

American Management Association



CREATING A SUSTAINABLE FUTURE

A Global Study of Current Trends and Possibilities
2007-2017

CMC
Canada

AMA
USA - Latin America - Asia - Pacific

MCE
Europe - Middle East - Africa

American Management Association



CREATING A SUSTAINABLE FUTURE

A Global Study of Current Trends and Possibilities
2007-2017

Copyright 2007, American Management Association

For more information about American Management Association, visit www.amanet.org



Printed on New Leaf CyclusPrint, made with 100% de-inked recycled fiber and minimum 60% post-consumer waste, processed chlorine free. www.newleafpaper.com

Table of Contents

	PAGE
Introduction	v
A Brief History of Sustainability	1
Factors Influencing Sustainability in Organizations	7
The Impulse Toward Sustainability	8
Sustainability-Related Paradigms	8
The Natural Environment	9
The State of the Planet	9
The Role of NGOs	11
Low-Ranked Drivers of Key Business Decisions	11
People Issues	14
The State of Humanity	14
Workforce-Related Issues	15
Workforce-Related Issues in the Survey	16
Profit Issues	17
Harnessing the Profit Motive	18
Changing Market Conditions	18
Competitive Advantages	19
Survey Findings Related to Profits	20
Barriers to Sustainability	20
The State-of-the-Art Sustainable Enterprise	23
Defining the Sustainable Enterprise	24
Sustainability in Surveyed Organizations	24
The Sustainability Pyramid Model	25
Level One: Laying the Foundation	27
The Support of Management	27
The Value of Values	29
The Centrality of Sustainability	29
Specific Strategies and Practices	31
Survey Findings on Foundational Qualities	32

Level Two: Gaining Traction	33
Aligning Systems	33
Development and Education	34
Recruitment and Retention	34
Engagement	35
Sustainability-Related Metrics	36
Survey Results on Getting Traction	38
Level Three: Achieving Integration	38
Broad Stakeholder Engagement	38
Holistic Integration	39
Survey Results on Achieving Integration	41
The Future of Sustainability	43
Scenario One: Things Fall Apart	44
Scenario Two: Muddling Toward Sustainability?	46
Scenario Three: A Global Sustainability Culture	47
Conclusion	51
Appendix	53
About This Survey	53
Demographic Questions and Results	54
Table 1	54
Table 2	54
Table 3	55
Table 4	55
Table 5	55
Table 6	56
Table 7	56
Table 8	57
Table 9	57
Table 10	58
Table 11	58
Performance Questions and Results	59
Table 12	59
About These Categories	59
Sustainability Questions and Results	60
Table 13	60
Table 14	61
Table 15	62
Table 16	63
Table 17	64
Table 18	65
Table 19	66
Table 20	66
Table 21	67
Bibliography	69
Authors and Contributors	72

Introduction

Businesses already know a thing or two about sustainability. Sometimes, just keeping the doors open can be a challenge. Fending off competition, dealing with downturns, meeting payrolls, finding new customers, making profits—it's all about sustaining the organization into the future.

So, the modern concept of “sustainability” has a certain commonsense element to it. It's obvious that organizations need the financial wherewithal to sustain operations, just as it's obvious that they've got to have the right kind of workers to make it happen. What might be a little less obvious to the average business leader, however, is that companies are part of a larger system, and the well-being of that system has a direct impact on the well-being of all the organizations in that system.

Let's say you're in food distribution, for example. The price of fruits and vegetables is directly related to the health of the larger agricultural system. If farms are suffering through a drought or encountering a virulent strain of pests, they'll have a hard time growing things and the prices will go up. The same thing occurs if energy prices rise and the cost of shipping goes up. This can influence the food distributor's bottom line and, over time, perhaps even his or her ability to sustain the business.

So organizations are dependent on and impact larger systems, which themselves are at risk. In other words, sustainability means more than what is ordinarily understood. *The primary goal of sustainability is ensuring that whole systems remain healthy so that people—as individuals, societies, and organizations—improve their overall chances of well-being.* “At its core,” notes one major report, “sustainability is all about behaving in a manner in which current efforts to improve lives and conditions can be continued indefinitely” (HRH The Prince of Wales 2003, p. 11).

This means expanding the organizational viewpoint beyond the short-term need for profits or qualified employees. *Sustainability encompasses these, of course, but also the wider social and environmental systems.* A shorthand description for these systems is sometimes “people,” “planet,” and “profits.”

This report examines the history of the sustainability paradigm, the factors that are making the paradigm more compelling, the degree to which organizations value and engage in sustainability-related practices, and the future outlook for sustainability. American Management Association commissioned the Human

Resource Institute to conduct the global survey on which the study is based. The *2007 AMA/HRI Sustainability Survey* of 1,365 respondents looked at not only the degree to which organizations are using sustainability approaches but also how this differs among higher-performing and lower-performing organizations, as determined by self-reports in the areas of revenue growth, market share, profitability, and customer satisfaction. Below is a quick review of some of the main findings:

- **Respondents personally care more about sustainability issues than they think their organizations do, especially when it comes to social and environmental issues.** Major gaps between the importance that people personally give sustainability issues and the importance that they think their organizations give such issues are in areas such as safe and reliable food sources, worker job security, climate change, well-being of employees, and poverty and homelessness.
- **Sustainability-related initiatives are not yet deeply ingrained in most organizations.**
 - ◆ About a tenth of respondents think their organizations are implementing a sustainability strategy to a very great extent, and another 25% think their organizations are doing so to an above-average extent.
 - ◆ Twenty-eight percent said they see measurable benefits from sustainability initiatives to a very great or above-average extent.
 - ◆ Twenty-four percent said their organizations supply and/or review information that is used to develop sustainability-related metrics to a very great or above-average extent.
- **Organizations that use sustainability strategies are more likely to be high performers in terms of reported progress in the market place.** Although correlation is not causation, this suggests that sustainability might provide competitive advantages to organizations. Compared to lower performing organizations, higher performing organizations are more likely to:
 - ◆ Engage in sustainability practices to a greater extent;
 - ◆ Attach greater importance to qualities associated with sustainability;
 - ◆ Have all sustainability qualities, as defined in the survey, to at least a moderate degree.
- **Reducing or managing the risks of climate change was not highly rated in terms of its ability to drive key business issues, either today or in 10 years.** In fact, it was ranked 24 out of 25 sustainability-related issues today, and 23rd when respondents were asked to look 10 years into the future. On the other hand, “effectively addressing regulatory restrictions” was viewed as a

key factor driving business issues. This suggests that future regulations could drive up the importance of gas emissions issues, for instance.

- **There's a correlation between the degree to which firms implement sustainability strategies and the degree to which they see measurable benefits from sustainability initiatives.** That is, the more firms implement such strategies, the greater the extent to which they see measurable benefits.
- **There are three qualities that are most important to successfully implement a sustainability strategy:**
 - ◆ Top management's visible support for sustainability;
 - ◆ Deeply held corporate values consistent with sustainability;
 - ◆ Sustainability's placement as central to overall corporate strategy.
- **There are major gaps between the extent to which certain qualities are important for building a sustainable enterprise and the extent to which companies have these qualities.** This suggests that companies have made only moderate progress toward sustainability, with definite room for improvement.
- **Out of 17 sustainability-related practices, the most widely identified were four:** (1) ensuring the health and safety of employees, (2) ensuring accountability for ethics at all levels, (3) engaging collaboratively with community and non-governmental groups, and (4) supporting employees in balancing work and life activities.
- **There are no particularly strong barriers to making organizations more sustainable.** None of the barriers asked about was seen as very strong. The ones with the highest rating were a lack of demand from consumers and customers, a lack of demand from managers and employees, a lack of awareness and understanding, and a lack of standardized metrics or performance benchmarks

Will the sustainability paradigm become more broadly and deeply ingrained in organizations in coming years? This report indicates that a variety of social, economic, and environmental trends are giving it a kind of momentum. The AMA/HRI team has created three scenarios about how the world might look in the future in terms of sustainability, but it's clear that no one has a crystal ball on these issues. Whether the business environment will become more sustainable tomorrow will largely depend on the degree to which employees at all levels—but especially organizational leaders—adopt and demonstrate sustainability principles today.

A Brief History of Sustainability

The modern concept of “sustainability” may best be understood as the integration of very rich but often separate conversations about ecological stewardship, sound economic practices, and social responsibility.

The conceptual components associated with sustainability have a long history, even though the term itself—at least as it relates to ecologically sustainable economic development—was popularized only in the mid to late 1980s.

The ideas behind *environmental* aspects of sustainability were found in the local laws of the feudal lordships of 12th-century Central Europe (Malthus, 1976). And, in the late 1700s, some thinkers were worried about how Britain's rise in population could be sustained from a finite amount of land (Pezzey & Toman, 2002). In the mid-20th century, the president of the United States' Material's Policy Commission expressed concern about the sustainability of the American economy during the postwar period, given its wartime increase in the consumption of nonrenewable minerals from apparently finite supplies.

The *social responsibility* aspect of sustainability also dates back a long way, especially if we link it to the origins of business ethics. Some say those origins extend as far back as early philosophers such as Aristotle or the origins of biblical doctrines (De George 2005; O'Toole 1993). Others date it back to the Middle Ages and the works of Dominican friar Johannes Nidera and to 17th-18th century philosophers such as Immanuel Kant (Wren 2005).

Another important figure was Adam Smith, who is well known for his "invisible hand" theory of economics and is seen by many as the father of modern economics. Smith has been celebrated by those who argue that businesses should be left alone to pursue profits (e.g., the late Milton Friedman). However, he also was a moral philosopher and believed that economics and morality are part of the same cloth (DeGeorge 2005).

The radical writings of Karl Marx have also had their influence on how the world looks at business enterprises. This seems especially true in the European social democracies, which emphasize in their corporate structures and laws the important citizenship role of business in supporting social welfare (DeGeorge 2005).

The idea of corporate social responsibility, as it's known today, can be traced back to the 1950s and 1960s, when there were public outcries for more corporate oversight. Various groups looked at increasingly large corporations and questioned their impact on the environment, employees, and society itself. Partly in self-defense, companies developed the notion of corporate social responsibility. By the 1970s, business ethics had become a full-blown course in many business schools (De George 2005). Meanwhile, businesses became more interested in developing internal structures (such as codes of ethics) to encourage employees to act ethically even as markets became more global in nature.

Scandals have continued over the past three decades—from the era of junk bonds and corporate raiders through the notorious scandals at corporations such as Enron—prompting Congress to pass tougher new laws such as the Sarbanes-Oxley Act (Macauley 2004).

Today, the idea of social responsibility often includes an environmental ethic. For many people, modern environmentalism began with Rachel Carson's *Silent Spring* (1962), which highlighted the dangers of indiscriminate use of pesticides and spurred an era of environmental regulations and command-and-control government environmental policy. In 1972, two other seminal texts—*Limits to Growth*

During the 1980s, a number of events are credited with ushering in a more enlightened corporate sustainability perspective.

and *A Blueprint for Survival*—forecast dire environmental consequences from current economic growth patterns (HRH The Prince of Wales 2003). Growing concern and awareness of the issue produced parallel conversations during this period among ethicists, psychologists, sociologists, public administrators, economists, and the business community. They eventually converged to produce an interdependent view of environmentalism and social responsibility.

These ideas continued to evolve in various works, including Paul Hawken's *The Ecology of Commerce* (1993). In that book, he discusses the state of the world not only in terms of environmental problems and challenges but also in terms of the business-related solutions that can transform both society and the economy. Janine Benyus' *Biomimicry* (1997), Hawken's *The Ecology of Commerce*, Lovins and Lovins's *Natural Capitalism* (1999), and William McDonough and Michael Braungart's *Cradle to Cradle* (2002)—all advance the view that society and enterprises can look to nature to find solutions to complex product design and materials-use issues.

Current literature—which includes Dan Esty's *Green to Gold* (2006) and Andy Savitz's *The Triple Bottom Line* (2006)—emphasizes the relationships between environmental and financial sustainability. That is, financial sustainability can be reinforced through the eco-efficient use of materials and energy along with a set of core business practices that acknowledge a more integrated or holistic view of the company.

The initial response of the business community to many of these voices has been characterized as one of “resistant adaptation,” with most business leaders actively resisting any effort geared toward increased regulation. In many cases, such leaders viewed the environmental lobby as an obstacle to economic growth (HRH The Prince of Wales 2003).

During the 1980s, a number of events are credited with ushering in a more enlightened corporate sustainability perspective. Two major catastrophic accidents—a toxic leak at a Union Carbide plant in Bhopal in 1984 and the 1986 Sandoz (now renamed Novartis) chemical spill in Switzerland—provided a catalyst for increasing public scrutiny of corporate environmental behavior (HRH The Prince of Wales 2003). Other precipitating events include the discovery of the ozone hole in the atmosphere, the apparent success of business leaders in the mid- to late 1980s in regard to pollution prevention, and the growing scientific validation of global warming.

This culminated in what is widely considered to be the formal dawn of the “sustainability” movement in the 1980s, as captured in the 1987 *Brundtland Report* (sometimes called *Our Common Future*). This publication helped launch a new

One recent definition of corporate sustainability is “a company’s ability to achieve its business goals and increase long-term shareholder value by integrating economic, environmental and social opportunities into its business strategies.”

—(Symposium on Sustainability, 2001)

agenda for both developmental and environmental economics. It voiced concerns about new and urgent environmental problems: deforestation, desertification, loss of biodiversity, the enhanced greenhouse effect, and poverty effects on the environment in developing countries.

The publication challenged many of the fundamental goals and assumptions of conventional growth and development economics (Pezzey & Toman 2002). The *Brundtland* thesis is reflected in this question: “How can the present generation meet its needs in ways that not only are economically viable, environmentally sound, and socially equitable but that also allow future generations to do the same?” This fostered what has since become the de facto standard definition of sustainability: “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

It was not long before many Fortune 500 companies began to take steps to adopt environmental and/or social policies that contained specific sustainability-related commitments. These policies were seen to be “beyond compliance” with conventional regulations. They included organizational characteristics such as staff members dedicated to environmental concerns and an increased integration of line management responsibilities with environmental and social responsibilities.

Other social and business factors also came into play. In the 1990s, there were significant increases in international and regional agreements and treaties on environmental and social issues. These reflected a growing need to speak across many boundaries to find a coordinated solution to global concerns. The Rio Earth Summit in 1992 was then the largest global gathering of national heads of state and government. Important meeting outcomes were the International Chamber of Commerce Business Charter for Sustainable Development and *Changing Course* (1992), a book published for the conference. Focusing on the often adversarial relationship between business and government, the book summarized the expertise of more than 50 leaders of multinational corporations and provided an extensive analysis of how the business community can adapt and contribute to the goal of sustainable development (Schmidheiny 1992).

The concept of sustainability broadened as more people engaged in the conversation. It became an umbrella term for all of the aims and norms that encourage corporations, organizations, and society at large to more effectively address the

adverse social and environmental effects of commerce and the dangers of narrowly pursuing maximization of profits regardless of the larger costs.

John Elkington, in his book *Cannibals with Forks* (1998), used the term “triple bottom line” to define sustainability, referring to the economic bottom line (profit), the social bottom line (people), and the environmental bottom line (planet). More recently, a book by the same name, *The Triple Bottom Line*, described case studies in leading corporations today (Savitz 2006). In their recent book *Green to Gold*, Dan Esty and Andrew Winston (2006) show how companies can leverage environmental issues for their economic advantage. One recent definition of corporate sustainability is “a company’s ability to achieve its business goals and increase long-term shareholder value by integrating economic, environmental, and social opportunities into its business strategies” (Symposium on Sustainability, 2001).

In summary, the modern concept of sustainability has evolved from mostly separate streams of parallel conversations into a holistic notion that rejects the premise that social-environmental and economic issues are competing interests. This new, integrative perspective contends that social, environmental, and economic performance can and *must* be optimized simultaneously for both short- and long-term success.

Factors Influencing Sustainability in Organizations

Sustainability is a far-ranging topic, arising as it does from environmental, social, political, and economic issues that are both local and global in nature (Hart 1997). The 2007 AMA/HRI Sustainability Survey looked at a range of 25 sustainability-related business issues in terms of the extent to which they drive—or will drive—“key business decisions for your company.” The survey also looked at 12 sustainability inhibitors, that is, factors that may hinder organizations from pursuing sustainability-related strategies.

This section of the report looks at both of these categories as well as at the macro issues driving the movement toward sustainability. These macro issues were largely determined through an extensive review of the literature that the AMA/HRI team conducted for this report.

The Impulse Toward Sustainability

One way to organize the drivers of the sustainability movement is to divide them into those that are altruistic and those that are purely “self-interested,” meaning that they fulfill the needs of the organization (Adams & Zutshi 2004, p. 2). Even with this organizing principle, however, altruistic reasons are not necessarily pure and are “often translated to a business reason for change,” according to Carol Adams, a professor in the School of Accounting, Economics, and Finance at Deakin University, and her coauthor, Ambika Zutshi, a lecturer at that university’s Bowater School of Management. The two cite a 2002 PricewaterhouseCoopers survey that “found that nearly 70% of the global chief executives [surveyed] believed that addressing corporate social responsibility was vital to their companies’ profitability.” That finding would appear to support their assertion that business reasons are often masked as altruism (Adams & Zutshi 2004, p. 1).

Altruistic reasons tend to become less important as the size of the organization increases, says Mette Morsing, an associate professor at the Center for Corporate Values and Responsibility at the Copenhagen Business School. Morsing posits that multinational corporations (MNCs) have generally forsaken the altruistic rationales for the business case, while small- and medium-sized enterprises (SMEs) use the opposite approach. Morsing quotes an unidentified 2005 survey of more than 1,000 SMEs about the reasoning behind their corporate social responsibility (CSR) initiatives. The conclusion, she says, is that “[w]hile MNCs are engaging in discussions of measurement and reporting in support of the ‘business case,’ SMEs are engaging in CSR activities ‘because it is the right thing to do’... They talk about ‘organisational culture,’ ‘traditions’ and ‘treating each other decently’ in explaining their motives for CSR activities. CSR is a norm rather than a corporate strategy” (Morsing 2006).

But dividing the drivers of sustainability into these two categories isn’t sufficient. John Elkington, a leading thinker in the area of corporate sustainability who coined the phrase “triple bottom line,” sees the push toward sustainability as coming from a confluence of paradigm shifts in various areas, such as markets, social values, organizational partnerships, and corporate governance (Elkington 2004, p. 3). These and other subjects are explored below.

Sustainability-Related Paradigms

The concept of the “triple bottom line,” or TBL, has gained widespread recognition as a framework for viewing and measuring business performance. In its broadest sense, the triple bottom line captures the spectrum of economic, environmental, and social values that organizations can measure if they wish to gauge how well they’re doing in terms of sustainability.

Another sustainability-related paradigm is the so-called Five Capitals model, which presents the world in terms of five capitals: natural, social, human, manufactured, and financial. In a sense, TBL and the Five Capitals model are complementary approaches for understanding and conceptualizing sustainable development. That is, the environmental bottom line, or the *planet*, includes natural capital. The social bottom line, or *people*, includes human and social capital. And the economic bottom line, or *profit*, includes financial and manufactured capital.

Obviously, there is some interplay among the various components of these paradigms. Employees who are treated well, for example, should perform better, which is good for business and profitability (Feuss, Harmon, Wirtenberg, & Wides 2004). Likewise, caring for the environment so that raw materials exist far into the future helps ensure the corporation has a long and productive life.

Other thinkers in the area of sustainability use different nomenclatures and concepts. Andres R. Edwards, author of *The Sustainability Revolution*, calls “the three Es” the “core of contemporary sustainability” (Edwards 2006, p. 20). Those “Es” are the ecology/environment, economy/employment, and equity/equality (Edwards 2006, pp. 21-23). He also argues that a fourth E—education—is a powerful force in helping to drive the sustainability movement (Edwards 2006, p. 23).

Because Elkington’s triple bottom line has, perhaps, become the best-known paradigm in the field, this section uses the broad categories of planet (or environment), people, and profits.

The Natural Environment

It is virtually impossible to discuss sustainability without referring to the environment. After all, the sustainability movement itself grew out of concerns for the environment and out of “the Industrial Revolution’s degradation of the environment,” according to Andres R. Edwards, author of *The Sustainability Revolution: Portrait of a Paradigm Shift* (Edwards 2006, p. 6). That concern intensified in the 1960s and 1970s as the environmental movement began to hit the mainstream (Edwards 2006, p. 11).

The State of the Planet

Although some commentators continue to be highly skeptical of the idea that an environmental crisis exists or will exist in the future, many scientists agree that there are serious issues facing the world. One of the more recent statements about the dangers is the February 20, 2007, declaration by the Global Roundtable on Climate Change (GROCC), a group of companies and organizations from across the world. GROCC is based at Columbia University’s Earth Institute. The statement notes that the use of fossil fuels—coal, oil, and gas—has helped propel the world into “a period of unprecedented economic advance, with the world’s average life expectancy roughly doubling and its per capita income rising roughly tenfold since the start of the Industrial Revolution” (Global Roundtable on Climate Change [GROCC], 2007, p. 4).

But there’s been a downside: Those fossil fuels produce carbon dioxide that, released into the atmosphere with “other greenhouse gases, . . . warms the planet

and leads to other impacts of global climate change” (GROCC, 2007, p. 4). The GROCC states that, if this trend continues unchecked, the prognosis is poor: “Human-caused, or anthropogenic, climate change is now under way. If it continues on the current trajectory, it will become increasingly dangerous and costly through current and future generations through myriad impacts on the environment and human society and will lead to the extinction of many species” (GROCC, 2007, p. 4).

The use of fossil fuels has many detrimental effects on the environment, according to a report prepared for the U.S. Army Corps of Engineers. Prepared two years before the GROCC statement, the two sound eerily similar in discussing the environmental impact of unrestrained use of fossil fuels: “Fuel combustion affects the global climate with the production of greenhouse gases and localized production of acid rain, low-lying ozone, and smog. Mining and production of fuels destroy ecosystems and biodiversity. The loss of habitat is leading to localized extinction of species. This reduction of biodiversity results in greater vulnerability of the planet to ecological stresses” (Fournier & Westervelt 2005, p. iv).

It is not only global warming that likely presents a problem but the fact that oil and gas are limited resources that might be reaching peak production and so may become increasingly scarce in coming years (Simmons 2006). Yet, demand continues to grow as various countries, especially China and India with their enormous populations, become more industrialized.

Some observers say the math is fairly straightforward: More demand plus dwindling supply equals energy crisis. And if terrorists target the supply lines, the crisis could become crippling (Simmons 2006). The Army Corps was given the same warning in a study concerning the future of energy and came to much the same conclusions as those of civilian scientists: domestic oil supplies are drying up, and global production of oil might be nearing its peak. As other nations become more industrialized and the global population increases, demand will also go up. Less oil and more demand would mean increased prices. Terrorism continues to be a risk, especially when the availability of weapons-grade nuclear materials is factored into the mix. The Corps’s report states, “Current energy policies and consumption practices are not sustainable. They clearly limit and potentially eliminate options for future generations” (Fournier & Westervelt 2005, p. iv).

Global warming and energy depletion are not the only challenges facing the current and future generations. A 2002 report from *Time* magazine in conjunction with CNN pointed out that lack of water will cause more draughts and severe food shortages. Other problems include overpopulation (especially in India), overfishing, pollution that damages marine life, and diseases such as AIDS (Bradford & Dorfman 2002). Among the report’s predictions for the future: hunger will continue “to plague poorer countries...as badly managed agriculture lead[s] to soil...degradation” and as “more of the limited amount of fresh water is used each year, unequal access to supplies could produce competition and conflicts among nations” (Bradford & Dorfman 2002).

The Role of NGOs

Many of the concerns over the environment are being pushed by nongovernmental organizations, or NGOs. The World Bank defines NGOs as “private organizations that pursue activities to relieve suffering, promote the interests of the poor, protect the environment, provide basic social services, or undertake community development” (Duke University, 2007). NGOs can include research groups, charities, lobbying groups, and professional organizations. Some have wide-ranging interests. Others specialize in areas such as “environmentally sustainable development, human rights, or women in development,” according to Duke University’s “Non-Governmental Organizations Research Guide” (Duke University, 2007).

The number of NGOs has multiplied in recent years, and Duke University estimates that there are tens of thousands of them across the globe. Their influence has grown along with their numbers. NGOs are regularly consulted by governments, the media, and organizations like the United Nations, and many perform research and produce publications used by educators and governments. They have a “significant impact on the social, economic and political activity” of the country or region in which they become involved (Duke University, 2007).

Much of the environmental activity of such groups is focused on warnings about the dangers of unfettered development and squandering of natural resources. Some NGOs argue that these issues are critical to businesses and that a company failing to adopt a “long-term perspective”—one that encourages the preservation of limited resources so they are available far into the future—puts the existence of the corporation itself at risk (Edwards 2006 p. 21).

Low-Ranked Drivers of Key Business Decisions

NGOs and their arguments about the environment are likely having an effect on societal attitudes, and it’s true that there are a number of high-profile organizations that are becoming known for their “green” policies and strategies, as we discuss in “The State-of-the-Art Sustainable Enterprise” chapter of this study. Nonetheless, the 2007 AMA/HRI *Sustainability Survey* indicates that environmental issues do not yet have the same prominence and importance in business as issues related to financial or managerial performance.

In fact, on a list of 25 issues, a subcategory of “environmental and operational” issues did not break into the top 10. The top issue in this subcategory was 12th on the overall list of 25. On a scale of 1 to 5, where 1 equals “not at all” and 5 equals “to a very great extent,” the top-ranked environmental and operational issue—“increasing security for our employees, customers, and the communities in which we operate”—was viewed as driving key business decisions to only a moderate extent, at 3.59 (see Figure One). We can even argue that, although the survey instrument categorized this as an environmental and operational issue, it’s actually an issue that deals more with people than the environment.

The second-highest-ranking environmental and operational issue—“enhancing operational efficiency through energy and waste reduction”—was ranked 15th overall and received a rating of 3.45 in terms of its importance today. Meanwhile,

the environmental issue that is probably receiving the most attention in the press and the scientific community—the risks associated with greenhouse gases and global climate change—was not viewed as a highly ranked driver of key business decisions. It was ranked 24th out of 25 issues today. Among all the key drivers, only immigration concerns ranked lower. “Reducing and/or managing the risks and impacts of climate change on our employees, customers, and the communities in which we operate” is seen as driving key business decisions to only a moderate extent, at 3.01. Looking 10 years out, this issue is ranked 23rd out of 25 issues, and the extent to which it’s seen as driving key business decisions 10 years into the future is 3.45 on a 5-point scale.

In a separate question, respondents were asked, “To what extent does your company have practices in place to do the following?” Among the practices listed was, “Reduce greenhouse gas emissions,” which received a score of just 2.64 on a 5-point scale.

Figure 1
Extent to Which the Following Items Drive Key Business Decisions, Today and in Ten Years*

Sustainability-Related Items	Rank	Today	Rank	In 10 Years
Ensuring our workers’ health and safety wherever we operate	1	4.19	4	4.33
Increasing workforce productivity	2	4.14	5	4.31
Improving our reputation/brand image with shareholders and the public	3	4.12	1	4.35
Effectively addressing regulatory restrictions wherever we operate	4	4.02	6	4.20
Enhancing innovation for competitive advantage	5	4.00	2	4.35
Meeting expectations of investors and lenders	6	3.99	7	4.17
Attracting and retaining diverse top talent	7	3.95	3	4.33
Improving employee morale, engagement and commitment	8	3.86	8	4.16
Addressing challenges of healthcare systems and reducing healthcare costs	9	3.79	9	4.12
Providing products and services that are good for the world	10	3.76	11	4.09
Enhancing current customer satisfaction and loyalty through sustainability initiatives	11	3.62	10	4.10
Increasing security for our employees and customers and the communities in which we operate	12	3.59	13	3.95
Attracting new customers and developing new markets through sustainability initiatives	13	3.58	12	4.04
Improving relations with community stakeholders including nongovernmental organizations (NGOs) and community activists	14	3.47	16	3.80

(continued on next page)

Two other issues that have relatively low ranks in terms of driving key business decisions are “securing needed energy resources” (ranked 17th today and 17th in 10 years) and “securing needed raw materials over the long term for our employees, suppliers, customers, and the communities in which we operate,” ranked 22nd today and 22nd in 10 years. It’s interesting to note that—despite news coverage of potential future shortages in certain raw materials and fuels— survey respondents are relatively optimistic that these won’t become major business concerns a decade from now.

It’s interesting to speculate as to why this might be, considering the potential importance of the issues of global warming and shortages of certain natural resources. Perhaps respondents don’t believe these kinds of issues influence or will influence key business decisions. They may think that businesses will pay whatever the future market demands, do what is required by regulators, or make cutbacks as the situation requires.

Figure 1 (continued)
Extent to Which the Following Items Drive Key Business Decisions, Today and in Ten Years*

Sustainability-Related Items	Rank	Today	Rank	In 10 Years
Enhancing operational efficiency through energy and waste reduction	15	3.45	14	3.94
Reducing pollution and toxic chemical use and their effects on our employees, customers and the communities in which we operate	16	3.44	18	3.83
Securing needed energy resources (electricity and fuel)	17	3.41	17	3.83
Finding solutions to the challenges of an aging workforce	18	3.37	15	3.93
Ensuring an adequate supply of water for our employees, suppliers, customers and the communities in which we operate	19	3.25	20	3.65
Encouraging suppliers to use management practices that enhance sustainability	20	3.25	19	3.72
Ensuring proper employee treatment among suppliers	21	3.21	24	3.46
Securing needed raw materials over the long term for our employees, suppliers, customers and the communities in which we operate	22	3.20	22	3.57
Working with other firms to voluntarily create sustainable industry standards	23	3.12	21	3.58
Reducing and/or managing the risks and impacts of climate change on our employees, customers and the communities in which we operate	24	3.01	23	3.54
Finding solutions to the challenges of immigration	25	2.73	25	3.12

*Mean responses on a 5-point scale, where 1 = not at all and 5 = to a very great extent
 2007 AMA/HRI Sustainability Survey

It does not seem likely that they simply believe that the talk about global warming, oil peaks (followed by drop-offs), and other issues are more hype than reality. That's because, on one question, respondents also saw various environmental issues as personally very important, with concerns about clean water, safe food sources, and affordable clean energy receiving scores of 4.0 or above (see Appendix, Table 13). There seems to be a gap between what is environmentally important to them and what they think is important to their organizations. Further research on this subject seems warranted.

People Issues

The State of Humanity

Since the 1950s, the world's population has more than doubled, from about 2.5 billion to about 6.3 billion—more than in the preceding four million years. That is projected to increase to about 9.3 billion by the middle of the 21st century (Brown 2007). By some standards, humanity is making considerable progress. Despite the huge increases in population, for example, global poverty rates have actually fallen. The World Bank Group (2007) reports, “Living standards have risen dramatically over the last decades. The proportion of the developing world's population living in extreme economic poverty—defined as living on less than \$1 per day (\$1.08 in 1993 dollars, adjusted to account for differences in purchasing power across countries)—has fallen from 28 percent in 1990 to 21 percent in 2001.”

But some are concerned that the current human population is already straining the Earth's resources, thereby reducing fresh-water supplies, expanding deserts, eroding soils, and raising sea levels. Lester Brown of the Earth Policy Institute argues that much of the depletion of fresh drinking water is coming in countries that contain more than half the world's populations. Those also happen to be countries that supply much of the world's grains (Brown 2007).

A report from the Intergovernmental Panel on Climate Change, which is a United Nations body that assesses the effects of global warming, underlines a growing geopolitical divide when it comes to climate change problems. The most wealthy, developed nations—which are not located near the equator—will experience fewer negative impacts from global warming than nations located closer to the equator. Yet those wealthy nations are responsible for “two thirds of the atmospheric buildup of carbon dioxide,” a greenhouse gas, the *New York Times* reports (Revkin 2007). Meanwhile, the continent of Africa produces a small fraction of the world's carbon dioxide and yet will be disproportionately affected by warming repercussions, including drought and decreasing levels of fresh water.

At the same time, overall human consumption is destined to increase, according to economist Jeffrey Sachs, director of the Earth Institute, and this may cause global problems. He predicts, “Even if we just stayed at what's about a \$55 trillion per year gross world product measured at what's called purchasing power parity prices, even with our current level, six and a half billion people, and an average per capita income of about \$8,000 per person in purchasing power adjusted prices, we are on an unsustainable trajectory: more category 5 hurricanes, more climate

change, more water stress, more loss of habitat, more destruction and loss of corals, more depletion of fisheries, and the like” (Sachs 2006).

Sachs noted that the per capita income globally in 2006 was about \$8,000, but it was five times higher in the U.S., or about \$40,000. Other countries are working to close the gap, which will lead to more demands on limited resources. Political unrest and upheaval are possible as the U.S. and Europe decide how to apportion limited resources (Sachs 2006).

“The point that I come back to every day in my own thinking is that we’re already environmentally unsustainable,” Sachs has stated, “and now we need to observe a successful trajectory of a massive increase of energy use, physical consumption, [and] deployment of physical resources, and it’s easy to see just how enormously large the challenge is. And every ecosystem on the planet is implicated in this.”

Workforce-Related Issues

Some observers argue that recruitment, retention and engagement needs are helping to push organizations to become more socially responsible. The csrnetwork, a UK-based consulting firm that helps businesses achieve socially responsible goals, says that social responsibility is not only about fulfilling a duty to society; it can also bring competitive advantages that include better decision making and the ability to find and hire better employees and keep them enthusiastic about their jobs (“What Is CSR?”, 2006).

Other commentators also claim that “better recruitment and retention of employees” is a prime benefit of adopting sustainability practices (Adams & Zutshi 2004, pp. 3-5; Willard 2002). Prospective and current workers overwhelmingly say they would rather be employed by a company that practices sustainability, according to a 2007 survey of 188 employees by The Good Search, a talent search company based in Westport, CT. (Willard 2002).

Three-quarters of the Good Search survey respondents were employed in managerial or higher positions. Almost all—96%—indicated that they would like to work at a “successful company that also aspires to be good.” That majority can be broken into two groups—64% who strongly agreed and 32% who somewhat agreed that they want to work for an organization that tries to be good. Almost all—92%—said they “would be more inclined to trust a good employer” and “would feel better about themselves” by working for a socially responsible corporation. The majority—68%—indicated that they believe it would hurt their careers if their résumé indicated they had worked for a “bad” organization. Although working at a “good” company was seen as a plus, only 36% said they thought their company was good and had published CSR practices (The Good Search, 2007).

Although NGOs often credit themselves with the push to responsible funding in the finance industry, it’s actually their effect on employees inside the corporation that has spurred the recent changes in the way the sector decides what gets funded, according to Paul West, former communications director for the NGO Rainforest Action Network. The NGO campaigns make it easier for insiders to speak up and urge changes within individual financial institutions. Also helping promote the

Figure 2
**Importance of Sustainability-Related Issues to You Personally,
 and Perceived Importance to Your Company***

Issues	You Personally	Your Company
Business ethics and integrity	4.77	4.46
Safe and healthy work environment	4.68	4.31
Affordable quality health care	4.66	4.00
Well-being of employees	4.64	3.87
Clean water	4.43	3.67
Corruption in all its forms	4.43	4.24
Worker job security	4.40	3.57
Safe and reliable food sources	4.36	3.38
Human rights abuses	4.22	3.46
Affordable clean energy	4.13	3.50
Assistance after natural disasters	4.10	3.73
Poverty and homelessness	3.94	3.17
Climate change	3.90	3.13
Epidemics	3.82	3.42
Diverse ecosystem	3.81	3.14
Open immigration	3.37	2.97
World population growth	3.36	2.85
Right to collective bargaining	3.23	2.92

*Mean responses on a 5-point scale, where 1 = not at all and 5 = to a very great extent

change is the trend toward a “greater emphasis on individual autonomy and personal responsibility,” which makes it harder for employees and corporate leaders to ignore their values, according to Andrew Newton (2006b), finance editor of *Ethical Corporation* (p. 10).

The 2007 AMA/HRI *Sustainability Survey* shows, in fact, that employees tend to embrace sustainability-related values to fairly high degree. And, they tend to attribute more importance to sustainability issues than they think their employers do. The size of this gap is, however, larger for some issues than others. It is particularly large in the areas of safe and reliable food sources, worker job security, the well-being of employees, poverty and homelessness and climate change (see Figure 2).

Workforce-Related Issues in the Survey

Workforce-related issues received the highest rating among all the sustainability-related issues ranked in terms of their ability to drive key business decisions. The

number-one driver of key business decisions was “ensuring our workers’ health and safety wherever we operate.” That is predicted to drop to the fourth-most-cited reason in 2017, but that still places concern for employees in the top five (see Figure 1).

Another workforce-related issue—“attracting and retaining diverse top talent”—was seen as the seventh-most-important issue today and is projected to become the third-ranked issue in 10 years. “Improving employee morale, engagement and commitment” is another top-10 issue, ranked as eighth today and projected to still be eighth in 10 years.

Therefore, it seems that, among sustainability-related issues, workforce issues tend to be seen as driving key issues to a greater extent than environmental issues. This finding is only partially related to the fact that about half of survey respondents were HR professionals. It’s true that HR professionals, when compared with other managers, tended to assign higher ratings of importance to certain work-related issues, such as addressing healthcare problems and attracting diverse top talent. But HR professionals were no more or less likely than other types of respondents to see climate change as a key business driver. So, it appears that most managers are more accustomed to thinking about the importance of human capital issues than “natural capital” issues.

Profit Issues

Much emphasis has been placed on the business case for sustainability. That makes sense. Businesses exist to make a profit, so the best way to convince them to adopt an idea or a goal is to appeal to the financial bottom line. Indeed, one of the primary criticisms of the sustainability movement is the view that profit-seeking motivation should be the sole impetus behind business actions. The argument is that, by definition, profitable companies deliver products and services that people are willing to pay for, so firms are already delivering a social good. In fact, some argue, this process has helped make people living in developed countries among the richest and healthiest in history. Therefore, companies shouldn’t be required to provide any “extra” social good, since this is only likely to erode shareholder value and keep the economic system from operating at full efficiency and effectiveness (Vickers 2005).

One of the arguments in favor of sustainability is that profitability alone is no longer the best indicator of social good. Sustainability proponents note that the free market does an inadequate job of taking into consideration the social and environmental impact of doing business, even profitable business. The world has grown too small, too interconnected, and too environmentally fragile. Failing to take into account the factors that don’t currently fit neatly into the free-market model is a recipe for global disaster, they argue.

Profits remain extremely important to businesses, and businesses have been very good at earning profits in recent years. Between 2004 and 2007, corporate profits around the globe soared (Wesbury 2007). But some commentators believe that, in the future, economic inequities and environmental problems could lead to social dislocations that have a severe negative impact on profits and economic

sustainability. Such observers argue that organizations should begin to see the advantages of sustainability practices to the profit picture.

Harnessing the Profit Motive

In their seminal article “The Fortune at the Bottom of the Pyramid,” C.K. Prahalad and Stuart Hart (2002) made a strong case that multinational corporations can find new market opportunities among the poorest people of the world. They write, “Low-income markets present a prodigious opportunity for the world’s wealthiest companies—to seek their fortunes and bring prosperity to the aspiring poor.”

They also note, “It is tragic that, as Western capitalists, we have implicitly assumed that the rich will be served by the corporate sector, while governments and NGOs will protect the poor and the environment...A huge opportunity lies in breaking this code—linking the poor and the rich across the world in a seamless market organized around the concept of sustainable growth and development.”

Changing Market Conditions

Some experts believe that changing markets will help fuel the drive to sustainability. Elkington writes, “[G]rowing numbers of companies are already finding themselves challenged by customers and the financial markets about aspects of their [triple bottom line] commitments and performance. Furthermore...the pressure can only grow over the long term. As a result, business will shift to a new approach, using TBL thinking and accounting to build the business case for action and investment” (Elkington 2004, p. 3).

Global interdependence is also likely to influence markets and the way companies do business. Andrew W. Savitz, coauthor of *The Triple Bottom Line*, notes that a global interdependence is one of the forces pushing the sustainability movement. “As companies become increasingly dependent on one another, their interests become more closely entwined,” he writes. “The traditional doctrines of ‘buyer beware’ and ‘arms-length transactions’ work less well in a world where your company’s long-term health requires stable business relationships and economically healthy and ethically responsible partners, joint venturers, suppliers, distributors, and marketers with whom you do business. And when those parties may be located anywhere in the world, you and your company suddenly have good reason to care about the practices of companies and nations far from corporate headquarters” (Savitz & Weber 2006, pp. 48-49). Corporations thus become both the driver of sustainability for other organizations and the recipient of the sustainability push from other entities.

Andrew Newton, finance editor of *Ethical Corporation*, notes the effect of stakeholders, NGOs, and activist investors. Financial companies worldwide have become increasingly proactive during the past 10 years in trying to improve their images by integrating stakeholder concerns about responsibility and sustainability with their core business, Newton says. Much of the drive for financial institutions to become more responsible and embrace sustainability practices has come as the

Advantages sometimes associated with corporate social responsibility include increased sales, better decision-making, the ability to find and hire better employees and keep them enthusiastic about their jobs, and lower costs.

—(“What Is CSR?”, 2006)

result of a push by a coalition of NGOs and activist investors who have required proof that banks are adhering to new standards (Newton 2006a).

The movement toward more responsible corporate governance and sustainability in the finance industry has resulted in the adoption of voluntary goals in addition to the legal requirements placed on the industry. Among the voluntary agreements are the Equator Principles, which more than 80% of the global commercial lending industry has embraced even though they were instituted only in 2003. And corporations with a total value of more than \$5 trillion in assets have signed the UN’s “Principles for Responsible Investment,” which were instituted in 2006 (Newton 2006a, p. 5).

It is not only investors. Customers, too, appear to prefer to buy products from companies that are seen to be ethical and responsible. The 2006 *Cone Holiday Trend Tracker*, an annual survey designed to “examine customer attitudes toward charitable giving” during the holiday season, shows that an increasing number of consumers are buying holiday gifts that come from companies that either support a social cause or that contribute part of the purchase price to a good cause (Cone Inc., 2006).

In 2006, Cone Inc., a strategy and communication agency that works to build brand trust, compiled information from telephone interviews it did with 1,022 adults across the U.S. Among the findings: 57% (two percentage points higher than in 2005) planned to “purchase a product in which a percentage of the price is donated to a cause,” and 59% (seven percentage points higher than in the 2005 survey) said they plan to “buy from a retailer that supports a cause.”

Competitive Advantages

Profits might well be enhanced via sustainability-related practices. Companies can derive significant bottom-line benefits from corporate responsibility and from better reporting about their efforts, according to some observers. Those benefits can be far-reaching and include “better recruitment and retention of employees...improved internal decision making and cost savings...corporate image and relations with stakeholders...[and] financial returns” (Adams & Zutshi, pp. 3-5). The csrnetwork, a UK-based accounting firm that helps businesses achieve socially responsible goals, says that corporations can not only “fulfill a duty to society” but also improve their business by practicing corporate

social responsibility. Advantages sometimes associated with corporate social responsibility include increased sales, better decision making, the ability to find and hire better employees and keep them enthusiastic about their jobs, and lower costs (“What Is CSR?”, 2006).

Survey Findings Related to Profits

The 2007 AMA/HRI *Sustainability Survey* found that the degree to which sustainability practices and strategies were being implemented—and the extent to which those strategies reportedly produce benefits—was significantly stronger among higher-performing organizations (see Figure 4). Such performance was based on self-reported progress over a five-year period in terms of profitability, as well as revenue growth, market share, and customer satisfaction. That finding is further discussed in the state-of-the-art section of this report.

The survey also found that profit-oriented issues rank high among issues seen as driving key business decisions. Increasing productivity—which is also a workforce issue, of course—was ranked second out of 25 issues, followed in descending order by improving reputation/brand image (third), addressing regulatory restrictions (fourth), enhancing innovation for competitive advantage (fifth), and meeting expectations of investors and lenders (sixth).

The need to address regulatory restrictions is especially interesting in light of a recent U.S. Supreme Court ruling that the Environmental Protection Agency has the authority to regulate greenhouse gas emissions (Greenhouse 2007). It’s possible that, even if organizational leaders have little inherent interest in climate change issues, future regulations could force them to view those issues through the prism of marketplace mandates.

Looking 10 years into the future, survey respondents see the enhancement of brand image as the top sustainability item driving key business decisions, followed by enhancing innovation (see Figure 1). In short, profit- and growth-oriented issues are expected to remain key issues well into the future.

Barriers to Sustainability

Criticism about the sustainability movement has been said to originate with one of two groups: cynics or skeptics (Savitz & Weber 2006). Andrew W. Savitz and Karl Weber, authors of *The Triple Bottom Line*, say that cynics see the “sustainability movement as mere hype” that amounts to either an inadequate attempt to do something to solve the environmental and economic problems confronting the world or a deliberate public relations effort by individual companies to make it appear as if something is being done (Savitz & Weber 2006, p. 93). Cynics also doubt that businesses will voluntarily adopt sustainable practices unless government regulations force them into doing so. Skeptics, on the other hand, say the goal of business is profit, and sustainability has no place in corporate life (Savitz & Weber 2006).

Others see a resistance to the sustainability movement as arising from a kind of anti-environmentalism (Boston 1999). The anti-environmentalism movement challenges the wisdom and usefulness of laws that protect the environment and that pro-

Figure 3
Factors That Can Hinder the Movement Toward Sustainability Practices,
Based on Mean Responses*

Potential Barriers to Sustainability	Rank	Mean
Lack of demand from consumers and customers	1	3.13
Lack of demand from managers and employees	2	3.13
Lack of awareness and understanding	3	3.11
Lack of standardized metrics or performance benchmarks	4	3.10
Lack of specific ideas on what to do and when to do it	5	3.08
Lack of demand from shareholders and investors	6	3.04
Lack of demand from suppliers	7	2.99
Unclear or weak business case	8	2.97
Lack of demand from the community	9	2.93
Lack of support from senior leaders	10	2.92
General risk aversion	11	2.80
Fear of competitor’s taking advantage of us	12	2.38

*Mean responses on a 5-point scale, where 1 = not at all and 5 = to a very great extent

mote government intervention. The movement also “aims to undermine any green ideology that challenges neo-classical economic praxis, and that does not support, for example, private property rights, monetary rule and what might be termed ‘rational resource development,’” according to Tim Boston of the Center for Environmental Studies at the University of Tasmania in Australia (Boston 1999). The movement has taken its tactics and cues from the environmental movement and produces white papers, holds conferences and lobbies legislators (Boston 1999).

Barriers to sustainability can also come from within organizations. Managers who are trained to believe that profit is the prime directive of business may find it hard to believe the financial bottom line can improve through social- and environmental-responsibility efforts. There are many reasons for this, including what some say is a lack of concrete evidence supporting the correlation between doing good and profits (Salzmann, Ionecus-Somers & Steger 2002).

Other arguments that can make sustainability a hard sell within the corporate environment include the following:

- The argument that organizations cannot afford it, both in the short and long term: Frank Dixon, a consultant who advises corporations, governments and others on sustainability, warns that the ultimate cost to offsetting the entire negative impact of each business could be the loss of the corporation itself (Blackburn 2007).
- Confusion on the part of business leaders: Some executives confuse sustainability with one of its parts—corporate social responsibility—and

assume their organizations are already up to par because they have done good things for their communities. Other executives do not know what sustainability is and must be educated before practices can be put into place (Blackburn 2007).

- Skepticism among leaders: Some business leaders see sustainability merely as “tree-hugger mumbo jumbo” that seems to “encompass everything under the sun” (Blackburn 2007).
- Difficulty in measuring the goals: The goals and impacts of sustainability can be hard to measure, which runs contrary to decision-makers’ tendency to look for easy, clear methods to delineate progress and success (Litman & Burwell 2006).
- Short-term thinking: While sustainability argues for a long-term outlook, some businesses have short-term goals that make irrelevant the argument for sustainability (Longstaff 2002).

Some of these issues are reflected in the results of the *2007 AMA/HRI Sustainability Survey*. The “lack of demand from consumers and customers” and the “lack of demand from managers and employees” essentially tied for the number-one factors hindering companies from moving further in the direction of sustainability. Close on the heels were the third- and fourth-ranked reasons: “lack of awareness and understanding” and “lack of standardized metrics or performance benchmarks.” But it should also be noted that none of these barriers received ratings that were above the moderate level. In other words, none was seen as a particularly strong barrier to sustainability.

Clearly, if there’s a lack of awareness and understanding, then few from the inside or outside of organizations would make a push to develop sustainable practices. Likewise, if there’s no easy way to measure the success or profitability of such practices, companies are less likely to undergo the effort and perceived expense of such a campaign. The findings do, however, suggest that a lack of awareness, understanding, and demand are key factors. These are cultural issues that can be changed over time, assuming they’re well supported by scientific evidence.

The State-of-the-Art Sustainable Enterprise

For enterprises to operate in a way that actively fosters sustainability, those organizations need to help restore—or at least not undermine—the capacity of the natural environment to provide services. To earn the sustainability moniker, organizations must also actively contribute to stability in the communities and economies in which they operate.

Defining the Sustainable Enterprise

The AMA/HRI team defines a “state-of-the art” sustainable enterprise as one that adopts a long-term, collaborative, “holistic,” or systems-oriented mindset. It integrates sustainable development into its core business strategy, and its activities result in the generation or regeneration of the planet’s capital stocks; that is, natural, social, financial, human, and manufactured capital. A state-of-the-art sustainable enterprise implements ethics-based business principles and sound corporate governance practices that consider the rights and interests of all relevant stakeholders, not only the immediate interests of company shareholders.

The AMA/HRI team also believes that a sustainable enterprise is likely to pursue a triple bottom line strategy that is tied to three broad domains of stakeholder needs—social, environmental, and economic. A sustainable enterprise is likely to be committed to transparency and accountability. That is, such an organization gives stakeholders opportunities to participate in all relevant decisions that affect them. A sustainable organization also uses its influence to promote meaningful systemic change among its peers, within its neighboring communities, and throughout its supply chain. This is because it recognizes that for sustainability to be achieved, it is not enough simply to change one’s own organization; enterprises should also be a vehicle for encouraging the improved performance of others (HRH The Prince of Wales 2003).

Sustainability in Surveyed Organizations

Although few, if any, modern enterprises meet all of the state-of-the-art sustainable enterprise criteria, the *2007 AMA/HRI Sustainability Survey* suggests that many organizations display sustainability characteristics to a significant degree. Below are some of the more intriguing survey findings:

1. Key business decisions are driven to a moderately strong extent by many sustainability-related issues, as discussed in the previous section.
2. Organizations implement a number of *sustainability-related practices* to at least a moderate degree. The most widely used practices include ensuring the health and safety of employees, ensuring accountability for ethics at all levels, and engaging collaboratively with community and nongovernmental groups (see Figure 7).
3. Organizations also share a number of *sustainability qualities* to a moderate degree (see Figure 6).
4. There’s a correlation between the degree to which firms implement sustainability strategies and the degree to which they see measurable benefits from sustainability initiatives. That is, the more firms implement such strategies, the greater the extent to which they see measurable benefits.

Perhaps the most important, the degree to which sustainability practices and strategies were being implemented—and the extent to which those strategies reportedly produced benefits—was significantly stronger among the higher-performing organizations. Such performance was based on self-reported progress over a five-year period in terms of revenue growth, market share, profitability, and customer satisfaction (see Figure 4).

Figure 4
Implementing Sustainability Strategies and
Seeing Measurable Benefits, Based on Mean Responses*

To what extent...	Lowest Performers	Highest Performers	All Respondents
...do you believe that your organization is implementing a sustainability strategy?	2.65	3.33	2.99
...is your organization seeing measurable benefits from sustainability initiatives?	2.56	3.19	2.88

*Mean responses on a 5-point scale, where 1 = not at all and 5 = to a very great extent

This last point supports the notion that sustainable development is at least associated with superior marketplace and financial performance. Correlation is not causation, of course, but these findings suggest that sustainability might provide competitive advantages to organizations. If true, then implementing sustainability-related practices and strategies might not be as costly as some observers have predicted. More study on this subject is warranted.

The Sustainability Pyramid Model

A recent study of nine of the world’s most sustainable companies (Wirtenberg, Harmon, Russell, & Fairfield 2007)¹ identified a “pyramid” of seven core qualities associated with successfully implementing sustainability strategies and achieving triple bottom line results. This model also illustrates the necessary contributions of human capital practices (see Figure 5).

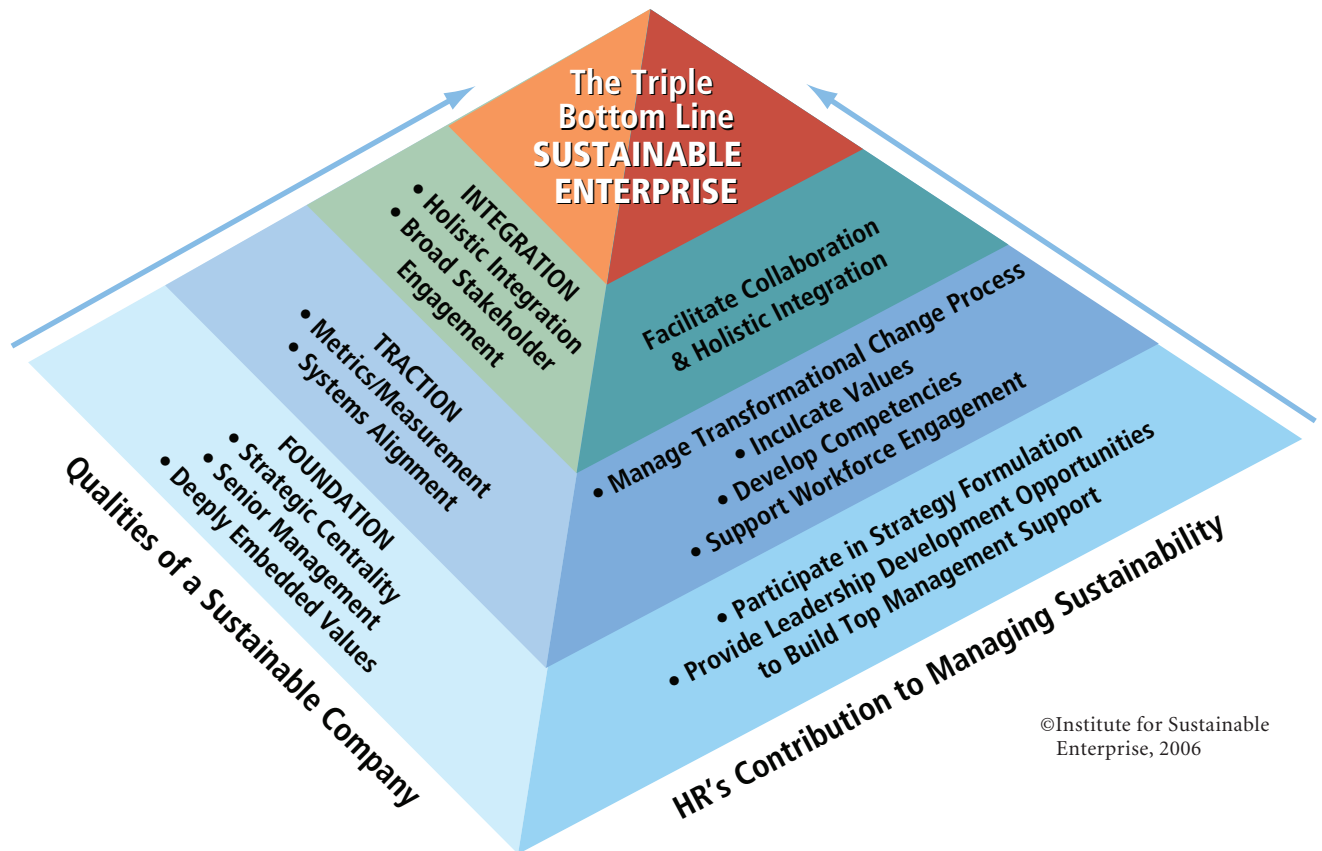
At the base of the pyramid and along the left face is the “Foundation.” It contains deeply held corporate values consistent with sustainability, top management’s visible support for sustainability, and its placement as central to overall corporate strategy.

At the next level up is “Traction,” which can be achieved by developing sustainability metrics (“we manage what we measure”) and by aligning formal and informal organization systems around sustainability.

Toward the top of the pyramid is “Integration,” which occurs via broad stakeholder engagement and holistic integration. At this level, many facets and functional domains of sustainability are coordinated in an integrative fashion. Even the nine highly-rated firms studied seemed to be struggling with reaching this cross-boundary, multistakeholder, integrative pinnacle. The authors conjectured that deeply infusing sustainability-oriented values and creating holistic integration are the highest-level challenges associated with implementing sustainability strategies.

¹The companies were Alcoa, Bank of America, BASF, The Coca-Cola Company, Eastman Kodak, Intel, Novartis AG, Royal Philips, and Unilever. All are listed in “The Global 100 Most Sustainable Corporations in the World,” a project initiated by Corporate Knights Inc., with Innovest Strategic Value Advisors Inc. Full details on its methodology and results can be found at www.global100.org

Figure 5
THE SUSTAINABILITY PYRAMID
 Qualities Associated with Highly Successful Sustainability Strategies



©Institute for Sustainable Enterprise, 2006

Consistent with this prior study, the AMA/HRI team found that respondents to the 2007 AMA/HRI Sustainability Survey rated every element in this pyramid as very important for building a sustainable enterprise (means from about 3.9 to 4.4). But it also found sizable gaps between the perceived importance of these qualities and the degree to which the average responding organization has these qualities (mean from 2.8 to 3.3) (see Figure 6).

Of course, this perceived gap might eventually be closed over time as more companies adopt sustainability qualities to a greater extent. In the next several sections, we provide some examples of “exemplar” sustainability practices from which organizations might learn. We should note, however, that we do not hold up any single organization as the best example of all sustainability practices. Even organizations with exemplary practices in one area may act in “unsustainable” and sometimes even irresponsible ways in another part of their operation.

EXEMPLAR PRACTICE: INTERFACE, INC.

Interface, Inc., one of the largest carpet and interior furnishings companies, is an example of a range of sustainability and triple bottom line practices. Ray Anderson, founder, chairman and CEO, is focused on finding innovative ways to cut waste, emissions and energy use, at the same time as he tries to convert other business leaders to follow suit. Since 1994, Interface has saved more than \$300 million, with the intention of saving \$80 million per year when it reaches its goal of zero waste. “Our goal is to take nothing from the earth by 2020” (Ray Anderson quoted in Newman, R., 2006). To accomplish these ambitious goals, the company is targeting various broad initiatives (e.g., zero waste, benign emissions, renewable energy) as a compass to guide its journey. These practices are far-reaching and cover all aspects of the business:

- People (Customers, Employees, Suppliers, Community, Management)
- Product (Design, Packaging, Manufacturing, Marketing, Purchasing)
- Place (Facility and Operations)

Interface has embraced “The Natural Step,” a frame of reference conceived by Dr. Karl-Henrik Robert of Sweden to define the system conditions for ecological sustainability (Anderson 1998).

We also discuss survey results with particular attention to higher-performing companies that are implementing sustainability strategies to a greater extent than their corporate counterparts. It should be noted that these exemplar practices do not come directly from the survey results, which are kept confidential in regard to specific organizations. Rather, these exemplar practices come from a review of the literature on sustainability and from other studies and interviews.

Level One: Laying the Foundation

Like any pyramid, a sustainability pyramid requires a strong, broad foundation. In fact, the *2007 AMA/HRI Sustainability Survey* found that the qualities associated with the pyramid foundation were rated by our survey respondents as most essential to building sustainable enterprises. As noted above, such a foundation is built upon three critical and interrelated characteristics:

- Senior management support;
- Deeply embedded values;
- A central placement of sustainability in the company’s strategy.

The Support of Management

The *2007 AMA/HRI Sustainability Survey* shows that, when asked to rate the importance of *top management support* to the building of a sustainable enterprise, the mean response was 4.36 on a 5-point scale, the most highly rated element of sustainability on the survey (see Figure 6). Respondents seem to believe that top managers set the tone by showing support for sustainability. Without this support, it’s likely to be difficult or impossible to attain the other qualities of sustainability.

The importance of top management support has been illustrated in other

CURRENT SUSTAINABILITY LEADERS, BY INDUSTRY

Examples of companies that are well along the journey to sustainability include the following, listed by industry:

- **Energy:** BP, Conoco-Philips, Florida Power and Light, Royal Dutch Shell, PG&E
- **Manufacturing:** Alcoa, Alcan, BASF, Dell, DuPont, Eastman-Kodak, Electrolux, Epson, GE, GM, Herman Miller, Honda, HP, IKEA, Intel, Interface, Johnson Controls, Mattel, Nike, Philips NV, SC Johnson, Toyota, Volkswagen
- **Food:** Bon Appetit, The Coca-Cola Co., Frito Lay, Heinz, Unilever
- **Pharmaceuticals/Healthcare:** Johnson & Johnson, Novartis
- **Services:** Bank of America, Continental Airlines, Goldman Sachs, Kaiser Permanente, Starbucks, Swiss Re

studies as well. Wirtenberg, Harmon, Russell, and Fairfield (2007) found that top managers frequently assert their personal and positional influence in order to stress the importance of sustainability, and many get personally involved in setting the priorities as well as making important strategic decisions that affect the sustainability of the enterprise. This is often reflected in the long-term perspective of these leaders. One chairman, for example, said, “[S]ustainable development ensures the success and strength of the company for future generations.”

This level of senior management support engenders a willingness on the part of everyone, from the executive and director level on down, to engage in extensive inquiry and self-examination in the area of sustainability. As a senior manager in one firm said, “When the chairman tells you this is the primary objective for us over the next ten years, a lot of people start to ask questions like, what does this mean to me?”

Top management provides the impetus for organizations to emphasize environmental matters, reach out to communities, and select new business lines. Expressing a concern about building leadership capabilities for the future, a senior executive at one of the most sustainable companies said: “We should be spending more time on building strategic organizational capability for the future than

EXEMPLAR PRACTICE: DUPONT AND THE BUSINESS ROUNDTABLE

DuPont’s CEO Chad Holliday explicitly recognizes the importance of sustainability and is actively integrating it into DuPont’s core business strategy. This includes myriad operational imperatives. Extending his reach even further, Chad Holliday, in his role as chair of the Business Roundtable’s task force for the environment, technology, and the economy, assisted in the launch of the S.E.E. Initiative, or the Social, Environmental, and Economic Change Initiative. The S.E.E. Initiative was launched by the Business Roundtable with the aim of promoting better business and a better world by encouraging the Business Roundtable members (Fortune 500 CEOs) to adopt sustainability principles as a business planning tool and to showcase the results achieved (Nickbarg 2007).

worrying just about today...and the future is not just tomorrow, but a year from now, 10, 20 years from now....Are we putting leaders in place who will reverberate with these kinds of thoughts and ideas?”

The Value of Values

The *2007 AMA/HRI Sustainability Survey* shows how important values are to the creation of sustainable enterprises. They are, in fact, second only to the support of top management, according to respondents. No doubt, these two factors are closely related, since leadership tends to set the tone in terms of corporate value systems.

Wirtenberg and her colleagues (2007) found that values related to sustainability were deeply ingrained in the “DNA” of the companies they studied. These values are typically embedded by organizational founders and are especially evident among all the European-based companies in their sample. One executive said, “You can’t talk to anyone [in our company] without them speaking about doing things that make a difference for people. So there is this interaction between the vision, the mission, and the culture, that is all wrapped up in a history of paying attention to this kind of stuff.”

Another said, “People here don’t get promoted if they don’t have the values... a sustainable mindset. If someone is immune, they don’t make it; they don’t have the followership.” Although several of the companies in that study had been through large changes, including downsizings, the unwavering commitment to their sustainability values was seen as the compass that guided them through those changes.

The Centrality of Sustainability

Third on the list of factors that respondents deemed important to building a sustainable enterprise was *centrality to business strategy*, according to the *2007 AMA/HRI Sustainability Survey*. Although top management support and deeply embedded values are likely necessary to create a sustainable organization, they are also insufficient for sustained, coherent action unless sustainability becomes central to an enterprise’s strategy.

An executive in the study by Wirtenberg and her colleagues (2007) said, “For us sustainability *is* business. This is business stuff; it’s not something that sits outside.” Even though the company recently went through severe profit challenges and laid off a significant number of senior people, the executive reported, “I never had even the most hard-edged analyst ask me, ‘Oh by the way, when

EXEMPLAR PRACTICE: UNILEVER

About 40% of Unilever’s revenue and much of its growth come from developing nations. For example, in Brazil, in order to promote its soap and detergent, the company operates a free community laundry in a Sao Paulo poverty-stricken area, helps finance tomato growers to adopt eco-friendly irrigation techniques, and focuses on recycling waste at a toothpaste factory. In Bangladesh, India, Unilever sponsors a floating hospital and helps women start micro-businesses so they can afford to buy soap and water. Unilever teaches people in Ghana how to reuse waste and bring potable water to communities in need. Its CEO, Patrick Cescau, sees the importance of “helping such nations wrestle with poverty, water scarcity, and the effects of climate change” to stay competitive in the coming decades. (Engardio 2007, p. 52).

are you guys going to stop monkeying around with the sustainability stuff and pay attention to your margins?” Alluding to the triple bottom line balancing of people, planet, and profits, this executive continued: “Is it possible for a company to have a performance edge and [still] care? In order to play our role, if we don’t perform, we can’t do anything for anybody, and so performance and sustainability, performance and caring for communities, environment, society and so on, those things are inextricably linked, and so we’re going to be as tough as we need to be on this organization [with cutbacks] so that it is sustainable, so that we can make a difference in [the broader world].”

Figure 6
Degree to Which Companies Have the Qualities of Sustainable Enterprises*

Qualities of a Sustainable	Extent Company Enterprise Has These Qualities*	Importance to Building a Sustainable Enterprise*
Top management support —The CEO, the chairman of the board and senior management teams show public an unwavering support for sustainability	3.33	4.36
Centrality to business strategy —Sustainability is central to the company’s competitive strategy	3.23	4.07
Values —Key values related to sustainability are deeply ingrained in the company	3.10	4.15
Metrics —The company deploys an array of rigorous sustainability measures	2.91	3.89
Stakeholder engagement —The company reaches out to and involves a broad array of external and internal stakeholders around sustainability issues, including customers, suppliers, governmental and nongovernmental organizations (NGOs)	2.90	3.87
Systems alignment —The company’s structure, systems, processes, and culture are aligned around sustainability	2.88	3.98
Organizational integration —Various aspects of sustainability are viewed holistically and integrated across the functions that have responsibility for them	2.82	3.88

*Mean responses on a 5-point scale, where 1 = not at all and 5 = to a very great extent.

As noted by Porter and Kramer (2006), sustainability strategies can and should take many different forms, depending on (1) the unique interrelationship between a specific organization and society and (2) the unique social, environmental, and economic opportunities that result from that interrelationship.

For example, *social opportunities* can be found by using strategies to improve employees' well-being, their health, their sense of engagement, and their skill levels. Likewise, strategies can focus on society's well-being and community and government relations, perhaps with an eye toward boosting the corporate reputation.

Environmental opportunities can be found via strategies to reduce pollution, carbon emissions, and waste of all kinds. They can also be found by seeking ways to improve natural disaster prevention and recovery or by promoting environmentally responsible industry norms and standards.

Financial benefits can be found via strategies to improve value-chain efficiencies, create new sustainable products/services, develop new markets, enhance brands, reduce risks, and engage in socially responsible investments.

Specific Strategies and Practices

A number of recent books have fine sources and many case examples for leveraging environmental and triple bottom line practices (Esty & Winston 2006; Hitchcock & Willard 2006; Savitz & Weber 2006). We have drawn on these for this brief overview of exemplar practices.

As noted in Hitchcock and Willard (2006), regardless of whether the organization is in the service sector or manufacturing sector, sustainable operations and practices can be implemented by managers. For example, in internal office operations, the purchase of office supplies and equipment can come from sustainable sources—for instance, from a certified sustainable source made up of 100% postconsumer waste (p. 48).

Esty and Winston describe ways to reduce environmental risks by asking questions about (1) the company's operations (e.g., sizing its environmental footprint in terms of resources, emissions, waste, etc.), (2) "upstream" suppliers' products and impacts, and (3) "downstream" impacts such as where the products ultimately end up once they are used (p. 117).

Many sustainability experts recommend enhancing energy efficiency by conducting an energy audit on the company's operations and then taking appropriate actions on the results. An organization might, for instance, purchase renewable power. One goal could be to achieve "climate neutrality" for electricity, heating and

EXEMPLAR PRACTICE: GENERAL ELECTRIC

GE has taken the lead and embarked on a number of new initiatives to provide solutions to the world's environmental ills, such as through its Ecomagination initiative. GE's plans include significantly reducing its greenhouse gas emissions while stepping up its sales of renewable energy, efficient power generation, water purification, and so forth. General Electric (2007) has doubled its investment in R&D for environmental technologies to \$1.5 billion, doubled its expected sales of environmental products from \$10 billion to \$20 billion in five years, and more.

cooling. This can sometimes be achieved by purchasing 100% green power and/or by purchasing carbon offsets.

In the area of transportation, organizations can encourage the reduction of climate-changing emissions associated with the transportation of people, documents, or other materials. For example, companies can encourage sophisticated teleconferencing or telecommuting in order to avoid unnecessary employee travel (Hitchcock & Willard 2006, pp. 162-163).

In the area of contract services, managers could make sure their companies use contractors (for landscaping, courier services, catering, etc.) that share a commitment to sustainability. In food services, organizations can ensure access to healthy, sustainable food and minimize waste. In facilities management, organizations can employ green building principles when choosing a new site or remodeling an existing one (Hitchcock & Willard 2006, pp. 48-51).

Survey Findings on Foundational Qualities

Survey respondents in general reported that their organizations had the *foundational qualities* for building a sustainable enterprise to a moderate extent (see Figure 6),

Figure 7
Top 12 Most Commonly Used Sustainability Related Practices

To what extent does your company have practices in place to do the following?	Mean Response*
Ensure the health and safety of employees	4.02
Ensure accountability for ethics at all levels	3.95
Engage collaboratively with community and nongovernmental groups	3.47
Support employees in balancing work and life activities	3.35
Encourage employee volunteerism	3.29
Involve employees in decisions that affect them	3.28
Provide employee training and development related to sustainability	3.26
Reduce waste materials	3.14
Highlight our commitment to sustainability in our brand	3.12
Improve energy efficiency	3.06
Work with suppliers to strengthen sustainability practices	2.95
Get groups across organization that are working on sustainability-related initiatives to work more closely together	2.85

*On a 5-point scale, where 1 = not at all and 5 = to a very great extent.

Managers play a key role in creating and sustaining the alignment of their systems and processes in the midst of rapid changes. All elements of the organization need to be aligned around sustainability strategies and actions.

and those from the high-performing companies said their firms had these qualities to a moderately strong extent (i.e., means of 3.4 for values, 3.5 for centrality to strategy, and 3.6 for top-management support) (see Appendix, Table 16).

In terms of specific practices that reflect and support sustainability strategies, respondents reported that their enterprises were engaging in two practices to a high extent—ensuring employee health/safety and ensuring ethical accountability—and in several other practices to at least a moderate extent, including promoting work/life balance, reducing waste and improving energy efficiency, and highlighting commitment to sustainability in their brand (see Figure 7).

So, are organizations well on their way to embracing sustainability as a foundation for how they do business? That depends on one's point of view. The “glass-half-full” school of thought will be heartened by the degree to which organizations have adopted certain sustainability qualities and by the fact that higher-performing organizations seem to have embraced such qualities more than lower-performing organizations. The “glass-half-empty” school will legitimately point out that the extent to which responding organizations—even the high-performing ones—have built a foundation for sustainability and are engaging in foundation-building sustainability practices leaves room for considerable improvement.

Level Two: Gaining Traction

Respondents to the *2007 AMA/HRI Sustainability Survey*—both in general and especially in high-performing organizations—recognized the importance of *systems alignment* and *metrics* to creating a sustainable organization, with mean ratings of about 4.0 on a 5-point scale for systems alignment and about 3.9 for metrics (see Figure 6). These two qualities are, as noted above, on the second level of the Sustainability Pyramid (see Figure 5) and, we believe, are critical components of sustainable enterprises.

Aligning Systems

Managers play a key role in creating and sustaining the alignment of their systems and processes in the midst of rapid changes. All elements of the organization need to be aligned around sustainability strategies and actions. This includes infusing a sustainability focus into the human capital systems, including recruitment and selection, training and development, and the performance management systems that direct and shape behavior. It means, for example, setting sustainability related goals

and criteria for compensation and advancement. Alignment also involves investing time and attention to communications—both external and internal—that are integral to building understanding and aligning activities throughout the organization.

Human resource professionals and other “people managers” are in an especially good position to influence sustainability in their organizations. Wirtenberg and her colleagues (2007) identified HR-related actions as critical to helping develop the qualities of a sustainable enterprise: inculcating sustainability-oriented values, helping to elicit senior management support for making sustainability central to business strategy, supporting the development of metrics and systems alignment around sustainability, and enabling the organization to achieve broad stakeholder engagement and holistic integration.

But some of the best sustainability-related opportunities for HR professionals lie in the area of alignment. HR is, after all, largely responsible for training and development, recruitment and retention, compensation and rewards, and employee engagement. These are essential levers and tools for helping to align a company’s structure, systems, processes, and culture around sustainability.

Development and Education

Development and education are especially key to alignment. Wirtenberg and her colleagues (2007) noticed a strong emphasis in many of the highly sustainable companies they studied on creating a culture that teaches employees about sustainability. One company, for example, used its electronic learning management system to build employee knowledge around sustainability. It saw this as an easy-to-use program for employees to constantly upgrade their competencies. These skills were reflected in the individual performance management process. A company executive said, “Give them example after example because it’s going to be very hard for an accountant or an admin or floor worker or someone not involved in technology to see [the] relationship between what they do every day and sustainable development.”

Training and development are also important for creating greater ethical accountability. Several firms studied by Wirtenberg and her colleagues had mandatory ethics and compliance training programs. These included teaching employees about appropriate ways to be working as well as educating them on sustainability and values. Ethical accountability systems also include high-level leadership involvement on ethics and compliance oversight committees and self-assessments.

Recruitment and Retention

Another key is aligning recruitment and retention with sustainability. From a pragmatic standpoint, many of the companies Wirtenberg and her colleagues studied saw sustainability as an important competitive advantage in attracting and retaining talent. As one respondent said, “It all feeds back to the branding...the better [our firm] is branded as a company that’s sustainable and doing the right thing, the better I’m going to be able to attract talent, because the talent wants to work with the best companies, and the best companies are those that not only get results, but do it in a way that creates a sustainable environment.”

EXEMPLAR PRACTICE: THE COCA-COLA COMPANY

The Coca-Cola Company has committed itself to a vision of long-term sustainable growth, and it is beginning to align all of its external and internal systems in support of its strategic goals around creating: safe, healthy and productive workplaces; access to potable water; healthy, active children and adults; and growing local economies.

The company has begun to address all of these issues, both externally and internally. Externally, for example, the Coca-Cola Company became a signatory to the UN Global Compact in 2005, and it “co-founded the Global Water Challenge with private and public sector partners to improve water access and sanitation in countries in critical need” (Coca-Cola Company, 2006, p. 7).

The company’s “Manifesto for Growth” integrates all five facets of the business—people, portfolio, profit, partners and planet. Its people around the world were introduced to its manifesto through training and multi-day workshops, where they had the opportunity to discuss strategies for implementing its principles into their day-to-day work.

In recognizing Karen Flanders, Coca-Cola’s director of corporate responsibility, as one of the “top 15 women in business,” *Pink* magazine credited her and Coca-Cola with a number of accomplishments. These included developing the first-ever freshwater map of the world; launching a project to conserve the Mekong River in Southeast Asia; and designing tools for saving water—currently being tested by bottlers in Central America (“Game,” 2007).

In the context of sustainability, the key to recruiting and staffing in this organization was selecting the right people with the right mental models and values in addition to the right functional expertise. One respondent noted, “What I’m always looking for is [an engineer] that’s thinking beyond building the structure, but understands that building that structure impacts the people around the community. So [hiring those people] is one of the greatest sustainability benefits the HR department can bring.”

Engagement

Employee engagement was also seen as strongly related to the sustainability of these companies, not only as the right thing to do but as an enabler of customer satisfaction and business growth. Getting employees involved in the journey to sustainability is seen as a way to engage people. In describing this, one leader said: “A big advantage to sustainability is getting employees engaged because they want to make a difference in the world. I work with a lot of committed people whose lives are about making a difference and choose to do it here at [our company]...Everyone agrees that’s what is going to help make us one of the greatest companies in the world.”

Workforce engagement is a domain that epitomizes the “people” part of the triple bottom line. One person asserted that if genuine sustainable management is executed, then “no one will have to hide what they are passionate about.”

This includes, of course, passions about doing the “right thing” in the area of social responsibility. For example, several companies that Wirtenberg and her colleagues studied focused on diversity challenges in the global context. These include, but aren’t limited to, social issues affecting compensation, such as providing a living wage in developing countries.

Sustainability-Related Metrics

Wirtenberg and her colleagues (2007) reported that developing and using metrics appears to be central to efforts at managing in a sustainable fashion. One executive in their study said, “It’s in the business plans where we want to get things like metrics embedded, because it’s done at the planning stage; it’s not something that’s constantly imposed...for me that’s one of the best ways to align into our structures and systems.”

Another executive stressed the power not only of measuring key indicators and managing by them but also of disclosing them publicly: “There are self-assessments that are done within the organization...and a good portion of the internal data is also shared externally. So the content of our corporate responsibility report reflects a lot that really drives us, kind of holds our feet to the fire, holds us accountable as a company.”

There are a number of ways to measure the sustainability of operations. Following are some examples of metrics and how organizations are using them:

Sustainability performance indicators: These are specific indicators that provide reliable information on the current state of each of the social, economic, and environmental elements of sustainable development. These may include *input*, *output*, and *outcome* indicators. These may be aggregated into a smaller set of *composite indicators* (Total Cost Assessment, Life Cycle Assessment, Ecological Footprint, etc.). These are useful in simplifying a long list of indicators to provide a visible indication of key trends.

In characterizing the essential aspects of effective corporate sustainability indicators, the Prince of Wales report pointed to nine characteristics. Those indicators must be “relevant to the specific circumstances” of the organization, cost-effective to use, created with contributions from stakeholders, scientifically validated, “measurable and based on data that is either readily available or available at reasonable cost,” and relatively easy to analyze and comprehend. The indicators should also be developed with specific target levels in mind, allowing organizations to see how well they’re progressing. Organizations should be able to update the indicators on a regular basis, and the indicators should “cover the broader

EXEMPLAR PRACTICES: “CARBON LEADERS”

A number of companies are making significant strides in reducing their impact on the environment, and some have been denoted “Carbon Leaders” (Climate Change in Context, 2006).

- Over the past 10 years, BT has reduced its emissions by 60%, exceeding its target of 25% (from 1996 levels by 2010), equating to an annual saving of almost one million tons of carbon dioxide. Becoming the world’s largest purchaser of green electricity, BT committed in 2004/2005 to purchasing almost all of its electricity in the United Kingdom from low and no-carbon emissions sources. (p. 18)
- HSBC is heralded as the world’s first bank to become “carbon neutral”—that is, it offsets CO₂ emissions so the net effect is zero. The bank has also begun working directly with its customers—in the energy and industrial sectors—to help them reduce emissions as well (Climate Change in Context, 2006, p. 20).

EXEMPLAR PRACTICES: ELECTROLUX

Swedish-based Electrolux, the home appliance company, reported in 2005, “Electrolux products have long had outstanding water- and energy-efficiency performance. By offering among the most efficient appliances on the market, and encouraging consumers to switch to these products, we can play our part to fight global warming” (Electrolux, 2007).

The organization reportedly uses both corporate- and facility-level performance indicators based on The Natural Step, which is a program that helps guide organizations into sustainable practices. These indicators are designed with their sustainability goals clearly in focus and are also expressed in business terms such as “share of total sales” and “added value” so that they are understandable among top management for planning purposes.

In her report “Keeping Our Eye on the Goal—How to Measure Corporate Sustainability Progress,” Susan Burns of Natural Strategies, Inc. (2000) reports that Electrolux’s largest environmental impacts happen as products are being used rather than during their manufacture. Electrolux’s strategy focuses on the production of the most “ecologically superior products” on the market—most notably the ones that use the least water and energy. Burns notes that the performance indicator “share of total sales represented by environmentally leading products” measures the success of this strategy directly and can demonstrate, to even skeptical managers, the value of the company’s investment in its sustainability strategy” (p. 5). Moreover, according to Burns’ report, Electrolux reported in 1997 that environmentally leading products were demonstrably more profitable than other products.

concept of sustainability as a whole” (HRH The Prince of Wales, 2003, p. 36)

Metrics relating to greenhouse gases: Organizations can conduct energy audits, use this to calculate their “carbon footprint,” prioritize their opportunities to reduce that footprint, and implement improvement programs (World Resources Institute Greenhouse Gas Protocol Initiative, 1998).

By doing this, for example, DuPont has reportedly saved more than \$3 billion. DuPont began in 1990 to also seek to reduce greenhouse gas emissions and revealed that it has reduced global greenhouse gas emissions measured as CO₂ equivalents by 72% (DuPont, 2006). DuPont is working to further reduce greenhouse gas emissions at least 15% (from a base year of 2004) by 2015.

Ecological footprint analysis: Using tools and visual aids such as graphs, this analysis visually depicts environmental impact at the individual, organizational, product/service and/or regional level. At the same time, it compares this impact to the overall carrying capacity of the planet (HRH The Prince of Wales, 2003, p. 30).

Some sustainability metrics might be derived from sustainability reporting standards. The Global Reporting Initiative, or GRI, has become recognized as a global standard in sustainability reporting and continues to evolve. Nearly 1,000 organizations disclose their sustainability performance with reference to the GRI guidelines. The guidelines provide guidance on the format and content of the reports as well as providing assistance on how to normalize and verify data. They contain a comprehensive set of organizational, management system and performance parameters relating to a company’s economic, social, and environmental performance. The guidelines encourage com-

Effective stakeholder engagement—involving employees, suppliers, customers, NGOs, government, investors, and communities—forms an important component of a company’s efforts at promoting sustainable development.

panies to set targets and commitments and then to report on the extent to which these are being met, providing reasons for any gaps or failures. The GRI strongly encourages the adoption of a stakeholder engagement process, with the aim of reporting on those issues of greatest relevance to stakeholders (Global Reporting, 2007).

Survey Results on Getting Traction

Respondents to the *2007 AMA/HRI Sustainability Survey* reported that their organizations had achieved the traction-related *qualities* of metrics and systems alignment to a not-quite-moderate extent, with means of about 2.9 on a 5-point scale (see Figure 6). Even those from the high-performing companies said their firms had these qualities to only a moderate extent, with means about 3.2 (see Appendix, Table 16).

In general, only one specific *practice* relating to alignment was being carried out to even a moderate extent—that is, providing training and development related to sustainability. Importantly, however, those from the higher-performing firms reported greater use of key traction-related practices such as establishing sustainability performance indicators (metrics) and using sustainability-related criteria in recruitment, selection, and promotion. These means were all above 3.0.

It appears that the organizations of these survey respondents, even the high-performing ones, have further to go in building the elements for traction than in building the foundations for sustainability, as shown in the Sustainability Pyramid. In fact, the gap between the perceived importance of creating systems alignment and the extent to which it was actually being achieved was the greatest of all pyramid qualities (-1.11).

Level Three: Achieving Integration

Respondents to the *2007 AMA/HRI Sustainability Survey* also recognized the importance—in terms of building a sustainable enterprise—of engaging a broad spectrum of stakeholders and working to integrate the many diverse functions related to successfully implementing sustainability strategies. On a 5-point scale, there were mean ratings of about 3.9 (for both *stakeholder engagement* and *organizational integration*) for all firms and 4.0 for high-performing firms.

Broad Stakeholder Engagement

Effective stakeholder engagement—involving employees, suppliers, customers, NGOs, government, investors, and communities—forms an important component

EXEMPLAR PRACTICE: ALCOA

In Iceland, Alcoa worked with the operator of the hydroelectric facility to design, build and maintain a smelter and hydroelectric project in a way that “balances environmental, social and economic aspects,” according to the organization. The partners worked with a “coalition of external stakeholders” in order to generate sustainability objectives and metrics that can be used to measure performance. “An advisory group of 30+ stakeholders from Alcoa, Landsvirkjun (the operator of the hydroelectric plant), and numerous governmental, educational, and non-governmental organizations is the backbone of the Iceland Sustainability initiative,” notes Alcoa on its Web site. “The group’s purpose is to...develop indicators to measure the performance of the hydro facility and smelter against sustainability targets. Participants include project supporters and those opposed.” (Alcoa, 2007)

of a company’s efforts at promoting sustainable development. It is valuable in fostering trust and developing social capital, and it is most important in developing an effective and appropriate sustainability strategy that is based on a common understanding and agreement as to what sustainability means for the company. For this to be realized, companies need to be committed to implementing a process of engagement as a means of shared learning, with the aim of including and empowering stakeholders in the development of their strategy (Nickbarg, Bucy, & Rao 2007).

Many people and organizations are working to formalize the stakeholder engagement process. For example, the Clarkson Principles of Stakeholder Management represent a statement of principles by which corporate citizens should operate. Created through the participation of many business practitioners as well as academics (Post 2002), these principles state, among other things, that “managers should acknowledge and actively monitor the concerns of all legitimate stakeholders and should take their interests appropriately into account in decision-making and operations.”

One of the tools through which organizations can get a detailed view of their stakeholders is stakeholder mapping (Hemmati 2002; Hitchcock & Willard 2006, pp. 208-209). Such mapping is a typical initial task in the stakeholder engagement process. These maps provide the initial information to develop a social network map for the company. That is, they show how stakeholders connect to one another via communication and other relationship channels. Social network maps and related network assessment techniques reinforce and inform stakeholder engagement programs as well as the sustainability strategy in general (Krebs & Holley 2006).

Holistic Integration

In the 2007 study by Wirtenberg and her colleagues on some of the world’s most sustainable companies, the ability to lead cross-functional collaborative teams was seen as an important competency. Among the comments they heard were, “The teams involved in sustainability require the ability to lead cross-functionally and that is an important competency” and “It’s very much an integrated approach that

The future of the sustainability movement may...largely depend on whether it becomes well integrated into the larger global culture and whether organizations are able to effectively align their stakeholders and organizational processes around sustainability principles.

relies on different disciplines of people since oftentimes you'll see legal, supply chain, business marketing people, HR people, etc.”

Sustainability teams in these firms typically were organized into cross-functional matrix structures. Several companies also had teams organized around specific issues, such as water or energy, and used internal portals for transferring information and building communities of practice.

Extending the notion of holistic integration even further to include the broader industrial ecosystem in which a firm resides, an executive at the top-rated firm in the study said:

I don't think sustainability is necessarily a competitive advantage. How do we get sustainable? [We] can get more and more sustainable in our business practices only by being part of a sustainable ecosystem. I can't be a lone sustainable company, [while] the ecosystem is going down the tubes. There's no way.... It's truly like the Internet. The more people that get on the network, the more powerful they become. So that's why competition [doesn't] even exist in this discussion; it's more “*coopetition*.” You've got to partner to build the ecosystem. A healthy economic ecosystem creates more value for everyone.

Wirtenberg and her colleagues reported that—while several of the companies studied were highly developed around particular aspects of sustainability such as a long-standing concern for environmental stewardship or a highly tuned system of metrics—few had brought multifaceted activities under a clearly understood, unified umbrella of sustainability. They stated, “Even these exemplary firms seemed to be struggling with reaching this cross-boundary, multi-stakeholder, integrative pinnacle” (p. 18). They inferred that holistic integration may be the most difficult quality to achieve: the pinnacle of the Sustainability Pyramid.

Such integration is likely to emerge from some form of systems thinking and might be linked to the concept of learning organizations. The Society for Organizational Learning (SoL) Sustainability Consortium, for example, works to build the capacity in organizations and society to achieve economic, ecological and social sustainability. They do this by applying the five disciplines associated with organizational learning—systems thinking, team learning, mental models, personal mastery and shared vision—to achieving sustainability (Senge, Laur, Schley, & Smith 2006).

Another concept borrowing from systems thinking is industrial ecology. According to Indigo Development (2005), the industrial ecology approach involves the application of systems science to industrial systems, defining the system boundary to incorporate the natural world, and seeking to optimize that system. In this context, the term “industrial systems” applies “not just to private sector manufacturing and service but also to government operations, including infrastructure” that is built and maintained by governments.

Survey Results on Achieving Integration

Respondents to the *2007 AMA/HRI Sustainability Survey* reported that their organizations were *broadly engaging stakeholders* to a not-quite-moderate extent (mean 2.9 on a 5-point scale) (see Figure 6). Those from the high-performing companies said their firms broadly engaged stakeholders to a significantly greater but still only moderate degree (mean 3.2) (see Appendix, Table 16).

In terms of specific *practices*, responding companies engaged collaboratively with community and nongovernmental groups, encouraged employee volunteerism, and worked with suppliers to strengthen sustainability practices firms to a moderately high degree (overall means of 3.5, 3.3 and 3.0, respectively). High-performing organizations had scores of 3.6, 3.5 and 3.2, respectively.

Organizations appear to have the furthest to go in terms of *holistic integration*. The extent to which various aspects of sustainability were being viewed holistically and integrated across the organizational functions responsible for them was rated on average 2.82 by all respondents. Again, high-performing firms responded with significantly higher ratings (mean 3.14) but still achieved organizational integration only to a moderate extent.

In terms of specific integration *practices*, firms, on average, were less than moderately successful (mean 2.85) in getting groups across their organization working on sustainability-related initiatives to work more closely together, with high-performing firms doing significantly better but still only moderately well (mean 3.11).

It appears that responding organizations—even the high-performing ones—are struggling harder with achieving holistic integration than with engaging stakeholders. In fact, the gap between the perceived importance of integration and the extent to which it was actually being achieved was the second largest of all pyramid qualities (-1.06), after system alignment.

This suggests that there may be a relationship between alignment and integration. Both involve coordinating what are often complex organizations and groups of stakeholders around the concept of sustainability. It may be easier to do things such as develop metrics or find leaders who show support for sustainability than it is to orchestrate large groups of people and processes into a sustainable whole. The future of the sustainability movement may, in fact, largely depend on whether it becomes well integrated into the larger global culture and whether organizations are able to effectively align their stakeholders and organizational processes around sustainability principles.

The Future of Sustainability

In this section, we offer three scenarios of how sustainability could evolve over the next 10 years. Scenarios are fictional stories about possible futures, but scenarios are not intended to predict the future as much as to help readers challenge their own hidden assumptions about what the future may look like. Each of these is based on trends and ideas that exist today, many of which were discussed earlier in this report. Yet, the future is likely to bring some amalgam of these scenarios plus events and trends that we cannot foresee.

For the purpose of these scenarios, we assume that the “scientific consensus” on global warming is genuine and that there will be, to some degree, a continued accumulation of greenhouse gases, and that this will have an influence on climate. These scenarios also assume that there will be erosions, to some degree, in certain natural resources, including oil, fresh water, fisheries, and perhaps arable land. They also postulate that the primary drivers of the sustainability future over the next 10 years will be whether and how organizations, nations, and the world as a whole react to environmental, social, and business challenges. Specifically, much will depend on whether a collaborative “win-win” style of coping with these issues becomes more common or whether a more confrontational approach becomes the norm.

Based on findings from the *2007 AMA/HRI Sustainability Survey* as well as team scenario discussions, we believe that integration and alignment will be keys to the future. That is, we think that to the degree that organizations of all sorts (private, public, governmental, NGOs, and others) align around sustainability ideas and integrate them into the larger society, the global society will or will not become more sustainable.

SCENARIO ONE Things Fall Apart

By the year 2017, most organizations have given up on trying to be “sustainable,” which is now seen as a passé business buzzword from a decade before. Most businesses just want to survive in an increasingly anarchic world, one plagued by what is becoming a global war for natural resources, especially oil and water.

There is vicious regional warfare in the Middle East, which some are referring to as the Third Gulf War. And there’s a popular notion that the globe is on the cusp of World War III. In the Middle East, different national and sectarian armies are supported and supplied by various global powers, including China, India, the EU, and the U.S., which has been much diminished by huge national debts and yet retains a powerful military. The U.S. has also sent troops into oil-rich Venezuela, and a Russia-China coalition has invaded oil-rich Kazakhstan. Despite these attempts to “stabilize” global oil supplies, the price of oil has skyrocketed, global oil production is on the decline, and there’s a huge ramping up in the production and use of quickly built coal-powered plants. Scientists are concerned that global-warming gases are increasing in the atmosphere at rates higher than previously predicted.

Terrorism is a worse problem than ever. Cell-based, self-organizing networks are growing, exacerbating national conflicts, including a very tense situation between nuclear powers India and Pakistan. Nationalism is becoming powerful and even virulent in many nations. Governments are pouring resources into protecting themselves from major attacks. This leaves less and less money for social programs, health care, education, international aid, and government research into or support of energy-efficient technologies.

Developed nations are, however, spending tax dollars on stemming the flow of immigrants. Worldwide, rates of poverty are on the rise again. As the global popu-

Measured on a per-capita basis, there's less innovation than there's been since the Dark Ages. Reengineering products and services to make them more "sustainable" is seen as the height of a frivolousness often associated with "old Europe."

lation grows, the Chinese manufacturing juggernaut matures, and certain natural resources are stretched, the number of people trying to enter richer nations has swollen into a flood.

Due to a string of climate-related crop failures, food is becoming more and more expensive, as are wood-based construction materials. Mercury levels in fish have risen so quickly that the U.S. government has banned all but the smallest of fish from being sold in markets. The coral reefs are all but gone, and arable land continues to shrink.

"There's a sense," says one EU politician, "that the world is crumbling. Governments, especially those with aging populations, can't afford to maintain basic infrastructures and so spend much of their time scapegoating others, especially immigrants. There's also a sense that everyone is trying to protect themselves, and this is killing global cooperation." Indeed, companies are having a hard time getting many of the resources they need to do business, creating global supply chain problems. There's been a rash of hostile takeovers as firms scramble for access to those resources.

There are also spikes in inflation rates, more national and individual stockpiling, and a growing sense of fear in the workplace. Economists point to signs of a second Great Depression. Few companies are concerned about social or environmental sustainability issues. "We're just trying to survive," says one anonymous CEO. "That often means cutting our comp and benefits to a bare minimum, letting local communities take care of their own problems, and only doing the bare minimum to meet environmental regulation requirements, which governments aren't enforcing much anyway. They have much more pressing concerns."

Measured on a per-capita basis, there's less innovation than there's been since the Dark Ages. Reengineering products and services to make them more "sustainable" is seen as the height of a frivolousness often associated with "old Europe." Even universities, once the last bastion of environmentalism, generally do not focus on sustainability in their management courses or "green engineering" in their engineering departments. Therefore, companies couldn't hire employees with such skills even if they wished to.

"The world is coming apart, and we're supposed to be worrying about the environment or other nations or the poor?" says one manager. "Give me a break. I want workers who are grateful they have a job and willing to do whatever it takes to get the job done in a dog-eat-dog world. Just crank up the AC, enjoy the sweet smell of the smog, don't eat the fish, and let the damned future take care of itself."

SCENARIO TWO

Muddling Toward Sustainability?

In 2017, sustainability is, at best, a mixed bag and, at worst, an utter mess.

Countries keep trying to create global agreements on everything: fisheries, global warming gases, water conservation, pandemics, the reduction of global poverty, and so on. But, the agreements are usually based on unchallenging consensus targets that, even when missed, are seldom punished by the larger community. Moreover, as with the Kyoto Protocol, many of these agreements don't include the nations that have the largest impact on the problems. In other words, most of the agreements have symbolic value but no real teeth.

Europe and European corporations have tried to lead the way in sustainability, but other regions and nations are not in a hurry to follow. The world is a complex hodgepodge of different environmental and social standards, and most nations have no wish to collaborate. "Every nation seems to have its own niche," explains one consultant. "A lot of the poorer ones are happy to keep environmental, labor, and other regulations as loose as possible so they can attract a certain kind of business. Those are the businesses that derive a big financial benefit by polluting as much as they want and paying as little as possible for labor. Some of the richer nations have higher sustainability standards, but companies charge top dollar for goods in those nations. And a lot of citizens are getting sick of paying those prices and are working to import cheaper products from abroad. Selling these underground products that don't meet local standards has gotten to be a huge business."

Nobody is sure whether the world is becoming more or less sustainable. Many companies are engaged in emissions trading, trying to reduce the amount and the cost of energy they use, and patenting energy-conserving technologies. There's also a whole public relations industry based on trying to convince customers that organizations are "green" or "eco-friendly." Some experts hold out hope that these modest beginnings will lead to a world in which "green" becomes a more meaningful and measurable term. So far, however, most industry leaders have fought against measurable ways of regulating the meaning of "green."

It seems that only a minority of CEOs take sustainability seriously. One jokes, "At our company, we're great believers in the profit part of the triple bottom line. We're just reserving judgment on the other two parts." Others are less jovial. One insurance executive states, "Yes, we're very concerned about many of these issues, especially those related to climate change and health issues. We're affected every time a major storm destroys homes that we insure or every time a preventable disease afflicts a person who buys our insurance. But, ultimately, unless governments get serious about this, there's nothing much companies can do. And most people in business want government to stay out of these issues."

Some companies do, however, see profits in helping people cope with problems such as growing shortages of clean water or rising temperatures. For example, one business sells water-purification tablets to the poor in nations without proper sanitation systems. Other businesses are quickly building clean coal and nuclear

We're not serious yet about true sustainability, and time is running out fast. Pretty soon, it'll be too late to turn our environmental and social crises around, even if we do get serious about it.

power plants, and they're scrambling to hire people with the kind of technology skills needed to build and operate such new technologies.

Environmentalists are split as to whether such “free-market” solutions are a sign of progress. One environmental leader says, “I think moving toward more nuclear power is inevitable and good for the overall environment, despite its dangers. We needed to do this ten years ago. Clean coal plants, however, are still an oxymoron. The ones in production that I've seen will only make global warming worse.”

Another environmental leader says, “Both types of power are environmentally dangerous. These aren't genuine solutions to the problems facing humanity. They are a matter of fiddling while Rome burns, except now Rome is the whole world. We're not serious yet about true sustainability, and time is running out fast. Pretty soon, it'll be too late to turn our environmental and social crises around, even if we do get serious about it. Some people say we're muddling toward sustainability. I think we're muddling toward ultimate disaster.”

SCENARIO THREE A Global Sustainability Culture

In 2017, a global sustainability culture seems to have taken root. Some believe that a cultural “tipping point” has been reached. Many issues have shaped it: alarming scientific findings, changes in climate patterns, geopolitical conflicts, global media networks, innovations in the marketplace, the success of “green” business, and many other factors. The bottom line, however, is that the confluence of these factors has created what some experts call a global “sustainability culture” or “preservation mindset.”

“Polls show that the majority of people in nearly every nation believe that environmental degradation is real and a threat to them and their children,” notes one Columbia University sociologist. “And they tend to believe that their lives could be improved through the better management of social and environmental systems. Chinese citizens are beginning to believe that they no longer have to have a countryside smothered in smog in order to prosper; Indians see there may be viable alternatives to having the truly impoverished living side by side with the wealthy; many African nations are embracing increasingly inexpensive solar and wind technologies to fuel their businesses and farms; and Americans—who've been terrorized by violent weather phenomena in recent years—are leading the way toward new agreements on global environmental issues. This change from perceived ‘green laggard’ to ‘green leader’ has helped improve the image of the U.S. abroad.”

There is also a set of global initiatives for further reducing social and economic inequities among nations. Global poverty rates have continued to fall, despite a growing world population. And large-scale public-private initiatives have helped do everything from dramatically reducing the rate of preventable diseases such as malaria to facilitating access to clean drinking water for all people.

Business organizations increasingly embrace sustainability. Sometimes this is driven by initiatives from top leaders, but it's also driven by pressures from other directions: governments, customers, shareholders, employees, nongovernmental organizations, and competitors. As a result, there have been great strides in innovation in the fields of clean energy production, green engineering, and sustainable products and services. This innovation often is occurring through unprecedented levels of collaboration among large clusters of firms, universities, NGOs, and other partners.

At the same time, the combination of sophisticated computer applications and reengineered work practices allows corporations to calculate the impact of their operations on local communities and the overall environment. Some governments, primarily in the EU, require these calculations to be made. In virtually all cases, calculations include an organization's "ecological footprint." Even in nations where such metrics are not required, however, corporations are adopting them at a fast rate.

More and more organizations also look at their business operations via a multicapital viewpoint that focuses on the continuous improvement of organizational sustainability. For example, they try to calculate how their investments in training and development (that is, investments in *human capital*) help generate new designs, processes and ideas (*intellectual capital*) that, in turn, lead to a conservation of raw materials (that is, *natural capital*). And then they try to establish how these dynamics boost the financial performance of their organization (that is, *traditional capital*).

"It's interesting," says one chief operating officer at a major corporation, "to see all these different people—manufacturing engineers, HR professionals, finance professionals, and environmental engineers—clustered together and watching how the numbers come out, trying to create 'virtuous cycles' in their organizations. Everybody gets to see how their jobs affect everyone else and the sustainability index for the entire organization."

Although the CEO tends to be the "chief of sustainability" in organizations, human resource professionals are often instrumental in helping employees—including top managers—develop sustainability-related competencies and values. "HR has a particularly strong interest in sustainability," says one Global 500 executive, "because it's getting harder to attract and engage talented people unless you have these programs in place. HR does everything from facilitate collaboration at the organizational level to develop workforce-related sustainability metrics that are used in strategic-planning processes. HR pros even engage in hokey practices such as handing out t-shirts that say 'Train to Sustain.' But it's not just an HR issue. Sustainability is an umbrella issue that covers all functions and business units."

Consumers are spending more on green products, partly as a result of free markets, but also because governments make older polluting products illegal or otherwise create disincentives (taxes, fines, etc.) for using such products.

Although sustainability-related best practices often represent competitive advantages for organizations, a global ethic of “open source” has emerged. “In this area, best practices tend to be posted on the Internet,” notes one CEO of a major corporation. “It’s a classic example of cooptation. The best practices are associated with their originators, who receive public kudos that are often used in advertising campaigns to strengthen their brands. So, even in this ‘open source’ environment, organizations like ours can derive a lot of bottom-line benefits from sharing and cooperation.” Governments have also required the easy licensing of products that have a positive impact on the environment.

Other governmental strategies include working with corporations, NGOs, and educational institutions to help fund research on sustainability issues and ensure that the education/skill-development system produces people who have the proper set of sustainability competencies. Federal, state, and even local governments provide tax breaks for organizations engaging in certain sustainability-related practices. Universities are given economic incentives by public-private partnerships to teach green engineering principles, and sizable education grants are provided to students who are engaged in learning certain scarce skills. In recent years, there’s been dramatic job growth in technology jobs where sustainability talent is required.

Consumers are spending more on green products, partly as a result of free markets, but also because governments make older polluting products illegal or otherwise create disincentives (taxes, fines, etc.) for using such products. Products that contain toxic components tend to be leased rather than sold, so that companies remain responsible for disposing of those components. The idea is to encourage organizations to build products that can be safely recycled.

Another driver of the sustainability culture is that young people coming into the workforce are much more socially and environmentally aware than previous generations. “It’s not that they’re exceptionally well educated in politics, history or even current events,” states an associate at a major polling company. “It’s that when they conduct a Web search on a potential employer, the information about that employer is readily available, and these kids are highly tuned into things such as sustainability and social responsibility indexes. They not only want to work in a fun and exciting company, but in a company that does some good in the world. Today, recruiters know this and push their organizations in the area of sustainability just so they can hire the best talent available.”

Conclusion

Time will tell which of these scenarios comes closest to the truth. Much will depend on the actions that businesses, governments, educational institutions, NGOs, and others take today. If these entities can work together to align their values and organizational processes around sustainability principles, then our global society has a greater chance of addressing, ameliorating, and sometimes even solving a range of social and environmental problems.

The hope is that a more sustainable global culture would make for a more sustainable business environment, one that is less prone to corruption, pandemics, wars, environmental catastrophes, and various other types of crises.

Getting there won't be easy, but the *2007 AMA/HRI Sustainability Survey* indicates that the barriers to sustainability are not that daunting. In fact, none of the barriers looked at in the survey received ratings that were above the moderate level. Moreover, a lack of awareness and understanding is a cultural barrier that can be—and perhaps is being—changed. Assuming sustainability principles are well supported by the scientific and managerial literature, many of them seem likely to be adopted by the wider culture. The survey also indicates that individual employee values are already fairly well aligned with sustainability principles.

Yet, it seems that responding organizations—even high-performing ones—continue to struggle with certain aspects of sustainability, especially aspects related to organizational integration and alignment. Maybe it's natural that sustainability-related values and leadership come first, while alignment and integration come later in the process. Or perhaps it's simply easier to *claim* to have sustainability-related leadership, values and strategies than it is to truly integrate sustainability principles into organizational structures, systems and functions.

The good news, from a sustainability point of view, is that high-performing organizations have sustainability qualities to a larger extent than low-performing organizations. That is, the degree to which sustainability practices and strategies are being implemented—and the extent to which those strategies reportedly produce benefits—are stronger among the organizations reporting higher performance in the areas of revenue growth, market share, profitability and customer satisfaction. Whether or not sustainability practices actually *result in* better market performance remains an open question, but at least this survey indicates that sustainability qualities do not prevent organizations from achieving market success.

More study needs to be done in this area. After all, one of the reasons commonly given for *not* pursuing sustainability approaches in a free-market system is that it costs too much and so hurts competitiveness. These survey findings suggest that this conventional wisdom may be too simplistic and, in many cases, wrong-headed. It's quite possible that, when implemented wisely and well, sustainability-related strategies and practices are simply very good business.

Appendix

About This Survey

Target Survey Population

Target Survey Population: The target survey population of the *2007 AMA/HRI Sustainability Survey* consisted of the HRI e-mail list of primarily high-level human resource professionals; AMA's international e-mail list of individual contributors, supervisors, managers and executives across a wide range of functions; and HR.com's list of members. In total, 1,365 usable surveys were submitted, with all respondents answering all questions due to the fact that the survey did not allow for partial responses. Most organizations were either global (29%) or multinational (26%), while 45% were national.

Survey Instrument: In this survey, multiple questions used the well-accepted 1-5 Likert-type scale, with a 1 rating generally designated as "not at all" and a 5 rating as, depending on the question, "to a very great extent" or "extremely important." There were 20 questions in all, 11 geared toward the demographics of respondents. Various questions had multiple parts.

Procedure: A link to an online survey was e-mailed to the target population by region during February 2007.

Demographic Questions and Results

Table 1

In what function do you currently work? (by percent)	
Response	Overall
Finance	3.52%
General management	13.70
Human resources	50.04
Marketing	4.76
Operations	6.74
Research and development	4.18
Sales	3.44
Systems/IT	2.27
Other	11.35

Table 2

What is your current title? (by percent)	
Response	Overall
CEO/President/Chairman	4.98%
Director	23.96
EVP/SVP	2.27
Manager	36.70
Supervisor	5.42
Vice president	6.67
Other	20.00

Table 3

What is your level of responsibility? (by percent)	
Response	Overall
Corporate	49.7%
Division	15.1
Office	15.5
Plant	6.8
Region	12.9

Table 4

What is your gender? (by percent)	
Response	Overall
Female	51.72%
Male	48.28

Table 5

What is your age? (by percent)	
Response	Overall Results
24 or younger	2.12%
25-30	10.18
31-35	11.36
36-40	14.52
41-45	16.48
46-50	17.29
51-55	12.89
56-60	10.99
61-65	3.44
66-plus	0.73

Table 6

What is the size of your organization's entire workforce in the world? (by percent)	
Response	Overall Results
Under 100 employees	20.37%
100-499	18.83
500-999	8.79
1,000-3,499	14.29
3,500-4,999	4.76
5,000-9,999	7.69
10,000 or more	25.27

Table 7

What is the total revenue (in USD) of your entire worldwide organization? (by percent)	
Response	Overall Results
Less than \$50 million	32.53%
\$50 to \$249 million	17.73
\$250 to \$499 million	6.59
\$500 to \$999 million	7.69
\$1 B to \$2.99 B	10.92
\$3 B to \$9.9 B	10.62
\$10 B plus	13.92

Table 8

Please identify your organization by type of operation (by percent)	
Response	Overall Results
Global (high level of global integration)	29.16%
Multinational (national/regional operations act independently)	25.71
National (operations in one country only)	45.13

Table 9

In which overall region are you located? (by percent)	
Response	Overall Results
Africa	1.98%
Canada	5.49
Caribbean	0.88
Central America	0.29
China	1.04
Eastern Europe	2.86
France	0.37
Germany	0.59
India	4.18
Japan	0.51
Korea	0.22
Mexico	2.64
Middle East	3.22
Oceania	0.88
Other Asia	4.54
Other Western Europe	4.18
Scandinavia	1.03
South America	1.10
United Kingdom	1.54
USA	62.12

Table 10

Within which sector does your organization primarily work? (by percent)	
Response	Overall Results
Business-to-business services	13.73%
Chemicals	2.42
Consumer goods	4.33
Education	6.52
Energy/Utilities	4.03
Financial services/Banking	5.81
Food products	2.79
Government	4.54
Hi-tech/Telecom	6.89
Hospital/Healthcare/Insurance	6.45
Manufacturing	14.22
Mining or Agriculture	1.04
Nonprofit	4.62
Pharma/Biotech/Medical device	4.72
Retail	2.87
Other	15.02

Table 11

How would you describe your organization's life cycle stage? (by percent)	
Response	Overall Results
Established firm with strong structure and systems as well as known products/services	18.17%
Firm focused on increasing quality profitability and continuing improvement in operations	22.43
Firm repositioning itself for the future; revitalization efforts are the focal point	16.48
Mature firm with brand-name recognition and with an established culture	26.59
Rapidly growing firm with increasing market share	10.84
Startup firm or a firm focusing on introducing new products/services	5.49

Performance Questions and Results

Table 12

On a scale from 1-5, how would you rate the following compared to the last five years?				
Responses	Overall	Higher Performers	Mid Performers	Lower Performers
Your revenue growth	3.70	4.74	3.81	2.66
Your market share	3.56	4.50	3.58	2.79
Your profitability	3.58	4.60	3.65	2.64
Your customer satisfaction	3.58	4.25	3.62	2.97

About These Categories

A variable labeled *performance* was created from the average of the four performance questions shown above. A tertiary split was then done on *performance*, creating high, middle, and low groups. The *Higher Performers* are the high group, and the *Lower Performers* are the low group. Data from these two groups was incorporated into some of the following tables. Statistical tests were done to verify that the higher- and lower-performing groups are significantly different.

Sustainability Questions and Results

Table 13

On a scale from 1-5, how important are the following sustainability-related issues to you personally, and how important do you think they are to your company?					
Issues	Rank	You Personally	Rank	Your Company	Difference
Business ethics and integrity	1	4.77	1	4.46	0.31
Safe and healthy work environment	2	4.68	2	4.31	0.37
Affordable quality health care	3	4.66	4	4.00	0.66
Well-being of employees	4	4.64	5	3.87	0.77
Clean water	5	4.43	7	3.67	0.76
Corruption in all its forms	6	4.43	3	4.24	0.19
Worker job security	7	4.40	8	3.57	0.83
Safe and reliable food sources	8	4.36	12	3.38	0.98
Human rights abuses	9	4.22	10	3.46	0.76
Affordable clean energy	10	4.13	9	3.50	0.64
Assistance after natural disasters	11	4.10	6	3.73	0.37
Poverty and homelessness	12	3.94	13	3.17	0.77
Climate change	13	3.90	15	3.13	0.77
Epidemics	14	3.82	11	3.42	0.40
Diverse ecosystem	15	3.81	14	3.14	0.67
Open immigration	16	3.37	16	2.97	0.40
World population growth	17	3.36	18	2.85	0.52
Right to collective bargaining	18	3.23	17	2.92	0.32

Table 14

On a scale from 1-5, to what extent does your company have practices in place to do the following?						
Practices	Overall Rank	Overall Mean	Higher-Performer Rank	Higher-Performer Mean	Lower-Performer Rank	Lower-Performer Mean
Ensure the health and safety of employees	1	4.02	1	4.27	1	3.85
Ensure accountability for ethics at all levels	2	3.95	2	4.24	2	3.70
Engage collaboratively with community and non-governmental groups	3	3.47	3	3.63	4	3.31
Support employees in balancing work and life activities	4	3.35	5	3.62	3	3.35
Encourage employee volunteerism	5	3.29	7	3.52	5	3.13
Involve employees in decisions that affect them	6	3.28	4	3.63	6	3.04
Provide employee training and development related to sustainability	7	3.26	6	3.61	7	3.01
Reduce waste materials	8	3.14	9	3.42	8	2.96
Highlight our commitment to sustainability in our brand	9	3.12	8	3.44	9	2.85
Improve energy efficiency	10	3.06	10	3.31	10	2.85
Work with suppliers to strengthen sustainability practices	11	2.95	11	3.22	11	2.73
Get groups across your organization that are working on sustainability-related initiatives to work more closely together	12	2.85	13	3.11	12	2.65
Use sustainability-related criteria in recruiting and selection	13	2.81	12	3.16	13	2.52
Establish indicators to determine if the organization is meeting sustainability goals	14	2.75	14	3.06	14	2.44
Use sustainability-related criteria in promotion and career advancement	15	2.75	15	3.06	15	2.44
Reduce greenhouse gas emissions	16	2.64	17	2.82	16	2.43
Link sustainability-related criteria to compensation	17	2.53	16	2.87	17	2.30

Table 15

On a scale from 1-5, how important are the following qualities for building a sustainable enterprise, and to what extent does your company currently have these qualities?					
Issues	Importance of These Qualities		Extent My Company Has These Qualities		Difference
	Rank	Mean	Rank	Mean	
Top management support—The CEO, the chairman of the board, and senior management teams show public and unwavering support for sustainability	1	4.36	1	3.33	1.03
Value—Key values related to sustainability have been deeply ingrained in the company	2	4.15	3	3.10	1.05
Centrality to business strategy—Sustainability is central to the company’s competitive strategy	3	4.07	2	3.23	0.84
Systems alignment—The company’s structure, systems, processes, and culture are aligned around sustainability	4	3.98	6	2.88	1.10
Metrics—The company deploys an array of rigorous sustainability measures	5	3.89	4	2.91	0.98
Organizational integration—Various aspects of sustainability are viewed holistically and integrated across the functions that have responsibility for them	6	3.88	7	2.82	1.06
Stakeholder engagement—The company reaches out to and involves a broad array of external and internal stakeholders around sustainability issues, including customers, suppliers, governmental, and nongovernmental organizations (NGOs)	7	3.87	5	2.90	0.97

Table 16

On a scale from 1-5, how important are the following qualities for building a sustainable enterprise, and to what extent does your company currently have these qualities?						
Issues	Importance of These Qualities			Extent My Company Has These Qualities		
	Overall	Higher Performers	Lower Performers	Overall	Higher Performers	Lower Performers
Top management support— The CEO, the chairman of the board, and senior management teams show public and unwavering support for sustainability	4.36	4.42	4.30	3.33	3.64	3.05
Values—Key values related to sustainability have been deeply ingrained in the company	4.15	4.32	4.10	3.10	3.41	2.80
Centrality to business strategy— Sustainability is central to the company’s competitive strategy	4.07	4.19	3.92	3.23	3.52	2.92
Systems alignment—The company’s structure, systems, processes and culture are aligned around sustainability	3.98	4.12	3.83	2.88	3.22	2.53
Metrics—The company deploys an array of rigorous sustainability measures	3.89	4.04	3.76	2.91	3.23	2.60
Organizational integration— Various aspects of sustainability are viewed holistically and integrated across the functions that have responsibility for them	3.88	4.04	3.78	2.82	3.14	2.48
Stakeholder engagement — The company reaches out to and involves a broad array of external and internal stakeholders around sustainability issues, including customers, suppliers, governmental and non-governmental organizations (NGOs)	3.87	4.03	3.81	2.90	3.20	2.62

Table 17

On a scale of 1-5, to what extent does each of the following items drive key business decisions for your company today, and to what extent will they drive decisions in 10 years?					
Drivers	Today		In 10 Years		Diff
	Rank	Mean	Rank	Mean	
Ensuring our workers' health and safety wherever we operate	1	4.19	4	4.33	-0.14
Increasing workforce productivity	2	4.14	5	4.31	-0.17
Improving our reputation/brand image with shareholders and the public	3	4.12	1	4.35	-0.23
Effectively addressing regulatory restrictions wherever we operate	4	4.02	6	4.20	-0.18
Enhancing innovation for competitive advantage	5	4.00	2	4.35	-0.35
Meeting expectations of investors and lenders	6	3.99	7	4.17	-0.18
Attracting and retaining diverse top talent	7	3.95	3	4.33	-0.38
Improving employee morale, engagement and commitment	8	3.86	8	4.16	-0.30
Addressing challenges of healthcare systems and reducing healthcare costs	9	3.79	9	4.12	-0.33
Providing products and services that are good for the world	10	3.76	11	4.09	-0.33
Enhancing current customer satisfaction and loyalty through sustainability initiatives	11	3.62	10	4.10	-0.48
Increasing security for our employees, customers and the communities in which we operate	12	3.59	13	3.95	-0.36
Attracting new customers and developing new markets through sustainability initiatives	13	3.58	12	4.04	-0.46
Improving relations with community stakeholders including non-governmental organizations (NGOs) and community activists	14	3.47	16	3.84	-0.37
Enhancing operational efficiency through energy and waste reduction	15	3.45	14	3.94	-0.49
Reducing pollution and toxic chemical use and their effects on our employees, customers and the communities in which we operate	16	3.44	18	3.83	-0.39
Securing needed energy resources (electricity and fuel)	17	3.41	17	3.83	-0.42
Finding solutions to the challenges of an aging workforce	18	3.37	15	3.93	-0.56
Ensuring an adequate supply of water for our employees, suppliers, customers, and the communities in which we operate	19	3.25	20	3.65	-0.40
Encouraging suppliers to use management practices that enhance sustainability	20	3.25	19	3.72	-0.47
Ensuring proper employee treatment among suppliers	21	3.21	24	3.46	-0.25
Securing needed raw materials over the long term for our employees, suppliers, customers, and the communities in which we operate	22	3.20	22	3.57	-0.37
Working with other firms to voluntarily create sustainable industry standards	23	3.12	21	3.58	-0.46
Reducing and/or managing the risks and impacts of climate change on our employees, customers, and the communities in which we operate	24	3.01	23	3.54	-0.53
Finding solutions to the challenges of immigration	25	2.73	25	3.12	-0.39

Table 18

On a scale of 1-5, to what extent does each of the following items drive key business decisions for your company today, and to what extent will they drive decisions in 10 years?					
Types of Issues	Today		In 10 Years		Diff
	Rank	Mean	Rank	Mean	
Workforce Issues					
Ensuring our workers' health and safety wherever we operate	1	4.19	2	4.33	-0.14
Increasing workforce productivity	2	4.14	3	4.31	-0.17
Attracting and retaining diverse top talent	3	3.95	1	4.33	-0.38
Improving employee morale, engagement, and commitment	4	3.86	4	4.16	-0.30
Addressing challenges of healthcare systems and reducing healthcare costs	5	3.79	5	4.12	-0.33
Finding solutions to the challenges of an aging workforce	6	3.37	6	3.93	-0.56
Ensuring proper employee treatment among suppliers	7	3.21	7	3.46	-0.25
Finding solutions to the challenges of immigration	8	2.73	8	3.12	-0.39
Environmental & Operational Issues					
Increasing security for our employees, customers and the communities in which we operate	1	3.59	1	3.95	-0.36
Enhancing operational efficiency through energy and waste reduction	2	3.45	2	3.94	-0.49
Reducing pollution and toxic chemical use and their effects on our employees, customers, and the communities in which we operate	3	3.44	4	3.83	-0.39
Securing needed energy resources (electricity and fuel)	4	3.41	3	3.83	-0.42
Ensuring an adequate supply of water for our employees, suppliers, customers, and the communities in which we operate	5	3.25	5	3.65	-0.40
Securing needed raw materials over the long term for our employees, suppliers, customers, and the communities in which we operate	6	3.20	6	3.57	-0.37
Reducing and/or managing the risks and impacts of climate change on our employees, customers, and the communities in which we operate	7	3.01	7	3.54	-0.53
Marketplace Issues					
Effectively addressing regulatory restrictions wherever we operate	1	4.02	2	4.20	-0.18
Enhancing innovation for competitive advantage	2	4.00	1	4.35	-0.35
Providing products and services that are good for the world	3	3.76	4	4.09	-0.33
Enhancing current customer satisfaction and loyalty through sustainability initiatives	4	3.62	3	4.10	-0.48
Attracting new customers and developing new markets through sustainability initiatives	5	3.58	5	4.04	-0.46
Stakeholder Issues					
Improving our reputation/brand image with shareholders and the public	1	4.12	1	4.35	-0.23
Meeting expectations of investors and lenders	2	3.99	2	4.17	-0.18
Improving relations with community stakeholders including nongovernmental organizations (NGOs) and community activists	3	3.47	3	3.84	-0.37
Encouraging suppliers to use management practices that enhance sustainability	4	3.25	4	3.72	-0.47
Working with other firms to voluntarily create sustainable industry standards	5	3.12	5	3.58	-0.46

Table 19

On a scale from 1-5, to what degree does each of the following issues hinder your from moving toward sustainability?		
Barriers	Rank	Mean
Lack of demand from consumers and customers	1	3.13
Lack of demand from managers and employees	2	3.13
Lack of awareness and understanding	3	3.11
Lack of standardized metrics or performance benchmarks	4	3.10
Lack of specific ideas on what to do and when to do it	5	3.08
Lack of demand from shareholders and investors	6	3.04
Lack of demand from suppliers	7	2.99
Unclear or weak business case	8	2.97
Lack of demand from the community	9	2.93
Lack of support from senior leaders	10	2.92
General risk aversion	11	2.80
Fear of competitors taking advantage of us	12	2.38

Table 20

On a scale from 1-5, rate your company on the following questions:			
Responses	Overall	Higher Performers	Lower Performers
Do you believe that your organization is implementing a sustainable strategy?	2.99	3.33	2.65
Do you supply and/or review information that is used to develop sustainability-related metrics for your company?	2.64	2.85	2.41
Is your organization seeing measurable results from sustainability initiatives?	2.88	3.19	2.56

Table 21

How do different sustainability implementations correlate to each other?	To what extent do you believe that your organization is implementing a sustainability strategy?	To what extent do you supply and/or review information that is used to develop sustainability-related metrics for your company?	To what extent is your organization seeing measurable benefits from sustainability initiatives?
To what extent do you believe that your organization is implementing a sustainability strategy?	1.00	.539	.657
To what extent do you supply and/or review information that is used to develop sustainability-related metrics for your company?	.539	1.00	.611
To what extent is your organization seeing measurable benefits from sustainability initiatives?	.657	.611	1.00

Bibliography

- Adams, C., & Zutshi, A. (2004, November). "Corporate Social Responsibility: Why Business Should Act Responsibly and Be Accountable." *Australian Accounting Review* [www.mei.monash.edu.au].
- Alcoa. "Defining and Measuring Sustainable Performance in Iceland." Retrieved from http://www.alcoa.com/global/en/about_alcoa/sustainability_report_2004/case_iceland.asp March 29, 2007.
- Anderson, R. (1998). *Mid-Course Correction*. Vermont: Chelsea Green.
- Benyus, J.M. (1997). *Biomimicry*. New York: HarperCollins Publishers.
- Blackburn, W.R. *The Sustainability Handbook: The Complete Management Guide to Achieving Social, Academic and Environmental Responsibility* [www.csrwire.com]. March 2007.
- Boston, T. (1999, December). "Exploring Anti-Environmentalism in the Context of Sustainability." *Electronic Green Journal* [www.egj.lib.uidaho.edu].
- Bradford, L., & Dorfman, A. "The State of the Planet." *Time* and CNN [www.time.com]. August 26, 2002.
- Brown, L. "State of the Planet." Interview for the PBS television show "Journey to Planet Earth" [www.Pbs.org/journeytoplanetearth]. Obtained March 2007.
- Brundtland, G.H. (1987). *United Nations World Commission on Environment and Development: Our Common Future*. Oxford: Oxford University Press.
- Burns, Susan (2002, March). "Keeping Our Eye on the Goal—How to Measure Corporate Sustainability Progress."
- Carson, R. (1962). *Silent Spring*. New York: Houghton Mifflin.
- Chaharbaghi, K, & Willis, R. (1999). "The Study and Practice of Sustainable Development." *Engineering and Management Journal*, 9(1), 41-48.
- Climate Change in Context*. (2006). London: Context Group Ltd.
- The Coca Cola Company. "Corporate Responsibility Review." July 2006. Retrieved from <http://www.thecoca-colacompany.com/citizenship/index.html>
- Cone Inc. "Holiday Shoppers Want Businesses to Help Them Do Good; National Survey Finds Charitable Giving Opportunities a Significant Decision Driver This Holiday Season." Retrieved from www.accountability-central.com. November 14, 2006.
- Cypher, J.M. (2007, March 26). "Who's Gorging and Who's Getting Roasted in the Economic Barbecue?" *Dollars and Sense*. AlterNet [www.alternet.org].
- DeGeorge, R.T. (2005). *Business Ethics*. New York: Prentice Hall.
- Duke University. "Non-Governmental Organizations Research Guide." Retrieved from www.docs.lib.duke.edu/ifo/guides/ngo/. March 17, 2007.
- DuPont (2006, October 10). "DuPont Expands Sustainability Commitments to Include R&D, Revenue Goals." Press release.
- Edwards, E.R. (2006). *The Sustainability Revolution: Portrait of a Paradigm Shift*. New Society Publishers.
- Electrolux. "Our World, Our Approach: Sustainability Report 2005." Retrieved from <http://www.globalreporting.org/AboutGRI/FAQs/FAQSustainabilityReporting.htm>. March 30, 2007.
- Elkington, J. (1998). *Cannibals with Forks: The Triple Bottom Line of 21st Century Business*. Philadelphia: New Society.
- Elkington, J. "Enter the Triple Bottom Line." Retrieved from www.johnelkington.com. August 17, 2004.
- Engardio, P. (2007). "Beyond the Green Corporation." *BusinessWeek*, January 29, pp. 50-64.
- Esty, D.C., & Winston, A.S. (2006). *Green to Gold*. Connecticut: New Haven Press.
- Feuss, W.J., Harmon, J. Wirtenberg, J. & Wides, J. (2004). "Employees, Customers, and Financial Performance: How Some Companies are Examining Linkages in Their Own Organizations." *Journal of Cost Management*, 18(1).
- Fournier, D.F., & Westervelt, E.T. "Energy Trends and Their Implications for U.S. Army Installations." U.S. Army Corps of Engineers [www.usnews.com]. September 2005.
- "Game Changers" (2007, January 16) *Pink* magazine.
- General Electric Company. "Ecoimagination." 2007. Obtained from <http://www.ge.com/en/citizenship/spotlight/ecomag/index.htm>
- Global Reporting Initiative. "FAQs." March 2007. Retrieved from <http://www.globalreporting.org>
- Global Reporting Initiative. Retrieved from www.globalreporting.org. March 2007.

- Global Roundtable on Climate Change. "The Path to Climate Sustainability: A Joint Statement by the Global Roundtable on Climate Change." Retrieved from www.earth.columbia.edu/grocc. February 20, 2007.
- The Good Search (2007, January 21). "In the War for Talent, Good Companies Finish First." CSRWire. Retrieved from <http://www.csrwire.com/PressRelease.php?id=7273>.
- Greenhouse, Linda (2007, April 3). "Justices Say E.P.A. Has Power to Act on Harmful Gases." *New York Times*.
- Hart, Stuart L. (1997). "Beyond Greening: Strategies for a Sustainable World," *Harvard Business Review*, Jan-Feb.
- Hawken, P. (1993). *The Ecology of Commerce*. New York: HarperCollins Publishers.
- Hawken, P., Lovins, A., & Lovins, L.H. (1999). *Natural Capitalism*. New York: Back Bay Books/Little, Brown and Company.
- Hemmati, M. (2002). *Multi-stakeholder Processes for Governance and Sustainability*. London: Earthscan.
- Hitchcock, D., & Willard, M. (2006). *The Business Guide to Sustainability: Practical Strategies and Tools for Organizations*. London: Earthscan.
- Horwitz, W.A. (1996). "Developmental Origins of Environmental Ethics: The Life Experiences of Activists." *Ethics and Behavior*, 6(1), 29-54.
- HRH The Prince of Wales. (2003). *The Reference Compendium on Business and Sustainability*. University of Cambridge Programme for Industry.
- Indigo Development. "Industrial Ecology." March 2005. Obtained from <http://www.indigodev.com/IE.html>.
- Krebs, V., & Holley, J. (2006). *Building Smart Communities Through Network Weaving*. Appalachian Center for Economic Networks. Retrieved from www.acenetworks.org.
- Litman, T., & Burwell, D. (2006). "Issues in Sustainable Transportation." *International Journal (of) Global Environmental Issues*, 6(1), 331-347.
- Longstaff, S. "Sustainability." Corporate Responsibility Index. Retrieved from www.corporate-responsibility.com.au. 2002.
- Macaulay, I. "Corporate Governance: Crown Charters to Dotcoms." Retrieved from <http://www.financialhistory.org/fh/2003/77-1.htm>. January 10, 2004.
- Malthus, T.R. (1976) *An Essay on the Principle of Population*. New York: Norton (originally published in 1798).
- McDonough, W., & Braungart, M. (2002). *Cradle to Cradle*. New York: North Point Press.
- Meadow, D., Randers, J., & Behrens, W.W. III. (2004). *Limits to Growth: 30 Year Update*. White River Junction, VT: Chelsea Green Publishing.
- Morsing, M. "Drivers of Corporate Social Responsibility in SMEs." Retrieved from www.cbs.dk. October 26, 2006.
- Nachtigal, J. (2006, October 16). "The Greenest Office in America." *Business 2.0 Magazine* [www.cnnmoney.com].
- "New BNA Accounting Portfolio Explains and Analyzes 'Triple Bottom Line' Reporting" (2007, February 10) *PR Newswire*.
- Newman, R. (2006, September 16). "Industrialist Sees No Need to Kill the Planet: Environmentally Minded Businessman Speaks at FDU," *The Record*, A-13.
- Newton, A. (2006a, November). "Beyond the Tipping Point." *Ethical Corporation*, pp. 5-7.
- Newton, A. (2006b, November). "The Pandora Principle." *Ethical Corporation*, p. 10.
- Nickbarg, S. (2007). "Implementing Solutions to Climate Change." George Washington University Conference, in dialogue with CEO Chad Holliday.
- Nickbarg, S., Bucy, F., & Rao, G. (2007). "Total Sustainability Management Strategy Development." In Wirtenberg, J., & Lipsky, D. (editors.), *The Sustainable Enterprise Fieldbook: When It All Comes Together* (under development).
- Nissan, S., & Case, P. (2006, November). "Regaining Trust Through Transparency." *Ethical Corporation*, p. 4.
- O'Toole, J. (1993) *The Executive's Compass: Business and the Good Society*. Oxford: Oxford University Press.
- Pezzey, J., & Toman, M. (2002). "The Economics of Sustainability: A Review of Journal Articles." Retrieved from Resources for the Future, www.rff.org.
- Porter, M., & Kramer, M. (2006). "Strategy and Society: The Link Between Competitive Advantage and Corporate Social Responsibility." *Harvard Business Review*, pp. 78-92.
- Post, J.E. (2002, April). "Global Corporate Citizenship Principles to Live and Work By." *Business Ethics Quarterly*, 12(2), 143-154.
- Prahalad, C.K., & Hart, S.L. (2002). "The Fortune at the Bottom of the Pyramid." *strategy+business*, Issue 26.
- President's Materials Policy Commission. (1952, June). *Resources for Freedom*. Washington, DC: U.S. Government Printing Office.
- Revkina, A.V.C. (April 1, 2007). "Poorest Nations Will Bear Brunt as World Warms." *New York Times*, pp. A1, A6.

- Russell, J. (2006, November). "In the Public Interest." *Ethical Corporation*, pp. 36-37.
- Sachs, J.D. "Is Sustainable Development Feasible?" Speech at State of the Planet 06 Conference. Retrieved from www.earthinstitute.columbia.edu. March 28-29, 2006.
- Salzmann, O., Ionescu-Somers, A., & Steger, U. "The Business Case for Corporate Sustainability—Review of the Literature and Research Options." Forum for CSM [www.01.imd.ch]. 2002 (publisher is IMD/CSM).
- Savitz, A., with Weber, K. (2006). *The Triple Bottom Line*. San Francisco: Jossey-Bass.
- Schmidheiny, S., with the Business Council for Sustainable Development. (1992). *Changing Course: A Global Business Perspective on Development and the Environment*. Cambridge, MA: MIT Press.
- Senge, P.M. (2007). "Collaborating for Systemic Change." *MIT Sloan Management Review*, 48(2), 44-53.
- Senge, P.M. (2006, Summer). "Systems Citizenship: The Leadership Mandate for This Millennium." *Leader to Leader*, 41.
- Senge, P.M., Kleiner, A., Roberts, C., Ross, R., & Smith, B. (1994). *The Fifth Discipline Fieldbook: Strategies and Tools for Building a Learning Organization*. New York: Doubleday.
- Senge, P.M., Laur, J., Schley, S., & Smith, B. (2006). *Learning for Sustainability*. Cambridge, MA: Society for Organizational Learning.
- Simmons, M. (2006, Fall). "The Impending Global Energy Supply Crisis." *Harvard International Review*. ProQuest.
- SoL Sustainability Consortium. Retrieved from www.solsustainability.org. March 2007.
- "Symposium on Sustainability—Profiles in Leadership." New York City. October 2001.
- "The Ecological Footprint Quiz." Retrieved from <http://ecofoot.org/>. March 2007.
- "The Global Footprint Network." Retrieved from www.footprintnetwork.org. March 2007.
- U.S. Environmental Protection Agency. "Sustainability: International." Retrieved from www.epa.gov. June 8, 2006.
- U.S. Environmental Protection Agency. "Sustainability." Retrieved from www.epa.gov. September 7, 2006.
- Vickers, M. "The CSR Debates." *TrendWatcher*, March 18, 2005.
- Walsh, R. (1991). "Toward a Psychology of Sustainability." *Re-vision*, 14(2).
- Wesbury, B. "A Portrait of the Economy." *Wall Street Journal*. ProQuest. February 14, 2007.
- "What Is CSR?" Retrieved from www.csrnetwork.com. Obtained November 29, 2006.
- Willard, B. (2002). *The Sustainability Advantage: Seven Business Case Benefits of a Triple Bottom Line*. Province of British Columbia, Canada: New Society Publishers.
- Wirtenberg, J., Harmon, J., Russell, W., & Fairfield, K. (2007). "HR's Role in Building a Sustainable Enterprise: Insights from Some of the World's Best Companies." *Human Resource Planning*, 30(1), 10-20.
- World Bank Group. "Understanding Poverty." Retrieved from <http://web.worldbank.org/WEBSITE/EXTERNAL/TOPICS/EXTPOVERTY/EXTPA/0,contentMDK:20153855>. 2007.
- World Resources Institute Greenhouse Gas Protocol Initiative (GHGP). (1998). Retrieved from www.ghgprotocol.org. March 2007.
- Wren, D. (2005). *The History of Management Thought*. Hoboken, NJ: John Wiley and Sons, Inc.

Authors and Contributors

PROJECT LEADER

Jay J. Jamrog is the senior vice president of research at the Human Resource Institute, now co-branded as the Institute for Corporate Productivity. As a futurist, he has devoted the past 20 years to identifying and analyzing the major issues and trends affecting the management of people in organizations. Jamrog is the associate articles editor for the “building a strategic HR function” key knowledge area of *Human Resource Planning*. He has had articles published in major business magazines and is frequently quoted in business publications and newspapers. He often collaborates with, and speaks before, other organizations and associations on major research topics related to the future of people management. Prior to joining HRI in 1982, Jay held numerous management positions, including vice president of purchasing for a large import/export wholesaler. Contact information: (727) 345-2226 or jamrog@hrinstitute.org

AUTHORS

Mark Vickers is the vice president of research at the Human Resource Institute, now co-branded as the Institute for Corporate Productivity. He has authored many reports and white papers for the institute, including *Virtuous Cycles: Toward an Expanded Model of Capital*. He is the institute’s former managing editor and is currently the editor of *TrendWatcher* and *The Fortnight Report*. He has authored and coauthored various periodical articles and has served as an editor and project manager for a number of AMA/HRI research projects. Contact information: (727) 345-2226 or vickers@hrinstitute.org

Jeana Wirtenberg, Ph.D., is president of Jeana Wirtenberg & Associates, LLC, a results-oriented consulting firm specializing in building the sustainable enterprise, organizational effectiveness, leadership development, and learning. She is a director and cofounder of The Institute for Sustainable Enterprise at Fairleigh Dickinson University, which is focused on bringing people together to learn how to develop and lead thriving, sustainable enterprises that are “in and for the world.” Formerly she was an HR director at Public Service Enterprise Group, where she was responsible for a variety of functions to transform the firm and build organizational capacity. Previously she held positions in AT&T Human Resources and Marketing and led research programs in the federal government at the National Institute of Education and the U.S. Commission on Civil Rights. Dr. Wirtenberg earned her M.A. and Ph.D. in psychology from U.C.L.A. Contact information: (973) 335-6299 or jwirtenberg@optonline.net

Joel Harmon, Ph.D., is a professor of management in the Silberman College of Business at Fairleigh Dickinson University, a Distinguished Faculty Fellow of its Center for Human Resource Management, and a director of its Institute for Sustainable Enterprise. During his 24-year academic career, he has served in numerous leadership positions for the university and for professional associations. Dr. Harmon earned his doctorate from the State University of New York at Albany and specializes in organizational strategy and transformation, focusing on linkages among people, learning practices, and business performance. He has published in a variety of leading academic and practitioner journals, receiving awards for his papers and case studies. Contact information: (973) 443-8792 or jharmon444@aol.com

Anne Lindberg is a research analyst/writer at the Human Resource Institute, now co-branded as the Institute for Corporate Productivity. She is responsible for HRI's *Sustainability* Knowledge Center. Contact information: (727) 345-2226 or alindberg1@tampabay.rr.com

James M. Lee, Ph.D., is an assistant professor of marketing at The University of Tampa. His research focus is in consumer psychology with an emphasis on personality influences on decision making. His recent research publications include the use of personality in personnel decisions and impact on employee burnout. Most recently he headed the marketing and IT departments of a multinational retailer, and he was president of the wholly owned ecommerce subsidiary. Contact information: (813) 253-6221 or jlee@ut.edu

Donna J. Dennis, Ph.D., is a leadership development professional with over 30 years of experience helping leaders and teams increase leadership and team effectiveness through coaching, strategic planning, and team building. Dennis is known for innovative, business-focused solutions to organizational and leadership issues. She holds a master's degree in education, a Ph.D. in human development, and certification in personality assessment and executive coaching. Contact information: (609) 497-1997 or donna@leadership-solutions.info

CONTRIBUTORS

Kent D. Fairfield, Ph.D., is assistant professor of management in the Silberman College of Business at Fairleigh Dickinson University. He teaches organizational behavior, and interpersonal skills in organizations. He emphasizes connecting students to the world of work through the use of business mentors and community service projects. His research concerns interdependence among individuals, groups, and organizations, including factors contributing to sustainable business practices. Dr. Fairfield was a vice president of the Chase Manhattan Bank and did management consulting. He earned his M.A. and Ph.D. in organizational psychology from Columbia University and his MBA from the Harvard Business School. Contact information: 973-762-8416 or kent@fdu.edu

Susan Nickbarg is principal, SVN Marketing, LLC. With more than 15 years experience in strategy, marketing communications, brand management, product development and launch, partnerships, and corporate social responsibility, she has balanced strategy development, marketing outcomes, and stakeholder engagement for some of the biggest brands in the world. She has held management positions at Discovery Communication, Inc., IBM, Novartis, Sara Lee, and BBDO Advertising. She is presently principal of SVN Marketing, a marketing and corporate responsibility consultancy. Nickbarg is a published author and frequent lecturer on corporate responsibility and marketing topics, adjunct professor at Georgetown University, and a corporate responsibility communications columnist for PRNEWS. She earned her MBA in marketing from the University of North Texas, her BA in economics from the State University of New York, and her international relations certificate from New York University. Contact information: (301) 588-6430 or snickbarg@svnmarketing.com

William G. Russell is president of SKN Worldwide-USA, Inc., which provides sustainability consulting and technology services to corporate, government, NGO, and university clients globally. He founded the Sustainability Knowledge Network, a collaborative workspace portal, to advance sustainability. Mr. Russell is a research associate within Fairleigh Dickinson University's Institute for Sustainable Enterprise and serves on advisory boards including the University of Michigan's Erb Institute for Sustainable Enterprise and Innovest Strategic Value Advisors. He is the former president of Ecos Technologies and U.S. leader of environmental services at PricewaterhouseCoopers. He received his B.S. in chemical engineering from the University of Maryland and his MBA from Rutgers University. Contact information: William Russell (201) 592-0055 or wgrussell@sknworldwide.com

Various staff members of the Human Resource Institute provided background research, writing, and other support for this report. Special thanks to David Wentworth, who worked on the table data, and to Judy Wall, who proofed and copyedited the report.

About American Management Association

American Management Association (AMA) is a world leader in professional development and performance-based learning solutions.

AMA provides individuals and organizations worldwide with the knowledge, skills, and tools to achieve performance excellence, adapt to changing realities, and prosper in a complex and competitive world. Each year thousands of customers learn new skills and behaviors, gain more confidence, advance their careers, and contribute to the success of their organizations. AMA offers a range of unique seminars, workshops, conferences, customized corporate programs, online learning, newsletters, journals, and AMA books.

AMA has earned the reputation as a trusted partner in worldwide professional development and management education that improves the immediate performance and long-term results for individuals and organizations. For more information on how you and your organization can gain a competitive advantage, visit www.amanet.org

About the Human Resource Institute (HRI)

For more than 30 years, the Human Resource Institute (HRI) has been dedicated to providing world-class research in people management issues, trends, and practices. HRI, a not-for-profit organization affiliated with the University of Tampa, is widely recognized as one of the top five institutes of its kind in the United States. HRI provides its more than 100 corporate members with accurate and timely research that helps facilitate a better understanding of all the people management issues that organizations face today as well as the trends that are shaping the future. Currently, HRI is following approximately 150 demographic, social, economic, technological, political, legal, and management trends. For more information, contact Jay J. Jamrog at jamrog@hrinstitute.org

About This Report

This report is based on a global survey that included more than 1,365 respondents, in-depth discussions among a team of sustainability researchers and thinkers, and an extensive review of the sustainability literature. The American Management Association commissioned the Human Resource Institute to undertake the project. This report:

- » takes a historical look at the history of sustainability
- » discusses what's driving and influencing sustainability today
- » describes today's state-of-the-art sustainability practices
- » provides three scenarios on what the future of sustainability might bring
- » provides an appendix that details the results of the *2007 AMA/HRI Sustainability Survey*.

For more information about American Management Association
www.amanet.org • 1-800-262-9699

American Management Association • New York
Management Centre Europe • Brussels
Canadian Management Centre • Toronto
American Management Association • Mexico City
American Management Association–Japan • Tokyo
American Management Association China • Shanghai