§1 Introduction

Dyllick and Hockerts observed that consideration and debate regarding sustainability in the 21st century has involved integrating long-standing concerns about economic growth and social equity with concern for the carrying capacity of natural systems. In their words, sustainability “embodies the promise of societal evolution towards a more equitable and wealthy world in which the natural environment and our cultural achievements are preserved for generations to come”. Simply put, problems relating to economic growth, social equity and the environment must be addressed and solved simultaneously. Emerging from all this has been the drive for “sustainable development” that has led to international treaties relating to the protection of biodiversity and climate change and governmental programs focusing on national and local sustainability. In addition, sustainable development has been adopted at the firm level as companies have accepted “corporate sustainability” as a precondition for doing business, integrated sustainability into their governance structures by appointing corporate sustainability officers, published sustainability reports and incorporated sustainability into their communication strategies. However, while Dyllick and Hockerts were encouraged that companies and their managers were accepting responsibility for the environmental and social impacts of their actions, they argued that most companies had opted for “eco-efficiency” as their guiding principle for sustainability and that as a sole concept this was insufficient and needed to be broadened to include other corporate sustainability criteria included in the framework described below.

Business and Sustainable Development

The International Institute for Sustainable Development (www.iisd.org) (“IISD”) was established in 1990 as an independent non-profit organization dedicated to promoting human development and environmental sustainability through innovative research, communication and partnerships. The strategic plan for the IISD includes the following programs and core strategic goals:

- Economic Law and Policy: Reform economic policies to advance sustainable and equitable development.
- Energy: Shift energy systems and policies to support universal access to clean, low-carbon energy.
- Water: Advance science-based solutions for universal access to water and healthy ecosystems.
- Resilience: Strengthen capacities to manage climate- and conflict-related risks.
- Knowledge: Transform data and information into knowledge that supports sustainable development.
- Reporting Services: Provide accurate, neutral, high-quality analysis that informs decision making about multilateral environmental negotiations.

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2 M. Keating, The Earth Summit’s Agenda for Change (Geneva: Centre for Our Common Future, 1993).
Content available on the IISD website includes materials on Business and Sustainable Development collected and presented on their own site (https://www.iisd.org/business/) which includes six sections covering the following:

- **Key Issues:** Briefings on specific sustainable development topics from a business perspective including corporate social responsibility, corporate reporting, integrated product policy, climate change and trade.
- **Strategies and Tools:** How to incorporate the principle of sustainability into everyday business activities, illustrated by real-life examples
- **Markets:** Business opportunities arising from sustainable development
- **Banking and Investment:** Spotlight on how sustainable development is being approached by the financial services industry
- **Working with NGOs:** How businesses are forging working partnerships with lobby groups
- **Training Opportunities:** How universities and professional training providers can help industry leaders incorporate sustainability into their business strategies

Among the strategies and tools are guiding principles (i.e., the CERES principles, the International Chamber of Commerce Business Charter, the GoodCorporation accreditation scheme, IISD’s checklist of sustainable business practices, “factor four” and the “triple bottom line”); business tools (i.e., by-product synergy and industrial ecology, cleaner production, design for environment, eco-efficiency, energy efficiency, environmentally-conscious manufacturing, the “four R’s”, green procurement, performance contracting, pollution prevention and zero-emission processes); and systems and standards (i.e., environmental management systems, ISO 14001, EMAS, EH&S programs, SA 8000, life-cycle assessment, reporting, total cost assessment and total quality environment).

The IISD, in collaboration with Deloitte & Touche and the World Business Council for Sustainable Development, published “Business Strategy for Sustainable Development: Leadership and Accountability for the 90s” in 1992, and that publication included a number of steps for managing an enterprise according to sustainable development principles:

- Perform a stakeholder analysis to identify all the parties that are directly or indirectly affected by the enterprise’s operations and set out the issues, concerns and information needs of the stakeholders with respect to the organization’s sustainable development activities.
- Assess the current position to determine the degree to which the company’s activities line up with sustainable development principles, a process that requires evaluating the company’s overall strategy, the performance of specific operations, and the effect of particular activities. This process should compare the company’s current performance with the expectations of the stakeholders, review management philosophies and systems, analyze the scope of public disclosures on sustainability topics, and evaluate the ability of current information systems to produce the required data should be evaluated.
- Set sustainable development policies and objectives including articulating the basic values that the enterprise expects its employees to follow with respect to sustainable development, incorporating sustainable development objectives as an additional dimension of business strategy, setting targets for operating performance and establishing an effective external monitoring system that gathers information on new and proposed legislation; industry practices and standards, competitors’ strategies, community and special interest group policies and activities. trade union concerns and technical developments (e.g., new process technologies).
- Establish a social responsibility committee of the board of directors with responsibility for setting corporate policies on sustainable development and monitoring their implementation and for dealing with issues such as health and safety, personnel policies, environmental protection, and codes of business conduct.
- Decide on a strategy taking into account the performance of other comparable organizations and with a focus on narrowing the gap between the current state of the corporation’s performance and its
objectives for the future. The strategy should be supported by a plan that describes how and when management expects to achieve the stated goals and the various milestones that must be reached along the way. Once the strategy and the general plan have been approved, detailed plans should be prepared indicating how the new strategy will affect operations, management systems, information systems and reporting. Plans should be reviewed and approved by senior management following consultation with employees throughout the organization.

- Design and execute an implementation plan for the management system changes that are needed in order to achieve sustainable development objectives, a process that normally includes changing the corporate culture and employee attitudes, defining responsibilities and accountability, and establishing organizational structures, information reporting systems and operational practices.
- Develop a supportive corporate culture to ensure that the organization and its people give their backing to the sustainable development policies. In most cases, managers will need to be retrained to change attitudes that have traditionally emphasized wealth management for the owners of the enterprise. An effort should also be made to develop a culture that emphasizes employee participation, continuous learning and improvement.
- Develop appropriate measures and standards of performance taking into account the company’s sustainable development objectives and standards that have been established by government and other public agencies.
- Develop meaningful reports for internal management and stakeholders, outlining the enterprise’s sustainable development objectives and comparing performance against them. Directors and senior executives use internal reports to measure performance, make decisions and monitor the implementation of their policies and strategies. Shareholders, creditors, employees and customers, as well as the public at large, use external corporate reports to evaluate the performance of a corporation, and to hold the directors and senior executives accountable for achieving financial, social and environmental objectives.
- Enhance internal monitoring processes to help directors and senior managers ensure that the sustainable development policies are being implemented. Monitoring can take many forms, such as reviewing reports submitted by middle managers, touring operating sites and observing employees performing their duties, holding regular meetings with subordinates to review reports and to seek input on how the procedures and reporting systems might be improved, and implementing an environmental auditing program.

Other resources and references relating to sustainable business are available from the Sustainable Business and Entrepreneurship Platform (http://www.susent.org/), which is a research group from the International Business School and the Centre of Applied Research of Economics and Management at the Amsterdam University of Applied Science. The Platform was developed as a resource for professionals, primarily in the fashion, apparel and textile industries, to learn more about sustainability in practice and includes case studies and tools that can be used for assessment of sustainability and development and implementation of strategies for achieving sustainability change.

§2 Definitions and elements of corporate sustainability

According to Montiel, interest in corporate sustainability surged after the United Nations World Economic and Development Commission popularized the term “sustainable development” in its famous 1987 “Brundtland Report” and researchers began to adapt the concept to companies by declaring that they could pursue sustainability by meeting their present needs without compromising the ability of future generations to meet their own needs. During the 1990s academics and practitioners began to argue that corporate
sustainability required simultaneous attention to, and satisfaction of, environmental, social, and economic standards.\(^5\) Dyllick and Hockerts suggested that when the fundamental principles of sustainable development are translated to the firm level, it leads to defining corporate sustainability as “meeting the needs of a firm’s direct and indirect stakeholders (such as shareholders, employees, clients, pressure groups, communities etc.), without compromising its ability to meet the needs of future stakeholders as well”.\(^6\) Dyllick and Hockerts explained that in order to achieve and maintain corporate sustainability, companies must be able to grow their economic, social and environmental capital basis while also actively contributing to sustainability in the political domain. They went on to identify what they felt to be the three key elements of corporate sustainability:\(^7\):

- **Integrating the economic, ecological and social aspects in a “triple-bottom line”:** Economic sustainability alone is not a sufficient condition for the overall sustainability of a company and while companies can enjoy short-term success by focusing only on economic growth they must ultimately learn how to satisfy and balance all three dimensions of the “triple-bottom-line” simultaneously, a difficult task given the complex inter-relationships among them.

- **Integrating the short-term and long-term aspects:** Many companies, large and small, have responded to the demands of their investors by over-emphasizing short-term profits, a strategy that is at odds with the spirit of sustainability and its elevation of the future needs of stakeholders to the same level as their present desires. In addition, emphasis on discounted rates of return tend to value short-term gains and minimize the costs associated with social or environmental degradation that will be incurred farther out in time as a result of the firm’s current activities.

- **Consuming the income and not the capital:** Management and maintenance of economic capital has been a long-standing tenet of long-term sustainability for businesses and the fiduciary responsibility of corporate directors and managers; however, corporate sustainability requires that companies not only manage the economic capital, but also their natural and social capital stocks.

### Some Sustainability Myths

New Zealand Trade and Enterprise identified and explained some of the more myths about integrating sustainability with business:

*Sustainability is about being an environmental activist or about philanthropy and I can’t afford to give away all the profit of my business.* While philanthropy can be an important and effective component of the

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\(^7\) Id. at 132.
The sustainable option is going to be more expensive than the alternatives. It is true that certain environmental policies, such as investing in renewable energy, can be expensive, many responsible business decisions and activities actually cost little or nothing and even larger investments will ultimately pay for themselves through substantial and ongoing cost savings. Focusing on employee engagement and satisfaction, customer service and community involvement are all examples of sustainability programs that usually require surprisingly small amounts of cash and other resources. In addition, simple programs aimed at reducing overall consumption of energy and other natural resources (e.g., green commuting options and recycling) can generate savings without impairing productivity.

Sustainability is about re-cycling materials, therefore other than installing recycling bins into our offices, sustainability doesn't affect my business. Recycling is part of the sustainability puzzle; however, all companies, including those not engaged in manufacturing of products which can be recycled or which do not use recyclable materials in their operations, can find other areas to implement sustainability: employee engagement; suppliers and supply chain management; operational efficiency; resource consumption and waste; packaging and facility design; volunteerism; governance; ethics and customer service.

If we use green-colored packaging and the words ‘eco’ or ‘organic’ in our product, then we can sell our product as being ‘green’. Many companies have appeared to underestimate their customers’ critical thinking skills and ability to smell “Greenwash”. They understand that just because products come in recycled packaging or are marketed with the latest buzzwords does not make those products, or the company itself, any more environmentally or socially responsible.

We are already doing as much as we can in our company, but it is not making a difference to sales. Customers have a limited amount of time and resources to research and understand sustainability initiatives can companies need to proactively market and thoughtfully explain their legitimate initiatives so that customers and other stakeholders understand how the business and products of the company are adding value.

Sustainability seems so complex and hard to measure, how can we hope to manage it? In order to manage anything, including sustainability, you need to measure it; however, many managers have complained that it is just too difficult and costly to measure environmental and social impact. Fortunately, a number of tools have been developed to help even the smallest businesses measure sustainability, often by applying relatively simple processes and habits. It will remain difficult to compare the value of one type of sustainability impact, such as reducing pollution, with another, such as providing educational opportunities to members of the local community; however, improvements in specifically identified dimensions can be tracked.


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<td><strong>Corporate Sustainability-Related Definitions</strong></td>
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<table>
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<th>Source</th>
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<td>Starik and Rands (1995)</td>
<td>Ecological Sustainability. Ability of one or more entities, either individually or collectively, to exist and flourish (either unchanged or in evolved forms) for lengthy timeframes, in such a manner that the existence and flourishing of other collectivities of entities is permitted at related levels and in related systems (p. 909).</td>
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<td>Banerjee (2003)</td>
<td>Sustainable Development. States that the Brundtland definition is not really a definition but a slogan. Emphasizes that sustainable development is managed through ethnocentric, capitalistic notions of managerial efficiency (sustainable capitalism).</td>
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<td>Sharma and Henriques (2005)</td>
<td>Corporate Sustainability. Refers to Brundtland definition: development that meets the needs of the present without compromising the ability for future generations to meet their own needs.</td>
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**Source:** I. Montiel, “Corporate Social Responsibility and Corporate Sustainability: Separate Pasts, Common Futures”, Organization and Environment, 21(3) (September 2008), 245, 256. The article reported the results of the author’s extensive survey of the evolution of management literature in both general management and specialized journals with respect to CSR and corporate sustainability (“CS”). The article quantifies the research work and summarizes the different CSR-and CS-related definitions to identify the definitional differences between CSR and CS. This Table, adapted from the article, lists different CS definitions used in the general management articles reviewed and full citations for the references can be found in the “References” section of the article.

§3 Corporate sustainability and corporate social responsibility

Corporate sustainability and corporate social responsibility (“CSR”) have become popular concepts over the last two decades. Like sustainability generally, researchers and commentators have suggested a variety of definitions for CSR. One of the simplest descriptions of CSR is actions taken by a company to further some social good which is outside of the company’s immediate interests yet required by law. Some have focused on CSR as a strategic tool that increases the competitiveness of the company and strengthens the company’s reputation, each of which ultimately contributes to improved company performance. As noted above, definitions of corporate sustainability tend to incorporate the dimensions of the “triple-bottom-line” and conceptualize corporate sustainability as

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8 For further discussion of corporate social responsibility, see “Corporate Social Responsibility: A Library of Resources for Sustainable Entrepreneurs” prepared and distributed by the Sustainable Entrepreneurship Project (www.seproject.org).
the long-term maintenance of responsibility from economic, environmental and social perspectives. The consensus is the both CSR and corporate sustainability are based on attempting to operate businesses in a more humane, ethical and transparent way; however, there is an important distinction: CSR is generally seen as being a voluntary action in and of itself or as part of the company’s CSR strategy while corporate sustainability is an organizational practice that is integrated into the entire business and business strategy of the company. This is important to understand because integrating sustainability into organizational practices is a time-consuming process that is heavily influenced by the organization’s history, people, interests and action. The specific organizational practices that are related to sustainability are those that are implemented in order to reduce the adverse environmental and social impacts of the company’s business and operations.

Whether a company’s actions can be characterized as CSR or corporate sustainability depends on the specific forces driving the company to consider and adopt sustainability practices. As mentioned above, companies often take their first steps with respect to CSR out of a sense that they are required to do something in order to comply with laws and regulations. In other words, the companies are “made to do it”. Companies may also feel “obligated” to adopt CSR if they believe that doing so would serve their long-term interests, improve their image and fulfill the expectations of stakeholders such as employees, customers and members of the communities in which the company operates. In contrast, corporate sustainability is embraced not because it is a legal duty or competitive obligation, but because the members of organization, beginning with the founders, generally “want to do it”. The formal and informal institutions in the company’s environment, which vary from country-to-country, provide the legal, social and cultural context for its decisions regarding sustainability practices. Regulative institutions promulgate laws, set rules and establish sanctions that companies must comply with in order to continue operating lawfully. However, companies must also be mindful of normative and cultural-cognitive institutions that shape the standards and values of social life and shared conceptions of how members of society should treat one another and the world in which they live.

Montiel noted that during the 1970s some CSR researchers concentrated entirely on social issues without considering environmental issues and others failed to include an economic responsibility dimension; however, beginning with Carroll’s conceptualization of corporate social performance (“CSP”) in 1979 most scholars recognized that both CSR and CSP included economic, social and environmental aspects. With respect to

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9 M. Marrewijk, Concepts and Definitions of CSR and Corporate Sustainability: Between Agency and Communion, Journal of Business Ethics, 44(2) (May 2003), 95.
10 M. Marrewijk, Concepts and Definitions of CSR and Corporate Sustainability: Between Agency and Communion, Journal of Business Ethics, 44(2) (May 2003), 95 (organizations engage in corporate sustainable practices because they are “made to do it, want to do it or feel obligated to do it”).
11 I. Montiel, “Corporate Social Responsibility and Corporate Sustainability: Separate Pasts, Common Futures”, Organization and Environment, 21(3) (September 2008), 245, 257-263 (includes detailed discussion of points of difference and overlap between CSR and corporate sustainability). In 1979, Carroll wrote: “the social responsibility of business encompasses the economic, legal, ethical, and discretionary

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corporate sustainability, Montiel found that his literature review revealed two very different constructs regarding the conceptualization of corporate sustainability. On one hand, several researchers identified sustainability with the environmental responsibility dimension of business, often using the term “ecological sustainability”. At the same time, however, other scholars considered corporate sustainability from a “triple bottom line” perspective, describing the three dimensions of economic responsibility, social equity, and environmental integrity. Montiel pointed out that while the CSR and corporate sustainability constructs had similar conceptualizations of economic, social, and environmental dimensions, researchers tended to ask different questions about them. For example, corporate sustainability scholars tended to argue that the economic, social, and environmental pillars are interconnected; however, most of the empirical research on CSR and CSP treated social and economic performance as independent components. Montiel, referring to corporate sustainability as “CS”, concluded:

“Current research seems to show that, because of their shared environmental and social concerns, CSR and CS are converging, despite their paradigmatic differences. In CSR, environmental issues are a subset of a broader social performance dimensions. In the CS field, the social dimension has become an increasingly important part of the sustainability paradigm. Contemporary businesses must address economic prosperity, social equity, and environmental integrity before they can lay claim to socially responsible behavior or sustainable practices. Indeed, the conceptualization of CSR that integrates economic, social, and environmental dimensions and the triple bottom line conceptualization of CS, which comprises economic, social, and environmental dimensions, are very similar. Both show that firms must balance the three elements of the triple bottom line to achieve long-term sustainability and social responsibility. Both CSR and CS aim to balance economic prosperity, social integrity, and environmental responsibility, regardless of whether they conceptualize environmental issues as a subset of social issues or as the third element of sustainability.”

A 2017 article in The Economist described “sustainability” in the corporate context as follows:

“The term “sustainability” is often used interchangeably with CSR or viewed exclusively through an environmental lens. Thought leaders, however, generally describe it as a business strategy that creates long-term stakeholder value by addressing social, economic, and environmental opportunities and risks material to a company. It is integral to a company’s business and culture, rather than on the periphery. Optimizing waste reduction, or water or energy consumption, for example, can help a company reduce operational costs. Sustainability can drive innovation by reconceiving products and services for low-income consumers, expectations that society has of organizations at a given point in time”. See A.B. Carroll, “A three-dimensional conceptual model of corporate performance”, Academy of Management Review, 4(4) (1979), 497, 500)

12 Id. at 260.
opening new lines of business and boosting revenue in the process. Finally, being socially responsible can help a company earn license to operate in new markets, and attract and retain talent.\textsuperscript{13}

\section*{§4 Types of capital associated with corporate sustainability}

As mentioned above, the pursuit of corporate sustainability requires companies to accept a much broader interpretation of capital than has traditionally been applied by economists. Dyllick and Hockerts explained that consideration needs to be given to three types of capital—economic, natural and social—and that each of these types has different properties and thus require different approaches\textsuperscript{14}:

- \textit{Economic capital}: Companies have traditionally used fairly simply valuation and calculation methods for tracking income, fixed capital and current operating capital; however, companies can no longer rely on those methods in a world in which they must manage several types of capital including financial capital (i.e., equity and debt), tangible capital (i.e., machinery, land and stocks) and intangible capital (i.e., intellectual and organizational capital such as reputation, inventions and know-how and organizational routines). Realizing that the main goal with respect to economic capital is enabling the company to pay its bills as they come due and continue to attract additional capital from investors in order to pursue the company’s mission and strategic goals, Dyllick and Hockerts proposed that the definition of “corporate economic sustainability” should read as follows: “Economically sustainable companies guarantee at any time cash flow sufficient to ensure liquidity while producing a persistent above average return to their shareholders.”\textsuperscript{15}

- \textit{Natural capital}: Dyllick and Hockerts noted that the concept of ecological sustainability is based on argument that the Earth has a finite amount of “natural capital” which cannot go on.\textsuperscript{16} One type of natural capital is the natural resources that are consumed during the course of many different economic processes and which are either renewable (e.g. wood, fish, corn) or non-renewable (e.g., fossil fuel, biodiversity, soil quality). A second type of natural capital is ecosystem services (e.g. climate stabilization, water purification, soil remediation and reproduction of plants and animals), many of which have no known substitute or substitutes that are only available at a prohibitive price. Dyllick and Hockerts suggested the following definition for “corporate ecological sustainability”: “Ecologically sustainable companies use only natural resources that are consumed at a rate below the natural reproduction, or at a rate below the development of substitutes. They do not cause emissions that accumulate in the environment at a rate beyond the capacity of the

\textsuperscript{15} Id. at 133.
natural system to absorb and assimilate these emissions. Finally they do not engage in activity that degrades eco-system services.”

- **Social capital:** Dyllick and Hockerts identified two different types of social capital: human (i.e., the skills, motivation and loyalty of employees and business partners) and societal (i.e., the quality of public services, such as a good educational system, infrastructure or a culture supportive of entrepreneurship). Companies that maintain and strengthen social capital are socially sustainable enterprises, which Gladwin et al. described as firms that internalize social costs, maintain and grow the capital stock; avoid exceeding the social carrying capacities and encourage structures for self-renewal; foster democracy; enlarge the range of people’s choices and distribute resources and property rights fairly. Accomplishing all of the above is often difficult given that firms cannot always meet the expectations of all stakeholder groups simultaneously and this means that firms must be able communicate the reasons for decisions that may disappoint some stakeholders so that the firm is perceived by all stakeholders as being fair and trustworthy.

Dyllick and Hockerts combined the principles above to define “corporate social sustainability” as follows: “Socially sustainable companies add value to the communities within which they operate by increasing the human capital of individual partners as well as furthering the societal capital of these communities. They manage social capital in such a way that stakeholders can understand its motivations and can broadly agree with the company’s value system.”

Dyllick and Hockerts noted that natural and social capital differed from traditional notions of economic capital in several important ways. For example, they explained that while “traditional economic theory assumes that all input factors of production can be translated into monetary units, implying that they can also be substituted completely”, the reality is that not all kinds of natural capital can be substituted by economic capital. While technological innovations may come along that permit substitution of some natural resources, substitution of ecosystem services (e.g., the protections of the ozone layer) is unlikely. With respect to social capital, offering higher wages or more financial benefits cannot overcome stakeholder disaffection when it reaches a critical point. As for the societal capital necessary for productive economic activity, there is arguably no real substitutes for a healthy and educated workforce and an adequate infrastructure. Dyllick and Hockerts also noted that other issues such as the irreversibility and non-linearity of

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natural and social capital deterioration. As illustrations they pointed to irreversible soil erosion around the world, the shocking reduction in the number of indigenous languages that are still spoken in parts of the world that have been overrun by colonial intrusions and the sudden and complete collapse of ecosystems once toxins or pollutants reach a certain level.  

§5 The three cases for corporate sustainability

Dyllick and Hockerts observed that as sustainability became a more mainstream concept for businesses, the main focus of corporate leaders and academics was on the “business case” for sustainable development, which involved demonstrating how companies could further economic sustainability by increasing their ecological and social efficiency (i.e., identifying and applying more efficient uses of their natural and social capital into to increase profits). Dyllick and Hockerts argued that the business case for corporate sustainability, while an important step forward, was not sufficient for companies to become truly sustainable and that it was necessary for companies to address two more cases: the “natural case”, which requires companies to deal with the reality that they can never be sustainable if they are continuously operating close to (or even beyond) the environment’s “carrying capacity”; and the “societal case”, which is important because companies harness, manage and preserve three types of capital that are not substitutable and must therefore take into account criteria that go beyond socio-efficiency and include “socio-effectiveness” (i.e., the absolute positive social impact a firm can reasonably achieve, such as making basic services and products such as food, health and financial and communication services available to those who would not be able to purchase them) and “ecological equity” (i.e., seeking equitable solutions to the management and distribution of the world’s natural capital between current and future generations).

Dyllick and Hockerts observed that as sustainability became a more mainstream concept for businesses, the main focus of corporate leaders and academics was on the “business case” for sustainable development, which involved demonstrating how companies could further economic sustainability by increasing their ecological and social efficiency. Dyllick and Hockerts argued that the business case for corporate sustainability, which an important step forward, was not sufficient for companies to become truly sustainable and that it was necessary for companies to address two more cases: the “natural case”, which requires companies to deal with the reality that they can never be sustainable if they are continuously operating close to (or even beyond) the environment’s “carrying capacity”; and the “societal case”, which is important because companies harness, manage and preserve three types of capital that are not substitutable.  

22 Id. at 135.
23 Id. at 135-136.
Dyllick and Hockerts explained that companies typically begin their path toward corporate sustainability by looking for ways to make more efficient uses of their natural and social capital as a means for increasing their economic sustainability—in other words, a “business case” for sustainability. With respect to the use of natural capital, this generally means taking steps toward better “eco-efficiency”, which “is achieved 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 throughout the life-cycle to a level at least in line with the earth’s carrying capacity”.24

The most common indicators of eco-efficiency include energy, water and resource efficiency and waste or pollution intensity.25 While eco-efficiency is often the guiding principle for the sustainable development contributions of companies, many also pursue socio-efficiency, which focuses on the relationship between a company’s “value added” and its social impact.26 Socio-efficiency involves both increasing positive social impacts (e.g., corporate giving and creation of employment) and decreasing negative social impacts (e.g., reducing the amount of work accidents per value added and eliminating human rights abuses in the supply chain).27

Young and Tilley argued that socio-efficiency was analogous to corporate social responsibility (“CSR”), which they defined using the description offered by Holmes and Watts: “Continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large”.28 Young and Tilley cited with approval Michael’s skepticism of the benefits of CSR: “The adoption of social objectives by companies is not as new as the ‘corporate social responsibility’ label suggests. Instead, it touches the 80-year debate between capitalism and socialism. The vague and all-encompassing CSR discourse serves as a forum for advocating the interests of business, government and relatively non-accountable NGOs. . . . Yet, while the actors most loudly advocating CSR may benefit, society as a whole may be harmed”. Young and Tilley recommended that businesses must move beyond CSR to achieve socio-

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effectiveness, which is described below and can be found among organizations that have a social mission and a sustained positive impact on society.  

The natural case for corporate sustainability is built on the premise that while eco-efficiency is valuable and important, it only leads to relative improvements (i.e., increased energy or resource efficiency per value added) and does not address the key sustainability challenge of absolute thresholds caused by the problem of non-substitutability. For example, it is well and good for companies to reduce their emissions of pollutants; however, if the reduced emissions are released into a system that is already close to its carrying capacity then the overall objective of sustainability is in danger regardless of how eco-efficient companies become. Dyllick and Hockerts argued that “from an environmental point of view, the main issue is therefore not eco-efficiency but eco-effectiveness”.  

Braungart and McDonough described and used the term “eco-effectiveness” as follows: “Long-term prosperity depends not on the efficiency of a fundamentally destructive system, but on the effectiveness of processes designed to be healthy and renewable in the first place. Eco-effectiveness celebrates the abundance and fecundity of natural systems, and structures itself around goals that target 100 percent sustaining solutions”.  

Dyllick and Hockerts explained how the pursuit of eco-efficiency is often at odds with eco-effectiveness. The cited the example of how many automobile manufacturers have deployed new technologies to develop more efficient vehicles, with the ultimate goal being to reduce the cost of driving a car to the point where more consumers can afford to purchase and use a vehicle for their individual mobility needs. While this may make life easier for large numbers of people, increasing the number of cars and miles driven each year around the globe will drive up mobility-induced CO₂ emissions dramatically and exacerbate what has already been widely acknowledged as a dramatic ecological crisis. Dyllick and Hockerts suggested that the answer is to shift attention away from fossil fuel efficiency and focus on developing and implementing effective solar powered fuel cells as the means for powering vehicles.  

Note also that the same logic applies to investments in public transit: while more efficient buses with expanded routes and underwritten by public funds arguably takes individual cars off the road, public transit solutions must also be eco-effective (i.e., buses should incorporate solar power fuel technologies).

Young and Tilley were also critical of the long-term utility of eco-efficiency and observed that “eco-efficiency is not in itself the panacea as some have presented it to

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29 Id. at 405 (citing B. Michael, “Corporate social responsibility in international development: an overview and critique”, Corporate Social Responsibility and Environmental Management, 10(3) (2003), 115, 126).
business” and noted the conclusions of others that while eco-efficiency might be a valuable criterion by which to guide and measure corporate sustainability it was not on its own a sufficient guiding framework for business. Concerns regarding too much emphasis on eco-efficiency included the criticism that it encouraged businesses to take advantage of eco-efficiency gains by highlighting the low hanging fruit and seeking easy gains that required limited investment. Young and Tilley noted encouraging businesses to take actions that involved short payment or non-existent reengineering simply hid the environmental problems that presented the most significant challenges. They argued that eco-efficiency simply made a “destructive system less destructive” and merely slowed what was still a seemingly inevitable destruction of ecosystems and contamination and depletion of nature. For them, and others, the real answer for businesses was “eco-effectiveness”: businesses needed to follow regenerative, not depletive, practices in order to remove negative impacts and develop systems to restore and enhance the natural environment. Simply put, businesses should move beyond eco-efficiency’s “less bad” to embrace a new goal of “more good” by implementing new practices such as replacing the conventional cradle-to-grave approach to product design, development and analysis with a renewing cycle of cradle-to-cradle analysis.

Dyllick and Hockerts also argued that eco-effectiveness (i.e., developing and producing eco-effective products and services) is not the only criterion that needs to be considered when making the natural case for sustainability. They point out that the impact of efficiency gains depends on consumer choice and the decisions that consumers make regarding the products and services they prefer to consume. For example, even as automobile manufacturers were beginning to make progress toward developing and commercializing fuel efficient vehicles, consumers in the US and other developed countries were demanding sport utility vehicles, or “SUVs”, that were notorious “gas guzzlers”. In many cases, the demand was stoked by the marketing practices of the manufacturers. Realizing that consumption preferences and patterns are important drivers of sustainability, Dyllick and Hockerts and others have included “sufficiency” as a second criterion in the natural case for corporate sustainability. Hockerts explained

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that: “... sufficiency is primarily a criterion for sustainable consumerism, the business world has at least an indirect responsibility. Marketing and corporate advertisements have an increasing influence on consumer trends and life-style developments. Rather than fueling the demand for more unsustainable products, firms might try to channel demand towards less problematic areas”. However, Dyllick and Hockerts acknowledged that sufficiency is also an issue of individual choice rather than the sole responsibility of a particular firm. In other words, the case for sufficiency has to be made by members of society, perhaps by sending a strong message to businesses about the types of products and services they should be developing and promoting in order to achieve the greater environmental good.

The last of the three cases for corporate sustainability, the “social case”, includes two additional criteria that go beyond the criterion of socio-efficiency associated with the business case. The first criterion is “socio-effectiveness”, which is based on the premise that “business conduct should not be judged on a relative scale but rather in relation to the absolute positive social impact a firm could reasonably have achieved”. Dyllick and Hockerts explained this criterion by noting that while many companies pursue socio-effectiveness by working hard to serve their clients even better and at lower costs, the fact is that the customers to whom these products and services are made available are only a small part of the world population and that companies in a position to do so fail to make their products and services available to those who are truly in need (i.e., people in what Hart and Prahalad famously referred to as the “bottom of the pyramid”). Social effectiveness includes making basic services and products such as food, health and financial and communication services available to those who would not be able to purchase them if companies failed to consider anything other than pure economic sustainability. The second criterion embedded in the social case is “ecological equity”, which means that companies must seek equitable solutions to the management and distribution of the world’s natural capital between current and future generations.

Dyllick and Hockerts made it clear that they believed that companies seeking to achieve corporate sustainability must satisfy all six of the criterion described above among the three cases for corporate sustainability (see also Table 1). They acknowledged that time and context will influence which of the cases command the attention of companies and their managers at a particular moment and that the business case, with its emphasis on

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“Environmental concern and anti-consumerism in the self-concept: do they share the same basis?” in M. Cohen and J. Murphy (Eds.), Exploring Sustainable Consumption (Amsterdam: Pergamon, 2001), 173).


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eco-efficiency and socio-efficiency, will likely command the most attention of corporate managers unless external factors (e.g., consumers, politicians, activists etc.) force them to consider the natural and social cases. They also noted that the natural and social cases are more difficult to administer and monitor due to the lack of the same sort of accepted measurement tools that have been created to monitor economic performance; however, they argued that “as all companies are guided to some extent by a set of political–ethical values that are entrenched in the firm’s culture, business managers may promote corporate sustainability without making an explicit calculation of the economic costs and benefits”.

### Table 2

**Elements of Dyllick and Hockerts’ Model of Corporate Sustainability**

Young and Tilley summarized the six elements of Dyllick and Hockerts’ model of corporate sustainability as follows:

- **Eco-efficiency**: Refers to a firm’s efficient use of natural resources and is usually calculated as the economic value added in relation to a firm’s aggregate ecological impact.
- **Socio-efficiency**: Refers to the relationship between a firm’s economic value added and its social impact and requires the minimization of negative impacts (e.g., workplace accidents) and the maximization of positive social impacts (e.g., training and health benefits).
- **Ecological equity**: Refers to the inter-generational inheritance of natural capital, both positive and negative (i.e., pollution etc.).
- **Socio-effectiveness**: Refers to the assessment of a firm’s absolute social performance and includes questions such as whether a company’s products are accessible and thus benefitting all or limited in availability and just benefitting an elite few.
- **Sufficiency**: Refers to the actions of individual consumers to make responsible choices and the collective actions of consumers to boycott or subvert corporate branding and marketing strategies that are believed to lead to harm to the environment.
- **Eco-effectiveness**: Refers to either technical effectiveness or a complete alternative to eco-efficiency.


Dyllick and Hockerts were not the only ones who have suggested a framework for corporate sustainability; however, many of the others models include dimensions that are quite similar. For example, the Sustainche Farm Project (http://www.sustainche-farm.org), focused on the sustainable development of a smallholder family farm in Northern Namibia, offered the following illustration of the dimensions of a sustainable development policy:

- **Economics**: Innovation; capital efficiency; risk management; margin improvement; growth enhancement and total shareholder return

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41 Id. Dyllick and Hockerts argued that additional research should be conducted to fill in some of the gaps in defining their suggested criterion such as providing a systematic framework for both socio-efficiency and socio-effectiveness and developing business relevant criteria for issues such as ecological equity. Id. at 139.
- **Socio-Economics:** Jobs creation; skills enhancement; local economic impacts; social investments; business ethics and security
- **Eco-Efficiency:** Resource efficiency; product stewardship; life-cycle management and products to services
- **Social:** Diversity; human rights; community outreach; indigenous communities and labor relations
- **Socio-Environmental:** Global climate change; access to potable water; crisis management; environmental judgment; compliance with environmental regulations and health and safety
- **Environmental:** Clean air; reduction of water and land emissions; zero waste; elimination of releases and spills and bio-diversity

### Reasons Why Businesses Aren’t More Sustainable

Laughland and Bansal described “business sustainability” as follows:

"Business sustainability is often defined as managing the triple bottom line – a process by which firms manage their financial, social, and environmental risks, obligations and opportunities. We extend this definition to capture more than just accounting for environmental and social impacts. Sustainable businesses are resilient, and they create economic value, healthy ecosystems and strong communities. These businesses survive external shocks because they are intimately connected to healthy economic, social and environmental systems.”

They went on to argue that while they firms that invested in sustainability were no worse off financially than those that chose not to, many companies remained hesitant about joining the sustainability bandwagon. Building on questionnaires from, and interviews with, 15 Canadian organizations that were on the leading edge of sustainability as of 2011, Laughland and Bansal identified and explained the following 10 top reasons why Canadian firms were reluctant to take action on social and environmental issues:

- **There are too many metrics that claim to measure sustainability—and they’re too confusing.** Many suites of metrics and measurement systems—such as the Global Reporting Initiative, ecological footprint, and life-cycle assessment—currently exist to help managers measure their sustainability; however, the range of options often seems to create more problems than solutions. Some metrics are relevant to particular sectors, such as manufacturing, while others focus on specific issues, products or organizations. Businesses need more guidance on which metrics will help them benchmark, identify areas for improvement and signal their commitment to sustainability.

- **Government policies need to incent outcomes and be more clearly connected to sustainability.** Governments have several tools at their disposal, such as taxes, regulations, and markets, to encourage businesses to steward environmental resources; however, they are often applied in piecemeal fashion, poorly measured, or used ineffectively. Businesses need to be more involved in the process so that governmental policies are effective, efficient and consistent.

- **Consumers do not consistently factor sustainability into their purchase decisions.** Clearly many decisions that consumers make—from what food to buy to how much energy to use—involves explicit or implicit sustainability-related tradeoffs. In order for businesses to develop and implement smart strategies for sustainability while achieving their economic objectives, they need to understand how consumers value sustainability in the context of other product attributes.

- **Companies do not know how best to motivate employees to undertake sustainability initiatives.** While surveys indicate that employees prefer working for sustainable firms, even foregoing higher salaries, companies need to have a better understanding of which employee incentive plans are most valued, and so likely to be effective. Employees that buy-in to sustainability can assist companies in building the capacities necessary for pursuing sustainability goals of a long-term time horizon.
including recruiting other talented candidates to join the company.

- **Sustainability still does not fit neatly into the business case.** Sustainability managers are often called upon to explain and defend sustainability activities, particularly since traditional methods of financial decision-making do not fully capture the value of sustainability-related investments that are often based on long-term and intangible rewards. Sustainability managers need better tools for measuring and explaining returns on sustainability investments and demonstrating the value of sustainability within the decision-making language and framework of finance executives.

- **Companies have difficulty discriminating between the most important opportunities and threats on the horizon.** Sustainability encompasses a wide range of threats and risks for businesses—financial crises, climate change, local land issues and health pandemics—and companies need help with deciding which risks warrant their attention and how to prioritize them for disclosure purposes and strategic planning.

- **Organizations have trouble communicating their good deeds credibly, and avoid being perceived as “greenwashing”**. Claims made by some businesses and NGOs regarding sustainability are perceived to be credible, whereas others are met with skepticism or disbelief. The different reactions are likely related to attributes of the organization making the claims—its size, its structure, its actions, or its motivations—and sustainability managers need to have a better understanding of who best to communicate their message credibly and in a way in which the integrity of their efforts is clear.

- **Better guidelines are needed for engaging key stakeholders, such as aboriginal communities.** For the Canadian companies included in the survey relations with aboriginal communities are an important consideration. The experience of businesses have been both positive and negative and all businesses can benefit from developing a more robust understanding of the aboriginal perspective on sustainability in order to build a relationship between businesses and aboriginal community that is based on mutual respect and trust and leads to positive engagement.

- **There is no common set of rules for sourcing sustainably.** While businesses want to purchase products and services that are environmentally and socially responsible, the process of identifying sustainable suppliers is not always straightforward and the means for comparing products is not always obvious. Sustainable sourcing decisions may also require industry-specific knowledge and practices, or data that just may not be available. Organizations need a set of best practices for sustainable sourcing which provide organizations with targets for benchmarking as well as guidance on managing their supply chains.

- **Those companies that try leading the sustainability frontier often end up losing.** While leadership in the sustainability field can be quite rewarding for organizations—new customers and loyalty from employees and community stakeholders—taking the steps needed for sustainability leadership can also be risky. Organizations need to do their homework before introducing new sustainability targets and investing in technologies and ideas that may never yield the expected results and may be appropriated by a second-mover who builds on the leader’s ideas to leapfrog into the lead. Leadership and innovation with respect to sustainability also carries the risk that early failures will cause internal stakeholders to become disenchanted and shift their priorities elsewhere.


§6 **McDonough and Braungart’s model of corporate sustainability**

McDonough and Braungart proposed a different model of corporate sustainability that was based on “triple top line” thinking and shifted the emphasis of corporate
accountability to the beginning of the design process. Following the “triple bottom line” framework, the McDonough and Braungart model was anchored by three value systems (economy, ecology and equity) which were the corners of the fractal triangle they used to illustrate their model. Young and Tilley explained that “every business decision is connected to and has an impact upon all three value systems, all of which carry equal weight and require equal consideration”. Accordingly, it was recommended that companies should move through each zone of the triangle when designing new products to ask and answer the following questions in pursuit of identifying and acting upon opportunities to create value:

- Economy-economy: Can I make my product or provide a service at a profit?
- Economy-ecology: Will our service or production process use resources efficiently? Will our business process reduce waste?
- Economy-equity: Are the employees producing a promising product earning a living wage?
- Equity-equity: Will the factory or office improve the quality of life of all stakeholders and restore ecosystems?
- Equity-ecology: In what ways could the product or service enhance the health of employees and customers?
- Equity-economy: Are men and women being paid the same for the same work? Are we finding new ways to honor everyone involved, regardless of race, sex, nationality or religion?
- Ecology-ecology: Are we obeying nature’s laws? Are we creating habitats?
- Ecology-equity: Will our product or service contribute to the balance of the local ecology?
- Ecology-economy: Is our ecological strategy economically viable? Will it enable us to use resources effectively?

§7 Measuring corporate sustainability performance

Montiel found substantial similarities in how CSR and corporate sustainability researchers operationalized their constructs to measure social and environmental performance, noting that both groups of scholars use similar variables to measure CSR and corporate sustainability that included economic, environmental and social dimensions. The most common variables included ethics policy, philanthropic contributions, stakeholder interests and relationships (i.e., investors, shareholders, customers, suppliers, employees, and the community), governmental relationships, urban

44 Id.
development, minority support programs, health and safety initiatives, community involvement and development, conserving natural resources, employee eco-initiatives, voluntary environmental restoration, eco-design practices and systematically reducing waste and emissions from operations.  

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### Table 3
Examples of Performance Measures for CSR, CSP and CS

<table>
<thead>
<tr>
<th>MEASURES</th>
<th>SELECTED STUDIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Corporate Social Responsibility</strong></td>
<td></td>
</tr>
<tr>
<td><em>Fortune’s</em> Corporate Reputation Survey (rates firms on financial soundness, long-term investment value, use of corporate assets, quality of management, innovativeness, quality of products and services, use of corporate talent, community and environmental responsibility)</td>
<td>Holmes (1977); Abbott &amp; Monsen (1979); McGuire et al. (1988); Fryxell &amp; Wang (1994)</td>
</tr>
<tr>
<td>11 survey items (pollution, quality of products and services, decay of cities, inflation, monopoly, quality of education, support of charities, corporate profits, human resources, minority employment, unemployment)</td>
<td>Grunig (1979)</td>
</tr>
<tr>
<td>Moskowitz Reputation Index (pollution control, equal employment opportunity, minority and female representation on board of directors, support of minority enterprise, responsible and irresponsible advertising, charitable contributions, community relations, product quality, plant safety, illegal politicking, disclosure of information, employee benefits, respect for privacy, support for cultural programs, responsiveness to consumer complaints, fair dealing with customers)</td>
<td>Cochran &amp; Wood (1984)</td>
</tr>
<tr>
<td>Motivating principles (value, stakeholder, and performance driven), processes (programs and activities aimed at implementing CSR principles and/or addressing specific stakeholder issues, which include philanthropic, sponsorships, volunteer, code of ethics, quality, health and safety, and management of environmental impacts) and stakeholder issues (community, customer, employee, shareholder, supplier)</td>
<td>Maignan &amp; Ragston (2002)</td>
</tr>
<tr>
<td><strong>Corporate Social Performance</strong></td>
<td></td>
</tr>
<tr>
<td>Kinder, Lydenberg, Domini social rating service dimensions (community relations, employee relations, environmental issues, military issues, product issues, South Africa issues, nuclear power, women or minority issues)</td>
<td>Graves &amp; Waddock (1994); Turban &amp; Greening (1996); Waddock &amp; Graves (1997); Ruf et al. (1998); Weaver et al. (1999); Agle et al. (1999)</td>
</tr>
<tr>
<td><strong>Corporate Sustainability and Sustainable Development</strong></td>
<td></td>
</tr>
<tr>
<td>Pollution control, eco-efficiency, recirculation, eco-design, ecosystem stewardship, and business redefinition</td>
<td>Sharma &amp; Henriques (2005)</td>
</tr>
</tbody>
</table>

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*10 environmental integrity items (reduced products’ environmental harmful impact, reduced environmentally damaging inputs, used inputs from renewable sources, reduce environmental impacts of processes, reduced operations in environmentally sensitive locations, reduced likelihood of environmental accidents, reduced waste, reused waste, disposed waste responsibly, handled toxic waste responsibly);

*6 economic prosperity items (established government relations, reduced costs of inputs, reduced cost for waste management for same level of outputs, used waste for revenue, differentiated product on environmental performance, created spin-off technologies); and

*6 social equity items (considered stakeholder interests, communicated environmental risk, improved health and safety issues, protected local communities’ rights, improved facility’s visual aspect, funded local community projects)

| Source: I. Montiel, “Corporate Social Responsibility and Corporate Sustainability: Separate Pasts, Common Futures”, Organization and Environment, 21(3) (September 2008), 245, 261-262. The article reported the results of the author’s extensive survey of the evolution of management literature in both general management and specialized journals with respect to CSR, corporate social performance (“CSP”) and corporate sustainability (“CS”). The article quantifies the research work and summarizes the different CSR-and CS-related definitions to identify the definitional differences between CSR and CS. This Table, adapted from the article, lists examples of measurement instruments used by scholars to operationalize CSR, CSP and CS in the general management articles reviewed and full citations for the references can be found in the “References” section of the article. | Bansal (2005); Chan (2005) |
About the Author

This chapter was written by Alan S. Gutterman, whose prolific output of practical guidance and tools for legal and financial professionals, managers, entrepreneurs and investors has made him one of the best-selling individual authors in the global legal publishing marketplace. His cornerstone work, *Business Transactions Solution*, is an online-only product available and featured on Thomson Reuters’ Westlaw, the world’s largest legal content platform, which includes almost 200 book-length modules covering the entire lifecycle of a business. Alan has also authored or edited over 80 books on sustainable entrepreneurship, leadership and management, business law and transactions, international law and business and technology management for a number of publishers including Thomson Reuters, Practical Law, Kluwer, Aspatore, Oxford, Quorum, ABA Press, Aspen, Sweet & Maxwell, Euromoney, Business Expert Press, Harvard Business Publishing, CCH and BNA. Alan has extensive experience as a partner and senior counsel with internationally recognized law firms counseling small and large business enterprises in the areas of general corporate and securities matters, venture capital, mergers and acquisitions, international law and transactions, strategic business alliances, technology transfers and intellectual property, and has also held senior management positions with several technology-based businesses including service as the chief legal officer of a leading international distributor of IT products headquartered in Silicon Valley and as the chief operating officer of an emerging broadband media company. He has been an adjunct faculty member at several colleges and universities, including Berkeley Law, Golden Gate University, Hastings College of Law, Santa Clara University and the University of San Francisco, teaching classes on corporate finance, venture capital, corporate governance, Japanese business law and law and economic development. He has also launched and oversees projects relating to sustainable entrepreneurship and ageism. He received his A.B., M.B.A., and J.D. from the University of California at Berkeley, a D.B.A. from Golden Gate University, and a Ph. D. from the University of Cambridge. For more information about Alan and his activities, please contact him directly at alangutterman@gmail.com, follow him on LinkedIn (https://www.linkedin.com/in/alangutterman/) and visit his website at alangutterman.com.

About the Project

The Sustainable Entrepreneurship Project (www.seproject.org) was launched by Alan Gutterman to teach and support individuals and companies, both startups and mature firms, seeking to create and build sustainable businesses based on purpose, innovation, shared value and respect for people and planet. The Project is a California nonprofit public benefit corporation with tax exempt status under section 501(c)(3) of the Internal Revenue Code dedicated to furthering and promoting sustainable entrepreneurship through education and awareness and supporting entrepreneurs in their efforts to launch and scale innovative sustainable enterprises that will have a material positive environmental or social impact on society as a whole.

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