

# Piecing Together a Sustainable Development Strategy

Here's **how to assess** your organization's **performance** on **environmental, economic and social issues** and prepare a plan to improve its sustainability.

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**T**HE TERM SUSTAINABLE DEVELOPMENT, coined in 1987 by the Brundtland Commission, is used often but still has not been well defined. The original definition — development that meets the needs of the present without compromising the ability of future generations to meet their own needs — is inspirational, but doesn't provide much help to someone trying to figure out what to do. A more recent definition — ensuring a better quality of life for everyone now and for generations to come — provides a little different perspective, but is still difficult to turn into actionable items.

More specifically, the term sustainable development has become focused on three areas:

- *environmental* — e.g., climate change, ecosystem destruction, depletion of natural resources, and pollution of land, air and water
- *social* — e.g., human and worker's rights, the increasing poverty gap, governance, and ethics
- *economic* — e.g., shareholder value and building capacity for development.

These three areas are often referred to as the "triple bottom line."

## Why sustainable development matters

Because of advances in technology and the movement of people and goods globally, society has become more aware of what is happening around the world. It is no longer possible to undertake an action in one place in the world and expect that people will not hear

about it somewhere else. Governments, academic institutions, communities and businesses have started to address sustainable development — what it means and what to do to achieve it.

In late August and early September 2002, the World Summit for Sustainable Development (WSSD) was held in Johannesburg, South Africa (see *CEP*, Dec. 2002, p. 23). The main objective of the summit was the formal negotiations among the participating governments. However, probably almost as interesting were the messages of the business and non-governmental organization (NGO) communities that were attending as delegates. Businesses made the point that they are part of the solution, not just the problem. The messages from NGOs ranged from the value and/or problems with voluntary partnerships to the need for global governance structures to assure that business is operating responsibly. The Earth Summit in Rio de Janeiro in 1992 lifted environmental issues to a higher level of consideration in the global psyche; the WSSD in 2002 will probably have the same impact on societal issues, raising the level of consideration for both companies and governments.

At the 1992 Earth Summit, business acknowledged responsibility for its actions and their impact on the environment. In conjunction with that conference, the World Business Council for Sustainable Development (WBCSD) published the book "Changing Course," which outlines a call to action for the business community. For the 2002 World Summit, the WBCSD pub-

lished “Walking the Talk,” which presented 67 case studies illustrating how business has made progress in the past decade, and also called for specific business actions. Many companies, particularly multi-national firms, have become significantly engaged in the challenge of managing their business consistent with sustainable development, but for the majority, especially small and medium-sized companies, the business connections have not been developed.

### The business case

The key question for many in business still remains: “what is the business case for addressing sustainable development issues?” At the fundamental level is the right to operate. Companies are finding that if their employees, local communities and customers are not happy with their social and environmental performance, then at a minimum, it is ex-

- *It improves employee morale.* Most people seek a higher purpose for the time they spend at work — merely increasing the earnings of the company is not enough to create excitement about going to work. People want to be linked to organizations that are making a difference and improving quality of life. The best and the brightest students want to join companies that can articulate a higher mission.

- *It increases productivity and reduces costs.* Increasing yields and productivity not only improves the business bottom line, in most cases it also improves the environment. Every yield improvement means less waste and emissions. Pollution prevention can delay the need for new investment because of increased output from current investment.

- *It strengthens customer relationships.* Understanding your customers’ operations and developing solutions to their



pensive to defend their practices; at a maximum, it can stop operations. However, some companies have also learned that no matter how good their social and/or environmental performance is, if they are not meeting economic expectations, they cannot exist. The bottom line: successful companies need to understand and perform in all three areas.

However, as long as sustainable development is viewed only as a right to operate, there will be little incentive for businesses or individuals to go beyond the minimum expectations. The challenge is to find the link to improved business performance — both top- and bottom-line growth from specific initiatives consistent with sustainable development.

There are many other important business-value reasons for addressing sustainable development. Specifically:

- *It protects and enhances reputation.* In today’s global world, the ability to link to new customers, new markets and new partners is related at some level to reputation. Everybody wants to be associated with other organizations that are viewed positively.

problems will make you a much more valuable supplier.

- *It enhances business growth.* Understanding societal needs can open up new business opportunities. Global actions to reduce emissions of climate-change gases can be viewed as a liability, but for the companies investing in renewable energy solutions like fuel cells, solar panels and wind technology, it is opening up new business opportunities.

Another business link to sustainable development is socially responsible investing (SRI). For years, there has been a small community that invested in companies that were perceived to be more responsible organizations. In many cases, these funds were exclusionary, meaning they did not invest in companies in what were deemed to be objectionable areas, such as tobacco, alcohol, nuclear energy, gambling and weapons manufacturing. Recently, a new type of SRI has developed, often referred to as “best in class.” The theory behind these funds is that companies that are acting more responsibly in terms of environmental and social performance than their competitors will provide

the best overall return. The Dow Jones Sustainability Indexes and the FTSE4Good Index Series are two well-known sources of benchmarking information on corporations' sustainability performance. Socially responsible investing is still a small part of the overall investment market, but it is growing, and good performance in this area can open the door to a new set of shareholders.

The non-profit organization Global Environmental Management Initiative (GEMI) has created a process to help companies approach sustainable development from where they are currently and to help them focus on those actions that will most benefit the business. Its recently published "Exploring Pathways to a Sustainable Enterprise: SD Planner" is a detailed and comprehensive self-assessment tool designed to help companies evaluate, plan for, and integrate sustainable development into business processes. The tool addresses all three aspects of sustainable development and the activities that an organization can take toward achieving environmental, economic and social goals. It can be downloaded, with a user's guide, from GEMI's website, [www.gemi.org](http://www.gemi.org). This article is based on GEMI's SD Planner and the accompanying user's manual.

## The elements of sustainable development

The first step in sustainability planning is to understand from a stakeholder perspective what elements of sustainable development should be considered. This section summarizes the elements and sub-elements under the broad categories of social (Elements 1–3), economic (Elements 4 and 5) and environmental (Elements 6 and 7) performance.

At first glance, the list may seem daunting, but most organizations are probably already working on some of these things. Furthermore, some of the sub-elements may not be applicable or may not be areas where an organization sees business value for going beyond basic compliance. Key aspects of the business — for example, is the customer base industrial or consumer, is the business global or geographically concentrated, is it a resource-intensive business, is there a high level of stakeholder scrutiny around its value chain, etc. — can impact the significance of the sub-element to the specific business operations. The fact that a sub-element is on the list does not mean it must be part of your sustainable development strategy.

**1. Employee well-being.** Protecting and preserving the fundamental rights of employment, promoting positive employee treatment, and contributing to employee quality of life.

*1.1. Employee rights.* Respecting the rights of employees (including their right to associate), promoting diversity, and supporting constructive dialogue between employees and their employer.

*1.2. Responsible workplace practices.* Promoting responsible practices and positive employee treatment, such as not engaging in compulsory (forced) labor, exploitation of children, corporal punishment or physical abuse of employees.

*1.3. Employee health and safety.* Promoting a healthy

and safe workplace, including compliance with occupational health and safety standards and practices, management of health and safety risks in the workplace, and employee training.

*1.4. Work/life balance.* Promoting balance between work and personal or family life, such as through flexible work options, dependent care services, time-off policies, and health and wellness programs.

*1.5. Respect for diversity.* Promoting diversity as a source of innovation and eliminating discrimination and harassment for any cause (e.g., race, gender, age, disability, ethnicity, sexual orientation or religion), for instance through equal opportunity programs, job training for disadvantaged groups, and fair employment practices.

*1.6. Employee compensation.* Compensating employees fairly, without discrimination, and in a manner that enables them to meet at least their basic needs.

**2. Quality of life.** Working with public and private institutions to improve the educational, cultural and socio-economic well-being of the citizens in the communities where the company operates and in society at large.

*2.1. Social equity.* Working to eliminate barriers to social equity, including contributing to the development of public policy, of business, government and intergovernmental programs, and of educational initiatives that promote a better quality of life.

*2.2. Basic human needs.* Helping meet such basic needs as healthcare, nutrition, education, housing, sanitation, clean water, transportation and communication, including contributing to the development of social capital (the ability of people to work together in a society for a common purpose, based on a sense of mutual trust) and supporting programs that promote the social infrastructure and the health and well being of community residents.

*2.3. Human capital.* Developing and preserving human capital by providing employment and training opportunities and by responsibly addressing the support needs of displaced employees.

**3. Business ethics.** Supporting the protection of human rights within the company's sphere of influence and insisting on honesty, integrity and fairness in all aspects of doing business.

*3.1. Basic human rights.* Protecting and upholding the basic human rights to which all people are entitled, regardless of race, nationality, gender, economic status or religion.

*3.2. Positive impact.* Considering the full range of social, economic and environmental impacts on a community associated with company operations and ensuring that these impacts are positive.

*3.3. Local cultures and indigenous people.* Respecting the integrity of local cultures and indigenous people (i.e., the existing descendants of the original inhabitants of a particular area).

*3.4. Fair and free competition.* Engaging in fair and free competition, not offering, paying, or accepting bribes or

## AIChE's INSTITUTE FOR SUSTAINABILITY

The expertise of chemical engineers is key to making manufacturing more sustainable, because chemical engineering principles lie at the heart of efficient energy- and material-transformation processes. That's why the American Institute of Chemical Engineers (AIChE) is creating a unique organization, AIChE's Institute for Sustainability, to build partnerships with other engineering and scientific societies worldwide, with government agencies, and with non-governmental organizations (NGOs). The AIChE Institute for Sustainability will develop tools that will guide sustainable manufacturing, promote sustainability

awareness, and increase chemical engineers' contributions to meeting the needs of tomorrow's world. It will work with another new AIChE group, the Sustainable Engineering Forum, to develop specialty conferences and sessions on sustainability topics at AIChE meetings.

The AIChE Institute for Sustainability will be formally launched at AIChE's Spring National Meeting in New Orleans, LA, later this month (March 29 to April 3, 2003). For more information, visit [www.aiche.org/sustainability](http://www.aiche.org/sustainability), or contact Dana Ponciroli at (212) 591-7462 or [sustainability@aiche.org](mailto:sustainability@aiche.org).

kickbacks, and refraining from using information on competitors that was obtained illegally or unethically.

**4. Shareholder value creation.** Creating value for the company's shareholders by integrating sustainable development thinking into business practices.

*4.1. Competitive return and protection of assets.* Applying professional and diligent management to secure competitive return on shareholders' investment, and conserving, protecting and increasing the company's assets.

*4.2. Reputation and brand.* Enhancing company reputation and brand image.

**5. Economic development.** Building capacity for economic development in the communities, regions and countries in which the company operates or would like to operate.

*5.1. Stimulating local development.* Supporting economic development by partnering with local businesses, hiring local staff and suppliers, and contributing capital to investment vehicles that benefit community business growth.

*5.2. Supporting disadvantaged communities.* Promoting the economic interests of lower-income and underserved communities by providing access to jobs, facilitating the transfer of knowledge and technology, and encouraging entrepreneurship.

**6. Environmental impact minimization.** Minimizing and striving to eliminate the adverse environmental impacts and human health effects associated with operations, products and services.

*6.1. Emissions and wastes.* Minimizing adverse impacts associated with air emissions, wastewater discharges, offensive odors, excessive noise, and solid and hazardous waste generation associated with operations (including transportation and company vehicle use), products and services through such efforts as process changes, equipment replacement, material substitution, changes in handling practices, source reduction, recycling and conversion to energy.

*6.2. Operational incidents.* Minimizing or eliminating spills, releases, accidents and other incidents with the potential for adversely impacting people or the environment.

*6.3. Products and services.* Developing and distributing products and services whose adverse impacts have been as-

sessed and minimized, and wherever practical considering how a new product or service can have a positive impact on the natural world.

**7. Natural resource protection.** Assuring the sustainable use of renewable natural resources and the conservation and sustainable use of non-renewable natural resources.

*7.1. Biological resources.* Promoting the conservation and sustainable use of biological resources, including the protection and restoration of biodiversity, endangered species, and sensitive habitats such as forests, wetlands, coral reefs and marine sanctuaries.

*7.2. Energy.* Conserving energy and improving the energy efficiency of operations and of goods and services sold, and where practical, reducing the use of fossil fuels and moving toward increased use of environmentally safe and sustainable energy sources.

*7.3. Water.* Conserving water and improving water quality through efficient use and careful planning, and reducing or eliminating process and wastewater discharges.

*7.4. Raw materials.* Helping conserve primary resources, such as minerals, timber and agricultural products, by reducing raw material use in processes, products and packaging, adopting industrial processes that reuse and recycle materials efficiently, and using renewable resources where possible.

### The path to sustainable development

Sustainable development is a journey, not an endpoint. Any successful strategy aimed at developing a more sustainable company will involve the process of understanding the context, establishing a direction, implementing actions, analyzing the results, then cycling back to modify the direction and actions based on what you have learned. One systematic approach is to break the strategy-development process into stages:

**1. Prepare.** The goal of this first stage is to understand the elements of sustainable development. What does each element mean to your organization? What is legally required? What are you already doing? What are other companies doing, especially your customers and your competi-

# Sustainability

tors? Finally, where are the opportunities to create enhanced business value?

**2. Commit.** Next, the business makes a commitment to address the issue, and it sets a strategic direction and focus for its activities. For instance, if the business has determined that minimizing environmental impacts is its focus, then establishing an environmental policy and setting goals for reducing impacts would be fundamental to this stage.

**3. Implement.** Here, the business launches programs consistent with the strategic direction established during the Commit stage. For example, the organization that wants to minimize environmental impacts should focus on what project(s) need to be implemented, how priorities are set, what the funding mechanism is, and who is responsible for assuring that the project(s) are completed and have the expected results.

**4. Integrate.** At this stage, the business seeks to make the strategic direction part of all business processes. For instance, the company should make reducing environmental impacts part of the design process for new products and services, routinely work with suppliers and customers to reduce the impacts of their operations, and develop a mechanism for considering the reduction of environmental impacts in new capital-project requests.

**5. Champion.** In the final stage, the organization steps out as a leader to champion the development of sustainability strategies by other companies. Championing can be within trade organizations or relative to

government policy. The chemical industry's Responsible Care program is the result of a few leaders who recognized that companies needed to work together to improve their performance in some key areas like emergency preparedness, product stewardship and pollution prevention.

Just as not all sub-elements may be applicable to all companies, it is doubtful that any company would move through all five stages for each sub-element. However, it is important to go through at least the first stage (prepare) for each sub-element. In that way, you will understand what each sub-element means and what is required to be in compliance with the law. Actions beyond that will be driven by the aspirations of the organization.

## Perform a self-evaluation

Conducting a self-evaluation lays the foundation for developing a sustainable development strategy. For each sub-element of each element, assess the organization's performance and progress — what it has achieved, what it is working toward, and what is not relevant. This can be done by setting up a matrix, such as the one in the table, which illustrates a hypothetical company's evaluation of its performance regarding employee well-being. (To save space, the table shows only the first element. In practice, the matrix would be expanded to include all of the elements and sub-elements.)

Table. Use this matrix to document the self-evaluation.																	
	1. Prepare				2. Commit				3. Implement			4. Integrate			5. Champion		
	Compliance with laws	Assessment of current practices	Information gathering	Response to shareholder concerns	Formal commitment	Proactive policies	Focused programs	Stakeholder dialogue	Management systems	Comprehensive programs	Stakeholder reporting	Integration into business processes	Supply-chain management	Stakeholder communications	Proactive programs	External partnerships	Public policy involvement
Element 1. Employee Well-Being																	
1.1. Employee Rights	✓	✓	✓	X	✓	✓	✓	✓									
1.2. Responsible Workplace Practices	✓	✓	✓	✓	✓	✓	X	✓	✓	✓	✓						
1.3. Employee Health and Safety	✓	✓	✓	✓	✓	X	✓	✓	✓								
1.4. Work/Life Balance	✓	✓	✓	✓	✓	✓	✓										
1.5. Respect for Diversity	✓	✓	✓	X	✓	✓	X	✓	✓	✓	✓	✓	✓	X			
1.6. Employee Compensation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						

✓ indicates that the practice has been implemented

X indicates that the practice has not been implemented

Blank indicates that the practice has not been rated

For each sub-element, consider the stages of the planning process and answer the following questions. (GEMI's SD Planner software provides more detail on these items.)

1. *Prepare.* Is the business in compliance with applicable laws? Has it conducted an assessment of current practices? Has it gathered information on the topic? Has it responded to stakeholder concerns?

2. *Commit.* Has it made a formal commitment to addressing the issues? Does it have proactive policies in place? Does it have focused programs to address the issues? Has it engaged in shareholder dialogue about this sub-element?

3. *Implement.* Does it have management systems in place to address the issues? Does it have comprehensive programs? Does it report its activities in this area to stakeholders?

4. *Integrate.* Has the organization integrated the issues into its business processes? Into its supply-chain management processes? Does it communicate with stakeholders about these topics?

5. *Champion.* Does the business have proactive programs that enable it to serve as a champion? Does it participate in external partnerships? Is it involved in public policy development?

The answer to each question can be captured with a ✓ to indicate that the practice has been implemented or an X to indicate that it has not been implemented, or left blank if it has not been rated. This makes it very easy to see at a glance where the organization stands. (SD Planner uses green to signify an implemented practice and red to signify one that has not been implemented.)

Many businesses may be much further along in one or a few areas. For instance, an organization that has been working on environmental programs for a long time may find that it is integrating reduction of waste and emissions into its supply-chain management, while it is still just gathering information on things like stimulating local development and helping to address basic needs.

### The next steps

**Goal setting.** Once you understand where the business currently stands, the next, and equally important, step is to determine where it wants to be — *i.e.*, to set goals for sustainable development.

As noted earlier, most organizations will not want to be a champion for all of the sub-elements. It is important to think strategically about how the business can realize the most value. For example, an organization involved with mining in remote areas of developing countries may conclude that it must fully integrate protection of basic human rights into its business processes to maintain its right to operate and access to future ore deposits, whereas an organization that sells expensive specialty products may conclude that supply-chain management incorporating responsible work practices is critical for maintaining its market niche.

It will probably be easy to quickly pick out the few places

where the business can realize more value. However, as you set your organization's goals, it is important to think through each of the sub-elements to make sure you aren't overlooking any opportunities or liabilities that should be considered. For instance, an organization that analyzes information on why employees are resigning may find that a key issue is work/life balance, and that by implementing some flexible work options, it can retain employees, thereby saving the costs associated with recruiting and training new employees.

Once goals have been set, a gap analysis will reveal where the organization's actual performance differs from its desired performance (goal). This leads to the next step — action planning.

**Action planning.** Future actions can be prioritized in various ways. Some organizations focus on the sub-elements with the biggest gaps between actual performance and the goal. Other companies focus on the sub-elements where the most business value can be gained. Still others concentrate on those where they may be most vulnerable relative to stakeholder expectations. Whatever approach works best for your organization is acceptable.

As the business is developing its action plans, it can be helpful to look at what others have already done. SD Planner

## CUSTOMER FOCUS AT DuPONT

These three examples illustrate how focusing on the customer has helped DuPont implement its sustainable development strategy.

To help the poorest people in the world continue to grow cotton safely, DuPont introduced an insecticide with excellent human, animal and environmental safety into West Africa. Avaunt indoxacarb was developed as a low-dose insecticide applied at 170 mL per hectare (ha; 1 ha = 2.47 acres) compared to up to 1,500 mL/ha for many older products. Training seminars for the farmers focus on how the product should be applied most effectively and efficiently.

Driven by the U.K.'s commitment to reduce global greenhouse gas emissions, the Tyvek business and local builders began working together to improve the energy efficiency of the traditional pitched-roof housing. Houses utilizing Tyvek as a protective layer reduced energy costs by 10% per month, while reducing greenhouse gas emissions. If all the houses across Europe began utilizing the Tyvek system, the emissions decrease would be the same as removing over 5 million cars from the road.

One of the most significant environmental impact areas in the production of automobiles is painting. DuPont developed "Super Solids" ultra-low-emissions coating technology that uses the automobile manufacturer's current coating equipment. It reduces volatile organic compound emissions by 25% in the final clear-coat step.

includes hundreds of examples of how companies are already implementing actions for each of the stages. Organizations like WBCSD and Business for Social Responsibility (BSR) also publish examples of what leadership companies have done on their websites (although those examples are not organized into the specific sub-element categories discussed here).

**Stakeholder involvement.** It is also valuable to engage the organization's stakeholders, and a good place to start is with the employees. What are their concerns? What ideas do they have to help the business move from its current state to goal performance? Many companies have found that by engaging their own employees they also improve morale because the employees are excited about helping create an organization that is embracing improved environmental and societal performance.

Other stakeholders include local communities, suppliers and customers. There is always a risk to taking the discussion external to the company, but there is also strong upside potential in having other stakeholders understand the company's direction and the dilemmas that it is grappling with.

Some companies have set up web-based dialogues to gather input from stakeholders globally. For instance, Shell has established the "Tell Shell" site ([www.euapps.shell.com/TellShell](http://www.euapps.shell.com/TellShell)) for discussions of issues related to how it operates, and DuPont has opened a similar dialogue relative to biotechnology ([www.dupont.com/biotech](http://www.dupont.com/biotech)).

One of the most profitable ways to begin implementing sustainable development may be to focus on your customers. What products and/or services can you develop that will help your customers meet their goals while creating new business opportunities for your business? Some areas to explore include:

- providing the same function with less material
- eliminating customer disposal or emission issues

## WEBSITES OF INTEREST

The Global Environmental Management Initiative (GEMI) is a non-profit organization of leading companies dedicated to fostering environmental, health and safety excellence worldwide through the sharing of tools and information in order for business to help business achieve environmental excellence. Through the collaborative efforts of its members, GEMI also promotes a worldwide business ethic for environmental, health and safety management and sustainable development through example and leadership. Additional information is available at <http://www.gemi.org>.

The following websites provide more information about the World Summit for Sustainable Development held in August and September 2002 in Johannesburg, South Africa, and on sustainable development in general:

- World Summit for Sustainable Development:  
[www.johannesburgsummit.org](http://www.johannesburgsummit.org)
- World Business Council for Sustainable Development:  
[www.wbcd.org](http://www.wbcd.org)
- Business Action for Sustainable Development:  
[www.basd-action.net](http://www.basd-action.net)


- developing customer integration processes such as recyclable or returnable packaging
- developing intermediates from renewable resources
- providing centralized waste-management for customers using excess capacity made available by your own waste minimization
- providing products for energy efficiency.

The sidebar (previous page) illustrates how DuPont incorporates a customer focus into its sustainability strategy.

## Learning and improving

Once the action plan has been developed and implementation has begun, the process starts over again. The actions and their results need to be analyzed. What have you learned? Are the actions having the desired results? Is the direction still right? What needs to be done next?

Like any other strategic initiative, sustainable development is not something you can do once, declare victory, and then move on. The journey will take many iterations and as you learn, you will need to go back and redefine some aspects of what you thought was the right direction.

Maximizing the value of the business in today's world means meeting the expectations of the shareholders. More and more, it also requires meeting the expectations of a broader set of stakeholders. Social and environmental performance are becoming more important, not just as a right to operate, but also as a source of competitive advantage. Implementing a process of continuous learning relative to a sustainable development strategy is one approach to creating a healthy, growing business. 

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