

# Introduction The Environmental Lens

## **SONY'S VERY EXPENSIVE CHRISTMAS**

In the weeks before Christmas 2001, the Sony Corporation faced a nightmare. The Dutch government was blocking Sony's entire European shipment of PlayStation game systems. More than 1.3 million boxes were sitting in a warehouse instead of flying off store shelves. Was this a trade war or an embargo against violent video games? Sony executives probably wished it were something that easy to fix.

So why was Sony at risk of missing the critical holiday rush? Because a small, but legally unacceptable, amount of the toxic element cadmium was found in the cables of the game controls. Sony rushed in replacements to swap out the tainted wires. It also tried to track down the source of the problem—an eighteen-month search that included inspecting over 6,000 factories and resulted in a new supplier management system. The total cost of this “little” environmental problem: over \$130 million.

Sony executives refer to their PlayStation disaster as the “Cadmium Crisis.” They’ve vowed never again to be caught unaware of environmental risks. In fact, they’re now much more familiar with their own operations as a result of hunting down the problem.

So what can we learn from all this? Did an environmental ogre get what it deserved? Hardly. Sony has been a business powerhouse for years, and despite a few hiccups, the company is also generally perceived as an environmental leader. Nothing, in fact, foreshadowed the PlayStation stumble, yet it happened. Why? From Sony’s difficult experience, we draw three lessons:

- Even the best companies can be surprised by environmental issues.
- The environment is not a fringe issue—it can cost businesses real money.
- Real benefits can come from seeing things in a new light.

## **BP AND “LOOKING FOR CARBON”**

While Sony’s game systems sat in a warehouse, another very large but very different company was counting the money it saved when it sharpened its environmental focus and started looking at its business in a different way.

BP’s chief executive, Lord John Browne, committed the company to reducing its emissions of the greenhouse gases that contribute to global warming, especially carbon dioxide. Browne told all of BP’s business units to find ways to produce less of these gases. And they did. After three years of what insiders call “looking for carbon,” BP discovered numerous ways to cut emissions, improve efficiency, and save money. A lot of money.

The initial process changes cost BP about \$20 million but saved the company an impressive \$650 million over those first few years. As of 2006, the savings topped \$1.5 billion. In a low-key British way, BP executives told us that they were floored by the outcome. Nobody had dared imagine such an absurdly high return on investment. As Browne has said, “We set out to do good . . . and we ended up doing well.”

Was BP radically inefficient before this program? Far from it. The company had just never looked at its operations with an eye toward

reducing greenhouse gas emissions. Once it did, innovation flourished, all to the benefit of the bottom line.

Looking at all the ways environmental issues affect a business can frame thinking and strategy in a new way. By examining their business through an environmental “lens,” managers can avoid expensive problems and create substantial value. Thus, we add a fourth lesson to the three we drew from Sony’s experience—and this is the fundamental one:

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**Smart companies seize competitive advantage through strategic management of environmental challenges.**

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BP and Sony learned what some companies already knew: The Business world and the natural world are inextricably linked. Our economy and society depend on natural resources. To oversimplify, every product known to man came from something mined or grown. The book you’re reading was once a tree; the ink these words are printed in began life as soybeans. The environment provides critical support to our economic system—not financial capital, but natural capital. And the evidence is growing that we’re systematically undermining our asset base and weakening some of our vital support systems.

In other words, an environmental lens is not just a nice strategy tool or a feel-good digression from the real work of a company. It’s an essential element of business strategy in the modern world. It provides a way for businesses to contend with the real problems of pollution and natural resource management. Mismanaging these issues can drain value out of a company quickly—and damage brand reputations built up over decades of careful cultivation. That’s why leading companies have learned to manage environmental risks and costs as closely as they do other risks and costs. In doing so, they reduce the risk to the whole enterprise.

But the upside is equally important. In the chapters that follow, we’ll explore how leading companies are layering environmental (of-

ten called “green”) factors into their corporate strategies—spurring innovation, creating value, and building competitive advantage. These leaders see their businesses in fresh ways. They create new products to meet environmental needs. As they look up and down the value chain, they keep environmental impacts firmly in mind. They know that working to protect the planet also protects their own companies—by safeguarding their assets, inspiring current employees, and attracting valuable new “knowledge workers” looking for more than a paycheck.

In *Green to Gold*, we take you inside leading companies, across industries, and around the world. We show you the real costs, hard choices, and trade-offs companies face when they make environmental thinking part of their core business strategy. Pundits who dismiss the natural world as an issue—or commentators on the other “side” who underestimate the difficulties businesses face in executing environmental strategies—do neither the business world nor the planet any favors.

By systematically analyzing the experiences of dozens of companies, we’ve been able to extract the key strategies, tactics, and tools that are needed to establish an environmentally based competitive advantage. In a marketplace where other points of competitive differentiation, such as capital or labor costs, are flattening, the environmental advantage looms larger as a decisive element of business strategy. Indeed, no company can afford to ignore green issues. Those who manage them with skill will build stronger, more profitable, longer-lasting businesses—and a healthier, more livable planet.

## Part One **Preparing for a New World**

In the first few chapters, we lay out the context for this book, highlighting how environmental challenges have become an important part of the business landscape. In Chapter 1, we introduce the “Green Wave” sweeping the business world, and we present the logic for making environmental thinking a core part of strategy. We also spell out some of the “mega-forces,” like globalization, that give the new environmental imperative greater prominence. Finally, we provide an overview of how we conducted our research and picked the companies that are the focus of this book.

Chapters 2 and 3 introduce the new pressures—both natural and human—coming to bear on companies. These forces make attention to environmental strategy essential for business success. We start in Chapter 2 by highlighting the environmental problems facing humanity and every company, ranging from global warming to water shortages. For each issue in our environmental primer, we offer a crisp summary of the problem, a review of the possible range of effects, and an analysis of how the problem might affect business.

In Chapter 3, we review the growing array of environment-oriented “players” on the field of business. We map 20 different categories of stakeholders from traditional government regulators to powerful nongovernmental organizations (NGOs) to increasingly environmentally focused banks. We highlight the questions these groups are asking about how companies operate.

In brief, this section explains how and why the environment has emerged as a critical strategic issue for companies of all sizes. It sets the stage for our tour of the critical elements of corporate environmental strategy. And it shows how careful thinking about the environment can provide a new basis for competitive advantage.

## Chapter 1 Eco-Advantage

Washington, D.C.: General Electric CEO Jeff Immelt announces a new initiative, “ecomagination,” committing the mega-manufacturer to double its investment in environmental products—everything from energy-saving lightbulbs to industrial-sized water purification systems and more efficient jet engines. Backed by a multi-million-dollar ad campaign, Immelt positions GE as the cure for many of the world’s environmental ills.

Bentonville, Arkansas: In a speech to shareholders, Wal-Mart CEO Lee Scott lays out his definition of “Twenty First Century Leadership.” At the core of his new manifesto are commitments to improve the company’s environmental performance. Wal-Mart will cut energy use by 30 percent, aim to use 100 percent renewable energy (from sources like wind farms and solar panels), and double the fuel efficiency of its massive shipping fleet. In total, the company will invest \$500 million annually in these energy programs. Moreover, in a move with potentially seismic ripples, Wal-Mart will “ask”

suppliers to create more environmentally friendly products: some of the fish Wal-Mart sells will have to come from sustainable fisheries, and the clothing suppliers will use materials like organic cotton. “We believe that these initiatives will make us *a more competitive and innovative company*,” Scott emphasizes.

By either market cap or sales, GE and Wal-Mart are two of the biggest companies in human history. Neither company springs readily to mind when you say the word “green.” But these are not isolated stories. Companies as diverse as Goldman Sachs and Tiffany have also announced environmental initiatives. As the *Washington Post* observed, GE’s move was “the most dramatic example yet of a green revolution that is quietly transforming global business.”

What’s going on? Why are the world’s biggest, toughest, most profit-seeking companies talking about the environment now? Simply put, because they have to. The forces coming to bear on companies are real and growing. Almost without exception, industry groups are facing an unavoidable new array of environmentally driven issues. Like any revolution, this new “Green Wave” presents an unprecedented challenge to business as usual.

## NEW PRESSURES

Behind the Green Wave lie two interlocking sources of pressure. First, the limits of the natural world could constrain business operations, realign markets, and perhaps even threaten the planet’s well-being. Second, companies face a growing spectrum of stakeholders who are concerned about the environment.

Global warming, water scarcity, extinction of species (or loss of “biodiversity”), growing signs of toxic chemicals in humans and animals—these issues and many others increasingly affect how companies and society function. Those who best meet and find solutions to these challenges will lead the competitive pack.

The science, we stress, is *not* black and white on all these issues. Some problems, like ozone layer depletion or water shortages, are fairly straightforward. The trends are plainly visible. On other issues—climate change most notably—uncertainties persist, but the evidence is clear enough and the scientific consensus strong enough to warrant action.



## THE EVOLVING CHALLENGE

Environmental worries used to center on “limits to growth” and the prospect of running out of key natural resources like oil and industrial metals. These concerns have often been overblown. A second line of concerns focused on pollution and has proven to be more enduring. We now know that humans *can* overwhelm the capacity of nature—from local waterways to the global atmosphere—to absorb pollutants or to provide the essential “ecosystem services” we need, such as fresh water, breathable air, a stable climate, and productive land.

A broad-based set of players now insists on attention to these issues. Government, the traditional superpower of influence on corporate behavior, has not gone away. Far from it. Regulators worldwide no longer turn a blind eye to pollution. Citizens simply won’t allow it. Across all societies, we see serious efforts to control emissions and make polluters pay for the harm they cause.

Other actors, however, now play prominent environmental roles on the business stage. NGOs, customers, and employees increasingly ask pointed questions and call for action on a spectrum of issues. To give just one example, HP says that in 2004, \$6 billion of new business depended in part on answers to customer questions about the company’s environmental and social performance—up 660 percent from 2002. These demands reshape markets, create new business risks, and generate opportunities for those prepared to respond.

The breaking news is the arrival of a new set of stakeholders on the environmental scene, including banks and insurance companies. When the financial services industry—which focuses like a laser on return on investment—starts worrying about the environment, you know something big is happening. Wall Street stalwart Goldman Sachs announced that it would “promote activities that protect forests and guard against climate change.” The company said it would “encourage” its clients to act greener and pledged \$1 billion for investment in alternative energy, having already bought a company that builds wind farms. Even for Goldman, a billion dollars is not a token gesture. JPMorgan, Citigroup, and other big names have made similar commitments—and they have signed on to the “Equator Principles,” which require environmental assessments of major loans.

For a painful example of how this one-two punch of natural forces and new stakeholders can slam a company, just ask Coca-Cola's two most recent ex-CEOs, Doug Ivestor and Doug Daft. Within the past five years alone, the world's largest soft-drink manufacturer faced angry protests in India over its water consumption, came under pressure to stop using refrigerants that hurt the ozone layer, and withdrew its flagship bottled water Dasani from the British market after the supposedly purified drink failed European Union quality tests. Today, the company has a vice president dedicated to water and environment issues, Jeff Seabright, and a new CEO, Neville Isdell, who works closely with the company's Environmental Advisory Board, on which one of us (Dan) serves.

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**Environmental missteps can create public relations nightmares, destroy markets and careers, and knock billions off the value of a company. Companies that do not add environmental thinking to their strategy arsenal risk missing upside opportunities in markets that are increasingly shaped by environmental factors.**

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## **THE BUSINESS CASE FOR ENVIRONMENTAL THINKING**

We see three basic reasons for adding the environmental lens to core strategy: the potential for upside benefits, the management of downside risks, and a values-based concern for environmental stewardship.

### **The Upside Benefits**

Nobody, not even market-savvy Toyota, could have predicted the success of its hybrid gas-electric Prius. Given the poor track record of electric vehicles, this leap of faith was anything but a clear path

to profit. Yet Toyota executives saw potential value down the road, and they could not have been more correct. After a decade-long research push, the Prius was named *Motor Trend's* Car of the Year in 2004, by which time customers were waiting six months to get their hybrid cars. While Detroit was nearing bankruptcy, laying off tens of thousands of workers, and offering “employee discounts” to everybody, Toyota was raising prices, expanding production, collecting record profits of \$11.8 billion in 2006, and closing in on the title of world's largest automaker.

Toyota's green focus is no accident. In the early 1990s, when Toyota wanted to design the 21st-century car, it made the environment a major theme, ahead of all the selling points that automakers traditionally used: size, speed, performance, or even ability to attract beautiful girls or hunky guys. Smart move.

Similarly, BP has rebranded itself as an energy company, preparing to move “beyond petroleum” and investing in renewable energy. These companies have figured out that it's better to remake your marketplace and eat your own lunch before someone else does.

Our research suggests that companies using the environmental lens are generally more innovative and entrepreneurial than their competitors. They see emerging issues ahead of the pack. They are better prepared to handle the unpredictable forces that buffet markets. And they are better at finding new opportunities to help customers lower their costs and environmental burden. By remaking their products and services to respond to customer needs, they drive revenue growth and increase customer loyalty.

The “gold” that smart companies mine from being green includes higher revenues, lower operational costs, and even lower lending rates from banks that see reduced risk in companies with carefully constructed environmental management systems. They also reap soft benefits, from a more innovative culture to enhanced “intangible” value, credibility, and brand trust.

Scholars and pundits have noted that businesses now face a world where traditional elements of competitive advantage, such as access to cheaper raw materials and lower cost of capital, have been commoditized and whittled away. On this altered playing field, going green offers a vital new path to innovation and to creating enduring value and competitive advantage. Nike executive Phil Berry puts it

simply: “We have two maxims. Number 1: It is our nature to innovate. Number 2: Do the right thing. But everything we do around sustainability is really about number one—it’s about innovation.”

### The Downside Risks

Inside oil giant Shell, executives use the acronym TINA—There Is No Alternative—to explain why they do some things. To them, thinking about how climate change affects their business or caring how stakeholders feel about the company is no longer optional. It’s just a fact of life. Even through well-publicized problems with local communities and governments in places like Nigeria, Shell has continued to hone its stakeholder relations skills. The company spends millions of dollars working with the people living around key oil and gas projects such as the massive Athabasca Oil Sands in British Columbia, Canada.

As head of Shell’s famed scenarios group, Albert Bressand helped the executive team think about what could hurt the company in the long term. As he told us, “We are a prisoner of the market. . . . there are people who can remove our license to operate.”

The idea behind license to operate is simple: society at large *allows* companies to exist and gives them a certain leeway. If your company oversteps the bounds, societal reactions can be harsh and, in severe cases, destroy the company. Former partners of Arthur Andersen learned that lesson at great cost when the accounting giant vanished in the wake of the Enron scandal. Or remember the case of chemical industry leader Union Carbide? After the company’s 1984 disaster in Bhopal, India, which killed over 3,000 people, Union Carbide’s future fell apart until finally it was swallowed by Dow.

More pointedly, society’s expectations about company behavior are changing. A company that abuses the local environment can find it impossible to get permits to expand operations. Regulators, politicians, and local communities raise fewer barriers for good neighbors.

Heavy industries are especially aware of this social license issue, but others feel the heat as well. After years of unfettered expansion, Wal-Mart has come under fire from protestors who contend that the company’s stores increase sprawl, destroy wetlands, and threaten wa-

ter supplies. In some communities, regulators have joined the chorus and begun to impinge on the retail giant's expansion plans. In internal meetings, Lee Scott told Wal-Mart executives that their sustainability efforts would help protect the company's "license to grow."

Environmental challenges can seem like a series of small holes in a water main, slowly draining value from the enterprise. Or they can appear suddenly as major cracks in a dam and threaten the entire business. Maybe the problem is unexpected costs for pollution control or a cleanup for which nobody budgeted. Maybe it's a very public disaster like the *Exxon Valdez*. Sometimes, too, the downside of mismanaging these issues can get very personal. Executives who preside over the mishandling of toxic waste, for example, can face jail time.

Efforts to cut waste and reduce resource use, often called "eco-efficiency," can save money that drops almost immediately to the bottom line. Redesign a process to use less energy, and you'll lower your exposure to volatile oil and gas prices. Redesign your product so it doesn't have toxic substances and you'll cut regulatory burdens—and perhaps avoid a value-destroying incident down the road. These efforts lower business risk while protecting the gold—reliable cash flows, brand value, and customer loyalty, for example—that companies have painstakingly collected over time.

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**Smart companies get ahead of the Green Wave and lower both financial and operational risk. Their environmental strategies provide added degrees of freedom to operate, profit, and grow.**

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### **The Right Thing to Do**

Repeatedly during our research we asked executives why their companies launched environmental initiatives, some of which cost significant money up front and had uncertain paybacks. More often than

you might imagine—and far more often than we first expected—they said that it was the right thing to do.

Is the case for thinking and acting environmentally based on values? Not primarily. At least that's not what we heard from the executives we interviewed. For most of them, the moral argument was not a separate imperative. It was deeply intertwined with business needs. Building a company with recognized values has become a point of competitive advantage, whether you have 2 employees or 200,000. Doing the right thing attracts the best people, enhances brand value, and builds trust with customers and other stakeholders. In fact, it's hard to conceive of a business asset more central to long-term success than trust among stakeholders—or one that is more easily lost. As investing legend Warren Buffett once said, “It takes twenty years to build a reputation and five minutes to ruin it. If you think about that, you'll do things differently.”

Even those who agree with Nobel Prize–winning economist Milton Friedman that the main “social responsibility of business is to increase its profits” can't ignore the growing ranks who believe that companies have an obligation to do more. The logic of corporate environmental stewardship need not stem from a personal belief that caring for the natural world is the right thing to do. If critical stakeholders believe the environment matters, then it's the right thing to do *for your business*.

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**Environmental leaders see their businesses through an environmental lens, finding opportunities to cut costs, reduce risk, drive revenues, and enhance intangible value. They build deeper connections with customers, employees, and other stakeholders. Their strategies reveal a new kind of sustained competitive advantage that we call Eco-Advantage.**

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## **MAGNIFYING FORCES**

The Green Wave, with its threats and opportunities, rises within a business landscape already in the throes of radical change. Companies face a number of mega-trends that interact with the effects of the Green Wave, accelerating change and magnifying its impact and scope.

### **Globalization and Localization**

As author Thomas Friedman describes it, outsourcing is just the tip of the iceberg. The “flattening” of the global markets for goods and services will disrupt nearly all industries. The continued rise of both China and India seems likely to have a profound effect on businesses across the world, especially in North America and Europe.

Economic integration and trade liberalization intensify competition. Globalization creates opportunities for many, but fundamentally rewards scale. Size, however, creates suspicion of excess power. Large enterprises come under extra scrutiny for their business practices, including environmental impacts.

Simultaneously, the world is fragmenting, with niche markets demanding tailored products and services. For example, in many of its restaurants in India, McDonald’s serves curry, not its brand-defining hamburgers. Operating in ways that respond to localized needs and preferences is becoming essential. The scale of environmental issues, ranging from entirely local to inescapably global, only adds to the complexity of this already daunting management challenge.

### **Insecurity**

The security tensions that have swept through the United States and much of the rest of the world in the wake of 9/11 are changing public attitudes and the political landscape. Beyond fears of terrorism, there’s a growing public distress over reliance on oil from the Middle East. Increasingly, people express a willingness to pay a premium for fuel supplies closer to home, including alternative energy sources such as wind or solar power. Thus, the energy future looks very different from the past, with profound environmental consequences.

**Government ↓, Business ↑**

While the era of big government is over, public expectations about the role of business in meeting society's needs are rising. Many would say the regulatory system in America is becoming less burdensome, but in Europe regulations seem to be weighing more heavily on business. What's common throughout the world is that companies are being asked to do more voluntarily, not just for the environment but for a constellation of social issues including poverty alleviation, education, and health care. The debate about the appropriateness of these expectations rages on, but the trend is clear. An intensified focus on corporate social responsibility, or CSR, is here to stay.

Big business faces even more elevated expectations. Multinational companies, with their global reach and ubiquitous effects, are held to higher standards than are smaller companies. To those whom much is given, much is expected. When operating on foreign soil, companies must expect especially intense scrutiny. One telling example: While Coca-Cola faces ongoing protests in India over its water use at a plant in Kerala, the Indian-owned Kingfisher brewery down the road, which uses far more water, draws no political ire.

**Rise of the Middle Class in Emerging Economies**

Let's look at just one statistic: The number of cars in China and India is predicted to rise from about 17 million today to 1.1 *billion* (yes, billion) by 2050. The addition of hundreds of millions of working, middle-class people in the developing world, all seeking a Western quality of life, will shake up nearly every industry. For those who are prepared, this new market offers considerable opportunity. But the same growth in consumption threatens to destroy natural resources and inflict pollution on the planet on an unprecedented scale.

**Continuing Pressure from Poverty**

Despite substantial middle-class growth, particularly in Asia, many parts of the developing world continue to struggle with chronic poverty. Expanding populations strain limited resource bases. Poverty forces short-term thinking that translates into environmental degra-



dation. People cut down trees for fuel, for example, without regard to the soil erosion and other negative consequences that follow.

So while the rise of a consuming middle class creates one set of environmental threats, persistent poverty represents an equally serious social and ecological challenge that the business world avoids at its own risk. As a top executive from ABN AMRO Real—the Brazilian subsidiary of the Dutch bank and a company on the front lines in the developing world—observed, “Companies cannot succeed in societies that fail.”

### **Better Science and Technology**

The science underlying many environmental problems is getting clearer. But the downside of clarity is an increased obligation to respond. “Biomonitoring” and more sensitive measurement tools can now identify—at trace levels—virtually every chemical or emission found in the environment, whether in a polar bear in the Arctic Circle or in the breast milk of a woman in Ohio. Even exposures at the parts-per-billion level can trigger calls for action from an expanding army of advocacy groups. On the positive side, new developments such as nanotechnologies could provide solutions to environmental ills—and create market opportunities for entrepreneurial businesses.

### **Transparency and Accountability**

“The web changes everything” seems like yesterday’s news, but the ripples of the Digital Age continue to move through our economy and society. The famous “Moore’s Law” predicts that the density of transistors on a microchip will double every 18 months. This trend has held for 40 years and relentlessly drives computing power up and the costs of digital technology down. For billions of people, an endless variety of information—and perhaps a degree of disinformation—is just a click away.

The unprecedented level of transparency provided by the Internet is transforming the business world. With bloggers everywhere, including inside companies, anything that goes wrong anywhere in your operations—or in your suppliers’ operations—can hit the web nearly instantaneously. As the *New York Times* put it, the Internet

“has given the angry voices a more public outlet. The blogosphere is rife with postings castigating Coca-Cola, Wal-Mart, and other big companies, citing everything from water consumption to unfair labor practices and dangerous smokestack emissions.” And this is not just idle chatter among uber-geeks. The conversations that bloggers start can move from cyberspace to Main Street in the blink of an eye.

In a world of rising transparency and low-cost information, *who* is responsible for *what* becomes increasingly clear. As pollution and toxic chemicals become easier to track back to their sources, we will know which companies created them, shipped them, used them, and disposed of them. No question about it: *Full* accountability is the emerging norm.

## WHO SHOULD CARE

For some enterprises, a new green perspective will be transformative, leading to fresh thinking, new markets, profitability gains, and increased value. For others, the environmental lens may emerge more gradually and modestly, as another critical *element* of corporate strategy. With time, these companies may find long-term, sustained advantage, but not dramatic immediate gains, from being green. For the big, heavy industries, the gains are closer to being assured. But smaller and “cleaner” companies will find surprising benefits as well.

In today’s world, no company, big or small, operating locally or globally, in manufacturing or services, can afford to ignore environmental issues. Of course, the opportunities and risks posed by the Green Wave vary by company and by industry. Context matters in the push for Eco-Advantage. No single strategy or tool will work in all companies or all circumstances. But Green Wave dynamics have become a fact of business life for nearly every organization. Companies that dive beneath the wave, submerging themselves in the hope that it will pass, will be disappointed by its enduring presence and pounding tenacity.

### Why Small Businesses Should Care

What about small businesses? Can they sit this one out? In a word, no. Here are five reasons why.

- Laws that once applied only to big business are encroaching on smaller enterprises. Even bakeries and gas stations must now comply with clean air regulations.
- Going after the consumption choices of individuals remains difficult politically, but advocacy groups have no problem demanding that small businesses curb their impacts. So while personal cars may not come under NGO attack, the emissions from taxi fleets or delivery services make a relatively attractive target.
- The Information Age is reducing the costs of pursuing smaller-scale actors. New sensors, information systems, and communications technologies make tracking pollution and monitoring regulatory compliance cheaper every day. Even tiny enterprises now find it hard to fly under the radar.
- Large customers are putting pressure on small-business suppliers to comply with environmental standards. One little New York-based software developer we know found itself answering tough questions posed by a Tokyo-based telecom company with an aggressive auditing program for its supply chain. To stay on the list of preferred suppliers, the company had to implement an Environmental Management System—much more than a company its size would normally do.
- Small companies can be more nimble than their larger competitors. Entrepreneurial businesses can move quickly to take advantage of changing circumstances or meet niche demands. Q Collection, a “sustainable” home furnishings company, produces couches, tables, and chairs without toxic dyes and with wood sourced entirely from sustainably-managed forests. The furniture is priced at the high end of the market, but the company has found a customer base of interior designers who want the natural option. And Hawaii-based Kona Blue has launched an environmentally friendly fish farm to meet the growing demand for fish raised free of hormones and antibiotics.

## **WHAT DOES A COMPANY SEEKING ECO-ADVANTAGE LOOK LIKE?**

We studied dozens of companies during our four years of research. A few have not evolved in their thinking since the 1970s. They are still grouching about legislation and complying with it grudgingly.

## WHO SHOULD CARE THE MOST?

While we think this book is useful for anybody interested in a healthy environment and a healthy business community, clearly some companies need to worry about these issues more than others. And some sectors are poised for greater upside potential. We see growing risks and rewards for companies with:

- **High brand exposure.** Companies with substantial goodwill and intangible value (including Coca-Cola, Procter & Gamble, and McDonald's) face special challenges.
- **Big environmental impact.** Those in extractive industries or heavy manufacturing (BP, Exxon, Alcoa, and LaFarge, for example) must expect growing scrutiny.
- **Natural resource dependence.** Companies that sell fish, food, and forest products (such as Cargill, Nestlé, and International Paper) are likely to be on the front lines as society faces very real natural limits.
- **Current exposure to regulations.** Environmental strategy questions play a particularly important role for those handling hazardous materials (DuPont) or operating in heavily regulated industries like utilities (AEP).
- **Increasing potential for regulation.** Automakers and electronics producers (like Ford and Intel) are facing new challenges with European “takeback” laws that require manufacturers to handle the disposal of their products *after* their customers are done with them.
- **Competitive markets for talent.** Companies in the service sector and the “new economy” (such as Citigroup, Intel, or Microsoft)—where primary assets can walk out the door if they are displeased with the company’s values—must stay on top of environmental issues.
- **Low market power.** Companies that rely on big customers that may start asking questions about environmental performance (most small-to-medium B2B companies) may be forced to raise their game. At the same time, those in highly competitive industries (such as small waste-handling businesses) will be hard pressed to step out in front of the competitors with initiatives that add costs or may not pay off for a long time.
- **Established environmental reputations.** Those with problematic histories should expect extra scrutiny. Companies with good track records will get more leeway—and may benefit from goodwill in the marketplace.

Others have begun to see the business opportunities in going “beyond compliance.” A few have embarked on bold new initiatives to provide solutions to the world’s environmental ills—like GE’s plan to sell renewable energy, efficient power generation, water purification, and much more.

The companies who “get” the interface between environmentalism and business—the ones that are on their way to reducing their environmental impacts, or “footprints,” while generating significant profits and sustained Eco-Advantage—have no single profile. They range from global conglomerates to niche textile makers. However, we found certain patterns. The leading-edge companies go beyond the basics of complying with the law, cutting waste, and operating efficiently. They fold environmental considerations into all aspects of their operations. Specifically, they:

- design innovative products to help customers with their environmental problems or even create new eco-defined market spaces;
- push their suppliers to be better environmental stewards or even select them on that basis;
- collect data to track their performance and establish metrics to gauge their progress;
- partner with NGOs and other stakeholders to learn about and find innovative solutions to environmental problems;
- build an Eco-Advantage culture through ambitious goal-setting, incentives, training, and tools to engage all employees in the vision.

For the top-tier companies, environmental management started out as something they had to do. But that’s no longer the case. They’ve evolved to the point where environmental *management* is second nature and their focus is now on mining the gold in environmental *strategy*.

## **ENVIRONMENTAL STRATEGY, SUSTAINABILITY, AND CORPORATE SOCIAL RESPONSIBILITY**

Companies find many ways to talk about how they handle environmental and social issues. Some focus on “triple bottom line” perfor-

mance or sustainability. Others frame their work in terms of corporate social responsibility, stewardship, citizenship, or environment, health, and safety. Any of these approaches can serve to galvanize action and create Eco-Advantage. The key lies in execution—including environment and social issues in business operations. But each company needs to find the language and organizational structures that work within its own culture.

At the operational level, managing sustainability issues, no matter what the company calls them, works best with a defined focus. Thinking about environmental challenges alongside social issues such as health care, poverty alleviation, or how to serve the “bottom of the pyramid”—the untapped market of the world’s poorest people—quickly becomes daunting. Our research suggests that the skills needed to manage environmental issues and social concerns are quite distinct. For example, what’s required to ensure that a company complies with air-pollution permits, say, will have little similarity to what’s needed to develop a strong employee wellness program.

Moreover, the environmental agenda has a concreteness that’s often lacking on the social side. Obligations under the law are generally much clearer in the environmental realm, as are the opportunities for gaining a competitive advantage while doing the right thing. This is not to say that social issues are unimportant. Indeed, some are moral imperatives. As Professor David Vogel of Haas Business School has demonstrated, however, the *business case* for taking up the social agenda is much harder to establish. For all of these reasons, we focus on defining the strategies and tools companies can use to take advantage of *environmental* opportunities.

### WHY SOCIAL ISSUES CAN'T BE IGNORED

While environmental and social issues pose different kinds of challenges, they both connect to corporate reputation. Any company that thinks it can cover shortcomings in social performance with strong environmental results is kidding itself. Wal-Mart, for example, has recently started to work on a range of issues from renewable energy to sustainable fishing to its impact on land use. But it shouldn't expect to win any prizes for corporate responsibility while falling short on basic social issues such as wages, health care, and labor relations.

## ECO-ADVANTAGE IS NOT EASY

We wish we could say that finding Eco-Advantage will be easy. But like excellence in any form, you have to work for it. We know this runs contrary to the message in many of the books and articles about “green business.” Ever since a few leaders like 3M demonstrated the payoffs of eco-efficiency, going green has been portrayed as a sure thing. Unfortunately, not every environmental effort produces win-win results.

Developing innovative products, bringing them to market successfully, keeping customers happy, and other elements of business success are difficult enough. Adding an environmental dimension opens up new opportunities but adds another layer of complexity to the management challenge. Gaining an edge means learning new skills, operating in new ways, and working through some hard trade-offs. In truth, the story is even more subtle. Some initiatives “fail” by traditional measures but create intangible value for a company. It’s often hard to tell when hard-to-measure returns are worth pursuing.

This book attempts to bring nuance to a frequently oversimplified discussion. We dig into real-world experiences in all their complexity, highlighting pathways to success but also analyzing initiatives that didn’t go as planned or absolutely flopped. We’ve extracted lessons, both positive and negative, from these case studies so that those now seeking Eco-Advantage don’t need to start at square one.

### WHY ENVIRONMENTAL INITIATIVES FAIL

Business strategies fail for many reasons, including poor planning, lack of commitment, and staffing the wrong people in key roles. But a few particular failings plague companies when they attempt to play in the environmental realm: focusing on the wrong issues, misunderstanding the marketplace, miscalculating customer reactions to green products, and failing to integrate environmental thinking fully into the work of the business. Chapter 10 reviews thirteen common stumbles that our research uncovered, but we’ll touch on some of them earlier in the book to highlight the challenges of the task executives have before them.

The bottom line: Environmental initiatives take no less work than other projects. And they fail just as often. Kermit the Frog was right: It’s not easy being green. But sound environmental strategy can be very rewarding.

## WHO'S RIDING THE GREEN WAVE?

Defining a leader in financial performance is fairly straightforward. Pick your metric—stock performance, cash flow, or net income—and find the companies with the best or the most. Determining who the *environmental* leaders are proves far harder. Reliable data are often not available. Companies tend to measure performance in their own ways, if at all. No set of commonly accepted standards has yet emerged. Fundamentally, the environmental arena lacks the structure and rigor provided in the financial realm by the Financial Accounting Standards Board.

We began our research by trying to identify leading companies using the information available. (The details of our methodology can be found in Appendix II.) We drew on the environmental and sustainability scorecards generated by the analysts at Innovest Strategic Value Advisors, Sustainable Asset Management (which Dow Jones uses to produce its sustainability index), and others in the field of socially responsible investing. We combined these rankings with our own data, including a survey of executives. After narrowing a field of 5,000 companies to 200, we examined concrete measures of environmental impact such as emissions and energy use. This process generated a list of leaders we call “WaveRiders” (see table). While they are unavoidably incomplete, these rankings provided a starting point for our in-depth company reviews and interviews.

We explored several dozen of these top companies in detail, seeking a diversity of industry, geography, and perspective on critical environmental issues. Aware that perception plays a large part in the rankings, we added to the mix a few companies that were too small to be noticed generally but were well-known in industry circles—outfits such as the Swiss textile manufacturer Rohner Textil. We also sought out leading companies that tend not to trumpet their environmental friendliness, like furniture maker Herman Miller or cell phone giant Nokia. Finally, we made a point of speaking to some companies, like GE and Coca-Cola, that have not been considered leaders but now are either expressly seeking Eco-Advantage or have elements of their operations that are top-notch and worth studying.

We've made no attempt to study *every* WaveRider. Some industries



**Top 50 WaveRiders**

	<b>United States</b>	<b>International</b>
1	Johnson & Johnson	BP
2	Baxter	Shell
3	DuPont	Toyota
4	3M	Lafarge
5	Hewlett-Packard	Sony
6	Interface	Unilever
7	Nike	BASF
8	Dow	ABB
9	Procter & Gamble	Novo Nordisk
10	SC Johnson	Stora Enso
11	Kodak	Philips
12	Ford	Bayer
13	IBM	Holcim
14	Starbucks	STMicroelectronics
15	Intel	Alcan
16	Xerox	Electrolux
17	McDonald's	Suncor
18	GM	Norsk Hydro
19	Ben & Jerry's	Henkel
20	Patagonia	Siemens
21	International Paper	Swiss Re
22	Alcoa	AstraZeneca
23	Bristol-Myers Squibb	Novozymes
24	Dell	IKEA
25	United Technologies	Ricoh

are so well represented that it would have been repetitive to spend time with all the companies. Other stories are too unique to yield guidance for the typical business. Patagonia, for example, is arguably the most environmentally focused company in the world, but it's owned almost entirely by the founder, Yves Chouinard, who prides himself on putting values ahead of profits. Indeed, he often jokes that he never wanted to be a businessperson.

We did not shy away from companies facing significant environmental challenges due to the inherent demands of their industries. Many of the WaveRiders are still big polluters—some of the biggest

in the world. But they have smaller footprints than others in their industries. We believe that relative position matters. As long as the demand exists for energy, chemicals, and metals, we think it's valuable to highlight those who do these dirty jobs best. But calling them leaders doesn't mean that their work is done. In many ways it's just beginning.

### **The Bottom Line**

Have WaveRiders been hurt by their focus on environmental matters? Much ink has been spilled trying to prove or disprove the connection between environmental and financial performance. We don't want to add to wild claims in either direction, but when we examine the stock performance of the publicly held WaveRiders versus the market overall, the trend is clear (see chart). These companies have easily outperformed the major indices in the last ten years. (And yes, Dell is on our list. But even without this high-flyer, the value of WaveRider stocks has outpaced the market.)

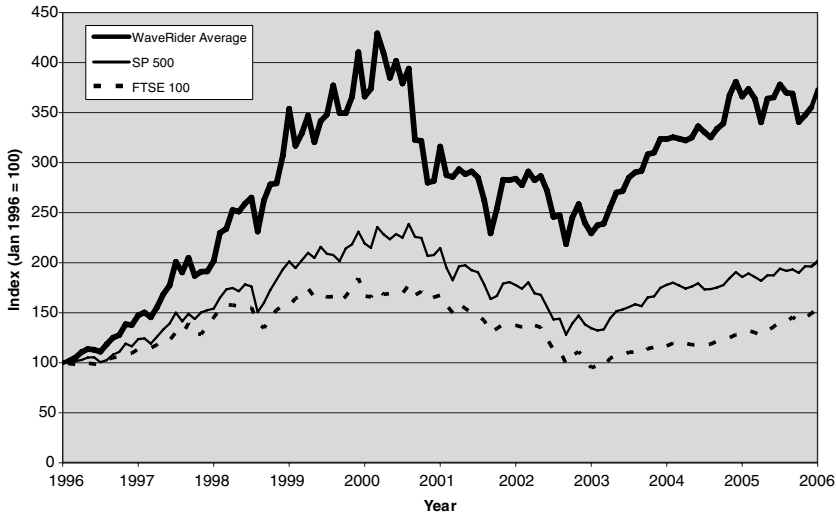
A word of caution: correlation is not causation. The relative stock market success of our WaveRiders might well be a function of high-quality management generally rather than any specific green focus. Indeed, a number of studies have demonstrated that environmental performance is a powerful indicator of overall management quality.

### **A Sustainable Path?**

No company we know of is on a truly long-term sustainable course. Three additional caveats are thus required:

- All of the WaveRiders are polluting and depleting the world's natural resource base to some extent.
- Many of the companies we highlight as leaders come from industries with serious environmental impacts, but the WaveRiders are "best in class" or have practices from which others can learn.
- Not every environmental investment the WaveRiders have made has paid off. In fact, all of these companies have failed at times. But, overall, their environmental focus has helped them competitively.

## Stock Performance of WaveRiders



These companies aren't perfect. Some are strong on one aspect of environmental performance but weak on others. But they are all making strides. They are demonstrating a new way of doing business. In these companies, we see evidence of how to obtain Eco-Advantage—and the beginnings of a shift toward a world where environmental protection and business success go hand in hand.

### THE PATH AHEAD

The chapters in Part One, “Preparing for a New World,” describe the business playing field that increasingly makes environmental thinking both profitable and necessary. Chapter 2 spells out the major environmental challenges that every company faces. It reviews the state of the debate on ten major environmental problems facing the business world and humanity. In Chapter 3, we turn to the stakeholders who care about these issues and can affect a company's fortunes deeply. We lay out a framework for thinking about five groups of players, including watchdogs (such as NGOs), agenda setters (think tanks), business partners (customers), communities, and investors (banks).

After this important stage-setting, we lay out the basic elements of an environmental strategy in Parts Two and Three (Chapters 4 to 9).

Part Two, “Strategies for Building Eco-Advantage,” provides the playbook. Chapters 4 and 5 describe the eight key “plays” for creating advantage from environmental thinking. We provide a framework for analyzing how these strategies reduce downside costs and risks or create upside opportunities—and whether the outcome is fairly certain or less bankable.

We turn to the nuts and bolts in Part Three, “What WaveRiders Do.” Chapter 6 spells out what leading companies do to foster an Eco-Advantage mindset. We lay out how WaveRiders make environmental thinking fundamental to their work. This approach sits at the core of a set of important tools and actions. Chapter 7 looks at how leading companies mine data, track their environmental performance, and work with others to refine their strategies. Chapter 8 explores the ways these leaders redesign their products and their supply chains. And Chapter 9 describes ways to build an Eco-Advantage culture that engages both top managers and line employees.

In Part Four, “Putting it All Together,” we provide an action agenda for building Eco-Advantage. Chapter 10 highlights what can go wrong on the path toward environmentally-driven competitive advantage. We review common pitfalls and demonstrate why so many environmental initiatives fail. In Chapter 11, we suggest a plan of attack with short-, medium-, and long-term action items drawn from the ideas and tools throughout the book. Finally, in Chapter 12, we review all of the elements required to execute an Eco-Advantage strategy.

## **GREAT TO GOOD**

Sometimes people need a crisis to focus the mind. Wal-Mart CEO Lee Scott was moved deeply by the devastation wrought by Hurricane Katrina in 2005. He was also profoundly proud of his company for how it helped storm victims. But the company’s finest hour got him asking:

What would it take for Wal-Mart to be that company, at our best, all the time? What if we used our size and resources to make this country and

this earth an even better place for all of us: customers, Associates, our children, and generations unborn? What would that mean? Could we do it?

Scott went on in his speech to make the business case for attention to environmental issues and concluded on a note that many corporate CEOs might find mushy. “For us,” he said, “there is virtually no distinction between being a responsible citizen and a successful business. . . . they are one and the same for Wal-Mart today.”

What is Lee Scott really driving at? We think it’s a new definition of greatness. As business guru Jim Collins so clearly demonstrated in his pathbreaking book *Good to Great*, companies need a deep vision, culture, and commitment, as well as a set of critical approaches, to make the move to lasting greatness. What Scott and other CEOs are saying is that great, in the traditional sense, isn’t really good enough anymore. GE’s Jeff Immelt put it most succinctly during his ecomagination kick-off speech: “To be a great company, you have to be a good company.”

Companies that are both great *and* good inspire. Customers feel strongly about those brands, and employees work harder (and have more fun doing it). Seeking Eco-Advantage is a challenging road filled with significant potholes. There’s no easy route from green to gold. But the WaveRiders are showing the way.