By the 1990s it was becoming clear that sustainability had “become a multidimensional concept that extends beyond environmental protection to economic development and social equity”—in other words, entrepreneurship guided and measured by the three pillars of the “triple bottom line”.\(^1\) Crals and Vereeck reasoned that “sustainable entrepreneurship” could be interpreted as a spin-off concept from sustainable development and that sustainable entrepreneurs were those persons and companies that contributed to sustainable development by “doing business in a sustainable way”.\(^2\) According to the Brundtland Commission, sustainable entrepreneurship is the continuing commitment by businesses to behave ethically and contribute to economic development while improving the quality of life of the workforce, their families, the local and global community as well as future generations.\(^3\) This definition recognizes several different stakeholder groups, not just shareholders, must be taken into account when managerial decisions are made and operational activities in furtherance of the organizational purposes are carried out. Crals and Vereeck argued that in order for entrepreneurial activity to be “sustainable” it must recognize, address and satisfy certain standards for each of the 3 P’s of the triple bottom-line described above.\(^4\) Crals and Vereeck observed that the definition of sustainable entrepreneurship was not static given the dynamism of new ideas and standards with respect to the social and natural environment.

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3. Id.
4. Id. at 3-4.
Bell and Stellingwerf compiled what they considered to be a representative list of definitions of “sustainable entrepreneurship” that were suggested from 2003 through 2011, all of which are presented below in chronological order:\(^5\)

- “Innovative behavior of single or organizations operating in the private business sector who are seeing environmental or social issues as a core objective and competitive advantage”\(^6\).
- “The continuing commitment by business to behave ethically and contribute to economic development, while improving the quality of life of the workforce, their families, local communities, the society and the world at large, as well as future generations. Sustainable Entrepreneurs are for-profit entrepreneurs that commit business operations towards the objective goal of achieving sustainability”\(^7\).
- “The process of discovering, evaluating, and exploiting economic opportunities that are present in market failures which detract from sustainability, including those that are environmentally relevant”\(^8\).
- “The examination of how opportunities to bring into existence future goods and services are discovered, created, and exploited, by whom, and with what economic, psychological, social, and environmental consequences”\(^9\).
- “Create profitable enterprises and achieve certain environmental and/or social objectives, pursue and achieve what is often referred to as the double bottom-line or triple bottom line”\(^10\).
- “The discovery and exploitation of economic opportunities through the generation of market disequilibria that initiate the transformation of a sector towards an environmentally and socially more sustainable state”\(^11\).
- “An innovative, market-oriented and personality driven form of creating economic and societal value by means of break-through environmentally or socially beneficial market or institutional innovations”\(^12\).

• “Sustainable Entrepreneurship is focused on the preservation of nature, life support, and community in the pursuit of perceived opportunities to bring into existence future products, processes, and services for gain, where gain is broadly construed to include economic and non-economic gains to individuals, the economy, and society”.13

From their perspective, Bell and Stellingwerf believed that the definitions collectively identified four defining attributes of sustainable entrepreneurship14:

• **Balancing environmental and social concerns:** Bell and Stellingwerf observed that sustainable entrepreneurship was “a balancing act of strategically managing and orienting environmental and social objectives and considerations, with entity specific financial goals steering the business objective” and that sustainable entrepreneurship required finding the right balance with the disparate economic, social, cultural and ecological environments in which businesses must operate. They also noted that in the course of their efforts to limit and minimize the environmental and social impact of their activities sustainable entrepreneurs focused on improving the quality of their processes.15

• **Economic gains:** Entrepreneurship, sustainable or otherwise, has making a profit as an essential characteristic and objective and the concept of “gain” can be found throughout the definitions reproduced above. However, sustainable entrepreneurship is based on a broad construction of gain that includes economic and non-economic gains to individuals, the economy and society. Profits are recognized as being essential to sustaining the livelihood of businesses and providing entrepreneurs with the resources that are need for reinvestment in the sustainable goals of their companies. Bell and Stellingwerf argued that entrepreneurial activities can only be labelled sustainable, and therefore satisfy sustainable development, if there is an equal blending of, and equal consideration for, each of the 3 P’s of the triple bottom line described above.16

• **Market failures and disequilibria:** Half of the definitions reproduced above explicitly mentioned recognition and exploitation of opportunities caused by environmental and/or social imperfections and identification of opportunities has been a long-standing tenant of disruptive entrepreneurship. Cohen and Winn argued that there are four types of market imperfections (i.e., inefficient firms, externalities, flawed pricing mechanisms and information asymmetries) that contribute to environmental degradation and provide opportunities for sustainable entrepreneurs to create radical opportunities.

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technologies and innovative business models that can achieve profitability while simultaneously improving local and global social and environmental conditions.\textsuperscript{17}

- \textit{Transforming sectors toward sustainability:} A number of theorists have argued that startups launched by sustainable entrepreneurs can solve sustainability-related problems through the introduction of innovative products, process and services and that the commercial success of these solutions, and accompanying support of professional investors and other influential stakeholders, can and will eventually influence incumbents to adopt similar solutions and otherwise take steps that will lead to the transformation of the entire industry toward sustainability.\textsuperscript{18} Under these theories, sustainable entrepreneurs make their impact by targeting market niches defined by a particular sustainability-related problem, generally introducing the radical changes that are outside the comfort zone of incumbents that prefer change to be incremental; however, Bell and Stellingwerf cautioned that research “in the field” lacked support.\textsuperscript{19}

From all of this, Bell and Stellingwerf proposed their own definition of sustainable entrepreneurship as “startups that introduce an innovation, with the aim to solve a sustainability-related market failure, which initiates the transformation of an industry toward sustainability”.\textsuperscript{20} The “innovation” could take the form of a product, process or service and the sustainability objectives behind these innovations were equally important as the economic objectives associated with them. The use of the term “startups” is intentional and significant as it explicitly differentiates sustainable entrepreneurship from the activities of established organizations, such as corporations, to address sustainable development issues in their environment (i.e., corporate-sustainability/CSR initiatives).

Rey synthesized the results of his review of various definitions of sustainable entrepreneurship as follows: “conducting business which commits to ethical standards and behavior, contributing to economic development, all the while maintaining a progressive upkeep of the well-being of society—including the labor-force and their families, their communities and the world on a whole, for the present and future inhabitants”.\textsuperscript{21} According to Rey, a sustainable company is one that operates in accord

\begin{footnotesize}
\begin{enumerate}
\item Id.
\item L. Rey, Sustainable Entrepreneurship and its Viability (Rotterdam: Master Thesis for MS in Entrepreneurship, Strategy and Organizations Economics from Erasmus School of Economics, December 2011), 12.
\end{enumerate}
\end{footnotesize}
with the philosophy of the Brundtland Report while recognizing and balancing the economic, social and environmental aspects and impacts of their businesses.²² Rey noted that “sustainable entrepreneurship may seem odd as entrepreneurship is principally associated with accomplishing certain goals while maximizing profits in the most efficient way possible” and entrepreneurs who are focused on projecting a sustainable outlook for their business will likely stray from profit maximization due to the added costs of sustainable goods and practices that traditional entrepreneurs are able to avoid by simply going for the cheapest alternative.²³

Rey noted that while CSR is often compared to sustainable entrepreneurship, he believed that there are significant differences between the two concepts. Most importantly, according to Rey, CSR is primarily concerned with the actions of corporations that have been operating for a significant period of time and which have reached a certain size and determined that they have a responsibility, beyond the traditional profit-making objectives, to be more aware of their external environment and stakeholders and find ways to give back to their local communities beyond their mandatory legal obligations. While these initiatives are generally welcomed, they typically lack certain core characteristics of sustainable entrepreneurship such as offering environmentally-friendly products and services and making changes to internal operations of the company to bring sustainability practices to personnel matters and production processes.²⁴

Muñoz observed that the specific form of entrepreneurship engaged in by sustainability-driven enterprises is about simultaneously achieving three objectives (i.e., social, environmental and economic), while committing to securing the economic welfare and social well-being of future generations and ensuring a long-term sustainability of the environment.²⁵ He then went on to propose that sustainable entrepreneurship should be defined and conceptualized as being “focused on pursuing business opportunities to bring into existence future products, processes and services, while contributing to sustain the development of society, the economy and the environment and consequently to enhance the well-being of future generations”.²⁶ From this definition it is possible to identify certain central factors that sustainable entrepreneurs need to consider in developing and executing their business models: integrating environmental best practices and protection into all business activities; social justice; economic prosperity for investors, entrepreneurs and economies; improving the well-being of communities; and intra and intergenerational equity.²⁷ Muñoz pointed out that his definition acknowledged and integrated constructs
from both sustainable development and entrepreneurship literature, a path also taken by Shepherd and Patzelt’s opinion that the practice of sustainable entrepreneurship called for sustaining and developing three constructs informed by sustainable development literature (i.e., sustain nature, life support systems and communities) and three constructs informed by entrepreneurship literature (i.e., develop economic gains, non-economic gains to individuals and non-economic gains to society).  

Racelis used the term “authentic sustainable entrepreneurship” to describe the situation “when the economic, environmental, and social motives come together in the business action of the entrepreneur, along with the internalization of the fiduciary, stewardship, and moral responsibilities to future generations”.  

Racelis went on to suggest that the specific normative elements that should be found in the activities of the authentic sustainable entrepreneur should include “production of socially desirable products in a socially desirable manner, and advancement of the health and well-being of those affected by such, all within a values-driven framework”.  

Racelis pointed out that sustainable entrepreneurship is a model of entrepreneurship that enables founders to seize opportunities relating to environmental and social degradation which are created by market imperfections (e.g., inefficient firms, externalities, flawed pricing mechanisms, and information asymmetries) to obtain entrepreneurial rents while simultaneously improving social and environmental conditions both locally and globally.  

Another important implicit condition for sustainable entrepreneurship is the capacity of the venture to survive, develop and grow. Rey referred to this condition as “viability” and emphasized that a sustainable entrepreneurial company must, at a minimum, cover all costs, enjoy continuous growth in size and output, make a positive return on turnover and, fundamentally, “remain out of financial danger for years”.  

In other words, the company must seek and achieve long-term sustainability in order to successfully pursue and achieve its goals and purposes and provide prospective stakeholders, including

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30 Id. (citing S. Hodgkin, Business social entrepreneurs: working towards sustainable communities through socially responsible business practices (Master’s thesis, University of Calgary, Calgary, Alberta, Canada, 2002)).  
32 Id.  
employees, with security that their contributions to the enterprise will be product value over an extended period.

Definitions and conceptualizations of sustainable entrepreneurship continue to evolve along with other ideas and initiatives regarding the environmental and social responsibilities of businesses.\textsuperscript{34} For example, recent interest in overturning the long-standing principle of stockholder primacy, and generating profits for investors as the sole objective of the corporation, requires that “purpose” be integrated into the mindsets and business models of sustainable entrepreneurs.\textsuperscript{35} In addition, sustainable entrepreneurs, along with businesses of all types, are being challenged to introduce a human rights lens to their activities and operate their businesses and conduct their business relationships with the explicit goal of respecting human rights and reducing adverse human rights impacts. The Sustainable Entrepreneurship Project (www.seproject.org) took these developments into account when it identified the following key characteristics of sustainable entrepreneurs and sustainable entrepreneurship, noting that they could be applied to both startups and mature firms:

- **Purpose-Driven.** Sustainable entrepreneurs put purpose before profits, first deciding how they will create value for stakeholders by producing profitable solutions to problems of people and plant and then acting with the understanding that profits are not the purpose of their endeavors but rather the consequence of a well-run sustainable business.

- **Innovative Disruption.** Sustainable entrepreneurs generate innovative sustainable products, services, production processes, techniques and organizational modes which establish competitive advantage by replacing existing conventional, unsustainable solutions and substantially reducing adverse social and environment impacts.

- **Shared Value.** Sustainable entrepreneurs contribute solutions to societal and environmental problems by pursuing business strategies that focus on simultaneously creating social and business value.

- **Respect for Human Rights.** Sustainable entrepreneurs do not profit from inflicting harm on people and respect human rights by proactively managing and mitigating potential and actual risks of adverse impacts on the rights and dignity of people caused by, or contributed to through, their own activities or business relationships.

\textsuperscript{34} In addition to the sources mentioned above, extensive discussions relating to defining and describing “sustainable entrepreneurship” can be found in A. Lindgreen, F. Maon, C. Vallaster, S. Yousafzai and B. Florencio (Editors), Sustainable Entrepreneurship: Discovering, Creating and Seizing Opportunities for Blended Value Generation (London: Routledge, 2019); C. Weidinger, F. Fischler and R. Schmidpeter (Editors), Sustainable Entrepreneurship: Business Success through Sustainability (Berlin: Springer-Verlag, 2014); V. Ratten, P. Jones, V. Braga and C. Marques (Editors), Sustainable Entrepreneurship: The Role of Collaboration in the Global Economy (Cham, Switzerland: Springer Nature Switzerland AG, 2019); and K. Nicolopoulou, M. Karata-Ozkan, F. Janssen and J. Jermier (Editors), Sustainable Entrepreneurship and Social Innovation (London: Routledge, 2017).

Build Lasting Visionary Companies—Habits of Sustainable Entrepreneurs

Writing in the early 1990s, a time when management books had become somewhat of a fad, Collins and Porras claimed that they were doing something different in their best-selling book *Built to Last: Successful Habits of Visionary Companies*. They weren’t writing about charismatic visionary leaders, visionary product concepts or visionary market insights, and reminded readers that all leaders eventually die, all products become obsolete and all markets mature. Instead, they believed that one of the most important economic challenges and issues was figuring out how to build enduring “visionary companies” that met the following criteria: a premier institution in their industry that was widely admired by knowledgeable businesspeople; a company that had made an indelible imprint on the world; and a company that had been in business for at least 50 years and gone through multiple generations of chief executives and multiple product (or service) life cycles. Collins and Porras tackled two fundamental and difficult questions: “What makes the truly exceptional companies different from the other companies?” and “Is it possible to discover the timeless management principles that have consistently distinguished outstanding companies and which apply over long stretches of time and across a wide range of industries?” Based on their extensive research, Collins and Porras argued that such timeless management principles did exist and can and should be applied by managers, CEOs and entrepreneurs all over the world to create their own visionary companies and effectively practice sustainability leadership.

In *Built to Last* and other articles regarding their research, Collins and Porras listed and described at least ten management principles they had identified from looking at both companies that they believed had achieved visionary status and at comparison companies which, while “born in the same era, with the same market opportunities, facing the same demographics, technology shifts, and socioeconomic trends”, had been less successful. Of those principles the authors felt that four of them stood out—“be a clock builder—an architect—not a time teller; embrace the ‘Genius of the AND’; preserve the core/stimulate progress; and seek consistent alignment”—and most of the book was about explaining and illustrating each of these concepts.

For example, the authors explained that “[h]aving a great idea or being a charismatic visionary leader is ‘time telling’; building a company that can prosper far beyond the presence of any single leader and through multiple product life cycles is ‘clock building’”. Embrace the “Genius of the And” meant that visionary companies had “the ability to embrace both extremes of a number of dimensions at the same time” such as having a purpose beyond profit while engaging in the pragmatic pursuit of profit. Preserve the Core and Stimulate Progress meant that “[a] visionary company carefully preserves and protects its core ideology, yet all the specific manifestations of its core ideology must be open for change and evolution”. Finally, visionary companies achieved alignment by making sure “that all the elements of a company work together in concert within the context of the company’s core ideology and the type of progress it aims to achieve”. On a day-to-day basis, alignment met making sure companies didn’t adopt incentive systems that rewarded behaviors that were inconsistent with the company’s core values or policies and procedures that inhibited change and improvement.

As mentioned above, Collins and Porras identified and followed pairs of companies, 18 in all, over a long period of time in order to identify those capable of achieving enduring success and not get caught up celebrating a company that may have had just one or two moments of good fortune. It was interesting that more often than not the comparison company had greater initial success during the entrepreneurial phase than the visionary company. While all of the pairs were used to illustrate the four key concepts mentioned above, let’s look at just three examples starting with Hewlett-Packard (a visionary company founded in 1937) and Texas Instruments (the comparison company founded in 1930). HP was consistently applauded by the researchers as an example of the clock-building orientation and the researchers noted that it was telling that when Dave Packard, one of the HP founders, was asked about which product decisions were most important to the growth of the company his response completely ignored specific products and focused on organizational decisions that are so much a part of clock-building: “developing an engineering team, a pay-as-you-go policy to impose fiscal discipline, a profit-sharing program, personnel and
management policies [and] the ‘HP Way’ philosophy of management”. The researchers also praised Packard as a strong example of understanding “Genius of the AND” in the way that he and his company simultaneously pursued “profit and purpose beyond profit”. In order to illustrate their point the researchers provided a quote from a presentation that Packard made to HP personnel who would be responsible for management development training which included the following: “I want to discuss why a company exists in the first place. In other words, why are we here?” I think many people assume, wrongly, that a company exists simply to make money. While this is an important result of a company’s existence, we have to go deeper and find the real reasons for our being . . . . The real reason for our existence is that we provide something which is unique [that makes a contribution].” In contrast, the researchers “could find not one single statement that TI exists for reasons beyond making money”. HP also received high marks with respect to the way it aligned its practices and policies with its “lofty values and aspirations” by finding ways to show respect for its employees, reinforce the importance of technological contribution, promote an entrepreneurial environment and “immerse employees in the tenets of what became known as the ‘HP Way’.”

A second pair of twins was Wal-Mart (a visionary company founded in 1945) and Ames (the comparison company founded in 1958). The researchers complimented legendary Wal-Mart founder Sam Walton for implementing “concrete organizational mechanisms to stimulate change and improvement” and noted that he “concentrated on creating an organization that would evolve and change on its own”, each of which were consistent with clock building. Walton also knew the importance of succession planning to make sure that the company philosophies survived. In contrast, “Ames leaders dictated all change from above and detailed in a book the precise steps a store manager should take, leaving no room for initiative” and the researchers noted that Ames had no succession plan in place and eventually management control fell into the hands of outsiders with no ideas about the philosophies of the founders.

A third pair of twins was Walt Disney (a visionary company founded in 1923) and Columbia Pictures (the comparison company founded in 1920). With respect to clock building the researchers judged Harry Cohn, one of the founders of Columbia to be a complete failure who “cared first and foremost about becoming a movie mogul and wielding immense personal power in Hollywood and cared little or not at all about the qualities and identify of the Columbia Pictures Company that might endure beyond his lifetime.” On the other hand Walt Disney spent every moment from the day that he founded the company to the day that he died thinking about future ways that the company could make people happy. Disney was also praised for its efforts to institutionalize its core technologies while simultaneously maintaining ongoing efforts to stimulate progress and the researchers took particular note of how Disney developed a cult-like culture through “intensive screening and indoctrination of employees”. For its part, Columbia, like Ames, was criticized for its neglect of investments for long-term growth and failure to invest in employee recruiting, training and professional development. Today Disney remains an important force in entertaining children and adults all around the world while Columbia, lacking a strong heritage or reasons to exist beyond its cash and assets, ceased to exist as an independent company.

As to how the research they conducted twenty years ago might relate to the future, such as today, Collins and Porras predicted that clock building would become even more important as ideas, products and markets became obsolete more quickly due to “accelerating rate of technological change, increasing global competition and dramatically shorter product life cycles”. They also thought that preserving the core/stimulating progress would become more important as companies became “flatter, more decentralized, more geographically dispersed” and workers became more knowledgeable and seek more and more individual autonomy. In other articles Collins talked about how the work done to write Built to Last might be helpful in understanding dramatic and seemingly sudden failures of high flying companies like we seen so often recently and mentioned the dangers of “hubris born of success” and undisciplined and reckless pursuit of more success—more money, larger size, more celebrity. The stories collected, and lessons learning, in creating Built to Last should be useful for the current crop of celebrity companies such as Facebook, Google, Amazon and Apple that have been so successful in their start-up phase, but must now settle in for the long haul of decades of ups and downs before they are eligible for entering the visionary class. The founders and other leaders of these companies have often spoken of their intent to achieve and sustain long-term greatness and impact. Perhaps the trials and triumphs of the legendary sustainable
entrepreneurs from the past, such as Packard, Walton and Disney, can be valuable teaching tools.


### §3 Determinants of sustainable entrepreneurship

Are the certain contextual factors or personality characteristics that are reliable predictors and determinants of sustainable entrepreneurs? Several researchers think that there might be and have pointed to things such as having a “sustainable attitude” and an innovative orientation as well as a conducive legal and social-economic context and supportive economic, political and social infrastructure. Widely recognized ground rules for pursuing sustainable entrepreneurship include acceptance of a long-term self-initiated process by everyone in the organization and an ability to explain the relationship between sustainability and the organizational activities and processes. In addition, sustainable entrepreneurs must be focused on building a social enterprise that includes a primary social purpose, a financially sustainable business model (i.e., a business that generates profits that can be reinvested into the enterprise for use in pursuing the social purpose and maintaining sustainability) and mechanisms for ensuring accountability and transparency.

Lawai et al. provided a summary of research that was relevant to identifying the key determinants of successful sustainable entrepreneurship:

- According to Koe et al., attitudinal factors (i.e. sustainable attitude) and perceptual factors (i.e. perceived desirability and perceived feasibility) were important in influencing a person’s level of propensity to sustainable entrepreneurship.
- Cambra-Fierro et al. argued that variables relevant to sustainable entrepreneurship included legal context, management's personal values, socio-cultural context, market forces, ownership management structure, and industry-sector characteristics.
- Uhlaner et al. found evidence that indicated that larger firms, firms from more tangible products, family owned firms, and firms with a more innovative orientation

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have more inclination towards manifesting sustainable entrepreneurship behaviors.\textsuperscript{39} Larger firms are able to bring more resources (financial and human) to bear on sustainability initiatives and have more to lose in terms of reputational damage due to irresponsible behavior. The responsiveness of family firms is consistent with their stronger ties to the local communities in which they operate.\textsuperscript{40}

- Fedderke and Garlic opined that sustainable entrepreneurship was dependent on the adequacy and sufficiency of both the economic infrastructure (i.e., transport, communications, power generation, water supply and sanitation facilities) and the social infrastructure (i.e., educational and health-care facilities). They observed that improvements to infrastructure can contribute to reduction of income inequality, alleviation of poverty and improved economic growth.\textsuperscript{41}

Lawai et al. noted that sustainable entrepreneurs are also subject to many of the same factors that influence commercial entrepreneurs and that the success of both types of entrepreneurs will be influenced by motivating factors, personality characteristics, family support, friend circle/peer group support, management skills and abilities, level of education and environmental forces.\textsuperscript{42} Market conditions are also obviously very important and Rahman and Singh observed that the chances of entrepreneurial success increase substantially with competitive pricing, power supply, access to latest technology, access to market channels, and access to business associations.\textsuperscript{43} Researchers also frequently mentioned government support which can come in many forms: financing, infrastructure development, subsidies for accessing raw materials, and assistance with research and development and access to technology. The government can also serve a valuable role as a customer, not only as a source of revenues for the venture but also as a means for the new venture to test and improve the quality of its products before broader commercial launch.

**Ground Rules for Becoming a Sustainable Entrepreneur**

In order to effectively pursue sustainable entrepreneurship and achieve some of the benefits associated with sustainable entrepreneurship policies and practices companies must continuously engage in dialogues with all interested stakeholders. Shareholders must be educated on, and convinced of, the benefits of aspiring for social and environmental responsibility, even though pursuit and achievement of goals in those areas may have an impact on the financial bottom line. For their part, stakeholders that are more focused on social and environmental performance must also acknowledge that the company needs to be financially

\textsuperscript{39} L. Uhlanar, M. Berent and R. Jeurissen, Family Ownership, Innovation and other context variables as determinants of sustainable Entrepreneurship in SMEs: An empirical research study (2010).
\textsuperscript{43} H. Rahman and H. Singh, “Economic and Environmental factors leading to Entrepreneurial success”, Indian Journal of Applied Research, 4(12 (2014)).
sustainable in order to survive and thrive.

Groesbeek and Bos collectively offered the following list of ground rules for becoming a sustainable entrepreneur:

1. The corporation should start reducing the environmental damage, respecting human rights and treating its employees with great care;
2. Sustainable entrepreneurship has to be a self-initiated process and should not simply be a response to external pressure;
3. If a corporation wants to practice sustainable entrepreneurship, it should identify clear aims and targets;
4. The aims should be closely related to the corporation’s practice and should match the corporate values and its primary activities;
5. The aims have to be closely related to the consumers’ needs;
6. The corporation has to be capable of explaining the relationship between sustainability and its activities and production process;
7. The corporation should adhere to these aims on a long term basis;
8. Consumers and pressure groups should have a transparent overview of investments made by the corporation related to sustainable entrepreneurship;
9. Sustainable entrepreneurship practiced by the corporation should not be shifted to the consumers via a price increase;
10. A corporation should not attempt to overemphasize its efforts; and
11. A corporation should make sure that its practices are shared by the corporation as a whole, and that they are not solely efforts of the management.


§4 Young and Tilley’s sustainable entrepreneurship model

Young and Tilley described sustainable entrepreneurs as entrepreneurs who apply their values to generate a sustainable form of wealth, which means contributing a holistic net benefit to the economy, community and the natural environment, and they proposed a model for understanding the concept of “sustainable entrepreneurship” that distinguished it from the conventions of economic, social and environmental entrepreneurship and focused on creating and managing an organization that has sustainability at the center of its structure, operations and management. Young and Tilley emphasized that sustainable entrepreneurship is based on moving beyond “efficiency” to seeking and achieving “sustainability”, which means going beyond eco- and socio-efficiency to produce “green” products and help disadvantaged sections of society. They argued that organizations should not only develop a “business case”, but also create a “natural case” and “societal case” and guard against any single type of entrepreneurship—economic, environmental or social—having a primacy that would impede the organization’s path to sustainability.
Young and Tilley noted that Crals and Vereeck had defined sustainable entrepreneurship as the “continuing commitment by businesses to behave ethically and contribute to economic development while improving the quality of life for the workforce, their families, the local and global community as well as future generations” and then went on to take the position that the definition applied to “existing businesses” and not to entrepreneurs who set out to start up and grow a sustainable enterprise from the very beginning.\textsuperscript{44} Young and Tilley believed that mainstream businesses interested in pursuing social, environmental or sustainable actions encountered difficulties in reconciling economic value, which is relatively easy to measure objectively, and the form of moral value, which is subjective, associated with such actions.\textsuperscript{45} Because of these difficulties, entrepreneurship, specifically sustainable entrepreneurship, may arguably be the preferred form for the pursuit of sustainability because it is unique and allows for incorporation and consolidation of the value perceptions of the individual entrepreneur in ways that reconcile differences between society and mainstream businesses.

Young and Tilley described sustainable entrepreneurs as entrepreneurs who apply their values to generate a sustainable form of wealth, which means contributing a holistic net benefit to the economy, community and the natural environment.\textsuperscript{46} They proposed a model for understanding the concept of “sustainable entrepreneurship”, which they described as an “organization that has sustainability at the center of its structure, operations and management”.\textsuperscript{47} Young and Tilley explained that their goal was to put forward a model for sustainable entrepreneurship that distinguished it from the conventions of economic, social and environmental entrepreneurship.\textsuperscript{48} They were very clear that while it was true that economic, social and environmental entrepreneurs could contribute to sustainable development, they were not going be fully sustainable so long as they maintained a single primacy.\textsuperscript{49}

Young and Tilley emphasized that sustainable entrepreneurship is based on moving beyond “efficiency” to seeking and achieving “sustainability”, a path that was consistent with the evolution in the way in which businesses have encompassed changing attitudes toward environmental and social issues. They explained that when businesses first starting considering environmental issues during the early 1960s their primary concern

\textsuperscript{46} Id.
\textsuperscript{48} F. Tilley and Young, “Sustainability Entrepreneurs -- Could they be the True Wealth Generators of the Future?”, Greener Management International, 55 (2009), 79.
\textsuperscript{49} Id.
was controlling pollution and their responses tended to be bolt-on solutions to manage compliance with emerging regulations. Two decades later, beginning in the mid-1980s and extending through the 1990s, businesses identified opportunities to reduce costs through the implementation of environmental management practices: the so-called “eco-efficiency” strategy that was touted as a “win-win” solution that minimized resource consumption and waste while affording companies a competitive advantage. By the beginning of the 21st century, however, environmental management theorists and activists had pivoted toward a new approach: businesses should seek “eco-effectiveness” by adopting business practices that went beyond pollution control and eco-efficiency to operating in a manner that restored and enhanced the environment.

The expansive approach to sustainability advocated by Young and Tilley fits within the debate and contrast between “weak”, sometimes referred to as “incremental”, and “strong” sustainability. Weak sustainability has been described as the expansion of the breadth of what a business considers to be important beyond the traditional financial bottom line focus to include ethical, environmental and community responsibility, as well as being a good employer and an advocate of ethical labor practices among its business partners. The magnitude of expansion, often referred to as the “triple bottom line”, varies from case-to-case and is many businesses begin with, and limit their efforts to, environmental responsibility. In contrast, strong sustainability has been described as “a whole new approach to doing business, where every consideration is made for the business to contribute toward a sustainable society”. Applicants of strong sustainability seek to build the capacity to endure within their businesses and continuously ask what they can do to add value to their business within the broader society and eco-systems.

The model suggested by Young and Tilley was based on combining the six criteria of corporate sustainability proposed by Dyllick and Hockerts with concepts that were included in the McDonough-Braungart model of corporate sustainability, all of which have already been described above. While Young and Tilley noted that each of the aforementioned models had value, they also had several criticisms:

- While they believed that Dyllick and Hockerts provided a useful insight into new ways of advancing solutions with respect to production, their model did not properly address problems relating to consumption. Specifically, Young and Tilley cautioned that “no matter how environmentally friendly you make a product, if consumer

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52 The discussion in this paragraph has been adapted from Sustainable Business: A Handbook for Starting a Business (New Zealand Trade and Enterprise).
demands are too high there is a potential for imbalance and environmental or social harm”.

- Companies of all sizes, large and small, have a tendency to concentrate on just one of the business cases, rather than incorporating all element of the model into their core missions. While the tendency among larger companies to place greater weight on the business case is well documented, smaller companies that have gone well beyond eco- and socio-efficiency to produce “green” products and help disadvantaged sections of society often have similar problems.

- The McDonough-Braungart model did not provide enough detail to translate into values and strategies for companies and was still concentrating on the separate elements of sustainable development and not the whole thing.

Young and Tilley argued that Dyllick and Hockerts and McDonough and Braungart had focused their efforts on established businesses that were approaching sustainable development from the eco- and socio-efficiency end of the models and that their models failed to provide guidance to eco- and socio-entrepreneurs in operationalizing the other elements of the path towards sustainable development. In order to address these shortcomings, Young and Tilley proposed several changes to the Dyllick-Hockerts model to “focus on entrepreneurship and advance it to sustainable entrepreneurship”:

Young and Tilley began by swapping the labels “ecological equity” and “sufficiency”. They explained that ecological equity is an environmentally-centered principle that primarily concerns with the equal rights of all peoples and generations to environmental resources and that sufficiency is a more social-centered principle that focuses on individuals and companies living on needs rather than wants. They also replaced the labels of “business cases”, “natural case” and “societal case” with “economic entrepreneurship”, “environmental entrepreneurship” and “social entrepreneurship”, respectively, and explained that the changes were intended to develop a model for new organizations with strong economic, environmental and social philosophies. Young and Tilley also emphasized that an effective and comprehensive model of sustainable entrepreneurship had to be an integrated approach that incorporated all three components of sustainable development into the organization in a holistic way and that no single type of entrepreneurship—economic, environmental or social—could have a primacy that would impede the organization’s path to sustainability.

Young and Tilley’s main effort to advance the Dyllick-Hockerts model to a full-fledged framework for sustainable entrepreneurship involved moving the three traditional poles of entrepreneurship (i.e., economic, environmental and social) towards a higher plane. In order to do this, Young and Tilley introduced three new two-way relationships and six new variables to be added to the six already operating in the Dyllick-Hockerts model:

- A relationship between economic and sustainable entrepreneurship which involves both “economic equity”, which is the distribution of economic wealth fairly between
existing generations as well as future generations, and “inter-generational equity”, which brings consideration of the economic welfare of future generations into the factors that companies consider when making decisions and engaging in operating activities.

- A relationship between environmental and sustainable entrepreneurship which involves both environmental stability, which is the positive forces being exerted on the environment to stabilize and where necessary restore the various ecosystem functions (e.g., climate change), and environmental sustainability, which brings consideration of the long-term sustainability into the factors that companies consider when making decisions and engaging in operating activities.

- A relationship between social and sustainable entrepreneurship which involves both social responsibility, which refers to companies and individuals taking responsibility and being accountable for direct and indirect and negative and positive impacts on existing generations, and “futurity”, which brings consideration of the social well-being of future generations into the factors that companies consider when making decisions and engaging in operating activities.

The crux of the argument made by Young and Tilley was that “sustainable entrepreneurship is the sum of all the 12 variables of the model operating in unison” and they cautioned that sustainable entrepreneurship could not be achieved by only subscribing to social or environmental entrepreneurship. They noted that while the model “does not represent a ‘direct route’ from any of economic, environmental or social entrepreneurship poles to sustainable entrepreneurship” it does illustrate the relationship between the three poles and sustainable entrepreneurship and thus could be used as a way for assessing whether an organization meets the criterion for one of the poles and identifying the steps that the organization should take to move from that pole towards sustainable entrepreneurship. In other words, the sustainable entrepreneurship model was developed as a framework to guide individuals seeking to start up a sustainable enterprise from the outset and Young and Tilley described the model as detailing the elements required of a sustainable entrepreneur.

According to Tilley and Young, the six initial elements of the model could be seen as the values that build an entrepreneur with social, environmental or economic goals and the additional six elements incorporate what is needed in order for the entrepreneurial activity to be sustainable. They conceded that the additional elements would be challenging to realize in practice because many of them are at best theoretical; however, they argued that entrepreneurs are well suited to the task given their propensity for innovation, experimentation and risk taking. Their position with regard to sustainable entrepreneurship has been succinctly explained as follows:

“The sustainable entrepreneur is the only route to fulfilling sustainable development. Firstly, an entrepreneur and their enterprise have to be financially sustainable to survive within the current economic and regulatory systems. An organization just focusing on the environment as its goal without a means of

56 Id. at 412.
income beyond government subsidy or philanthropy cannot be an entrepreneur, for example, a change of government or change of heart by the philanthropist could remove the income for that organization and stop the environmental work. In addition, concentrating on environmental values causes social damage, that is to say, creating a nature reserve can exclude the local community from resource traditionally harvested from the land the nature reserve now occupies. Similarly, concentrating on the social values can cause financial failure and environmental damage, take a fair trade organization as an example, it can help bring disadvantaged communities out of poverty but if the organization cannot sell the fair trade products its financial failure stops its good work. In addition, the fair trade organization is damaging the environment through transporting goods across the world (contributing to climate change) and having little regard to the impacts of the production process on the environment (depletion of natural resources, pesticides, hazardous waste). Hence only those entrepreneurs that balance their efforts in contributing to the three areas of wealth generation can truly be called a sustainable entrepreneur.57

Assessment questions that prospective sustainable entrepreneurs can use as guides on their journey to sustainable entrepreneurship have been included in Table 1. Tilley and Young pointed out several challenges that sustainable entrepreneurs will need to overcome, beginning with the fundamental issue of how to measure wealth generation.58 The traditional primacy of the business case reflects society’s predisposition toward judging success in measurable quantitative, typically financial, terms alone and transition toward sustainable entrepreneurship will require the development of adequate measures of social and environmental value. Another problem is the lack of incentives and rewards to support sustainable entrepreneurs and allow them to survive in the market-based economy. Tilley and Young argued, for example, that if the sustainable entrepreneur contributes towards the economy, society and protects the environment, they should be rewarded for taking on roles that are normally funded by the state, perhaps by being given “tax haven” status that would allow them to retain funds that would normally be paid to the state and re-invest them in the sustainable activities that have broader social value. Finally, Tilley and Young observed that sustainable entrepreneurs need more external support and that sustainable entrepreneurial networks need to be built in order to help those entrepreneurs get their businesses launched and address the challenges associated with the various elements of the sustainable entrepreneurship model.

**Case Study: The Day Chocolate Company**

In an effort to illustrate the application and utility of their sustainable entrepreneurship model, Young and Tilley provided a case study of the “Day Chocolate Company”. They explained that the company was set up to access the chocolate market in the United Kingdom by a West African cocoa growers co-operative called Kuapa Kokoo with The Body Shop International and Christian Aid and facilitated by Twin Trading. Kuapa Kokoo, The Body Shop International and Christian Aid each owned a third of the company, which

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58 Id.
sold two brands of Fairtrade chocolate carrying the Fairtrade Mark certified by the UK Fairtrade Foundation. Young and Tilley noted that the overall goal and purpose of the company was to improve the livelihood of smallholder cocoa producers in Ghana. They went on to first assess whether Day Chocolate Company satisfied the elements of one of the poles of their sustainable entrepreneurship model—social entrepreneurship—and then proceeded to make suggestions as to what the company would need to do in order to move from social entrepreneurship toward sustainable entrepreneurship.

As for social entrepreneurship, Young and Tilley concluded that Day Chocolate Company was a “social entrepreneur” based on its progress with respect to at least four of the elements in their sustainable entrepreneurship model:

- **Socio-efficiency**: There was evidence of a positive social impact on the cocoa growers and the local community as well as consumers; however, Young and Tilley noted that more information was needed on working conditions in the other parts of the supply chain such as chocolate production and within the company itself.
- **Socio-effectiveness**: As noted above, there was evidence of positive impacts on the cocoa growers and the local community.
- **Social responsibility**: The company was taking responsibility for the production of cocoa; however, further information was needed regarding the impacts on other stakeholders.
- **Economic equity**: The unique ownership structure, which included suppliers, a charity and a for-profit company with sustainable aims, coupled with the fair trade scheme that the company was operating under allowed suppliers to receive a guaranteed price for their cocoa. However, Young and Tilley noted that more evidence needed to be collected on other economic equity issues, such as wage differentials within the company and throughout its entire supply chain.

Young and Tilley cautioned that their conclusion that the Day Chocolate Company was a social entrepreneurship did come with several caveats. First, as mentioned several times above, more evidence regarding certain of the elements was needed. Second, Young and Tilley wondered whether selling chocolate was at odds with the “sufficiency” element of their sustainable entrepreneurship model given the potential negative health impacts of consuming products with a high sugar content and the lack of restrictions on the amount of product that could be sold that could potentially have larger and larger environmental impacts. While it might be impossible to totally overcome these issues when the product in question is chocolate, companies can mitigate some of the potential harms by restricting/rationing sales, reducing the size of servings, educating consumers on the harm of a high sugar diet and providing labelling that goes beyond the minimum disclosures legally required. At a more basic level, it is also fair to ask whether the sufficiency element can ever be satisfied when the product in question is a luxury item such as chocolates.

As for progress toward achieving sustainable entrepreneurship, Young and Tilley turned to examining the key elements in their model associated with the relationships between economic, environmental and social entrepreneurs and sustainable entrepreneurship that have not already been discussed above and offered the following prescriptions:

- **Inter-generational equity**: The future generations in the community need to be taken into account not only by ensuring that cocoa farming is a long-term enterprise but also that the community develops a diversity of enterprise beyond cocoa farming.
- **Environmental stability**: Issues with regard to this element center around identifying and mitigating potential harmful environmental impacts of the production of the product, with ideas including shifting to organic production; changes in transport modes within the supply chain (e.g., not using air freight, shifting to rail freight and reducing “food miles”); and addressing the impacts from the production and disposal of packaging (e.g., reducing packaging and shifting to better materials).
- **Environmental sustainability**: Starting to move to a “zero impact company” by analyzing whether the production and use of the product can be radically altered or whether another type of product with less of an impact will achieve the fair trade principles of the company.
Young and Tilley explained that the case of Day Chocolate Company illustrates how a company can achieve social entrepreneurship status yet still remain far from what they consider to be sustainable entrepreneurship. In this instance, the company would need to evolve in several ways including changes in its overall objective and changes in many areas of its operational activities to address the other elements of the sustainable entrepreneurship model. Young and Tilley stressed that “there is nothing wrong with being a social or environmental entrepreneur if that is the aim, but all elements of the model need to be balanced, not just a few, before entrepreneurs can describe themselves as ‘sustainable entrepreneurs’”.


### Table 1
**Assessment Questions for Sustainable Entrepreneurs**

The following list of assessment questions incorporate requirements for and elements of sustainable entrepreneurship proposed in several well-known models and frameworks of corporate sustainability and sustainable entrepreneurship listed as sources below.

#### Leadership and Governance Considerations

- Have we identified and integrated sustainable value propositions into our business model (e.g., climate change initiatives, “cradle-to-cradle” design, eco-premium solutions, sustainability leadership etc.)?
- Have we integrated sustainability into all aspects of our value chain (e.g., increased support for research and development and innovation, particularly eco-premium solutions; emphasis on functional excellence in sourcing arrangements and manufacturing; and emphasis on eco-premium solutions in sales and marketing)?
- Have we implemented processes and procedures necessary for compliance and ensuring a long-term license to operate (e.g., environmental management systems, product stewardship and distribution, integrity and risk management, health, safety and security management, employment practices, including people development and diversity/inclusion and community involvement)?
- Is our pursuit of sustainable entrepreneurship a self-initiated process and not simply a response to external pressures?
- Have we identified clear aims and targets with respect to sustainable entrepreneurship and are they closely related to our practices and aligned with our values and primary activities?
- Are our aims and targets with respect to sustainable entrepreneurship closely related to the actual needs and preferences of consumers?
- Are we able to explain the relationship between our activities and production processes and sustainability (e.g., are we providing consumers and pressure groups with a transparent overview of the investments we are making related to sustainable entrepreneurship)?
- Have we developed a business model and strategic plans that will enable us to adhere to our aims and targets with respect to sustainable entrepreneurship on a long-term basis?
- Have we developed and maintained an organizational culture that ensures that the preferred practices relating to sustainable entrepreneurship are shared by the organization as a whole and not just among a small group of organizational leaders (e.g., is everyone in the organization given an opportunity to participate in decision making processes and is information relating to sustainability issues widely disseminated throughout the organization)?

#### Economic Considerations

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• Does our business model emphasize innovation, capital efficiency, risk management, margin improvement, growth enhancement and total shareholder return?
• Can we make our product or provide our service at a profit so that our business model can survive and grow to achieve economic sustainability?
• Does our business provide and ensure that the employees producing our products and providing our services will earn a living wage?
• Are men and women producing our products and providing our services being paid the same amount for the same work?
• Are we finding new ways to honor everyone involved in our business, regardless of race, sex, nationality or religion, and respect human rights and diversity and treat our employees with great care?
• Do we acknowledge and respect the channels for fair labor relations and bargaining regarding the conditions of work?
• Have we developed and implemented a pricing structure for our products and services that does not shift the cost of our sustainable entrepreneurship practices to consumers?
• Does our business model promote the distribution of economic wealth fairly between existing generations as well as future generations?
• Do we include the economic welfare of future generations among the factors that are considered when making decisions and engaging in operating activities?

Environmental Considerations

• Is our ecological strategy economically viable and do our service or production processes use natural resources efficiently (e.g., life-cycle management) and reduce waste, air pollution and other environmental damage (e.g., releases and spills and water and land emissions)?
• Will the operation of our factories and offices improve the quality of life of all stakeholders and restore ecosystems?
• Are we identifying ways in which our products and services could enhance the health of employees and customers?
• Do we have processes and procedures, as well an appropriate organizational culture, in place to ensure compliance with environmental and health and safety regulations and effective response to environmental crises caused by our operational activities?
• Are we obeying nature’s laws and creating habitats?
• Will our product or service contribute to the balance of the local ecology?
• Are we taking steps to achieve better technical effectiveness and/or a complete alternative to eco-efficiency?
• Does our business model achieve inter-generational inheritance of natural capital, both positive and negative (i.e., pollution etc.)?
• Does our business model exert positive forces on the environment to stabilize and where necessary restore the various ecosystem functions (e.g., climate change)?
• Do we include long-term environmental stability among the factors that are considered when making decisions and engaging in operating activities?

Social Considerations

• Does our business model incorporate core socio-economics principals such as jobs creation, skills enhancement, local economic impacts, community outreach, social investments, business ethics and security?
• How efficient is our business model with respect to the minimization of negative impacts (e.g., workplace accidents) and the maximization of positive social impacts (e.g., training and health benefits)?
• Are our products and services accessible and thus benefitting all or limited in availability and just benefiting an elite few?
Is our business model mindful of 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 and/or society in general?

- Are we taking responsibility and being accountable for direct and indirect and negative and positive social impacts of our activities on existing generations?
- Do we include the social well-being of future generations among the factors that are considered when making decisions and engaging in operating activities?

**Sources:**

**§5 Benefits of practicing sustainable entrepreneurship for companies**

Bos noted two reasons for all companies, including large and established firms, to take into account the socio- and eco-ethical impact of their business activities: avoiding bad publicity and damage to their corporate reputation that can lead to losses of income, profits and share value as consumers consciously boycott their products and services or unconsciously decide to stop doing business with the company; and a sense of idealism which leads companies to extend their goals beyond profit-making to include development of a public reputation for demonstrating respect to people and planet. Sustainability has become increasingly popular with larger firms as evidence mounts that sustainable companies outperform others on indexes that measure financial results, social and environmental accountability. Among the most popular sustainable entrepreneurship policies and practices among larger companies are consultation with a broader group of stakeholders, including public opinion and environmental interest groups, and sharper focus on product- and supply chain-directed environmental care.

**§6 Sustainability adoption matrix**

The Sustainable Entrepreneurship Research Platform, operating under the auspices of the Amsterdam Business School at the University of Amsterdam, used the results of a student-led study of why and how small and large fashion firms adopted sustainable practices to create a sustainability adoption matrix based on two dimensions of motivation and resource commitment. The matrix categorized the following four types of sustainability adopters:

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60 Sustainability Adoption Matrix (Amsterdam: Sustainable Entrepreneurship Research Platform, Amsterdam Business School at the University of Amsterdam, 2015).
• **Catalyzing:** A catalyzing business scores high on both motivation to adopt sustainable practices and commitment of resources and, as such, can be seen as a potential catalyst for change with respect to social and ecological sustainable practices. A catalyzing business is strongly positioned as a sustainability leader in its industry because of its leverage and buying power with suppliers. Substantial resources have been invested and committed to improving sustainable practices and the company has been highly exposed to sustainability issues and responded by implementing dedicated and active monitoring and management of suppliers’ sustainability.

• **Compliant:** A compliant business focuses primarily on complying with the rules and regulations of sustainable practices, often committing a substantial amount of resources to the compliance function and related activities (e.g., monitoring and training employees and suppliers). While these businesses are aware and knowledgeable about sustainability requirements, their motivation to adopt sustainable practices is not driven by a desire to be a catalyst for sustainability change, perhaps because of the company’s size or position in the marketplace.

• **Purposive:** A purposive business scores high on intrinsic motivation to adopt sustainable practices but has yet to make a substantial commitment of resources, perhaps because of size and/or the stage of development. These companies, through the leadership of their founders, have strong values and norms about sustainability rooted in their “organizational DNA”, but need to find efficient ways to overcome their own shortage of resources in order to have greater impact as a sustainability player in their industries.

• **Hesitant:** A hesitant business is relatively new to the area of sustainability and has yet to develop motivation to adopt sustainable practices or commit substantial resources to implementing and/or improving sustainability practices. Hesitant businesses generally have some awareness of sustainability issues in their industries; however, sustainability issues have yet to become part of their strategic planning (e.g., sustainable sourcing or production) and/or employee training and resources have not been set aside yet to monitor or train suppliers. The situation can be attributed to a variety of reasons, such as low exposure to sustainability issues and/or limited available resources and the path to increasing sustainability impact is more complex for these types of businesses.

The description of the matrix and the various categories was accompanied by prescriptions for how companies can change their positions. For example, compliant businesses have already invested a substantial level of resources in complying with the rules and regulations of sustainable practices and are already aware and knowledgeable about sustainability requirements. For those businesses, the next steps are increasing intrinsic motivation within the company to be more sustainable and seeking out opportunities to collaborate with suppliers and competitors to affect more sustainable change in their industries. Purposive businesses have the requisite motivation; however, resources are a significant issue and they are advised to tap into the knowledge and resources of NGOs to help monitor and train suppliers and seek out alliances and collaborations with other similarly-minded firms in the industry value chain (e.g.,
producers, suppliers and consumers) to bundle resources and generate impactful change. As for hesitant businesses, transitioning to a catalyst is probably out of reach or undesirable; however, it is feasible for them to increase their internal knowledge of sustainability in order to become more compliant without a significant investment of resources. In addition, hesitant businesses can, as their compliance practices become more mature, begin the difficult and time-consuming project of integrating sustainability into their organizational cultures and thus embedding sustainability into organizational processes, planning and mindset (i.e., becoming more “purposive”).

§7 Instruments of sustainable entrepreneurship

Although legal and regulatory requirements applicable to specific aspects of sustainability and sustainable entrepreneurship have been relatively slow to develop, organizations have been attempting to cope with the demands of consumers and other stakeholders for information on sustainability-related issues and problems for some time now and sustainable entrepreneurs must be familiar with the use of various types of instruments of sustainable entrepreneurship including sustainability reports, environmental and social responsibility audits, codes of conduct, management systems, schemes for measuring environmental and social responsibility performance, sustainability communications and labels. Use of these instruments is contextual and depends on the resources of a particular organization and the preferences of the organization’s key stakeholders with respect to receiving information on sustainability commitments, processes and performance.

Legal and regulatory requirements pertaining to sustainability are proliferating and consumers and other stakeholders are demanding information about sustainability-related issues and problems that go beyond that which may be required by governments. For larger companies with complex supply chains, this means that they must establish procedures with their suppliers to ensure that they receive consistent data and then integrate that data into performance measurement and reporting tools that meet the needs and expectations of all stakeholders. For smaller companies, many of which are part of the aforementioned supply chains, the pressures associated with dealing with complex social and environmental issues, including the demands of their larger customers, can create great stress given their limited financial and human resources.61

There is a continuously growing array of techniques and procedures that are available to promote sustainable entrepreneurship and provide companies with standards and guidelines they can follow in developing, implementing and monitoring their sustainable

entrepreneurship initiatives. Crails and Vereeck noted that production standards focusing on measuring product quality and performance have been around for a long time and that it is relatively easy to measure whether or not a particular product complies with a standard. The more difficult task is assessing processes that are thought to be necessary in order for sustainable entrepreneurship to be successful. For example, while guidelines for human resources management, eco-design and management systems are available they are often criticized for being either too complex or too general and thus difficult to put into practice.

Other faults with process-focused standards are that it is hard to interpret results and make comparisons among companies and that “international standards” do not take into account differences in management norms among industries. As a result, simplified and “unofficial” versions of standards have been developed to make them more accessible and/or more specialized (e.g., an unofficial version of ISO 14000 was created for auditing the “working environment”) and different industries have adopted their own versions. In spite of these problems, the topics covered by standards and certification programs continues to expand and now includes not only the traditional areas of product quality, environment and management but also social accountability, information security, ethical trade, equality in the workplace and fire prevention.

§8 --Sustainability reports

The rise of interest in sustainable entrepreneurship has included sharper focus on measurement and assessment of the sustainability initiatives of companies and reporting and communication of the results of those assessments to the stakeholders of those companies. Sustainability measurement, assessment, reporting and communication have become a well-studied phenomenon and approaches vary significantly. Each company must confront and attempt to overcome several basic challenges: how to measure and assess of the degree of environmental or social responsibility orientation in the company; identifying and describing the company’s environmental and social goals and policies, describing how the company’s environmental and social programs are organized and managed; and effectively describing and communicating the environmental and social issues the company is seeking to address. In addition, measurement of results outside of the traditional economic “bottom line” (i.e., profits and losses) remains a difficult and

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heavily debated issue: how can companies reasonably measure how socially responsible it has been throughout its operations and how can they measure how environmentally responsible they have been in carrying out their operations?66

A number of larger companies have published annual sustainability reports to inform their shareholders and other stakeholders of progress that has been made with respect to pursuit of organizational goals relating to sustainability and corporate social responsibility (“CSR”). One basic reason for reporting is to make sure that sustainability and CSR initiatives are properly managed and that persons involved understand they will be accountable for their actions. Other good reasons for reporting include giving interested parties (i.e., stakeholders) the information they need in order to make decisions about purchasing the company’s products and/or investing in the company (the level of funding from investors focusing their interest on ethical businesses is continuously increasing) or otherwise supporting the company’s community activities; collecting information that can be used to make changes and improvements to the company’s sustainability strategies and CSR commitments; improving internal operations; managing and reducing risks; and strengthening relationships with stakeholders. However, in order to achieve the greatest benefits from reporting companies need to carry out those activities in a rigorous and professional manner using tools and standards that are widely recognized and accepted among those interested in the results.

The scope of the company’s reporting efforts will depend on various factors including the size of the company, the focus of its sustainability activities and the financial and human resources available for investment in reporting. When establishing plans for reporting it is useful to obtain and review copies of reports that have been done and published by comparable companies. Reports of larger companies are generally available on their corporate websites and extensive archives of past CSR-focused reports can be accessed through various online platforms such as CorporateRegister.com, a widely recognized global online directory of corporate responsibility reports. It is also important to have a good working understanding of well-known reporting and verification initiatives such as the Global Reporting Initiative, commonly referred to as the “GRI Guidelines”; the AccountAbility AA1000 series; the United Nations Global Compact; and the International Auditing and Assurance Standards Board ISAE 3000 standard. Country-specific information is also available through professional organizations such as the Canadian Chartered Professional Accountants, which has published an extensive report on sustainability reporting in Canada.

Smaller businesses generally do not have the resources to engage a professional auditor to collect the information normally seen in reports published by larger companies or prepare elaborate reports on their sustainability and CSR activities; however, small businesses can post information regarding their activities on their websites, communicate information to customers, suppliers and other business partners and community members by adding new sections to the company’s brochures and pamphlets and posting pictures

of activities that can be viewed by visitors to the company’s facilities, and placing information into local newspapers. In addition, staff briefings on sustainability and CSR activities should be held on a regular basis and small businesses should also invite business partners and community members to events at the company’s facilities which showcase some of the things that the company is doing with respect to sustainability.

§9 --Audits

Environmental audits evaluate the organization as a whole and environmental management practices in particular. The focus of environmental audits is on the organization’s environmental controls systems and includes areas such as competences, responsibilities, communication and education. The purpose and goal of the audit process is to objectively obtain and evaluate audit evidence to determine whether the organization’s environmental management system conforms to the audit criteria and then communicate the results of the audit to senior management of the organization. The International Standards Organization (“ISO”) first developed standards for environmental auditing (i.e., ISO 14010, ISO 14011 and ISO 14012) in 1996 and the current standards are set out in ISO 14001.

While standardization has been the trend with respect to environmental audits, there are few generally recognized and accepted standards for conducting a social audit. One notable exception is AA 1000, which is a framework for assessing, designing, implementing and communicating stakeholder engagement. Crals and Vereeck described a social audit as the process by which an organization reflects on, measures, evaluates and reports on its social impact and ethical behavior and adjusts them according to its goals and values and those of its stakeholders. According to Borgo et al. the four key elements of an effective social audit are dialogue with the stakeholders; use of quantitative and qualitative performance indicators and benchmarks; external verification; and reporting of and communication about goals, efforts and results. A social audit process requires the implantation of a social bookkeeping system that can be used to track performance indicators and benchmarks on metrics such as absenteeism, dismissals and resignations, labor accidents and total earnings.

Regardless of whether a generally-recognized audit standard is used, the recommended audit process begins with the selection of an audit team and determination of the goals and purposes of the audit by the organization. The preferred approach is for the audit team to be independent and not related to the organization or the activities that are being audited so that the audit can be conducted in an objective manner and free of conflicts of interest. Successful audits require cooperation from the organization, access to sufficient information about the activities that are being audited and a systematic work process. The work process includes standard procedures for gathering information, questionnaires

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67 P. Hohnen (Author) and J. Potts (Editor), Corporate Social Responsibility: An Implementation Guide for Business (Winnipeg CAN: International Institute for Sustainable Development, 2007), 72.
68 Id. at 9.
and checklists that can be used for collecting information and conducting interviews and a mutual understanding between the audit team and the organization as to schedule for the audit and content of final report. Audits can be time consuming and expensive, especially when the organization does not have a previous history of working with ISO and comparable standards.

§10 --Codes

Many large and well-known global companies have adopted corporate codes of conduct, which Crals and Vereeck described as statements of principles by which a business agrees to abide voluntarily over the course of its operation and which creates and continuously evaluates benchmarks for the senior management of the business. The first codes of conduct were a reaction to criticisms and protests from activist regarding perceived problems in the way that companies related to consumers and treated the environment in which they operated. Companies implemented principles and guidelines relating to sourcing and operational practices; however, initial efforts were often vague, a problem that eventually led to creation of uniform codes.

§11 --Management systems

Crals and Vereeck defined a management system as the organizational structure, responsibilities, procedures, processes and operational duties necessary to carry out certain goals. While well-run companies have general management systems that address overall operational, financial and strategic management, sustainable entrepreneurship requires specialized management systems for setting and pursuing goals in areas such as environmental care, quality assurance and safety. ISO 9001, the best-known quality management standard, have been available since the early 1990s and, as mentioned above, environmental audits have been facilitated by ISO 14001 and other standards relating to environment management systems. Social Accountability International has promulgated SA 8000 to assess social management systems and measure social performance against a range of indicators including the United Declaration of Human Rights, conventions of the International Labor Organization, United Nations and national laws and industry and corporate codes.

Organizations interested in improving their practices with respect to social responsibility, including engagement with their stakeholders, may also refer to International Standard 26000 (“ISO 26000”), which was first released by the International Organization for Standardization (“ISO”) in November 2010; however, ISO 26000 is not a management system standard, does not contain requirements and thus does not facilitate certification in the manner that often occurs with other ISO standards. Instead, ISO 26000 explains the core subjects and associated issues relating to social responsibility including organizational governance, human rights, labor practices, the environment, fair operating practices, consumer issues and community involvement and development. For each core

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70 Id. at 9.
71 Id. at 10.
subject, information is provided on its scope, including key issues; its relationship to social responsibility; related principles and considerations; and related actions and expectations. For example, with respect to labor practices, one of the core subjects, organizations are reminded to integrate consideration of the following issues into their policies, organizational culture, strategies and operations: employment and employment relationships; conditions of work and social protection; social dialogue; health and safety at work; and human development and training in the workplace.

### Measuring Sustainable Business Practice

Organizations must have a method for measuring the sustainability of its business practices. Companies are used to measuring financial results; however, it is only recently that focus has turned toward the development of tools for non-financial measurement of sustainability. Larger organizations with sufficient resources are able to apply the sophisticated and comprehensive Global Reporting Initiative (“GRI”) Standards for sustainability reporting developed by GRI (www.globalreporting.org); however, startups may find this to be too much trouble and instead may create their own systems that include the following common areas for measurement:

#### Environmental Results

- Energy use
- Materials use
- Energy efficiency results
- Carbon emissions
- Emissions and waste (e.g. carbon emissions, water discharged, waste by type and disposal methods)
- Water use
- Product improvements to minimize environmental impact
- Results of initiatives to mitigate negative environmental impacts

#### Economic Results

- Standard entry level wage compared to minimum wage
- Spending on locally based suppliers
- Financial implications for the organization’s activities due to climate change

#### Social Results (including ethical and cultural)

- Employee time donated to voluntary causes
- Donations and in-kind support to community groups
- Breaches of ethical behavior
- Breaches of regulatory and/or legal compliance
- Customer labeling
- Customer health and safety
- Stakeholder trust
- Staff perception of the organization as a good citizen (i.e., an organization that behaves ethically and acts in an environmentally and socially responsible manner)
- Specific engagement with indigenous peoples about matters of cultural significance to them
- Results of initiatives to mitigate negative social impacts
- Partnerships within the organization’s supply chain that are designed to improve industry environmental and/or social outcomes

It is important for organizations to carefully assess their operations in order to identify activities that have
potential sustainability impacts. Obviously, courier drivers produce carbon emissions from their vehicles and cheap, poorly designed products are like to increase natural resource waste due to their short life cycle; however, these are rarely the only sustainability impacts for an organization. Other prompts for identifying key impacts that can and should be the targets for the organization’s sustainability initiatives include the following:

- Significance to key stakeholders, including representative of future generations such as children of employees living in the community in which the company operates
- Technical information, including environmental reviews and social impact reports
- Review of current and potential sustainable development issues and trends that are of importance or potential importance to civil society, both from a risk and opportunity perspective (e.g., changing attitudes toward climate change that have created both new costs, including taxes and expenses associated with regulatory requirements, and opportunities to commercialize new product solutions)
- Review of international good practice and consideration of issues that are being addressed by industry leaders in sustainable development and the organization’s peers
- Impacts and issues that are identified in standards such as the Global Reporting Initiative, SA8000 and the UN Global Compact


§12 --Sustainability communication

Racelis explained that the chief concern of “sustainability communication” is contributing to critical awareness of, and social discourse regarding, the issues and problems that arise with respect to the relationship between humans and their environment and then relating those issues and problems to social values and norms.72 Racelis explained that sustainability communication is a process of communication and mutual understanding that deals with both the causes of global ecological dangers that lead to severe economic, ecological, social and cultural distortions and with the potential solutions to those problems. Accordingly to Racelis, sustainability communication is necessary in order for humans to be able to assume their responsibilities and effectively reshape their relationships with one another and with the natural world.73 Racelis mentioned several methods and instruments for sustainability measuring, assessment and communication including environmental management accounting, social marketing, empowerment, instruments of participation and planning, and education.74

§13 --Labels

According to Crals and Vereeck, labeling is a means for companies to distinguish their products from others in a specific category.75 In order for a product label to have value, however, the criteria must be well-defined and transparent and should be set by independent labeling authorities. In the environmental area, companies follow ISO-type

73 Id. at 5-6 (citing J. Godeman and G. Michelsen (Eds.), Sustainability communication: interdisciplinary perspectives and theoretical foundations (London: Springer, 2011)).
74 Id. at 7.
75 Id. at 10.
standards in order to be able to market products that have been labeled as “environmentally friendly”.

§14 Advantages and challenges of sustainable entrepreneurship for SMEs

The potential benefits available to all companies from engaging in sustainable entrepreneurship cited by Bos have already been mentioned above; however, he also believed that practicing sustainable entrepreneurship could provide special and badly-needed advantages for small- and medium-sized enterprises (“SMEs”) such as the following: kindling internal dynamics for people and production management, resulting in bolder investment engagements that could lead to superior steps in technology and personnel acquisition for greater, higher-quality returns in the long run; the ability to offer their services and products to large companies who themselves turn out to be sustainability practitioners and thus require sustainable-minded suppliers, opportunities that can bring guaranteed revenues from sales that can be used to cover the increased costs of engaging in sustainable operations; and opportunities to engage with, and forge strong ties in, the local community and thus develop interpersonal relationships that sway interest in favor of that particular SME instead of the general, corporate-only, non-personal image of the larger companies. Additional potential benefits to SMEs from choosing sustainable entrepreneurship mentioned by Bos included “the positive image and reputation gained from these practices, lesser dependence on diminishing resources, more efficient production due to superior technologies and staff skill, higher quality of risk control to especially avoid situations like environmental debacles, labor disputes and the like, less to deal with if government makes a turn for more social and environmental requirement improvements and a greater motivational source for current employees to enjoy their work environment - plus incentive for new employees to join the company”.

Crals and Vereeck acknowledged that limited resources often make it difficult for SMEs to pay the same level of attention to sustainable entrepreneurship as larger companies; however, they argued that adoption of sustainable entrepreneurship policies and practices by SMEs could lead to dramatic changes in their production processes and human resource management practices that will trigger bolder investment in technology and human capital that will ultimately generate positive results in the long-term. Other strategic reasons for SMEs to embrace sustainable entrepreneurship include fulfilling the requirements that larger companies are imposing on their supply-chain partners, thus expanding opportunities for business partnerships with larger firms, and establishing a niche in their local communities that will be difficult for larger global companies to


77 Id.

duplicate. Additional potential benefits of sustainable entrepreneurship for SMEs mentioned by Crals and Vereeck included a positive image and reputation; lesser dependency on depleted resources; higher motivation of employees and attractiveness for new employees; efficient production due to superior technologies and better skilled staff; superior insight in market preferences and opportunities; risk control with respect to environmental accidents, scandals, bad publicity, etc.; and lower burden from changes in environmental and social legislation. The New Zealand Business Council for Sustainable Development mentioned the following advantages of applying sustainable business practice: being more efficient and competitive; accessing the rapidly growing group of consumers looking to buy sustainable solutions; engaging in responsible entrepreneurship; increasing financial return and reducing risk for shareholders; attracting and retaining employees; improving customer sales and loyalty; growing supplier commitment; strengthening community relations; contributing to environmental sustainability; and building trust and mutual understanding through stakeholder engagement.\(^79\)

The main problem for SMEs is “affordability”, both in terms of the financial costs of implementing the instruments described elsewhere in this Guide and in terms of the time and effort required of executives, managers and employees. Issues for SMEs mentioned by Crals and Vereeck included the risk that the sheer variety of available management systems created overlap and waste and the prohibitive cost of obtaining all of the certificates that would be necessary to signal to the outside world that the SME is serious about its commitments to sustainability.\(^80\) A list of problems confronting SMEs with regard to sustainable development compiled by Hilton in 2000 included the following\(^81\):

- Lack of resources, time and money;
- Lack of capabilities, skills and knowledge;
- Lack of awareness of issues, risks, regulation;
- Lack of training needs analysis;
- Lack of awareness of tools and techniques;
- Lack of awareness of provisions and their benefits;
- Lack of strategic and holistic thinking;
- Lack of internal communication and integration;


\(^80\) E. Crals and L. Vereeck, “Sustainable entrepreneurship in SMEs—Theory and Practice”, http://www.inter-disciplinary.net/ptb/zejgeejgc3/cralsvereeck%20paper.pdf [accessed July 18, 2016], 10-11. Crals and Vereeck suggested that SMEs could use alternative means for publicizing their commitment to sustainable entrepreneurship such as publishing sustainability reports that define their strategies, goals and activities with respect to financial, social and environmental performance and showcase their achievements in each of those areas. See the case study of ES Tooling, a Belgian SME that positioned itself as a sustainable entrepreneur and relied on a sustainability report as an important tool in that process, in the Crals and Vereenck article at 12-14.

• Lack of work floor staff involvement;
• Lack of flexibility and fear of change;
• Lack of external communication (“networking”); and
• Mistrust of other companies in groups.

Crals and Vereeck reported that SMEs in Europe had been slow to implement sustainable entrepreneurship practices and noted that while efforts had been made to support sustainable entrepreneurship among SMEs they had often been too abstract and impractical and poorly tailored to the needs of SMEs. According to Crals and Vereeck support systems were general (i.e., insufficiently applicable to and appropriate for specific industries), too passive, superficial or lacking in quality, too expensive, time-consuming or inflexible, not correctly tailored to the needs of SMEs, or poorly targeted or promoted. SMEs were encouraged to pursue environmental management systems and certification; however, businesses grew disenchanted because certification alone does not guarantee significant improvements and often raises, rather than lowers, costs of production. Crals and Vereeck argued that more emphasis should be placed on teaching SMEs about strategies that are both environmentally-positive and productivity enhancing (e.g., eco-efficiency, eco-design, integrated approaches and sustainable production).

Berge noted that environmental and social entrepreneurs face many of the same challenges as commercial entrepreneurs including access to capital, creating efficient capital markets, leadership and organizational concerns, policy and regulatory issues, measurement and performance metrics, and access to incubators and support organizations. However, Berge pointed to several specific challenges that environmental and social entrepreneurs must face which are not shared by their commercial counterparts, such as the ethical justification for existence, and that some of the challenges that appear at first glance to be similar to those of commercial entrepreneurs are actually based on very different root causes (e.g., access to capital is denied to social entrepreneurs because of the length of time required for their innovations to become commercially viable and policy frameworks that do not provide a climate conducive to green entrepreneurs due to government’s lack of ecological awareness and willpower. Looking specifically at the South African context, Berge identified the following themes of potential constraints to environmental and social entrepreneurs:

• **Access to Capital:** Environmental and social entrepreneurs often have more difficulties gaining access to seed funding than commercial entrepreneurs because they are working in difficult conditions on problems that are hard to solve and hence are considered high risk ventures. There is socially responsible capital available; however, the main target of those types of investors is generally later stage. In order
to gain access to private capital, environmental and social entrepreneurs need to demonstrate that they are “high impact” with potential for multiple job creation, high profit generation that contributes to GDP, rapid scaling and financial sustainability.

- **Enabling Environment**: Statutes and regulations, as well as government service providers, are often not supportive of the special needs of environmental and social entrepreneurs. Investment and funding criteria for social enterprises is difficult to determine and legal advice is limited. Governmental departments have often been criticized for lacking the relevant resources and correct skills and incentives for assisting and supporting civil society.

- **Business Development Services**: While there has been an increase in the number of financial and specialized providers of business development services for environmental and social entrepreneurs, including incubators and accelerators, they are typically located in large urban areas and seldom communicate with one another in order to coordinate their programs. Some of the providers, while claiming they are suitable for environmental and social entrepreneurs, are uninformed about their special needs and priorities.

- **Scaling for Impact**: Support and encouragement is needed to push environmental and social entrepreneurs to scale up to the point where they attract the interest of funders and investors to fully commit to the entrepreneurs’ mission and the markets that they are trying to serve. The path to the scale up phase needs to include partnerships with government and business and increased availability of social venture funds. Attention also needs to be paid to monitoring, measuring, evaluating and reporting the non-financial impact of environmental and social entrepreneurship so that entrepreneurs, investors and government officials have better data to rely on in making decisions.

§15 **Integrating sustainability into strategic and business processes**

Companies willing to pursue sustainability need to find ways to integrate it into their strategic and business processes. 85 AkzoNobel (https://www.akzonobel.com/), a leading global paints and coating company and a major producer of specialty chemicals, provided an example of a sustainability framework that included three phases—**invent**, manage and improve—and a set of initiatives that addressed governance, economic, environmental and social issues:

- The invention phase of the framework focused on identifying and integrating sustainable value propositions into the company’s business model. In the environmental area this may include climate change initiatives (e.g., carbon policy, energy and greenhouse gases) and initiatives based on managing scarce resources (e.g., “cradle-to-cradle” design). In the economic/governance area, initiatives may

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85 See, e.g., K. Hockerts, Sustainability Innovations, Ecological and Social Entrepreneurship and the Management of Antagonistic Assets (Difo-Druck: Bamberg, 2003), 154, who claimed to have developed an entrepreneurial process model for sustainability entrepreneurship that aimed to identify distinct phases of sustainability entrepreneurship as well as the managerial practices that go along with them, thus providing sustainability entrepreneurs with a practical road map for managing the transformation from informal sector start-up to for-profit mainstream business.
include development of eco-premium solutions and external partnerships. In the social area initiatives might focus on development of sustainability leadership and creation of talent factories.

- The management phase of the framework focused on integrating sustainability into all aspects of the value chain (i.e., market research, research and development, investment decisions, sourcing, manufacturing and sales and marketing). Examples of potential initiatives include increased support for research and development and innovation, particularly eco-premium solutions; emphasis on functional excellence in sourcing arrangements and manufacturing; and emphasizing eco-premium solutions in sales and marketing.

- The improvement phase of the framework focused on continued compliance and ensuring a long-term “license to operate”. Major areas of emphasis include environmental management (e.g., management and reduction of emissions and waste, raw material efficiency, energy and greenhouse gases and land remediation); product stewardship and distribution; integrity and risk management (e.g., codes of conduct, competition compliance, anti-bribery and supply chain management); health, safety and security management (e.g., process safety); employment practices (e.g., people development and diversity/inclusion); and community involvement.

**Case Study: Pearl Automation**

Pearl Automation was founded in 2014 by three former senior managers from Apple’s iPod and iPhone groups. While Pearl has maintained what its founders believe to be the best parts of Apple culture, particularly the focus on innovative design and creating products that provide the highest quality user experience, they have also made a conscious decision to reject certain elements of that culture that they found to be counterproductive for engaging employees and creating and maintaining a healthy work environment that allows employees to fill as if they are seen as valued contributors.

The first thing to understand about Pearl is its focus on using technology to improve the safety of the tens of millions of older cars that are being driven without the high tech safety features that are now commonly installed on newer models. Pearl seeks to develop products that will make the roads safer, a socially responsible goal that proved to be quite appealing to the dozens of former Apple employees who joined Pearl after growing weary of spending their professional lives worrying about incremental improvements to the iPhone and the Mac. One of the co-founders explained: “Adding safety features to the cars on the road today is a way to make them more useful. We want to help people to modernize their cars without having to buy a new one.” Indeed this a laudable social objective; however, the number of older cards being used by consumers who are not interested in, or able to, invest in new models makes Pearl’s target market quite large and the opportunity for economic success is apparent.

Open and continuous communication with everyone in the company is an important principle for the founders, something that stands in stark contrast to an Apple culture in which access to information was closely guarded and employees were discouraged from talking with one another about their jobs. At Pearl, the founders and other managers hold weekly meetings with the entire staff to provide briefings on upcoming products, the financial health of the company and technical problems that have been identified and the solutions that the company is pursuing. Employees are even given a chance to see and hear presentations that senior managers are making to the board of directors. The guiding principle behind these practices is that everyone at the company is seen as an important contributor to the company’s success and in order to be effective they need to have as much information as possible.

The founders obviously believe that a culture of openness makes the design practices that have been imported from Apple more effective. For example, Pearl’s products share the same level of complexity as
the ones that employees worked on at Apple and Pearl has followed Apple’s lead by breaking big projects down into smaller tasks that are assigned to small teams. Each of the team members is charged with completing one or more subtasks necessary for the team to be successful, something that was referred to at Apple as assigning people to be the “directly responsible individual”. This approach maximizes participation and decentralizes decision making, in sharp contrast to the tight control that Steve Jobs, and now his successors, exerted over the smallest details relating to the work the Pearl employees did at Apple. Contributing at Pearl means having a say in what problems need to be solved, something that only works if employees have access to full product design picture.

Pearl’s cultural and business competencies also include a disciplined approach to engineering, a passion for elegant and efficient design and an appreciation of the need to vigorously oversee the activities of the dozens of companies in the company’s supply chain. Rigorous deadlines are set and presumably circulated among everyone in the company at the weekly meetings. Communication regarding technical issues compliments the company’s focus on relentless investigation of design and operating flaws, a practice that also carries over to negative feedback from customers. The founders emphasized the importance of understanding why a failure occurred as a means for getting a good grasp on the full boundaries of the problems that must be solved. Pearl also invests a lot of time and effort in testing, something that the founders believe many startups do not pay enough attention to.

All in all, the early steps that Pearl has taken to develop and implement its business model include a number of important elements for all potential sustainable entrepreneurs to consider:

- Pearl’s founders selected a business model that emphasizes innovation and proactively targets an important social issue: minimize the risks associated with driving by making cars safer.
- Pearl’s products are closely related to the actual needs and preferences of potential customers and continuous testing of prototypes ensures that customer feedback is collected and integrated into product design.
- Borrowing from their experiences at Apple, the founders have established functional excellence as a requirement of Pearl’s sourcing arrangements.
- The founders have created an organizational culture in which everyone is involved in the development and implementation of sustainability practices and has an opportunity to access information about the business model and contribute to the success of the product development and commercialization process.

However, Pearl also faces several challenges in its path toward sustainable entrepreneurship. For example, while the size of the potential market for its product seems apparent, the company has yet to demonstrate its ability to execute a production and pricing strategy that ensures the product will be accessible at reasonable prices that still allow the company to enjoy margins that will support survival of the business. Another consideration is whether making it easier for drivers to keep their older vehicles on the road will slow transition to newer, more environmentally-friendly cars or wider use of mass transit solutions.

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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