Corporate Change for Sustainability: The Way Ahead

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2004

Jointly sponsored by:
Australian Conservation Foundation
Committee for Economic Development of Australia
Abstract

This paper discusses the forces that are encouraging corporations and their boards and chief executives to adopt sustainability strategies - strategies that combine financial, environmental and social goals and responsibilities. It provides many examples of the costs associated with perceived socially or environmentally irresponsible behaviour and the benefits enjoyed by corporations adopting sustainability strategies.

The paper describes the processes of change that enable corporations to move towards sustainable practices, focussing on business strategies that support rather than diminish global ecology and human/social capabilities. This unified approach is designed to bring about a change in the interpretation of corporate sustainability and to support the activities of change agents (managers, consultants, and community activists) in managing the massive corporate change needed to move corporations toward sustainable practices in a systematic way.

The paper describes the changes that enable corporations to move towards sustainable practices.

Part 1 of the paper proposes a schema for understanding how corporations move from compliance modes to the attainment of strategic sustainability. It then discusses some of the characteristics of the ideal sustaining corporation.

Part 2 discusses the drivers to change. It describes the way that reputations that have been built over decades can now be lost in a day. It illustrates the importance of developing shared values with stakeholders and the significance of risk management to enable firms to prepare themselves for and to be able to respond to emerging environmental risks. It concludes with a discussion of the forces of resistance to such changes.

Part 3 discusses the leadership of change and the roles and strategies that corporate change agents can employ to bring about transformational change for sustainability. Examples are given of Australian and international corporations, their successes and the processes they have employed.

Part 4 compares Australian corporate performance to that of international organisations. It recommends an internal and external program for promoting human sustainability in the corporation and summarises the key actions needed to link progress with human and ecological sustainability.

The paper concludes with a list of further resources and references to assist business.
A recent global survey of CEOs showed that 81 per cent were prepared to forego short-term profitability for longer-term environmental objectives. Indeed, increasing numbers of corporations are actively seeking to develop more sustainable business practices. In this paper we examine the organisational changes that can enable the contemporary corporation to deliver sustained high economic performance, provide for just and equitable conditions in the workplace, contribute to social equity and assist in renewing the biosphere.

Our conceptual framework is the stakeholder theory of the firm.

Other Telstra authors have examined the key attributes associated with the development of more sustainable enterprises. Dovers has argued that adaptiveness is the crucial quality that management, processes and institutions must possess if sustainability is to be achieved; the design features of adaptive institutions and processes include persistence, purposefulness, information-richness and sensitivity, inclusiveness, and flexibility. According to Jenkins, action around sustainability also requires coordination of tasks across highly distinctive areas, raising the need for conflict resolution, networking and communication skills. Yencken has pointed out that Australian business and industry need to employ environmental management and reporting techniques more systematically if Australia is to progress towards a form of growth which espouses quality rather than quantity. The question we ask in this paper, then, is how the corporation, as the fundamental economic unit of modern life, can meet these requirements?

The paper defines steps along the way to the ideal or sustaining organisation, arguing that a complex array of social, political, ecological and economic forces are driving this progression towards sustainability. We indicate how corporations can make the transition incrementally through gradual improvements in day to day operations, or in some cases, through transformative leaps to a more sustainable stage. Finally, we comment on Australia’s performance and examine some of the specific barriers and incentives to change in this country.

A Phase Model
Our conceptual framework is the stakeholder theory of the firm. We expand this theoretical orientation to include the natural environment, suppliers, employees, shareholders and society as a whole. Since both human sustainability (the development and fulfillment of human needs) and ecological sustainability (the protection and renewal of the biosphere) are involved, we take an integrated perspective on the organisational changes required to help the corporation move towards sustainable practices.

Our phase model indicates how human and ecological sustainability are interrelated developments along the path to the sustaining corporation. The phases represent a set of ideal types, which help organisations define their current level of human and ecological sustainability and chart their progress towards a more sustainable position. At each step of the way, new human capabilities or characteristics of the organisation enable further progression towards ecological sustainability. While we recognise the limitations of using such ideal types, the use of the phase model has two key advantages. Firstly, it enables comparison between companies and business units. Secondly it highlights the relationship between human and ecological sustainability.

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In using the model, we do not assume that a firm necessarily progresses through the phases step-by-step on a linear or ‘improving’ trajectory. To the contrary, an organisation may leapfrog phases or regress by abandoning previously established sustainability practices. Significant shifts are often triggered by changes such as the appointment of new senior management, stakeholder pressure, new legislation, economic fluctuations, or by the loss of committed enthusiasts. Contemporary corporations are highly complex and may have quite different philosophies on achieving human and ecological sustainability. Different business units within the one firm may have contradictory elements within these aspects of sustainable practice.
What are the distinguishing characteristics of each of these phases?

Rejection involves an attitude on the part of the corporation’s dominant elite that all resources – employees, community infrastructure and the ecological environment – are there to be exploited by the firm for immediate economic gain. There is a strong belief that the firm simply exists to maximise profit. Any other claims by the community are dismissed as illegitimate.

Exxon and Mobil are just two of the companies and trade associations which organised against the Kyoto Protocol through the Global Climate Coalition (GCC), an organisation formed to coordinate business responses to the climate change debate. They are examples of firms acting in a rejection mode.

Non-responsiveness usually results from lack of awareness or ignorance rather than from active opposition to a corporate ethic broader than financial gain. The firm’s human resource strategies, if they exist, are focussed mainly on creating and maintaining a compliant workforce. Management of HIH Insurance, for instance, made many grandiose philanthropic gestures, yet fostered a corporate culture, which disempowered its workforce, sowing the seeds of its own demise. Firms in this stage will ignore community and health and safety issues where possible. Environmental consequences of the firm’s activities are taken for granted and, if negative, disregarded. Environmental risks, costs, opportunities and imperatives are seen as irrelevant even when these policies are costly to the corporation as much as to society, and the environment.

Compliance. In this stage the corporation focusses on reducing the risk of sanctions for failing to meet minimum standards as an employer or producer. The dominant organisational elite emphasises being a ‘decent employer and corporate citizen’ by ensuring a safe, healthy workplace and avoiding environmental abuses that could lead to litigation or strong community action directed toward the firm. The firm is primarily reactive to growing resource strategies, if they exist, are focussed mainly on creating and maintaining a compliant workforce. Management of HIH Insurance, for instance, made many grandiose philanthropic gestures, yet fostered a corporate culture, which disempowered its workforce, sowing the seeds of its own demise. Firms in this stage will ignore community and health and safety issues where possible. Environmental consequences of the firm’s activities are taken for granted and, if negative, disregarded. Environmental risks, costs, opportunities and imperatives are seen as irrelevant even when these policies are costly to the corporation as much as to society, and the environment.

Strategic Proactivity moves the firm further along the sustainability path by making sustainability an important part of the firm’s business strategy. In this stage, the firm’s strategic elite view sustainability as providing a potential competitive advantage. The commitment to sustainability is strongly embedded in the quest for maximising longer-term corporate profitability; that is, it is motivated by intelligent corporate self-interest.

Future corporate performance is not simply seen as a matter of reducing costs and increasing efficiencies but as adding value and maximising speed, flexibility, innovation and responsiveness. Consequently managers and change agents try to position the organisation as a leader in sustainable business practices – with advanced HR strategies that help make the organisation an ‘employer of choice’, with ‘corporate citizenship’ initiatives that build stakeholder support and with innovative, quality products that are environmentally safe and healthy and address the rapidly growing markets of the environment industry.

Support for the Australian Federal Government’s opposition to the signing of the Kyoto Protocol, but did not take a positive stand on signing.

Efficiency. This stage is the beginning of the process of incorporating sustainability as an integral part of the business. It reflects a growing awareness on the part of various levels of management that there are real advantages to be gained by proactively instituting sustainable practices. In particular, human resource and environmental policies and practices are used to reduce costs and increase efficiency. Technical and supervisory training is augmented with interpersonal skills training. Teamwork is encouraged for value-adding as well as cost-saving purposes and external stakeholder relations are developed for business benefits. ISO 14000, the series of international standards on environmental management, is integrated with Total Quality Management (TQM) and Occupational Health and Safety (OH&S) systems or other comprehensive approaches with the aim of achieving eco-efficiencies. Sales of by-products are encouraged, as are cooperative relationships with other members of the supply chain with the aim of waste reduction. For instance, NRMA negotiates with vehicle manufacturers and local authorities to lift their game in environmental management and encourages a culture of environmental awareness among all staff. These efforts have reduced waste considerably and saved the company substantial operational costs. Two of the measures - water conservation and reducing computer power usage - are saving around $100,000 annually.

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In this phase, intellectual and social capital are used to develop strategic advantage through innovation in products and services. In one example, the Australian company, Ecoflex, has developed high value-added building material from waste tyres, which are currently costing Australia $50,000,000 per annum in disposal costs. In another, Timberland has differentiated itself at the global level by implementing sustainability practices throughout the organisation.

The Sustaining Corporation. In this ‘ideal’ phase, managers responsible for setting strategic direction have strongly internalised the values-based ideology of working for a sustainable world. Key goals both inside and outside the firm are the pursuit of democracy, equity and human welfare and potential. The firm also works with society towards ecological renewal. The corporation still pursues the traditional business objective of providing an excellent return to investors, but voluntarily goes beyond this by actively promoting ecological sustainability values and practices in the industry and society generally. For instance, since 1985, the camping and hiking gear firm, Patagonia, has donated 10 percent of its annual profits (or percent of sales, whichever is greater) to hundreds of grassroots environmental groups. The firm is equally famous for its ecologically responsible product range. A number of other firms are partly or largely positioned in this advanced stage. They include corporations such as the Dutch companies, Rabo Bank and ING Group, the carpet company, Interface, as well as a number of smaller organisations which have deliberately curtailed their growth in the name of community renewal.

Part 2: Drivers to Change

Developing shared values with stakeholders

“There is one and only one social responsibility of business - to use its resources and engage in activities designed to increase its profits”

How does Milton Friedman’s statement of 30 years ago stand up today? One result of the merging of the internal and the external spheres in the ‘boundary-less corporation’ is a new awareness by management that the firm needs to respond in ethical terms to both primary and secondary stakeholders. Drivers for change now include the actions of internationally mobilised human rights and environmental activists and international agreements concerning environmental protection and social and environmental justice.

Half of the respondents in a recent survey expressed little or no trust in global companies and large national businesses.

The growing influence of consumerism and of civil society has implications for an increasingly fragile trust based on corporate ‘brand’ and reputation. A recent global public opinion survey of 34,000 people, released by the World Economic Forum in early 2003, shows that 48% of people express little or no trust, in global companies, with 52% expressing similar scepticism about large national businesses. Figure 1 summarising the results of the survey, shows that global and national companies are rated as amongst the least trusted of any institutions in society.
The upsurge in global communications means that reputations that have been built over decades can now be lost in a day. As companies such as Shell have found, the rise of the multinational has brought with it a new level of vigilance from civil society. A firm’s social, ethical and environmental practices may make or break a brand name or reputation. Ikea, Shell, Nike, ING Group, Body Shop, McDonalds, have all been targeted by Non-Government Organisation (NGO) action and have, to varying degrees, made attempts to change their social or environmental practices as a result.

The results of a study examining the effect of publicity about unethical corporate behaviour on stock prices are shown in Figure 2. The study showed that such negative publicity lowers stock prices for a minimum of six months.

![Figure 2](image)

**Figure 2**
Stock Price vs. Publicity of Unethical Behaviour

Accordingly, many corporations now market themselves as compliant according to ‘compliance plus’ standards such as ISO 14000, the Eco-Management and Audit Scheme (EMAS) or the set of international standards for workplace conduct developed by the Council on Economic Priorities, SA 8000. Managers see reputational rewards for the firm in voluntarily working towards social and environmental standards, which are not enforced by government.
A broader concept of corporate ‘ownership’

Under these conditions, developing a high-performance organisation is about developing shared values with stakeholders as much as it is about economic success. Companies which declare and observe consistent values standards, which demonstrably assist employee and community development, will have the reputation to attract and keep the prized human resources necessary for its long-term development. In a highly competitive economy increasingly dominated by global corporations, knowledge development and new technological forms are key organisational features. Motivation, qualifications and commitment, when combined with a significant store of ‘corporate memory’, are a major asset to the corporation. As prized employees hunt for firms with a strong sense of values, there are real rewards in becoming an employer of choice. Firms need employees who can give high levels of customer service and who are motivated and inspired to achieve by the long-range philosophy of the firm. In Australia, Australia Post, Lend Lease and Westpac have contributed significantly to community development and have developed high reputations with their employees.

In a recent publication, Harvard’s Professor Shoshanna Zuboff and James Maxmin, (ex Chief Executive Officer of Laura Ashley), argue that the current decade will see customers demanding more than just transactions as ownership and control of corporations broaden out from the top management hierarchy to encompass employees and communities. These new conditions of ‘distributed capitalism’ are reflected in the shift in share ownership from a wealthy elite to the average superannuant. More and more pressure for disclosure is the likely result.

Developing a high-performance organisation is about developing shared values with stakeholders as much as it is about economic success.

The Dow Jones Sustainability Group Index already provides the way for leadership in this area to be recognised. The growth of the Socially Responsible Investment sector reflects this trend and the need to find sustainable growth in conditions of global insecurity. For instance, Clarke and dela Rama quote figures indicating that socially responsible mutual funds in the US have seen net inflows of $185.3 million during the first quarter of 2003, while diversified equity funds have shown an outflow of $13.2 billion.

There are real rewards in becoming an employer of choice.

Risk management

Another study of 300 of the largest public companies, by ICF Kaiser, Inc., one of the United States’ largest engineering, construction and consulting companies, found that improved environmental performance can increase a company’s stock price by as much as 5 per cent a year, equating to over 800 million dollars in total. A reduction of perceived risk was seen to be responsible for the increased stock value. Figure 3 demonstrates the effect environmental performance can have on stock price.

Stock Price vs. Environmental Performance (Indexed)

Source: Feldman and Soyka 1997 and ICF Kaiser, Inc
Managers must now ensure that their risk management capabilities are sophisticated enough to respond sensitively to emergent environmental risks. Carbon risks, for instance, affect not just the obvious greenhouse gas sensitive sectors, but transportation, food, agriculture, tourism and the financial services sectors.

Improved environmental performance can increase a company’s stock price by as much as 5 percent a year because of the perceived reduction of risk.

In a study carried out by the Carbon Disclosure Project of the FT500 Global Index Companies, asking for investment relevant information relating to greenhouse gas mitigation, 80% of survey respondents acknowledged the importance of climate change as a business risk, while 35-40% were already taking concrete action. A key finding of the report was that companies varied widely in their risk exposure. (For European electric utilities for instance, the costs of achieving required greenhouse gas reductions ranged from 20% of net income to 3% of less. Auto manufacturers varied by a factor of 35x in terms of reported greenhouse gas emissions per vehicle sold/ produced.) These findings are of considerable significance to insurance and insurers. The global re-insurance firm, Swiss Re recently announced that it is considering denying coverage, starting with directors and officers liability policies, to companies it decides aren’t doing enough to reduce their output of greenhouse gases.

Pressure on the management profession

The perception that business success and sustainability are irreconcilable corporate attributes is rooted in traditional business education. For instance, a well-known undergraduate text in strategic management (in its 6th edition) makes no mention of anything resembling ecological in its definition of environment. Repeated surveys of MBA programs in Australia and US show little understanding and poor integration of sustainability themes into core curricula.

All indications are that business education in both the US and Australia is far from the holistic, morally based learning that education for sustainability requires. But this is changing. Professors Peter Senge at MIT and Michael Porter at Harvard Business School, the World Resources Institute’s BELL program and the Rocky Mountain Institute are leaders of the change.

In addition, it seems the management profession itself is now engaged in self-critique. The editorial of a recent US Academy of Management newsletter called for the development of a more “ethically self-reflexive community-of-practice”. Similarly, the Australia and New Zealand Academy of Management has shown concern by choosing sustainability as the keynote theme for its 2002 conference and special journal issue. As was recently pointed out by the Vice-President of General Electric, in the post-Enron culture of caution and in the wake of the demise of other once-powerful companies such as WorldCom and Tyco, to regain public and investor confidence in corporate leadership will require more than short-term financial success, and attempts at greenwash.

The forces of resistance

Considerable global might, however, remains implacably arrayed against change. The International Chamber of Commerce (ICC) has been openly lobbying against what it describes as overemphasis on the precautionary approach, arguing that there are implications for trade and scientific progress. The nexus between reputation and public relations is also difficult to break. Public relations firms can play a key role in creating a false corporate image of responsibility. Ensuring vigilance in auditing also needs sustained governmental action and support. For instance, there are claims that the auditing standards of the factory code and monitoring system, Worldwide Responsible Apparel Production (WRAP), originally established by the American Apparel Manufacturers Association, are meaningless. It is said that factory owners in the developing world are usually warned before inspections.

As we have indicated, the complex nature of the forces acting upon contemporary corporations means that corporate progress towards sustainability is rarely an all or nothing phenomenon. More realistically, fragments of sustainability emerge, either through transformational or incremental change.
Corporate Change for Sustainability

Part 3: From Incremental to Transformational Change

In Part 1 of this paper we identified six phases through which organisations typically pass from full rejection to full adoption of sustainability practices. They were: rejection; non-responsiveness; compliance; efficiency; strategic pro-activity; and the sustaining corporation. We were also at pains to point out that firms do not move along this path in a linear way. Nevertheless, setting out these benchmarks helps firms to assess their performance internally and comparatively with other firms.

In this part of the paper, we discuss the steps required to move from one phase to the next. We, first, look at the way that an organisation might move from a ‘rejection’ or ‘non-responsiveness’ mode to a ‘compliance’ mode. We next look at the way a firm might move from a ‘compliance’ to an ‘efficiency’ mode. We finally look at the way firms might make a transformative change from ‘efficiency’ to ‘strategic pro-activity’ and beyond. Two major and many smaller case study examples are used to illustrate the way that firms have sought to develop more sustainable practices in these different phases of their development.

Incremental change to ‘compliance’ and beyond

In this paper we argue that external agents have a limited, although important, role in corporate change for sustainability. The crucial aspects of the change are leadership and building human capability. According to Greg Bourne, former Regional President BP Australasia:

Leadership comes from the passion of the change agents. …Identifying and building a network of committed leaders at all levels is a first step to change. Only when there is a critical mass does change take place. Leadership from below can work, but the layers above need to become “surrounded” in order for the most intransigent to move. It is far better to have leaders near the top of the organisation, linked to enthusiasts throughout, driving the change.

In the continuum of values-attitudes-behaviours, cultural change always acts at the behavioural end. It takes a significant amount of effort and time for the learned behaviours to become expressed as attitudes and even more time for those attitudes to be recognised and espoused as values... To embark on cultural change requires leadership in the long term. Leadership which is not going to drop the change programmes in times of crisis. Leadership which sees training as an investment rather than a cost. There needs to be enormous resilience in the change of an organisation, particularly if changes in values are entailed. In the event of backtracking during a change program, huge cynicism can arise.

The organisations most in need of change are those in the rejection and non-responsive phases. For organisations such as this, to move to ‘compliance’ and beyond requires some cultural modification. But in most instances, this is not the transformational change of the dramatic paradigm shift. This is gradual, planned, continuous and ongoing incremental change. It is often based on Total Quality Management (TQM,) on team building and on the development of new capabilities and values. A risk-free, ongoing position of compliance is not just a matter of changing policies and values - it is assisted by enlisting the commitment of employees and developing practical procedures, which everyone in the organisation can understand.

The organisational move to ecological sustainability needs to be supported by similar moves to develop human sustainability: the development of the human capabilities and skills that enable more consistent compliance, the implementation of eco-efficiency measures and forward planning for strategic sustainability. The relationship between the two aspects of sustainability should be recognised as symbiotic, rather than artificially divided.

Our approach builds on recent work which has indicated a relationship between human resource policies, the successful implementation of the Environment Management System (EMS) and its maintenance as a strategic business and risk management tool. This research concluded that EMS programs are more successful if there is serious attention paid to training, empowerment, teamwork, and rewards. Employees who can work cooperatively and contribute to the social capital of the organisation are also able to contribute to the organisational coordination and conflict resolution necessary for sustainability.

The organisations most in need of change are those in the rejection and non-responsive phases.
protecting water quality and meeting planning requirements for new developments. Consequently, Human Resource (HR) support, such as awareness-raising courses and regular staff information days can assist in the successful introduction and maintenance of these measures.

With the firm now partly responsible for instigating and monitoring ‘compliance plus’ initiatives, institutionalising reflection and feedback is a priority. The whole organisation needs to emerge from a legalistic understanding of regulation and begin to support what may seem less tangible ends, such as the capacity of employees to examine their own attitudes towards change and to support sustainability initiatives.

Compliance requires both environmental and human resource reviews. A stakeholder analysis, which defines roles and responsibilities, including those of senior management, is a key aspect of the review. There is an increasing role to be played by external organisations in monitoring for compliance. One reason for this shift is the trend toward flatter organisational structures. More participative management styles and the establishment of self-managed teams, task forces and project groups can make compliance monitoring more difficult.

Hence, a structured, systematic response to compliance requirements depends on strategies associated with a learning culture. Such a response should be supported by the appointment of change agents or specific change units, such as Compliance Committees, Environmental Management Committees, Human Resource and Environmental Health and Safety Units.

‘Eco-efficiency’ and beyond

For many corporations, it is improving efficiency which enables and justifies shifting along the spectrum of ecologically sustainable practice.

We have argued that moving to compliance and beyond requires some cultural and attitudinal change. We also recognise that internal or external networking capabilities and structures, drawing on stores of social capital, are at least as influential as a ‘green mission’ or a ‘green corporate culture’ in causing companies to shift incrementally to a more environmentally responsible position.

Companies which have strong supply networks and which are intent on implementing and improving ISO 14000 and other standards can be instrumental in encouraging environmental efficiencies in other companies. Ford, Nike and IBM are companies, which have demonstrated success in pressuring upstream companies in this way. General Motors requires its supply chain to recognise issues of “continuous improvement, eco-efficiency, reducing waste in material, energy and resource usage, design for the environment, and recyclability” (quoted from GM’s 1998 Environmental, Health and Safety Report in Lovins and Link 2001).

Companies with strong supply networks can encourage environmental efficiencies in other companies. Clustering of firms can also have advantages.

Strong support for initiatives that go beyond compliance needs to be built by middle management (if the measures are to be developed by functional or business units) or by senior management (if the measures are corporate wide). Continuous measurement and reporting, using targets and indicators such as those set by the Global Reporting Initiative (GRI), across all business units, are the key to operational improvement for greater efficiency.

The work of Hawken, Lovins and Lovins has demonstrated the multiple benefits to business of:

• increasing resource productivity and operational efficiency
• using biologically inspired production models, that is, closed loop production systems
• developing new business models based on value and service
• reinvesting in natural capital.

Hawken et al show that big energy and resource savings often cost less than small energy and resource savings. These savings can then be used to achieve more lasting competitive advantage through eco-innovation.

Long term business advantage can also be obtained by following the principles of industrial ecology where different firms are clustered so that the wastes of one company can be used as the raw material for another. One of the most notable examples of industrial ecology is the Kalundborg Park in Denmark. The Park consists of a plasterboard factory; a company that
remediates polluted soil; a power station; an oil refinery; a plant that produces insulin and industrial enzymes; and a water recycling facility. The efficiency measures generated by this cluster arrangement have enabled overall oil consumption to be reduced by 19,000 tons. Gas released as a by-product from oil production was used to replace 90 per cent of the oil used in the plasterboard factory.

Table 1
Competitive advantage from eco-efficiencies, whole system design and industrial ecology

<table>
<thead>
<tr>
<th>Process Benefits</th>
<th>Product Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>• materials savings from better whole system design.</td>
<td>• higher quality, more consistent products,</td>
</tr>
<tr>
<td>• increases in process yields and less downtime through designing out waste, and designing the plant and process to minimise maintenance and parts.</td>
<td>• lower product costs (for instance, from material substitution, new improved plant efficiencies),</td>
</tr>
<tr>
<td>• better design to ensure that by-products and waste can be converted into valuable forms.</td>
<td>• lower packaging costs,</td>
</tr>
<tr>
<td>• greater resource productivity of inputs, energy, water and raw materials, to reduce costs.</td>
<td>• more efficient resource use by products,</td>
</tr>
<tr>
<td>• reduced material storage and handling costs through just in time management.</td>
<td>• safer products,</td>
</tr>
<tr>
<td>• improved Occupational Health &amp; Safety.</td>
<td>• lower net costs of product disposal to customers,</td>
</tr>
<tr>
<td>• improvements in the quality of product or service</td>
<td>• higher product resale and scrap value.</td>
</tr>
</tbody>
</table>

Integrating human and ecological capacities

In the shift to the efficiency stage of human sustainability, the organisation ensures that the existing skills mix and future human development plans are sufficient to enable effective achievement of corporate goals. Incremental changes for more efficient Human Resource management include enabling policies for work-life balance for near-retirees, parents and other workers who tend to suffer in the all-or-nothing dilemma common in many workplaces. Rather than the low-cost path to efficiency through staff cuts and displacement, a more just approach to the need for a higher skilled workforce can be achieved if the organisation continues to invest in technologies, research and development and knowledge-based competition. These new skills and technologies can facilitate more efficient use of environmental resources.

Building this store of human capital may take a decade, as with GlaxoWellcome in their program designed to shift an hierarchical culture with a narrow, technical skills base into a multi-skilled workforce. At Sony, a long term commitment to building a core competence in miniaturisation paid off by also giving the corporation access to the market for a wide array of personal audio products. The long term gain for the firm is a stronger knowledge base and the potential for added value and innovation.

Human and ecological sustainability must not be perceived by employees as add-ons, irrelevant to the core priorities of management.

Studies also demonstrate that identity-building practices such as reduction of status differences, sharing information and extensive training can build organisational commitment. To go beyond compliance, both human and ecological responsibilities need to move from the periphery and be integrated into core functional areas of the firm such as marketing and product and process design. But these reforms will only succeed if employees recognise that the reforms create value for them. Employee ownership of the changes will require cultural change within the context of an overall Sustainability Plan, selected to suit the mission and context of the firm. Too often technically focussed environmental managers and human resource managers, focussed solely on intra-organisational needs, move in
different silos and in different worlds from strategic business managers. As a result, if sustainability rests in their hands alone, sustainability issues can be marginalised or moved off to agenda unrelated to the firm’s core business. As a counter to this, human and ecological compliance policies can be integrated into an overall Sustainability Policy that is an integral part of the firm’s business strategy.

Integration is a key concept for both successful business and sustainability. It points to the need for cross-functional relationships and the building of trust between areas of business that have previously been regarded by managers as only loosely connected. Active knowledge-sharing relationships can be fostered between line managers and sustainability experts, so that the issues of human and ecological sustainability are not perceived by employees as an add-on, irrelevant to the core priorities of management. In firms such as KLM, for instance, a sustainability leader in its sector, line managers all have sustainability action points and targets. Nuon Energy, the second largest energy producer and largest producer of green energy in The Netherlands, has an Environmental Knowledge Centre, which is part of a larger section, Human Relations Management.

An integrated perspective on sustainability across the organisation can be achieved by encouraging the development of the informal roles that enable inter-unit collaboration. Examples of these roles include the champion (often a senior manager, such as Greg Bourne, former Regional President, of BP Asia/Pacific Holdings Ltd), the gatekeeper (internal auditors), the idea generator (perhaps a purchasing manager or someone else in the firm whose decision-making can have direct implications for sustainability reforms) and the sponsor (often a senior manager). These informal roles can become ineffective if formalised, but thrive when the particular personnel are good networkers and strongly committed to the core value of sustainability.

Table 2
Human Sustainability Orientation

<table>
<thead>
<tr>
<th>Compliance</th>
<th>Cost Efficiency</th>
<th>Value Added/ Innovation Efficiency</th>
</tr>
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<tbody>
<tr>
<td>Characteristics:</td>
<td>Characteristics:</td>
<td>Characteristics:</td>
</tr>
<tr>
<td>• Industrial Relations emphasis on awards, legal agreements, formal negotiations</td>
<td>• Early capability development often subjected to cost cutting in times of crisis</td>
<td>• Capability enhancement</td>
</tr>
<tr>
<td>Aims:</td>
<td>Aims:</td>
<td>Source: Dunphy et al, 2003</td>
</tr>
<tr>
<td>• survival, ‘licence to operate’</td>
<td>• Utilise resources to maximise financial returns from resources</td>
<td>• Integration of sustainability programs at all levels of the organisation</td>
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<tr>
<td></td>
<td></td>
<td>• Value added and flexibility enhancement are linked to long term financial goals.</td>
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<tr>
<td></td>
<td></td>
<td>• Increasing emphasis on employee rewards</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Capability building</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Adding value, cost minimization (without damaging capabilities and flexibility)</td>
</tr>
</tbody>
</table>
Case example: Panasonic TV Factory

Incremental changes implemented by the environment-award winning firm, the Panasonic Matsushita TV Factory, have achieved both economic and environmental efficiencies. They have been instigated by a small group of highly motivated middle managers with skills in inter-organisational networking across the diverse array of local business interests in Sydney’s outer western suburbs. Instead of paying for waste going to landfill these employees have developed ingenious arrangements with a range of local firms for the sale or free removal of by-products. Pallets are sold to a fencing company, while all plastics and scrap metal are recycled. Cabinets are bought by a local company and used as bases for worm farms. Cardboard cartons are resold; selling the cartons pays for waste disposal costs. Foam is a major waste, but 100 per cent of it now goes to a building company to include into concrete slabs for road building.

All suppliers have been contacted and informed of the importance of environmental considerations in purchasing decisions. For instance, several supply materials have been phased out due to toxicity, detergents are selected according to environmental criteria and safety data sheets are kept on chemicals. Installing a 3-stage filtration unit for the fume extraction unit has lessened air pollution and installation of grates over drains has prevented foam and other rubbish from entering storm water. Energy efficiency is also encouraged. Renovations have been planned to have the spin-off of better insulation. The installation of a zoned lighting system has commenced and notices above switches encourage employees to turn off lights.

The credibility gained from these small wins for the concept of eco-efficiency has persuaded senior management to include major energy saving initiatives in new warehouse and building sites. What began as a bottom-up initiative has now been lent support from the top. The workplace culture at Panasonic has supported the ready development of eco-efficiency practices. Television manufacture requires the assembly of many different components and is dependent on an assembly line staffed by skilled and committed employees. Since this firm has long espoused a paternalistic approach to local community, demonstrated by the fact that it supports staff involvement in ‘meals-on-wheels’ community programs in paid time, it has now made considerable progress towards both human and ecological sustainability. The employee response to these initiatives is reflected in the low level of staff turnover.

Transformational change for ‘strategic pro-activity’ and beyond

Evidence is mounting that in the near future, wealth may be redefined in terms of access to services rather than as the accumulation of material goods. Our current careless approach to the size and impact of our ecological footprint will be seen as both foolish and immoral. To fit in with the emerging future of a dematerialised, service-based economy, some of the characteristics of the traditional corporation must be redefined and reinvented. For many corporations, this will require transformational change.

Transformational change is deep change; it can involve risk; it requires new ways of thinking, perhaps surrendering control, often irreversible and discontinuous with the past. A key challenge for management is to enable the organisation to make an imaginative leap which is yet proactive and flexible. This form of change requires the development of transformational capabilities which support strategic repositioning. These capabilities can enable the organisation to shift to new products and processes which are less environmentally destructive, and are able to give the firm long-lasting high-performance. This is the sort of organisational change made by Shell in the mid-1990s when it faced international criticism for the proposed sinking of the Brent Spar oil platform and for its apparent support of a repressive regime in Nigeria. As a result it made the fundamental decision to integrate social and environmental principles into its business principles. As with other companies faced with the necessity of making such changes, it would have been riskier for Shell not to have made this change. While still a fossil-fuel firm, Shell has guaranteed to divert a portion of profits to research alternative energy. Shell has moved to a more strategic position on the phase model of sustainability.

Transformational change is deep change; it can involve risk; it requires new ways of thinking.

For many organisations, building this perspective into an organisation requires reinvention of organisational norms and the development of innovative capacity. Other organisations may take the transformational path of dematerialisation, where the service flow is maintained or increased, while reducing physical resource input. The famous example is the carpet firm, Interface, which now hires carpet squares rather than sells them.
Hewlett-Packard’s Environmental Strategies and Solutions program, for instance, showed that sustainability can offer companies a strategic competitive advantage. The firm based the program on the premise that the planet is a closed system which will eventually face limits, placing the firm in a new social and economic situation. In other words, the firm strategically scoped the challenges of a new business environment, developing strategies which would transform potential environmental liabilities such as climate change, resource exhaustion and the energy crisis into competitive advantage. According to Dunphy et al, the first step towards transforming any organisation is to develop a vision for future scenarios that the organisation may face. It requires identifying current trends likely to influence the future as well as key stakeholders. The use of stretch or long term goals fosters innovation by motivating strategic planning to identify new business opportunities and new strategic partnerships with research or national scientific bodies such as CSIRO. STMicroelectronics, for instance, has committed to having zero net carbon dioxide emissions by 2010, a goal requiring innovative approaches to technological and management systems.

Fuji Xerox: case example of transformative change

The highly successful Eco Manufacturing Plant at Zetland in Sydney serves as a case study to demonstrate that a positive relationship between human and ecological sustainability can generate transformative change. Re-manufacturing goes beyond efficiency measures to the more strategic aim of supplying local operators with high quality locally reprocessed parts. Eco-manufacturing goes further: it involves detailed analysis of “why things fail” and produces remanufactured products with improvements intended to eliminate future failures. This firm has positioned itself as a market leader in this technology. The transformational aspect of the change is that the firm now has the potential to transfer its business model and re-manufacturing skills developed with printers and photocopiers to other industry sectors.

Fuji Xerox managers describe the work of their Eco Manufacturing Centre as re-engineering and re-designing a product or product component and developing it to equal or better than new condition. This process involves scientifically examining the causes for failure while looking for opportunities to extend the life of the product and in general improve its performance. These processes also have environmental benefits by reducing the demand for raw materials, energy and waste to landfill. Another major benefit to the business is the acquisition of data about problems that develop in its products over time. That data was previously lost as used products that were defective were sent to landfill. Part of the new remanufacturing / re-engineering process involves analysing the defects in the components that have been returned. This analysis provides information that can be used to improve component design and thereby leads to the production of “as new” or better remanufactured products. So there are multiple benefits from re-manufacturing. They include decreased costs due to recycling (over the year 2001-2002 savings were approximately A $22.5 million); improved design for increased reliability and enhanced performance; and savings from import substitution and new export earnings.

Not only are parts renewed or recycled but the technical processes involved in achieving this have been developed to eliminate environmentally damaging emissions, pollution and waste. For example:

- All solvents have been eliminated from the cleaning of parts and components;
- Frozen carbon dioxide (dry ice) is used under high pressure to clean components, a process that creates no liquid wastes or pollutants;
- Environmentally ‘neutral’ bicarbonate of soda is used under high pressure to remove the old coating from the fuser rollers used in photocopiers. The spent bicarbonate of soda is then reused as an industrial water softener;
- Carbon byproduct of waste toner (57,000 kilos p.a.) is extracted and can be used as a combustion agent in steel making;
- All unusable metal parts are sent to Sims Metal to be recycled;
- The company is also undertaking ongoing research and development into ways of reducing all packaging waste through re-use of a range of packaging materials, including plastics. The Centre is working with Collex Waste Management to solve these problems;
- Energy use is reduced through the implementation of a range of initiatives and monthly tracking to evaluate improvement through these programs.

The Eco Manufacturing Centre has clearly moved beyond the efficiency phase in taking these measures. Cultural and human resource factors at the Zetland plant have enabled this strategic perspective.

A key success factor has been a small group of skilled, innovative and committed managers willing to listen to staff, customers and other stakeholders. Staff are assigned to teams, each team being responsible for quality, engineering and production capacity around products or
product groups, for example, print cartridges or lasers. The product-based team structure promotes multi-skilling, enhances communication around problem identification and problem solving, builds deep expertise and cumulative experience and ensures that improved quality is constantly built into the work process. Managers at Fuji Xerox see this structure as the leading cause of the high level of innovation in the plant. It has also led to a close working relationship between the engineers and the production workers and joint ownership of the production targets and product quality.

The plant is systematically building the human capabilities of its staff. Staff members are offered a range of developmental opportunities and most have had training in various aspects of “people management”. Employees are also well remunerated. Staff turnover has been low over the last eight years, a period of growth for the company.

The shift towards a more enabling and committed culture at Fuji Xerox Eco Manufacturing Centre has been significant. According to management, the better pay, team-based conditions with considerable team spirit and loyalty, have resulted in virtual elimination of industrial unrest. The nature of the work at the Eco Manufacturing Plant seems to have generated a sense of worthwhile purpose. Staff diversity was formerly considered a problem for the organisation. Co-operative leadership has redefined this issue and the company now benefits from the richness of its cultural mix.

The eco-manufacturing process builds on the quality control systems already in place throughout the company, particularly the ISO 9001 (quality endorsed company), ISO 14001 accreditation and the systematic processes that accompany it. Occupational Health and Safety are viewed as part of the quality process. Management’s position is that commitment to this standard of environmental accreditation will keep remanufacturing as a core business function. The regular audits associated with the accreditation identify the company’s environmental impact and require steps to be taken to solve any identified problems.

The organisational changes at Fuji Xerox illustrate the links between an organisational culture of innovation and one designed to deliver sustainability. Practices geared to enhance human sustainability and social capital within the organisation (such as empowerment, teamwork and continuous learning) underpin the capacity to innovate and escape from rigid models of operation and production.

Cultural and leadership dynamics

Surveillance at all levels throughout the corporation is culturally inappropriate in an equitable, democratic workforce. It is also structurally inappropriate in today’s network-based organisational structures. Hence moving along the sustainability spectrum and dealing with the issues faced by many of today’s high risk organisations requires the internalisation of new standards by people throughout the organisation. For instance, values and attitudinal changes are required when employees are not aware of their responsibilities under environmental or human rights legislation as members of the organisation. If the collective assumption within the organisation is that exploitation of community groups, employees or the environment is justified by economic benefits to the corporation, the cultural values of the organisation are in need of reformulation. Such cultural change cannot be enforced - it only evolves with leadership and with the support of an enabling culture over time. Structural change underpins and provides some of the social organisation needed for the shift to ‘compliance’, ‘efficiency’, ‘strategic proactivity’ and beyond. But the enthusiasm and commitment of the workforce at all levels has to be generated and new ideas on environmental sustainability need to come from the bottom up. In effect, both top-down and bottom-up approaches are needed, neither being sufficient on its own.

Visionary companies are up to 15 times more profitable than the market average.

Innovation, business concept redesign, and human sustainability can be readily linked in a dynamic relationship aimed at delivering long-term business advantage. Such qualities enable the corporation to be more responsive to the external drivers of change. An organisation geared to innovation is ready to take up government incentives for ecological modernisation. That is, it can readily translate social and moral issues into market issues and can exploit the potentially huge market that ecological sustainability, in particular, represents. But more than that, such an organisation can more critically reflect on and envision the possibilities of new relationships between nature, society and technology that will mark a new, more sustainable age.

A six-year study undertaken by Collins and Porras compared the stock price of visionary companies, especially those companies with a strong set of core values, with their major
competitors. They found that visionary companies were up to 15 times more profitable than the market average even though the bottom line was not their major concern. These companies, which include 3M, Boeing and General Electric, all outperformed their major competitors in stock price, often by a factor of ten or more.

Long term high performance and sustainability depend on trust, transparency and a willingness to challenge, question and learn. These qualities are only developed through the operation of robust and effective social systems encompassing the firm and its key stakeholders. From board members to managers, and throughout the firm, trust based on transparency is a key issue. The ‘virtuous cycle’ of respect, trust and candour can be established because one good quality builds on another. In this sense these qualities are interdependent, the underpinning feature being a culture of open dissent.

Such firms have the potential to develop as high-performing, long-lasting organisations. Research has shown, for instance, that high-performing companies often have sceptical, contentious boards and can use conflict creatively. Higher conflict teams have more thorough and creative discussions, spend more time over important decisions and developed a richer understanding of strategy. Changing culture in such a way, as with other organisational reforms geared to sustainability, requires effective leadership for change. As Dunphy et al point out, leadership for change and mastery as a change agent requires “bringing all our awareness, knowledge, skills and energy to bear on the task before us; but it implies a history of disciplined learning, experimentation and practice over a significant period of time”. But ultimately appropriate direction and control is required from the board, an organisational factor inextricably linked to effective chairmanship, good governance and above all, leadership with values and integrity. It is important to measure progress towards sustainability. However, the example of Enron, a firm that had an established triple bottom line reporting system, reinforces the over-arching importance of culture and leadership.
heroic efforts. In short, Australian corporations tend to be more risk averse. This finding has implications for the innovative capacity of Australian organisations to adapt to and take advantage of environmental and social change.

Change in the Australian context

A number of local, sectoral and state initiatives are increasing the pressure on companies operating in Australia to heed the concerns of a wider set of stakeholders when assessing their performance. A recent publication by the Australian Bureau of Statistics, Mapping Australia’s Progress (MAP), includes a number of headline indicators to assess progress or regression. Social, environmental and economic indicators are included. The MAP project has the potential to give corporations a more holistic understanding of Australia’s performance and a way of assessing their own.

EnviroBusiness Australia, which represents over 5000 businesses has taken a significant initiative by developing, with leading academics and business thinkers, the paper “The Business Case for Ratifying Kyoto,” and is lobbying government to that effect. The Commonwealth Research Centre for Sustainable Resource Processing is seeking to catalyse industrial ecology approaches in Australia. Australia’s R&D bodies such as CSIRO are also excelling in eco-innovation. The launch of the concept hybrid car, the aXcessaustralia Low Emission Vehicle, led to Australian exports in light car parts increasing by $700 million in 1998 alone.

In addition, there are numerous significant state initiatives such as Western Australia’s State Sustainability Strategy, and the Victorian government’s recent announcement that by 2005 all new homes in Victoria will be five star energy efficient and will include either a solar hot water system or a water tank.

Various industry sectors, such as the built environment sector, are independently responding to consumer preference for socially and environmentally responsible products and services. The Australian Council of Infrastructure and Development has published an extensive Sustainability Framework for the Future of Australia’s Infrastructure – Handbook 2003’. The Property Council recognises that savings from sound environmental practices have been linked to factors such as increased work productivity and reduced absenteeism as well as eco-efficiency savings. In response to such data, the Council has conducted professional development forums and created tools such as a Model Environmental Management System for Commercial Buildings.

The Association of Certified Chartered Accountants (ACCA) is now represented on the board of the Global Reporting Initiative. ACCA recently launched a new Australian reporting awards scheme with the purpose of recognising the organisations that report and disclose environmental, social or full sustainability information. Another recent initiative likely to increase the push for change is an amendment to the Financial Services Reform Bill, requiring all investment fund managers to disclose their policy on labour relations, environment and social or ethical issues.

The socially responsible investment sector, which is still immature in this country, is likely to respond to these initiatives, particularly as a result of our compulsory superannuation scheme. However, as Clarke and dela Rama point out, the long term role of Socially Responsible Investment in bringing about change is still to be played out.
In this paper we have offered an agenda for collaborative action between external and internal change agents for corporate sustainability. We have used a broad definition that draws together elements of corporate citizenship and social responsibility together with ecologically sustainable practices. We have done this with the aim of developing an integrated version of sustainability (as espoused at the Rio Conference in 1992) that is relevant to the corporation.

The boxes below summarise the main points we have made throughout the paper. They provide an agenda for corporate change which enables the corporation to integrate social, environmental and economic perspectives.

### Table 3
**Human Sustainability: The Internal Agenda**

- Adopt a strategic perspective to workplace development.
- Build the corporate knowledge and skill base (intellectual and social capital) of employees – develop human potential.
- Foster productive diversity in the workplace (OH&S, gender equity, participative decision-making, work – life balance).
- Develop the capability for continuing corporate reshaping and renewal, including visionary change leadership.
- Create communities of practice to diffuse knowledge and skills.
- Provide relevant expertise in the best way to organise work for high performance and satisfaction.
- Represent employees’ concerns to management, while simultaneously giving employees an increased role in organisational decision-making.

### Table 4
**Human Sustainability: The External Agenda**

- Reinterpret strategy around a wider range of stakeholders and develop cooperative strategies with them (responsiveness).
- Add, rather than subtract value, for all relevant stakeholders.
- Build a culture of workplace learning and commitment to a ‘generative society’ through a declared and enacted value base.
- Initiate and sustain an ongoing dialogue with stakeholders to define key elements of social responsibility – set priorities (accountability).
- Define social goals, develop action plans to reach these goals, monitor and disclose performance against key performance indicators (transparency).
- Seek genuine feedback on performance from stakeholders – welcome and learn from criticism.
- Win, by responsible informed action, the support of all stakeholders for the organisation’s continued existence and growth.

### Table 5
**Achieving Ecological Sustainability**

- Design a production system that is an integral part of the ecology.
- Conduct life-cycle assessment and a policy of resource stewardship.
- Eliminate waste and pollution particularly by product redesign and developing an industrial ecology.
- Form active partnerships with ‘green’, human rights and other community groups.
- Appoint independent experts to monitor the corporation’s environmental ‘footprint’ (environmental auditing).
- Link action on human sustainability with action on ecological sustainability to create an integrated, seamless approach to corporate sustainability.
Acknowledgement

The authors wish to thank the team from the Natural Edge Project, Mike Smith, Charlie Hargroves and James Moody for their contributions to this paper, drawing upon material from the research being undertaken to develop the publication ‘Natural Advantage of Nations’.

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It is editorial policy to include a minimal number of references in the text. A fully referenced text is available on request.


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