

Rethinking the Environment for Business Advantage

J. Ladd Greeno, Karen Blumenfeld, and S. Nasir Ali

Many business leaders have come to accept the validity of the message that environmental activists have been preaching for decades, namely, that industrial pollution of the environment is an inefficient use of resources that causes both environmental damage and economic losses. Despite this recognition, only a handful of companies are reaping the competitive benefits of integrating environmental, health, and safety (EHS) knowledge into their management decisions. A far greater number are finding the path toward environmental integration extremely difficult to follow. In fact, so widespread is this difficulty that it has entered into the business lexicon as the „green wall“ phenomenon.

The green wall arises from a kind of corporate „split vision.“ While the business vision focuses on growth and profitability, the EHS vision is often limited to providing protective cover from regulators and appeasing environmentally conscious customers and other pressure groups. Because of this split vision, EHS actions are often perceived as barriers to business growth.

A recent survey by Arthur D. Little indicates that many corporate environmental initiatives are running into this green wall. Of 185 companies from a range of industries, only 4 percent reported that their companies manage environmental issues as a full-fledged part of their business management approach. Twenty-seven percent indicated that they are increasingly trying to manage environmental issues as part of their business management responsibility, and just 16 percent said they manage them as part of line responsibility.

Breaking Through the Green Wall

The need for corporate management to recognize the green wall and find ways to break through it is becoming especially critical as more and more EHS departments are being reengineered and downsized.

The good news is that the „green wall“ *can* be successfully overcome – if corporate management understands why EHS activities should be looked at differently from other reengineered or downsized functions. The reason for this special treatment is that in most companies the EHS function has traditionally been the least integrated into management and operations. When determining the best way to downsize or reengineer a business function, management is usually able to articulate expectations and set measurable objectives. In the case of EHS, most business managers have given little thought to what they should demand, or could expect to receive, from EHS departments, beyond the customary „keep us out of trouble“ directive.

In order to break through the green wall and achieve the best possible results from reengineering and downsizing of EHS operations, companies must align their EHS goals with the company’s business vision and objectives.

Some companies have managed to achieve this goal. Companies like Xerox and 3M manage to generate hundreds of millions of dollars in benefits from leveraging their EHS capabilities. As management consultants, we are increasingly being asked to help our clients understand how some companies can achieve these results, while many of their competitors still view EHS activities as fast-growing and virtually uncontrollable expenses. The key is integration.

While the paths that companies take in integrating EHS functions vary, we have found that the successful companies have created business value from the EHS function by:

- Aligning their EHS vision with their business goals
- Developing EHS processes to address business needs
- Communicating EHS benefits
- Subjecting EHS to appropriate financial scrutiny
- Effectively managing the transition

Aligning EHS Vision with Business Goals

Successful companies use their business goals to determine what the EHS function will need to deliver. Recognizing that the EHS goals of the past may not be appropriate for future business operations, these companies examine business goals to determine areas where EHS activities are critical to either preserving or enhancing the value of the business. Intel Corporation and Dow Chemical are two companies that have recognized the business value of EHS issues and have taken bold steps to capture that value.

Intel managers were some of the first to recognize that EHS issues could significantly affect their competitiveness in the marketplace. Intel needed to build and alter multibillion-dollar fabrication facilities quickly in order to bring its products to market in the fastest time possible. Recognizing that „time to market“ is an important competitive factor in the chip business and that unanticipated lags in obtaining the right environmental

permits could seriously affect the bottom line, Intel decided to focus its efforts on rethinking how to go about obtaining the necessary permits. Working with the regulators, Intel staff arrived at a modified permit process that is faster, simpler, and more effective in meeting environmental requirements than the process previously in place.

The next step for Intel is the environmentally friendly factory, which is „designed for sustainability“ – a term used to describe a factory that achieves business objectives, such as manufacturing flexibility and extremely clean indoor environments, as well as environmental objectives, including resource conservation and effective waste management. Intel’s new Fab 12 facility in Arizona, for example, has successfully reduced water use by over 30 percent and discharges to public treatment works by over 60 percent.

Dow Chemical Corporation, which has a long history of commitment to the environment, now sees its environmental expertise as a generator of new revenues. At a time when many chemical companies are seeing EHS management as a shared service or a set of practices that can be outsourced, Dow Chemical is making a strong investment in the EHS expertise that has made it a leader in environmental stewardship and corporate responsibility. Recognizing that this in-house expertise could also be provided to other companies for a profit, Dow has recently decided to enter the environmental services business by acquiring Radian Corporation and the French company Ecobilan. These two environmental services firms are intended to complement Dow’s experience in developing environmental technology and also to provide a platform for offering this expertise to the outside world.

Linking EHS Processes to Business Needs

Successful companies develop their EHS processes to meet current and future business requirements, including the need to satisfy key stakeholders. Once the business requirements are clear, it often becomes apparent that the old directives for EHS management do not represent the changed expectations of the stakeholders. Since most EHS activities in the past were driven by management’s desire to keep liabilities to a minimum, it is no surprise that the primary stakeholder for most EHS processes turned out to be the regulators. Once business issues, such as loss of revenue due to work stoppages or changing information-technology needs owing to changing work patterns, are taken into account, the need to alter current processes or to institute new ones becomes evident.

Some real business examples can help illustrate this point. To manage safety issues at its facilities in the past, Rhône-Poulenc, Inc., relied on regulatory prescriptions such as the OSHA 200 Log, which requires recordkeeping on injuries to employees. However, a management review indicated that the indicators being tracked as part of regulatory compliance initiatives were inadequate for managing smaller sites with fewer than 500 people; incidents occurred even when critical health and safety elements were in place. Thus, instead of relying solely on these regulatory-driven indicators, Rhône-Poulenc managers decided to improve performance by studying the employees’ decision-making process for health and safety issues. By moving beyond traditional compliance auditing methods and initiating a more open and participatory process based on voluntary surveys, the company unearthed a significant disconnect between what employees believed the company wanted and what their EHS systems were instructing them to do. As a result of these efforts, Rhône-Poulenc moved beyond a „compliance“ focus to a focus on EHS performance improvement.

Sun Microsystems, a manufacturer of business workstations, realized that in a future where more and more people will be working out of their homes, the issues determining management of worker compensation claims will be very different from those of today. Clearly, the home-based computer user of the future will be working under conditions that will be harder to understand or control than traditional office environments. The ergonomic implications of working in such diverse conditions need to be considered by computer manufacturers and built into tomorrow’s machines. Understanding these worker safety issues and learning how to manage them is critical for Sun’s future business success. Having recognized this, Sun has introduced a new group within its design department that will link the ergonomic considerations of future users into the overall design process.

Communicating EHS Benefits

Successful companies identify and communicate the benefits of EHS activities to both internal and external stakeholders. Internally, these companies let the recognition of business value drive their efforts at integrating EHS responsibilities into line functions, rather than forcing the line to accept EHS tasks with little or no perceived benefit. Externally, communicating the benefits of EHS activities and initiatives can not only improve a company’s reputation with its customers, but help identify new services and potential sources of revenue.

Zeneca Specialties, a chemical manufacturer, has been one of the leaders in implementing the Responsible Care program. As part of this program, Zeneca has focused on helping customers around the world ensure the responsible management of Zeneca products. The vehicle for communication is the global Zeneca sales force, which has had to expand its traditional networks of purchasing staff to include key manufacturing and technical people within client organizations. The results of these efforts are not just improved management of chemical products, but better, more timely access to customer concerns and needs and an opportunity to provide much

greater value to their customers.

Product takeback is an issue of extreme importance to the microcomputer and electronics industry. While many manufacturers voluntarily take back used electronic products (e.g., mainframe computers and workstations) that can be refurbished, reassembled, or used in other value-generating operations, they worry about possible European Union waste disposal requirements that would force them to take back items that are far greater in number and have considerably less value (e.g., personal computers and household electronics). The costs of compliance with such directives would be quite high and would lead to higher prices for common consumer electronic items.

One response to this business challenge is to integrate environmental considerations into the product design process, so that tomorrow's products are easier to remanufacture, disassemble, and reuse. (See the article on Design-for-Environment tools in this issue of *Prism*.) Another, complementary, response is to recover the value from used products by reselling reconfigured or remanufactured equipment and disassembled parts. Workstation manufacturers such as Sun and Hewlett-Packard have been quick to see the advantage of being able to offer high-level computing power at low prices to small businesses that usually cannot afford to buy new systems. Product takeback and asset management are areas of EHS responsibility that the core business operations in these companies are only too happy to call their own.

Subjecting EHS to Financial Scrutiny

Successful companies recognize that environmental, health, and safety management can no longer avoid the financial scrutiny that is applied to other business expenses. Traditionally, companies have thought of the EHS function as a monolithic expense that is outside the control of corporate management. The stovepipe structure of the EHS function within these companies also made it difficult to analyze these costs or to adequately determine the benefits being delivered to the rest of the organization. Companies can better manage the business value of EHS by specifying desired outcomes, allocating costs to line operations and business units to support these goals and then measuring the business return on those EHS investments.

3M has been at the forefront of quantifying the value from pollution prevention initiatives. Others, such as Xerox, have focused on the value generated by Design-for-Environment activities. Since Xerox leases its document processing equipment, it has a closed product loop that provides obvious opportunities for component reuse and remanufacturing. As a result of design improvements that optimize resource use, Xerox has captured hundreds of millions of dollars in value just through reclamation of finished parts from used equipment.

Many initiatives to capture and analyze EHS costs have their roots in TQM requirements for measuring the cost of quality. Baxter International, for example, uses this approach to develop a dollars-and-cents equation that stakeholders can easily appreciate. For instance, in 1993 the company's environmental balance sheet reported savings of \$25 million in compliance costs and \$48 million in other EHS-related costs. The report also identified a further \$14 million in future savings. These numbers highlight the corporate return on investment in EHS initiatives and also provide other stakeholders with a view of the company's commitment to meeting environmental challenges.

Managing the Transition

Successful companies effectively manage the transition to a new, reconfigured EHS structure. Leading companies are replacing their traditional, technical, highly self-sufficient, command-and-control EHS structures with virtual organizations in which EHS knowledge is embedded in the appropriate business functions. Having determined the outlines for these new EHS functions, companies must carefully map out and manage a migration plan that will allow them to make the transition smoothly. Clearly, such a change entails a radical shift in terms of knowledge, skill base, career aspirations, and incentive systems for EHS managers of the future.

Because many companies are still in the midst of implementing changes in the way EHS issues are perceived and managed, it's still too early to pick the winners. However, some general trends are apparent. Many companies are asking themselves if EHS activities are a core competence that must be kept in-house or a service that can be outsourced to a specialist provider. The answers are far from clear. Major chemical companies, for example, are cautiously trying to understand the parameters that will let them optimize costs without compromising value. Monsanto, for one, has already taken steps to implement a shared services approach to providing those health, safety, and environmental services that each internal customer requires in the most cost-competitive manner.

Sun Microsystems has adopted a more aggressive approach, outsourcing many routine EHS activities. Sun found that running routine EHS operations, such as management of hazardous wastes, in-house provided little benefit to the business goals of the company as a whole. While Sun needed to ensure that hazardous wastes were managed properly, it didn't need to do the managing itself. Thus, the company is moving ahead to change its EHS focus from traditional command-and-control programs to product-oriented, leveraged services. Its EHS

program has been reengineered, and 60 percent of EHS activities are now managed by contracted sources.

Summary

As more and more EHS departments are asked to downsize and reengineer their processes, companies must take a particularly close look at this function – traditionally the least integrated of all business functions. The routine application of standardized reengineering solutions could buy short-term solutions – at the expense of the company’s future. If properly executed, however, the benefits of integrating EHS considerations into business functions can significantly boost company performance.

J. Ladd Greeno is a Senior Vice President of Arthur D. Little, Inc., and Managing Director of the company’s worldwide Environmental, Health, and Safety Consulting business. An internationally recognized authority on environmental management and auditing, Mr. Greeno is frequently called on to advise corporate management and boards of directors regarding ways to increase the level of assurance provided by their EHS programs.

Karen Blumenfeld, a Director of Arthur D. Little’s Environmental, Health, and Safety Consulting business, specializes in environmental strategy and management, with a focus on helping companies identify environmentally based opportunities for competitive advantage. Ms. Blumenfeld helps clients profile the environmental aspects of their businesses and systematically explore competitive strategies that build on environmental strengths at each stage in the product life cycle.

S. Nasir Ali, a Senior Consultant in Arthur D. Little’s Environmental Management and Strategy Practice, focuses on the strategic planning and management of environmental issues for competitive advantage. He is also actively involved in the development of product life cycle analysis as a decision tool that incorporates product development profiles into corporate decision-making activities.