningfully with its stakeholders. The suspicion lingers that it is more interested in using stakeholder consultation for 'issue management' purposes than for genuinely understanding the impact of its activities and perhaps changing its priorities (Mayhew 1998: 10).

One cause of this suspicion was an aspect of the report that others might perhaps see as quite radical: the attempts to account for environmental and social value (see Section 5.4).

The move towards full sustainability reporting will be further encouraged by the development of the Global Reporting Initiative, a partnership of NGOs, MNCs and other bodies. This is developing a common format for what should be reported and how.[2] However, the standardisation of a basic format may be accompanied by much more variability in the vehicles used for reporting, which will increasingly include websites and 'one-off' outputs such as reports on the environmental impacts of products and product lines.

Of course, reports alone are empty vessels—they need to be filled by a process of dialogue with the stakeholders they are aimed at. Until recently, the development of such processes was driven more by NGOs and advocates of accountability than by business itself. These external pressures are always likely to be important. But in recent years more executives have started to see sustainable development as being synergistic with broader business trends (DeSimone and Popoff 1997). For example, most business gurus foresee a future in which relatively self-contained organisations are replaced by more fluid network structures. These involve a great deal of outsourcing, partnerships—both ad hoc and long-term—and discussion with a variety of customers, suppliers and other organisations. The resulting flexibility and variety can allow firms to learn and respond more effectively to fast-changing markets than they could with traditional structures. Sustainability stakeholder dialogues and partnerships can be a valuable training ground for the management skills needed in this world of 'virtual organisation'. They can also provide

2 Further details can be obtained from www.globalreporting.org.

a 'window into the future' about changing social values and trends which can be valuable for business development, marketing and other mainstream business purposes.

However, companies will always have a problem in handling such processes as long as the stakeholders are 'out there'. A 'them and us' situation can be avoided by bringing stakeholder views into the organisation. One means is the appointment of people who represent stakeholders as non-executive or (more rarely) executive directors. Another possibility is to institute a high-level advisory group. In the longer run, initiatives such as these can be reinforced by introducing new criteria for promotion, with much more emphasis on the ability to understand and communicate with the general public and NGOs.

4.2.2 *Firm infrastructure*

A company's sustainability performance is determined by the extent to which environmental and social issues are an important consideration in its internal business processes. The starting point for this is clear structures of responsibility for achieving good performance, and mechanisms to monitor outcomes. This needs to begin at the top, with good corporate governance. At least one board member should be personally responsible for sustainability matters. In addition, it is important that sustainability issues feature on the board agenda, ideally supported by a regular report on progress against key targets and indicators. These need to be set out in a clear policy. While many companies have environmental policies, fewer have policies for the more contentious areas of social sustainability, such as protection of human rights, business ethics and animal rights. Fewer still heed the demands of some external stakeholders that sustainability should shape their business portfolio.

One of the trickiest problems facing large companies today is how to cascade their high-level policies into divisions, subsidiaries and joint ventures. The difficulty is that best-practice management dictates a lean headquarters and granting of maximum autonomy to lower tiers. Implementation and co-ordination is usually difficult enough within a single country but is even more so when national cultural differences and sensitivities have to be taken into account. The problems are compounded with joint ventures because decisions have to be agreed with another partner, who may well have management control. The tendency to greater outsourcing and collaborative partnerships can also make it difficult to identify which organisation is responsible for long-term issues such as sustainability.

One common response to this situation is a formal management reporting structure in which the chief executive or other board member of a lower-level entity has to provide formal assurance to senior management that sustainability issues have been addressed.

The need to build sustainability into everyday operations makes it important to assign ultimate responsibility to line managers. But they obviously need to be supported by specialist sources of advice and support. With the environment this is relatively straightforward. Most large, environmentally sensitive, organisations now have a network of environmental units at higher levels (often both at corporate and at business unit level) and designated environmental champions at lower levels. One variable is usually

the relative responsibility of the different units (with a constant tension between the desire of corporate environmental staff for oversight and co-ordination and the desire of business units for maximum autonomy). There can also be differences in the extent to which they are stand-alone or integrated with other activities such as health and safety and risk management and in the precise reporting route into senior management. Generally, environmental staff who report directly to a main board director have more 'clout' than those that do not.

With social sustainability, the pattern is much less clear. Social issues are not usually integrated into line responsibilities to the same degree as management but are often handled by a central unit for social responsibility, community affairs or similar. While this does give them a high profile, it can mean that they are relatively isolated from day-to-day operations.

There is also no real social equivalent of the environmental management system, which provides a formal means of controlling and integrating environmental actions. Two standards are now available for such systems—the International Organization for Standardization (ISO)'s ISO 14001 and the European Union's (EU's) Eco-management and Audit Scheme (EMAS). Both define the elements of a good system: for example, assigning responsibility, defining and documenting progress and measuring outcomes. They also provide opportunities for companies to be independently assessed as to whether they have met the standard.

Many companies have claimed that systems meeting the standard's requirements have created substantial improvements in environmental performance. Some have also found that winning a 'badge' can be a useful marketing tool (although, of course, the more companies that have it, the less unusual it is). However, environmental management systems have also been criticised as being prone to excessive bureaucracy, focusing on processes rather than actual performance and ignoring the broader issues of sustainable development. (The latter criticism could be removed if Project Sigma, an initiative by the British Standards Institution to develop a sustainability management system, is successful.)[3]

An alternative, or complementary, approach is available to companies using the European Quality Award for business planning purposes. This provides a standardised template that can be used to assess the overall performance of an organisation. The template allocates points (with a possible total of 1,000) for different aspects of performance. A total of 60 of these points are allocated to 'impact on society', which incorporates environmental and social impacts. Some have seen this 6% as being inadequate. Others argue that it at least forces organisations to pay attention to the issue and that there is no reason why environment cannot be dealt with under other categories as well as 'impact on society'. Indeed, this has been the approach of several past winners.

The precise form of sustainability infrastructure chosen matters less than the processes undertaken within it. In particular, sustainability will be taken seriously in most companies only if the business case can be demonstrated—which usually means demonstrating that there can be financial costs and benefits. This is difficult to achieve for the social dimensions of sustainability but a great deal of work has been done on

3 www.projectsigma.com

integrating environment into business financial infrastructure, such as the management accounting system and investment appraisal (Bartolomeo *et al.* 1999). One of the best-known examples of this is the healthcare company, Baxter International, which produces an 'environmental financial statement' to assess its environmental costs and benefits. Every statement produced has demonstrated that the financial benefits created by environmental programmes considerably exceed their costs.

4.2.3 Human resources

In the long run a company's recruitment, development and reward practices strongly influence its values and priorities (Wehrmeyer 1996). Ideally, issues of sustainability might be stressed to new and young employees and form a component of performance appraisals and bonuses. Encouragement—such as time in lieu—can also be given to voluntary and other forms of participation in community activities. Many believe that this can create a virtuous circle, in which a good environmental and social image assists in the recruitment of new staff and improves the morale of existing employees.

Most definitions of social sustainability also place great emphasis on human resource issues. One aspect of this is the creation of equal opportunities for disadvantaged groups—which in many areas of employment includes women as well as minority groups. As well as removing discrimination, action in this area has the further advantage of creating a more diverse workforce. Many would argue that this is essential for dealing with the social complexities of today's business world.

As noted, the maintenance and enhancement of human capital is an important objective of a sustainable business. It is perhaps unrealistic—and, in some fast-moving industries, perhaps undesirable—in today's world to expect guarantees of permanent employment. But most people with an interest in sustainable business would argue that staff should not be made redundant except as a last resort. Maximum opportunities should also be available for staff to enhance not only their employable skills but also their own personal development.

These questions are especially important in developing countries, where there are more opportunities to be exploitative of staff. At a global level, there are a number of international conventions that have been signed by most countries to deal with these matters. These include the United Nations Universal Declaration of Human Rights, the Organisation for Economic Co-operation and Development (OECD)'s Guidelines for Multinational Enterprises, and a number of examples from the International Labour Organisation. Despite recent campaigns, few companies as yet have reshaped their business policies to reflect these issues. One practical problem is cultural and political differences. For example, some argue that the trade-off between economic development and high environmental standards (assuming this trade-off exists) has to be different in poor developing countries from that in the West. Others see this as an example of the rich world exporting environmental problems. Nonetheless, a sustainable business should be doing much more than the norm to implement such conventions into its operations as well as taking other measures to ensure that real contributions are being made to the human capital of developing countries.

One issue in human resources is the role of trade unions. Most advocates of sustainable business would probably hold that this is incompatible with restrictions on union membership. Where unions exist, they can obviously be an important ally and conduit in building staff awareness of, and commitment to, sustainability initiatives. Historically, unions' interest in the topic has focused on the specific topic of employment, but in recent decades many union organisations—and their members—have shown a more positive interest in broader sustainability issues, particularly health-related environmental impacts and equal opportunities.

4.2.4 Science and technology

Leading-edge environmental thinkers—and a growing number of policy-makers—believe that sustainable development will require a 'factor 4' improvement in the environmental performance of goods and services. This means reducing by at least 300% over the next 20–30 years the amount of resources needed and pollution generated to deliver goods and services to consumers (von Weizsäcker *et al.* 1997). As progress in recent decades has not approximated to this rate of improvement—for example, the fuel efficiency of cars—one implication is that new 'clean' technologies and/or new social–technical systems are required. There are many possible options for such new technologies, but they often fail to inform thinking in research and development (R&D) and other functions or they meet external barriers, so that their potential is not realised (Hawken *et al.* 1999).

However, recent controversies about the implications of genetic engineering technologies indicate that some care is needed to determine exactly what these technologies might be and to ensure that they do not have unintended consequences which would work against sustainability.

It is also important that any new technologies developed are compatible with the social requirements of sustainable development and are transferred to developing countries wherever possible.

4.2.5 Procurement

One of the key elements of sustainable business is a life-cycle perspective. This means an acceptance of some degree of responsibility for the environmental impacts of suppliers of inputs and the consumers of outputs (Russell 1998). Often the impacts of these upstream and downstream stages of the chain outweigh the impacts of the organisation itself, particularly for service industries. In some sensitive industries, failure to identify and improve the environmental and social performance of suppliers can also compromise the saleability of the company's product or service. McDonald's and Nike are just two of the organisations that have faced consumer boycotts for allegedly failing to, respectively, conserve tropical rainforests and insist on reasonable working conditions at suppliers in developing countries.

The environmental performance of suppliers has been the focus of a number of collective and single-company initiatives. One of the best known of these is that of the

UK-based retailer of 'do-it-yourself' (DIY) products, B&Q. In 1992 the company initiated a programme to raise the environmental awareness of its suppliers and award them a rating. More action was also taken to inform customers about the environmental implications of the products the company sells. In 1998 the company announced a further stage in its programme, with a target of all its suppliers understanding the key impacts over the life-cycles of their products and developing an action plan to deal with them.

Most companies have paid less attention to the social performance of suppliers, but this is now being addressed through initiatives such as SA 8000 (see Section 4.4).

The evidence is that concerted initiatives of this kind by business customers can drive considerable environmental and social improvement among their suppliers. However, this is normally expected to occur in addition to rather than instead of other procurement criteria such as price and quality. Further, as more procurement moves to electronic e-commerce platforms, some of the bonds between buyer and seller are broken, with the possible result that it will become more difficult to put pressure on for better—or even to assess accurately—sustainability performance.

4.2.6 Premises

A company's factories, offices and other buildings and sites have a considerable environmental and social impact. Their construction alters the landscape and consumes raw materials, their operation uses energy, water and other inputs, creates internal and external emissions and other impacts and influences employment and transport patterns. At the end of their lives, demolition affects amenity and generates waste, some of which may be hazardous. And at all times they are one of the most visible manifestations of a company's existence and therefore a major influence on its public image.

Environmentally friendlier premises management has three principal aims:

- Minimal impacts from emissions, noise, visual intrusion or other causes
- More efficient use of inputs such as energy and water
- Projection of a clean image to employees, customers and communities

These objectives are most easily achieved in the design stage. However, there is much that can be done to make existing premises more environmentally friendly. Substitution of chlorofluorocarbons (CFCs) and other harmful substances, repainting, screening, provision of sound insulation and other measures can greatly ameliorate direct impacts. Improved insulation, electronic energy-management systems and other measures have already reduced energy consumption and costs for many companies, and research demonstrates that there is still enormous potential for cost-effective measures. Conservation and recycling measures offer similar potential for the increasingly expensive commodity of water.

In today's networked world, one emerging question is whether a sustainable business actually needs premises, or at least very much of them. If staff can telework, and many business activities can be conducted through electronic means, why incur the transport

and other impacts of bringing people together? When such costs can genuinely be avoided, this is obviously the best option. But some caution is needed as teleworking does not necessarily reduce transport in the longer term. What often happens is that people adjust their living patterns to, say, live further from work, and the more time spent at home the more people are likely to invest in home extensions and related energy consumption which offsets any savings in office space (cf. Chapter 17).

4.2.7 Design

Design is placed at the centre of Figure 4.1 for two reasons. In the narrow sense, the design stage typically determines most of the lifetime environmental and social impacts of products and services. In many ways this makes it the most important business function for long-term sustainability. As later chapters have extensive discussion about the topic of sustainable product and service design, this is not repeated here (see Chapters 6, 7 and 8).

However, there is also a broader sense of design—that of putting the elements of sustainability and good business together so that sustainable business is possible. Sections 4.3 and 4.4 include more discussion of this topic.

4.2.8 Inbound and outbound logistics

The movement of materials, components, products, etc. both within companies and between them and their suppliers and customers has major environmental and social impacts. The main environmental impacts are consumption of fuel, pollutant emissions and noise. These impacts can be ameliorated by minimising distances travelled through locational, procurement and other decisions, by substituting other modes of transport for less eco-efficient transport modes (especially the substitution of train for road freight) and by using them more efficiently: for example, through 'reverse logistics' (using vehicles to carry goods on return trips when they would otherwise be empty). The social impacts include noise and contributions to congestion and other systemic impacts.

4.2.9 Operations

ISO 14031, a guidance document, provides a framework for assessing operational (as well as other aspects of) environmental performance. It identifies eight operational performance areas that companies need to take account of: materials, energy, service inputs, facilities and equipment, logistics, products, service outputs, and emissions and waste.

4.2.9.1 Materials

The extraction and processing of materials creates major environmental impacts. Sustainable companies will therefore focus on reducing their consumption, both in their own operations and in their supply chains. One way of doing this is through 'dematerialisation' (i.e. redesigning processes and products so that they consume smaller

quantities of materials). Another way is through 'revalorisation' (i.e. re-use, remanufacturing and recycling). By avoiding the impacts associated with production of virgin materials, recycling can potentially reduce environmental impacts. Whether this actually happens in practice depends on the impacts associated with recycling itself. These can sometimes exceed the impacts avoided, as when cars are used to ferry small amounts of paper to recycling points.

The company Electrolux deals with this objection by using what it terms a 'recycling index' which relates the financial value of raw materials going into a product with the anticipated financial value of disassembled components and materials at the end of the product's life. The higher the recycling value, the more likely it is that end-of-life disassembly for recycling or re-use will be economically feasible. The indicator therefore highlights the importance of considering the end-of-life of products during the design stage.

4.2.9.2 Energy

As with materials, energy production and consumption have major environmental impacts and are a significant business expense. Most studies suggest that, despite long attention to the issue, there remains considerable scope for cost-effective improvements in energy efficiency in most organisations.

4.2.9.3 Service inputs

Service inputs to many activities can often be as or more environmentally significant than material or energy inputs. An example is airports, which create considerable indirect environmental impacts through transport of passengers and staff to and from their site. One indication of their sustainability is the number of non-connecting passengers using public transport to reach the airport.

4.2.9.4 Facilities and equipment

Many aspects of facilities and equipment affect environmental performance: for example, modern versions tend to perform better than old versions, and emissions can often be dramatically reduced through effective maintenance.

4.2.9.5 Logistics

Logistics have already been discussed, in Section 4.2.8.

4.2.9.6 Products

As already discussed in Section 4.2.5, a life-cycle perspective requires attention to be paid to the environmental and social impacts of products. In the environmental area, there are now a number of generic and company-specific schemes that identify key areas to be managed. One example of a company-specific scheme is the environmental product profile developed by Volvo, which was first applied in 1998 to its S80 2.9 passenger car. The

profile assesses 12 parameters in four categories (ENDS 1999). Each parameter has a total score of 100, and the overall profile was certified by the verification agency, Lloyds Register.

There have been fewer attempts to define frameworks for assessing either the social performance or the overall sustainability of products. One example, developed to provide a first-order assessment, is the 'sustainability wheel' (Bennett and James 1999). This identifies four key parameters: customer value, physical environmental impacts, product attributes and social impacts. The environmental parameter has six components. Three of these relate to inputs: energy, materials and water; and three to outputs: hazardous substances and radiation, non-hazardous wastes and environmentally critical substances such as CFCs or carbon dioxide. The third parameter deals with attributes of products that are major determinants of the physical environmental impacts of the product itself and/or society as a whole and that can be influenced by designers.

Three broad kinds of product attribute are identified:

- **Transport:** the total use of transportation over the life-cycle
- **Revalorisation:** the extent to which the product can itself be recycled, re-used or remanufactured, or can use inputs or components that have been recycled, re-used or remanufactured
- **Service intensity:** the provision of additional services to customers in ways that potentially reduce environmental impacts; this includes product substitution, increased intensity of use, life extension, product augmentation, multi-functionality and integration with other products and services to produce synergistic effects

The social parameters are enhancement of individual life chances, meeting the basic needs of the world's most disadvantaged peoples, challenging social norms, enhancing human capital and enhancing autonomy and community.

4.2.9.7 Service outputs

The output of an increasing number of organisations in today's service-intense economies is a service, either to other businesses or to final consumers. Much current thinking has stressed the potential to further substitute services for physical processes, thereby creating dematerialisation and other environmental and social benefits. A recent research project (Hopkinson and James 2000) has identified eight basic types of eco-efficient service (defined as services that directly or indirectly increase the eco-efficiency of customer's activities). These are:

- Activity management, such as end-of-life disposal of materials and products, or facilities management of energy provision to buildings
- Advice and consultancy: for example, on energy or water efficiency
- Information, such as provision of systems that make use of a global positioning system (GPS) to control tractor spraying of fertilisers or to support reverse logistics through better vehicle tracking

- Intermediation, as with e-commerce portals which enable buyers to be found for unused capacity
- Product extension, as with maintenance, repair and other after-sales services (see Section 4.2.11)
- Product result services, where suppliers guarantee levels of performance and do all that is necessary to achieve this (e.g. demand-side management in energy)
- Product utility services, as when goods are hired or leased rather than sold
- Substitution, when electronic services are substituted for physical processes

4.2.9.8 Emissions and waste

Emissions and waste indicators are ubiquitous because they are often required by regulators and deal with what are usually highly visible phenomena. For these reasons, and also because targets can easily be set and understood, they can be powerful drivers of improvement. This is especially true if they encourage efforts to adopt pollution prevention approaches rather than simply the 'bolting on' of equipment to control the pollution.

There are now a number of schemes for identifying key emission and waste measures, for example, the guidance document on environmental performance evaluation, ISO 14031. However, this document also makes clear that what matters for sustainable business is not the emissions and waste in themselves but their effect on environmental conditions.

4.2.10 *Marketing and sales*

Brands are often the most valuable component of a company's assets. A brand has many elements, but there are few that can be effective if they are associated with poor environmental or social performance. Conversely, good performance can create very positive feelings among actual or potential customers.

Experience suggests that success in branding and other marketing issues, and in day-to-day selling, is most easily achieved, and consumer scepticism neutralised, when environmental concern permeates a company. This requires marketing and sales to be integrated into the sustainability value chain rather than being a superficial add-on (Charter and Polonsky 1999).

However, experience over the past decade has shown that products that are based on customers paying a 'sustainability premium' can succeed in niche markets but are unlikely to succeed in the mainstream. This is particularly true in the B2C (business-to-consumer) area, where the interest that many express in opinion polls does not translate into buyer behaviour. The key to success is to offer products and services that offer a 'sustainability bonus' without asking customers to pay more for that bonus.

Several aspects of social sustainability are also relevant to marketing and sales. For international companies, decisions have to be made about whether products should be

sold in countries with oppressive regimes and also—as in the case of some health products—whether it is important to provide access for a large proportion of the population.

4.2.11 *Service*

After-sales service is particularly important for environmental performance. For example, correctly explaining how a product is to be used can prolong its life and also enhance its environmental performance. Servicing through effective repair and reconditioning can also greatly lengthen a product's life, and can improve the efficiency with which it operates. Cars that have become out of tune, for example, waste fuel and emit greater amounts of toxic gases. However, they can be re-tuned easily and inexpensively.

Service can also be a critical issue in developing countries where local skills may not be sufficient to repair products or keep them at optimal performance.

4.2.12 *Product disposal*

The development of cradle-to-grave responsibility has been driven by the rising impacts and costs of product disposal. It is already a statutory requirement for many products at least in some countries and will be so in more areas in future. Companies have a choice between developing more effective forms of disposal (such as providing the option to return products to undergo supervised disposal by the manufacturer or to manufacture products with maximum use of biodegradable materials) or recycling for alternative use. Many companies and experts believe that, when the complete life-cycle of the product is carefully analysed, well-managed disposal can be more environmentally benign than recycling. However, environmental groups and much of the general public believe that the latter is more desirable. It is likely therefore that stringent legislative targets and consumer preference will require business to design products for full recyclability and develop recycling infrastructures.

4.2.13 *Risk management*

Recent decades have seen a succession of disasters that imposed severe costs on, and in some cases threatened the very existence of, the responsible companies. The *Exxon Valdez* oil spillage has cost Exxon almost US$10 billion in clean-up costs, compensation and fines, has greatly damaged its public acceptability and has consumed an inordinate amount of management time. Union Carbide paid out significant compensation for the Bhopal chemical emission disaster and might well have been bankrupted if the court cases had been decided under US rather than Indian jurisdiction. And Coca-Cola and Perrier are only two of the many companies to have lost millions of dollars in sales and forfeited public trust as a result of contamination of products.

These and other disasters have directed business attention to the extent and complexity of sustainability-related risks. In addition, their magnitude and frequency is being considerably increased by the adoption of strict liability for both future and past

environmental damage in the USA, and the likelihood is that the European Community will move the same way. As a result, US business is already liable for over US$100 billion of clean-up costs for land that has been polluted in the past.

One response has been a drying up of liability insurance and a much greater caution by third parties such as banks and carriers about their own potential liability. These and other parties are now adding to internal pressures for companies to adopt a more systematic approach to the analysis of risks, to phase out the use of hazardous materials, to introduce safety control systems and to take other measures to reduce risks. However, production and marketing disasters will always happen and sensible companies now have crisis management plans and training programmes to mitigate their worst effects.

4.3 Winning hearts and minds for sustainable business

The sustainable value chain implements a company's strategic objectives. But strategy is more than objectives, important as these are. It must also create a shared vision of where the organisation is going and help create an organisational culture which is supportive of sustainable business (Rowledge *et al.* 1999). The former chief executive officers of Dow and 3M have defined an 'eco-efficiency business strategy mind-set' as being about (DeSimone and Popoff 1997: 45):

- An emphasis on performance that meets genuine needs rather than a focus on products alone
- Deriving competitive advantage from consideration of the entire product life-cycle
- A recognition that eco-efficiency is more a process than a once-and-for-all objective
- Integrating sustainability into the overall business so that it forms a core competence
- External collaboration to gain information, to influence debates and to identify business opportunities

Of course, many would see sustainable—as opposed to eco-efficient—business strategy as placing more emphasis on the social pillar of sustainable development. Some would also like to see more emphasis on a longer time-perspective and on the implications for the kinds of business a company undertakes.

Also, values are useless unless they are accepted—and lived—by the people within an organisation. This is particularly true of senior managers, who influence the short-term situation through their actions and the medium-term to long-term situation through their legacy in areas such as business activity and the people who have been recruited into influential positions.

Barrett (1998) has developed a framework that can be used to assess corporate sustainability values and which has been implemented within SustainAbility (1999). It involves individuals choosing from a list of values: those that most represent their personal views, those that best describe how they feel their organisation should operate and those that best describe how it actually operates. The degree of alignment between the three areas can then be identified and the results plotted onto a model of value development and a 'balanced needs scorecard'. The scorecard has six categories: 'survival' (profitability and shareholder value); 'fitness' (productivity, efficiency and quality); 'customer and supplier relations'; 'evolution' (innovation, products and services); 'culture' (trust, creativity and employee fulfilment); and 'society and community contribution'.

In many ways, becoming a sustainable business is as much a process of change as a concrete set of activities, and sustainability-based change is like any other: it involves abandoning the comfort of the known for the uncertainty and fear of the unknown. Leaders at all levels therefore have to heed the words of Martin Luther King:

> If you want to move people, it has to be towards a vision that is positive for them, that taps important values, that gets them something to desire, and it has to be presented in a compelling way that they feel inspired to follow (quoted by Walter Stahel).

Of course, the cynicism of middle and junior managers after decades of change initiatives of one kind or another is one of the principal impediments to any kind of movement. This is a particularly serious problem when, as with the natural environment, the changes require a great deal of time and effort to understand and implement.

Ultimately, the spark of leadership is useless without the tinder of enthusiasm for sustainability-related actions among all the workforce. Fortunately, a good number of employees, especially those who are young and well educated, already accept the basic rationale for change and indeed may be pressing for it. Many companies have been pleasantly surprised by the extent of the enthusiasm and commitment that their sustainability policies have unleashed. Indeed, many see core values that tap into employees' broader concerns and values—which typically include environmental and other sustainability—as the glue that will increasingly hold organisations together in an ever more virtual world.

Enthusiasm is fostered by an understanding of the reasons why change is necessary. One problem with sustainability is the complexity of the issues, and the widespread feeling that individuals cannot make a difference. Hence, mechanisms to create a sense of connectedness are important. These may include in-house awareness-raising schemes, recycling schemes, etc. However, care is needed to ensure that their relevance is not undermined by changing environmental fashions (e.g. on the merits and demerits of some kinds of recycling). One, more scientifically based, means of creating this awareness is by using the ideas of The Natural Step. This organisation originated in Sweden, with extensive discussion among scientists and other professionals to define consensus principles of sustainable development. However, although they have been endorsed by and have formed the basis of training programmes in a number of companies, the principles appear to have been more successful in their originating cultural milieu of Scandinavia than elsewhere in the world.

4.4 Evaluating sustainable business

One approach to evaluating the sustainability of business is to separately assess important elements in economic, environmental and social performance. Such assessments can make use of the evaluation frameworks that have been developed in the individual areas.

There is, of course, a well-developed framework to assess the financial sustainability of a company. Several reports have also highlighted the importance of measuring parameters such as human capital and/or the health of key business relationships, which include those with important social stakeholders (see e.g. CTC 1998).

One response to this has been attempts to adapt existing business performance measurement activities to take account of sustainable development: for example, that summarised in Table 4.1. The developers of this framework argue that:

> The new, value-related measures will lead a company away from commodity products and toward a search for ways to differentiate products through branding, upgrading function, or building with services. These measures reward delivery of value to the customer—translated into sales or value added—and the simultaneous reduction in environmental footprints. The older measures, in contrast, reward increases in throughput, capital investment, and production (Arnold and Day 1998: 9).

Of their six new measures, knowledge intensity and focus on function are the most challenging. The first is related to the question of measuring intellectual capital, which is attracting growing interest in conventional business performance measurement circles. The best-known example is that of the Swedish insurance company, Skandia, which has put a financial value on such capital in recent financial reports (Skandia 1994). Focus on function is concerned with attempts to build a greater service component into sales. However, there are few indications at present on how it can be measured.

There is also a well-developed literature on environmental performance evaluation (summarised in Bennett and James 1999). A decade's practical experience has been condensed into the ISO 14031 guidelines which, despite some limitations, provide a comprehensive framework for assessing environmental impacts.

Old measures	New measures
Volume intensity	Knowledge intensity
Volume output	Value per volume output
Capital investment	Value per unit of capital invested
Material throughput	Material per customer served
Virgin material and energy	Recovered material and energy
Focus on product	Focus on function

Table 4.1 **Changing measures of resource productivity**

Source: Arnold and Day 1998: 9

Although there is an even longer history of interest in social performance (e.g. as summarised in Zadek *et al.* 1997), there has been much less detailed discussion of how it can be evaluated compared with environmental sustainability. Indeed, David Wheeler, the former head of ethical audit at The Body Shop, believes that practice in the social area is 5–6 years behind that in the environmental area, largely because of the complexity and intangibility of many social issues (quoted in *BATE* 1999). Nonetheless, the US Council on Economic Priorities has developed SA 8000, a social accountability code of conduct for sites. It is based on the various international conventions described in Section 4.2.3 and therefore focuses on issues such as child labour, forced labour, health and safety, discrimination, disciplinary practices, working hours, compensation and management systems, and freedom of association and right to collective bargaining.

One step forward from this separate evaluation is the construction of 'sustainability indices', which take the form of dimensionless numbers calculated from a number of weighted individual parameters. The key design issues are therefore which parameters should be included and how they should be weighted. One approach is to do this in a 'bottom-up' manner, with parameters defined by the organisation. The other is to use a 'top-down' method, with parameters developed by government or other parties. There is considerable experience of constructing such indices in the environmental area (summarised in Bennett and James 1999).

An alternative, or complementary, approach is to develop integrated indicators that encompass two or more parameters of sustainability. Most companies that have attempted to address this topic have utilised the concept of eco-efficiency (DeSimone and Popoff 1997). This means creating greater economic value from activities that also minimise environmental impacts or that, at worst, maintain impacts at no more than their current level. These parameters can be measured, and several initiatives have sought to develop standardised eco-efficiency indicators. However, some of these attempts—and particularly those associated with the World Business Council for Sustainable Development (WBCSD), a business association that brings together many leading MNCs—have been criticised by some sceptics, who argue that this is a narrow interpretation of sustainability which tries to distract attention from issues of eco-justice and/or leads in practice to a focus on incremental improvement rather than radical innovation (Gray *et al.* 1996; Welford 1996).

A more radical approach to measuring sustainability is to place a financial value on an organisation's consumption or enhancement of natural and/or social capital. This is the approach being adopted by Shell, which is working with SustainAbility and Arthur D. Little to develop 'triple bottom line accounting' (Shell 1998b). The main argument for such an approach is that it provides information that is readily understandable by management and financial stakeholders and that can easily be compared with economic value added. The Prince of Wales Business Leaders' Forum, in collaboration with the World Bank and UN Development Programme has, for example, developed the concept of 'social value added' as an equivalent of shareholder value added (Nelson 1998). Others are also seeking to operationalise the concept of 'social capital' developed by Fukuyama (1995) and others. However, attempts to create such valuations are always controversial. One critic has argued that

> The concept misleads companies into thinking that by somehow aggregating economic, social and environmental 'value-added', they can claim both responsibility and sustainability.
>
> The delusion is that they compensate for the 'value' they are subtracting from one bottom line—the environmental, say—by 'adding value' to another 'bottom line'—for example the economic—even though the two forms of value are of a very different nature . . .
>
> The problem with such technocracy is that it obfuscates rather than clarifies. The metrics may provide some semblance of rationality to empower corporate decision-making in the short term, but it is likely to alienate rather than include many stakeholders. This approach will therefore do little to bring about a more consensual way of working or to minimise risk (Mayhew 1998: 10).

4.5 The future of sustainable business

If it is relatively easy to identify the characteristics of sustainable business, does this mean that they will be inexorably adopted by all companies? Unfortunately, survey and other evidence suggests that only a minority of companies are doing much to move towards it (see e.g. Cowe 1999; Suranyi 1999). The reasons for this include:

- Weak financial incentives, with environmental taxes and resource costs being at relatively low levels
- Weak commitment by managers
- The complexity of many sustainability issues, which can be beyond the capacity of many organisations to even understand let alone respond to
- The development of 'virtual' business, which makes it more difficult to understand, identify responsibility for and manage overall product chains
- Limited pressure from consumers in terms of actual buying behaviour

Moreover, the need to continually respond to changing market conditions means that it is difficult for any company to maintain constant improvements over time. Witness, for example, the tribulations at The Body Shop in recent years as it has faced pressure on its profitability and margins.

In the light of these barriers, sustainable business is likely to be a tender bloom and will always require a supportive framework to be established by governments and others. One necessary condition of this framework is that prices for resources should reflect their real environmental and social costs. If this is achieved, smaller companies will not need to pay quite so much formal attention to sustainability issues but will simply incorporate the prices into their financial calculations. Another condition is the need for smart regulation, which uses a combination of carrot and stick—especially financial incentives and disincentives—to steer companies towards the long-term changes required. However, the final change is a broader social requirement, which is the need for changing attitudes towards consumption. As long as consumers want high mobility and resource-intensive goods and services then almost every business—however sustainable it is and however much it tries to guide consumer attitudes—will have to provide those goods and services.

Could these judgements be changed by the 'new economy' of electronic networks and social fluidity which has been alluded to at several points in this chapter? Are the dot.coms, telcos and other beneficiaries of this world more sustainable than their old economy counterparts? Supporters of this view certainly argue that environmental impacts could be greatly reduced by the opportunities for better control and optimisation, by electronic substitution for physical processes and by new ways of working. They also argue that the information democracy created by the Internet can overcome many traditional geographic and social disadvantages. Perhaps, ultimately, virtual reality is the only antidote to today's inexorable demand for mobility.

However, global networks can easily enable globalised economic patterns that will generate additional demands for transport and reduce local autonomy. They also increase opportunities for consumption, and may create a digital divide between those with access to the networks and those who are excluded. The increased ease and automation of procurement—and a related expansion of the supplier base—can also make it more difficult to introduce a life-cycle perspective into supply chains. And if Wall Street is already difficult to reconcile with sustainability time, what are the implications of Internet time in which even a year is often said to be long-term?

In conclusion, the first battle for sustainable business—on the physical terrain of the old economy—has been, at best, drawn. The ground is now shifting to the next, perhaps decisive, encounter in the wires and waves of cyberspace.