

White Paper

Smarter Ways to Green: How to Make Sustainability Succeed in Your Business.

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Patricia Calkins

Vice President

Environment, Health and Safety

Xerox Corp.

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White Paper

Smarter Ways to Green: How to Make Sustainability Succeed in Your Business.

The Ultimate Reality Check: Recognizing the profound significance of global warming and climate change.

**“Over the last 50 years, human activity has altered ecosystems at a faster rate and on a larger scale than at any time in human history.”
-U.N. Millennium Ecosystem Assessment**

In 2007, the Nobel Peace Prize was awarded to the United Nation’s Intergovernmental Panel on Climate Change (IPCC) for its exhaustive scientific research on global warming and climate change. The organization shared the award with former U.S. Vice President Al Gore, who produced the Oscar-winning documentary, *An Inconvenient Truth*.

A month after receiving the award, the IPCC published the final version of its breakthrough report, which was based on six years of research involving 2,500 scientists from 130 countries around the globe.

The report points out that atmospheric concentration of greenhouse gases has increased dramatically as the result of human activities, which range from the wholesale destruction of rain forests to the burning of fossil fuels in our cars and manufacturing plants.

One result of global warming is the prospect of catastrophic climate change that can lead to floods, droughts, desertification, an increase in extreme weather events, dramatic changes in precipitation and agricultural yields, forced migrations and political instability.

These potential problems are now discussed almost daily in scientific journals and newspapers around the world. At the same time, alarming environmental trends and events are already being documented.

- Ground levels have dropped 15 feet in parts of Alaska due to the melting of the permafrost.
- The snowcap that has covered Mount Kilimanjaro for 11,000 years has all but disappeared.
- The surface area of the world’s glaciers has decreased by 50 percent since the beginning of the 20th century.
- Spring butterflies now appear six days earlier in England than they did only 20 years ago.

“Things that normally happen in geologic time are happening during the span of a human lifetime,” Daniel Fagre, a scientist with the U.S. Geological Survey’s Global Change Research Program, told *National Geographic* magazine a few years ago.

As a result, the image of a helpless polar bear stuck on a melting ice floe has become an emotionally compelling symbol of the threat of unabated global warming to every living thing on earth.

Global warming isn't the only environmental problem.

The way we live our lives has also had a harmful impact on air and water quality and the natural forests that play such an important role in absorbing carbon dioxide.

In China, industrial pollution has had a damaging impact on rivers and lakes. As a result, current estimates say that as many as 300 million people in the world's most populous country may not have access to safe drinking water. Around the globe, the World Resources Institute estimates that as many as 1 billion people do not have safe, clean water to drink.

New studies from the developed world indicate that long-term exposure to air pollution is increasing rates of heart disease and premature deaths.

Due to slash-and-burn agriculture and other factors, the world's forests are being depleted, exacerbating the problem of global warming. In Indonesia and Central Africa, natural forests are even being cut down to grow crops that will be used in the development of biofuels. All told, the World Wildlife Federation estimates that the planet loses nearly 36 million acres of natural forest a year.

In addition, streams carrying nitrogen and phosphorus from farm fields in major agricultural areas are having a serious impact on coastal waters, creating "dead zones" in our oceans that cannot support fish or people. And an increasing number of countries in Africa, Asia and Latin America are experiencing critical water shortages. So is Australia, which is facing a severe, multi-year drought that has forced countless farmers into bankruptcy.

Water shortages are quickly becoming a major issue in the United States, too. The Governor of Georgia prayed for rain in a public ceremony in the fall of 2007. Even Minnesota—"Land of 10,000 Lakes"—is beginning to face water problems. And this unsettling list of examples of environmental degradation goes on and on.

The problems will only increase as developing nations develop.

Around the world today, 4 billion people fight to survive on the equivalent of about four U.S. dollars per day. But clearly, leaders in the developing world hope for a time when their people will rise to the living standards of the industrialized world.

But what are the implications of that kind of massive development? If 6 billion people try to live as U.S. citizens do today, the planet will go belly-up. In fact, according to the United Nations Environmental Programme (UNEP), it would take three Planet Earths to support everyone in a consumption-oriented Western lifestyle.

And remember, the population of the world is estimated to exceed 9 billion by the year 2050, which will only magnify all the environmental challenges we face today.

Sustainability: The new global moral imperative.

Given the wealth of evidence, there is only one rational way to respond to this looming crisis: We must adopt a sustainable global lifestyle ... clean up our air and waters ... and minimize our overall impact on the environment.

In other words, we must bring our human needs back into balance with the needs of the planet. We must also redefine the very concept of economic growth so that it no longer results in resource depletion and environmental degradation.

In a damaged world, sustainability and sustainable development are no longer ideals. They are vital necessities for the present ... and the future.

"Sustainable development can reduce vulnerability to climate change," says the IPCC's Summary for Policymakers (2007). "Many impacts can be avoided, reduced or delayed by mitigation."

"Sustainable development can reduce vulnerability to climate change ... Many impacts can be avoided, reduced or delayed by mitigation."

-The Intergovernmental Panel on Climate Change Fourth Assessment (2007).

Clear signs that the light is turning green.

Given the urgency of the situation, sustainability—which essentially is the ability to meet our own needs without adversely affecting future generations—has become the watchword of our age. And it has inspired a tidal wave of exciting green developments that ranges from recycling, renewable energy and hybrid cars to the redesign of products, packaging, factories and manufacturing processes. Intergovernmental efforts, public-private partnerships and market incentives to reduce greenhouse gas emissions are also an essential part of the equation.

In all of these efforts, businesses play a vital, transformative role.

“Sustainable development is development that meets the needs of the present without compromising the ability of further generations to meet their own needs.”

-World Commission on Environment and Development

Perceptual barriers to business progress.

Despite the incontrovertible importance of sustainability, many organizations today still struggle to justify a meaningful investment in green initiatives, because they perceive the efforts will generate added costs, not concrete business benefits.

This misperception presents a major problem for global progress. Because it's impossible to launch and maintain a substantive green improvement program in a profit-oriented organizational structure unless it delivers a definable ROI.

This quandary leads some companies to engage in green initiatives that lack real substance.

Since these efforts run the risk of being labeled greenwashing by watchdog environmental groups, the investment can do more harm than good, considering the potential for a public relations backlash and damage to the brand.

Proving the value of sustainability with “smarter ways to green.”

There is a pragmatic solution to this problem, however.

Case studies from virtually every industry show that it's possible for businesses today to develop green initiatives that will make a quantifiable contribution to both the environment and the bottom line.

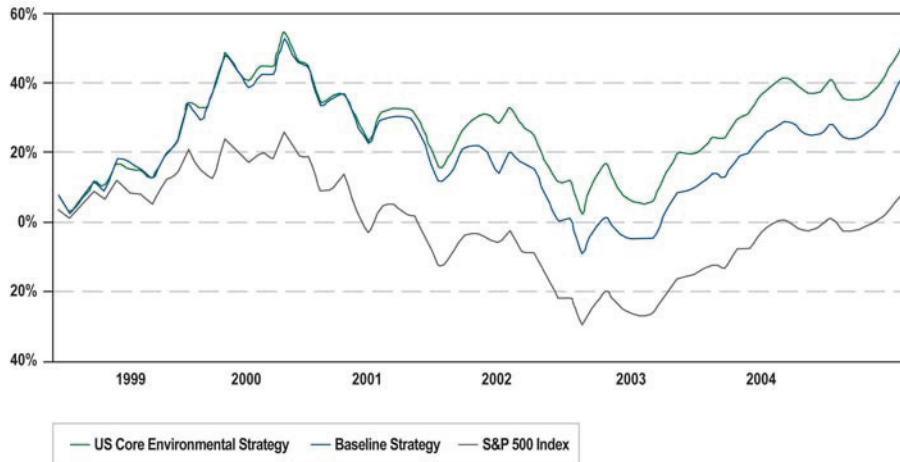
What's more, these efforts often deliver other qualitative benefits, including improvements in employee morale, customer loyalty and brand image, to name a few.

All of these valuable business results are definitely within reach when you take a disciplined, pragmatic and committed approach to the development and implementation of a smart green strategy.

It's all part of the effort to make sustainability succeed in the real-world context of your business. It's all part of finding “smarter ways to green.”

In addition, there is a growing body of evidence that suggests that companies with a proven commitment to the environment tend to outperform other companies in terms of their stock value.

A few years ago, for example, State Street Global Advisors and Innovest Strategic Value Advisors published a groundbreaking study that found a positive correlation between green policies and financial outperformance (see below). The green line tracks the performance of companies that make environmental issues a core part of their business strategy. The study corroborated earlier research on the topic.



Even a conservative interpretation of this correlation suggests two things:

- Well-managed companies today are concerned about sustainability.
- A sincere commitment to environmental progress is good for business.

The importance of this connection is also reflected in the increasing attention that investors and asset managers are giving to companies included in the Dow Jones Sustainability Indexes. These indexes—which were established in 1999—monitor the performances of companies that are playing a leading role in the global sustainability movement.

Consider it further proof that smart sustainability initiatives are now being viewed as a valuable asset to a company’s present ... and future.

“We have a basic notion that unless we find a solution for environmental problems, we will not achieve sustainable growth in the coming years.”

-Hiroyuki Watanabe, Managing Director, Toyota

“I always make the business case for sustainability. It’s so compelling. Our costs are down, not up. Our products are the best they have ever been. Our people are motivated by a shared higher purpose—esprit de corps to die for. And the goodwill in the marketplace—it’s just been astonishing.”

-Ray Anderson, founder of Interface, one of the world’s leading interior furnishings companies

A note on a pillow becomes the poster child for smart green success.

If you stay at a leading hotel chain today, you will probably find a note on your pillow asking if you want your sheets and towels to be changed on a daily basis.

The note will probably include a graphic of a leaf or another green symbol to show that the hotel is asking the question out of a deep sense of environmental responsibility. Less washing and drying helps reduce the hotel’s environmental impact. And that’s obviously a good thing.

If this initiative simply added cost to the hotel’s bottom line, however, it never would have become a best practice copied by leaders in the hospitality industry around the world.

But it did become a global best practice, because it represents a triple win—for the environment, the hotel and the hotel’s environmentally conscious guests.

Think about it. This sensible solution dramatically reduces the use of energy and soap, which is good for the planet. It also reduces the cost of maintaining rooms, which increases profits.

But there’s another important benefit as well, because this smart green practice makes travelers feel like they are making a valuable contribution to the future of the planet simply by reusing sheets and towels like they do at home. And that, in turn, builds customer loyalty and the hotel’s brand image.

Thanks to these advantages, this innovative practice is both successful and sustainable in the highly competitive, margin-conscious hospitality industry.

Green breakthroughs prove that progress is possible.

The example cited above proves that it’s possible to develop green innovations that help the environment and the balance sheet. And there are countless examples from virtually every other industry.

Manufacturers, service sector companies, professional service firms, retailers, Internet and telecommunications companies ... they are all finding smart ways to make sustainability work in their businesses. Here are just a few examples:

- The new 55-story Bank of America Tower in New York City uses a geothermal heat exchange system to help heat and cool the building. The building’s green design also reduces energy and water use. Most of the construction waste was recycled, too. That’s why *Business Week* has called the building “the most energy-efficient, water-saving and healthful office tower ever built.”
- General Mills redesigned the packaging of Hamburger Helper to conserve paperboard without reducing the product content. Thanks to increased shipping efficiency, product distribution now requires 500 fewer trucks per year.
- Interface, one of the world’s leading interior furnishings companies, formed an “Eco Dream Team” to design a safer and healthier way to run the business. The team helped the company cut the use of fossil fuels by 45 percent and landfill use by 80 percent.
- Hubbard Hall, a leading chemical distributor, has developed a series of green services to help customers track their chemical inventories, handle regulatory paperwork and properly dispose of hazardous containers. These services make a valuable contribution to the environment. They also help Hubbard Hall compete effectively with Internet direct marketers.
- 3M’s Pollution Prevention Pays (3P) program has helped eliminate more than 2 billion pounds of pollutants from the environment. When it was launched in 1970, it achieved \$1 billion in savings the very first year.
- The Xerox manufacturing plant for advanced EA Toner in Webster, New York, includes more than 3,000 sensors that maximize energy efficiency by optimizing heating, cooling and lighting.

Smarter Ways to Green: Seven keys to sustainability success in your business.

But how do you develop a green initiative that will pay off for your business?

Based on our long history of green innovations at Xerox—a history that dates back more than a quarter century and encompasses every aspect of our business—here are some of the keys to success:

1. Explore the entire value chain of your business.

Don’t narrow your focus to one functional area. Open your mind to improvements and innovations that could reduce environmental impacts throughout your value chain, from beginning to end.

When you take time to consider all of the working components of your value chain, you will dramatically expand the playing field for smart green initiatives.

2. Use disciplined, quantitative analysis to identify your best opportunities.

Analytical tools and methodologies developed for proven quality management programs like Lean Six Sigma can help you identify problems and opportunities that will produce the biggest benefits in the shortest time frame.

Pareto charts, for example, help focus attention on the small number of sources that cause the biggest problems. The chart is a tool based on the famous Pareto Principle—best known as the “80-20 rule”—which was named for Vilfredo Pareto, the Italian economist who noted that 80 percent of the income in Italy went to 20 percent of the population. *For more information on the use of Pareto charts, visit <http://www.isixsigma.com/tt/pareto>.*

A number of organizations—including Xerox—have also developed environmental calculators to help businesses and consumers assess their environmental impact on a number of key factors, including paper use.

These calculators provide information that can facilitate the development of smart green projects.

3. Make sure the proposed improvement or innovation will deliver both economic and environmental benefits.

In today's highly competitive business environment, quantifiable benefits are an essential requirement for any “smart way to green.” So it's important to assess the win-win potential of any project before you begin active development.

In a world where the effective utilization of resources is of paramount importance, there's simply no substitute for a disciplined analysis of costs and benefits prior to project development and launch.

4. Look for easy wins that will deliver a fast payback.

You may find ways to make a bigger impact down the road. But in the beginning, you need to win broad-based support for your efforts from senior leaders and other stakeholders.

Projects that produce a quick, concrete ROI will prove the value of sustainability inside your company and set the stage for more ambitious undertakings in the future.

Here are a few suggestions for quick easy wins that every company can take advantage of today.

- Cut paper use in half through duplex (double-sided) printing and copying.
- Replace hard-to-manage desktop printers, copiers and scanners with one efficient multifunction system that can reduce energy use by 50 percent.
- Use the scan to e-mail capabilities of modern multifunction systems to reduce the need to print and mail hard-copy documents.
- Switch to solid ink color printers (if it is the right application to suit your printing needs) to reduce waste up to 90 percent and eliminate the need to recycle toner cartridges.
- Use recycled paper or sustainable stocks like Xerox High-Yield Business Paper, which is made with half as many trees as standard paper for digital printing. Look for papers with certification from the Forest Stewardship Council. These papers are made from trees harvested in a way that protects endangered forests.
- Use Lean Six Sigma tools and methodologies to analyze your enterprise-wide document infrastructure and identify ways to optimize it in terms of environmental sustainability, operating costs and efficiency.
- Outsource document management to experts who will help you improve quality, lower costs and reduce energy and paper use by taking advantage of industry best practices and the latest technology.

All of these efforts can produce the quick easy wins that will advance the cause of sustainability in your organization.



Portrait of a partnership. Xerox invested \$1 million in an innovative partnership with the Nature Conservancy to help conserve the world's forests. This partnership also gives the Nature Conservancy the opportunity to promote sustainable forestry management practices to all of the paper suppliers in the Xerox value chain.

5. Think “partnerships.”

To maximize your opportunity for success, you need to team up with suppliers, customers, outsourcing providers and other partners.

At Xerox, for example, we work with all of the partners in our value chain to reduce waste, energy use, greenhouse gases and our overall environmental impact.

It's all part of our effort to achieve one of our long-standing company goals: *We want to operate waste-free manufacturing facilities that produce waste-free products that help our customers create waste-free work environments.*

Partnerships with leading environmental organizations can also be beneficial in advancing the cause of sustainability. After all, these organizations often have information and best practices that will help you reduce your environmental impact. They can also encourage your suppliers to adopt green policies and processes.

At a time in human history when global warming and climate change pose a threat to everyone, partnerships inside and outside the business world are essential for success—for a simple reason: They help us achieve much more ambitious goals than we ever could by working on our own.

6. Be innovative.

The necessity to reinvent our global lifestyle is driving innovation throughout the world.

Renewable energy ... green chemistry, design and construction ... green manufacturing and recycling processes ... they are all examples of what may some day be viewed as one of the most creative engineering periods in history.

In some cases, these innovations represent dramatic breakthroughs. The rapid commercialization of wind farms, geothermal energy sources and solar fields is an obvious example.

In other cases, green goals are inspiring evolutionary improvements in the way we approach virtually every business process, from the design of efficient factories and packaging and the development of new products to the optimization of document processes and the creative use of by-products and waste.

No question about it. Innovation is a vital cog in the big green machine. So when you begin working on green initiatives, think outside the box. Take a fresh look at the way you operate throughout your value chain. And look for opportunities to innovate. It could lead to breakthrough results—for the environment and your business.

7. Win people over with your passion, energy and inspiring determination.

There's one more key to success that needs to be included on this list. It's the importance of bringing spirit, enthusiasm and determination to the task of leading any green initiative.

It's easy to do that when you consider what's at stake.

Smart green initiatives can help you reduce costs, improve your efficiency, drive innovation, build employee morale, and enhance your brand image—all of which add tremendous value to the bottom line.

They also make a valuable contribution to the future of the world. After all, scientific projections show that efforts to stabilize carbon dioxide levels in the atmosphere will significantly slow the pace of global warming and help prevent environmental catastrophes.

In a very real sense, it's a privilege to be involved in work of such far-reaching importance. If you let that sense of mission inspire you, you will bring a deep sense of commitment and determination to your efforts, which will inspire those around you. That, in turn, will help you become even more effective as a champion of smart green sustainability in your organization.

We can't change the past. But we can change the future.

The issues we face are very serious. But this is the best time in history to be involved in the global sustainability movement.

It gives us the opportunity to make a real difference for our companies, our customers, our communities and the world around us. What's not to like about that?

But the key to success in the demanding, cost-conscious world of business is to make sustainability sustainable by developing and implementing effective green practices that deliver a clear ROI in terms of both the planet and the bottom line.

This goal presents a real challenge to every organization. But it can be achieved by finding "smarter ways to green."

About the Author

Patricia Calkins



Patricia A. Calkins is the vice president of Environment, Health and Safety for Xerox Corporation. She is responsible for developing and implementing sustainability policies and strategies throughout Xerox that help save hundreds of millions of dollars annually for the company worldwide. She is dedicated to strengthening Xerox's position as a pioneer in sustainability and is committed to smart environmental management that demonstrates that doing what's right for the environment is not a cost of doing business, but an opportunity to benefit the world in which we work and live.

For more on Patricia Calkins, click the full biography link below.

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