

The Environment

"We can't solve problems by using the same kind of thinking we used when we created them."

- Albert Einstein

Green is the new black. What does that mean? Through innovation and creativity, organizations have found they can reduce their environmental impact with little or no cost. Reduce, reuse, recycle, restore - these are the key attributes of a sustainable environmental strategy. Companies have found ingenious ways of going green and being profitable. They have also found that consumers and stakeholders expect them to have a sustainable environmental footprint in their corporate profile and best business practices. For companies and consumers, for the public and private sectors, for Wall Street and Main Street, going green means finding an eco-strategy that is good for the environment, good for society, and good for the economy - the triple bottom line. This *goodness* will require commitment, sacrifice, and a sustained effort from all the stakeholders if we are to achieve success.

Going green means something different depending on the industry, business, organization, or socio/economic grouping interacting with the environment. But for all of us, it's what we have in common with the environment that demands our immediate attention. The water we drink, the air we breathe, and the land we use, along with the delicate balance of gases in the Earth's atmosphere - all of this is now at risk of being destroyed. The only question remaining is, has it been damaged beyond repair? Only an ardent pessimist would say it has. But only a head-in-the-sand skeptic would say the question is ridiculous.

Actually, the question is moot, because we have no other choice but to act now. Climate change - global warming - is a reality that cannot be disputed or ignored. And this real problem is largely man made. Carbon dioxide is the principal greenhouse gas that affects global warming. As the amount of carbon dioxide in the atmosphere increases, the medium temperature of the Earth and its atmosphere increases. The electricity, transportation, industrial, and commercial sectors together produce 85% of the greenhouse gas emissions in the United States. The United States is responsible for 30% of the global greenhouse gas emissions. Europe is around 26%.

Even if the people of the world join together in 2008 in a global Herculean effort to reduce CO₂ emissions, the global temperature rise will continue for another 30 years. Our best efforts to mitigate the risk will still result in consequences we will be forced to accept. We will need to adapt to a changing world. The success we have in doing that will be defined, not only by a gradual reduction of greenhouse gas emissions and global warming, but an increase in social responsibility and a sustained competitive advantage for eco-savvy entrepreneurs.

Global warming is not the only environmental concern we have. Polluting the Earth's air, water, and land are obvious major concerns as are securing energy independence and developing renewable sources of energy. And nanotechnology and Compounds of Emerging Concern (CECs) represent emerging risks that cannot be ignored. We have seen a heightened response - social, economic, political, and regulatory - to these concerns, both domestically and globally. The message is loud and clear - protect and sustain the environment.

But global warming is the defining issue that finds itself at the top of the list. In the U.S., the public and private sectors have already begun to join forces in a meaningful way to affect a sustainable solution to

these problems. But it hasn't been far-reaching enough, and the cooperation between the federal government and the states has been less than exemplary, especially as seen with the recent rejection by the EPA of California's plan to reduce greenhouse gas emissions. By all accounts, the EPA is simply a reflection of an administration that has consistently refused to fully embrace the urgent need for leadership and action in addressing the climate change crisis. Fortunately, state and local governments and corporate America, increasingly, have taken the lead.

The signs are, indeed, encouraging, but make no mistake, the challenges and costs associated with reversing the environmental damage will be significant. Yet, more and more we are hearing the sound of business executives everywhere marching to the beat of the environmental drum. In The World Is Flat, written by Thomas L. Friedman, Rob Watson offered his thoughts for both the causes for the environmental problem and the role and responsibility of business in solving the problem. Rob Watson is a founding member of the U.S. Green Building Council and founder of the highly successful LEED (Leadership in Energy and Environmental Design) green building rating system. Rob also is the chairman and CEO of EcoTech International.

"My advice was based on my belief that the legal and regulatory frameworks for environmental protection largely have been established. Given our current situation, I realized that now it was about diffusion and implementation - and implementation is where business excels. This belief coupled with the simple fact that there were far more environmental lawyers and scientists floating around than environmental businessmen and that green business was needed to put environmental protection on the ground.

"I felt that the main reason mainstream business continues to be a cause of environmental problems instead of its solution is that business-as-usual continues to be 19th century economics and 20th-century engineering when trying to solve 21st-century problems. I saw the need for new green frameworks for business - where the clean path is the most profitable.

"I think the process of establishing a new business framework will be one of learning by doing - where theory and observation play off each other to create a truly sustainable way of providing people with what they want. As a first step, we need to get the market and regulatory polemicists off each other's back. Both are right and both are wrong: markets and regulations each are necessary, but not sufficient. Good regulation makes markets work properly and removes the worst actors, while markets stimulate innovation and efficient delivery of goods and services."

For the green revolution to work, several things are needed; green "frameworks" for business that promote profitability, regulations that promote credibility, and integrity for markets that stimulate innovation and growth. Education and training programs are necessary, as is a knowledgeable approach to the problem by our social institutions and non-governmental organizations (NGOs). The stakeholders in the green movement have expectations for corporate environmental performance which strategically aligns environmental responsibility with business success.

In a complex regulatory environment, assuring compliance with all the environmental, health and safety (EH&S) obligations, is a challenge. Meeting this challenge requires collecting, organizing, querying, modeling and reporting information. The players in this new environmental business framework need technology (software) which provides business intelligence, data management, and risk management and compliance - an Environmental Management Information System (EMIS). An EMIS can provide a powerful, flexible tool for meeting and improving all air, water, waste, energy, health, and safety

performance obligations. This is especially important when environmental regulators perform multi-media inspections. A well positioned and managed EMIS, which adheres to ISO standards, can prove to be an essential resource for compliance management, tracking, and reporting, can ensure optimal performance of a company's environmental strategy, and can significantly enhance a corporate reputation.

As a first step for building a corporate environmental performance strategy, a strong and sustainable governance structure must be in place with a total buy-in for the strategy throughout the organization. Without executive sponsorship and organizational accountability from the top down, no EMIS will be successful.

A company's environmental footprint reflects policy drivers which can include higher fuel efficiency standards, alternative renewable energy sources, cap-and-trade arrangements, regulations, and tax incentives/penalties. Corporate policy also can include ways to monitor and manage energy commodities such as power, natural gas, oil, coal and emissions. EMIS reports are generated in response to the plethora of regulatory and legal requirements each company faces. However, EMIS resources are also used to monitor, manage and audit their environmental footprint that goes beyond minimum legal compliance.

In their book, Green to Gold, written by Daniel Esty and Andrew Winston, the authors reflect on the need for an Environmental Management Information System:

Environmental Metrics show a company where it stands. Data and Indicators are critical to fact-based decision-making and sound environmental management. They drive continuous improvement and allow managers to mark progress against pollution control and resource productivity goals. Sustainability is more a journey than a destination, but it still pays to know where you are on the path.

-page 179, Chapter 7 Eco-Tracking

There are several credible environmental management information systems on the market today. Likewise, many companies decide to develop their own systems or use a combination of legacy systems and desktop applications to meet their environmental and energy performance and compliance needs. In the last few years companies have started to offer their software solutions as Software as a Service (SaaS). This software delivery model allows the customer to take advantage of the benefits of the software over the Internet without actually owning and hosting the application.