IBM Institute for Business Value

Green and beyond

Getting smarter about the environment

Overview

Environmental sustainability is an imperative for 21st-century business – encompassing conservation, pollution prevention and more, but also enabling entirely new value propositions and benefits. Visionaries are seeking ways to lower costs while building more efficient and sustainable operations. They are strengthening their brands and reputations, while meeting government regulations and other compliance standards. But more important, they are creating greener products and services that give rise to new markets – profitably.

Today's world is smaller, flatter and hotter. Meanwhile, the demanding economic environment requires enterprises to drive greater efficiencies, compete more effectively, and be proactive when it comes to energy conservation, environmental stewardship and operational sustainability. Empowered consumers – along with employees, stakeholders and business partners – are also demanding more responsible business practices.

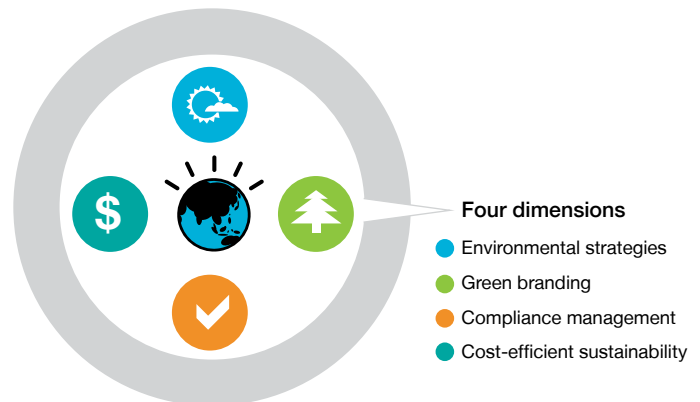## The four dimensions of environmental sustainability

More and more, CEOs understand how their business decisions impact the planet. According to the IBM CEO Study, environmental factors doubled in CEO importance over the past four years.[1] Clearly, expectations concerning energy and environmental policies, procedures and practices are rapidly changing.

We believe there are four interlocking dimensions of environmental sustainability:

- *Environmental strategies:* A comprehensive "green" strategy reflects many different views of the business and the varied dimensions of resource consumption. It requires a clear understanding of corporate objectives and priorities, plus programs, initiatives and tasks that address environmental and stakeholder concerns, and drive environmental stewardship.

- *Green branding:* Many companies are developing a green strategy to enhance their competitive position, protect and enrich their brand, improve customer communications and create a "greener" customer experience. In addition to effectively branding products and services to customers, the enterprise must also brand itself as an environmentally sustainable employer.
- *Compliance management:* Government regulations and compliance standards for improving air quality are now top-level business requirements – compelling companies to apply financial and reputation incentives to drive down emissions, abide by water and waste management standards, and implement new processes and technologies.
- *Cost-efficient sustainability:* A cost-efficient sustainability strategy balances trade-offs to optimize efficiencies. Environmental concerns should be approached and analyzed from a holistic viewpoint, while evaluating overall performance goals of cost, service and quality in terms of their interlocking relationships.

INSTRUMENTED   INTERCONNECTED   INTELLIGENT

Four dimensions
- Environmental strategies
- Green branding
- Compliance management
- Cost-efficient sustainability

Source: IBM Global Business Services and IBM Institute for Business Value analysis.

Figure 1. An opportunity for smarter organizations to find the value in green.

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Unlocking the value in green

There is an opportunity for smarter organizations to unlock the value in green. Smart systems are emerging – with the potential to improve our lives and profoundly impact the environmental challenges facing society and the planet. The mandates for building smart sustainability require that we collectively achieve:

- *Sustainable operational efficiency* in three key areas: supply chain management, designing for the environment and workforce management.
- *Green buildings and infrastructures* that reduce the environmental impact on buildings and physical assets, take out the cost and improve the efficiency of IT, and enable regulatory compliance.
- *Intelligent ecosystems* that use predictive analytics for water management, optimize power generation and make the best use of transportation systems to change the way industries and populations operate.

Supply chain management offers one of the greatest opportunities to leverage the value in green by reducing energy, carbon, water inefficiencies and waste.

The possibilities of a smarter planet

The world will continue to become smaller, flatter and soon … smarter. By systematically managing water and energy use, as well as greenhouse gas emissions, smart organizations can realize true sustainability while achieving real business benefits – driving growth at the individual, organizational and population levels.

How can IBM help?

- **IBM Energy and Environment Framework:** The Energy and Environment Framework helps organizations visualize the issues of the entire enterprise by creating a strategic platform for addressing the impact on the environment.

- **Carbon Trade-Off Modeler:** The Carbon Trade-Off modeler allows for the development and analysis of alternative supply chain policies, options and network configurations based on trade-offs between carbon emissions, cost, quality and service level.

- **Component Business Modeling (CBM) tools:** Component Business Modeling (CBM) allows organizations to identify opportunities for improvement and innovation by regrouping activities into modular and reusable components.

To request a full version of this paper, e-mail us at iibv@us.ibm.com

Reference

1 "The Enterprise of the Future: IBM Global CEO Study." IBM Global Business
Services. May 2008. http://www.ibm.com/services/us/gbs/bus/html/ceostudy2008.
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