



March 23, 2009

## How Companies Are Investing in Sustainability

By Brandi McManus

<http://www.greenbiz.com/feature/2009/03/23/investing-sustainability>

*Long-term sustainable growth is important to building a successful company. In Part 3 of her four-part series “Growing a Green Corporation: Meeting the Next Great Disruptive Challenge of the 21<sup>st</sup> Century” Brandi McManus looks at different strategies for investing in sustainability.*

### Investing in Sustainability: Shades of Green

By now you are convinced of the business value in going green, or building environmental sustainability into your business. What exactly is “sustainability” and how much does it cost?

Sustainability is defined as “meeting the needs of the present without compromising the ability of future generations to meet their own needs.” If you look at this within a business philosophy, you can easily say that you would not make a business decision today that would sacrifice the business tomorrow (at least within normal business operation and ethics). Long-term sustainable growth is important to building a successful company.

To embrace environmentally sustainable development, it is not important that you become a tree-hugging hippie, nor is it vital to adopt a “principles before profits” mentality. But it is important to accept the serious impact of the environment on your business.

Stephen Schmidheiny, a leading business and non-profit activist in sustainable development, has written: “When viewed within the context of sustainable development, environmental concerns become not just a cost of doing business, but a potent source of competitive advantage. Enterprises that embrace the concept can effectively realize the advantages; more efficient processes, improvements in productivity, lower costs of compliance and new strategic market opportunities. Such businesses may expect to reap advantages over the competitors who lack vision. Companies that fail to change can

expect to become obsolete.”

To build a business case for building a sustainable corporation, you must first ask some hard questions about what you are doing and what you are willing to do. For example:

1. Have you completed the basics: recycling programs and doing away with Styrofoam cups?
2. Is your industry or company government regulated to make changes in your facilities or operations?
3. Do you have high brand exposure that would lead customers or shareholders to question your sustainability policy?
4. What investment (if any) are you willing to make to be environmentally responsible?

The following figure will help you place your business in a category of investment ranging from Level 1 to 4, or Shades of Green.

Investment Level/Legislation Level	High	<p align="center"><b>Level 2</b></p> <p align="center">Minimal Investment Projects with ROI Ethics/Business Issue Proactive Example: Greening Facilities</p>	<p align="center"><b>Level 4</b></p> <p align="center">High social responsibility High chance of action Low risk of external market pressure because of action Ethics/Business Issue Proactive/Reactive Example: Green Products and Services</p>
	Low	<p align="center"><b>Level 1</b></p> <p align="center">Low Investment Low chance of action on major projects Ethics Issue Proactive Example: Greening Employees</p>	<p align="center"><b>Level 3</b></p> <p align="center">Some Investment Medium chance of action Some risk of external market pressure Business Issue Reactive Example: Greening Operations</p>
		Low	High
<b>Shareholder Interest/Brand Exposure</b>			
Shades of Green			

### Level 1: The Basics, or Greening Your Life

This is the most basic level of sustainability. Here, your ethics or morals should guide you to do the right thing and create a proactive approach to sustainability. At this level, employees are environmentally aware, inspired and empowered. They actively seek to participate in recycling programs or internal energy savings program. Each office may be actively trying to cut back on Styrofoam coffee cups by bringing in mugs. These industries could be any business with offices or manufacturing with employees interested in the environment. Companies in highly competitive price-based industries may aim for

Level 1 as they would be hard pressed to begin initiatives that add cost.

This level can also be described as risk mitigation. Basic energy reduction projects and compliance with environmental regulations can keep companies on the good side of consumers, the government and watchful non-governmental organizations.

In an experiment at its Swiss headquarters, Dow Europe encouraged employees to eliminate mailing lists and obtain receipts for memos indicating if a participant wanted to continue receiving the information. This resulted in a 30 percent reduction in office paper flow in six weeks. Dow also estimated an increase in labor productivity because people could focus on only what they really needed to read. AT&T reduced paper costs by 15 percent by simply setting office printers and copiers to print double-sided as noted by Amory Lovins, Hunter Lovins, Paul Hawken, Forest Reinhardt, Robert Shapiro and Joan Magretta in "Harvard Business Review on Business and the Environment" (2000).

Johnson & Johnson reduced waste by 2,750 tons of packaging and 1,600 tons of paper which equated to \$2.8 million and at least 220 acres of trees annually. According to Amy Green in "Green Business: A Five-part Model for Creating an Environmentally Responsible Company" (2006), this savings came from using a stronger, but more opaque paper, and designing packaging more thoughtfully.

Interface Corporation, a leading maker for materials for commercial interiors, implemented a system for carpet manufacturing in Shanghai that required a liquid to be circulated through a standard pumping loop. Before construction began, an engineer realized that two very simple design changes would cut the power requirement from 95 horsepower to 7 -- a 92 percent reduction. The redesigned system cost less to build, involved no new technology and worked better in all aspects. With a simple focus on sustainability, Interface reduced costs and risk.

Such simple actions require little to no investment but can serve to motivate employees, increase productivity and reduce expenses.

## **Level 2: Greening the Office**

This next level of sustainability may require some investment but can have some return if done right. The investment can be minimal compared to the increased shareholder satisfaction or reduce market risk. Businesses targeting Level 2 may plan to use a proactive approach to sustainability to gain market share or hire or retain top talent. Level 2 would include any company with people interested in the environment, but the best payback tends to be in large office buildings (100K to 500K square feet) or manufacturing facilities with an interest in the bottom line, but not much external market pressure to be sustainable. Additionally, companies with low market power that rely on very large customers may aim for this level in case they must address questions about environmental performance.

This level can also be called proactive. By taking purposeful steps to improve environmental efforts, companies can decrease cost and increase goodwill with consumers, earning the right to be called a sustainable business.

Greening your facilities can mean many things and also has many different levels—from minor energy savings projects to holistic energy projects to comprehensive building projects incorporating site development, water savings, energy efficiency, materials and resources selection and environmental quality. While many projects, like energy and water efficiency, will pay back the investment in a reasonable amount of time, some materials and site development projects require an investment in the facility and in the employees. This returns us to the question of the price of your company’s social responsibility.

The following table lists some simple projects and offers an overview of the investment needed to green a typical facility.

<b>Facility Measure</b>	<b>Investment Level</b>
Energy Metering and Monitoring	Small - 6 month simple payback
Energy Efficient Lighting and Controls	Small - 1 to 2 year simple payback
Energy Management System	Medium - 3 to 5 year payback
Change to Renewable Energy Source	Medium - 5 to 10 % of existing cost
Sustainable Materials - carpets and flooring, paint and furniture	Medium to High
Housekeeping - cleaning supplies, pest control	Medium to High
Heating, Ventilation and Air Conditioning upgrades or conversion to natural source	High - 7 to 10 year simple payback
Water Treatment and Efficiency, Rainwater Collection	High
Building Envelope Changes - insulation, concrete, windows	High

Energy Savings Facility Improvements and Investment Level  
 Source: Energy Savings Cost Council, 2000.

Costs will vary based on choices and vendors. Additionally, grouping facility measures together in a holistic building approach will maximize your return on investment (ROI) and minimize your cost.

Many executives pay little attention to facilities, as they account for a small percentage of total business costs. However, it is important to realize that any energy or water savings drops straight to the bottom line and represents a far greater percentage of profits.

Malden Mills, the socially conscious Massachusetts maker of Polartec, completed a warehouse lighting retrofit that reduced energy use by 93 percent, improved visibility and paid for itself in 18 months, Lovins and colleagues wrote in “Harvard Business Review on Business and the Environment.”

[Genzyme](#), a world leader in biotechnology, wanted its new corporate headquarters to reflect the company's mission of making a positive impact on people's lives. The design of the corporate headquarters is a leading-edge, green facility powered by renewable energy sources and controlled by [integrated building systems](#) that lower operations, maintenance and energy costs, while providing a work environment that honors employees' need for natural light and fresh air. The Genzyme center achieved the Leadership in Energy and Environmental Design (LEED) Platinum rating from the U.S. Green Buildings Council—an organization that drives standards for sustainable facilities. The return on this investment can be measured in increased revenue and market awareness, hiring of top talent and increased employee productivity.

### **Level 3: Greening the Plant**

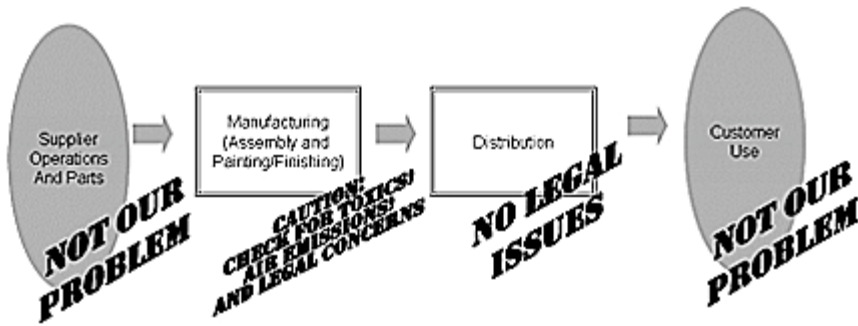
Level 3 would include corporations with high brand exposure and some risk of market backlash. These businesses would be looking for some investment opportunities to make their business sustainable because they feel pressure from shareholders to do so, but do not plan to offer green products or services to the market. Level 3 companies would include those with increasing potential for legislation (like Intel) and those in extremely competitive markets for talent (Citigroup, Intel or Microsoft). Level 3 greening operations can include advanced energy projects for building or manufacturing but also delve deeper into the culture of the company.

Level 3 companies integrate sustainability into the business mission. Because of high impact on the environment, high brand recognition or high social responsibility, these companies take incorporate environmental planning into daily activities and may even measure corporate progress on a triple bottom line. The triple bottom line not only measures the economic bottom line but also social and environmental results.

Sustainable operations goes beyond the traditional mantra of “Reduce, Reuse, Recycle” but adds “Redesign” and “Re-imagine.” These activities include closing manufacturing loops, redesigning the supply chain and tracing the environmental footprint of your products and services from raw materials, suppliers, manufacturing, distribution, use and end of life.

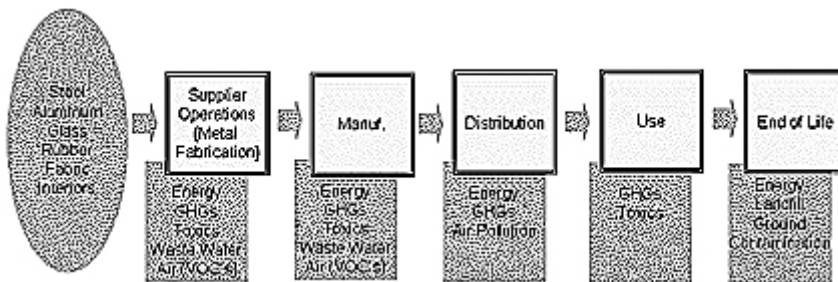
This process, called Life Cycle Assessment (LCA), allows manufacturers to truly see the environmental impact of their product and manage their footprint at all levels. “Green to Gold: How Smart Companies Use Environmental Strategy to Innovate, Create Value and Build Competitive Advantage” (2006), offers an insightful perspective on LCA. In this book, Daniel Esty and Andrew Winston compare a typical lifecycle assessment to an extended value chain assessment. In an extended value chain, you can begin to understand the true impact that your products may have on the environment.

For example, Esty and Winston offer this product lifecycle from a typical car manufacturer:



Simple Automotive Value Chain

However, we have seen in the past with the Ford Explorer and Goodyear tires for example, car manufacturers can feel the backlash for suppliers in their value chain. To manage this process, it is important to create an extended value chain such as the one Esty and Winston also offer:



With a complete picture of the value chain, the manufacturer would now be ready to ask some questions to improve the company environmentally and suggest sustainable alternatives.

For example:

1. Where do the materials come from? What are the suppliers' environmental policies?
2. What emissions are released during fabrication or manufacturing?
3. How much gas will the product use during the "use" phase? What is the cost and impact to the user?
4. What emissions will be released? Will the user be penalized?
5. What happens when the car is taken to the junk yard? Can anything be recycled?

The British oil giant BP committed to reducing carbon emissions and ended up saving \$1.5 billion in process changes. By making a corporate commitment and encouraging employee innovation, BP reduced greenhouse gas emissions, involved employees and had a significant impact on emissions and their business.

## **Level 4: Riding the Green Wave**

Level 4 includes true environmental stewardship. This requires companies to not only do no harm, but asks them to help restore any damage that has already been done. A Level 4 business would make investments in green products or technologies and bring them to market. Some examples are Toyota offering the Prius, or energy companies offering green energy sources such as wind or hydropower.

This level includes true innovation and is the new frontier of sustainability. Environmental products, technologies and businesses are predicted to drive trillions of dollars in investments in the coming years.

General Electric is pursuing green opportunities, embodied in its slogan “ecomagination,” by doubling its investment in environmental products including everything from energy efficient light bulbs to more efficient jet engines. Many large brand name companies are leaders in the green movement, including Johnson & Johnson, DuPont, Sony, Unilever, Nike and Dow. These companies are making significant investments, not only in environmentally friendly products, but also in an environmentally responsible path that will lower their financial and operation risk while adding degrees of freedom to operations, profit and growth.

The majority of companies in the Level 4 category are typically those with the most to lose by not responding to environmental issues. These companies not only have a high brand exposure and a large number of shareholders, but hold a significant ecological footprint. Most are dependent on natural resources and subject to a high degree of regulations. Though they have a significant amount to gain from the advantages of environmental responsibility, they also have high risk and exposure if they fail to do anything at all.

Also, it may or may not be a coincidence that these green wave-rider companies have significantly outpaced market growth for several consecutive years.

### **Summary**

If [sustainability](#) is defined as “meeting the needs of the present without compromising the ability of future generations to meet their own needs,” then it makes sense that a financially responsible company would also strive to achieve sustainability. How far your business needs to go on this journey will depend on your industry, regulation, investment level and brand recognition.

With an understanding of your current green level and a clear goal of where you want to be, you can begin building a business case for your green journey.

*Brandi McManus is the global business development manager for energy services at [TAC](#). Over the past nine years, she has worked at TAC to ensure efficient sales*

*operations through strategic planning and proactive leadership with a focus on training and development of personnel. McManus is highly skilled in both domestic and international product development and improvements, as well as process creation and implementation.*