

Responsible Leadership and Corporate Social Responsibility: Metrics for Sustainable Performance

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Many companies have initiated a variety of sustainable development initiatives to address the demands and expectations of society. Although most analysts argue that these initiatives contribute to making businesses more profitable, there are many managers who are not yet convinced of the validity of this argument. The reason is that most sustainable development initiatives have been developed in isolation of business activity and are not yet directly linked to business strategy. One way to strengthen the link between the two is to measure the extent to which a company's performance increases as a result of implementing sustainable development initiatives. This article examines the best available metrics used by twenty major German companies to measure sustainability.

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Sustainability, Responsible Leadership and Corporate Social Responsibility

Many large and medium-sized companies have started to incorporate sustainability into their business strategies. However, they report on their initiatives in ways that are difficult to understand and compare. There is a need to establish clear, user-

friendly methodologies and tools to measure the progress that companies are making toward sustainability.

Sustainable Performance of a Company

Sustainability is about building a society in which a proper balance is created between economic, social and ecological aims. For businesses, this involves sustaining and expanding economic growth, shareholder value, prestige, corporate reputation, customer relationships, and the quality of products and services. It also means adopting and pursuing ethical business practices, creating sustainable jobs, building value for all the company's stakeholders and attending to the needs of the underserved.

A company that embarks on the path of sustainability needs to carefully examine its mission, vision and values. It must be informed about legal constraints and assess all its management structures. Figure 1 illustrates all the areas a company must focus on when developing sustainability strategy.

There is a business case for sustainability. The principles of sustainability help businesses to reduce unnecessary risks, avoid waste generation, increase material and energy efficiency, innovate new, environmentally friendly products and services and obtain operating permits from local communities. Thus, by adopting sustainability principles, businesses

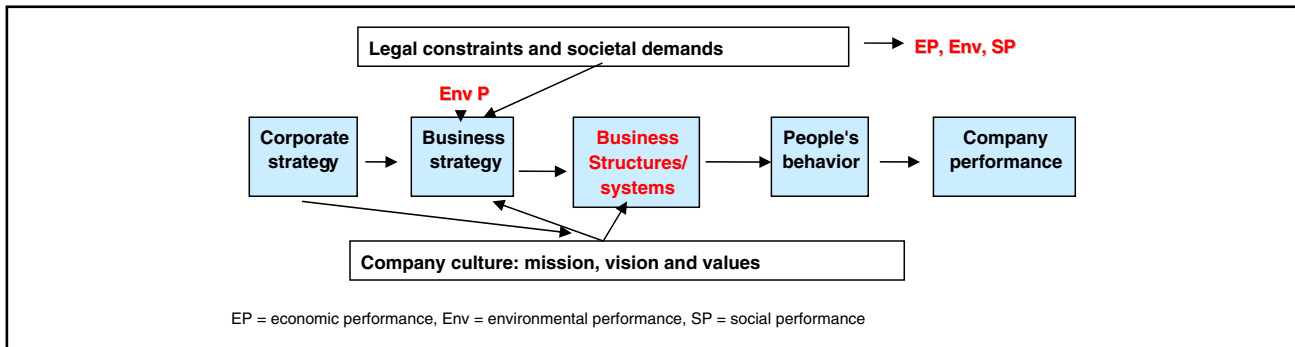


Figure 1 Assessing the Sustainable Performance of a Company

can become more profitable and sustain their activities over the long term. Far from being an end in itself, the sustainability approach is a process by which companies integrate their economic, social and environmental objectives into their business strategies and optimize the balance among all three.

Companies today must comply with a growing number of national regulations and international standards governing the environment, labor standards, human rights, anti-corruption practice and corporate governance. But sustainability means going beyond legal compliance. Companies can also contribute to building a sustainable society by proactively innovating products and services that are not only economically attractive and environmentally sound but that contribute to fulfilling a social need.

Responsible Leadership

What Role does Leadership Play in Promoting Sustainability?

The adoption of sustainability within a company is much more than a mere public relations exercise. Sustainability takes place only when there is an active leader/manager within the company who champions this approach. In our research we found that it always takes a leader to transform a company into a sustainable, socially responsible enterprise. This individual needs to be both a good leader and a good manager. His/her sustainability work starts by carefully examining all the factors that determine the sustainability performance of his/her company and its suppliers. These factors can be internal (mainly managerial and organizational) or external (stakeholders' demands). Addressing these internal and external factors is not an easy task. There are a number of time and market barriers that need to be overcome. However, the most critical success factor for sustainability is true leadership within the organization. Leadership means securing the commitment of management (starting at the very top) and developing a system of incentives to reward leaders at all levels who develop and push for the adoption of sustainability practices. It also refers to the ability to

respond flexibly to change and to engage in dialogue and partnerships with different members of society.

The importance and scope of such factors will vary, reflecting the context in which a company operates.

a. Internal Factors that Determine Sustainability within a Company

Companies embarking on a strategic approach to corporate sustainability expect their contributions to enhance business performance and to support the long-term interests of the company. The Global Compact Initiative¹ has identified a number of ways in which the efficient management of environmental, social and governance issues can contribute to creating shareholder value.²

The internal factors favoring the adoption of a sustainable approach toward business operations include:

Managerial factors:

- ❖ Assessment of all internal organizational structures and management procedures
- ❖ Development and implementation of incentive mechanisms to promote sustainability initiatives and to increase the sustainable performance of companies
- ❖ Early identification of potential business opportunities
- ❖ Recognition of emerging risks, potential threats and management failures
- ❖ Better risk management, lower risk levels
- ❖ Improvement in workers' safety and the quality of labor recruitment and retention

Operational factors:

- ❖ Identification of environmental problems
- ❖ Minimization of environmental footprint
- ❖ Reduction of material inputs
- ❖ Achievement of energy efficiency (eco-efficiency)
- ❖ Operating licenses

Economic factors:

- ❖ New market opportunities
- ❖ Cost savings
- ❖ Technological innovation.

b. External Factors that Determine Sustainability within a Company

The factors outside the company that compel managers to act in a certain way or to respond to society's expectations and demands are:

Market factors:

- ❖ Product differentiation
- ❖ Customers' values (e.g. green consumers, human rights)
- ❖ Access to new markets
- ❖ Industry competition
- ❖ More competitive labor markets
- ❖ Increased consumer interest in ethical and socially responsible business conduct
- ❖ Socially-oriented investors
- ❖ Ratings agencies
- ❖ Improved company reputation

Government factors:

- ❖ Increased regulatory intervention
- ❖ Operating licenses

Stakeholder expectations:

- ❖ Full transparency and access to information
- ❖ Internalization of negative externalities (pollution and waste)
- ❖ Demands for reduced material consumption
- ❖ Adoption of international labor codes (human rights groups)
- ❖ Transparent reporting (investors and authorities).

Cost analysis can be greatly reduced through the assessment of risks and uncertainties. In some industrial sectors, key risks and uncertainties have strong links to environmental and social concerns.

Economic, environmental and social indicators can help management anticipate new risks and opportunities in the marketplace. For example:³

- ❖ Knowledge of direct and indirect energy use and the types of fuels consumed by the company can reveal its exposure to the risks of future carbon emission agreements and requirements.
- ❖ Performance indicators on energy efficiency initiatives and the use of renewable energy can help demonstrate the degree to which the company is insulated from volatile, cyclical non-renewable energy markets.
- ❖ Performance indicators relating to worker health and safety can help assess the risk of costly accidents or workers' demands for compensation.

Investors are an important external factor that puts real pressure on companies to engage in sustainability practices. Following the initial success of ethical investment funds, a new trend toward socially responsible investment (SRI) has emerged over the last few years. The objective of such initiatives is to

advise clients on how to make investment decisions based wholly or partly on ethical preferences and the sustainable performance of companies. Hence, to earn an SRI label, investment recommendations must take into account the processes by which companies operate as well as the nature of their products. Socially responsible investment is growing as more analysts, investors and fund managers integrate environmental, social and governance issues into their investment decisions. A better inclusion of these factors in investment decisions will ultimately contribute to more stable and predictable markets and benefit all market players.

The investment rationale for including environmental, social and governance criteria lies in the growing importance of intangible assets such as management skills, reputation, human/intellectual capital, brands and the ability to work in partnership with stakeholders. In a recent survey of European fund managers, analysts and investment relations officers, 78 percent found that the management of environmental and social risk had a positive impact on a company's long-term market value.⁴

c. Sustainable Performance: Barriers and Challenges Time Horizons

One of the crucial barriers that companies need to overcome when developing a business strategy that incorporates the principles of sustainability is how to plan for their short- and long-term future. The adoption of a sustainable approach requires a much longer timeframe and perspective than the short- to medium-term planning horizon most business leaders use. The market's short-term evaluation is a major impediment to businesses that are trying to align performance with sustainable development.⁵ Embarking on sustainable performance entails long-term scenario planning and risk management to secure future business success.

The key barrier to adopting a long-term approach to sustainable business performance is related to the approach a company takes when addressing the issue. It is not a one-time management decision but requires continuous assessment. This effort may lead to costs in the form of time and investment over the short term if the company plans and implements sustainability measures.

– *Market response.* Consumers are increasingly demanding in-depth information on product quality, product ingredients and manufacturing. They are concerned with the health and security aspects of products and production sites as well as with recycling issues. Transparency across these fields is essential. Unfortunately, the market does not always reward sustainability investments with premium margins. Although it is true that some environmentally oriented market niches exist (e.g. organic food),

most people are not willing to pay a premium just because a product or the company producing it is more sustainable.

One of the reasons given in the literature for the disparity between what consumers say they do and what they actually do is that “green” products might not meet consumer criteria regarding price, performance and quality. Environmentally friendly consumers might not buy green because the product repeatedly fails to meet their expectations or because they are not willing to pay the premium price.⁶ At the same time, it is crucial to note that consumers can be very quick, powerful and successful when it comes to banning or boycotting certain products or companies once a corporate reputation is under attack or tarnished.

In the global economy, there are many jurisdictions to which a company can run to avoid regulation and taxes or reduce labor costs. But there are few places where a company can hide its activities from skeptical consumers, shareowners and protestors.”⁷

d. Critical Success Factors to Achieve Sustainability

There are at least three critical success factors that a company needs to fulfill to achieve sustainable performance. Leadership and vision, flexibility to change, and openness for engagement.

– *Leadership and vision.* A number of factors are crucial for successfully implementing long-term business sustainability measures. Good sustainability performance is heavily influenced by the full and honest commitment of management to sustainability and by the adoption of a management incentive scheme. The top management of a company needs to send the right signals to promote sustainability and to set an example in how sustainable principles are followed. A variety of management measures need to be taken and supported by top management, not only the establishment of management systems, but also the introduction of incentives and training on sustainability issues that drive performance on non-financial issues. These measures must also include product and process innovations that improve sustainability performance. Key top managerial staff must be committed to this objective, and companies must ensure that sustainability values and vision are not only integrated into business strategy, policies and culture, but also communicated to all employees. Setting appropriate goals and targets, developing a coordinated approach, monitoring and evaluating progress, and optimizing the process when necessary—such measures facilitate learning and build credibility.

Companies that not only identify and communicate key issues and value drivers but also clearly prioritize economic, environmental and social sustainability issues can gain a competitive edge by proactively managing sustainable performance. Improved overall

performance can only be achieved by setting sustainable performance targets that are consistent with the company’s operating principles and that measure, report and, if necessary, adapt performance to these targets over time.

– *Flexibility to change.* Adopting a sustainability approach involves continuous effort, investment and adaptation. A key challenge lays in aligning sustainability activities with the nature of the business, in defining the right positioning at board level, and in securing the commitment of key staff. The objective must be to incorporate sustainability into the overall business strategy and policy of a company. One of the greatest pitfalls occurs when companies view sustainable development as a mere regulatory compliance issue, and address it through typical environmental, health and safety programs. Companies that implement successful sustainable development programs view it as a strategic issue. Their chief executive officer or other senior executives are champions of this cause, and they encourage cross-functional collaboration throughout the organization in pursuit of innovative products and business models. For sustainable development to become truly integrated into business decisions, a systematic sustainable development performance measurement is essential.⁸

– *Openness: stakeholder engagement.* In order to develop a shared understanding of approaches and expectations, including the provision of external benchmarks, it is important to engage with key stakeholders in their own right and not only with investors with short-term financial interests. Stakeholder engagement means more than just entering into dialogue. It has to produce real learning effects that lead to product and process improvement or innovation.⁹ Engagement with internal and external stakeholders as well as with sectoral and multi-stakeholder initiatives supports the learning process and increases credibility, commitment and innovation.

Reporting on and communicating sustainability investments and achievements helps demonstrate transparency and seriousness of intent and rewards staff and partners for their input into the sustainability programs. The internal objective of reporting is to track and improve sustainability performance. External reporting enables stakeholders to judge an organization’s performance and make informed decisions on how and to what extent they want to interact.¹⁰ It is crucial to distinguish between voluntary activities and legal requirements and not to claim the latter as part of a voluntary program. For this reason, good reporting practice includes providing information that is material and relevant, granting access to more information when needed, and ensuring that reporting is comparable and consistent over time. Business in the Community states that “reporting is not an end to itself. It’s a means to build trust with your employees, customers, suppliers and other

stakeholders by demonstrating your company's openness and willingness to be accountable for its actions and impact on society."¹¹

– *Sustainability in Germany*. Unlike Anglo-Saxon economies, Germany does not have a long tradition of sustainability, yet it has focused on environmental issues since the 1970s due to a strong green movement that has produced numerous environmental standards. European integration and the growing international positioning of German companies have foregrounded social sustainability issues in the overall sustainability debate.

At the political level, the issue of Corporate Social Responsibility is coordinated by the Federal Ministry of Economics and Labor (BMWA), whose standpoint is that there are many established activities in Germany that support CSR, such as the promotion of codes of conduct in the areas of foreign direct investment and procurement, and the involvement of all interest groups in the multi-stakeholder German standardization committee DIN-NAGUS, which mirrors the development of the ISO 14000 series. Further, in 1999 the German Foreign Office set up a working group on human rights and business. At the level of trade associations, the Federation of German Industries (BDI) tracks the numerous voluntary activities of German companies and is opposed to any further regulatory inroads into this area. The Confederation of German Employers' Associations (BDA) is devoted to strengthening the International Labor Organization (ILO), which has addressed the issue of corporate responsibilities and their implications to society for over thirty years.¹²

Corporate social responsibility is an issue that has been receiving greater attention in discussions on business and sustainability.

Methods and Tools to Measure Corporate Sustainability Performance

Companies are increasingly being asked to provide more and better information on how they identify and manage social and environmental issues. They are also being asked to explain how these opportunities and threats affect short- and long-term value.

The comparative analysis of sustainability is a complex task due to the wide range of reporting practices for environmental, social and corporate governance risks/opportunities and also due to the difficulty of verifying the accuracy of the information provided by companies. Whereas economic performance can be measured easily by internationally accepted standard measures, and environmental performance can be evaluated through input-output measurements, it is difficult to measure social performance and the intangible assets of a company.

Standard measuring procedures are required to make possible greater comparability of sustainability policies and to enable the companies themselves to set and adapt targets and to develop standards for internal benchmarking and year-on-year progress. Companies need to focus on the future and report on future sustainability plans in addition to providing historical data on past activities.

Key challenges that need to be further investigated include demonstrating the link between sustainability and economic performance and showing how sustainability parameters can be converted into quantifiable indicators that business managers and financial analysts can use.

There are various approaches to measuring, monitoring and assessing a company's progress towards sustainability. They include:

- a. Surveys
- b. Award schemes
- c. Investors' criteria
- d. Benchmarking
- e. Sustainability indexes
- f. External communication tools
- g. Accreditation processes
- h. Standards and codes
- i. Sustainability indicators
- j. Metrics for sustainability performance
- k. Non-quantifiable sustainability initiatives.

a. Surveys on Sustainability Performance

These are studies that examine the way different stakeholders perceive the environmental performance of a company. There are internal (within the company) and external surveys.

There is an increasing number of surveys conducted on corporate sustainability performance. The surveys are carried out by:

- ❖ Industry
- ❖ Business lobbies (World Business Council on Sustainable Development, WBCSD)
- ❖ Non-governmental organizations (NGOs)
- ❖ Professional associations (CSR Europe, ISR Compass)
- ❖ International organizations (United Nations, OECD)
- ❖ Academic institutions.

Experience with surveys has shown that they are not an objective tool. Surveys mostly reflect opinions and do not provide the "hard-core" data necessary to make a proper assessment of the sustainable performance of a company. An additional problem is that there are no methodological guidelines for developing and conducting sustainability surveys.

b. Award Schemes

Sustainability awards are presented by initiatives that publicly recognize companies that are working to reduce their impact on the environment, that are innovating environment friendly products and services, and that are incorporating sustainability principles into their business strategies.

There have been a large number of international, national and local initiatives that seek to acknowledge and spotlight those businesses that are considered sustainability leaders.

The awards attract entries from a wide range of sectors, including finance, education, manufacturing, real estate, retailing, energy and government.

Since 2000, sustainability award programs have been expanded from one category to three—small businesses, large businesses and the public sector—to acknowledge the different capacities and resources of organizations.

The number of environmental and sustainable development awards has grown dramatically over the past few years, causing problems for potential sponsors and entrants, who are often unsure of the quality and validity of the schemes. The organizers themselves also face new challenges. The RSA¹³ Environment Forum has established an accreditation scheme to help tackle these issues. The main aim of the scheme is to improve the design, operation and efficacy of award schemes. The Environment Forum's existing initiative www.EnvironmentAwards.net features an online database listing over 300 environmental and sustainable development awards.

c. Investors' Criteria

The financial community recognizes the importance of corporate social responsibility. Financial markets are demanding an increasing amount of information on the environmental and social performance of companies.

According to 61 percent of fund managers and analysts questioned, socially responsible investment (SRI) has been on the rise for the past two years. The European SRI retail market is currently estimated to be worth EUR 12.2 billion, while the European SRI institutional market is worth EUR 336 billion.¹⁴

According to [CSR Europe](#), the financial community sees a clear link between non-financial risks and shareholder value. There are significant national differences in this area. Only 22 percent of fund managers/analysts in the UK and 26 percent in Sweden grant a premium to responsible companies, compared with 57 percent of Spanish and 50 percent of Dutch and Italian fund managers/analysts.¹⁵

SRI makes its evaluations through surveys that are given to financial investors and analysts. The surveys require participants to rank companies according to four main criteria:

- ❖ **Negative screening:** the exclusion of certain companies or industrial sectors from investment portfolios on the basis of their inability to meet various social, ethical and environmental criteria. Examples include the armaments, nuclear power and tobacco industries.
- ❖ **Positive screening:** actively including companies in investment portfolios on the basis of their strong performance on social, environmental or ethical issues. Examples include environmental policy, codes, management systems and respect for human rights and working conditions.
- ❖ **Engagement:** the use by investors of robust dialogue with boards or other management representatives with the aim of altering corporate behavior in relation to social, environmental and ethical issues. Examples are a lack of policy on climate change, and pricing of medicines in developing countries.
- ❖ **Shareholder activism:** the exercise of shareholder powers through general protest voting at annual meetings and through the support of SRI-related shareholder resolutions. Shareholder activism can be considered one of the forms of engagement. Examples: voting against resolutions to approve a company's report and accounts if it does not report on its environmental performance.

In Germany, sustainable investment funds managed EUR 4.5 billion in 2004 compared with only EUR 300 million in 1996.¹⁶

d. Benchmarking¹⁷

Benchmarking involves comparing companies to a point of reference. It is a process of comparing performances either internally or externally through standards and indicators.

Benchmarking was initiated by the Japanese, who over 30 years ago started taking "study trips" abroad to look at how others ran their businesses. Japanese delegations went to companies and made careful observations, even taking photographs if permitted. Some say that the Japanese "copied," but in fact they went beyond copying. They picked the best of what they saw and combined their findings to arrive at the "best of the best." The best was searched out in all spheres. Thus, the Toyota just-in-time manufacturing system had its roots in careful observations of American supermarkets, where there was no back-room inventory and goods arrived when they were needed. But these observations had to be done correctly. Detailed process analysis, hard work,

adaptation and a philosophy that always asked “why not” were key contributing factors. To a large extent, this process defines today’s benchmarking processes, i.e. smart copying based on the best of the best.

The most fundamental issue of benchmarking is that it must focus on processes. Processes are a series of steps that must be taken to carry out an activity. By definition, a process can always be flowcharted, and, conversely, if something cannot be flowcharted, it is not a process. Corporate culture, for instance, cannot be flowcharted. Moreover, the culture of another company might be highly desirable, but trying to copy it is extraordinarily difficult. A culture simply has too many facets.

Similarly, a company’s competencies or abilities—such as 3M’s pollution prevention expertise, Procter & Gamble’s supply chain management, or another company’s ability to champion sustainability—are not processes. They are critical to the competitive performance of these companies, but they are not processes and cannot be copied. There are some processes that support these competencies, and it is surely interesting to examine the links between processes and competencies. But the key point is that processes can be benchmarked. Competencies are almost impossible to benchmark.

Besides examining processes, benchmarking can also focus on measurements.

Benchmarking needs to focus on processes and the practice of processes. Serious benchmarking requires the inclusion of business process reengineering (BPR)—that is, a process is selected and then carefully studied. It is examined with BPR techniques, which include a detailed flowchart and process analysis to identify each step in the process, the quantity of resources consumed at each step, the amount of waste produced, the energy consumed, and the number of people involved. This analysis also identifies the steps which do (and do not) add value in terms of customer and stakeholder perceptions.

e. Sustainability Indexes

Over the last few years, an array of sustainability stock indexes has been created to provide guidance for investors. The most widely recognized are the Dow Jones Sustainability Index (DJSI), established in 1999, and the FTSE4Good, launched in 2001. Both indexes have a European derivative.

From the investor’s point of view, such indexes are easy to access and use. An investor can quickly identify best-in-class companies and thereby gain a rough estimate of non-financial risk. The main drawback of the indexes is that they rely on a self-assessment procedure.¹⁸

The Dow Jones Sustainability Index, established in 1999, was the first index to attempt to assess the ability of businesses to create long-term shareholder value by embracing opportunities and managing risks deriving from economic, environmental and social developments. It looks for the “best in class” in specific sectors. The index’s methodology appears to succeed in identifying future value potential: the DJSI has outperformed the base index over the past three years.

“...the culture of another company might be highly desirable, but trying to copy it is extraordinarily difficult. A culture simply has too many facets”

The identification of sustainability leaders for the Dow Jones Sustainability Indexes is based on corporate sustainability assessment by SAM Research. A defined set of criteria and weightings is used to assess the opportunities and risks deriving from economic, environmental and social developments for the eligible companies. A major source of information is the SAM questionnaire, which is completed by the companies participating in the annual review. Further

sources include company and third-party documents as well as personal contacts between the analysts and companies. The external verification by PricewaterhouseCoopers ensures that the corporate sustainability assessments are completed in accordance with the defined rules. Based on the corporate sustainability assessment of SAM Research, companies are ranked within their industry group and selected for the Dow Jones Sustainability Indexes if they are among the sustainability leaders in their fields.

FTSE4Good is an index for socially responsible investment designed by FTSE. It represents a series of benchmark and tradable indexes facilitating investment in companies with a good track record in corporate social responsibility.

The FTSE4Good selection criteria are intended to reflect a broad consensus on what constitutes good corporate responsibility practice globally. The criteria originate from common themes in ten sets of declared principles. In a widespread market consultation process, the criteria are regularly revised to ensure that they continue to reflect evolving standards of responsible business practice and developments in socially responsible investment. Since the

index series was launched in July 2001, the environmental and human rights criteria have been strengthened. The FTSE4Good inclusion criteria are designed to be challenging yet achievable so that companies are encouraged to meet them.

f. Accreditation Processes—Standards and Codes

Companies adopt international standards and codes and use assurance providers for a number of reasons: to meet legal compliance requirements, to build trust and credibility, to gain certification, to gain or restore stakeholder confidence, and to improve management systems through the use of standards and processes.

– *The use of official standards and codes*

One way to ensure that a company performs at a certain level is to adopt an external standard. The International Standardization Organization (ISO), which is a member agency of the United Nations System, has established a number of international standards in the areas of social and environmental performance (ISO 14000 series). These standards are based on the three main elements of sustainable development: the economy, society and the environment.

Many companies now recognize and monitor these three parallel standards on the basis of their assessments in order to guide product, process and personnel development and to secure their position in the rapidly changing climate of environmental legislation and stakeholder expectations.

AA1000 Assurance Standard

AA1000 is an assurance standard that covers an organization's disclosure and associated sustainability performance. Its goal is to secure the quality of sustainability accounting, auditing and reporting. It is continually under development by AccountAbility, an international membership-based professional institute established in London in 1996. AA1000 is used worldwide by a variety of organizations such as businesses, service providers, NGOs, public bodies and advocacy groups.

SA8000

SA8000 is the first global certification system for supply chain labor standards. This voluntary standard developed by Social Accountability International (SAI) is based on ILO conventions and linked to UN norms. It is significant both as an example of a stand-alone certification solution for managing aspects of corporate responsibility and as a global, certifiable standard that is delivering auditable compliance for manufacturers and purchasers in the supply chain.

ISO 14001

ISO 14001 is one of the most frequently adopted standards in the area of corporate responsibility and is

widely recognized as an international standard for environmental management. ISO 14001 was developed in 1996 by ISO, which is a network of national standards institutes in 148 countries with headquarters in Geneva. ISO standards are developed by technical committees made up of experts on loan from the industrial, technical and business sectors that have asked for the standards and that subsequently put them to use.

An ISO social responsibility standard has been proposed. ISO expects development of the standard to take three years, with publication scheduled for early 2008. The standard will provide guiding principles on social responsibility. "Our ambition is to develop guiding principles with global relevance that will be useful to organizations worldwide in establishing, implementing, maintaining and improving the way they address social responsibility,"¹⁹ says Catarina Munck at Rosenschöld, vice chair of the working group.

h. Sustainability Indicators

Companies have long tried to measure elements of sustainability, including various resource uses that cause economic costs and certain emissions and wastes as mandated by regulation. The challenge in developing sustainability metrics or indicators lies in organizing the information in a format that best supports decision-making in terms of sustainability.²⁰

In 1998 John Elkington, chairman of SustainAbility, institutionalized the concept of the triple bottom line.²¹ He argued that business in the twenty-first century needs to focus on enhancing environmental quality and social equity just as it strives for profits. It must also put the same effort into this cause. Thus it must weight the three sustainability spheres equally (Table 1).

Canada's National Round Table on the Environment and the Economy (NRTEE) conducted one of the earliest studies on the development of sustainability metrics.²² Its search for a small set of eco-efficiency indicators that is meaningful and applicable across industries became an underlying theme in later efforts to develop sustainability metrics. The study, which involved eight companies from different industrial sectors, recommended a set of "core" metrics that include material intensity, energy intensity, and dispersion of regulated toxics per unit of products or services. The study also suggested using complementary metrics, such as greenhouse gas intensity.

Some of the work mentioned will now be analyzed in greater detail, together with additional concepts:

Table 1 Metrics used by Sample Companies

Company	Economic sustainability metrics	Environmental sustainability metrics	Social sustainability metrics
1. Allianz Sustainability Report 2004	<ul style="list-style-type: none"> total income earning before tax net income ROC after tax Earnings per Share 	<ul style="list-style-type: none"> % of employees in environmental management energy consumption (MJ/employee/year) total water consumption (Liters/employee/year) emission of greenhouse gases (kg/employee/year) waste (kg/employee/year) paper consumption (kg/employee/year) business travel (km/employee/year) 	<ul style="list-style-type: none"> employee total number staff in training (number) average participation of employees in education measures (days) fluctuation rate (%) % proportion of female employees in management and executive positions
2. Axel Springer Sustainability Report 2003 Only available online	<ul style="list-style-type: none"> revenue (total and by country) total expenditure on purchased goods, services, materials share of orders paid for in accordance with contract convention equivalent monetary value of all benefits to staff interest on liabilities, dividends change in retained income in the reporting period taxes paid to all tax-levying authorities state subsidies and assistance donations to the community, civil society and others (cash and in kind) 	<ul style="list-style-type: none"> total material consumption processing of material that is treated or untreated waste from other sources direct energy consumption by type total water consumption emission of greenhouse gases emission of gases harmful to the ozone layer emissions into the atmosphere waste (quantity, type of depositing, incineration) significant quantities of spilled chemicals, oils and fuels acceptance of return of used products finances and sanctions for non-compliance with applicable international declarations, conventions and treaties, as well as with national, regional and local regulations relating to environmental issues 	<ul style="list-style-type: none"> jobs, classified by type and country average fluctuation and net change in employment proportion of staff covered by industry-wide collective tariff agreements practice of documentation of industrial accidents and illnesses lost days/absence rates due to injuries in industrial accidents and work-related deaths average hours of training/further training per employee (differentiated by staff categories) proportion of female/male employees in management and executive positions
3. BASF Corporate Report 2003	<ul style="list-style-type: none"> sales (total and per - division) net income earnings per share cash flow 	<ul style="list-style-type: none"> emissions of greenhouse gases (1000metric tons) reduction of greenhouse gas emissions emissions to water reduction of emissions to water 	<ul style="list-style-type: none"> lost time accidents workforce profile donations and sponsoring
4. Beiersdorf Sustainability Report 2003 No figures in report—online links	<ul style="list-style-type: none"> sales net income earnings per share investment R&D 	<ul style="list-style-type: none"> energy consumption (GWh) water consumption wastewater 	<ul style="list-style-type: none"> no. of employees

<p>5. BMW Sustainability Report 2003/04</p>	<ul style="list-style-type: none"> • revenue • capital expenditure • cash flow • net profit • total no. of vehicles produced • vehicle deliveries to customers 	<ul style="list-style-type: none"> • energy consumption in GWh and GWh/unit produced • emissions of greenhouse gases (tons and tons/unit) • water consumption (m3 and m3/unit) • wastewater (m3 and m3/unit) • waste (tons and kg/unit) 	<ul style="list-style-type: none"> • no. of employees (total/per segment/in D/outside D) • years of service in company • no. of trainees • proportion of women • personnel cost (total & perE) • disabled employees • accidents per 200,000 hours worked • participation in employee training programs
<p>6. Boehringer Ingelheim Pharma KG ESH 2000</p>	<ul style="list-style-type: none"> • sales • expenditure on EHS 	<ul style="list-style-type: none"> • energy consumption total • emissions of greenhouse gases (1000 tons) • water consumption (mill m3) • wastewater (tons) • waste (tons) • % of waste recycling 	<ul style="list-style-type: none"> • no. of employees • accidents per million hours worked
<p>7. Daimler Chrysler CSR Report 2004 No figures in report—online links</p>	<ul style="list-style-type: none"> • sales • net income • R&D investment 	<ul style="list-style-type: none"> • total spending environmental protection • energy consumption (GWh) • CO₂ emissions (tons) • water consumption (mill m3) • wastewater (mill m3) • waste (tons) 	<ul style="list-style-type: none"> • employee total number • years of service in company • accident rate
<p>8. Deutsche Bank CSR Report 2003</p>	<ul style="list-style-type: none"> • net revenue • income taxes • earnings per share • total spending for culture and society 	<ul style="list-style-type: none"> • energy consumption (GWh) • CO₂ emissions (tons) • water consumption (m3) • paper (tons) • waste (tons and kg/unit) • business travel (CO₂ emission) 	<ul style="list-style-type: none"> • employee total number • years of service in company • microcredit loans
<p>9. Deutsche Post Environmental Report 2003 Figures supported by online links</p>	<ul style="list-style-type: none"> • total revenue • net income • cash flow • earnings per share 	<ul style="list-style-type: none"> • energy consumption (GWh) • CO₂ emissions (tons) • water consumption (tons) • additional input/output balance 	<ul style="list-style-type: none"> • employee total number • number of trainees • proportion of women in middle/top management • disabled employees • accident and sickness rates • idea management (savings per employee)

(continued on next page)

Table 1 (continued)

Company	Economic sustainability metrics	Environmental sustainability metrics	Social sustainability metrics
10. Deutsche Telekom HR and Sustainability Report 2004	<ul style="list-style-type: none"> • earnings before interest, tax, amortization and depreciation • operating free cash flow • net income • net revenue • no. of sustainability indices/funds in German speaking countries in which shares are listed 	<ul style="list-style-type: none"> • energy consumption (GWh) • CO₂ emissions (relative to energy consumption) • water (% recycled) • wastewater (mill m3) • paper (1000 tons) • annual Fleet Service CO₂ emissions relative to mileage • percentage of waste recycled 	<ul style="list-style-type: none"> • employee commitment • % female employees (total/managerial positions) • % of disabled persons • % of 25 largest suppliers that fulfil social criteria • trainee ratio • In-company further training expenses relative to total personnel costs • % of part-time employees • health rate
Integrated indicators:		<ul style="list-style-type: none"> • no. of services identified with potential to contribute to Sustainability • no. of measures implemented to promote GC • no. of telework jobs • internal online training programs • participants in x-online schemes to overcome digital divide 	
11. EON-Ruhrgas Environmental Report 2004	<ul style="list-style-type: none"> • sales • profit after tax • subscribed capital 	<ul style="list-style-type: none"> • energy consumption in GWh • emissions of greenhouse gases (tons) • waste (tons) 	<ul style="list-style-type: none"> • no. of employees • accidents per 1000 hours worked • participation in employee training programs
12. Henkel Sustainability Report 2003	<ul style="list-style-type: none"> • sales (total and per division) • operating profit • production volumes 	<ul style="list-style-type: none"> • energy consumption in 1000mWh as % of production volume • emissions of greenhouse gases (1000metric tons) and % of production volume • dust emissions (metric tons) and % of production volume • emissions of volatile organic compounds in metric tone and % of production volume • water consumption and volume of wastewater • COD and heavy metal emissions to water • waste for recycling and disposal in 1000metric tons • complaints from neighbors 	<ul style="list-style-type: none"> • no. of employees • accidents per 200,000 hours worked • participation in employee training programs • no. of employee projects (MIT)

<p>13. Lufthansa Environmental Magazine 2003</p>	<ul style="list-style-type: none"> • total income • net income • cash flow 	<ul style="list-style-type: none"> • energy consumption (fuel tons) • CO₂ emissions (tons) • water consumption (m3) • wastewater (m3) • waste (tons) • plus a number of air transport specific indicators concerning noise levels and emissions 	<ul style="list-style-type: none"> • employee total number • proportion of women (total & in top management) • training expenditure • number of apprentices • % of disabled • accidents per 100 employees
<p>14. Munich Re Environmental Report 2003</p>	<ul style="list-style-type: none"> • net income • earnings per share 	<ul style="list-style-type: none"> • energy consumption (GWh) • CO₂ emissions (tons & kg/E) • water consumption (m3 & l/E) • wastewater (m3) • waste (tons) • recycling (tons) • paper (kg) • business travel (km/E/Y) • additional input/output balance 	<ul style="list-style-type: none"> • employee total number
<p>15. Robert Bosch AG Environmental Report 2003/2004</p>	<ul style="list-style-type: none"> • sales • net income • R&D investment 	<ul style="list-style-type: none"> • energy consumption (GWh) • CO₂ emissions (in 1000 m3) • water consumption (mill m3) • wastewater (mill m3) • waste (mill tons3) • environmental protection costs and investment • additional input/output balance 	<ul style="list-style-type: none"> • employee total number • years of service in company • accident rate
<p>16. RWE Corporate Responsibility Report 2003</p>	<ul style="list-style-type: none"> • revenue • net income 	<ul style="list-style-type: none"> • CO₂ emissions (in 1000 m3) • water consumption (1000 m3) • waste (1000 t) • paper and glass recycled • expenditure for environmental protection (mill €) 	<ul style="list-style-type: none"> • employees total number • proportion of women • proportion of disabled • total number apprentices

(continued on next page)

Table 1 (continued)

	Company	Economic sustainability metrics	Environmental sustainability metrics	Social sustainability metrics
17.	Schering Environmental Report 2003	<ul style="list-style-type: none"> • sales • investment R&D • earnings per share • cash flow 	<ul style="list-style-type: none"> • energy consumption (GWh) • CO₂ emissions (tons) • water consumption (mill m3) and Wastewater (t COD burdens) • waste (tons) • environmental protection spending • input/output • transport modes (ship, airplane, truck/car) 	<ul style="list-style-type: none"> • employee total number • accidents per mill hours • total number of apprentices • frequency of EHS training
18.	Siemens Corporate Responsibility Report 2003	<ul style="list-style-type: none"> • sales • net income • earnings per share • investment R&D total and % of sales • personnel costs (wages, salaries, social welfare contributions, pension plan expenses, employee benefits) 	<ul style="list-style-type: none"> • energy consumption (GWh) • CO₂ emissions (tons) • water consumption (mill m3 & I/E) • wastewater (mill m3) • waste (tons & t/E) • business travel (total km) • environmental protection spending (total and €/Employee) 	<ul style="list-style-type: none"> • employee total number • proportion of women (total & top management) • personnel cost total • number of apprentices • donations
19.	Thyssen-Krupp No CSR Reports From website	<ul style="list-style-type: none"> • sales • net income • ROC after tax • Earnings per share 		<ul style="list-style-type: none"> • employee total number • apprentices total
20.	Volkswagen Environmental Report 2003/2004	<ul style="list-style-type: none"> • sales revenue • operating profit • appropriation of funds to shareholders (dividends), to employees (wages, benefits), to the state (taxes, levies), to creditors (interest) and to the company (reserves) 	<ul style="list-style-type: none"> • energy consumption (mill GWh) • CO₂ emissions (tons) • water consumption (mill m3) • wastewater (mill m3) • industrial and hazardous waste (tons) • environmental protection spending (mill €) • recycling (tons) 	<ul style="list-style-type: none"> • employee total number • proportion of women • proportion of apprentices • total no. of accidents

GRI sustainability ratio indicators

The **Global Reporting Initiative (GRI)** distinguishes between three general types of ratio indicators:²³

Productivity/efficiency ratios relate value to impact. Normally financial performance is tracked with efficiency ratios. Examples of environmental/social productivity/efficiency ratios include:

- ❖ labor productivity (e.g. turnover per employee)
- ❖ resource productivity (e.g. sales per unit of energy consumption, GDP per unit of material input)
- ❖ process eco-efficiency (e.g. production unit per unit of waste, net sales per unit of greenhouse gas emissions in tons of CO₂ equivalent)
- ❖ functional eco-efficiency of products or services (e.g. fuel efficiency of a plane/car).

Intensity ratios express an impact per unit of activity or unit of value. A declining intensity ratio reflects performance improvement. Often environmental performance is tracked with intensity ratios such as:

- ❖ emission intensity (e.g. tons of CO₂ emissions per unit of electricity generated)
- ❖ waste intensity (e.g. amount of waste per production volume)
- ❖ resource intensity (e.g. energy consumption per function, material input per service).

Percentages indicate ratios between two like issues with the same physical unit in the numerator and denominator. Examples of percentages meaningful for sustainability performance are:

- ❖ input/output ratios (e.g. process yields)
- ❖ losses (e.g. non-product output per materials input)
- ❖ recycling percentages percentage of waste recycled per total waste)
- ❖ fractions (e.g. percentage of renewable energy, fraction of recycled materials, fraction of hazardous waste)
- ❖ quotas (e.g. percentage of women in upper management)
- ❖ financial performance ratios (e.g. return on equity, return on operating assets).

Eco-efficiency Indicators

Investors increasingly require companies to pursue eco-efficient strategies that reduce the impact on the environment while increasing or at least not decreasing (shareholder) value. The World Business Council for Sustainable Development (WBCSD) describes how eco-efficiency is achieved: "Eco-efficiency is reached by the delivery of competitively priced goods and services that satisfy human needs and bring quality of life, while progressively reducing ecological impacts and resource intensity . . ." ²⁴

The WBCSD includes a clear target level: an eco-efficient state is reached when economic activities are at a level "at least in line with the earth's estimated carrying capacity." ²⁵

The problem with constructing eco-efficiency indicators is that there are no agreed-on rules or standards for the recognition, measurement and disclosure of environmental information either within the same industry or across industries. Most notably, there are no rules for consolidating environmental information for an enterprise or for a group of enterprises in such a way that this information can be used together and in line with a company's financial items. ²⁶

i. Metrics for Sustainability Performance

Sustainability metrics and indicators assist in assessing the progress made by a company in promoting sustainable development internally and externally in a given time period. They are usually expressed as ratios. The numerator includes impacts such as resource consumption, pollution effects and land use. The denominator contains measures of desired outputs such as production output and economic/social value added. Thus, the metrics follow a simple rule of thumb: the lesser the metric, the better the result. The metrics can be designed to be both scalable for different boundaries (e.g. around a process, a facility, or a business unit) and stackable along the supply chain. This means they can be used beyond the particular boundaries for which the calculation was performed. ²⁷ The use of sustainability metrics can help decision-makers set goals, gauge a company's progress, benchmark, and compare alternatives (different raw materials, suppliers and improvement technologies) from a sustainability perspective.

Early metrics include parameters such as megawatt hours of electricity used by a company. While such information might be useful to the company, it is not necessarily meaningful to stakeholders. In other words, stakeholders are most likely to be interested in whether the energy used in the current year is more or less than the previous year. Indicators are communication tools that simplify information in an attempt to mediate between scientific communities and decision-makers. Scientific data is often too complex and obscure for public and private decision-makers. Indicators help translate scientific information into policy-shaping tools. At the same time, they help translate public expectations into measurable components, such as targets or benchmarks.

Metrics/indicator criteria include: ²⁸

- ❖ Simple
- ❖ Understandable
- ❖ Easy to reproduce

- ❖ Comparable
- ❖ Complementary to regulatory programs
- ❖ Cost-effective data collection
- ❖ Stackable and scalable
- ❖ Useful as a management tool
- ❖ Protective of company information.

Economic Sustainability Metrics

Annual corporate reports primarily fulfill the immediate needs of shareholders and financial analysts but do not directly address what is important to stakeholders in economic as opposed to purely financial terms.²⁹ Nor do financial reports detail the wider economic role of a company as an employer at community level. The company's impact on local suppliers and service providers also goes unexamined.

Information on a company's wider economic impact requires quantitative measurement of operational outcomes.

A key indicator of sustainability is the success of industry in creating wealth. Economic sustainability indicators include both human and financial capital considerations:³⁰

- ❖ Financial performance Indicators: net profit/earnings/income, gross margin
- ❖ Tangible and intangible investments: capital investments, R&D, knowledge, human capital, reputation, brands, networks, partnerships
- ❖ Impacts on investors: return on capital deployed, SD investments with expected shareholder value implications, shareholder accountability, SRI risks and opportunities
- ❖ Impacts on employees: remuneration, benefits, training opportunities and budgets, pay equity ratios, redundancy provisions, personal and/or career development
- ❖ Impacts on governments—taxes, tax breaks, subsidies, royalties
- ❖ Impacts on communities—job creation, infrastructure development, technology transfer, social capital formation.

Environmental Sustainability Metrics

It is important to identify those aspects of a business that have the greatest actual or potential impact on the environment and the organization. Large organizations with multiple facilities require consistent environmental indicators across similar operations for comparability. At the same time, facilities require flexibility to establish environmental indicators that are unique to their own operations, locations, regulations and surroundings.

A substantial body of literature documents cost savings and added revenues generated through waste minimization programs. Environmental performance indicators relating to resource use and waste generation can support the assessment of the cost savings and revenues realized by a company through increased process efficiency.³¹

Most organizations focus on lagging indicators to manage their environmental impacts; they neglect leading indicators.³² Lagging indicators reflect outcomes and are reported after an impact occurs. Leading indicators track activities that occur before an impact such as the number of audits performed and the gaps identified. They reflect the risk of an occurrence and, when used along with lagging indicators, can be very effective in risk prevention and performance improvement.

Accounting for the environmental aspect of the triple bottom line poses a number of challenges, including classification of environmental costs into conventional, hidden, contingent, image and relationship costs.³³ At the same time, life-cycle analysis and monetization of external environmental costs have to be taken into consideration.

– Ecological footprint

The ecological footprint is a tool for measuring and analyzing human natural resource consumption and waste output within the context of nature's renewable and regenerative capacity (or biocapacity). It represents a quantitative assessment of the biologically productive area (the amount of nature) required to produce resources (food, energy and materials) and to absorb the wastes of an individual person, city, region or country.

“When humanity's footprint is within the annual regenerative capacities of nature, this footprint is sustainable”

Footprints are not bad or good *per se*. Every living entity possesses an ecological footprint; it is the size that varies. On a global scale, humanity's entire ecological footprint can be compared to the total available natural capital and services. When humanity's footprint is within the annual regenerative capacities of nature, this footprint is sustainable. From a footprint perspective, sustainability requires human beings to live within the regenerative and absorptive capacity of the planet. The corollary in the biological sciences is typically referred to as a “sustainable yield.”

In the *Living Planet* reports for 2000 and 2002, which provided footprint results for 1997 and 1999, WWF International and Redefining Progress found that, in the late 1970s, humanity's collective ecological footprint breached the sustainability mark for the first time and has remained unsustainable ever since.³⁴

The strength of the ecological footprint is that it:³⁵

- ❖ accounts for impacts on foreign countries and shows a community's dependence on trade
- ❖ calculates how high trade dependence is
- ❖ raises public awareness since it is the focus of political/environmental discussions
- ❖ can be used as an eco-label for consumer products and services
- ❖ is useful for comparison between companies.

The ecological footprint does not address triple bottom line sustainability as it only concentrates on environmental sustainability.

Social Sustainability Metrics

Efforts to measure and manage social performance strategically are still evolving, and companies are looking for meaningful and realistic ways to measure and report on social performance. Social issues that companies are covering through the use of indicators include the following areas:³⁶

- ❖ Human rights: with the rapid globalization of business, human rights performance in several countries is under scrutiny
- ❖ Labor/employment issues: standard issues such as health and safety, education, training, industrial relations, wages, benefits, conditions of work/employment, accountability, image/reputation and harassment
- ❖ Supplier relationships: contractual agreements with suppliers, supplier diversity and company policies on the screening of suppliers
- ❖ Community initiatives: involvement in local communities, contribution to the local economy, ensuring local wealth and skills
- ❖ Corporate philanthropy: donations, pre-tax profits and grant programs.

Integrated Sustainability Metrics

Two classes of metrics/indicators are used to describe the state and performance of a system. Those that assess the state of a system are known as content indicators and those that measure the behavior of a system as performance indicators. Naturally, researchers have attempted to measure improvements in terms of three groups of metrics corresponding to the three aspects of sustainability: ecological metrics, economic metrics and sociological metrics. These metrics measure only one aspect of the system and are therefore one-dimensional.

j. Non-quantifiable Sustainability Initiatives

Despite enormous efforts to translate economic, environmental and social performance indicators into measures of financial value, many sustainability indicators are qualitative in nature and do not lend themselves well to financial valuation. The outcome of sustainability strategies and the corresponding capi-

tal outlays are uncertain and the benefits often difficult to forecast. Financial analysts are interested in information that is:³⁷

- ❖ relevant to the business (representing a measurable change in income or revenue in a business segment)
- ❖ provided in financial measures
- ❖ forward-looking (capable of providing insight into business performance trends).

Performance indicators used in sustainability reporting often do not directly meet all these criteria and need to be contextualized to become directly useful in financial analysis. One critical reason for linking sustainability performance indicators with conventional financial reporting is the need to provide data in denominations and terms that are consistent with financial reporting. Wherever possible, sustainability information should be indicated in the same units of analysis that appear in a company's financial reports—business units, segments and geographic coverage. It should always keep the context of company operations in mind and, if necessary, support quantitative data with qualitative information.

Many of the social issues that are the subject of performance measurement are not easily quantifiable, such as measures of the organization's systems, operations, policies, procedures and management practices. For instance, in the field of training measures, an indication of the number or percentage of employees that have received training does not allow for assessment of the quality and impact of these measures. Some complex social sustainability programs such as community outreach schemes can have basic qualitative indicators such as amount spent or people reached, but this information needs to be supported by qualitative analysis.³⁸

How German Companies Measure Sustainable Performance

The German companies that have been analyzed within the context of this project are:

Financial companies

1. Allianz
2. Deutsche Bank
3. Munich Re Group

Information and communications companies

4. Axel Springer
5. Deutsche Post
6. Deutsche Telekom

Energy companies

7. EON Ruhrgas
8. RWE
9. Thyssen Krupp

Automobile and transportation companies

10. BMW
11. Daimler Chrysler
12. Deutsche Lufthansa
13. Volkswagen

Manufacturing companies

14. BASF
15. Henkel
16. Robert Bosch
17. Siemens

Pharmaceutical companies

18. Beiersdorf
19. Boehringer Ingelheim Pharma KG
20. Schering.

The analysis of the sustainability reports and the related websites of the sample companies reveals large discrepancies in what is measured, what methods are used, and how the companies report on sustainability. Ten of the twenty companies analyzed report in accordance with the GRI guidelines, but the scope and range of what is measured and reported varies (see Table 1 above).

Economic Metrics

Although there is mutual agreement on economic metrics, which are derived primarily from the companies' annual reports, no connection is made between economic performance and its implications for sustainability. Only a few of the analyzed companies indicate the equivalent monetary value of all benefits to staff and all taxes paid to tax-collecting authorities as indicators of economic impact. In dealing with the economic impact of business on employment and taxation, the companies emphasize the sustainability side of economic performance that strategically connects economic performance and sustainability.

Economic metrics are based on international practices in reporting economic performance and have the following characteristics:

- ❖ Company-wide
- ❖ Collected annually and quarterly
- ❖ Audited externally
- ❖ Comparable internally and externally
- ❖ User-friendly and meaningful
- ❖ Connected to future performance targets.

Environmental Metrics

Measuring and reporting on environmental performance has a long tradition in Germany. Most companies began by producing environment, health and

safety (EHS) reports. However, there is no agreement on what needs to be reported on. The data provided by the companies relates ONLY to unwanted emissions in the environment (wastes and air/water pollution) and to energy consumption. Little or no information is provided on the consumption of other natural resources or on how the reported emissions and consumed resources impact the environment and natural ecosystems.

Comparability between companies is limited due to differing measurement categories. In order to facilitate benchmarking and highlight long-term risks and opportunities, there needs to be a standard format and standard references for the information measured to make it truly comparable. Environmental metrics must fulfill most of the criteria that economic sustainability metrics meet, including:

- ❖ Company-wide
- ❖ Frequently collected to allow for timely corrections
- ❖ Performance compared to a starting point as reference
- ❖ Audited externally
- ❖ Comparable internally and externally
- ❖ User-friendly and meaningful
- ❖ Balanced cost/benefits in measuring/reporting/achieving results.

Social Metrics

In the majority of the companies analyzed, the measurement of social sustainability is limited to employee numbers, percentage of female employees, accident numbers, training and trainee numbers. Although the companies measure similar human resource-related issues, it is difficult to compare them since frames of reference differ, e.g. percentage of women in total or in top management positions; number of trainees versus percentage of trainees to total number of employees. Only a few broader social metrics come into play, and these vary from company to company, thus making meaningful analysis and comparison nearly impossible. The only exceptions are donations and sponsoring—one indicator frequently mentioned. There is a need to develop and establish a quantitative framework to present data that can be measured and compared in a meaningful format. This need is a pressing one even if there are additional qualitative issues relating to social sustainability performance that do indeed need to be presented in a descriptive way. In the social sustainability dimension of community involvement, little measurement is reported, indicating a further need for research into the topic.

“... no connection is made between economic performance and its implications for sustainability.”

Social sustainability metrics need to fulfill the same criteria as the two above-mentioned pillars of sustainability:

- ❖ Company-wide
- ❖ Frequently collected to allow for timely corrections
- ❖ Performance compared to a starting point as reference
- ❖ Audited externally
- ❖ Comparable internally and externally
- ❖ User-friendly and meaningful
- ❖ Balanced cost/benefits in measuring/reporting/achieving results.

Additionally qualitative background information can yield valuable insights into achievements and future goals.

Integrated Indicators

The integration of the three dimensions of sustainability is a challenge that only one of the sample companies has begun tackling in research and coordination. A number of questions need to be answered:

- ❖ How can indicators be integrated into practice?
- ❖ How can integration be measured?
- ❖ How can management incentives be developed to promote sustainable performance within the company?
- ❖ How can sustainability, risk prevention and performance be linked?

Conclusions

1. There are various approaches that have been used to measure, monitor and assess a company's progress toward sustainability, including: sustainability surveys, sustainability metrics, sustainability indexes, performance indicators, award schemes, investor criteria, accountability, reporting, internal and external communication tools, benchmarking, accreditation processes, standards, codes, social screening services, screening systems, and sustainability performance ranking. None of these methods represents a clear universal tool that can be used by all industries or by all companies within the same industry. The analysis of the sustainability metrics of the sample companies shows a large discrepancy in what and how the companies measure and report concerning their sustainability performance. Ten of the twenty companies analyzed report according to the GRI guidelines; however, they differ greatly in terms of the scope and range of what is measured and reported.
2. External incentives and the adoption of internal sustainable management practices seem to have

a significant potential to transform companies into sustainable institutions. An example of an efficient external incentive is the analysis of the increasing participation of capital markets in rating the sustainable performance of companies. Companies today are paying close attention to the criteria used not only by ethically oriented investors, but also by sustainability-focused think tanks and consulting firms that assess the sustainable performance of companies and determine whether they are worth investing in or having in one's community. This work forms the basis of recommendations that go out to clients and society at large.

3. The sustainable performance of a company is generally measured by assessing three aspects of sustainability: economic, social and ecological performance. The initial findings of our project indicate that companies have made significant progress in measuring economic performance. There are clear rules and a broad understanding of how to take the economic pulse of a company at any given time. The environmental performance of companies is measured mainly by assessing their externalities to society and the environment—in other words, by measuring their “environmental footprint.” The assessment of environmental performance is still very limited since it is mainly based on primary environmental impacts such as natural resource depletion, land degradation, pollution emissions, energy consumption and waste generation—and not on the long-term environmental impact of company operations. The assessment of the social impact of companies, however, seems a more difficult task and much less developed than the assessment of economic and environmental performance. Companies today tend to focus and report on their philanthropic initiatives and improved labor practices (i.e. reducing accidents at work, hiring more women and employing a more ethnically diverse workforce). Although highly desirable, these practices do not reflect the expectations society has of the private sector in terms of building a sustainable society.
4. The reporting of sustainability practices varies from company to company, and it is often difficult to understand and compare reporting methods. Most of the companies we analyzed, however, have adopted the GRI's *Sustainability Reporting Guidelines* and are participating in the United Nations' Global Compact Initiative. In doing so, they feel they are adequately reporting the sustainable performance of their companies to society. The reality is that society expects much more from sustainability reporting. It is asking for greater transparency and easier access to information on the social and ecological impacts of companies. The adoption of the GRI guidelines represents a good start. However, the guidelines still need to be improved and refined. The Global Compact Initiative seems to be more of an exercise

in improving the image of companies than an undertaking with strong and visionary leadership designed to promote the serious internal structural changes that companies require to become more sustainable. There is a need to establish clear and user-friendly methodologies and tools to measure the progress that companies are making toward sustainability.

Notes

1. Announced at the World Economic Forum in Davos in 1999 and launched in New York in 2000 in response to concerns about the adverse effects of globalization, the Global Compact Initiative aims to create a more sustainable and inclusive global economy. It contributes to the global dialog on corporate citizenship and sustainability and is one of the most important institutions working to align business with sustainable development. More than 2,000 companies and stakeholders have joined, including 200 major multinationals. The "ten principles" of the Global Compact in the areas of human rights, labor policy, environmental protection and anti-corruption policy enjoy universal acceptance and are derived from the Universal Declaration of Human Rights, the International Labor Organization's Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development, and the United Nation's Convention against Corruption. The principles are not new, but by uniting internationally accepted standards and framing them as business commitments, the UN Global Compact functions as a principle-based global benchmark for corporate citizenship.
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