HYBRID ORGANIZATIONS:
INNOVATIONS TOWARD SUSTAINABILITY

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ABSTRACT

This report explores trends and lessons learned from hybrid organizations pursuing environmental sustainability missions. It hypothesizes that hybrid organizations, defined here as entities that are market-oriented and mission-centered, can positively contribute to some of humanity’s most pressing challenges by deploying their inherent business models. These organizations, which place equal emphasis on their common-good mission and financial performance, blur the distinction between nonprofit and for-profit entities. Building on prior work conducted by researchers on corporate social responsibility, sustainable entrepreneurship, and social enterprise, this research was motivated by a desire to fill a gap in the existing literature on the contributions of privately held, for-profit businesses with environmental sustainability missions.

The research includes an analysis of survey data from 47 hybrid organizations, investigating their business models and strategies, finances, organizational structures, processes, metrics, and innovations. The survey data reveal trends related to the integration of business practices that enable companies to meet both mission and market goals, such as employing innovative products in niche markets, leveraging patient capital to meet non-financial objectives, and encouraging shared authority rather than top-down leadership styles. The sample size is biased towards young, small, U.S.-based hybrids, and although respondents show varying levels of profitability, they maintain consistently high levels of integrating environmental sustainability throughout their firms. Moreover, information gleaned from five in-depth case studies with best-in-class companies selected from the survey, reveals instructive lessons for hybrid practitioners and researchers alike. These companies demonstrate how to infuse an organization’s culture with its mission, and develop deliberately close personal relationships with suppliers, customers, and shareholders. In addition, these case studies exemplify the challenges of patience and limits to growth rate that are common to many hybrid organizations. They also illustrate a strategic trend toward premium product offerings, which allow these businesses to avoid competing on price.

This research suggests that hybrid organizations offer an effective organizational model for contributing solutions to global environmental issues. While there may be limits to the speed of growth or scaling the impact of these organizations, they may also be more effective and self-sustaining than traditional organizations in meeting humanity’s common challenges.
ACKNOWLEDGEMENTS

Many groups and individuals were involved in the research and writing of this report. First, we would like to thank all of the hybrid organizations that participated in our survey. We know that time is a scarce resource but we hope that this report gives them a return that is well worth the time they have invested in our project. We would also like to thank our case study organizations, Eden Foods (Sue Becker, Jay Hughes, Jon Solomon, and Bill Swaney), Guayakí (Chris Mann and Richard Bruehl), Maggie’s Organics (Bená Burda and Doug Wilson), PAX Scientific (Kasey Arnold-Ince, Francesca Bertone, Laura Bertone, and Jay Harmon), and SUN OVENS (Paul Munsen) for allowing us into their organizations to better understand some of the subtle challenges and opportunities that hybrid organizations face. Their aid and information shaped a large part of our analysis. Further, we would like to express gratitude to all the individuals at organizations that participated in the survey pre-test: GreenOrder, Goodwill Industries, and DTE. We are also grateful to the additional practitioners and researchers that assisted in the process of generating our final report: Andrea McGrath at Duke University, Maggie Brenneke at SustainAbility, Gita Rao at Calvert Foundation, and Andy Hastings at the University of Michigan.

In addition, we express gratitude to the University of Michigan’s School of Natural Resources and Environment, Ross School of Business, and Erb Institute for Global Sustainable Enterprise for providing numerous resources for this project to proceed. In particular, we would like to thank Andy Hoffman, our faculty advisor, for his continued belief in our work, for providing personal and professional support, and for offering critical and ever-insightful appraisals of our efforts. Our thanks also goes to Kelly Janiga at the William Davidson Institute, without whose sponsorship our project would never have left the ground. We also thank John Branch, our case writing advisor, for all of his advice into the process and structure of illustrative case writing. Most sincere appreciation goes towards the editor of this report, Kelly Sisson.

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This report presents the results of a year-long effort of researching companies that pursue the two-pronged goal of environmental sustainability and profitability. Such organizations are referred to here as *hybrid organizations*. This report compiles the wisdom, trends, and lessons learned from the 47 hybrid organizations who responded to a survey on each company’s strategies, finances, organizational structure, leadership, processes, and innovations. Five of these companies allowed our team to perform additional in-depth case studies on their organizations.

The hypothesis for this research is that the inherent business model of hybrid organizations can positively contribute to environmental sustainability outcomes. Their core function is to have a net positive impact on the environment, not just to minimize or reduce their negative impact. Hybrids are different than traditional for-profit and nonprofit organizations because their primary motivation is to use business and market forces as tools to solve the world’s largest challenges. This report highlights those hybrids effectively combining two goals of financial viability and environmental stewardship.

Since minimal research has been done on this combination, the main objective of this report is to explore the trends, solutions, and lessons learned from hybrid organizations with specific environmental missions. Documentation and better understanding of these findings may facilitate value creation for other practitioners in this sector, as well as provoke discussion among researchers exploring high-impact organizations. Furthermore, understanding the struggles and successes of the hybrid organizations studied in this project will help future entrepreneurs combat environmental degradation in more effective ways.

**Background - Hybrid Organizations Defined**

According to the United Nations’ Millennium Development Goals, poverty, income and gender inequality, disease, and environmental degradation are among the most challenging problems facing the world today (Sachs, 2005). Numerous approaches to solving these problems have been attempted by local and national governments, international organizations, regional nonprofit organizations and for-profit businesses seeking to adhere to corporate social responsibility (CSR) standards. While no one company or organization is expected to solve the world’s problems alone, some nonprofit and for-profit organizations endeavor to be valuable and significant.

### Hybrid Organization

A market-oriented and common good mission-centered organization that may exhibit the following characteristics:

- Non-financial performance valuation
- Privately held by a connected set of shareholders
- Sub-market rates of return
- Alternative capitalization

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**Figure 1: Hybrid Organization Definition**

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<td>• Sub-market rates of return</td>
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<td>• Alternative capitalization</td>
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contributors to larger solutions. However, the current approaches of both traditional 
nonprofits and for-profits have often proven ineffective in generating and continuing 
large-scale change.

A growing understanding exists in the nonprofit world that traditional funding sources 
will no longer be adequate to address such problems and that organizations cannot 
rely upon a continuous supply of donor funding for their operations (Alexander, 
2000; Draper, 2005). As a result, a new emphasis on social enterprise models 
provides some promise to solving this funding problem through earned income 
creation, but work in this field is in a nascent phase. Problems still exist concerning 
the tax classification of nonprofit social enterprises, potential mission drift among 
nonprofits undertaking earned income strategies, and the appropriateness of 
nonprofit organizations in competitive business ventures (Billitteri, 2007; Foster and 
Bradach, 2005; Heritage and Orlebeke, 2004). For all the important work being done 
by nonprofit organizations throughout the world, such effort has yielded limited 
success in achieving large-scale solutions.

Traditional businesses have fared even worse due to their reluctance to address 
development goals, primarily leaving social and environmental issues to government 
agencies and civil society. Though some people argue that the majority of the 
problems facing the world are the result of market failures, many businesses answer 
that it is not in their corporate mandate to attempt to address these problems. This 
situation is slowly changing, and many businesses now understand that it is in their 
best interest to deal with social and environmental issues (Beheiry et al., 2006; 
Hillman and Keim, 2001; Swanson, 1999). The growth of Corporate Philanthropy, 
and Sustainability Departments within many large multinational corporations attests 
to this changing attitude among businesses. However, even with this new emphasis 
on social and environmental issues, the traditional business model often fails to 
adequately address the critical problems facing the world today.

Some propose that the optimal approach combines the best of nonprofit 
organizations and for-profit businesses. These hybrid models—what some variously 
call Fourth Sector, Blended Value, For-Benefit, or B-Corporations—may hold 
promise for addressing the most troublesome challenges facing both the developed 
and developing worlds (B-Corporation, 2008; Billitteri, 2007; Emerson and Bonini, 
2003; Strom, 2007). While some research has been conducted on this type of 
organization, few comprehensive studies have been done on organizations in this 
field and little has been done to understand their best practices (Alter, 2004; Haugh, 
2005; Smallbone et al., 2001).

Kim Alter, founding partner of Virtue Ventures, has conducted research on hybrid 
organizations. Her hybrid spectrum, denoted in Figure 2, categorizes hybrids along a 
continuum according to their relative position between the traditional nonprofit and 
for-profit spaces. The Virtue Ventures website description states: “In this model, all 
hybrid organizations generate both social and economic value and are organized by 
degree of activity as it relates to: 1) motive, 2) accountability, and 3) use of income”
(Alter, 2007). Alter’s model presents a taxonomy of four types of hybrid organizations. On the left side of the spectrum among the hybrids are those nonprofits whose business activities generate profits to fund their social mission and report back to their stakeholders. On the right side of the hybrid spectrum are for-profit companies that create social value but are mainly driven by profits and are accountable to shareholders.

Figure 2. Alter’s Hybrid Spectrum (Alter 2007)

While Alter’s model is useful in representing differences and tradeoffs among hybrid organizations, this research team proposes that the realm of hybrid organizations cannot be categorized along the single dimension that her model employs; rather, profit and mission motives are relatively independent organizational dimensions. Indeed, hybrid organizations exist that are highly driven by both profit and mission, and thus challenge the notion of tradeoffs between mission and profit motives. The research team developed the illustration in Figure 3 to represent the blurring of boundaries between traditional nonprofit and for-profit organizations.

Figure 3: Mission and Profit Dimensions of Business Models
This report highlights organizations motivated by both mission and profit. Such hybrid organizations not only blur the distinctions between nonprofit and for-profit sectors, but through their emphasis on environmental, social, and financial value creation, they also provide another business model for addressing worldwide societal problems. For-profit hybrid organizations will not be held accountable solely to the legal fiduciary duty to its shareholders and can thus have the flexibility to be innovative in their approaches to these problems. At the same time, because these organizations depend upon sufficient profitability to maintain existence and serve their missions, critics may contend that they are hampered by their dual motivations.

Scope

A hybrid organization is defined as a market-oriented, common good mission-centered organization which operates in the blurred space between traditional for-profit and nonprofit enterprises. In reviewing industry and academic literature the research team has identified a gap in research on hybrid organizations that are, in particular, for-profit and privately owned. The goal of this report is to fill that gap, with a specific focus on companies with an environmental sustainability mission.

This report narrows criteria for environmental sustainability mission-driven companies to encompass those where either the direct business activity (products or services) or the most significant inputs, raw materials, or resources contribute to at least one of the following basic human needs:

- Clean air
- Clean energy
- Clean water
- Sustainable food or agricultural systems
- Sustainable housing

To analyze each hybrid company, the research team identified five key areas as important to the overall fabric of an organization. These five organizational areas were drawn from both the McKinsey 7-S Framework and Andrew Hoffman’s Processes for Institutionalizing Organizational Change (Hoffman, 2000; Rasiel and Friga, 2001):

- Business Model and Strategy
- Finance
- Organization
- Processes and Metrics
- Innovation

The team developed a survey designed to explore these areas and sent it to organizations around the globe. However, few international responses were received. The five in-depth case studies describe companies that are based in the
United States, though four of the five either source from or sell their products to other countries.

**Overview**

This report has five parts. The first section represents an extensive review of the existing literature on models that blend traditional nonprofit and traditional for-profit characteristics. The second describes the investigation methodology, specifically stating the procedures and rationale used to identify the hybrid organizations, to develop and administer the survey, and to select the five organizations for which to conduct in-depth case studies. The third part synthesizes the survey results, and includes surprising discoveries and key trends that the research team observed. The fourth section of the report details the five in-depth case studies of the hybrid companies identified as best-in-class from the survey data. Each case describes a company’s distinct approach to balancing environmental and profit goals within the context of the key organizational focus areas identified above. Finally, the last part discusses trends, lessons learned, and future research directions for hybrid organizations.
REVIEW OF EXISTING LITERATURE AND RESEARCH

While little has been written about for-profit hybrid organizations, a larger body of literature exists on corporate social responsibility, sustainable businesses, and nonprofit social enterprises. These fields provide the basis for hybrid organizations, but the focus has often been narrow or concentrated on a single aspect of the field. Research into traditional businesses does not address organizations that go beyond corporate social responsibility. While some have shown that it is in businesses’ best interest to deal with social and environmental issues (Beheiry et al., 2006; Hillman and Keim, 2001; Reed and World Resources. 2001; Swanson, 1999), they do not address organizations that make these their primary mission. Recently, a good deal of literature has been written about social entrepreneurship, but a general focus on addressing social problems mostly ignores environmental issues. A new emphasis on sustainable entrepreneurship, the creation of businesses that have both social and environmental goals, has garnered much attention, but literature on the subject also falls short of offering a comprehensive understanding of hybrid organizations. Sustainable entrepreneurship research deals primarily with the formation of these enterprises and the motivations behind them. In addition, some recent research has focused on nonprofit and business cooperation, but these projects fail to address hybrid organizations which bridge the two types of organizations. Overall, the literature on hybrid organizations remains lacking.

Corporate Social Responsibility

While corporate social responsibility is not a new concept, recently, it has received much research interest. Many writers have attempted to show that business is a force for change in regards to social and environmental issues and can be a main driver to create a more just and sustainable world (Hart, 2005; Prahalad, 2005; Robinson, 2004; SustainAbility Ltd., 2007). This research has been both theoretical and empirical with much focus on the effect of corporate social responsibility on the financial performance of an organization. The empirical evidence is mixed on the relationship between social focus and financial success. Some suggest a tradeoff between the two (Burke and Logsdon, 1996; McGuire et al., 1988; McWilliams and Siegel, 2000) while others do not see it in such a straightforward manner. Corporate social responsibility represents a precursor to hybrid organizational theory, and its research proves useful in providing a preliminary understanding of hybrid organizations.

Empirical and theoretical research has explored corporate social responsibility for almost 50 years. Early empirical researchers supported the idea that superior business practice equates to social responsibility (Davis, 1960; Whetten et al., 2002; Wren 1979). More recently, some researchers have concurred, suggesting that businesses need to respond to social issues in order to be viable (Engen, 2005; Johnson, 2000), while others see it as simply good business sense (Dentchev, 2004; Epstein and Roy, 2003). During these same decades, theoretical approaches have
looked into more descriptive studies of corporate social responsibility. Much has been written about the link between managers and their attitudes as the motivator toward corporate social responsibility, forgoing the financial factors involved (Bowman and Haire, 1975; Déniz-Déniz and García-Falcón, 2002; Marz et al., 2003; Quazi and O'Brien, 2000; Rojšek, 2001). Others have relied on case studies to understand corporate social responsibility (Weiser and Zadek, 2000). Overall, this research has simply set the stage for further inquiry into the linkages between corporate social responsibility and financial performance.

While theoretical research into corporate social responsibility has suggested a positive relationship between businesses’ response to social issues and financial performance (Carroll, 1999; Wood, 1991), the empirical evidence is mixed. Over the years, many different studies have attempted to show that corporate social responsibility is good for business. However, no clear consensus on this linkage has emerged. The results have run the gamut from a negative relationship between the two, to a neutral one, and finally to a positive relationship. Table 1 provides an overview of the findings of this relationship.

**Table 1. Research on Linkages between Social and Financial Performance**

<table>
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<tr>
<th>RELATIONSHIP</th>
<th>FRAMEWORK</th>
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<tr>
<td>Negative</td>
<td>Trade-off</td>
<td>(Friedman, 1962)</td>
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<td></td>
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<td>(Vance, 1975)</td>
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<td></td>
<td>Managerial Opportunism</td>
<td>(Preston and O'Bannon, 1997)</td>
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<td>(Posner and Schmidt, 1992)</td>
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<td>(Alkhafaji, 1989)</td>
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<td>Negative Synergy</td>
<td>(Preston and O'Bannon, 1997)</td>
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<td>Neutral</td>
<td>Supply and Demand Theory</td>
<td>(McWilliams and Siegel, 2000)</td>
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<td>(Anderson and Frankle, 1980)</td>
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<td>(Freedman and Jaggi, 1982)</td>
</tr>
<tr>
<td>Positive</td>
<td>Social Impact</td>
<td>(Cornell and Shapiro, 1987)</td>
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<td>(Pava and Krausz, 1996)</td>
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<td>(Preston and O'Bannon, 1997)</td>
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<td></td>
<td>Available Funds/Slack Resource</td>
<td>(Waddock and Graves, 1997)</td>
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<td>(McGuire et al., 1988)</td>
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<td>(Kraft and Hage, 1990)</td>
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<td>Positive Synergy</td>
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Although no agreement exists concerning the relationship between corporate social responsibility and financial performance, this research has proven beneficial for setting a baseline understanding of hybrid organizations. Understanding similar aspects of corporate social responsibility can illuminate the motivations and expectations of hybrid organization practitioners. However, the research falls short of clarifying what exactly a hybrid organization is and how it functions in the realm of business and nonprofit organizations. Furthermore, the research often leaves out any mention of environmental motivations and performance.

**Sustainable Entrepreneurship**

Another topic receiving considerable research over the past few years is sustainable entrepreneurship. The focus of this research has been primarily based upon the entrepreneurial aspects of businesses and individuals and their use in improving environmental and social issues. While this research is exceptionally valuable to the understanding of hybrid organizations and their creation, once again the focus is too narrow and only illuminates a small part of what constitutes a hybrid.

Much of the research in this area starts with the traditional definition of entrepreneurship as value creation through innovation (Drucker, 2006; Schumpeter, 1989). Some simply view sustainable entrepreneurs as one category of entrepreneurs with little difference between them and traditional entrepreneurs (Dees, 1998b). Others see values-based sustainable enterprises as a different breed requiring a unique perspective (Brown and NetLibrary Inc., 2005; Parrish, 2005).

A great deal of recent research has been undertaken in the field of sustainable entrepreneurship (Abrahamsson, 2007; Cohen and Winn, 2005; Crals and Vereeck, 2004; Keijzers, 2002). Entrepreneurs in this field have been called by many different names, but the common pattern has been to use traditional business skills and knowledge to accomplish social and environmental goals (Emerson and Twersky, 1996). The term *ecopreneur* dates back to the early 1990s. Labels such as *ecopreneuring* and *ecopreneurship* have shown up in the literature since this time (Bennett, 1991; Blue, 1990; Dixon and Clifford, 2007; Schaper, 2002; Schaper, 2005). The term *green entrepreneur* has also been used to label practitioners in this field (Berle, 1991). Finally, the label of *sustainability entrepreneur* or *sustainopreneurship* has shown up in more recent research (Abrahamsson, 2007; Gerlach, 2003a; Gerlach, 2003b; Hockerts, 2003; Schaltegger, 2000).

While the idea of sustainable entrepreneurship appears quite similar to hybrid organizations, the research focus on the entrepreneurial aspects is too narrow to understand many aspects of hybrids. While the focus on sustainable entrepreneurship helps to understand the motivation of individual entrepreneurs and the formation of their companies, it does not assist in comprehending the ongoing operations of mature hybrids or their adaptation to changes as markets mature. The use of different terms to discuss sustainable enterprises and their practitioners confuses the issue still further. Additional research is needed in order to understand
many of the issues facing hybrid organizations. Although the research into sustainable entrepreneurship can help understand the formation and players behind hybrid organizations, the narrow focus simply does not give the complete picture.

**Social Enterprise and Business – Nonprofit Alliances**

Many writers see for-profit businesses and nonprofit organizations as existing on a continuum, with pure businesses seeking only profit maximization on one end of the spectrum and value-based organizations working solely for environmental or social issues on the other end of the spectrum (Alter, 2004; Conaty, 2001; Peredo, and McLean, 2006). Social enterprises are often placed near the center of the spectrum, and are almost exclusively looked upon as nonprofit ventures. Alliances between nonprofits and businesses are simply viewed as linkages between two separate parts of the spectrum. While the research into nonprofit social enterprises is quite extensive, little emphasis is placed upon for-profit businesses with similar goals and aspirations. Also, although alliances between nonprofits and for-profits is beginning to receive more attention, almost no attention is given to organizations that in all respects encompass both ends of the spectrum in one enterprise. In other words, hybrids continue to receive little research as organizations that bend together the ends of the spectrum or lie completely outside of classification as for-profits or nonprofits.

Much of the research into social enterprises focuses solely on nonprofit organizations (Dees and Anderson, 2002; Dees et al., 2004; Emerson and Twersky, 1996; Hall, 2005). Some state that social enterprises can only be formed through nonprofit organizations (Taylor et al., 2000) or view social entrepreneurship simply as good business practice within nonprofits (Reis and Clohesy, 2001). Others question whether social enterprises are good for nonprofit organizations or addressing social issues (Casselman, 2007; Foster and Bradach, 2005). While this focus on social enterprise within the realm of nonprofit organizations is prevalent throughout the research, an understanding of what constitutes these endeavors proves helpful in understanding hybrid organizations.

The research on social entrepreneurship and social enterprises is quite extensive and thorough. Much has been written about a definition of social entrepreneurs and social enterprises (Boschee and McClurg, 2003; Dees, 1998a). Case studies of social enterprises are beginning to become more prevalent (Alvord et al., 2004; Boschee, 2001; Emerson and Twersky, 1996; Massarsky and Beinhacker, 2002; Shaw et al., 2002), and many are available through websites on social entrepreneurs (Ashoka, 2008; Schwab Foundation for Social Entrepreneurship, 2008). Taken as a whole, the research on social enterprise and social entrepreneurs demonstrates the ability of nonprofits to undertake commercial endeavors. However, little is written about environmental organizations attempting similar practices. The research also is lacking in types of organizations and entrepreneurs undertaking social and environmental value creation as traditional businesses or crossing definitional boundaries.
Research into alliances between nonprofit organizations and businesses attempts to fill in the aforementioned void. Some alliances demonstrate strong linkages between traditional businesses and environmental and social issues. Most of the research, however, does not focus on the benefits of such linkages. Some attempt to show how business and nonprofit alliances benefit environmental causes through green alliances (Arts, 2002; Austin, 2000; Austin, Gutiérrez, Ogliastri, and Reficco, 2007; Dacin, Oliver, and Roy, 2007). However, the majority of the research only reviews cases of alliances, foregoing any analysis of costs or benefits (Bendell, 2000; Yates, 2007). Overall, the research into nonprofit and for-profit alliances can be beneficial to an understanding of only some of the aspects of hybrid organizations.

The case studies and definitions of social entrepreneurship and social enterprises can be quite useful as a guide to understanding hybrids, but the focus on nonprofits limits the scope of the research. Also, the majority of the research focuses on social issues, for the most part ignoring environmental issues. Hybrid organizations often encompass both social and environmental concerns, and the current research is minimal in this area.

**Literature Summary**

The research on hybrid organizations is relatively new. The concept of organizations crossing the boundaries between for-profits and nonprofits has appeared in the literature only recently. Some have posited that this requires a new legal definition beyond the stringent nonprofit/for-profit delineations (Billitteri, 2007; Etchart and Davis, 2003; Posner and Malani, 2006). Others have expressed interest in creating a new business model to encompass this emerging field (Birkin et al., 2007a; Birkin et al., 2007b; Corporation2020, 2007; Engen, 2005). A few case studies have been written about hybrid organizations, emphasizing the viability of this new form, but they do not offer deep analysis of the organizations (Cooney, 2006; Hudnut et al., 2006). A few authors attempt to show the importance of organizations that bridge nonprofits and for-profits, but they do not give a comprehensive picture of what constitutes a hybrid (Brandsen et al., 2005; Davis, 1998; Hockerts, 2003; Johnson, 2000; Strom, 2007). Overall, new research is needed into hybrid organizations. The following analysis of practitioners and their activities in this field will go a long way towards understanding the formation of hybrids, their environmental practices, and how they are adding value while attempting to solve some of the most pressing issues facing the world today.
METHODOLOGY

The five-person research team formed in December 2006 with the intention of conducting novel research into hybrid business models, through broad surveys and in-depth case studies. The goal of this research was to gain an understanding of the innovative organizational structures, roles, processes, and leadership capabilities within these organizations, the unique challenges they face, the solutions they generate, and the metrics used to measure diverse impacts. Figure 4 below depicts the four phases of the project.

**Figure 4: Project Timeline**

<table>
<thead>
<tr>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
<th>Phase 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>LITERATURE REVIEW</td>
<td>PROJECT DESIGN &amp; COMPANY CRITERIA</td>
<td>SURVEY DESIGN &amp; COMPANY SELECTION</td>
<td>SURVEY DISTRIBUTION &amp; ANALYSIS</td>
</tr>
<tr>
<td>CASE STUDY COMPANY SELECTION &amp; DESIGN</td>
<td>CASE STUDY INTERVIEWS &amp; WRITE-UP</td>
<td>FINAL REPORT WRITE-UP</td>
<td>PRESENTATION OF FINDINGS</td>
</tr>
</tbody>
</table>

**Phase One: Literature Review, Project Design and Company Criteria**

**Literature Review**

Research began in March 2007 with a comprehensive literature review in order to determine the present state of, and gaps within, the research on hybrid organizations. The research team accessed and assessed journal articles, books, and conference proceedings, and supplemented through telephone conversations with leaders in the field, including staff members at SustainAbility and the Calvert Foundation. The literature review revealed that there is a significant gap in research on hybrid organizations that are for-profit and privately owned, and thus the team decided to focus its efforts in this area. Furthermore, because this research was conducted to fulfill the requirements for Masters’ degrees at the University of Michigan’s School of Natural Resources & Environment, the team narrowed the scope to study for-profit companies who maintain environmental sustainability missions.
Project Design and Definition of Company Criteria

To gain insights on for-profit, mission-driven companies, the research team utilized two primary data-gathering methods. The first was a survey of hybrid companies to capture broad-based trends with this sector of hybrid organizations. The second was a series of in-depth case studies of “best-in-class” companies, selected from the pool of respondents, in order to illustrate the unique characteristics of successful hybrid organizations. The methods for conducting the survey and case studies are described in the section below.

To determine the criteria for selecting the hybrid organizations included in this study, the research team agreed upon working definitions of hybrid organizations and environmental sustainability as follows:

- **Hybrid Organization**: A market oriented, common good mission-centered organization that may exhibit the following characteristics:
  - Non-financial performance valuation
  - Privately held by a connected set of shareholders
  - Sub-market rates of return
  - Alternative capitalization

Further discussion and illustration of the elements that characterize hybrid organizations follows:

- **Market oriented**: hybrid organizations are legally registered as business entities, as opposed to nonprofit entities such as 501(c)3/4 filing. More importantly, products or services are provided in the marketplace at competitive prices rather than below cost as nonprofits often do.

- **Common good mission-centered**: hybrid organizations’ actions and decision-making are explicitly linked to the mission. Further, this mission relates to contributing to an explicit common good (e.g. combating climate change).

- **Non-financial performance valuation**: as part of the blending value in a hybrid organization, non-financial performance may be valued explicitly.

- **Privately held by a connected set of shareholders**: hybrid organizations may be beholden to investors that buy into the mission and purpose of the organization rather than to common financial markets.² Many of the

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² The authors of this study made the conscious decision to limit sample companies to privately held companies, ignoring publicly traded companies. Clearly this introduces a sampling bias; however, the argument remains that
hybrid companies are controlled by individuals, families, or personally-connected individuals.

- **Sub-market rates of return**: while they must be profitable to be sustainable, hybrid organizations may continually or perpetually financially under-perform relative to market rates.

- **Alternative capitalization**: hybrid organizations may tap into non-traditional, below-market rate financing mechanisms.

- **Environmental Sustainability**: Meeting today’s natural resource needs while allowing future generations to meet their own needs. Using the definition developed by the University of Michigan’s Center for Sustainable Systems (Center for Sustainable Systems, 2001), the research team narrowed the definition of environmental sustainability mission-driven companies to encompass only those where the direct business activity (products or services), or where the most significant inputs, raw materials, or resources, contribute to one or more of the following:
  - clean air
  - clean energy
  - clean water
  - sustainable food or agricultural systems
  - sustainable housing

The research team further restricted the companies selected to participate in the research according to the criteria specified in Table 2, due to time constraints and availability of data.

**Table 2: Hybrid Company Selection Criteria**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>For-profit companies only</td>
<td>Aligns with research gap identified in literature review</td>
</tr>
<tr>
<td>No restriction on size, revenue, or age</td>
<td>Desire to gain comprehensive insights on sector</td>
</tr>
<tr>
<td>No intermediaries, consulting companies, or investing companies</td>
<td>Desire to focus on practitioners in the hybrid sector to optimize lessons learned from those “on the ground”</td>
</tr>
<tr>
<td>No organizations with publicly traded shares (subsidiary of public company permitted)</td>
<td>Desire to focus on private companies, without legal fiduciary responsibility to shareholders</td>
</tr>
</tbody>
</table>

publicly traded companies have a legal fiduciary responsibility that prevents an organization from pursuing a common good mission at the possible expense of financial performance.
**Phase Two: Survey Development**

The survey process occurred between July and November, 2007. There were three main steps of this part of the project: Survey Design and Pre-Testing; Company Selection and Outreach; and Survey Analysis.

**Survey Design and Pre-Testing**

The purpose of the survey was to gather data from a significant sample of hybrid companies with an environmental sustainability mission in order to understand the range of business models, organizational structures, processes and innovations used in the hybrid sector and to identify any inherent trends.

**Survey Design: Determining Organizational Characteristics**

To design a survey that would best capture all of the relevant elements, the team started by considering existing frameworks and processes for assessing organizations:

**McKinsey 7-S Framework:** This is a management model that describes how to holistically and effectively organize a company. As shown in Figure 5, the seven factors determine the way in which a corporation operates.

- **Shared Value:** The interconnecting center of McKinsey’s model is shared values. It answers the question, “what does the organization stand for?”.
- **Strategy:** Plans for the allocation of a firm’s scarce resources over time, to reach identified goals: environment; competition; customers; etc.
- **Structure:** The way the organization’s units relate to each other: centralized, functional divisions (top-down); decentralized (the trend in larger organizations); matrix, network, holding, etc.
- **System:** The procedures, processes and routines that characterize how important work is to be done: financial systems; hiring, promotion and performance appraisal systems; information systems; etc.
- **Staff:** Numbers and types of personnel within the organization.
- **Style:** Cultural style of the organization and how key managers behave in achieving the organization’s goals.
- **Skill:** Distinctive capabilities of personnel or of the organization as a whole.

**Hoffman’s Processes for Institutionalizing Organizational Change:** Andy Hoffman, Holcim (U.S.) Professor of Sustainable Enterprise at the University of Michigan,
presents four processes to ensure that a company’s changes towards environmental responsibility become institutionalized (Hoffman, 2000). Most of the companies in this study were explicitly founded with an environmental sustainability mission, so they were not necessarily undergoing an organizational change, but it remains valuable to examine these processes within the context of hybrid organizations. The four processes are:

- **Rewards**: financial and non-financial benefits that align with environmental and economic interests of the company
- **Selection**: hiring practices that align with the company’s environmental mission
- **Socialization**: training program for new employees on the company’s culture and values
- **Structure**: formal structure that establishes authority, responsibilities, and reporting hierarchy. Informal structure that describes fluid communication and relationships

The research team selected the following five-category framework for analysis because it draws on elements of these two sources and considers other evaluative elements:

- Business Model and Strategy
- Finance
- Organization, including structure, leadership, culture, and mission
- Processes and Metrics
- Innovation

For each of these categories, the research team attempted to find existing frameworks that could be utilized for the framing of the survey questions. Some of these reference frameworks include:

- New-Game Strategies (Buaron, 1981)
- Changing Minds: Leadership Styles framework (ChangingMinds.org, 2007)
- David Otley’s Performance Management Framework (Otley, 1999)

**Survey Design: Creating Questions**

The team conducted the survey using an online questionnaire, both to facilitate the capture and analysis of the data, and to encourage participation from overseas participants. The questionnaire consisted of five to seven questions for each of the five organizational categories above plus a set of introductory and concluding questions, for a total of 42 questions. We utilized a mix of closed and open questions

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3 The questionnaire was designed using the online survey tool, SurveyMonkey (www.surveymonkey.com).
in order to capture both quantitative and qualitative data. The survey pre-testing process confirmed that the questionnaire took an average of 20 minutes to complete. Appendix 1 lists the complete questions asked of all participants.

**Survey Pre-testing**

Pre-testing is the process of testing the questionnaire with a few potential respondents to identify problems, including poorly worded questions, missing options in multiple choice questions, items that might be easily misunderstood, or gaps in the content of the questions. The individuals who pre-tested the survey included staff members of companies that were not included in this study as well as faculty advisors. These companies included DTE, GreenOrder, and Goodwill Industries.

**Company Selection and Outreach**

Through a combination of internet research and personal contacts, the team identified 160 companies that appeared to meet our environmental and hybrid criteria outlined above. Outreach was conducted to each company with an initial “cold” email to gauge interest in participating in this research, and to identify the appropriate person within each company to complete the survey. Where possible, the team tried to obtain commitment from the CEO to complete the survey, because s/he was likely to have the best understanding of all facets of the company. If the CEO was not able to complete the survey, the team encouraged several members of the management team to work together on the responses, to ensure the greatest possible accuracy.

After following up with emails and phone calls, 87 companies responded with interest in participation. 53 of these submitted the online questionnaire, and the team analyzed the results from 47 respondents (See Appendix 2 for a list of all companies included in the analysis). Six respondents were excluded from the analysis because their responses were either incomplete or did not meet the specified environmental and hybrid criteria.

**Survey Analysis**

In order to study the responses submitted by the 47 companies, the team downloaded the survey data into Microsoft Excel and conducted analysis using three primary techniques:

- **Polling and Scaling Analysis**: compilation and breakdown of responses for each question, accompanied by simple statistics and descriptions of the significant aspects as well as preliminary hypotheses of trend.

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4 It was only after we received survey responses that we were able to confirm whether or not the companies actually met our criteria.
• *Regression Analysis*: perform regressions on aggregated responses for relationships of interest to search for significant correlations between behaviors. For example, the team ran a regression on aggregated responses to questions about funding sources and profitability.

• *Qualitative Analysis*: examination of each open-ended response for observable patterns and trends, noteworthy information, or need to follow-up.

In some instances, the research team conducted follow up conversations with survey respondents in order to clarify specific survey responses (see *Survey Results* section for details of the analysis).

**Phase Three: Case Study Development**

The research team developed the five case studies between September, 2007 and February, 2008. This process involved three main steps: Company Selection and Outreach; Interviews, and Case Writing.

*Company Study Selection and Outreach*

The team used two key criteria to determine the best-in-class companies from among all survey participants: environmental stewardship and profitability. The responses from four specific survey questions were used to short-list the best-in-class candidates:

- Was the firm founded with environmental stewardship in mind?
  - 86% were founded with environmental mission
- Does the firm integrate environmental progress throughout the organization?
  - 83% were fully integrated
- Does the firm track environmental metrics?
  - 55% track internal AND either up/down stream environmental performance
- What is your margin of profitability?
  - 50% have achieved some level of profitability

Nine of 47 companies met all of these four environmental stewardship and profitability screens:

- Burt’s Bees
- Eden Foods
- Guayakí
- JASCO Organics
- Maggie’s Organics
- Method

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5 This percentage is based on the respondents willing to disclose their margin of profitability.
Of these nine, the team selected the following five organizations for further investigation: Eden Foods, Guayakí, Maggie’s Organics, PAX Scientific, and SUN OVENS. Although any of the nine companies would have made for insightful case studies, the selection of these five was influenced by breadth of environmental mission, profitability, company ownership, and quality of survey responses.

**Interviews**

To develop the case studies, the research team conducted face-to-face interviews with the CEO or President and key executives and managers. Interviews were conducted using an informal interview guide, a copy of which is provided in Appendix 3. Each set of interviews lasted three to four hours and all were conducted at the respective company headquarters. Interviewers raised a consistent set of questions and topics in accordance with the Interview Guide, to assure consistency and comparability across case studies. As companies disclosed firm-specific innovations, interviewers investigated particular aspects of each business. Information from secondary literature augmented the data gathered during the interviews.

**Case Writing**

After consulting with faculty advisors, the team wrote the cases in the illustrative style, with the primary purpose of providing in-depth examinations of five hybrid organizations. The research team expects that the cases will be useful learning tools for students and academics interested in successful hybrid organizations, and for practitioners or potential practitioners seeking to learn from the successes and challenges of others in the hybrid sector. In order to ensure accuracy and consistency, company representatives, faculty advisors and peer members of the research team reviewed all written cases.

While the case studies address the specifics of the five companies, this report’s conclusion illustrates broader findings for all hybrid organizations. Two key questions helped develop these results:

- Are hybrid organizations effective in achieving both financial and environmental objectives?
- What are the most important lessons learned in these case studies that may have useful applications for other hybrid organizations?

The research team hopes that the findings revealed through the methodology described here will provide a meaningful contribution to the evolving field of hybrid organizations.
Phase Four: Final Report and Presentation of Findings

In March and April 2008, the research team compiled the information and analysis of the literature review, surveys, and case studies into the final report presented here. In April 2008, the team gave an oral presentation of its findings to faculty, staff and students of the University of Michigan’s School of Natural Resources & Environment. In addition, two members of the team presented the findings at the 2008 SoL Sustainability Consortium, May 6-8, 2008 at Nike corporate headquarters in Beaverton, Oregon.
SURVEY RESULTS

This section summarizes the analysis performed on the responses received from the survey of hybrid organizations conducted at the end of 2007.

Description of Respondents

As previously mentioned, 160 potential hybrid organizations were identified and approached to participate in the survey. Although 87 companies agreed to participate, the total number of actual respondents completing the questionnaire was 47. This represents a 54% rate of successful completion, and more importantly, a large enough sample for statistical analysis.6

On the whole, the survey respondents varied widely. They included everything from small entrepreneurial startups such as ClearFuels Technology and Affirm-Aware to large, well-established companies such as Burt’s Bees and Stonyfield Farm. However, the 47 respondents tended to skew towards small, young companies. The median number of employees in these companies was 20, and the companies’ median age was only seven years old. In addition, while revenues ranged from $0 to more than $2.3 billion, the median annual revenue was approximately $1.5 million.

The companies themselves were mostly U.S.-based. A few, however, were based in Canada and Brazil while some individual responses arrived from companies based in India, Sweden, and England. More than half of the respondents self-identified themselves as being devoted to clean energy, while only 10% of respondents were dedicated to addressing sustainable housing. From a financial perspective, while almost half of all respondents cited confidentiality for not disclosing their profitability, the data set included some unprofitable companies as well as very profitable ones (> 20% profitability).

Table 3 highlights some of the key demographics of our sample set of hybrid respondents.

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6 Common data analysis requires a statistical n >= 30.
Table 3: Key Demographics of the Survey Respondents

<table>
<thead>
<tr>
<th>CHARACTERISTICS</th>
<th>RANGE</th>
<th>MEAN</th>
<th>MEDIAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Age:</td>
<td>1 to 40 years</td>
<td>10 years</td>
<td>7 years</td>
</tr>
<tr>
<td>Annual Revenue:</td>
<td>$0 to $2.3 billion</td>
<td>$31.7 million</td>
<td>$1.5 million</td>
</tr>
<tr>
<td>No. of Employees:</td>
<td>1 to 5,130</td>
<td>61</td>
<td>20</td>
</tr>
</tbody>
</table>

OTHER CHARACTERISTICS

<table>
<thead>
<tr>
<th>Headquartes:</th>
<th>North America, South America, Europe, Asia; 80% U.S.-based</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profitability:</td>
<td>&lt;0% to &gt;20%; 50% cite confidentiality</td>
</tr>
<tr>
<td>Environmental Focus:</td>
<td>▸ 50% clean energy</td>
</tr>
<tr>
<td></td>
<td>▸ 40% clean air</td>
</tr>
<tr>
<td></td>
<td>▸ 40% sustainable food / agriculture</td>
</tr>
<tr>
<td></td>
<td>▸ 35% clean water</td>
</tr>
<tr>
<td></td>
<td>▸ 10% sustainable housing</td>
</tr>
</tbody>
</table>

Notes on the Survey Respondents

One mission-driven survey respondent also espousing sustainability principles is actually a publicly held company on the Brazilian Stock Exchange. Another company was recently purchased by a publicly traded company in the U.S. However, removing the results of these companies does not dramatically alter our survey results or trends so we have left them in for the sake of completeness.

The complete set of answers, as well as more in-depth analysis of individual responses is available in Appendix 4 and Appendix 5.

Key Trends and Results

The following section describes the key themes and organizational trends from the survey. The following criteria helped identify these themes:

- Importance of trend to hybrid organizations
- Variances from expected results
**Business Strategy**

**Table 4: Respondent Strategies**

<table>
<thead>
<tr>
<th>How They Compete</th>
<th>Established Market</th>
<th>New Market</th>
<th>Other</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Same Game</td>
<td>13%</td>
<td>4%</td>
<td>11%</td>
<td>28%</td>
</tr>
<tr>
<td>New Game</td>
<td>26%</td>
<td>30%</td>
<td>11%</td>
<td>66%</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
<td>0%</td>
<td>4%</td>
<td>6%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>40%</td>
<td>34%</td>
<td>26%</td>
<td>100%</td>
</tr>
</tbody>
</table>

From a game theory perspective, it is expected that hybrid organizations have to be more careful in selecting their business strategy in order to meet both profitability and mission goals. Furthermore, it is expected that hybrids may have to define completely new strategies and redefine markets in order to be successful. As shown in Table 4, the survey results indeed illustrate this: most of the companies identified their business strategy as either 1) playing a new game in a new market, or 2) playing a new game in an established market. 66% of respondents claimed they were trying to do something completely different than their competitors, almost half of whom were playing it in a new market. Very few said they were playing the same old game. It should be noted that the detailed case studies show that even if a hybrid organization starts off playing a new kind of game or defines a new kind of market, it is very common for competitors to react in such a way to make these initial strategies become commonplace. Thus, while a hybrid organization may start out carving new territory, it is not long before fast-followers move into the same territory.

Recent literature suggests that there is a growing market for ‘green’ products. The research team, therefore, expected that hybrid organizations might cater to this same customer segment, and would use some combination of environmental features or branding as a source of competitive advantage versus industry peers.

**Table 5: Average Rank of Sources of Competitive Advantage (from 1 to 6, 1 = highest)**

<table>
<thead>
<tr>
<th>Innovative product/service</th>
<th>Higher quality</th>
<th>Environmental features</th>
<th>Brand name</th>
<th>Lower cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.7</td>
<td>2.9</td>
<td>3.0</td>
<td>3.8</td>
<td>3.9</td>
</tr>
</tbody>
</table>
Table 6: Top and Bottom Most Common Sources of Competitive Advantage

<table>
<thead>
<tr>
<th>Source of Competitive Advantage</th>
<th>Ranked in top 2</th>
<th>Ranked in bottom 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand Name</td>
<td>21%</td>
<td>38%</td>
</tr>
<tr>
<td>Environmental Features</td>
<td>45%</td>
<td>17%</td>
</tr>
<tr>
<td>Higher Quality</td>
<td>40%</td>
<td>15%</td>
</tr>
<tr>
<td>Innovative Product</td>
<td>49%</td>
<td>11%</td>
</tr>
<tr>
<td>Low Cost</td>
<td>30%</td>
<td>47%</td>
</tr>
<tr>
<td>Other</td>
<td>9%</td>
<td>13%</td>
</tr>
</tbody>
</table>

Table 5 shows the sources of competitive advantage for the respondents as a whole. Innovative product/service and higher quality products were the two most important overall advantages for hybrid organizations. However, the two sources that companies most often ranked first or second were innovative product and environmental features (see Table 6). The two sources most often ranked last and second last were brand name and low cost. Table 6 reveals two trends: 1) low cost differentiation is not a successful hybrid strategy, and conversely 2) developing premium products or premium segments can be a successful strategy.

Finance

Figure 6: Profitability Margin

Prior to reviewing the survey results, it was believed that hybrid organizations might have limits to profitability in order to meet their environmental mission. Figure 6 shows that 50% of the hybrid companies willing to disclose their profitability were actually profitable. Of these, their aggregated return was below market rate (below Dow Jones long term average return of 11%). While these results suggest that financial viability in a hybrid organization is difficult to achieve, it is crucial to recall that traditional for-profit businesses also have high rates of failure (especially during start-up or early stage development). Indeed, the respondent answers show that the older the hybrid organization, the greater the likelihood to be profitable.

It should also be mentioned that 78% of hybrid organizations pay market rate salaries. This was surprising since many mission-driven nonprofit organizations pay
rates lower than traditional firms. The research team hypothesized that hybrids would follow the nonprofit wage model. However, the results of the survey show that it is possible to earn competitive wages and still work at a mission-driven for-profit company.

Table 7: Source of Financing

<table>
<thead>
<tr>
<th>Type of Financing</th>
<th>0%</th>
<th>1-20%</th>
<th>21-40%</th>
<th>41-60%</th>
<th>61-80%</th>
<th>81-100%</th>
<th>Weighted Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional market-rate equity</td>
<td>26%</td>
<td>4%</td>
<td>0%</td>
<td>6%</td>
<td>9%</td>
<td>11%</td>
<td>24%</td>
</tr>
<tr>
<td>Traditional market-rate debt</td>
<td>17%</td>
<td>13%</td>
<td>6%</td>
<td>4%</td>
<td>6%</td>
<td>2%</td>
<td>15%</td>
</tr>
<tr>
<td>Below market-rate debt</td>
<td>26%</td>
<td>0%</td>
<td>4%</td>
<td>2%</td>
<td>0%</td>
<td>0%</td>
<td>3%</td>
</tr>
<tr>
<td>Below market-rate equity</td>
<td>23%</td>
<td>4%</td>
<td>0%</td>
<td>4%</td>
<td>4%</td>
<td>2%</td>
<td>9%</td>
</tr>
<tr>
<td>Grants</td>
<td>19%</td>
<td>19%</td>
<td>13%</td>
<td>0%</td>
<td>0%</td>
<td>2%</td>
<td>10%</td>
</tr>
<tr>
<td>Founder(s), friends, or family</td>
<td>15%</td>
<td>23%</td>
<td>9%</td>
<td>2%</td>
<td>6%</td>
<td>11%</td>
<td>25%</td>
</tr>
<tr>
<td>Re-investment of operating profits</td>
<td>19%</td>
<td>17%</td>
<td>4%</td>
<td>4%</td>
<td>2%</td>
<td>4%</td>
<td>13%</td>
</tr>
</tbody>
</table>

The source of financing for hybrid organizations is also notable. Results in Table 7 show that overall, 59% of the respondent’s financing comes from patient capital sources, and 12% comes from “below market-rate” equity or debt. The research team had expected that a significant proportion of hybrid organizations would be financed from patient funds but the magnitude of the proportion is unexpectedly high. The 12% presence of below market-rate funds seems to demonstrate the emergence of an alternative funding source, one that perhaps more and more mission-driven organizations will be able to tap into in the future. Moreover, the 59% figure suggests that investors buying into these hybrid organizations may have returns on investment expectations that are balanced with or include environmental performance returns.

Indeed, examining correlations between source of financing and profitability, data analysis shows that if organizations receive traditional equity or debt, they are more likely to be profitable. Conversely, the team found moderate correlations between organizations with positive profit margins and those receiving below market-rate equity or below market-rate debt. Although this may suggest that institutional funding

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7 Patient capital includes below market-rate debt and equity; grants; founder(s), friends, or family; and re-investment of operating profits.
promotes profitability, one has to ask: Does market rate funding drive profitability or vice-versa? The answer to this question lies outside the scope of this study but is certainly an area worth further investigation.

**Figure 7: Financing as Source of Advantage or Challenge in Meeting Environmental Goals**

![Bar chart showing percentage of respondents seeing their source of financing as an advantage or challenge.]

Although the research team hypothesized that hybrids may have an advantage over traditional firms by appealing to alternative sources of capital such as patient investors, the results of the survey show that source of financing can be both a significant advantage and disadvantage to hybrid organizations. As depicted in Figure 7, almost one-third of respondents see their source of financing as an advantage in achieving their environmental sustainability goals. Some quotes from these responses are as follows:

“Advantage in that we are playing the ‘long game’ because as water use increases so does scarcity and business opportunities.” – Purity

“Since we do not have public or outside equity stakeholders, we do not have quarterly profit pressures.” – New Belgium Brewing Co.

“Yes, many of our investors are focused on cleantech and are looking for both financial and social/environmental returns on their investment.” – d.light design

For those hybrids where financing is a source of challenge, the following responses exemplify the types of associated drawbacks accordingly:

“Investing in environmentally friendly equipment and supplies, and sustainably grown fair trade ingredients for our products, while trying to competitively price our products, took away from the amount of marketing and advertising campaigns we would have liked to roll out at times. We had to compromise and find alternatives.” – JASCO Organics
"We have had some success approving capital projects by accounting for payback, reduced operating costs, positive brand implications, etc. But competition for capital dollars is tight, and in a company for which meeting growth targets is critical to the next year's funding allocation, projects that will increase manufacturing capacity or productivity sometimes prevail over projects with environmental rationale but longer paybacks.” – Stonyfield Farm

**Organization – Structure**

**Figure 8: Organizational Structure of Respondents**

Overall, the results of the survey reveal few innovations in organizational structure. Figure 8 shows that 70% of the survey respondents answered that they were organized according to function. The research team hypothesized that hybrid organizations might have informal or unique organizational structures to allow for meeting both market and mission driven goals, but that did not seem to be the case. In addition, Figure 9 shows that 83% of respondents believe environmental sustainability is "fully integrated" throughout their organization. The combination of these two results suggests that on the surface, environmental sustainability can be successfully integrated across departments. The case study analysis sheds further light on whether this claim is actually accurate.
Prior to the survey, the research team hypothesized that many hybrid leaders would have significant nonprofit or government experience, and that this would make them better able to straddle the for-profit and mission-driven worlds. The results in Figure 10 show differently: almost 80% of respondent CEOs have a for-profit background, and less than 20% have either government or nonprofit backgrounds.⁸ These results support the theory that more and more mission-driven organizations (nonprofit or otherwise) are looking for executives with traditional business skills. It also suggests that previous experience outside the for-profit sector may not be necessary to run a hybrid organization. Based on experience, it is not surprising that there is a strong correlation between hybrid companies with CEOs having served in the nonprofit and government sectors, and their current organizations’ strategic alliances with those sectors.

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⁸ It should be noted that 15% of respondents said they had CEOs with hybrid organizations experience in the past.
Figure 11: Leadership Style of CEOs

![Leadership Style Bar Chart]

The research team had also expected that many hybrid organizations would be led by charismatic, inspiring leaders, especially because hybrids place significant emphasis on mission. However, the results in Figure 11 show that 75% of leaders were identified as “participative” or “transformational.” None of the leaders of hybrid organizations in the survey were described as “transactional.” Thus these leadership results suggest hybrid organizations tend to be led by executives who have a collaborative management style rather than a command-and-control style, which is perhaps a phenomenon of older and more traditional firms.

Process and Metrics

Figure 12: Environmental Metrics Tracking

![Environmental Metrics Bar Chart]

Leadership styles offered in the questionnaire were as follows: Charismatic: gathers followers through personality and charm, rather than formal power or authority; Participative: extroverted, sensitive leader who openly shares decisions and authority with subordinates; Transactional: leads by reward and punishment, with a clear chain of command; Transformational: inspiring leader through vision and passion, achieving success by clarity of thought and articulation; Quiet: success based not on ego and character but thoughts and actions; Servant: leads by serving others, rather than others serving the leader, emphasizing collaboration and trust.
The team had also expected that hybrid organizations would often track the environmental performance of suppliers, customers, and internal operations. However, while most respondents stated they fully integrated environmental sustainability throughout their organization, only 55% actually tracked environmental metrics (see Figure 12). For those that do track sustainability, 85% use in-house tools, as opposed to some other standard or certification.

These results are surprising for two reasons. First, the 55% is lower than expected given the recent wave of CSR reports, agreements, and initiatives that have flooded the market. One possible rationale for this seemingly low percentage is that CSR reports are essentially communication tools; perhaps hybrids have little need for such explicit communication because owners, employees, and customers have already bought into their mission. In addition, the fact that more than half of all respondents indicated that they track the metrics of either their supplier or their customers indicates that the majority of hybrid organizations tend to have strong relationships across their supply chain. Evidence of this fact is backed by several case studies.

Second, while 83% of respondents believe environmental sustainability is fully integrated only 55% actually track environmental metrics. This begs the question: If one is not tracking metrics, how does one know that they are making progress? One potential answer is that environmental sustainability in hybrids is so grounded throughout the organization that there is no need for metrics. Another possible explanation is that there are simply not enough resources to perform this measurement and the very nature of the business ensures environmental stewardship as a whole. The case studies show evidence of both of these possible explanations.

Moreover, there is significant correlation between those hybrids tracking environmental performance and those receiving patient capital. This may suggest that hybrid investors require proof of some sort of environmental benefit, along the same lines as nonprofit investors demanding more and more proof of donor dollar impact.
Lastly, Figure 13 shows that 30% of responding companies tie employee compensation to environmental sustainability. While some traditional for-profit companies use non-financial performance metrics, the research team hypothesized that very few of these firms integrate sustainability metrics into financial rewards. In contrast, the team hypothesized that hybrid organizations would be more apt to do so. This 30% proportion lends credence to this hypothesis, although further analysis of traditional for-profits must be conducted to determine the exact disparity. Tying compensation to environmental performance is also another example of how hybrid organizations are “walking the walk,” and not just “talking the talk.”

**Innovation**

Although it was difficult to identify key trends among hybrid organization innovations, 83% of respondents claimed they had a “notable innovation.” Approximately 80% of those innovations were product or technology related, as one might expect, but there
were a few business model innovations as well. The research team expected to see more examples of innovative business models. One possible explanation for this result is that what might have been innovative at the time of startup may not be so innovative any more. Another possible explanation is that while the way the business functions and operations may not necessarily be innovative, the combination of product offering, supply chain management, mission and culture, and financing into a holistic system ultimately creates an innovative type of business model.

Some examples of product innovations from respondents include the following:

“Patented approach using floating (lighter-than-air) rotors that rise to 1,000-ft on a tether. Wind spins the rotor on a horizontal axis and electricity is generated. Electrical energy is transferred down the tether for storage or use.” – Magenn Power

“1) mud frame beehives built with locally available resources … [and] … 2) ability to lighten/process beeswax using locally available materials, with no additives, even organic-approved additives.” – Zam-Bee-A Honey

Some examples of business model innovations include:

“Our personal relationships with all of our growers and their families.”
– Eden Foods

“Enabling poor women in the developing world to obtain Sun Ovens and pay for them in small weekly installments using a portion of the money saved by not buying charcoal or other cooking fuels.” – SUN OVENS International

“raw material pricing/sourcing based on a RESTORATION model that is leading to reforestation of the land from which we are sourcing yerba mate.”
– Guayakí Sustainable Rainforest Products

More information on the business model innovations can be found in the Case Study sections of this report.
CASE STUDY: SUN OVENS International – The Patient Dealmaker

INTRODUCTION

SUN OVENS International, Inc., based in Elburn, IL, provides cooking energy solutions to the world’s poor. However, it struggles to meet its environmental and profitability goals. With but six employees making and distributing solar ovens around the world and a myriad of business risks all across its value chain, it is clear that the key to SUN OVENS’ success is patience in all aspects of its business in order to meet both sets of corporate goals.

While being loyal to the non-financial mission of an organization is common in all hybrid organizations, the extent to which SUN OVENS has done so, particularly in light of significant financial pressures, is distinctly uncommon. The company has pursued a small and challenging market (solar ovens), chased fleeting sources of revenue (Y2K emergency preparedness), and ventured close to bankruptcy (employees providing personal capital into the company). From staying the course in volatile political markets, to finding the right entrepreneur in developing countries, to fending off offers to buy the company’s assets, SUN OVENS has managed to stay true to its environmental objectives while managing to turn around its operational efficiency. After a deeper analysis, it becomes clear that this unwavering commitment steadfastness in the face of ongoing business challenges comes from two sources: patience and morality, or more specifically, the patience and morality of Paul Munsen, President of SUN OVENS International.

OVERVIEW AND HISTORY

Industry Overview: Cooking in Developing Countries

In developing countries, particularly in rural areas, approximately 2.5 billion people rely on biomass sources, including firewood, charcoal, animal dung, and agricultural waste to meet their needs for cooking energy. In many countries, these resources account for over 90% of household energy consumption (World Energy Outlook,
2006). It is expected that one-third of the world’s population will still rely on biomass fuels in 2030.

While biomass is not a cause for concern in and of itself, it does have significant adverse consequences for individual health, the environment, and economic development when it is unsustainably harvested and when energy conversion techniques are inefficient. Approximately 1.3 million people – the majority of whom are women and children – die prematurely each year due to exposure from biomass indoor air pollution. Fuel collection takes away time and effort that could be spent on education or other income generating activities. The ongoing cost of fuel can represent up to half of all household expenditures. Moreover, environmental harms such as land degradation and regional air pollution often result from unplanned harvesting.

One set of solutions to address these problems lies in solar-powered ovens. Where cooking with charcoal in a covered environment can have the same harmful effect on the human respiratory tract as smoking three packs of cigarettes per day, solar ovens can create lasting financial and beneficial health effects.

Background Information

SUN OVENS® were developed in 1986 by Tom Burns, a retired restaurateur from Milwaukee, WI, who was very active with Rotary International, a group that remains involved with the company today. From his experience in operating restaurants he knew a great deal about cooking, and from his international travel he became aware of the ever-growing problem of deforestation. Tom took a concept that had been around for centuries and engineered into it more recently developed materials to produce an effective solar cooking device.

From 1986 to 1997 SUN OVENS® were made and marketed by Burns Milwaukee, Inc. Thousands of portable models have been shipped to more than 125 countries around the globe. SUN OVENS® have helped feed refugees in relocation camps, aboriginals in remote villages, workers at field sites, climbers on the slopes of Mount Everest, and soldiers during the Persian Gulf War. In 1998 Paul Munsen took over company leadership and formed SUN OVENS International, Inc. and the manufacturing was moved from Milwaukee to Elburn, IL (40 miles west of Chicago). SUN OVENS International, Inc. has expanded the use of the ovens by making them more widely available in the U.S. and around the world. Assembly plants to make GLOBAL SUN OVENS® have been established in a number of developing countries to reduce the cost of producing the ovens and of shipping them to people that need them the most.

Goals and Objectives

SUN OVENS strives to develop and implement comprehensive solar cooking programs that will radically decrease the developing world’s dependence on
biomass as the primary cooking fuels, ultimately benefiting the environment, raising the standard of living, and improving the health of the poor worldwide. Moreover, up to two-thirds of the world’s population wake up every morning not knowing if they will eat at night (Munsen, 2008); with more than two billion people living on less than two dollars per day, there is ample opportunity to provide energy for cooking while reducing household expenses all over the world.

Product Information

SUN OVENS manufactures two types of solar ovens: the VILLAGER SUN OVEN®, and the GLOBAL SUN OVEN®. Both of these, as well as the term SUN OVEN® are registered trademarks of the company. The VILLAGER SUN OVEN® is designed for large-scale feeding situations that require cooking great volumes of food quickly, capable of up to 1,200 meals per day or 28 loaves of bread per hour. Even though it is called an oven, enormous quantities of food can be boiled, steamed or baked at cooking temperatures of up to 500° F / 260° C with no fuel costs. Alternatively, it can be run on a 20-lb propane tank for 12 straight hours.

The GLOBAL SUN OVEN® has been devised to meet up to 70% of the needs of a family of six to eight people in a developing country. This portable box (approximately eight cubic feet) keeps in moisture and air, thereby ensuring hot meals well after sundown. It is guaranteed for 15 years of everyday use. An actual photo of a GLOBAL SUN OVEN® is depicted in Figure 15, while a schematic diagram illustrating its components is shown in Figure 16.

Figure 15: Photo of a GLOBAL SUN OVEN® in use
SUN OVENS’ technology is very simple, and its design has not changed since its original design in the 1980’s. The ovens consist of collapsible aluminum panel reflectors that redirect sunlight into a well-insulated box (the oven). The box itself consists of a plastic shell, one-inch thick food-grade fiberglass insulation, and an interior black aluminum container that serves as the oven walls. A rocking trivet inside the oven allows food to remain level if the oven is jostled. A glass plate on top of the box locks the heated air inside the oven, and a proprietary gasket ensures the food never dries out and remains hot for many hours after sundown.

**BUSINESS STRATEGY AND MODEL**

SUN OVENS currently serves two primary markets: 1) developed country markets, and 2) developing country markets. Prior to incorporation, SUN OVENS mainly sold its products via partnerships with international NGOs.
such as Rotary International to overseas market. After incorporation, SUN OVENS shifted its geographic markets and changed its core business model, as described in more detail below (Figure 17 shows how SUN OVENS’ strategy has shifted since incorporation).

SUN OVENS Market

Developed Country Markets: In developed countries, SUN OVENS sells both models, but primarily GLOBAL SUN OVENS® to several consumer groups in the U.S., Canada, Australia, Japan, Spain, and Germany:

1) Green Consumers – These eco-conscious consumers want to purchase energy efficient appliances, and / or often recreate outdoors.
2) Food Enthusiasts – These “foodies” claim solar ovens offer more flavorful, juicier, all natural tastes.
3) Emergency Preparedness – These are individual, commercial, or retail customers who recognize the need for a cooking mechanism when electricity is no longer available e.g. hurricanes, floods, etc.

Despite its core business in ovens, SUN OVENS has plans to expand its portfolio of offerings available on its website by partnering with other solar-inspired manufacturers to increase domestic revenue generation. New products to be sold include a solar-inspired cookbook (retailing for approximately $12) and solar-powered headlamp (retailing for approximately $30). A third product that may be offered in the future is a solar-powered water pasteurizer.

Developing Country Markets: In developing countries, SUN OVENS either licenses its GLOBAL SUN OVENS® to local entrepreneurs who ultimately sell to poor families willing to replace their wood / dung-based cooking equipment, or it sells to large international NGOs who distribute these ovens to people in need. Although the investment in solar cookers can be significant for end-customers (the two billion people living on less than two dollars per day), the combination of product effectiveness, improved air quality, time savings, and avoided fuel costs often convinces consumers that SUN OVENS’ products are worth the investment. Most consumers are women since because they are most often the ones actually doing the cooking. Historically, SUN OVENS’ primary focus has been the Middle East (Jordan), Africa (Nigeria, Kenya, Uganda), and the Caribbean (Dominican Republic, Haiti). In rare instances, SUN OVENS sells its ovens to middle class consumers in developing economies as a backup power source for electricity-based ovens. SUN OVENS also sells its VILLAGER SUN OVEN® to orphanages, schools, and hospitals in developing countries.

Business Model

SUN OVENS has created a GLOBAL SUN OVEN® assembly system that enables assembly on location. Local assembly dramatically reduces the oven price and can also create local jobs, all the while getting ovens into the hands of the people who
need them most. Local assembly often reduces the price approximately 50% compared to U.S. retail prices, and when locally sourced materials are employed, the price can be reduced another 10% to 30%.\(^\text{10}\)

As illustrated in Figure 16, the ovens themselves are simply designed, minimizing the number and complexity of components where possible. Such design enables easy transfer of engineering knowledge to developing country markets as described below. Not only is the product itself designed with the poor in mind, production is as well. SUN OVENS designs and builds its products in Elburn, IL., and typically manufactures these ovens in batch production. However, the fixtures it uses are made of wood, the tools used can all be replaced by simple low-tech tools in developing countries (screwdrivers and rivet guns), and equipment can be operated without electricity if necessary (hand powered). “Everything is designed to be transferable,” says Paul (Munsen, 2008). While the production is not ISO-certified, SUN OVENS does have a production manual written to ISO standards (e.g. each production step has a planned and monitored task duration).

**Figure 18: Comparison of Business Models for Developed and Developing Country Markets**

\(^{10}\) SUN OVENS' estimates.
Figure 18 illustrates the different business models for both of SUN OVENS’ customer markets:

**Developed Countries**: SUN OVENS sells the *GLOBAL SUN OVEN®* to customers in developed countries as niche products in energy-conscious markets. SUN OVENS has had several conversations to supply large retailers in the U.S. but the price points are wrong. SUN OVENS’ wholesale price is too high for these retailers, who demand substantial profit margins from its suppliers. Instead, SUN OVENS sells through retailers who want drop shipping and are therefore willing to accept a lower profit margin. As a whole, SUN OVENS does its current sales via its website, online dealers (those that order five or more ovens), and niche retailers.

**Developing Economies**: SUN OVENS has two different business models in developing countries: the Entrepreneurial Model and the NGO Model.

1) **Entrepreneurial Model** – Recognizing that donor funding is not a sustainable source of funding, SUN OVENS prefers to license its product to local entrepreneurs in an innovative arrangement. SUN OVENS starts by licensing a private sector business to assemble U.S.-made ovens and to market them in one specific country. With the one-time purchase of an assembly package, ovens can be made in the country in which they will be used, dramatically reducing the cost of the ovens and future shipping fees. Once an assembly plant has been established using U.S. made components, the specifications are provided that will allow for the manufacturing of any of the components to be done locally. The only component not manufactured locally is the gasket, which remains proprietary to SUN OVENS to prevent complete imitation of the ovens. The objective of the entrepreneurial model is to drive as much cost as possible from the price, thereby making the product more accessible to a wider group of consumers. The gasket is provided by SUN OVENS at a price which includes a small royalty.

SUN OVENS does not mandate completely what its licensed entrepreneurs can and cannot do, but does make suggestions on trying to make their products “appeal to the masses” whenever possible (Munsen, 2008). The specifics of each contract between SUN OVENS and entrepreneurs varies but typically covers the agreement duration, chosen country or region, quantity of ovens to be sold, and fees to be paid. The reality in many developing economies is that the market is simply not sufficiently aware or educated for its products and the licensed entrepreneur sells to middle class or military consumers.

A typical process for developing an entrepreneur in a new country might look like the following:

A) SUN OVENS identifies a potential local entrepreneur in a country based on their business ability, in-country network of contacts, and appetite to make the business a success.
B) SUN OVENS provides specifications and costs to assemble and manufacture GLOBAL SUN OVENS®, including a confidential franchise fee.

C) If the entrepreneur can come up with the necessary cash and can show that s/he can sell a requisite number of ovens, an exclusive country-wide licensing contract is signed.
   i) This contract is country-wide because Paul recognized it would be impossible to enforce multiple geographic licenses within a single country.
   ii) The contract stipulates a minimum number of ovens required to be sold per year, including a fixed number of assembled ovens (higher margin, lower per unit cost) from Illinois. This sales volume requirement prevents someone from obtaining the exclusive license and then not actually selling any ovens; such behavior would generate zero ongoing revenue from gasket sales or assembled oven sales.
   iii) Contracts are NEVER joint ventures because Paul has also recognized that North-South joint ventures usually result in the Southern partner depending more heavily on the Northern partner for financing and resources and ends up being a marriage of non-equals; Northern partners are perceived as “a tree that drips money” (Munsen, 2008).
   iv) The minimum amount required on behalf of Entrepreneur is approximately $50,000, most of which is spent on building and shipping the initial batch of ovens overseas. The remainder is spent on setup, training, import tax, and raw materials of the local assembly plant (see Finance section for further cost breakdown details).

D) Once the first shipment has arrived, SUN OVENS may also arrive to help with marketing for initial product launch in-country (e.g. “USA” branding) in order to command higher margins and generate initial cash flows.

E) A local community organization or non-governmental organization is sometimes involved to help train or educate local consumers. These organizations would collaborate with the entrepreneur to make the entrepreneurial business model work.

F) Another possibility for partnership being explored in the entrepreneurial model is to involve the help of microfinance institutions. Such microfinancing could either help entrepreneurs avoid the incredibly high financing charges from major lending institutions (with interest rates sometimes upwards of 30%) or help consumers raise enough cash to finance the purchase of the oven.11

2) NGO Model – This model is based on the outreach and efforts of large international NGOs or private voluntary organizations (PVOs) because the challenges of implementing solar cooking projects are often more cultural than they are technical. The ovens themselves have been designed to overcome some of these cultural challenges, but the involvement of a local NGO or PVO that understands the needs and customs of the consumers (often women) using

11 The Grameen Bank model would be ideal here since it is based on community banking and self-selection of credible community members. Moreover, the collective dependency of this setup also encourages weekly meetings to administer the finances, share learnings, and obtain peer support. The International Finance Corporation has an environmental development program aimed at introducing new technologies in developing countries but programs such as these need to be based on microloans, not institutional loans.
the ovens can often overcome lack of cooking knowledge of the entrepreneur (often men). SUN OVENS is looking to form working relationships with NGOs and PVOs in regions of the world that are blessed with an abundance of sunshine to develop and implement projects. The *VILLAGER SUN OVEN®* is often donated to schools and other organizations through the help of Rotary International.\(^\text{12}\)

Historically, SUN OVENS’ focus was on developing countries using the NGO Model. However, this was recognized by Paul as unsustainable and the plan going forward is to focus on the Entrepreneurial Model in developing and transitional countries. Thus, only the *VILLAGER SUN OVEN®* continues to be sold via the NGO model. Accordingly, a large part of the marketing efforts for the *VILLAGER SUN OVEN®* are geared towards the donor, and not the consumer.

**Competition**

There are many different types and kinds of solar ovens. Some common types of solar ovens are listed below:

- Cookits: similar to solar ovens
- HotPots: dark pots inside clear outer pots
- Parabolic Solar Ovens: solar ovens that use parabolic reflectors that heat up food much quicker than traditional solar ovens
- Solar Kettles: solar-thermal vacuum tubes used to heat liquids
- Hybrid Solar Ovens: combined solar box cookers and conventional heating elements
- Hybrid Solar Grills: adjustable parabolic reflector with grills and conventional fuel grills

Paul believes there are very few solar cookers that are actually viable alternatives to his company’s products. Hybrid ovens, running on solar and electricity, are an example of a competitive product achieving some levels of success in places such as India. Paul has cooked with both products side by side, and has found that the hybrids have often required switchover to battery power while the SUN OVENS® worked perfectly well, suggesting a hybrid oven design flaw.

However, in addition to the technical differences, the main reason Paul believes hybrid ovens have a limited growth potential is because of their specific marketing needs: to showcase the benefits of hybrid ovens, one has to market the negatives of solar cooking. Not only does this require much more information to explain, but this ultimately defeats the purpose of selling solar ovens to begin with. SUN OVENS discontinued their hybrid model in 1998.

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\(^{12}\) Tom Burns, the inventor of the SUN OVEN®, has been a member of Rotary International for more than 40 years. It was Tom’s involvement in Rotary that showed him the need people around the world had for a way to cook that did not require cutting down trees. Rotary International still remains an active participant in numerous projects around the world.
Another strong competitor product is the parabolic solar oven. These ovens heat up much faster than other solar ovens but they also have several unique product risks. SUN OVENS does not make these products because of the risk of child blindness; because parabolic reflectors direct sunlight into one focal point, it is very easy for unsuspecting children or cooks to be blinded by the light. In addition, because of their high temperature, parabolic ovens must be constantly stirred to ensure the food does not burn; SUN OVENS’ even convectional heating eliminates the need for stirring. However, these parabolic ovens have proved very successful in places like Mexico, where the need to fry tortillas is a good fit for these high temperature ovens.

Paul believes SUN OVENS products are more threatened by low-technology solar ovens, i.e., cardboard or other simplistic solar ovens. The nature of this threat is that low-tech ovens are not only less expensive, but are also often of poor quality and operation. People who have tried these low-quality ovens find they don’t last longer than three months, and do not keep the food sufficiently warm. These “$15 solar ovens kill the market for $150 ovens,” says Paul (Munsen, 2008), and this leads to a huge legacy problem once a product fails (see Market Risks below). The success of a SUN OVEN® is that “it takes in the best of everything into one unit” (Munsen, 2008).

Paul believes that a focus on delivery and implementation will ultimately make SUN OVENS more profitable in the future. Indeed, price continues to be the key decision driver for many end-customers and hence these lower priced products of inferior quality continue to be the company’s main source of competition. To counter these lower price and quality legacies, SUN OVENS continues to put heavy emphasis on product education and on-the-ground demonstrations, strategies that will hopefully pay off in the long term. On a product level basis, it is also clear that the proprietary gasket creates a distinct source of advantage over other solar ovens.

FINANCE

Sales and Revenue

Developed country sales have grown dramatically from 2006 to 2008. Partly due to increased global eco-awareness and partly due to a weakening U.S. dollar, sales to other developed countries such as Japan, Australia, Spain, and Germany have risen considerably. Overall, oven shipments rose 50% from 2006 to 2007, and in January 2008, shipments had doubled compared to January 2007. Publicity from CNN, Business 2.0, and other media outlets created significant interest and buzz for the company in 2007 (for example, more than 150 people contacted Paul interested in investing in Sun Ovens after this series of media coverage) and the firm hopes to continue to capitalize on this publicity in the future. The company’s three-year plan aims to grow revenues from $0.75 million in 2007 to $10 million by 2010, and Paul is currently looking at the carbon trading markets for future sources of revenue to both help SUN OVENS and its licensed entrepreneurs.
As of early 2008, SUN OVENS has licensed assembly plants in Haiti, the Dominican Republic, and Ghana. In the past, SUN OVENS has delivered its products to Afghanistan, North Korea, Nepal, and South Africa. Plans are in the works to create licensed plants in Uganda, Morocco, and Nigeria, and SUN OVENS is in talks with 19 potential entrepreneurs. Paul expects that one-third of the entrepreneurs will actually sign a license contract with SUN OVENS. Plans for assembly plants in Kenya and Pakistan have had to be put on hold due to political instability.

Liabilities and Obligations

Paul describes the SUN OVENS balance sheet as “more than bankrupt” (Munsen, 2008). While SUN OVENS has never been fully profitable, it currently earns a positive operating margin. Unfortunately, its balance sheet is weighed down by extensive debt obligations stemming from poor operations in its early years of incorporation. As shown in Figure 19, the upside of its financial situation is that these debtors do not expect market rates of return on their investments, and accordingly, SUN OVENS can afford to be more patient in turning operating profit into net profit. Below are highlights that explain the poor balance sheet situation.

Poor Beginnings: Tom Burns was a successful restaurateur in the Milwaukee area and started making Sun Ovens in 1986. He invested his own money, investor money, and also obtained a securitized loan from a local Milwaukee bank for a total of $2.5 million, backed by a ten-year buy-out package of his restaurant chain. Although Tom had a high potential product, he could not find a viable market and after ten years of struggle, the bank finally called on the loan. At this time, Paul Munsen joined the firm, particularly because of his marketing experience. Using the collateral from Tom’s buy-out package and some additional investment funds when Paul came on in 1998, the bank was paid off. Subsequently, Paul incorporated the company, moved operations to Elburn, IL, and started doing promotions in D.C. as a way to tap into the international development market.
“My Biggest Mistake”: Looking at all the news around Y2K, Paul saw a huge opportunity to get into the Y2K emergency preparedness business and in 1999. The first full year after incorporating, SUN OVENS saw huge sales, on the order of $1.6 million, compared to $300,000 for the eight preceding months in 1998. However, after 2000 went by without a hitch, many of the SUN OVENS dealers, who had expected huge revenues from Y2K failures, went bankrupt and left SUN OVENS with a large unpaid Accounts Receivable. This further caused a cash flow problem leading to a large Accounts Payable and certain unpaid corporate taxes for SUN OVENS. In 2000, sales dropped precipitously to $185,000, and SUN OVENS was forced to liquidate inventory at or below cost, just to meet their cash flow and short-term obligations. This began a pattern of managing the business based on cash flow, instead of profit. Cash flow was so tight that Paul was sometimes forced to forgo personal salary payments, to the point of refinance his personal mortgage. What was once $3,000 away from being completely paid off, his home mortgage is now worth more than $100,000. SUN OVENS recently paid off the last remnant of debt from 1999 and in 2008, it hopes to successfully pay off all owed vendors.

Only Cash on Delivery: Due to poor credit standing, weak bargaining power and insufficient cash flows, SUN OVENS is forced to pay for its parts with cash on delivery (C.O.D.); suppliers may be willing to supply the company but are unwilling to accept cash flow risk themselves. This prepayment for materials restricts what the company can do since cash outlays have to be front-ended. Further constricting the firm’s cash flow is the fact that it must pay a part price premium due to low volume orders. This is particularly evident for one component, the plastic outer shell, which, at low volumes, can cost as much as $15 per unit but at higher volumes can decrease to $7 per unit.

Cost Structure

SUN OVENS’ cost structure is based on a simple cost plus markup model. The markup depends on the end market being served, but Table 9 displays the current cost structure for their GLOBAL SUN OVEN®.

Table 9: Comparison of Cost Structures for Developed and Developing Country Markets (all figures approximate USD).

<table>
<thead>
<tr>
<th>GLOBAL SUN OVEN® Component</th>
<th>Unit Cost Domestic Market</th>
<th>Unit Cost Overseas Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Material Cost Out of Elburn (including shipping)</td>
<td>$95-$110</td>
<td>$105-$120</td>
</tr>
<tr>
<td>Local Markup</td>
<td>$160&lt;sup&gt;13&lt;/sup&gt;</td>
<td>$30-$45&lt;sup&gt;14&lt;/sup&gt;</td>
</tr>
<tr>
<td>Final Retail Price</td>
<td>$275</td>
<td>$150&lt;sup&gt;15&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<sup>13</sup> The domestic markup is used to subsidize the cost of overseas marketing and education.

<sup>14</sup> The retail markup in overseas markets is determined by the local entrepreneur but SUN OVENS suggests an approximate markup of fifteen to twenty percent.

<sup>15</sup> If local materials are used, the retail price in overseas markets could come down to $100 - $115.
**ORGANIZATION**

**Leadership**

Paul Munsen, President of SUN OVENS, entered the business ten years ago, originally as a favor to help the original inventor because the product at the time was causing a severe “financial headache.” Coming from a background in business marketing, Paul admits:

“I knew absolutely nothing about solar cooking, didn’t know what deforestation meant and had no concept of anything when it came to the environment or the needs of the developing world.” (Munsen, 2008)

However, this lack of knowledge actually serves Paul well in his current role. He believes one advantage of SUN OVENS is the fact that he is not an engineer and hence, does not do business on what he calls a “product basis.” According to Paul, all other solar oven makers are product focused but SUN OVENS is “end customer focused” (Munsen, 2008) and hence, SUN OVENS spends the bulk of its time and effort on marketing and education. While this hands-on effort with potential customers, often in very remote regions of the world, makes the company’s efforts very difficult, it simultaneously enables its high impact.

**Culture and Mission**

After ten years, it is clear that Paul’s dedication and tireless effort are the key drivers of the company, despite the numerous obstacles that it has faced over the past decade. Indeed, Paul’s presence can be felt throughout the small organization and in many ways, SUN OVENS and Paul Munsen are so closely intertwined that it is difficult to separate the man from the company. This should be seen as a positive integration, yet this also poses potential organizational problems in the future (see Organizational Risks below).

It should also be noted that a tour of the SUN OVENS facility in Elburn illustrates the simplicity of the design and manufacturing process and illuminates the firm’s commitment to meeting its environmental / social goals. A trip through the warehouse reveals a bevy of boxes of clothing, canned food, and other small items waiting to be shipped to developing countries. These items have been donated but have yet to be distributed to poor communities around the world. Paul explains this situation accordingly:

“Since SUN OVENS has to pay for the shipping container anyway to send its ovens overseas, any unused space within the shipping container is excess capacity that might as well be used for a good purpose. Thus, why not send some much needed clothing or food items to those same remote customers” (Munsen, 2008)?
Legal Structure

SUN OVENS International is a for-profit corporation. Although admittedly many of its competitors are nonprofits, SUN OVENS was deliberately incorporated by Paul Munsen in 1998 as a for-profit enterprise because he believes companies selling truly valuable products that reduce poverty must be financially sustainable. If they are not, there is little incentive to scale and continue the product and its impacts long-term. In his own words, "it would be hypocritical to ask others to be profitable when SUN OVENS is not" (Munsen, 2008).

Organizational Structure

Paul describes his organization as “very small and informally structured" (Munsen, 2008). With only six full time employees, most of whom are involved in manufacturing and assembly, SUN OVENS typically has less clearly defined roles and chains of command. Moreover, as a flat, non-hierarchical organization, Paul is forced to take on multiple roles at any given time. These roles may include chief executive, accountant, supply chain manager, and sales person.

PROCESSES AND METRICS

SUN OVENS tracks the environmental impacts of its products downstream, i.e., for its end-customers. It specifically tracks the carbon emissions and wood not burned as a result of the use of its ovens. As described earlier, avoided wood results in fewer carbon emissions as well as higher density forestation, and if the fuel source is charcoal, emitted carbon dioxide and airborne pollutants will also be reduced. Notably, within each country that it operates, SUN OVENS also tracks the time savings as well as financial savings from not having to harvest and/or purchase fuel for cooking.

One such example is in Haiti, where 99% of the Haitian countryside is now so deforested that wood is no longer a viable fuel source and families may spend as much as 50% of their household income on charcoal for cooking. In addition to the health implications, this deforestation contributes a whole host of other environmental problems ranging from top soil erosion, silted streams, mudslides, and flooding. Solar powered ovens can replace up to 70% of charcoal use in many places (SUN OVENS International, 2008).

Another example of the impact of SUN OVENS® is their use in addressing HIV/AIDS in South Africa. Not only has the use of the VILLAGER SUN OVEN® provided employment for women with HIV/AIDS, but by partnering with local bakeries that see the impact of reducing HIV/AIDS, SUN OVENS can combine the use of its product with bakers fortifying bread with additional nutrients to make the uptake of anti-retroviral drugs by weak HIV/AIDS patients much more effective. Furthermore, because 25% of the cost of bread is consumed by the energy needed for cooking,
the savings resulting from the use of the solar ovens has allowed these HIV/AIDS afflicted women to put 25% of gross sales into a fund that can be used collectively for other community development purposes.

In general, SUN OVENS insists that a family of six using a GLOBAL SUN OVEN® for 80% of their cooking needs would save 4,800 pounds of wood per year. A GLOBAL SUN OVEN® has a useful life of at least 20 years; the wood saved by each oven would be 96 tons over its lifecycle. This would translate into more than 88 tons of avoided CO₂ emissions.

SUN OVENS does not track its own environmental performance or those of its suppliers.

**INNOVATION**

**Subsidizing Poor Customers from the Revenues of Wealthier Customers**

SUN OVENS’ dual-market business model of serving both wealthy customers and impoverished customers suggests strong potential for long-term viability. Using the higher profit margins from wealthy consumers to help offset the lower profit margins from poor consumers can be a very sustainable strategy. Indeed, several other hybrid organizations, such as Aravind Eye Hospital, use a similar business tactic in order to meet both its environmental / social objectives as well as its profit objectives. It seems likely that if SUN OVENS’ long-term liabilities are paid in full, catering its products to both high-end and low-end customers could bring the company fully back into the black very quickly. The likelihood of these high-end markets continuing to remain viable in the long-term is still unknown.

**Design for Imitation While Protecting Your Competitive Edge**

Every element of the SUN OVENS® design is meant to be replicable in developing countries and hence, the design has remained simple since the founding of the company. The only part that is not replicable is the rubber gasket, which therefore must be shipped from SUN OVENS. This proprietary gasket apparently allows food gases to escape but not the escape of air and water vapor. The fact that the gasket design is proprietary to SUN OVENS prevents others from being able to copy their design. All other materials (plastic housing, fiberglass insulation, aluminum reflectors, and wood paneling) are available in varying quantities in developing countries. Even the assembly line in Elburn, IL is very simplistic. As mentioned, while the workers in Elburn may use air-powered electric screw guns, if electricity goes out (which it often does in target market countries), the screws can always be attached using a manual screwdriver. Similarly, the dies and fixtures used in Elburn are made of wood, or in some cases plastic, which allow for easy replication with whatever materials are available in country.
Turning Product Demonstration into Product Down Payment

Microfinance solutions are becoming increasingly common to enable underdeveloped societies gain access to loans for new business ventures or for new products and services directly. SUN OVENS has taken this model one step further by combining microfinance with product promotions and community education, thereby allowing potential customers to not only see the benefit of solar ovens, but also use the avoided fuel expenses towards the down payment of a GLOBAL SUN OVEN®. Here’s how the process works. SUN OVENS runs three-day demonstrations in Haiti to educate and teach women how to make and use simple cardboard solar ovens.

The first day of the training, participants are cooked meals using a GLOBAL SUN OVEN®; the last day of the training, the participants cook their meals themselves with their homemade solar cooker. In between, attendees learn how a solar oven can cook meals much faster than traditional cooking methods. In addition, attendees are trained how to log their savings from reduced charcoal purchases, which are the source of energy for their traditional methods of cooking. Once the attendees understand the benefit of saving money, they are then given the option of putting this savings towards the purchase of a GLOBAL SUN OVEN®. This enables a win-win situation for all involved in the process: women learn the benefit of solar cooking and saving money, and SUN OVENS manages to increase sales.

Managing Non-Traditional Challenges to Meet Mission Objectives

Being in the business of selling products to the poorest of the poor, what some call the Base of the Pyramid, is no easy task.16 There are certainly many small and large enterprises looking to capitalize on the consumption possibilities of the global poor yet it is clear that in the case of SUN OVENS, being aware of non-traditional risks, i.e. those risks typically not faced by pure profit-oriented organizations, is a necessity for long-term viability.

One example of a non-traditional risk comes in the form of understanding purchasing motivations of impoverished consumers. While understanding consumption habits and motivations is vital for every vendor of goods and services, the specific target market of the world’s poorest people make understanding these drivers of consumption more difficult, and ultimately more risky. Part of this risk comes from the fact that access to these often remote consumers varies depending on local infrastructure, political sensitivity, and understanding of local customs. No market research is readily available, and statistical observations are either impossible to obtain or largely irrelevant. Thus, SUN OVENS must spend considerable amount of time on field research and consumer education in order to make a sale, or partner with organizations that are trying to access those same markets.

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16 Base of the Pyramid, or BoP, consumers is commonly refer to the billions of people living below the poverty line in developing countries.
In addition, in many poor communities, where desolation is so prominent and hope often lacking, product performance can be a big risk; if a product fails once, it is often not given a second chance. Unlike in developed countries, where product performance is often backed by guarantees or warranties, such backup services are often incomprehensible or unfeasible in poor remote communities, if they are even desired in the first place. By focusing on addressing the cultural and legacy barriers first-hand, rather than through product specifications or other top-down approaches, Paul has shown that non-traditional challenges can still be turned into market opportunity.

CHALLENGES FOR THE FUTURE

Market Risk

There are multiple business risks, in both developed and developing country markets, that SUN OVENS faces in order for long-term viability.

Developed Country Markets: In well-established economies, SUN OVENS products are primarily purchased by green consumers and a handful of food enthusiasts. Numerous recent natural disasters in the U.S., in particular, have created a growing market in emergency preparedness. However, SUN OVENS has recognized that the simplistic design (wood paneling and “boxiness”), useful for production in developing countries, are not attractive to most developed country consumers, nor big box retailers. Therefore, growing sales in developed countries will require a significant investment in design and manufacturing at the U.S. plant, but by increasing SKUs, product complexity and vendor customization of its products, SUN OVENS risks losing the economies of scale and access to consumers in developing country markets.

Developing Country Markets: This market is complex and full of potential barriers to market adoption of SUN OVENS’ products:

- Entrepreneurial Financial Risk – Since SUN OVENS has control over the early part of the entire value chain of oven delivery, there is considerable risk that the local entrepreneur will not be able to raise enough capital to meet the requirements of SUN OVENS contracts. This results in lost time and resources spent during the due diligence process. In addition, even if the contract is signed, there is still considerable financial risk if the entrepreneur cannot generate enough revenue within the local country to support the business.
- Import Tax and Customs Risk – There is often a considerable markup on foreign goods coming into developing countries. Not only can the cost of these import taxes completely undermine the business viability of solar oven projects, but an inability to obtain proper certifications and approvals can completely ruin projects already in progress. This type of risk limits the

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17 One illustration of this risk occurred when some American entrepreneurs wanted to open an eco-village in the Dominican Republic (D.R.). However, these entrepreneurs did not fully understand what was necessary to obtain
geographies in which SUN OVENS can operate. For example, India would be a particularly attractive market for solar ovens but due to incredibly high import tax and value-added tax (upwards of 50%-100% of product cost), selling SUN OVENS® in India is simply too costly to be viable at this time.

- Cultural and / or Gender Risk – The risk from being unable to convince women (who are the primary cookers in developing countries) to switch to solar ovens is often the biggest obstacle for solar ovens adoption. The fact that cooking is highly traditional means that women are very reluctant to change. The additional challenge of dealing with customers who are largely uneducated (do not always understand the value of long-term budgeting), often near-sighted (focusing on survival day to day) and often risk-averse (if a product fails once, it must be bad) means that education and product demonstration is a heavy burden for SUN OVENS. In addition, local entrepreneurs are often male and their inability to relate to, communicate with, or even understand traditional cooking techniques creates additional cultural barriers to adoption.

- Legacy Risk – Many people and programs have tried to introduce solar ovens to poor families in developing countries but because of poor quality (e.g. cardboard based models) or an inability to keep food warm, such efforts have been known to lead to product backlash, sometimes resulting in physical abuse of wives (for serving cold food).

- Geopolitical Risk – The fact that political strife can completely undermine projects in the pipeline create immense volatility to SUN OVENS potential revenue stream. Recent examples include projects that are indefinitely on hold in Kenya and Pakistan, which were expected to contribute more than $100,000 of revenue to SUN OVENS in 2008.

Organizational Risk

Perhaps the biggest risk to the long-term viability of SUN OVENS is Paul Munsen himself. Like many other organizations with committed, passionate, and tireless leaders, the success of the company lies on Paul’s shoulders. With little evidence of succession planning in sight, Paul’s retirement from the company could be a huge detriment to its future success. Although it is uncertain when this will come to pass, for the sake of the company, it is certainly hoped that it will not occur anywhere in the near future.

Financial Risk

There have been several investors interested in taking over SUN OVENS and rebuilding it after taking it into receivership. Chapter 7 and Chapter 11 bankruptcy are viable options, and Paul has stated that several investors have indeed offered to move the company into bankruptcy, take the intellectual property, and restart the

all of the permits from D.R. customs. Accordingly, when the ovens arrived in-country, they were unable to immediately get access to the units. After much governmental wrangling, the entrepreneurs decided to move operations into a “Zona Franca” (free trade zone) within the D.R. but to this day, the entrepreneurs still have problems since they can get the ovens into the Zona Franca but still have challenges with D.R. Customs to get them out.
company from scratch. Paul admits that such activity would be cheaper than trying to pay off the numerous outstanding loans but Paul remains true to the mission of the organization. He believes it is morally wrong and inconsistent to go bankrupt to escape the creditors and he suggested the mission to assist others extends beyond developing countries. Paul strongly believes he can bring the company back into the black and he believes that the company is “so close” to a turnaround (Munsen, 2008).

It should be noted that these new investors are also interested in the overall mission of the company. According to Paul, “This kind of business attracts investors who want to make a difference and invest in a self-sustaining operation” (Munsen, 2008). Current investors (other than Paul himself) wrote off their investment a long time ago and no longer expect a return on their investment. They are totally passive, and thus allow Paul to act as the sole proprietor of SUN OVENS. It should also be mentioned that these investors are all friends of Paul’s and thus, their patience and willingness to take a write-down is understandable in this situation. Paul insists that he intends to provide these investors with a return in the near future.
CASE STUDY: Guayakí – Creating an Entirely New Value Chain

INTRODUCTION

Chris Mann is not your typical CEO. At first glance one might mistake him for a California surfer with his long blond hair, untucked shirt, and friendly, easy-going personality. However, spend some time with Chris and one finds him to be exceptionally sharp and a shrewd businessman as well. His company, Guayakí (Gwy-uh-KEE), headquartered in Sebastopol, California, can be similarly misperceived. Guayakí is a small but growing beverage company that specializes in selling organic, rainforest grown, fair-trade yerba mate, a South American caffeinated beverage that provides a healthy alternative to coffee or tea.18

While to many, it may seem that Guayakí is just another natural herbal tea company trying to ride the wave of organic and health foods being sold in the United States, this hybrid organization has a unique strategy for sourcing and selling its product. Over the past decade Guayakí has succeeded by using an innovative business model it calls “market driven restoration.” By purchasing Guayakí Yerba Mate, customers help support reforestation of the South American Atlantic Forest and improve economic conditions of the farmers and indigenous communities that supply Guayakí. Guayakí is not just a company that says it follows a triple bottom line approach (measuring a company on its financial, social, and environmental performance); its whole business model depends on it.

Early grassroots efforts by its founders have shaped Guayakí’s success. They created a high quality, premium product with a true social and environmental mission and convinced other like-minded people to buy it. Today, however, Guayakí’s creative marketing is using the health, energy, and weight-loss benefits of mate to reach a larger market. As a result, more players, including coffee and tea companies, are beginning to sell mate. As the demand for mate grows, the Guayakí business model will be tested. Can they hold onto their market share? Will their suppliers be able to keep up with demand or are there limits to growth using this

Table 10. Guayakí Overview

<table>
<thead>
<tr>
<th>Guayakí – 2008</th>
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<tr>
<td>Year Founded: 1996</td>
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<tr>
<td>Annual Revenue: $7.3 million</td>
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<tr>
<td>No. of Employees: 34</td>
</tr>
<tr>
<td>Headquarters: Sebastopol, CA, USA</td>
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<tr>
<td>Environmental Focus: Sustainable food/agriculture, Sustainable housing, Fair traded commodities</td>
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<tr>
<td>Profitability Level: Near Break-even</td>
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<tr>
<td>Mission: Guayakí works directly with growers to deliver unique and beneficial products that enhance personal health and well being. Our goal is to create economic models that drive reforestation while employing a living wage.</td>
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18 Yerba mate is similar to tea in that it is made by steeping dried leaves of a plant; however, tea and mate obtain leaves from different plants.
model? Despite the uncertain outcome, one thing is clear: Guayakí’s commitment to market driven restoration will differentiate it from its competitors just as much as the laid back nature of the company’s CEO differentiates him from others.

OVERVIEW AND HISTORY

What is Yerba Mate?

Yerba Mate is a small tree native to the South American subtropical Atlantic forests of Paraguay, Argentina, and Brazil. South America’s Indigenous peoples have long used Yerba Mate leaves and stems to create a beverage they call mate, which they drink to boost and sustain their energy, health, and well-being. Millions of South Americans consume mate daily as a staple of their diet. Deemed the “drink of the gods,” mate is said to carry the same stimulant rewards of coffee or chocolate but with better health benefits including, clarity of mind, increased energy, and balance in body. According to the Guayakí Website:

“Yerba mate is nature’s most balanced stimulant and naturally contains 24 vitamins and minerals, 15 amino acids, abundant antioxidants and naturally occurring caffeine” (Guayakí, 2008).

A new compilation of research published in the November 2007 Journal of Food Science supports these health claims and details yerba mate’s health attributes and its potential benefit as a weight management drink (Journal of Food Science, 2007).

How Guayaki mate is grown

High quality yerba mate is shade grown under the canopy of the Atlantic rainforest. The shade creates optimal conditions for growing thick and dark green mate leaves, distinguished by their lush, waxy finish. According to Guayakí, the tree’s growth is carefully monitored:

“In the wild, the tree needs about 25 years to develop completely, reaching a height of up to 15 meters. When cultivated, the mate trees are pruned to a height of three to five meters to allow for harvesting. The harvesting (or careful pruning) of the leaves and tender stems begins after three to four years of age. Harvest takes place annually between May and July in most regions. At maturity, yerba mate has a unique bittersweet flavor. The tree can produce for about 40 years making it a perfect crop when sustainably harvested” (Guayakí, 2008).

These lush shade grown leaves contain more flavor and nutritional properties than thinner, sun grown, commercial varieties. The challenge for growing mate in its native environment is the destruction of the Atlantic rainforest, more than 90% of which has been cut down for lumber, cattle grazing, and mono-crop agriculture.
How Guayakí mate is processed

The leaves and stems of mate are picked during harvest time in May, June, and July. Guayakí’s harvesters follow organic certification guidelines and weigh and label the leaves accordingly. From harvest, the leaves are transported to a mate processing center where they are dried by flash heating. Flash heating halts the oxidation process, keeps the dry leaves green, and preserves mate’s nutritional properties. The leaves then go through either a wood drying process that gives mate a smoky flavor, or an air-drying process that results in a lighter greener flavor. The mate is then aged in a cedar chamber for 12 months. Prior to export, the mate is milled down to Guayakí’s loose tea cut.

The traditional way to drink mate – A ritual and ceremonial process

Drinking mate with a group of friends or relatives is the traditional way to drink mate and serves as a symbol of hospitality and connection for the group. Mate is drunk out of a gourd with a metal straw called a bombilla (see Figure 20). One member of the group acts as the cebador/a, the mate server, who prepares the mate by steeping dry leaves of yerba mate in hot (not boiling) water. S/he drinks the first couple of gourd-full mates to ensure correct consistency and once ready refills the gourd with water and passes it counterclockwise with the bombilla facing the recipient. When exchanging the gourd, eye contact is maintained between the cebador/a and the recipient and usually no words are spoken. Saying “thank you” indicates that you do not wish to have any more. Each person takes as much time as s/he needs to drink all of the liquid from the gourd. Once finished, the recipient returns the gourd to the cebador/a in the same manner it was given, bombilla facing the person receiving the gourd. The cebador/a refills the gourd with hot water and passes it to the next person in the circle. This process continues until the mate is flat. Meanwhile active conversation is shared among the group.

Company Background

Alex Pryor and David Karr founded Guayaki when they were seniors at California Polytechnic State University in San Luis Obispo, California in 1996. Alex, from Argentina, and David, from California, became friends when they met at a local lunch spot. Being from Argentina, “where yerba mate has 95% market penetration (and toilet paper has 98%),” Alex loved to drink mate and introduced it to David at one such meeting (Mann, 2008). After sharing a daily traditional mate gourd for a few months, David’s lifelong allergies began to subside and he felt increased mental clarity and physical energy.

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19 In Spanish, cebador denotes a male mate server and cebadora denotes a female mate server
David became convinced of what Alex had been saying all along, that mate was a drink that should be brought to the United States. David left his computer business and started working with Alex to form the idea behind Guayakí. They soon generated a new restorative business model which would do three things. First, it would protect the South American rainforests. Second, it would provide needed income to the indigenous South American forest communities. Third their plan would bring a healthy energy beverage to North America. To move the venture forward, Alex and David brought Chris Mann, Michael Newton and Steve Karr on board. Chris brought management and financial experience, Steven had graphic design expertise, and Michael was their salesman. These five composed the founding seed group. Together they traveled in an RV, which they had decorated with a rainforest mural, while serving mate to any customers they could generate. Between 1996 and 2007, they turned a small struggling mate company into an award winning, rapidly growing consumer foods company.²⁰ Throughout this time, they have demonstrated how hybrid organizations can be socially and environmentally driven while at the same time increasingly profitable.

Where they source their mate
Guayakí sources all of its mate from the Atlantic Rainforest. In the beginning all was sourced from families that lived and worked in the Guayakí Rainforest Preserve in eastern Paraguay. Established by Alex’s extended family in 1996, this reserve was where Guayakí’s first yerba mate grew. After learning how to grow mate under the forest canopy, in its native and lush environment, Alex trained the local people how to clear the right plants and maintain the forest in a sustainable manner. However, today only 10% of their yerba mate comes from thirty four families (approximately 200 individuals) that live and work in the Guayakí Rainforest and 90% comes from reforestation projects in Argentina and Brazil. In Argentina, Guayakí works with small family farmers and in Brazil they work with a family farm and two cooperatives.

Mate Sourcing Prices
In the early 1990s, Argentina attempted to stimulate economic activity by subsidizing mate. Supply became larger than demand and the market price of mate fell. Finding it difficult to survive on such low margins, mate-producing families began to convert their mate farms to cattle ranches or to monoculture crops. On behalf of Guayakí, Alex started meeting with farmers and offered to pay them two to three times market price if they continued to grow mate. (This continues today. The market price is approximately $0.75 per kilogram and Guayakí pays $1.80 - $3.00 per kilogram.) In addition, with bank financing and credit cards, Guayakí provided no-interest loans to help farmers begin pre-harvest operations. Although Guayaki paid these farmers for all of their crops, they would not use their mate until it met Guayakí quality standards. By showing local farmers how to create a higher quality sustainable product and by giving them an economic motivation to do so Guayaki has created personal and long lasting relationships with their supply chain.

Using the Guayakí name – The Paraguay Project
The name Guayakí honors the Aché Guayakí people. The indigenous Ache people are the last hunters and gatherers that remain in the Atlantic Forest. Via the company’s Paraguay Project, Guayakí is working with the Ache people to grow mate and preserve their rainforest home. To do so, Guayakí started a 20-year plan with the Ache people in 2002 to grow mate. Guayakí trained a few Ache people to lead the project as managers and donated seeds for them to get started. They have been paying the Ache a nominal fee of about $5,000 per year up until the mate is ready for harvest. When Guayakí reaches sales of $10 million (which they project in 2008) they will pay 0.05% of revenues to the Ache people every year for use of the Guayakí name, as well as purchase all of the yerba mate they grow at two times the market rate.

Goals and Objectives
Guayakí strives towards market driven restoration – restoring the forests of South America, while at the same time providing a living wage to the indigenous people and bringing a healthy, organic energy drink to North America.

According to Richard Bruehl, Guayakí’s Vice President of Operations:

“Currently Guayakí holds 60% of the [US] market and we don’t see that lasting forever. Today the yerba mate market is a $15 million market and we hope it grows to a multi-billion dollar market where we hold 10%.” (Bruehl 2008).

Reaching that goal will take more restorative work and an increased infusion of mate into the North American culture.

Product Information
Guayakí sells organic, fair trade yerba mate in mate tea bags (seven currently available varieties include Traditional, Pure Empower Mint, Chai Spice, Mate Chocolatte, Greener Green Team, Pure Endurance, and Pure Heart), loose mate, mate latte concentrates, mate gourds and bombillas, and bottled iced mate drinks. Its best selling products are its 25 count traditional tea bags and its eight-ounce loose bag. In addition, Guayakí Yerba Mate is used in the energy drinks Steaz and Sambazon Amazon Energy. Overall, Guayaki has about 20 SKUs (a few more include duplicate labels for products sold in Canada). Bottled drinks account for 45% of their overall sales, while dry products compose 50% and accessories the remaining 5%.

Guayakí has a warehouse at their company headquarters in Sebastopol, CA, where they store most of their dried product and pack mate for the Canadian market.
Outside co-packers pack the dried mate for the U.S. market while bottlers on the East and West Coast bottle the Guayakí cold beverage.

Currently Guayakí is the yerba mate market leader in North America, holding 60% of the yerba mate market. Their products can be purchased at thousands of natural food stores, cafes and supermarkets throughout North America.

**BUSINESS STRATEGY AND MODEL**

**Guayakí Market**

While Guayakí sources its mate from South America, it primarily sells it to the North American market – the United States and Canada. International orders are accepted but compose only 1% of Guayakí overall sales.

Within North America, Guayakí’s target market is comprised of coffee, tea and energy drink consumers. Specifically, Guayakí targets its product to two subsets of energy drink consumers: 1) the health conscious consumer (90%), and 2) the environmental and culturally conscious consumer (10%).

**The Health Conscious Consumer**

Much of the Guayakí marketing material emphasizes the energy, health, and weight loss benefits of mate. Among the health benefits listed on the website are induced mental clarity, sustained energy levels, weight control support, and bad breath reduction (Guayakí, 2008). Chris estimates that up to 90% of its customers purchase mate for these health reasons. In Southern California where many residents are health conscious, the cold bottled Guayakí drinks are the top selling bottled tea-like beverages in natural food stores. Many of the consumers in this category may not be aware or may not even care about the social and environmental benefits that come with their purchase. If they do, the company perceives that it is a nice bonus, but is not seen as the primary reason for their purchase.

**Environmental and Culturally Conscious Consumer**

A smaller percentage of their target consumers buy Guayakí primarily for the positive social and environmental impacts. Chris estimates that 10% of consumers are compelled to purchase Guayakí because of the important mission, in addition to the other benefits that come with the product.
While the ultimate goal of Guayakí is a triple bottom line effect, another high priority is to expand this native drink in North America. Richard Bruehl, VP of Operations, says they have been very deliberate in their marketing efforts. When talking with consumers, they must know what aspect of the product to pitch. The fact that they have many different angles from which to do so makes them more competitive. Guayakí can talk about many aspects of their product: they are organic, fair trade, environmentally beneficial, and have a product that is a healthy stimulant. This combination of benefits creates a unique advantage that is helping them gain market share in a well-established beverage industry.

**Distribution Channels**

Guayakí sells its product through three different distribution channels: 1) Direct distributors, 2) Direct to wholesaler and Partnerships, and 3) Direct to consumer.

**Direct Distributors**
Direct distributors make up approximately 80% of Guayakí’s sales. Through large national distributors such as United National Foods, a U.S. distributor certified to handle organic products, Guayakí products are delivered to thousands of natural food and chain grocery stores across the country such as Whole Foods, Wild Oats, Krogers, Safeway, and Vons. In addition, Guayakí also uses smaller distributors for direct store distribution (DSD), i.e., to deliver, stock, and display Guayakí products in grocery stores. These latter micro-distributors typically focus on Guayakí’s bottled products.

**Direct to Wholesaler and Partnerships**
Sales direct to wholesaler and partnerships comprise 10% of Guayakí’s total sales. Wholesalers include coffee shops, cafes and bookstores. Guayakí partnered with Tully’s Coffee Corporation in January 2007. In this exclusive partnership, Tully’s features Guayakí’s yerba mate in a series of beverages including brewed yerba mate tea, yerba mate lattes, mochas, shakes and smoothies. Tully’s was the first major specialty coffee company to carry the entire line of Guayakí products. Additionally, Guayakí has also partnered with Steaz Organic Energy and Samabazon Amazon Energy drinks by providing yerba mate as one of drink’s main ingredients.

**Direct to Consumer**
Guayakí makes 10% of its sales from direct to consumer orders. Of these orders, 70% come from the internet and 30% come by phone. Growth has been steady over the past few years.

In addition to web and phone orders, Guayakí recently opened a Mate Bar in the same building as their Sebastopol, California headquarters. The idea came from customers who have emailed suggestions. Guayakí management believes that the bar will generate enough money to break even. If it proves successful, there could be Mate Bars opening up around the country.
Business Model

Figure 22: Guayakí’s Market Driven Reforestation Model

As mentioned earlier, Guayakí’s innovative business model sets it apart from other beverage companies. While other companies may promote fair trade or organic practices, Guayakí is able to market that its product provides social, environmental, and health benefits.

Guayakí has pioneered a unique model called Market Driven Restoration. This model uses market forces to connect North American consumers with indigenous South American communities engaged in reforestation and sustainable agriculture in the rainforests of Argentina, Brazil and Paraguay. The specific aspects of this triple bottom-line approach are outlined below.

Environmental Stewardship
By teaching sustainable agricultural practices to indigenous South American farmers, Guayakí is contributing to the reforestation of the Atlantic Forest. This not only promotes carbon sequestration but also converts carbon dioxide to life-sustaining oxygen. In addition, forests contribute to a host of incalculable natural benefits and ecosystem services, including clean air, clean water, food provision, medicine sourcing, and building materials. By insisting upon having the best quality mate that is rainforest grown, Guayakí is providing economic reasons for reforesting the Atlantic Forest and is showing the local citizens that the forest is much more valuable standing than it is cut down.

Social Justice
By creating a premium market for rainforest grown yerba mate and paying above-market rates for the product, Guayakí is supporting local cultures while providing a living wage. Unlike other companies, Guayakí does not simply broker its product; the Latin American Team works with the local community to identify and respond to their needs. Because of these close relationships, the farmers put extra effort into the product and give Guayakí the best quality mate. It is a mutually beneficial relationship.21

Economic Viability
Guayakí exemplifies a company can be profitable and adhere to a triple bottom line model approach. Guayakí internalizes the additional costs of fair trade and organic certification into their business model and allows customers who value these ideals to make a statement with their purchasing power. In addition, their business model demands a premium product, and accordingly, a premium pricing strategy. As their

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21 Chris says they calculate a living wage as follows: We calculate it using a local basket of goods and audit. We also ensure that social security and health care are provided.
marketing tactics continue to tap into the growing market created by North American consumers’ desires to improve their health and well-being, Guayakí has been able to capture customers unaware of their entire three-pronged model. As consumers pay a premium for quality, they participate in driving social and environmental change.

**Competition**

Guayakí’s main competitor is Eco Teas, an Oregon-based company that specializes in yerba mate. Eco Teas holds 30% of the total mate market. Their one-pound bulk bag of loose mate is their number one selling product, as it is for Guayakí, but is listed at half of Guayakí’s price. While Eco Teas’ mate is organic, it is not rainforest grown. In Guayakí’s opinion, it does not offer the same quality. Like Guayakí, however, Eco Teas works with family farms in Argentina to supply the mate. Their operation is much smaller.

Other competitors in the organic, natural product space include Republic of Tea, Choice Teas and Yogi. Larger, more mainstream competitors include those that make high fructose corn syrup drinks, and their products include soft drinks, juices, and energy drinks. For example, Snapple and Sobe provide competition for Guayakí’s cold bottled yerba mate beverage. In the organic and natural food space, Guayakí competes by marketing the fact that the product is a fair trade product and is organically grown in the rainforest. In the mainstream market, the health and stimulant benefits of mate are the larger focus.

As the company continues to grow and as more competitors start to enter the mate market, Guayakí’s business model will, undoubtedly, be tested. Chris postulates that most entering competitors will come with organic, sun-grown mate. It won’t be rainforest grown. Because mate does not grow anywhere else in the world except in South America and needs specific conditions to grow, Guayakí may have a competitive advantage over new entrants, if consumers truly care about and can differentiate the rainforest grown quality their brand offers. The relationships formed with so many local farmers and the premium brand that it has created gives Guayakí an edge that will be hard to imitate.

**Headquarters Relocation**

For nine years Guayakí was headquartered in the city where it all began, San Luis Obispo (SLO), in the central coast of California. However, market saturation and a limited labor pool (Chris cites difficulty in recruiting executive level management to SLO) made them rethink their headquarters’ location. Thus, the company decided to move to Sebastopol, California, in the northern part of the Bay Area. This is a region that has yet to reach mate saturation and enables more convenient air travel.

There were tradeoffs to this decision. Northern California is slightly more expensive than SLO so the cost of living for their employees has increased. However, approximately two-thirds of their SLO employees made the move. While the Guayakí
executive team earns below-market salary rates for the area, they felt the move was important to the health and longevity of the business. As one of the biggest businesses in Sebastopol, Guayakí is already making a positive impact on the local community.

FINANCE

Sales and Revenue

In 2007, Guayakí’s revenues reached approximately $7.3 million and while they were operationally profitable, they posted a modest loss when including interest, taxes, depreciation and amortization. This loss is largely due to new placement costs and the launch of their ready to drink bottled beverages. Sales are currently up 50% over last year’s numbers and they are on target to reach a breakeven in 2008 on sales of $11.8 million. In 2007 Guayakí hired six employees, mostly as sales representatives, to help with their growth, but are hoping to stop hiring as they have begun to reach a critical mass in operations. While they have been profitable at various times in the organization’s history, the past four years of operation has resulted in losses as they have been heavily investing in growth. They estimate to become profitable in 2008 with their current level of staffing and past year investments.

Ownership Structure

Guayakí began their business with eight shareholders. Alex Pryor, David Karr, Chris Mann, Michael Newton and Steve Karr make up the five founding seed members and initially held a 95% stake in the company. The other three shareholders, their attorney and two friends, held the remaining 5%. Guayakí’s primary source of early stage financing was through Small Business Administration (SBA) loans from a local San Luis Obispo bank and through leveraged credit cards with low interest “teaser” rates (usually below 5%), which required constant balance transfers.

In 2001, after a few years of hard work and grassroots efforts to spread the Guayakí brand name, they were able to raise capital from outside investors. These included members of the Social Venture Network and local San Luis Obispo investors. These investors were all like-minded individuals who focused on using the power of business to create positive social and environmental impacts.

The first round of investments in 2001-2002 included approximately $100,000 from friends and family, and $350,000 from socially progressive venture capital funds. These funds were created by Ben and Jerry’s, and include the Barred Rock Fund, which is led by Chuck Lacy (a Guayakí board member), and Hot Fudge Ventures.

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22 In 1997 Guayakí received a $50K SBA, in 1998 they were given another $100K and in 2000 another $205K. They also utilized $100K in credit cards between Chris, David and Steven.
which was formerly run by Pierre Ferrari, Guayaki’s VP of Marketing and Sales.\textsuperscript{23} Pierre says patient equity from such investors has allowed Guayaki to present the return on investment as a composite of financial, environmental, and social values. As of February 2008, the company has between 30 and 40 different investors with the seed group of five owning approximately 60% of the firm and other employees owning approximately 20%.

**Venture Capital Interest and Financing Growth**

Management has considered selling Guayaki to external investors after having been approached several times. However, they are not selling, nor selling out, anytime soon. According to Chris:

“It would be easy to sell Guayaki, but VCs [Venture Capitalists] want control. It would be difficult to maintain our mission if we only have 30% or 40% control. The beverage category is a lottery culture. We are competing in the market of Vitamin Water(s) [Vitamin Water sold to Coca Cola for $4 billion]. Vitamin Water was not profitable at $80 million in sales, but kept raising capital. We could do the same thing, but realistically we can’t grow that fast. If we wanted to grow from $8 million to $30 million in sales we would need $20 million in inventory and this is a constraint” (Mann, 2008).

From an operational perspective it is impossible for Guayaki to scale up the production of mate in a short amount of time, even if they wanted to grow their mission and double production. The key constraints include:

1) Amount of lead time required to grow certified organic mate; and

2) Time it takes to build relationships with local farmers and teach them the sustainable practices of growing mate for purposes of restoring the Atlantic Forest. Only a century ago, most of the Atlantic Forest was intact. Today, less than 5% of this forest is left (see Figure 23).

\textsuperscript{23} Other board members include John O'Shaughnessy, General Manager of Blue Diamond Growers.
Chris estimated that it would take at least 18 months to scale up in terms of quantity of mate needed, and noted that such growth would be difficult to enact while maintaining the high product quality.

For now, Guayaki hopes for steady growth of mate demand within North America. They will continue to finance this growth through traditional market rate debt and patient equity investments, as well as re-investment of their operating profits.
ORGANIZATION

Leadership

Chris Mann, CEO of Guayakí, was one of the five original seed members. His journey to Guayakí has been an unconventional one. After growing up in Southern California, Chris attended Harvard University where he played football and earned an economics degree in 1991. He worked at Bank of New York for a few years after graduation and then relocated to Monterey, California to head up the bank's mortgage branch. Although learning a lot while working at the bank, he soon became dissatisfied with the motivations of modern corporations, thus prompting him to quit his job and join a high school friend and now VP of Operations at Guayakí, Richard Bruehl, in starting a vegetarian restaurant in San Luis Obispo. From there, Chris met Alex and David, and subsequently joined Guayakí as the company’s CEO. Chris was appointed CEO because of his finance and prior business background and because he had the interest.

As was described in the introduction, Chris is not a typical CEO. His unassuming and humble demeanor matches his leadership style, which his fellow management describe as “servant, leading by serving others, rather than others serving the leader,” emphasizing collaboration and trust.

Chris described the organization as operating with consensus-based leadership. Nothing in Guayaki is done without full consideration given to the environmental and social goals of the organization.

Recent additions to Guayakí include Patrick Lee, a former Balance Bar senior vice president, who joined in 2005, and Pierre Ferrari, a former senior vice president for Coca-Cola USA, who joined the team in 2007. Their roles are Global Cebador and VP of Sales and Marketing, respectively. These veteran industry leaders have been brought in to help manage Guayaki’s growth.

Structure

Guayakí is organized by functional departments. 34 employees are divided into six departments: the executive team, sales, marketing, North American operations, the Latin American department, and finance. While the organization chart (see Figure 24 and Figure 25) denotes hierarchy, management describes the operating structure to be highly collaborative and democratic.

The glue that holds the organization together is the Latin American Team, which is composed of five people. Alex leads the Latin American team, which is based in Buenos Aires. This team maintains the personal relationships with farmers in

24 Chris Mann’s business card actually says “Chairman of the Gourd”.
25 From Guayaki Hybrid Organizations Survey Response.
Argentina, Brazil, and Paraguay in order to ensure that high quality raw materials are produced for the company. They utilize six to eight different projects to yield a couple hundred tons of yerba mate. Maintaining these relationships and having a geographically local Latin American team is a key component to their competitive success.

Pierre Ferrari, Guayaki’s Vice President of Sales and Marketing, suggests that their organizational structure helps the company meet its environmental sustainability goals. “All of our decisions,” he notes, “are mission centered, which explicitly includes social and environmental stewardship of our whole supply chain” (Ferrari, 2008).

**Figure 24: Guayaki Executive Team Chart**
Culture and Mission

Guayakí’s mission statement is as follows:

“Guayakí works directly with growers to deliver unique and beneficial products that enhance personal health and well-being. Our goal is to create economic models that drive reforestation while employing a living wage” (Guayakí, 2008).

Their mission is completely embedded within the company culture. As Chris explains, “the culture of mate is to celebrate the human spirit. We had this mission before we had the sales, [thus] the spirit is infused within our company culture,” (Mann, 2008). To give an example, Chris spoke about their company’s meeting style. Every month employees convene in a large meeting space where they sit on the floor with pillows and pass around gourds of mate, following the traditional ceremonial style. Teammates are encouraged to spend the first part of the meeting sharing personal as well as work issues. “Sharing out of the same vessel breaks
down barriers and is a real unifier for the employees,” explains Chris. “It keeps everyone connected” (Mann, 2008).

In addition to these types of non-traditional meeting styles, Guayakí also offers some standard corporate benefits such as flexible work time and 401k options for all U.S. employees. However, because of limited profitability, only 84% of their employees are paid at or above a living wage salary for the area. Guayakí is unable to pay full market salary wages to its executive team members. In addition, they provide insurance for each employee but cannot offer it to all employee spouses or family members.

While Guayakí cannot provide all of the typical benefits of a large corporation, the culture helps to maintain loyal employees. In 2007 WorldBlue recognized Guayakí for dedication to democracy in the workplace. Employees completed a survey evaluating their company’s democratic principles such as decentralization, accountability, and choice and integrity on a leadership level. Guayakí was one of 35 companies to receive the honor. To be a part of something that is greater than themselves is important to the Guayakí employees.

**PROCESSES AND METRICS**

Guayakí has many processes for ensuring the quality and sustainability of its products. It tracks environmental and social impacts upstream, i.e. from its suppliers, downstream, i.e., for its end-customers, and internally through its own operations.

**Upstream**

From an upstream operations perspective, Guayakí tracks the sustainability of its products from a social, environmental, and quality aspect. Socially, Guayakí is helping to support families across Argentina, Brazil and Paraguay maintain decent livelihoods.

From an environmental perspective, Guayakí is helping to reforest the Atlantic Forest and maintain the rainforest’s biodiversity. According to Guayakí’s website:

“The Atlantic Rainforest Preserve (also known as the Mata Atlantica) is one of the top five biodiversity “hot spots” in the world. The 20,000 acre preserve is home to more than 330 bird and mammal species. In addition, it has been named one of the best examples of medium-scale sustainable agriculture in South America” (Guayakí, 2008).

From a quality aspect Guayakí goes beyond standard food regulations to ensure that their mate is of extremely high quality. Quality control specialists in South America and the U.S. test products to a comprehensive list of specifications. They have created their own checklist of guidelines which covers the supply chain from
water source and soil to finished product. Richard remarks, “We want to be known as the greatest mate in the world. To get that gold standard we have to stay ahead of the curve” (Bruehl, 2008).

Downstream

For the end consumers, Guayakí tracks both health and environmental impacts. As noted in earlier sections, the leaves of yerba mate contain 24 vitamins and minerals, 15 amino acids, abundant antioxidants, and naturally occurring caffeine. For its end consumers it is touted as a healthy stimulant with a plethora of benefits, including clarity of mind, vitality, sustained energy, and well-being. In addition to positive health impacts, Guayakí has quantified a consumer’s environmental impacts of drinking Guayakí by suggesting that “With two servings per day, a consumer helps protect approximately one acre of rainforest every year” (Guayakí, 2008).

Internal Operations

Internally, Guayakí is very dedicated to tracking its sustainability metrics. They know their ecological footprint by product line – bottles and tea bags. Two examples of their dedication are their energy use and packaging.

Guayakí conducted an energy usage inventory and found that they were responsible for generating an estimated 28.5 tons of carbon dioxide annually. To offset their carbon emissions, they purchase solar power renewable energy credits from the Solar Living Institute in Hopland, California.

They have also conducted a life cycle analysis to demonstrate the net carbon dioxide emissions, subtracting sequestration, which result from their sustainable business practices. This analysis has shown that Guayakí’s activities in South America offset over 100 tons of carbon dioxide. Thus, purchasing offsets is not needed and is instead built into their business model.

In addition, all of the boxes used for their tea bags are printed on 100% recycled paper with at least 55% verified post-consumer waste. In addition, all of their tea bags are biodegradable. The packaging they use for their bulk bag is plastic, but they are looking to replace this with a biobag to be shipped to customers starting in August 2008.

Upcoming Sustainability Report and B Corporation Status

Guayakí is making further efforts to be true to their triple bottom line mission. In 2007 they hired an independent third party organization called Conscious Brands to collect data and write the organization’s first ever sustainability report. A draft is estimated to be ready in May 2008.
In addition, Guayaki is an official founding B Corporation. B Corporations are companies that meet exacting standards for environmental and social performance. A non-profit organization called B Lab founded the B Corporation concept and certification process. According to the website:

“The mission of B Lab is to support B Corporations and this emerging sector by 1) certifying and rating B Corporations through the B Ratings System; 2) developing and disseminating a legal framework to institutionalize stakeholder interests within existing corporate law; 3) recruiting and promoting B Corporations; and 4) helping B Corporations access purpose-driven capital markets” (B Lab, 2008).

To qualify for B Corporation status companies must complete a survey of questions related to environmental and social performance. Those that score 80 points out of 200 are usually included. In 2007 Guayaki scored 110 out of 200 in the survey and were given B Corporation status.

INNOVATION

Raw Materials Pricing/Sourcing Based on Market-Driven Restoration Model

Guayaki is most proud of its innovative triple bottom line business model, designed to bring mate to North America while simultaneously creating economic demand that supports reforestation and provides a living wage. The business model is as sustainable as the yerba mate tree itself. As long as demand for the product stays constant or increases in North America, local growers will be paid a premium to practice sustainable agriculture and contribute to the reforestation of their environment. Guayaki’s business model shows that profitable business can result from an environmental and social mission. Such innovative thinking can be an inspiration to all business leaders seeking to create positive social and environmental impact.

Infusing Mate into the North American Culture

Guayaki has been able to adapt a traditional bitter tasting drink to the modern needs of the Western world. Appealing to the health-conscious habits of Americans has enabled Guayaki to compete with the coffee and tea industry. In the process they have formed a new beverage category for yerba mate as a healthy stimulant beverage. In addition, the creation of various mate flavors and their innovative extract (e.g. the greener green tea, mate chocolatte and mate lattes), as well as their expansion into cold bottle beverages, have collectively allowed Guayaki to reach an even larger market. While Guayaki’s social and environmental missions are written all over its product packaging and marketing materials, the high quality of the product has driven its success. Guayaki has brought a staple Argentine product to North America and is converting it to satisfy multiple needs.
High Technology Eco-Package Design

Guayakí pays close attention to detail in all aspects of its product and pushes environmental innovation. Their tea bags utilize “flow-through” technology to maximize brewing yield, flavor, and potency of the product. In addition, these bags are made from eco-friendly filter paper, which is itself made of biodegradable unbleached hemp and wood pulp. The tea box utilizes all panel space to communicate Guayaki’s mission, along with the health and nutritional values of the product. The box is also made of 100% recycled paper with at least 55% verified post-consumer waste.

Potential Sale of Carbon Credits

Guayakí is always generating new ideas. Currently, they are investigating the possibility of selling their own carbon credits. Because their business model generates forest re-growth and forests sequester carbon, there is the possibility that Guayaki produces a net environmental benefit when it comes to its carbon footprint. If offsets are built into the model, Guayaki could potentially sell excess carbon through their website and use the funds to create new reforestation projects.

CHALLENGES FOR THE FUTURE

Defining a Living Wage

Guayaki’s mission is to provide a living wage to the local farmers of South America who supply their product. However, Guayaki is unable to provide a living wage to all of its Sebastopol employees. Only 84% make at or above market salary rates. This is $16 per hour for Sebastopol, California. Executive employees earn below market salary rates, which poses a challenge when they are living in a high cost area such as Northern California. Furthermore, while individual health insurance is provided for all, not every employee receives spouse or family health care coverage. If Guayaki wishes to keep its employees happy, it will need to find a way to meet their living wages. There is a clear tension between meeting the social needs of the South American farmers and meeting the needs of their corporate employees.

Managing Growth Rate and Balancing Market and Mission

In February 2008, Guayakí sales were up 50% from the year before. While growth is good for the company, managing this growth is crucial. Creating relationships with the South American growers and teaching them the practices of sustainable agriculture takes time. Trying to grow too fast can jeopardize the quality of their product and the mission. Thus, Guayakí will have to take care when balancing market demand and mission objectives.
Culture Change

In 2007 Guayakí hired six new people, mostly in sales. While some of these hires were to make up for those employees that did not relocate with them to Sebastopol, some were hired to help manage growth. With growth comes the potential for culture change. Guayakí has a unique and tightly knit culture. This culture is vulnerable to dilution or collapse should Guayakí have a tremendous growth spurt. For example, how would they be able to maintain their unique meeting style if the organization was to double in size? It would be close to impossible. While doubling in size is not something that will happen anytime soon, Guayakí must be prepared for how they will manage culture should significant growth occur.

Changing Consumer Habits

Guayakí has found that it is extremely difficult to change peoples’ habits. In fact, it can take generations to do so. Bringing mate into a market that is dominated by coffee has been challenging. Getting people to try mate is the first step. Once they do, people frequently comment on how amazing mate is, and sometimes explain how it has changed their lives. The trick is to keep such customers coming back. Guayakí has learned that persistence and patience is key. While it can take generations to change a habit and perhaps longer to change economics, change is possible.

Educating Consumers to Combat Competition

Guayakí’s promotional materials state that its products are organic, rainforest-grown and fairly traded. For the average consumer how do these practices measure up against another mate company whose product may be only organic? Will Guayakí’s sustainable practices have negative financial consequences, as other competitors using sun grown mate provide products that are more affordable for the average consumer? Educating consumers to understand and care about the difference will be key for Guayakí to combat its competition.
CASE STUDY: Eden Foods - Lasting Leadership and the Risks of Succession

INTRODUCTION

Succession planning can be difficult for any enterprise, especially with a strong, charismatic leader at the helm for many years. This is especially true for hybrid organizations where the mission and goals often contain different aspects than traditional enterprises. How an organization plans for a change in leadership is key to its continued success. With Eden Foods, Inc., of Clinton, MI, the problem of succession planning is at the forefront.

Eden Foods, Inc. is the oldest natural foods company in North America. It lives by the credo, "Still doing what we set out to do," put forth by its founder and current president Michael Potter (Eden Foods, Inc., 2008). While all Eden Foods employees believe in the company's mission to provide the highest quality organic foods for the benefit of their customers, Michael's passion and consistency of message have contributed to the success of the company. The ideas and values Michael originally set forth still permeate everything Eden Foods does. Should Michael step down or leave unexpectedly, the culture and mission of Eden Foods constitutes the true succession planning. By keeping the mission and goals of the organization simple and consistent, Eden Foods plans to continue as a successful hybrid organization for many years to come.

OVERVIEW AND HISTORY

Industry Overview: Natural and Organic Foods

Organic foods are the fastest growing segment of the entire food industry, and have seen double digit growth for each of the past 10 years. The much larger U.S. natural and organic foods industry totaled over $28 billion in 2005. In 2006, sales of organics alone grew 20% and reached a total of over $16 billion. Packaged goods, in which Eden Foods primarily competes, made up over $2 billion in sales in 2006. Although the market for both organic and natural foods is large and growing, the value of Eden Foods' sales at $100 million constitutes a fairly small share of a much bigger market dominated by larger corporations.
Consolidation within the natural and organic foods industry began as early as the 1970’s and 1980’s, and accelerated beginning in the early 1990’s. Figure 26 illustrates this trend. This competition has been particularly challenging for Eden Foods. Silk® Soymilk, for example, was a relatively minor player in the field of soy drinks until it was bought and distributed by Dean Foods in 2002. This cut deeply into Eden’s sales of soy products. The dominant position, large distribution networks, and deeper pockets of larger companies such as Dean Foods, Kraft Foods, Inc., and H.J. Heinz, will continue to be a challenge for smaller independent manufacturers like Eden Foods.

Figure 26: Organic Industry Acquisitions (Howard, 2007)

Background Information

Eden Foods traces its beginnings back to 1968 when a small group of people motivated by the macrobiotic phenomena attempted to find whole grain vegetarian foods produced without chemicals. This group started a co-op to purchase these products, which were unavailable in local grocery stores. The co-op evolved into a natural foods store and deli in Ann Arbor, MI, known as the Eden Deli. As the customer base grew and began to ask for more products, the co-op evolved into a distributor of these types of foods in order to meet customers’ needs. At about the

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26 A brief history of macrobiotics can be found online at through the Macrobiotic Guide website at http://macrobiotics.co.uk/history.htm.
same time, they changed the name to Eden Foods, Inc., and began a longstanding relationship with artisan Japanese food makers to import their products into the United States. The company began offering 100% certified organic grains, and then diversified into pasta, soy milk, and eventually into canned beans.

Today, Eden Foods functions as a primary supplier/manufacturer, carrying over 380 Stock Keeping Units (SKUs) including the Japanese foods, pasta, canned goods, snack foods, teas, and extracts. In 1980, Eden Foods closed their deli and store and moved 20 miles from Ann Arbor, MI to Clinton, MI, where all products are currently supplied primarily through customer pickup and a small fleet of six trucks. Eden also owns a warehouse and sales operation in San Francisco, CA. Currently, Eden Foods obtains many of its products from 325 local family farms and 60,000 acres of organic farm land (Eden Foods, Inc., 2007).

**Goals and Objectives**

While the emphasis has changed over the years, Eden Foods’ goals and objectives have stayed consistent throughout its 40-year history. Through its move to Clinton and its expansion to California, Eden Foods has stuck to its mission of supplying the highest quality natural foods to its customers. As shown in Figure 27, Eden Foods pays particular attention to environmental, social, and economic factors through its products as well as its employees and suppliers. These goals permeate almost every decision made by Eden Foods. All of the employees, from the top management to the line workers, buy into these goals and the overall mission of Eden Foods.

**Figure 27: Eden Goals (Eden Foods, Inc., 2008)**

1. To provide the highest quality life-supporting food and to disseminate accurate information about these foods, their uses, and benefits.
2. To maintain a healthy, respectful, challenging, and rewarding environment for employees.
3. To cultivate sound relationships with other organizations and individuals who are like minded and involved in like pursuits.
4. To cultivate adaptability to change in economic, social, and environmental conditions, to allow Eden the opportunity to survive long term.
5. To have a strong, positive impact on farming practices and food processing techniques throughout the world.
6. To contribute to peaceful evolution on Earth.
Product Information

While the two largest categories of products by sales are canned beans and Edensoy® soy products, representing 29% and 23% respectively, the company currently carries a wide variety of products (see Figure 28). The majority of their products are grown and sourced from the United States. The exceptions are various products from Japan, quinoa from Ecuador, sea salt from Europe, and olive oil from Spain. The processing of the majority of the products occurs in North America. The pasta products are made in Detroit, MI, beans are canned in Eaton, IN, soy products in Saline, MI and Quebec, Canada, and some snack foods are in produced in Clinton, MI and packaged in Battle Creek, MI (see Figure 29).

Each of Eden Foods processing plants are certified and rated ‘Superior’ by the American Institute of Baking (AIB), ensuring the highest standards of production. All of the organic products are certified by the Organic Crop Improvement Association (OCIA). Eden Foods also maintains its own testing laboratory at its Clinton, headquarters to ensure the quality of the ingredients.

Eden Foods is product, not market driven. New product ideas come from within the company. When an employee conceives of a product that they want to see on the shelves, they fill out a Product Merit Form, which is taken to Michael for approval. When management approves the idea, a Feasibility Sheet is created to ensure that the product can be financially competitive. Then, a Product Development Team takes the idea to a test kitchen where samples and tasting occurs. Finally, table-top testing occurs with larger machinery and batches. During this stage, the recipe is adjusted to be suitable for large-scale production.

Figure 28: Eden Product Categories (Eden Foods, Inc 2007)

<table>
<thead>
<tr>
<th>Organic Pasta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organic Quinoa</td>
</tr>
<tr>
<td>Soba and Udon Noodles</td>
</tr>
<tr>
<td>Artesian Spring Water</td>
</tr>
<tr>
<td>Organic Edensoy®</td>
</tr>
<tr>
<td>Organic Beans</td>
</tr>
<tr>
<td>Organic Lundeberg SGB Rice and Beans</td>
</tr>
<tr>
<td>Organic Tomatoes</td>
</tr>
<tr>
<td>Organic Sauerkraut</td>
</tr>
<tr>
<td>Organic Malt Sweetener</td>
</tr>
<tr>
<td>Organic Apple and Cherry</td>
</tr>
<tr>
<td>Oil and Vinegar</td>
</tr>
<tr>
<td>Condiments</td>
</tr>
<tr>
<td>Imported Traditional Japanese Food</td>
</tr>
<tr>
<td>Soy Sauces, Mirin, and Ponzu</td>
</tr>
<tr>
<td>Organic Miso</td>
</tr>
<tr>
<td>Japanese Sea Vegetables</td>
</tr>
<tr>
<td>Imported Tea and Infusions</td>
</tr>
<tr>
<td>Snacks, Crackers, and Chips</td>
</tr>
<tr>
<td>Food Concentrates and Supplements</td>
</tr>
<tr>
<td>Tooth and Gum Care</td>
</tr>
<tr>
<td>Bulk Beans, Flour, and Grains</td>
</tr>
</tbody>
</table>

BUSINESS STRATEGY AND MODEL

Strategy

Eden Foods competes in the traditional markets for organic foods nationally and internationally, selling their products both to major chain stores and to smaller natural food outlets. As Figure 30 illustrates, Eden Foods began competing in a new market with new products. As the market matured and became established, Eden continued to offer something different in their products. Their strategy has been to provide the highest quality ingredients and supply innovative products. In this respect, they are trying to work within this market, but create a niche in which these product attributes are especially valued. Given the cost structure of their raw materials, Eden Foods cannot normally compete on price with the larger corporations in this market, so their strategy revolves around having unique, high quality products that consumers can trust. Thus, the story behind the products is particularly important, because
consumers need to understand the benefits of the quality of the products. In order to do this, according to Sue Becker, Director and Vice President of Marketing and Sales, “We need to use the package to tell our story” (Becker, 2008). The packaging of Eden’s pasta, which is color coded to illustrate the whole grain content and includes health benefits of individual products, exemplifies this goal (see Figure 31).

**Business Model**

Since its inception, Eden Foods has attempted to keep sourcing and production close to their Clinton, MI headquarters. Thus, they attempt to purchase products from nearby farms as much as possible. However, they have also learned to diversify the risk of localized crop failure by sourcing from multiple locations. Processing the majority of their products takes place in Michigan, Indiana, and Quebec, Canada. The majority of their sales occur by customer pickup, so they only need a small fleet of trucks. The company sells their products to natural food stores throughout the country, and their soy milk can be found in most of the major supermarket chains.

Quality control is a major aspect of the business model for Eden Foods. The company does not buy from farms that they have not previously visited. The company’s procurement team usually visits the farms during spring and before harvest. Eden also has its own quality control lab in their headquarters. Established in 1998, this lab does testing for shelf-life, proteins, microbiology on all nuts and fruit products, as well as GMO testing on rice and beans. Products are tested three times, once in a preliminary batch, again in a final batch, and finally as the finished product.

The company also has strong relationships with their producers. Many of the farmers come to Eden first to sell their products because of these relations. Eden Foods is also a part of a few growers’ groups, thus solidifying this relationship.

**Competition**

With the growth of the natural and organic food market, many of the larger food companies have entered the industry, making the competition has become very intense. This is particularly troubling for Eden Foods, as these larger companies...
have begun to limit the supply of raw materials, thus driving up the price. Also, such companies can charge lower prices for sometimes inferior products, making Eden Foods products seem much more expensive.

**FINANCE**

**Sales and Revenue**

With annual sales of over $35 million in 2005 and 2006, Eden Foods has relatively stable revenue. The majority of sales are in the U.S. market, but the company also sells products in Canada, Australia, South and Central America, and the Middle East. The market outlook for natural and organic foods continues to be favorable. According to the *Organic Trade Association’s 2007 Manufacturer Survey* the industry will grow by 18% for each of the years between 2007 and 2010 (Organic Trade Association, 2008). With such large and sustained growth projected for the industry, Eden Foods can expect a continued stable revenue stream.

**Liabilities and Obligations**

As shown in Figure 32, Eden Foods relies on traditional market rate debt to finance its operations. As a mature organization, the company does not see the need to rely on alternative forms of financing. The company has traditionally worked with community banks for its financing needs, but as Jay Hughes, Director of Finance, states, “We have been with one community bank for a long time and this is the third time we have outgrown them” (Hughes, 2008). Recently, Eden Foods has started to talk to larger national banks, and due to its financial strength, the company has found that financing is relatively easy. Given Eden Foods’ location in the economically depressed area of Southeast Michigan, many banks have been approaching the company with financing opportunities. The company also relies on roughly 20% of its financing through re-investment of operating profits.

**Figure 32: Funding Source**

![Source of Funding for Eden Foods, Inc.](image-url)
Eden Foods’ financing structure has been a particular advantage for the company and its environmental sustainability goals. Without having doubts about securing financing for its operation, and not being beholden to a large number of shareholders, the company can provide a market for organic farmers. Eden Foods does not carry a heavy debt burden, further enhancing its ability to successfully achieve its goals.

**ORGANIZATION**

**Leadership**

Eden Foods would not be the same without Michael’s leadership and vision. He has been running the company since he was 19-years-old and is the unconditional leader of Eden Foods, as all decisions seem to go through him. This does not mean, however, that he does not share the leadership of the company with his employees. According to Sue, “Michael's door is always open. He doesn’t always agree, but is willing to take time to look at your idea” (Becker, 2008). This concept is echoed throughout all levels of the organization. Bill Swaney, Director, Executive Vice President and General Manager, observes that “As management, we pass down responsibility with confidence that they will do it. Employees have the freedom to be creative in the way that they choose” (Swaney, 2008). This is an important aspect of the organization. While Michael is definitely the leader of the organization, he relies heavily on his top management, each of whom believes strongly in the mission of the organization.

**Mission and Culture**

Throughout the 40-year history of Eden Foods, the mission and culture of the company has remained consistent. The idea that the company's main purpose is to supply high quality wholesome food to the public exemplifies its mission. This can be seen in their product-driven focus, wherein they only examine the market forces later in product development. The mission comes directly from Michael. Many founders of natural and organic food companies have sold out to larger companies, but this is not the case with Eden Foods. As Jay states, "Michael will be here as long as he is alive and the mission will never change" (Hughes, 2008). This continuity in leadership and mission has proven to be one of the key success factors for Eden.

This does, however, represent a major risk to the organization. Without Michael, a possible leadership vacuum exists. Eden attempts to mediate this risk by assuring that the mission of the organization is clear and simple, and that all members of the organization buy into it.

**Legal Structure**

Eden Foods, Inc. is a for-profit organization incorporated in the state of Michigan as an S-Corporation, with Michael as the sole shareholder. The company formed as a
co-op, changed to a C-Corporation in 1969 and converted to an S-Corporation in 1992 through a reverse stock split. The conversion was done primarily for tax and estate planning reasons for Michael. Except for its beginning as a co-op, Eden Foods has been a for-profit organization. Its commitment to the stewardship of the land and ties to local farmers are simply part of its mission as a corporation and no thought has been given to changing from its current legal structure.

The current structure places a lot of power into Michael’s hands, and this only magnifies the risk of the organization losing its focus and mission if Michael can no longer fulfill his role. However, the company has a succession strategy in which the Board of Directors, consisting of top management, takes control of the company. As each of these members believes in the mission of the organization, the risk of Eden Foods losing its way is lessened.

Organizational Structure

Michael describes his leadership style as “participative,” where he openly shares decisions and authority with subordinates. This is reflected in the views of the rest of the organization. Despite being structured along traditional functional areas, the company maintains a flat structure with less clearly defined roles and chains of command. Ideas can come from anywhere in the company, but final authority rests with Michael. However, many employees echo the fact that his door is always open and he seems receptive to their ideas. Some employees describe the organization as very lean, with many people wearing different hats and taking on multiple roles. This is not unlike many other small and medium sized businesses, as well as nonprofit organizations. Employee satisfaction with the structure of the organization is reflected in an average of almost 17 years of employment of the top management team, and this continuity contributes to the success of Eden Foods.

PROCESSES AND METRICS

Eden Foods states that it tracks the environmental impact of its products upstream with its suppliers, through its company operations, and downstream through the product impacts. The company tracks energy consumption, chemical usage, and waste production. These factors are tracked through customized, in-house tools. This tracking is, for the most part, informal and the exact metrics used are unclear. Moreover, no formal reporting is done. Bill stated that while they would like to create a sustainability report in the future, there is no pressure to do so at this time.

The focus on sustainability is particularly intense on the supply side. According to Jon Solomon, Purchasing Department Manager:

“Eden is all about stewardship and responsibility, at least on the supply side. For example, another company focused on organics could purchase every certified organic item from China and it would be drenched in oil. Prices would
be significantly less. Eden chooses not to do that because of our responsibility to support North American agriculture and organics. Our soy beans and other beans come out of Michigan. They’re local. We have a great reputation and dedication to purchasing sustainable food” (Solomon, 2008).

Sustainability is simply a part of the decision-making process of the company. While not all levels of the organization know about or understand the exact metrics used, everyone understands the environmental impact of the products, raw materials, and operations. Sustainability is such an integral part of the mission and goals of the company that formalized tracking of environmental metrics is deemed unnecessary by the management.

**INNOVATION**

Eden Foods is proud of their innovative relationships with their suppliers. They believe these relationships are unusual for their industry, and that the quality of the products and the ability to bring new products to market are reflected in their relationships. Another innovation within the company is in product development. Being a product-driven company, Eden Foods relies on new ideas coming from all levels of the organization.

**Working Closely with Suppliers**

The most innovative aspect of Eden Foods, according to Michael, is the personal relationships the company maintains with all of the supplier farmers and their families. The company has numerous stories about how these relationships have led to highly profitable new products. The idea to can organic beans started from an excess of products from the farmers, leading Eden to look into a way of preserving the beans and ensuring that the farmers continue to sell the beans for an organic premium. This close relationship with growers has proven to be a competitive advantage for Eden Foods. The story behind their products also assists in their marketing and connection with the consumers.

**Product Development**

“Innovation comes from all parts of the organization because of our culture.” – Bill Swaney, Director, Executive Vice President and General Manager (Swaney, 2008).

Anyone within the company can suggest new products. The product-driven nature of Eden Foods ensures that these suggestions can often turn into innovative new products. While the vetting of new products can be as rigorous in Eden Foods as any other organization, the proliferation of new ideas from throughout the organization can be a competitive advantage.
CHALLENGES FOR THE FUTURE

Market Risk

Two of the main market risks to Eden Foods are the consolidation of the natural and organic food industry and the cost increases on all raw materials.

Consolidation of Natural and Organic Food Industry: Few independent producers of natural and organic foods remain. Many of these companies have been bought by private equity firms and larger corporations. This consolidation gives the larger companies an advantage in distributing and marketing their products, especially accounting for the tandem consolidation of the natural foods retail channels. While Eden Foods has a devoted client base, its cost and lack of widespread product distribution could hamper its growth prospects for the future.

Raw Material Cost Increases: Across the board, raw material prices have shown unprecedented increases over the past few years. Increases in packaging costs, agricultural product costs, and energy prices have hurt Eden Foods, particularly given the company’s emphasis on quality. Other companies can attempt to source cheaper materials, but Eden Foods’ relationship with its suppliers and uncompromising attitude about sourcing quality products represent a significant risk for the future.

Organizational Risk

The greatest organizational risk for Eden Foods relates to the succession of leadership when Michael leaves the company. The loss of Michael would leave an incredible void in the company, one which could possibly lead to the end of the Eden Foods as it is now known. While the mission of the company can be counted on as a great strength, this mission is represented in the persona of Michael. While a succession plan is in place for Eden Foods, his loss could shake the foundation of the company. The employees of the organization have a strong belief in the mission and goals set forth, and Michael has attempted to keep the mission and goals simple and consistent. However, this continues to represents the greatest risk to the organization.
CASE STUDY: Maggie’s Organics - Connecting Producers and Consumers to the Cause

INTRODUCTION

Maggie’s Organics, headquartered in Ypsilanti, MI, is the oldest organic apparel company in the United States. Holding itself to the highest standards of social and environmental responsibility, it is dedicated to changing the way business is done in the apparel industry. The company was founded with the goal of saving land from the devastation of conventional cotton growing, and as a first-mover, it played an important role in the development of the U.S. organic cotton apparel industry. One of Maggie’s core values is that “there is no environmental sustainability without social responsibility” (Maggie’s Organics, 2008a). Thus all products are made by workers in the U.S. and Latin America who have a safe working environment, fair wages, and an active voice in their future. The most celebrated example of this commitment is the 100% worker-owned cooperative in Nueva Vida, Nicaragua, with whom Maggie’s has worked closely since 1999.

Table 12. Maggie’s Organics Overview

<table>
<thead>
<tr>
<th>Year Founded:</th>
<th>1992</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Revenue:</td>
<td>Not available</td>
</tr>
<tr>
<td>No. of Employees:</td>
<td>14</td>
</tr>
<tr>
<td>Headquarters:</td>
<td>Ypsilanti, MI, USA</td>
</tr>
<tr>
<td>Environmental Focus:</td>
<td>Sustainable agriculture</td>
</tr>
<tr>
<td>Profitability Level:</td>
<td>Consistently profitable since 2004</td>
</tr>
<tr>
<td>Mission:</td>
<td>To produce and provide comfortable, durable, affordable and beautiful articles of apparel and accessories made from materials that restore, sustain and enhance the resources, including human, from which they are made.</td>
</tr>
</tbody>
</table>

Having worked for organic food companies for several decades before founding Maggie’s in 1992, Bená Burda, Founder and President of Maggie’s Organics, is a pioneer of the organics industry. Her perspective on the mission-driven values of her company, she explains, is unique. “I am not a fair trade person, and I’m not socially responsible. This is simply the way we choose to do business and we wouldn’t do it any other way” (Burda, 2008). The passion and dedication that she infuses into her business has resulted in deep, personal relationships with all of the producers and many of Maggie’s customers. Bená and her team work hard to communicate the benefits of organic cotton to their producers and consumers alike. She believes that this connection to the company’s mission contributes to the development of loyal and trusting relationships, which are the cornerstone of Maggie’s financial, environmental, and social successes.
OVERVIEW AND HISTORY

Industry Overview: Organic Cotton Apparel

The organic cotton apparel industry began in the U.S. in the early 1990s. Fueled by the eco-fashion trend of the early 1990s and demands from apparel companies such as Esprit to Levi's, who introduced "eco" clothing lines, organic cotton farm acreage in the U.S. grew from 100 acres in 1989 to 25,000 in 1995. But there were a variety of problems associated with this expansion in production. First, organic cotton items were more expensive, and customers weren't willing to pay a premium for them. Second, companies had trouble telling the organic cotton "story" without discounting their conventional cotton items. In addition, the supply of organic cotton was volatile because the industry itself was so new. Moreover, the fashion industry went through a "retro" phase in the mid-90s, which brought synthetics back into favor and caused the "eco" clothes trend to flounder. For all of these reasons, the bottom fell out of the organic apparel market, many companies went out of business or stopped offering organic cotton lines, and by 1996, organic cotton farming dropped to 10,000 acres.

However, 1996 also marked the year that Patagonia made the decision to use only 100% organic cotton in its cotton clothing. This fueled the renewed growth of the organic cotton apparel industry. Within a few years Patagonia's efforts helped to significantly raise consumer awareness about the environmental and social value of organic cotton in the U.S. The industry saw tremendous growth from 2000 to 2008, in part due to long-term commitments by brands and retailers to use organic cotton, and in part because of overall consumer lifestyle changes towards sustainability. As Figure 33 shows, the estimated global retail sales of organic cotton products increased from $245 million in 2001 to $583 million in 2005, reflecting an annual average growth rate of 35%. By the end of 2008, sales are expected to reach close to $2 billion (Organic Exchange, 2006).

Figure 33: Estimated Global Retail Sales, Organic Cotton Products (Organic Exchange, 2006)\(^{28}\)

\(^{28}\) 2008 sales figure is projected.
Why Choose Organic Cotton?

Conventionally grown cotton is one of most heavily sprayed field crops in the world, and conventional cotton growers typically use many of the most hazardous pesticides on the market. These include aldicarb, phorate, methamidophos, and endosulfan. Using 2% of worldwide farmland, conventional cotton consumes 10% of the world’s pesticides and 25% of all insecticides (Pesticide Action Network, 2008). Sprayed from the air, these highly toxic pesticides often drift over farmhouses, roads, water sources, and workers, contaminating water and soil and creating health dangers for wildlife and humans. For example, a 1993 EPA study focusing on carbofuran, an insecticide used on cotton, estimated that between one and two million birds were killed annually by this chemical. Because cotton is also a food crop, namely through cottonseed oil used in snack foods and in rations for beef cattle, pesticide-laced cotton which enters the food supply poses a global public health threat. Finally, the threats of conventionally grown cotton are disproportionately distributed around the world; because 99% of all cotton farmers live in developing countries, the developing world bears the brunt of the environmental and health problems caused by conventional cotton production (Environmental Justice Foundation, 2007).

In contrast, organically grown cotton prohibits the use of synthetic chemicals to control pests, except in extreme cases. Instead, natural predators and intercropping are used to control pests and special machinery and fire control handle weeds (Environmental Justice Foundation, 2007). A field must be pesticide-free for at least three years to be certified organic. Recognized organic fiber certifying organizations include Control Union World Group (formerly SKAL), OCIA International, and NASAA. All three of these organizations are accredited by the National Organic Program (NOP) of the U.S. Department of Agriculture, and this accreditation allows products certified by these organizations to be sold in the U.S. The NOP standards apply to organic agricultural production within the U.S. as well as to organic products being imported into the U.S. (USDA, 2008). These standards require field certification only, meaning that only the organic certification of the raw commodity (cotton or wool) is recognized in the U.S. and, as of 2008, there are no organic processing standards.

Background Information

In 1992, Maggie’s Organics was founded in Ann Arbor, MI by Bená and her former business partner, Jennifer Mueller. By then, Bená had worked in the organic food industry for fourteen years. Maggie’s was the second organic apparel company founded in the U.S., and is the oldest organic apparel company remaining in the market today.29 It is one of the few companies in the apparel industry that sells 100% organic clothing.

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29 A company called Eco-Sport was the first seller of organic cotton apparel in the U.S. but they no longer exist.
The idea for Maggie’s started with an organic tortilla chip. In the early 1990s, Bená was working for an organic food company that was sourcing blue corn from Texas farms to produce tortilla chips. She noticed that some of the chips were faded in color, and asked a farmer for recommendations on how to improve the quality of the corn. He recommended rotating in organic cotton crops on the land that the blue corn was being grown. When his cotton produced a yield, the farmer asked Bená to help him sell it. Bená’s business partner invested $500,000 into the organic cotton fiber before the company even had its first product. The first products, socks produced by North Carolina knitters, emerged soon thereafter. Bená considered the socks a good first product because they were small and inexpensive “impulse” purchase items. These socks became one of the first non-food products sold at the Natural Food Expo in California.30 This event not only marked the beginning of the company’s growth, it also highlighted one of the company’s primary competitive advantages – selling organic apparel products at retail stores and trade shows dedicated to food products.

As of 2008, Maggie’s Organics carries over 350 Stock Keeping Units (SKUs), and sells its products in over 1,500 stores across the United States.31

Goals and Objectives

Maggie’s Organics was founded with the intention of saving the planet’s land from the devastation of conventional cotton growing. Since 1992, Maggie’s Organics has manufactured apparel and accessories made from certified organic fibers (certified by Control Union World Group, OCIA International and NASAA) while utilizing fair labor practices. Maggie’s mission is:

“To produce and provide comfortable, durable, affordable and beautiful articles of apparel and accessories made from materials that restore, sustain and enhance the resources, including human, from which they are made” (Maggie’s Organics, 2008b).

Product Information

Maggie’s produces organic clothing in four major categories: apparel (shirts and pants), socks, tights, and baby wear. Most of the apparel and baby wear is produced at 100% worker-owned cooperatives in Nicaragua and Costa Rica, while the socks are produced by knitters in North Carolina, and the tights are produced in Peru. All Maggie’s products are made from certified organic fibers. These are primarily cotton, but several varieties of socks are made from organic wool. Most of the products contain small percentages of other materials, primarily nylon, lycra and rubber. Doug Wilson, Bená’s husband and the Vice President of Sales, describes Maggie’s as a “blue collar” organic company, meaning that while a small organic premium is

30 The Natural Food Expo is now called the Natural Products Expo.
31 Approximately 75 – 85% of these stores are conventional or natural food product stores.
included in the price, they work hard to keep prices low and refused to take advantage of the consumer (Wilson, 2008a).

**BUSINESS STRATEGY AND MODEL**

**Strategy**

Maggie’s competes in the U.S. market for organic cotton apparel, selling their products both to major chain stores and to smaller “mom and pop” retailers. As Figure 34 illustrates, Maggie’s was competing in a new market with new products when it was founded in 1992. As the organic cotton apparel market matured and established itself, Maggie’s maintained its competitive advantage by continuing to sell exclusively organic apparel products and distributing its products through the large U.S. natural food distributors. Bená’s intention when starting Maggie’s was to establish a new norm for the way a successful business could be operated within the apparel industry, which she accomplished by creating a business that respected the environment and the lives of the people making the products.

**Sourcing**

In the beginning, the company sourced cotton primarily from U.S. farmers. Supply was easily available and this strategy aligned with the company’s mission to purchase fiber from the closest possible source, thereby reducing the energy required to transport it to Maggie’s production facilities. However, as the industry evolved and as demand for organic cotton increased, it became more difficult for Maggie’s to source only within the U.S. As of 2008, Maggie’s organic cotton is purchased from a number of different countries worldwide, though their supplies primarily come from Turkey, and is subsequently shipped to the production facilities in the U.S., Nicaragua, Costa Rica and Peru. The company chooses not to source cotton from China or India, due to the comparatively high energy costs required to transport the cotton to Maggie’s production facilities, as well as the questionable labor practices that are sanctioned by the governments of these countries. The company is dedicated to being a leader in a sustainable and responsible industry,

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32 Organic cotton is more expensive to produce than regular cotton for two primary reasons: 1) due to the crop rotation system, one-third of the cash crop is out of production every year; 2) lack of synthetic fertilizers results in a 20% lower yield (Ecomall, 2008).

33 Turkey produced the most organic cotton globally in the 2005/2006 growing season (Organic Exchange, 2008).
and the management team believes it is important to source from the most credible suppliers possible. In addition to making sure that all cotton used is certified organic, Maggie's abides by the Organic Trade Association's (OTA's) American Organic Standards for Fiber Processing (Maggie’s Organics, 2008c).

Production

In the 1990s, Maggie's production facilities were also exclusively U.S.-based, including contractors in Alabama, Tennessee, North Carolina, and California. Between 1999 and 2000, Maggie's lost five cut-and-sew house contracts to bankruptcy, and Bená became increasingly frustrated with quality control problems and the inability of the remaining contractors to meet deadlines. When she visited these facilities she discovered that the “women producers were literally indentured servants.” Most, she observed, were undereducated single parents who had absolutely no incentive to produce high-quality goods.

Phish Food for Thought

Bená describes a major turning point in the history and strategic direction of Maggie’s - the “aha” moment - when she realized that it would be much easier to create high-quality products when the producer herself has a vested interest in the enterprise’s success.

In 1997, Ben and Jerry’s had just launched a new flavor of ice cream, Phish Food, in a joint venture with the eponymous band. Ben and Jerry’s and Phish organized a benefit concert to mark the launch of the new ice cream flavor and to raise awareness about the increasing pollution of Lake Champlain. All of the proceeds from the concert were designated to contribute to the restoration of Lake Champlain. Ben and Jerry’s was Maggie’s biggest customer at the time, accounting for approximately forty percent of Maggie’s sales revenues and an average of 100,000 t-shirts per year. The ice cream company placed an order with Maggie’s for 14,000 t-shirts, which had been designed especially for the benefit concert.

Days before the concert, the production facility owner called Bená and told her there was no way he could have the concert t-shirts ready on time. Bená, realizing that the future of her company was potentially at risk, drove her van from Michigan to the facility in Alabama. She joined the production assembly line and when the owner told her to leave, she responded by telling him that she was not leaving until she got her t-shirts. At first the women in the production facility looked at her like she was crazy and did not speak to her, but Bená began to talk to them about the importance of both the organic cotton that they were sewing, as well as the benefit concert for which the t-shirts were being made. For the first time, the women had a connection to both the material they were sewing and the end-customer and cause. Many of them called home and told their families they
Bená personally delivered all 14,000 t-shirts to Burlington, VT in time for the benefit concert, and came away from the experience realizing that in order to maintain the consistent, high-quality production required to ensure the future success of Maggie’s, she needed to find an operation in which the producers had skin in the game through ownership and profit-sharing.

Bená’s dissatisfaction with the production options in the U.S. and the fact that many producers started to go out of business led her to consider offshore options, but she would only go ahead with this plan if she could be completely sure that Maggie’s clothing was not produced under unethical sweatshop conditions. In 1999, Peter Murray, Maggie’s Production Manager, met Michael Woodard, the Director of the Center for Development of Central America, a nonprofit organization located in Managua, Nicaragua, at an organic meeting in the U.S. Michael was trying to help Nicaraguan communities recover from the devastation caused by Hurricane Mitch in October, 1998, which destroyed their homes and left many individuals living in refugee camps. Unemployment was one of the biggest problems Michael saw, so he and his team decided to explore models of worker-owned cooperatives. The Production Manager asked Michael if any of these people knew how to sew, and Michael said that with 40,000 people working in sweatshops in Nicaragua, some of the people in the refugee camps would surely know how to sew. Bená felt like this was the answer to Maggie’s production dilemma and told Michael, “if you can build this, we will come.” She promised that if Michael could get the cooperative off the ground, Maggie’s would give it as many apparel sewing contracts as they had left in the U.S. (Maggie’s Organics, 2008d).

This was the genesis of the 100% worker-owned sewing cooperative in the refugee community of Nueva Vida, Nicaragua, which today is known as The Fair Trade Zone (FTZ) Sewing Cooperative.34 The cooperative building was constructed by the women themselves, and as of 2008, the cooperative is owned and operated by 65 women, who earn over 70% more than the average annual per capita income in Nicaragua. They work a regular Nicaraguan work week of 47 hours. Overtime is paid double and is completely voluntary. No workers are under the age of 18. Being a cooperative, the members decide collectively how they will be paid (hourly or by the piece, for example), what holidays to take, etc. By contracting the sewing of their garments to the cooperative, Maggie’s has made it possible for the women to create community sustainability in a highly impoverished area of Nicaragua. This partnership allows the women to take control of their own lives, set up a trust fund to support the development of other businesses in their community, and provide stable, livable income for their families (Organic Consumers Association, 2008).

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34 Visit the cooperative website for more info: [http://www.fairtradezone.jhc-cdca.org/](http://www.fairtradezone.jhc-cdca.org/)
At the beginning of this partnership, there were growing pains as the women learned to sew to the specifications of Maggie’s products. But they got up to speed quickly and were soon producing high-quality goods for sale in the U.S. market. Beginning in 2007, some quality problems started to re-emerge and Bená believes these are a result of the women becoming more independent and less willing to listen to feedback from the Maggie’s team. Bená acknowledges that the partnership with the cooperative has, in some ways, stifled the growth of the company. From the beginning, Bená made a strong commitment to stick with them and she refuses to pull out, even if goods are not delivered by deadline or quality is not up to par.

Maggie’s relationship with the FTZ cooperative is completely different than that which they had with their U.S. sewing contractors. With the U.S. contractors, the relationship was only with the management and Maggie’s was simply one of several clients to them. But Maggie’s contract and commitments to FTZ put them and (for a long while) kept them in business. In addition, because the producers are the owners, the relationship with Maggie’s extends to every member of the cooperative. The result is that Maggie’s is more than just a client to FTZ.

Michael Woodard, who still plays an integral role in the operations of the cooperative, said:

“the happiest and saddest day of my life will be when they tell me to go away – we don’t need you anymore. I hope one day they can internalize what they can verbalize so well – that they own the cooperative, run it and benefit from its success” (Maggie’s Organics, 2008d).

For Bená, there is a tension between wanting the women to reach their full potential in terms of independence and self-sufficiency and in needing them to receive and integrate constructive feedback from the Maggie’s production team to ensure high-quality products. There is a quality control process, and if product standards are not met, the products are either shipped back or deducted from the supplier’s credit. The management team believes it is important to treat the cooperative like any other supplier and not cut them any slack in terms of quality. Maggie’s is dealing with the recent quality issues in the same way that they have always approached their partners – with respect, transparency and communication – and as Maggie’s track record has shown, these tactics generally lead to successful outcomes.

Building on the success of their initial partnership with the Fair Trade Zone cooperative, Maggie’s is partnering or supporting the development of additional cooperatives in Nicaragua, Costa Rica and North Carolina. In Nicaragua, Maggie’s is supporting the development of a spinning cooperative next door to the Fair Trade Zone, which will spin all of the cotton yarn for its sister cooperative. In Costa Rica, Maggie’s has partnered with a 100% worker-owned cooperative. And in rural North Carolina, Maggie’s developing another 100% worker-owned cooperative. Bená believes there is a great opportunity for expanding the worker-owned cooperative model in the U.S., as a way to create empowering economic opportunities for low-income communities.
Distribution

Maggie’s sells its products exclusively in the U.S. via wholesale, retail, and direct-to-consumer channels.

Wholesale Channel:
A large part of Maggie’s success is based on the fact that they are the only company selling certified organic cotton apparel through some of the largest food distributors in the U.S. These distributors generate a significant amount of revenue for Maggie’s. Doug is very proud of this achievement and hopes that the company is able to maintain its position as the sole organic apparel company in this channel. In addition to these large food distributors, Maggie’s works with smaller distributors and brokerage firms, which act as sales representatives for their products and other companies’ products in the natural products industry.

Retail Channel:
Maggie’s sells products directly to many independent natural food retailers. Doug takes pride in the solid relationships they have formed with these “mom and pop” natural food stores across the U.S. and Canada.

Direct-to-Consumer Channel:
As of 2008, 8% of total sales revenues were generated from orders placed by consumers on the Maggie’s website. These orders are fulfilled and shipped from Maggie’s headquarters in Ypsilanti, MI.

Competition

The organic apparel industry has evolved into a fairly broad sector, with numerous companies making products with at least some amount of certified organic fibers. The industry includes retailer giants such as Nike (the largest t-shirt manufacturer in the U.S.), American Apparel, and Edun, Bono’s (lead singer of the rock band U2) socially conscious apparel company,. Organic clothing makes up only a portion of the apparel sales for each of these companies, and more importantly, they don’t compete in the same market as Maggie’s. Because of Maggie’s unique positioning as an apparel company in the natural food market, the competition is relatively small, particularly in the smaller stores. The company faces its greatest competition in the national retail chains that sell a large collection of both natural foods and organic apparel, a category into which Whole Foods falls. But in many smaller retail stores that sell Maggie’s products, no other organic apparel is sold.

FINANCE

Maggie’s Organics was initially financed by Bená and her business partner, Jennifer Mueller. In 1997, Bená bought out the company from Jennifer by creating a parent
company called Clean Clothes, Inc. As of 2008, the company is majority-owned by the founder, with two of her friends holding partial ownership. The company has been consistently profitable since 2004. Over the years, Bená has utilized a very conservative fiscal approach and has been able to grow the company without taking in outside capital since a friend gave the initial $10,000 investment in 1997 to help start Clean Clothes, Inc. The majority of the capital required to start Clean Clothes, as well as the capital required to buy out Jennifer’s shares of Maggie’s, was made available to Bená through a credit line that she opened in 1997, using her own personal guarantee and resources as collateral. She periodically taps into that credit line but has not needed to find outside resources to fund the company’s growth. As a privately held company, Maggie’s has a policy of not sharing additional financial information with the public.

**ORGANIZATION**

**Leader Driven Mission**

Bená’s career in the organics industry began in 1978 when she dropped out of the University of Michigan to start working with Eden Foods. After ten years at Eden Foods, she took a position as a sales manager for Bearito’s Brand Organic Tortilla Chips, and as described earlier, the idea for the Maggie’s business arose while seeking a natural solution for the problem of the fading color of their blue corn tortilla chips. Without any knowledge of the apparel industry, Bená took on the challenge of putting the inedible cotton crop to good use, and Maggie’s was born.

When Maggie’s was founded in 1992, there were no governmental standards for organic clothing, and as of 2008, these standards still do not exist. But Bená used her leadership position on the Organic Trade Association’s Fiber Council to formulate the American Organic Fiber Processing Standards, which are industry-led and apply to the U.S. and Canada. OTA’s organic fiber processing standards, approved January 2004, address all stages of textile processing, including post-harvest handling, wet processing (including bleaching, dyeing, printing), fabrication, product assembly, storage and transportation, pest management, and labeling finished products. They also include an extensive list of materials permitted for, or prohibited from, use in organic fiber processing under the standards (Organic Trade Association, 2007).

The OTA standards have been incorporated into the Global Organic Textile Standard, an international, nongovernmental collaboration that allows for a single organic-textile certification mark, accepted in markets worldwide. Sandra Marquardt, who coordinated OTA’s Fiber Council steering committee, stated:

"Without [Bená’s] drive, I doubt the organic fiber processing standards would have become part of the OTA American Organic Standards or the new Global Organic Textile Standards" (Oliver, 2007).
When the U.S. cut-and-sew production industry began to collapse in the late 1990s, Bená found an alternative to the sweatshops used to produce much of the conventional textiles sold in the United States.

Bená’s passionate leadership has driven Maggie’s to become a role model for the apparel industry in terms of commitment to socially and environmentally responsible sourcing and production practices. The Organic Trade Association recognized Bená’s leadership role in the organics industry by choosing her to receive the 2002 Organic Leadership “Special Pioneer Award” (Organic Trade Association, 2002).

Organizational Structure and Culture

Legal Structure
Maggie’s Organics is a brand of the parent company, Clean Clothes, Inc., and is a registered C-Corporation where Bená is the primary shareholder. Clean Clothes, Inc. is 90% owned by Bená and 10% owned by a friend who invested some of the start-up capital. The company has a Board of Directors, though it is rarely involved in the decision-making of the company. While the company has very close relationships with several cooperatives in Central America, these organizations are wholly worker-owned and independent of Maggie’s.

Organizational Structure and Culture
Maggie’s is a very small company, with 14 employees working in their sole administrative office in Ypsilanti, MI. There is a warehouse in the Ypsilanti office and another in North Carolina. This small size is reflected in the close-knit culture of the organization, as well as the strong relationships that the company has with all of its suppliers. Bená commented that "developing relationships with people who work in the mills and sew our garments is one of the unique things about Maggie's" (Burda, 2008). While Maggie’s operates within defined functional areas, in practice it is a notably flat structure, with a family atmosphere that extends beyond Bená and Doug’s wife-husband management team.

Maggie’s office culture is built upon a foundation of respect, which Bená and Doug strongly believe contributes to the company’s success. The company pays competitive wages and there is a relatively small difference between the salaries of the lowest- and highest-paid employees. This includes Bená and Doug. The lowest-paid employee earns slightly more than 50% of the salary of the highest-paid employee. All employees receive full health insurance benefits plus an additional $1,000 annual health and wellness benefit to cover the cost of alternative medical treatments not covered by the traditional plan. Perhaps the most unique feature of the Maggie’s benefits package is the free monthly massage available to each employee. “We hope that our employees feel good about working at Maggie’s and therefore can be a part of the company’s campaign,” says Doug (Wilson, 2008).
**PROCESSES AND METRICS**

**Environmental Processes and Metrics**
While Maggie’s does not yet formally track its environmental sustainability performance, this is a goal about which Bená and Doug feel very strongly, and plan to begin tracking when they can justify spending the resources. Despite the lack of formal tracking processes, environmental sustainability is an integral part of the everyday decisions and strategies of the company. Maggie’s missions have been to raise awareness about the harmful impacts of conventional cotton and to lead the way to a more sustainable and responsible industry and product. All of the cotton and wool sourced for Maggie’s products is 100% certified organic. For the post-harvest production process, Maggie’s abides by the Organic Trade Association’s American Organic Standards for Fiber Processing, in whose creation Bená played a major role. The OTA standards are voluntary, and there is no official certification for companies that abide by them.

In addition to ensuring the environmental sustainability of the organic fibers from harvest to production, the Maggie’s team also works with its printing and packaging partners to implement more sustainable procedures into their companies. One success story on this front is VGKids, a screen printing company in Ypsilanti, MI. By working together, Maggie’s has become the preferred organic cotton t-shirt supplier for all of VGKids’ customers. In addition, Maggie’s was able to work directly with James Marks, owner of VGKids, to explore phalate-free inks and other alternatives to conventional printing. These inks are now part of VGKids’ standard procedures for all printing options.

**Social Process and Metrics**
Again, Maggie’s does not formally track its social impact performance, but the labor standards used by the company are based upon those of the internationally recognized grassroots anti-sweatshop organization, The Clean Clothes Campaign. Maggie’s requires full disclosure of working conditions and production standards for each of its producer partners. A questionnaire for all suppliers, developed to ask specific questions about average salary, benefits, health care, etc., is reviewed before production begins as well as on an annual basis. In most cases, a Maggie’s employee visits the facilities and interviews workers, as well as management, to ensure that workers’ rights and needs are respected. As of 2008, there are no third party audits of the production facility working conditions. Maggie’s is working with the Fair Labeling Organization to develop third party standards for auditing all stages of production but this will take time to implement.

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35 For more information, see: [http://www.cleanclothes.org/](http://www.cleanclothes.org/). No relation to Maggie’s Organics parent company, Clean Clothes, Inc.
INNOVATION

Pioneer of Organic Apparel Industry

Maggie’s is the oldest surviving organic apparel company in the U.S. It is one of the few companies in the apparel industry that offers clothing made with 100% certified organic cotton and maintains direct relationships with its manufacturers (Organic Consumers Association, 2008). Guided by Bená’s passionate leadership, Maggie’s played a critical role in the development of the U.S. organic apparel industry and has remained a model for social and environmental stewardship within the industry. According to Doug, one of the key factors in Maggie’s success is the growing numbers of “consumers with a conscience.” Without them, Doug says, “Maggie’s would be nowhere” (Wilson, 2008b).

Worker-Owned Production Model

Since 1999, Maggie’s has been absolutely committed to partnering with worker-owned cooperatives. Maggie’s first co-op partner, The Fair Trade Zone cooperative in Nueva Vida, Nicaragua, has become the world’s first and only 100% worker-owned free trade zone. A free trade zone is a geographic area where some normal trade barriers, such as tariffs and quotas, are eliminated in hopes of attracting new business. Historically, multinational companies have used these zones to set up production factories in developing countries. The Fair Trade Zone cooperative’s status as a free trade zone contributes to the co-op’s economic success. As of 2008, Maggie’s is supporting the development of a worker-owned cooperative in North Carolina, and Bená believes that this model can bring the same kinds of economic and social benefits to workers in the U.S. as it brings to workers in developing countries.

Natural Food Distribution Channel

Doug says that selling Maggie’s apparel products through food distributors is like having “an oil product in a water distributor” (Wilson, 2008b). This is because Maggie’s fights “tooth and nail” to stay in these channels. On one hand, with no other organic apparel companies selling products in these stores, Maggie’s has an incredible advantage. However, when distributors and retailers balk at selling Maggie’s products through traditional food channels, the sales team must work hard to sell them on their products’ advantages: no shelf-life, price competitiveness, quality, and most importantly, consumer demand.
CHALLENGES FOR THE FUTURE

Market Risks

Increasing Competition
As the oldest organic apparel company in the U.S., Maggie’s had first-mover advantage in the industry and has maintained its competitive advantage, in part, through its position as the sole organic apparel company working with the country’s three largest natural food distributors. But in recent years, increasing consumer demand for organic products has opened the flood-gates for a slew of new companies, many of whom enter the field armed with dynamic founders and exciting stories. Increasing competition on the organic apparel shelves of Whole Foods is a sign of the times, and the challenge for Maggie’s will be to keep their brand top-of-mind with the retailers. The long-standing relationships that Maggie’s has fostered with its retailers will help the company to some degree, but the introduction of fresh, new products and marketing materials will be important elements as well.

Future of the Economy
The significant growth of the organics industry since 2000 is owed, at least in part, to consumers’ willingness to pay a premium price for the certified organic label. Doug comments that this may be why Wal-Mart does not tout its category of organic products, which it introduced a couple of years ago. Wal-Mart built its brand on low-cost and the Wal-Mart consumer does not appear to be willing to pay a premium for any product. The future growth of Maggie’s and the U.S. organic products industry as a whole is dependent on the economic health of the country. In a period of economic recession, the size of the population with disposable income will shrink and the willingness to pay a premium for organic may follow suit.

Organizational Risks

Maintaining Commitment to Fair Trade
Increasing costs (e.g. rising fuel costs, wages in developing countries, etc.) and increasing competition from goods made in countries, such as China, from whom Maggie’s refuses to source or produce their materials will continue to pressure its margins. These factors, combined with a potential economic recession, will make it increasingly difficult for Maggie's to maintain its profitability and its commitment to fair prices to producers.

Quality Control
Doug says that “We deal with quality issues everyday” (Wilson, 2008a). The issue of quality control becomes more complex as Maggie’s adds new production partners, and as existing production partners become more independent. As the company continues to grow, it needs to find ways to mitigate the risks associated with poor quality, while maintaining its commitment to supporting and developing the cooperative model of production. Useful methods for doing this include maintaining
open lines of communication with the production facilities and keeping producers accountable for their quality mistakes through financial penalties. If expectations and consequences are clearly understood, this will provide a foundation for handling issues as they arise.

Copycat Competitors
Maggie’s spends significant resources working with partners to develop new methods of production and new types of packaging. For example, Maggie’s spent three months working with a manufacturer to develop a post-consumer recycled hanger, adapted to both baby apparel and accessories. As a result, this manufacturer is becoming the source for eco-apparel packaging, and several competitors are scheduled to debut products using adaptations of this post-consumer hanger. So, competitors benefit greatly from the time and resources Maggie’s spent to develop this innovative new packaging. This pattern will continue in the future, and while it is not a problem that is unique to Maggie’s, it is a risk associated with being an innovator in the industry.
CASE STUDY: PAX Scientific – Learning to Run

INTRODUCTION

Based in San Rafael, CA, PAX Scientific and its family of companies take inspiration from nature with the intention to return the favor. With a focus on energy efficient products, PAX is the culmination of founder Jayden Harman’s unique vision. Growing since 1997, PAX is now a suite of companies employing similar fluid-handling technology in a variety of markets.

With a passionate commitment to work in harmony with the earth’s processes, PAX has reached a potential tipping point of influence and success. A 2008 outside investment instantly doubling the capital infusion into the business has led PAX into a new era of the organization’s history. PAX evolved slowly and with limited success in its first ten years of existence. Through patience and some stumbles, PAX has learned to move from a “crawl” to a “walk.” Eyeing market shifts which favor PAX’s position in the cleantech market, the company made a deliberate decision to accelerate the business to a “run.” The future success of this hybrid will rely on its ability to manage its environmental mission priorities while growing at a venture capital pace.

OVERVIEW AND HISTORY

Drawing from the Latin translation for “peace,” PAX Scientific is an engineering research and development firm which employs unique, patented design geometries inspired by biomimicry to improve fluid-handling equipment. Biomimicry, whose etymology comes from bios, meaning life, and mimesis, meaning to imitate, imitates nature’s best ideas processes in order to solve human problems. Janine Benyus, founder of the Biomimicry Institute and noted author, calls it “innovation inspired by nature” (Biomimicry Institute, 2008). Figure 35 illustrates some of PAX’s designs.

Table 13. PAX Scientific Overview

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<thead>
<tr>
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<th>PAX Scientific – 2008</th>
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<tbody>
<tr>
<td>Year Founded:</td>
<td>1997</td>
</tr>
<tr>
<td>Annual Revenue:</td>
<td>$5 million</td>
</tr>
<tr>
<td>No. of Employees:</td>
<td>35</td>
</tr>
<tr>
<td>Headquarters:</td>
<td>San Rafael, CA, USA</td>
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<tr>
<td>Environmental Focus:</td>
<td>Clean Energy</td>
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<tr>
<td></td>
<td>Clean Water</td>
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<td></td>
<td>Clean Air</td>
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<tr>
<td>Profitability Level:</td>
<td>Profitable for several years</td>
</tr>
<tr>
<td>Mission:</td>
<td>PAX applies nature's core design principles to engineer energy efficient products that enhance and sustain life on Earth.</td>
</tr>
</tbody>
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Jay Harman, a native Australian and serial entrepreneur, along with Francesca Bertone, his business partner, wife, and COO, launched PAX Scientific in 1997. PAX Scientific embodies Jay’s life work and passion in studying nature’s vortex. “I love nature, and I hate waste,” Jay says. “I’d have to say in every case I’ve ever seen, nature is still the supreme designer” (Harman, 2008). Whereas nature’s system is passive, the human approach is to attack engineering challenges with force, such as
hitting or exploding. Vortices, or spiral motions of fluid, are fundamentally passive suction systems and the PAX designs follow this principle.

Figure 35: PAX biomimicry designs

PAX Fans model climate vortices

PAX mixers model fern structure

PAX technology takes advantage of Jay’s discovery, the PAX Streamlining Principle, to leverage efficiencies found in nature. These natural efficiencies can be used to increase efficiency for industrial equipment such as fans, mixers, propellers, and turbines. The company develops and licenses its technology to industry leaders in a variety of markets. As company literature describes:

“Whether pumping water from a well, air-conditioning a building, or moving a vehicle down the road, most of the energy generated each year is used to overcome drag. In equipment designed for handling fluids (such as liquids or gases), poor drag control can result in low output or output that is difficult to manage, component wear, harmful cavitation, high energy use, and excessive noise” (PAX Scientific, 2007).
Leader Driven Mission

PAX is driven by its mission statement, which reads:

“PAX applies nature’s core design principles to engineer energy efficient products that enhance and sustain life on Earth” (PAX Scientific 2008).

As Francesca notes, “We have our eyes on a very big prize…reducing energy use on the planet by 20% [by integrating biomimicry design geometries]” (Bertone, F., 2008). Without formal engineering or design training, Jay has developed some of the most efficient vortices ever created. His design work forms the basis of the company and his vision of the human relation to and place within nature guides the PAX family of companies.

Jay grew up in and around the water on the West Coast of Australia when not in school, and sometimes when he should have been in school. As his spouse and business partner says, he “thinks like water” (Bertone, F., 2008). While working for the Australian Department of Fisheries and Wildlife, he started to take particular notice of swirling shapes of water in the ocean. He also entered local politics with the intent to protect Western Australia’s sensitive wildlife areas. He worked for years in opposition to developers only to have much of his effort unraveled later on. He became frustrated and came to the conclusion that the world is run by “bean counters.” He decided that he had to find a way to show the world that there is value to drive the change he wanted. And the only way he could do this was by doing something that made a profit.

Along with traveling the world in a sailboat he designed and built, he began his journey as a serial entrepreneur honing his strength in starting companies. He learned many lessons over the course of starting several companies, which ultimately shaped his vision of a company where the vortex pattern he frequently observed in nature might create valuable products. In general he started small and did not try to accomplish everything at once.

His first company was an electronics company, ERG Australia, which he built through to an initial public offering (IPO). Next he moved to a boat design business, The Serious Boat Company, that included the WildThing and Goggleboat series. It was in this venture that Jay started testing the vortex pattern he had observed as a naturalist. The boats boasted fuel efficiency 30% greater than comparable vessels. A third successful venture, CSL UK, was a medical research company.

Drawing on his previous business ventures, Jay leads PAX to “show manufacturing industries that more efficient equipment is profitable for both shareholders and the planet” (Harman, 2008).
BUSINESS STRATEGY AND MODEL

Figure 36 depicts PAX’s strategy at inception in 1997 and now in 2008. PAX has pursued a consistent strategy in designing products for established markets (such as fans and mixers). Their approach to these established markets lies between a same game strategy and a new game strategy. On one hand, PAX employs a same game strategy pursuing a similar sales channel as the incumbent technologies. On the other hand, PAX relies on its unique advantage in design geometries to position itself as game-changing. Overall, PAX aims to capitalize on its unique, patented product design to make sweeping changes in any number of industrial applications.

PAX’s market development has been modest since its inception. With a culture still more closely resembling an R&D firm than a marketing firm, PAX has struggled to meet their lofty goals. PAX’s market penetration development reflects the evolution from a crawl (concept refinement and product development from 1997 to 2004), to a walk (testing a number of market applications from 2004 to 007), to a run (the launch of PAX Streamline in 2008).

PAX Scientific is composed of a number of companies: the parent company PAX Scientific, and subsidiaries PAX Water Technologies and PAX Mixer. Another set of licensee companies, collectively called PaxFan or sometimes the Pax Group, includes PaxIT, PaxFan, and PaxAuto. The PaxFan companies are separately owned and operated companies that have master licenses to commercialize PAX’s air handling technologies.

PAX Scientific

Jay was familiar with patent law from his past businesses, and in 1995, Francesca joined him in Australia where they began patenting his PAX related designs. They returned to the U.S. in 1997 to establish PAX Scientific with the intent to spend 12 to 18 months trying to generate interest in their propeller design. PAX had always intended to focus on the R&D and to avoid manufacturing. After identifying the 22 Fortune 100 companies most likely to be interested in their more efficient designs, they sent each company a one-page letter and received 17 responses of interest. These included responses from such companies as General Dynamics and GE.
They began to meet with the companies to explain and demonstrate the design, and expected to make money by licensing it. They would attempt to work with executives, but found that most of the companies relied entirely on their suppliers for product development. They then tried to work with the internal R&D teams at these corporations, but found that few companies had “real” R&D anymore (most of the R&D at big manufacturing firms in mature industries is focused on packaging and process, not product development). While companies had plenty of engineers, major product development, for many, was secondary to the more pressing goal of shaving pennies off of each product. Then, when companies wanted to test working prototypes, PAX was still in concept phase.

During these early forays, Jay and Francesca concluded that “inertia [was] our greatest obstacle” (Bertone, F., 2008). They spent another year making prototypes, and while the response to the models was nearly always positive, the feedback was that the companies didn’t know how to work with PAX. PAX had tried to enter the market at the wrong end of the food chain.

**PaxFan, PaxIT, and PaxAuto**

By 2001, after several years of refining the product through self-financing, PAX Scientific still had not found a way into the market. 9/11 provided the impetus to take the company to the next level and in 2002, they raised capital to expand their business. At that point, they began to prioritize over 500 potential areas of application. The funding enabled the development of a number of prototypes of mixers, fans, and propellers.

An analysis of technology readiness and ease of market entry led the team to focus on air-handling as its first significant commercial push. Jay and Francesca met fellow Bay Area eco-entrepreneur Paul Hawken (of Smith & Hawken garden stores and co-author of *Natural Capitalism*) who encouraged them to start with computer fans since they are easy and inexpensive to test. Further, the potential impact of more efficient computer fans is significant. For example, in a server, there are two to four fans and using a PAX fan can save $1.25/year in electricity cost. A server farm with 100,000 servers could save $500,000.

PAX Scientific partnered with Paul, and he launched the three master licensees – PaxFan, PaxIT, and PaxAuto – each majority owned and operated by Paul, with outside funding from Paul’s network. Paul and PAX Scientific agreed to a revenue sharing model share in return for the licensed patents. PAX Scientific chose not to have equity or management control in any of the three companies. The intention was to start something small to test the market and allow everyone an easy exit if it did not pan out.

With their prototype computer fans, they approached computer makers who suggested they talk to the makers of motors. They developed relationships with two motor manufacturing companies via license fee agreements – AO Smith and Delphi.
PaxFan learned that the approach had flaws. AO Smith did not have a strong strategy or incentive to sell fans – since fans are only a small part of their overall product line. Therefore, the distribution of PAX fans via AO Smith had been limited. Due to an internal financial restructuring, Delphi has moved slowly for some time but is not increasing their advancement of their sub-licensed PAX fan products. Delphi has recently purchased a computer fan manufacturer in Asia to build PAX computer fans.

PAX discovered a couple of surprising findings from the fan commercialization process. First, no one was interested in buying energy efficiency and the story of biomimicry. While it may have been compelling to executive staff, it didn’t matter to the engineering staff. In addition, even if the end customer might have cared, their market entry point was through distribution and manufacturers. The licensing model, while appropriate given the eco-system of the fan industry, was frustrating, so with the next business expansion, PAX decided to take a very different approach.

**PAX Water Technologies**

**Figure 37: PAX Water technology diagram**

In 2006 PAX Water Technologies was established to serve the water and wastewater industries. The stumbles in misjudging the fan industry led to a change in approach to bring in industry experts before entering a new market. For example, to get into the water market, they worked for a year studying the best entry point and found potable water mixing as the most viable. Further, they learned to refine the marketing approach - they are selling the potable water mixers not for energy efficiency, but for enhanced water quality. Specifically, the water mixers lead to fully mixed water, rather than stagnant stratified tanks that can promote bacterial growth.
The effectiveness of the engineering design results in notable environmental outcomes. The water mixer reduces energy use by 85% and reduces chemical disinfectant use (chemicals used to maintain water quality) by 80%. By way of comparison, a human heart uses approximately 1 ½ Watts of energy to circulate blood throughout the body (approximately one gallon). The PAX water mixer can mix a five million gallon tank with 180 watts of power. As with PAX Scientific, PAX Water received initial funding from high net worth investors and is now selling their product to customers.

**PAX Mixer**

PAX Mixer is commercializing rotary and static (in-line) mixer technology for the industrial market. These clients include petroleum, pharmaceutical, and beverage industries, which use mixing for product blending, fermentation, suspension, catalysis, crystallization and two- and three-phase mixing. Launched in 2007 to address the industrial mixing market, the commercialization approach for PAX Mixer is not yet finalized. The company is evaluating whether to sell directly to the end user or to license the technologies to various manufacturers. In October of 2007, PAX Scientific was awarded a three-year, $1.9 million Advanced Technology grant from the U.S. Department of Commerce to support development of a new class of industrial mixing technology. PAX Mixer will play a pivotal role in this research for the parent company.

**PAX Streamline**

PAX Streamline represents the PAX jump into a running mode. Bolstered by significant capital infusion from Khosla Ventures, PAX Streamline was established in late 2007 and spun out from PAX Scientific in early 2008. PAX Streamline will require R&D to go to market and they will target three to four markets. They will initially target defined markets with established competitors, such as Whirlpool and Carrier. Early targets include:

- Air conditioning
- Turbines (tidal and winglets for wind turbines)
- Aerospace (plane winglets)
- Marine propulsion (propellers)

Over the next 36 months, the goal is to prove that PAX Streamline can generate a portfolio of applications to draw customers. Future expansion possibilities include a joint venture with a major manufacturing firm or designing software with embedded algorithms.
FINANCE

Ownership Structure – Close Control

Maintaining control is very important and reflects Jay’s previous entrepreneurial experiences. Jay, Francesca, and Laura Bertone, CFO, are the Board of Directors but Jay and Francesca are majority owners of their subsidiary companies. As such, they directly or indirectly control and manage most of the entire family of PAX companies.

From 1997 to 2007, PAX Scientific and the suite of subsidiaries (not including PAX Streamline) have raised nearly $15 million in capital from close funding sources in relatively modest increments (that is, primarily from high net worth individuals in the founders’ network) and government grants. These funding sources were always closely aligned with, and accommodating to, PAX’s sustainability mission.

In 2007, a conversation between Francesca and Jay led to the realization that, at the pace they were progressing, they were decades away from realizing their goals. At the same time, it became clear the world (and specifically the U.S.) was recognizing the linked imperatives of solving climate change and reducing energy demand. While PAX had been working slowly and steadily toward the goal, they decided that it was time to ramp up to a run. In January 2008, PAX Streamline closed a $13 million Series A venture financing round led by Khosla Ventures.

PAX had previously turned away venture capital because Jay was concerned about becoming subject to other company’s investment goals. One of the best known and respected venture capitalists in the world, Vinod Khosla started a $300 million fund directed toward environmental technologies in 2005. This new fund reflected his personal mission and he pledged all profits toward charity.

Francesca suggested that within the trident of management choice (see Figure 38), management can control only two of the three legs. Until the Khosla investment, PAX had chosen a high degree of business impact and strategic control while largely letting return on investment grow organically.

Figure 38: Trident of Management Choice
However, with the decision to accept venture financing for PAX Streamline, there is a distinct focus on the investment return. PAX chose to move forward with Khosla Ventures because they believed that the investment would generate the business impact they desired. Further, in conversation with Vinod, Jay and Francesca became convinced that he was not a typical venture capitalist and that his passive investment approach fit their ability to retain a degree of strategic control. As part of the deal structure, the founders may use organizational controls to keep PAX Streamline on track toward its mission. Specifically Jay and Francesca remain the largest shareholders, while Jay is the chairman of the board and cannot be removed.

**ORGANIZATION**

Despite comprising a number of separate legal entities, all of the PAX companies share the same vision from PAX Scientific, though they execute that vision in different ways according to their diverse target industries. The spin-off of PAX Streamline transferred a significant portion of the patent portfolio and the majority of the PAX Scientific employees to that entity. Figure 39 illustrates the organizational structure.

**Figure 39: PAX family of businesses**

Until the founding of PAX Streamline, PAX Scientific housed all R&D, while the applications (manufacturing and sales) were then executed via subsidiaries. The decision to pursue this model, rather than to develop divisions within one entity, was
driven by two factors. First, there are practical legal protections of dividing assets and liability protection in separate entities. Second, the founders hoped that such a structure allowed them to avoid putting all eggs in one basket. If the technology failed in one application area, any damage to the overall company, whether financial or reputation, would be mitigated.

Setting up the recently established PAX Streamline structure, which will commercialize a number of new areas simultaneously via divisions or subsidiaries, was a carefully calculated decision. Setting up the previous subsidiaries and licensees was more organic and part of “simply trying to run the business as each R&D application area matured” (Bertone, F., 2008). With the expansion into PAX Streamline, Francesca, Laura, and Jay became “much more self-aware” of goals and potential stumbling blocks. Moreover, Francesca noted that “PAX is now at a point in its maturity that they are making decisions with bigger implications” for more employees and are executing grander visions (Bertone, F., 2008). The result is a completely separate entity with deliberate board control.

**Culture and Sustainability**

Culturally, while the PAX family of businesses operates within defined functional areas, in practice it is a notably flat structure. This is so much the case that, as Laura says, "PAX Scientific has a family atmosphere," which extends beyond the husband-wife-sister executive management team” (Bertone, L., 2008). It is also notable, especially as a research and engineering focused company, is that the company has a nearly 50/50 male-female ratio.

**Table 14. Sustainability at PAX Water (PAX Scientific 2007)**

<table>
<thead>
<tr>
<th>PAX Water Technologies Sustainability</th>
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<tbody>
<tr>
<td>Our mission is to design and manufacture efficient water mixers that produce minimal impact on the environment.</td>
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</table>

We assess every step of product development using the following criteria:

1. Does the product achieve the optimum productivity from the minimum amount of **energy** or fuel?
2. Does the product’s design optimize the **space** allowed, using the least materials and leaving the smallest possible footprint?
3. Is the product manufactured using non-polluting, efficient, replicable **processes** that place the minimum of strain on workers and ecosystems?
4. Do we address the **environmental** impact of this product at every stage of its design and life cycle—including the end?
5. Is the manufacture and operation of this product safe and non-toxic to the **people** who will be producing and using it?
6. Did we choose **materials** that can be obtained with the least damage to the planet, and can be reused or recycled with likewise minimal damage?
7. Have we identified ways to minimize the **packaging** and **transportation** costs?
Throughout the organization, they are passionate about sustainability. This passion is one area that exemplifies the engagement of employees at all levels of the company. Staff frequently propose internal changes and internal champions, such as for the sustainability platform, which establishes the principles to reduce the manufacturing environmental footprint. However, goals are always balanced with company needs and finances. Actions are made when they are practical in terms of the time, energy, and monetary costs they carry to implement.

Each separate business may also have its own approach to sustainability. Table 14 illustrates PAX Water Technologies business unit approach to sustainability.

**PROCESSES AND METRICS**

PAX tracks its environmental performance internally and for downstream product impacts. Internally, PAX is aware of its resource use, recycling, and product design. For example, staff is well aware of the utensils used and even proposed moving toward bio-based products to replace any plastic ware used. However, as a small organization with self-selecting employees with a personal environmental awareness, the internal environmental impact pales in comparison to the downstream products. As Paul Hawken advised them, “focus on the big picture – don’t worry about whether you only use plastic forks, you’re doing something important” (Bertone, F., 2008).

The most obvious downstream impact of PAX products is the reduction of energy sparked by replacing conventionally-designed products. PAX is aware of the overall performance of the products and some anecdotal results, but does not keep an aggregated tally. For example, PAX is well aware that its fans are 30% more energy efficient than those they replace, but lacks a calculation for total energy saved by all PAX fans installed. Where relevant, PAX also notes other environmental performance measures, such as chemicals, water, or wastewater reduced for particular applications.

**INNOVATION**

PAX is a leader in biomimicry design for fluid propulsion. The company holds numerous U.S. and international patents to protect their innovative technologies. PAX deploys these innovative designs in a number of market applications. It is both this innovative approach to product design and its application that enables this hybrid organization to meet its mission goals.
**CHALLENGES FOR THE FUTURE**

At the time of this case study (2008), PAX is on the brink of a major organizational shift with the launch of PAX Streamline. While the existing organizations are deliberately buffered from the stand-alone PAX Streamline, in practical terms, the new entity is designed to dominate the family of companies. With the infusion of capital, transfer of intellectual property, and new external pressures to meet milestones, significant resources will shift toward PAX Streamline. Such a change will raise several challenges in the future.

**Learning to Run**

Since its inception in 1997, PAX has developed a number of successful applications, albeit in a measured pace and with several hiccups along the way. The margin and likelihood for future error should be reduced with institutional investors providing resources and pressure to perform. The pace of development will likely accelerate and the organization will be challenged to conform to new expectations.

**Maintaining Sufficient “Impact” and “Control”**

PAX knows of the shift of management attention toward return on investment (ROI) in the management triad (see Figure 38) because of the venture capital investment. The PAX mission suggests a clear focus on impact, while leadership personality and organizational design measures point toward a desire for control. The distinct change toward financial performance will necessarily change attention on the other two aspects. While in the short term, an appropriate balance may be easily achieved, the venture capitalists’ need for an investment exit could represent a significant point of friction. Further, although success will undoubtedly make the balance easier, should PAX fail to meet milestones or other expectations, ROI focus could lead to faltering impact and/or control.

On the other hand, PAX may have found an ability to meet their sustainability mission in conjunction with other demands. Since PAX products result in downstream energy conservation impacts far greater than those they might conserve through internal activities, PAX may meet the business impact goals without any specific attention. Thus, with a focus on the investment return and attention diverted toward strategic control, this cleantech company may master the triad.

**Culture Change**

The PAX family of companies faces an imminent cultural challenge. As the company plans to grow significantly and rapidly, they are aware that consistent culture is more difficult to maintain. The PAX family of businesses will expand to other buildings and the staff will be in multiple places. The whole group of PAX companies currently includes 35 employees and they are already posting jobs for an additional seven
positions. Traditionally, they have tried not to hire to narrow formulas, and hope to attract self-selecting people who believe in the mission and the PAX approach. The challenge will be in keeping a deeply rooted culture as they grow beyond the “family feel.”
CONCLUSION

This project aimed to explore the challenges, solutions, trends, and lessons learned from innovative, sustainability-driven, hybrid organizations who use a variety of organizational elements to meet their mission. The research team hypothesized that hybrid organizations can be an effective structure to create positive contributions to humanity’s most pressing challenges. Drawing on the results of the literature review, the research team identified a research gap which suggested that privately owned, environmental sustainability focused hybrid organizations would be of particular interest to test this notion.

Using a broad-based survey and in-depth case studies, the investigation revealed a number of recent trends in the hybrid organizations sector. By analyzing the survey data from nearly 50 innovative hybrid organizations, the research team gained insight into the elements that help characterize hybrid organizations. The best-in-class case studies imparted valuable lessons and guidance as to how hybrid organizations are succeeding in meeting their environmental mission and financial goals. These lessons suggest some conclusions as to the efficacy of hybrid organizations and identify future areas for investigation.

Summary of Hybrid Organization Trends

As discussed in the Survey Results section, some key patterns, as shown in Table 15, can be identified among the responding hybrid organizations.

Table 15. Summary of Hybrid Trends

<table>
<thead>
<tr>
<th>Organizational Characteristic</th>
<th>Observed Pattern for Hybrid Organizations</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Model and Strategy</td>
<td>▶ Hybrids believe themselves to be doing something completely different from competitors&lt;br▷ Innovative product and environmental features are top two sources of competitive advantage</td>
<td>▶ 66%&lt;br▶ 49%, 45% respectively</td>
</tr>
<tr>
<td>Finance</td>
<td>▶ Hybrids have both positive and negative profit margins&lt;br▶ Significant portions of hybrid funding comes from patience capital&lt;br▶ Hybrid funding can be both an advantage and disadvantage</td>
<td>▶ 50/50 split&lt;sup&gt;36&lt;/sup&gt;&lt;br▶ 59%&lt;br▶ 33%, 25% respectively</td>
</tr>
<tr>
<td>Organization</td>
<td>▶ Hybrids are typically organized by function&lt;br▶ Hybrids believe themselves to have “fully-integrated environmental sustainability”</td>
<td>▶ 70%&lt;br▶ 83%</td>
</tr>
<tr>
<td>Processes and Metrics</td>
<td>▶ Some hybrids track environmental metrics&lt;br▶ Few hybrids tie environmental performance to employee compensation</td>
<td>▶ 55%&lt;br▶ 30%</td>
</tr>
<tr>
<td>Innovation</td>
<td>▶ Hybrids have “notable innovations” relating to innovative product or service</td>
<td>▶ 65%</td>
</tr>
</tbody>
</table>

<sup>36</sup> Almost half of all respondents were unwilling to disclose their margin of profitability.
It is clear from the survey results that hybrid organizations exhibit a substantial amount of variance when it comes to organizational function and execution. However, it is also clear that they believe themselves to be treading new ground, compared to traditional for-profit competitors, in the products and services they offer. Further, the fact that almost 60% of the survey respondents have some sort of patient capital funding supports the notion that hybrid organizations, as well as their financers, believe in blending non-financial performance and financial performance. The variance in profitability also supports the fact that hybrids may under-perform relative to market rates, although again it should be reiterated that the respondents’ age was skewed towards younger enterprises, so current profitability margins may not necessarily bear any resemblance to their long-term profitability.

**Lessons for Hybrid Organizations**

In addition to identifying key trends emerging from the hybrid sector, the research team also aimed to identify innovations that create lessons for practitioners and researchers of hybrid organizations. The information gleaned from the five case studies revealed some common activities that help hybrid organizations reach both their financial and environmental objectives. Indeed, the case studies illustrated several common themes that the team believes can be extrapolated to all hybrid organizations.

**Implementing the Mission in Action**

Many companies have inspiring mission statements with elements of delivering a common good; however, daily decisions may not come to reflect that mission. Hybrid organizations distinguish themselves in that their explicit environmental mission is imbedded in the business model and is central to every major business decision. Through the interviews with best-in-class companies, the team identified a common theme of creative practices or engrained learning which continually reinforces the mission. Each interviewee clearly identified a strict adherence to mission and talked about why or how their organization’s culture is infused with acting toward the mission.

**Tradition of Story at Eden Foods:**

Eden Foods demonstrates that a consistent long-term mission, shared throughout all levels of the organization is a key to success of a hybrid organization. Every employee in Eden Foods believes deeply in the objectives and goals of the company. One reason for the organization’s embedded active commitment to the mission is that this mission has stayed the same for decades, due in large part to the leadership of CEO Michael Potter. At Eden Foods, story plays a notable role in infusing its culture with the mission. The oral traditions as to how the company began, its key successes and failures, and the personalities behind everything are told over and over again. The transmission of these stories is a key driver for Eden
Foods. Stories abound throughout their catalogs and brochures, describing the products and the farms from which they come. Sue Becker, Director of Marketing, describes the work of telling stories through packaging as the company’s primary challenge and its main advantage in the market.

**Passing the Mate at Guayaki:**
At Guayaki, the mission is literally passed around the company at staff meetings. As Chris Mann, Chairman of the Gourd, explains, “the culture of mate is to celebrate the human spirit. We had this mission before we had the sales, [thus] the spirit is infused within our company culture” (Mann, 2008). To illuminate this spirit, Chris spoke about their company’s meeting style. Every week employees convene in a large meeting space where they sit on the floor with pillows and pass around gourds of mate, following the traditional ceremonial style. Employees are encouraged to spend the first part of the meeting sharing personal as well as work issues. “Sharing out of the same vessel breaks down barriers and is a real unifier for the employees,” explains Chris. “It keeps everyone connected” (Mann, 2008). This connection to the tradition of mate and to one another reinforces the mission.

**PAX Mission in Action:**
As Laura Bertone, CFO, claims, “[PAX is] not that different organizationally… every company has politics. The difference is in the reality of the mission” (Bertone, L., 2008). In Laura’s previous role at Bank of America, she often heard the mission was to “make dreams come true.” While she expressed a belief in and appreciation for that mission, day-to-day workings of the financial world was inconsistent with that message. Laura suggests that you cannot identify an organization’s mission by their written representations, but must do so by their actions. Although PAX did not have a formal mission statement until recently, it had accrued years of pursuing energy efficient solutions.

**SUN OVENS Learns the Hard Way:**
Soon after CEO Paul Munsen took over the business in 1999, SUN OVENS saw a market opportunity, through Y2K disaster preparedness, to grow their business. But as Y2K came and left without significant disturbance, and while the event brought lots of short-term business, it has led the company to a ten-year struggle. SUN OVENS learned the hard way that business decisions must fit the mission. While it may be true that short-term opportunities can help build cash flow to offset financial challenges, it is clear from the SUN OVENS case study that such opportunities must clearly fit within an overall business strategy, such that when the opportunities disappear, carryover benefits continue to build the organization. Since that time, rather than deter the organization from its mission, the Y2K era has crystallized SUN OVENS' dogged purpose in operating all elements of the business to fit the mission.
Talk is Cheap at Maggie’s:
“Here at Maggie’s, we care about doing the right thing, and we want the people we work with to care about doing the right thing too,” says Doug Wilson, VP of Sales (Wilson, 2008a). This attitude lies in stark contrast to that at Doug’s previous company, a large telecommunications corporation, where “people cared only about the stock price” (Wilson, 2008a). But even though there is a purpose behind the work, Doug says it’s not easy to get all the staff to buy into that purpose all the time. Bená Burda, Founder and President, and Doug work hard to create a team-like atmosphere both within their Ypsilanti office as well as with their producers and their customers. This requires constant communication about how and why the business runs the way it does. Bená and Doug do not characterize the company according to any of the popular buzz words used to describe socially and environmentally responsible companies. Doug surmises:

“I don’t know if we fit perfectly into any box, but we fit into the box that we make every day and we leave the office feeling good about the choices we make – we’re not doing this to fit into any of those boxes – we do it because it’s just the way we choose to do business” (Wilson, 2008a).

Uncommonly Close, Personal Relationships
In contrast to the cliché, “it isn’t personal, it’s business,” business clearly is personal for hybrid organizations. Much of these organizations’ success in meeting their missions stem from uncommonly close relationships they foster with suppliers, producers, and customers. Throughout the chain of delivering products to the marketplace, hybrid organizations’ senior management often have personal connections to supply chain partners, customers, and stakeholders. While this may be partially a function of small company size, case study insight suggests this is a deliberate business decision.

Maggie’s Direct, Personal Relationships with Producers and Customers:
An integral part of the Maggie’s business model involves developing strong relationships with the people making the products and the people buying the products. Ideally, Maggie’s makes these two constituencies aware of each other as well. Part of Maggie’s social mission is to ensure that the people who make the products are working in a safe environment and are receiving an honest wage. Bená makes it a priority to develop personal relationships with the producers. One advantage to working with cooperatives in Central America, as opposed to Asia or Africa, is that their relative proximity to the U.S. enables Bená to make frequent trips.

Doug refers to “legendary customer service” when he describes Maggie’s personal relationships with its customers (Wilson, 2008a). Excellent customer service is certainly a goal of traditional for-profit companies too, and there is
not a discernible difference between the high-quality customer service that Maggie’s provides to its wholesale customers and that of a traditional for-profit company with excellent customer service. But the difference with Maggie’s is their ability to use packaging and marketing materials to connect the end-consumer with the “story” behind the product and the producers. This connection, combined with a top-quality product, results in satisfied consumers who understand that their purchases contribute to a business ecosystem that provides benefit for everyone in it.

**Eden Foods’ Farmers:**
The most innovative aspect of Eden Foods, according to Michael, is the personal relationships the company maintains with all of the supplier farmers and their families. The company holds numerous stories about how these relationships have led to highly profitable new products. For example, the idea to can organic beans started from an excess of products from the farmers, leading Eden to look into a way of preserving the beans and ensuring that the farmers continue to sell the beans for an organic premium. This close relationship with growers has proven to be a competitive advantage for Eden Foods.

**SUN OVENS Workshops with Customers:**
It is obvious that for any business, you have to understand your customers’ wants and needs. However, due to SUN OVENS environmental and social goals, like many other hybrids, getting access to, information from, and interaction with these customers, who are often located in very remote locations, can often be extremely challenging. But it is exactly these same remote customers that some hybrid organizations want to reach in order to maximize their potential social and environmental impact. Thus, interacting with such customers often requires resources or creativity that go above and beyond what is typically required by traditional companies. For example, SUN OVENS understands the biggest challenge to product adoption is cultural, rather than technical. SUN OVENS conducts workshops, which educate potential customers in new ways to account for cooking costs, go far beyond traditional company product demonstration, consumer research, and financing support.

**PAX Shareholders Can Feel Like Family:**
Through PAX’s fundraising strategy (prior to its 2007 venture financing), it found that the family feeling of the company can extend to shareholders. Patient shareholders that believe in environmental impact goals are not necessarily worried about their investment in the same way that traditional investors might be. PAX had a deliberate strategy to find high net worth individuals that would buy into the PAX vision. By articulating the goal and finding the right people, companies can raise capital without sacrificing their mission.
Guayaki Ache Economic Development:
Guayaki’s business model relies on close partnership to develop rainforest-grown organic mate. In addition to paying fair trade prices and providing pre-harvest financing, Guayaki helps train communities and establish new sources of mate. As their website details,

“the Kue Tuvy Preserve sustains families of indigenous Ache Guayakí people and is protecting 12,500 acres of Interior Atlantic Forest. The Ache Guayakí community is made up of the last hunters and gatherers remaining in the Atlantic Forest. This community believes in not cutting the forest down and is motivated to discover new alternative sources of income in order to keep the forest intact. Guayakí is working on a four-year plan to grow yerba mate below the native forest canopy in order to generate a sustained income for at least ten families by the end of the decade. Guayaki’s goal is to be part of an economic alternative for the Ache Guayakí community by offering a market for sustainable management practices and certified organic products” (Guayaki 2008).

Patience
Many hybrid organizations pursue generational or multi-generational changes. Seventh Generation demonstrates this in its company’s name, derived from the Law of the Iroquois that decrees, "In our every deliberation, we must consider the impact of our decisions on the next seven generations" (Seventh Generation, 2008). With such ambitious missions, hybrid organizations, in contrast to traditional businesses, often have longer time frames to reach maturity, which requires greater patience for all stakeholders.

PAX Long Progression from Crawling, to Walking, to Running:
“Know who you are and let that guide your decisions,” says Francesca, “and practice continual humility” (Bertone, F., 2008). PAX has always been clear about its innovation, application, and mission. However, it took nearly ten years to achieve noteworthy market penetration. Only recently have they matured from crawling to walking, and as detailed in the case study, PAX is getting ready to run. The current result is a hybrid organization which meets its mission, but it has taken patience and capital to get there. Like most hybrid organizations whose goals of impacting environmental sustainability over the long-term, their patience is acceptable and justifiable.

Guayaki’s Generational Mindset:
Guayakí has found that it is extremely difficult to change people’s habits, and in fact, can take generations to change habits. Bringing mate into a market that is dominated by coffee has been challenging. Getting people to try mate is the first step. Guayakí has learned that persistence and patience is critical to their marketing efforts. In addition, it has found that it can take time to build long-term dependable supply from their suppliers. As Chris says, “it can take
generations to change a habit and perhaps longer to change economics” (Mann, 2008).

**Limits to Growth Rate**

As hybrid organizations attempt to scale their business, they are likely to find themselves in a growth decision challenged by their mission. In some cases, there are distinct beliefs in a limit to growth. One of Clif Bar’s Five Aspirations, for example, is to “grow slower, grow better and stick around longer” (emphasis added by author). This project’s case studies help illustrate the tension and decision-making process that hybrids face when choosing between mission and market.

**Guayaki’s Scaling Challenge:**
Guayaki believes there is a limit to how fast an organization can grow if it wants to stay true to its mission. Mission-driven organizations must navigate the tension between mission and market goals all of the time. While Guayaki would love to grow from $10 million in sales to $30 million in sales in the span of a couple of years, Chris believes it would be impossible to do so while still maintaining the mission:

“We have to make sure our product is sustainable and it takes more time. Other companies, who do not take [mission-driven] sourcing into consideration would be able to scale up much faster” (Mann, 2008).

Thus, by holding fast to the mission of buying mate while restoring the forests means there is a limit to their supply and growth potential.

**SUN OVENS Balancing Profit and Mission:**
Like all hybrid organizations, there is little doubt that SUN OVENS has struggled to balance its market- and mission-driven goals. In fact, one might argue that the lack of corporate profitability, and certainly the losses incurred prior to Paul’s arrival at SUN OVENS, is due to a higher priority placed on the environmental and social goals of the organization than the profitability goals. While this may be true, the continual tension between profit and mission is what truly sets organizations such as SUN OVENS apart from traditional firms. Whether it be a financial decision to sell off the company to outside investors, an operational decision to allocate scarce resources to developing markets instead of developed markets, or a product development decision not to improve the simple design of the *GLOBAL SUN OVEN®*, SUN OVENS continually faces many decisions that force a preference for one corporate objective over the other. Indeed, it has demonstrated that to balance both and be a long lasting business, a hybrid organization cannot continuously prefer one over the other.
Market Premium Products Rarely Compete on Price
The team’s analysis of hybrid organizations reveals a distinct trend of premium product offerings and rare price advantage. The case studies reinforce this notion, as several of the companies are the distinct quality market leaders in their industry. This suggests that while companies may tweak their product for larger mass appeal, they often pursue new game strategies that incorporate novel market segments or product categories rather than competing directly in an established market or product.

**Eden Foods: Mission Above All Else:**
Since the inception of Eden Foods, the mission has been to provide the highest quality, organic, wholesome foods for its customers. While this may seem like a traditional mission statement for a company, the extent that this mission permeates the culture of Eden Foods is notable. No one in the company will compromise on quality of the ingredients. Part of this mission concerns the stewardship of the land through organic agriculture, but quality is first. In the words of Sue, “We do it the hard way. We do it the right way and that gives me peace of mind to sleep at night” (Becker, 2008). While this uncompromising attitude is essential to the mission, it often cuts into the profit margin of the company. Eden Foods pays, on average, a higher price for its raw materials, thus making its product prices higher or product margins slimmer. However, the mission continues to drive decisions and will continue as long as Michael exerts his influence.

**Maggie’s Organics Thinks Outside the Traditional Distribution Box:**
Maggie’s achieved a great competitive advantage by convincing natural food distributors that their consumers were the same consumers who would buy organic apparel products. Because Maggie’s was one of the very first companies to sell organic apparel in the U.S., a distribution channel for these types of products did not exist. Bená realized from the very beginning that the organic food consumer was much more of the target customer for Maggie’s products than the traditional apparel consumer, and because of her significant experience in the natural foods industry, she was able to make the right connections with the natural food distributors. Not all hybrid organizations are in the unique position of creating a new industry niche, as Maggie’s did in the early 1990s, but there is a valuable lesson to be learned from Maggie’s distribution success: keep an open mind and consider all channels through which products are reaching your target consumer.

**Guayakí Premium Mate:**
Consumers are willing to pay more for Guayakí products. Part of that premium comes because of Guayakí’s sustainability mission and the other because provides a superior product. The combination of premium product
and sustainability inherently limits Guayaki’s market share. Traditional for-profit businesses are unlikely to feel this same combination of constraints.

**Closing Thoughts**

**Hybrid Organization: Definition Revisited**

As any business leader knows, it is not just one element of an organization that allows a company to create a sustainable competitive edge over its competitors, but the entire system of strategic and operational elements that does so. Similarly for hybrids, it is not just one or two sets of these innovations that define hybrid organizations, rather, the integration of all such elements creates an organizational form distinct from traditional models. By combining innovative business practices that allow the organization to meet mission- and market-centric goals, a hybrid organization can alleviate the world’s most pressing issues.

**Hybrid Organization: Effectiveness Revisited**

Central to this project was the question, “Are hybrids successful at achieving environmentally sustainability?” This study reveals that some hybrid organizations are quite successful in achieving both their environmental sustainability and financial profitability goals. Others are much more successful at achieving one or the other. Still others have yet to achieve success in either. Regardless, the survey results and case studies provide evidence of profitable companies with embedded business practices helping them meet their environmental mission. These companies are effectively bridging the gap between for-profit and nonprofit aims within one organization. Such companies are restoring and/or promoting healthy farm and forest land, contributing to healthy ecosystems, and moving toward renewable resource use as they shift from non-renewable resources.

However, analysis of the sample set of hybrid organizations in this research also suggests that as relatively young companies with limited track records, their environmental sustainability activities have limited scale and impact. With potential limits to growth, questions remain whether hybrid organizations can effectively scale to meet global challenges. On one hand, it may be that some environmental sustainability goals, such as clean air, clean water, and clean energy, are likely to have economies of scale that make faster growth and mission impact more easily achievable. On the other, sustainable agriculture practices implicitly or explicitly shun economies of scale. Particularly in the case of place-based business models, scalability may be a limiting factor for hybrids to consider.

At this point, the research suggests that hybrid organizations represent a small subset of privately owned companies that, while they have had some success in reaching their targeted goals, are cumulatively overshadowed by larger institutions. However, lessons from hybrids, such as methods for embedding the mission in the organization, may be applicable for larger entities. While broad efforts by multi-
national corporations or international NGOs may appear to have widespread results, hybrid organizations can also be very efficient and self-sufficient in meeting global environmental sustainability challenges, even while reaching currently hard-to-reach markets.

Overall, this research into environmental sustainability-driven hybrid organizations suggests this organizational form is a viable model and effectively meets a range of global environmental challenges. While there may be limits in the speed and scale in which these hybrid organizations can thrive, they may also ultimately be more effective and more self-sustaining than traditional for-profit or nonprofit organizations.

**Future Research Directions**

The survey and case study method explored the full breadth of hybrid organizations with an environmental sustainability mission. Further research into differing common good missions outside of environmental sustainability (such as health care or social services) would complement this work. Further comparison to traditional private businesses could be instructive. Finally, this study focused largely on U.S.-based businesses with modest influence from international companies. Further research spanning businesses around the world would be a valuable addition to the literature.
REFERENCES


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APPENDICES

Appendix 1. Hybrid Organizations Online Questionnaire

1. Hybrid Organizations: Trends and Best Practices Questionnaire

Introduction

Our project team, supported by the Erb Institute for Global Sustainable Enterprise and the William Davidson Institute at the University of Michigan, is conducting an assessment of the newly emerged sector of "hybrid" companies that are pursuing the two-pronged goal of environmental sustainability and profitability. We have identified your company as one that fits these criteria and have requested your help in conducting novel research at the intersection of corporate innovation and environmental sustainability. For more details on our project and our team, please visit our website at: www.hybridorg.com

We define “hybrid” organizations as those that are market-oriented and common good mission-centered, i.e., those that operate in the blurred space between traditional for-profit and non-profit enterprises. Our review of industry and academic literature has identified a gap in research on hybrid organizations with an environmental sustainability mission that are, in particular, for-profit and privately owned, and thus this gap is the focus of our research. Specifically, we have narrowed our criteria of environmental sustainability mission-driven companies to encompass those where the direct business activity (products or services), or where the most significant inputs, raw materials, or resources, contribute to at least one of the following basic human needs:

- clean air
- clean water
- sustainable food/agriculture
- sustainable housing
- clean energy

The data collected from this questionnaire will provide us with an understanding of the organizational structure, financing, strategy, leadership, processes, and innovation of hybrid organizations to identify the challenges faced, the solutions generated, the innovations conceived, and the unique metrics used to measure diverse impacts. Our end goal is to create a toolkit of best practices and lessons learned from these organizations that can both be useful information for practitioners in this sector, as well as provoke discussion among researchers exploring such high-impact organizations.

Instructions

This questionnaire consists of eight sections, touching on the areas of: Organizational Structure; Financing; Business Strategy; Leadership, Culture & Mission; Process & Metrics; and Innovation. Through pre-testing of the questionnaire, we determined that it takes approximately 15 minutes to complete. The questionnaire design requires that you provide an answer to each question. However, you may exit and re-enter the questionnaire as many times as necessary before you submit it, by clicking on the “Exit this Survey” link in the upper right corner of each page – when you do this, your answers will be saved. Responses may be submitted from multiple computers, allowing more than one person to submit responses for the same questionnaire. At the end of the questionnaire, you will have to option to choose whether or not you would like to keep your answers anonymous in our final report. Finally, if you would like to receive a copy of our final report, please answer “Yes” to the relevant question on the next page.

Thank you for taking the time to respond to this questionnaire.
### 2. Company Background Information

#### 1. Company detail information

<table>
<thead>
<tr>
<th>Field</th>
<th>Details</th>
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<tr>
<td>Company name</td>
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<tr>
<td>Name of survey respondent</td>
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<tr>
<td>Title of survey respondent</td>
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</tr>
<tr>
<td>Email address</td>
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</tr>
<tr>
<td>Company headquarters address</td>
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<tr>
<td>Year founded</td>
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</tr>
<tr>
<td>Approximate annual revenue</td>
<td></td>
</tr>
<tr>
<td>Number of employees</td>
<td></td>
</tr>
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</table>

#### 2. Does your organization meet any of the following basic human needs? (choose all that apply)

- [ ] Clean air
- [ ] Clean water
- [ ] Sustainable food/agriculture
- [ ] Sustainable housing
- [ ] Clean energy
- [ ] None of the above
- [ ] Other (please specify)  

#### 3. Would you like us to send you a copy of our final report?

- [ ] Yes
- [ ] No
3. Organizational Structure

4. What is your legal organizational structure?
   - Corporation
   - S Corporation
   - Limited Liability Corporation
   - Partnership
   - Proprietorship
   - Cooperative
   - Employee-owned
   - Other (please specify)

5. How would you describe the internal organizational structure of your company?
   - Structured according to functional areas (i.e., HR department, IT department, finance department, etc.)
   - Structured according to product line (i.e., food company structured by cereals, frozen foods and fresh produce, etc.)
   - Structured in matrix format, where teams may report to two or more managers (i.e., overlaying two organizational forms such as geographical and product)
   - Structured by divisions, each operating like their own businesses (i.e., Ford Motor company divisions are Lincoln, Mercury, Mazda, etc.)
   - Other (please specify)

6. How would you describe the overall operating structure of your organization?
   - Hierarchical: clearly bounded roles and reporting structure
   - Flat: less clearly defined roles and chains of command
   - Other (please specify)

7. How is environmental sustainability addressed within your organization?
   - Affiliated legal entity (i.e., non-profit or foundation)
   - Separate division
   - Taskforce/working group
   - Fully integrated throughout the organization
   - Other (please specify)

8. Has your organizational structure been a particular source of advantage or
4. Financing

9. Where has your financing come from in the past?

<table>
<thead>
<tr>
<th>Source</th>
<th>0%</th>
<th>1%-20%</th>
<th>21%-40%</th>
<th>41%-60%</th>
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<tr>
<td>Traditional market-rate debt</td>
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<tr>
<td>&quot;Patient&quot; or below market-rate debt</td>
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<td>Grants</td>
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<td>Founder(s), friends, or family</td>
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</tr>
<tr>
<td>Re-investment of operating profits</td>
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<td>If other, please specify type and %</td>
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10. In the near future, how do you expect to finance growth?

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<th>21%-40%</th>
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<tr>
<td>Re-investment of operating profits</td>
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<td>If other, please specify type and %</td>
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</table>

11. Has your company’s financing been a particular source of advantage or challenge to achieve your environmental sustainability goals?

<table>
<thead>
<tr>
<th>Option</th>
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<tr>
<td>No</td>
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<tr>
<td>If yes, please explain</td>
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5. Business Strategy

12. Which geography best describes your target market?
- Local
- Regional
- National
- Multi-national

13. Please rank the following sources of competitive advantage as they relate to your business strategy. (1=Most Important)

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<th>3</th>
<th>4</th>
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<tr>
<td>Innovative product/service</td>
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<td>Environmental features</td>
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<td>Brand name</td>
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<td>Other</td>
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</tbody>
</table>

If other, please specify:

14. Which of the following best describes how your organization competes?
- To do better than competitors in the same game
- To do something completely different than competitors
- Other (please specify)

15. Which of the following best describes where your organization competes?
- An established market
- A new market
- Other (please specify)

16. Do you have strategic partnerships that support your environmental sustainability goals with any of the following types of institutions? (choose all that apply)
- Government institutions/agencies
- Non-profit organizations
- Community organizations
17. Has your company's business strategy been a particular source of advantage or challenge to achieve your environmental sustainability goals?

- No
- If yes, please explain

6. Leadership, Organizational Culture & Mission

18. In which sector did the enterprise CEO previously work? (choose all that apply)
- For-profit
- Non-profit
- Government
- Hybrid enterprise
- Other (please specify)

19. Which best describes the leadership style of the CEO? (choose one)
- Charismatic: gathers followers through personality and charm, rather than formal power or authority
- Participative: extroverted, sensitive leader who openly shares decisions and authority with subordinates
- Transactional: leads by reward and punishment, with a clear chain of command
- Transformational: inspiring leader through vision and passion, achieving success by clarity of thought and articulation
- Quiet: success based not on ego and character but thoughts and actions
- Servant: leads by serving others, rather than others serving the leader, emphasizing collaboration and trust

20. How involved is the Board of Directors in making decisions?
- Don't have a Board of Directors
- Very involved
- Somewhat involved
- Rarely involved
- Not involved at all
21. How often are the company's overall business strategies shared with all levels of company employees? (choose one)
- Never
- Quarterly
- Bi-annually
- Annually
- Other (please specify)

22. Which of the following include your environmental sustainability objectives? (choose all that apply)
- Articles of incorporation
- Mission statement
- Vision statement
- Branding text
- Logo
- Other (please specify)

23. Was the enterprise founded with an environmental sustainability mission or did this evolve later?
- Founded with environmental sustainability mission
- Environmental sustainability mission evolved later
- Do not have an environmental sustainability mission

24. Has your company's leadership, organizational culture and/or mission been a particular source of advantage or challenge to achieve your environmental sustainability goals?
- No
- If yes, please explain
### 7. Process & Metrics

25. What is your margin of profitability (net income / revenue)?
- Less than 0%
- 0% - 5%
- 6% - 10%
- 11% - 20%
- This information is confidential
- If more than 20% please specify

26. For how long has your company been profitable?
- Has never been profitable
- Has been profitable for: [Input field]

27. Do you use any other financial performance metrics as an indication of success?
- No
- If yes, please specify: [Input field]

28. Do you pay salaries at:
- Above market rate average
- Market rate average
- 1%-25% below market rate
- 26%-50% below market rate
- More than 50% below market rate
- This information is confidential

29. Is compensation of employees tied to performance on sustainability issues?
- Yes
- No
30. Do you track the environmental sustainability performance of your organization?
- Yes
- No

8. Process & Metrics (cont.)

31. How often do you track the environmental sustainability performance of your organization?
- Quarterly
- Annually
- Bi-annually
- Other (please specify)

32. How do you track this performance? (choose all that apply)
- Upstream (suppliers)
- Company operations (internal)
- Downstream (product impacts)

33. Which of the following do you measure? (choose all that apply)
- Carbon emissions
- Energy consumption
- Chemical usage
- Waste production
- Water consumption
- Other (please specify)

34. Which tools do you use? (choose all that apply)
- Global Reporting Initiative
- ISO 14001
- Carbon Disclosure Project Reports
- Customized, in-house tools
- Other (please specify)
35. Has your company’s processes and metrics, as discussed in this section, been a particular source of advantage or challenge to achieve your environmental sustainability goals?

- No
- If yes, please explain

9. Innovation

36. Has your company developed any notable innovations?

- Yes
- No

10. Innovation (cont.)

37. Of which innovation is your organization most proud?

- 

38. How widely has this innovation been adopted is within your innovation in your industry?

- It has not been adopted by others
- A few others have adopted a similar innovation
- This innovation has become widely adopted
- Don’t know how widely this innovation has been adopted

39. What are the sources of your company’s innovations?

<table>
<thead>
<tr>
<th>Source of Innovation</th>
<th>0%</th>
<th>1-20%</th>
<th>21-40%</th>
<th>41-60%</th>
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<tr>
<td>Senior leadership</td>
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<tr>
<td>Staff</td>
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<tr>
<td>External to the organization</td>
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<tr>
<td>If other, please specify source and %</td>
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### 11. Final Questions

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<tbody>
<tr>
<td>40. May we attribute your responses to your company? (If you allow us to use your comments in our final report, we will give you the opportunity to review in advance.)</td>
<td></td>
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<tr>
<td></td>
<td>Yes</td>
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<td></td>
<td>No</td>
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<tbody>
<tr>
<td>41. May we attribute comments to you, the survey respondent? (If you allow us to use your comments in our final report, we will give you the opportunity to review in advance.)</td>
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<tr>
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<td>Yes</td>
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<tbody>
<tr>
<td>42. May we contact you by email for future correspondence?</td>
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<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>No</td>
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</table>
### Appendix 2: List of Hybrid Organizations Completing Survey

<table>
<thead>
<tr>
<th>Company Name</th>
<th>HQ Location</th>
<th>Clean Air</th>
<th>Clean Water</th>
<th>Sustainable Food/ Agriculture</th>
<th>Sustainable Housing</th>
<th>Clean Energy</th>
<th>Website Address</th>
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Appendix 3. Case Study Interview Guide

Project: Hybrid Organization Innovations Towards Sustainability

Scope:
Our project team, supported by the Erb Institute for Global Sustainable Enterprise and the William Davidson Institute at the University of Michigan, is conducting an assessment of the newly emerged sector of “hybrid” companies that are pursuing the two-pronged goal of environmental sustainability and profitability.

We define “hybrid” organizations as those that are market-oriented and common good mission-centered, i.e., those that operate in the blurred space between traditional for-profit and non-profit enterprises. Our review of industry and academic literature has identified a gap in research on hybrid organizations with an environmental sustainability mission that are, in particular, for-profit and privately owned, and thus this gap is the focus of our research. Specifically, we have narrowed our criteria of environmental sustainability mission-driven companies to encompass those where the direct business activity (products or services), or where the most significant inputs, raw materials, or resources, contribute to at least one of the following basic human needs:

- clean air
- clean water
- sustainable food/agriculture
- sustainable housing
- clean energy

The data collected from both our survey (participation by 50 companies) and our in-depth case studies (participation by five companies) will provide us with an understanding of the organizational structure, financing, strategy, leadership, processes, and innovations of hybrid organizations to identify the challenges faced, the solutions generated, the innovations conceived, and the unique metrics used to measure diverse impacts. Our end goal is to create a toolkit of best practices and lessons learned from these organizations that can both be useful information for practitioners in this sector, as well as provoke discussion among researchers exploring such high-impact organizations.

Primary Goal of Case Study Interviews: To understand the key levers that differentiate best-in-class hybrid organizations.

DISCLAIMER: We will attempt to capture the characteristics of your organization as accurately and descriptively to the best of our abilities. In the best interest of all involved, your organization will be able to review the write-up from this case study before it is published. We ask that you ensure the appropriate legal, executive, and public relations personnel are involved in this review process. We absolve ourselves of any liability once your organization has consented to the publication of our write-up.
Questions for Case Study Interviews

Note: these questions are considered as guidance only. The nature of the interviews will be exploratory in nature, subject to change as the conditions warrant. We already have collected company profile information (size, annual revenue, geography, etc) and will have a sense of your areas of strength from the survey so each case study might be conducted in a slightly different manner.

History – Note: searching for conscious decisions that influenced innovation and the current state of the firm.

- Get an overview of how the company started and how it came to be where it is today
- Founding of Organization
- What was the inspiration for the organization?
- Who was involved at the start?
- Describe key external market trends/events and internal decisions that significantly influenced the direction and shape of the company.
- External Trends/Events
- How did the firm respond to the market trend/event?
- Why did the firm feel it was necessary to respond?
- Internal Decisions:
  - Who was involved in making the decision?
  - How did you come to that decision point?
  - What were the factors considered in that decision?
  - Did that decision lead to a notable innovation within your firm?
  - How did that decision impact where you are today?

Digging Deeper into the Six “Buckets” (The six areas explored in the initial survey are: Organizational Structure; Financing; Business Strategy; Leadership, Culture & Mission; Processes & Metrics; Innovation)

Pre-identified Sources of Advantage: First, we will ask questions about each of the buckets that the survey respondent identified as being a source of advantage to achieve environmental sustainability goals.

Other Buckets: Time permitting, we will ask questions about areas of interest in the remaining buckets.

Organizational Structure
What is your legal organizational structure?
Why was this structure chosen?
Did you explore the advantages of other structures?
How would you describe the internal organizational structure of your company? (i.e. Structured according to functional areas, product lines, matrix format, where teams may report to two or more managers, divisions, each operating like their own businesses, etc.)
Was this a conscious decision or did it happen naturally?
How effective is this structure?
How would you describe the overall operating structure of your organization? (i.e. Hierarchical: clearly bounded roles and reporting structure; Flat: less clearly defined roles and chains of command; Other)
Was this a conscious decision or did it happen naturally?
Do you think this structure helps or hurts the organization?
What do employees think of this structure?
In the survey response submitted by your company, it was noted that environmental sustainability is fully integrated throughout the organization. Please describe how this is done.
Has your organizational structure been a particular source of advantage or challenge to achieve environmental sustainability goals?
If yes, explain why org structure is an advantage or challenge.
Some thought leaders on organizational excellence (Peters and Waterman) believe breaking a corporation into smaller independent units that encourage autonomy and entrepreneurship is one key to organizational success.
Do you agree?
Would such an approach be useful for your organization if it were to reach sufficient size?
Do you think this approach is true for hybrid organizations in general?

**Financing**
In the survey response submitted by your company, it was noted that in the past financing has come from (note: our team will fill this in with the correct info prior to the site visit): ________ ( X %); ________ ( X %); ________ ( X %). Is this information correct?
What are the reasons behind these sources of financing?
Would other sources of financing have been more advantageous? Why?
Did you have to find the funding or did the funding come to you?
In the survey response submitted by your company, it was noted that in the in the near future, you expect to finance growth using: ________ ( X %); ________ ( X %); ________ ( X %). Is this information correct?
Why do you expect to use these sources of financing in the near future?
Do you believe these are the best possible sources of future financing for your company? Why or why not?
Has your company’s financing been a particular source of advantage or challenge to achieve environmental sustainability goals?
If yes, explain why financing is an advantage or challenge.

**Business Strategy**
Which geography best describes your target market? (i.e. Local; Regional; National; Multi-national)
Why was this target market chosen?
Do you expect the target market to change in the next five to ten years?
Which of the following best describe your sources of competitive advantage? Lower cost; Higher quality; Innovative product / service; Environmental features; Brand name; Other
Why is (answer above) a source of competitive advantage?
Has this always been a source of competitive advantage?
Do you think it will continue to be a source of competitive advantage?
Which of the following best describes how your organization competes? To do better than competitors in the same game; To do something completely different than competitors; Other
Why did your company choose to compete in this way?
Will your game plan change in the future?
Which of the following best describes where your organization competes? An established market; A new market; Other
Why did your company choose to compete in this market?
If you compete in a new market, do you expect this market to become more established in the next five to ten years? If yes, how will this affect your strategy?
Do you have strategic partnerships with any other organizations/institutions that support your environmental sustainability goals?
If yes, please describe the key features of the partnership.
How does this partnership support your environmental sustainability goals?
What are the challenges of this partnership?
Has your business strategy been a particular source of advantage or challenge to achieve environmental sustainability goals?

Leadership, Organizational Culture & Mission
In which sector did the CEO previously work? (i.e. For-profit, non-profit, government, hybrid enterprise, etc)
How does the CEO’s previous experience in this sector (answer above) influence the company?
How do employees view this previous experience?
How do investors view this previous experience?
In the survey response submitted by your company, it was noted that the leadership style of your company’s CEO is best described as: ______________. (note: team will fill in with response from survey prior to site visit) Do you agree with this?
How does this leadership style influence the organizational culture of your company?
How often does your leader visit or talk to the troops on the front line (Peters and Waterman suggest leaders regularly visit all levels of an organization to truly understand what is going on)?
Some thought leaders on leadership (Collins) believe that humility and will are the two essential yet often contrarian characteristics of a top level executive (called “Level 5 Leadership” by Collins).
Do you agree with this opinion?
Would you say you/ your leader fits this definition?
How important is leadership development in your organization (Fulmer and Bleak believe the best run companies institutionalize leadership development throughout an organization)?
How does it happen?
Who is involved?
Does your company have a Board of Directors?
How involved is the Board of Directors in making decisions?
Is this involvement prescriptive or evaluative?
How was the Board of Directors’ level of involvement determined?
How does the involvement of the Board of Directors help the company achieve its environmental sustainability goals?
How often is the company’s overall business strategy shared with all levels of company employees? (i.e. quarterly, bi-annually, annually, etc)
How is the overall business strategy shared with company employees?
Do all levels of company employees have a voice in shaping overall business strategy. If yes, what is the process for receiving this feedback?
How often is the company’s overall business strategy shared with external stakeholders? How is the information shared?
Is there any process for external feedback?
In the survey response submitted by your company, it was noted that each of the following include your environmental sustainability objectives: ____________, ____________, ____________ (note: team will fill in with response from survey prior to site visit). Is this information correct?
Why was the decision made to include environmental sustainability objectives in each of these?
What value is there in including these objectives in each of these?
Some people believe these are just corporate rhetoric, would you agree?
How important is company culture to your success?
In the survey response submitted by your company, it was noted that the company was founded with an environmental sustainability mission. Is this correct?
How is environmental sustainability defined in the context of your company’s mission?
Why was the decision made to found the company with an environmental sustainability mission?
Is environmental sustainability the primary mission of the company?
Can the company be successful without achieving this mission?
Do you sense your environmental mission might change in the future? If so, under what circumstances?
Does your environmental sustainability mission enhance your company’s reputation?
To which audiences?
How do you know?
Has your company’s leadership, culture and/or mission been a particular source of advantage or challenge to achieve environmental sustainability goals?
How often is your organizational vision recalibrated based on internal or external factors?
Where do you see the sustainability movement heading in the next 1-2 years? 3-5 years?
Do you believe this structure is more likely to encourage risk-taking behavior action or careful analysis and decision-making (Peters and Waterman say a preference for action is always better than cycles of analysis?)

**Processes & Metrics**

In the survey response submitted by your company, it was noted that your margin of profitability is a) confidential information or b) ________%. Is this information correct? *(Note: if profitability information was noted as confidential in the survey response, we will ask for this information again)*

If profitability information is confidential, can you tell us if the company is currently profitable?

If company is profitable, for how long has it been profitable?

If company is not profitable, what are some of the key challenges to achieving profitability?

When do you expect the company to be profitable?

What is your ideal profitability level?

How contingent is your profitability on external funding or government support?

Do you use any other financial performance metrics as an indication of success?

If yes, please explain. Why do you use additional metrics?

How do these other metrics help the company understand its performance?

In the survey response submitted by your company, it was noted that the company pays salaries at _______________ *(note: team will fill in with response from survey prior to site visit)*. Is this correct?

Against whom do you benchmark your salaries?

Who made the decision to pay salaries at this rate?

Why are salaries paid at this rate?

Do you expect this rate to change in the next five to ten years? Why or why not?

If salaries are below market rate, how do you retain high-quality employees?

Is compensation of employees tied to performance on sustainability issues? Why or why not?

If yes, please explain exactly the tie between compensation and environmental sustainability

If yes, how does this help the company achieve its environmental sustainability goals?

What, if any, other performance metrics are used for evaluating your employee performance?

In the survey response submitted by your company, it was noted that the environmental sustainability performance of your company is tracked/measured. Is this correct?

How often is the environmental sustainability performance of the organization measured? *(i.e. quarterly, bi-annually annually, etc)*

Who decided to measure it with this frequency and why?

Do you believe it should be measured more frequently? Why or why not?

In the survey response submitted by your company, it was noted that the company measures the environmental sustainability performance of a) Internal company
operations b) Upstream suppliers c) Downstream product impacts. *(note: team will fill in response from survey prior to site visit). Is this correct?

For each answer noted in the previous question, which of the following do you measure? Carbon emissions; Energy consumption; Chemical usage; Waste production; Water consumption; Other

Who made the decision to measure these indicators?

Why did the company choose to measure these indicators?

Why are not measuring other indicators?

What are the challenges in measuring these indicators?

For each answer (internal, upstream, downstream) which tools do you use? Global Reporting Initiative; ISO 14001; Carbon Disclosure Project Reports; Customized, in-house tools; Other *(note: most of our “best in class companies say that they use customized in-house tools)*

How did the company decide which tools to use? Was this an internal decision – if so, who decided?

Were external constituencies engaged? Why?

For in-house tools, can you tell us more about how this measurement is done?

How far along are you in your efforts to measure environmental sustainability performance? What are your goals on this front in the next five to ten years?

Are you benchmarking against other companies in your sector in terms of environmental sustainability performance measurements? Which ones do you see as leaders in this area?

Has your company’s processes and metrics been a particular source of advantage or challenge to achieve environmental sustainability goals?

**Innovation**

In the survey response submitted by your company, it was noted that the innovation your company is most proud of is: _________________. *(note: team will fill in response from survey prior to site visit). Please explain this innovation in more detail.

When and how was this innovation developed?

What makes (answer above) innovative, especially compared to “business-as-usual” in your industry?

How is this innovation tied to your company’s environmental sustainability goals?

How widely has this innovation been adopted within your industry?

If innovation has been adopted by others, please explain this adoption in more detail.

Do you encourage adoption of your company’s innovations by others in the industry (esp if this innovation contributes to environmental sustainability outcomes), or is this not encouraged? Why?

Does your company have other notable innovations? If yes, please describe in detail.

When and how were these innovations developed?

What makes (answer above) innovative, especially compared to “business-as-usual” in your industry?

How are these innovations tied to your company’s environmental sustainability goals?
How widely have these innovations been adopted within your industry?
If innovation has been adopted by others, please explain this adoption in more detail.
In the survey response submitted by your company, it was noted that your company’s ideas for innovation come from: __________ (X %); __________ (X %); __________ (X %). (note: team will fill in response from survey prior to site visit). Is this information correct?
Do you believe that innovative thinking can be more widely integrated through all levels of your company? Why or why not?
What do you think is the best way to ensure an innovation culture within an organization?
How important is innovation to achieving competitive advantage within your industry?
How important is innovation to achieving your environmental sustainability goals?
Some organizations (including Peters and Waterman) believe that layers of bureaucracy and top-heavy pyramid structures inhibit innovation. Is this true for hybrid organizations?

General Wrap Up

Lessons learned
What was the biggest failure encountered in implementing your business model to achieve both environmental and financial sustainability?
What was the biggest success?
Were there any surprises or unexpected results?
What are the three most important lessons you have learned since implementing your business model?
In retrospect, what might you do differently if you were to implement your business model today?
What recent changes have occurred in the business world that might alter the way you implemented your business model?
In your view, has your company’s environmental sustainability goals had a net positive or a net negative impact on cash flow and strategic position?

Lessons still to be learned
Where are the gaps in the knowledge or skills of your management team that still remain for moving forward?
If you could learn anything from other for-profit companies with environmental sustainability goals, what would they be? What would you like to see in the report that we are developing?

Reflections
Do you believe that a hybrid organization such as yours is better positioned to achieve environmental sustainability goals than traditional nonprofits and for-profits?
How do you see your organization as different from a traditional company on non-profit organization?
Do you think there is a limit to growth as a hybrid organization?

Are there any additional reflections or comments that you feel would assist our team in understanding the unique advantages and challenges faced by for-profit organizations with an environmental sustainability mission?

Questions to Us
Do you have any questions you would like to ask of us?
Appendix 4. Detailed Analysis of Survey Results

Questions #1a – 1j: Demographic information only

Question # 1k: Approximate Annual Revenue
43 of 47 companies provided revenue information (4 companies marked either confidential or variable)

Mean = $84,395,934  
Median = $1,500,000  
Range  
Min = $0  
Max = $2,296,475,176 (~$2.3 billion)

Question 1j: Age of Company
47 of 47 companies provided age data.

Mean = 10.1 years  
Median = 7 years  
Range  
Min = 1 year  
Max = 40 years

Question 1l: # of Employees
47 of 47 companies provided # of employee information

Mean = 169  
Median = 20  
Range  
Min = 0  
Max = 5130
Question #2: Does your organization meet any of the following basic human needs? (choose all that apply)

- Clean air
- Clean water
- Sustainable food/agriculture
- Sustainable housing
- Clean energy
- None of the above
- Other

Conclusion:
Over 50% of our sample companies (26 of 47) contribute to clean energy. Some companies contribute to two or more of the basic human needs listed above. Responses in the “Other” category include: pesticide-free pest management, eco-friendly home care, almost zero waste, and women’s rights, adult education, and income generation.

Question #4: What is your legal organizational structure?

- Corp
- S Corp
- Ltd Liability Corp
- Partnership
- Other

Conclusion:
The majority of companies in our sample are legally structured as corporations. The two “other” responses are: S-corp with 32% ESOP ownership and Listed Company.
Question #5: How would you describe the internal organizational structure of your company?

Conclusion:
The majority of companies in our sample (70%) are organized internally according to functional areas. The three companies that selected “Other” as their response to this question are all very small companies (3, 6, and 15 employees, respectively) and all have informal organizational structures. One company commented that their organizational structure is based on “instinct”.

Question #6: How would you describe the overall operating structure of your organization?

Conclusion:
The majority of companies in our sample (57%) have a flat structure, with less clearly defined roles and chains of command. The companies that responded with “other” have a combination of flat and hierarchical structures.

Question #7: How is environmental sustainability addressed within your organization?
Conclusion:
The vast majority of companies in our sample (83%) have environmental sustainability fully integrated throughout the organization. This is one of the 3 key environmental filter questions that we are using to identify best-in-class organizations but appears to be the least sensitive of the 3 filters. Of the 4 companies that responded with "other", the answers fell into these categories:
- 2 of 4 moving towards fully integrated environmental sustainability
- 1 of 4 has project-oriented environmental sustainability, i.e. building plants that recycle waste
- 1 of 4 has not integrated environmental sustainability in any organized way

Question #8: Has your organizational structure been a particular source of advantage or challenge to achieve environmental sustainability goals?

Conclusion:
Two thirds of the companies in our sample do not think that their organizational structure has been a particular source of advantage or challenge to achieve their environmental sustainability goals. One third of the companies think that their organizational structure has been a particular source of advantage or challenge to achieve their environmental sustainability goals. Most of these companies see it as
an advantage but two of the companies see it as partially an advantage and partially a challenge.

**Question #9: Where has your financing come from in the past?**

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<th>1-20%</th>
<th>21-40%</th>
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<th>61-80%</th>
<th>81-100%</th>
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<tr>
<td>Traditional market-rate equity</td>
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<td>4%</td>
<td>0%</td>
<td>6%</td>
<td>9%</td>
<td>11%</td>
<td>24%</td>
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<tr>
<td>Traditional market-rate debt</td>
<td>17%</td>
<td>13%</td>
<td>6%</td>
<td>4%</td>
<td>6%</td>
<td>2%</td>
<td>15%</td>
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<tr>
<td>&quot;Patient&quot; or below market-rate debt</td>
<td>26%</td>
<td>0%</td>
<td>4%</td>
<td>2%</td>
<td>0%</td>
<td>0%</td>
<td>3%</td>
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<tr>
<td>&quot;Patient&quot; or below market-rate equity</td>
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<td>4%</td>
<td>4%</td>
<td>2%</td>
<td>9%</td>
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<tr>
<td>Grants</td>
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<td>19%</td>
<td>13%</td>
<td>0%</td>
<td>0%</td>
<td>2%</td>
<td>10%</td>
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<td>Founder(s), friends, or family</td>
<td>15%</td>
<td>23%</td>
<td>9%</td>
<td>2%</td>
<td>6%</td>
<td>11%</td>
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<td>Re-investment of operating profits</td>
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<td>17%</td>
<td>4%</td>
<td>4%</td>
<td>2%</td>
<td>4%</td>
<td>13%</td>
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**Conclusion:**
Financing for hybrids seems to follow closer to traditional businesses of comparable size in their sources of financing (market-rate equity and debt, founder, friends and family, and re-investment), while still receiving a portion from non-traditional sources (patient capital, grants). This differentiates them from traditional non-profit financing, which often relies mostly on grants and founders, friends and family.

**Question #10: In the near future, how do you expect to finance growth?**

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<th>1-20%</th>
<th>21-40%</th>
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<th>61-80%</th>
<th>81-100%</th>
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<td>4%</td>
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<td>6%</td>
<td>26%</td>
</tr>
<tr>
<td>Traditional market-rate debt</td>
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<td>11%</td>
<td>13%</td>
<td>4%</td>
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</table>
“Patient” or below market-rate debt

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<th>9%</th>
<th>2%</th>
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<th>11%</th>
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</table>

“Patient” or below market-rate equity

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Grants

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<th>3%</th>
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</table>

Founder(s), friends, or family

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<th>2%</th>
<th>4%</th>
<th>0%</th>
<th>0%</th>
<th>5%</th>
</tr>
</thead>
</table>

Re-investment of operating profits

<table>
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<th>13%</th>
<th>15%</th>
<th>11%</th>
<th>11%</th>
<th>2%</th>
<th>13%</th>
<th>29%</th>
</tr>
</thead>
</table>

Conclusion:
Financing from growth follows closely along the lines of traditional business financing.

Question #11: Has your company's financing been a particular source of advantage or challenge to achieve your environmental sustainability goals?

Conclusion:
In contrast to organizational structure (question 8), the majority of the companies in our sample (57%) feel that financing has been a particular source of advantage or challenge to achieve environmental sustainability goals. Of the 25 companies that answered “yes” to this question, 15 of them (60%) believe that financing has been an advantage to achieve environmental sustainability goals and 10 of them (40%) believe financing has been a challenge to achieve these goals. Their detailed responses are below.

Advantage summary:
- Patient capital gives firms longer timeline to show returns / Venture firms investing in cleantech understand the longer timelines involved in R&D
- Attractive to investment funds that quantify sustainable practices
• as sustainability is one of our brand's values, we have legitimacy to increase product prices to a premium range. Thus our projects are financed with own resources, which come from our revenue.
• Lack of public or outside equity stakeholders means there are no quarterly profit pressures

Challenge summary:
• Difficult to attract capital for pre-commercial or unproven technology.
• For company owned by publicly-traded company, projects are held to a fairly short-term payback
• General lack of funding for some of the smaller companies

Question #12: Which geography best describes your target market?

Conclusion:
Over 90% of the companies in our sample identify their target market as either national or multi-national, with less than 10% identifying a regional or local target market. However, our sample could be biased for this question because we primarily chose our sample based on organizations that we read about in national or international publications or met at national trade associations.

Question #14: Which of the following best describes how your organization competes?
To do better than competitors in the same game
To do something completely different than competitors
Other (please specify)

Conclusion:
Roughly two thirds of the companies in our sample do something completely different than their competitors.

**Question #15:** Which of the following best describes where your organization competes?

**Conclusion:**
Roughly equal numbers of companies in our sample compete in established markets and new markets, with the majority of respondents specifying “Other” state that they are in both types of markets or a new segment of an old market.

**Question #16:** Do you have strategic partnerships that support your environmental sustainability goals with any of the following types of
institutions? (choose all that apply)

- Government institutions/agencies
- Non-profit organizations
- Community organizations
- None of the above
- Other (please specify)

Conclusion:
Almost 75% of the companies in our sample have strategic partnerships, with the majority partnering with non-profit organizations and/or government institutions or organizations. Some interesting other partnerships specified are with academic institutions, industry associations, suppliers, and other value driven businesses.

Question #17: Has your company's business strategy been a particular source of advantage or challenge to achieve your environmental sustainability goals?

Yes
No

Conclusion:
Roughly half of the respondents believe that business strategy has been a source of advantage or challenge, while the other half does not believe so. For those that answered yes, all but one believes that business strategy has been an advantage.

Question #18: In which sector did the enterprise CEO previously work?
Conclusion:
Over 78% of CEOs of the companies in our sample have previously worked in For-Profit organizations, with only 17% having previously worked in Hybrid Organizations.

Question #19: Which best describes the leadership style of the CEO?

Definitions:
Charismatic: gathers followers through personality and charm, rather than formal power or authority, Participative: extroverted, sensitive leader who openly shares decisions and authority with subordinates, Transactional: leads by reward and punishment, with a clear chain of command, Transformational: inspiring leader through vision and passion, achieving success by clarity of thought and articulation, Quiet: success based not on ego and character but thoughts and actions, Servant: leads by serving others, rather than others serving the leader, emphasizing collaboration and trust.

Conclusion:
The majority of companies in our sample either have CEOs with a participative style (44%), or a transformational style. None of the respondents have CEOs with a transactional style, which is normally thought of as the style of CEOs in 'old-school' traditional businesses.
**Question #20:** How involved is the Board of Directors in making decisions?

- **Not involved at all**
- **Rarely involved**
- **Somewhat involved**
- **Very involved**
- **No Board of Directors**

Conclusion:
For companies in our sample with a Board of Directors, the majority have boards with heavy involvement in the organization.

**Question #21:** How often is the company’s overall business strategies shared with all levels of company employees?

- **Never**
- **Annually**
- **Bi-Annually**
- **Quarterly**
- **Monthly**
- **Weekly/Constantly**

Conclusion:
Hybrid organizations frequently communicate business strategy throughout the organization; 79% of respondents communicate at least quarterly or more. Almost 20% have weekly or constant communication within small organizations.

**Question #22:** Which of the following include your environmental sustainability objectives?
Conclusion:
Almost all of our hybrid organizations proclaim their environmental sustainability objectives in internally focused ways – Mission and/or Vision Statements. And approximately half of the organizations have external market facing environmental sustainability objectives – Logo and/or Branding Text.

**Question #23:** Was the enterprise founded with an environmental sustainability mission or did this evolve later?

Conclusion:
The vast majority of our survey organizations were founded with an environmental sustainability mission.

**Question #25:** What is your margin of profitability (net income / revenue)?
Conclusion:
For responding survey participants, more companies reported below market rate returns (that is below Dow Jones long term average return of 11%).

**Question #26: For how long has your company been profitable?**

Conclusion:
Many of the respondents appear to have never turned a profit. This may be explained by the sample bias towards younger firms, but also that it is difficult to be successful at meeting both mission and market-driven goals.

**Question #27: Do you use any other financial performance metrics as an indication of success?**
Conclusion:
Other financial metrics included revenue growth, ROI, cash flow, costs, project bookings, and other Key Performance Indicators (KPIs). These results seem to suggest that using only profitability may not be the best indicator of financial success, especially in capital-intensive industries that have a long payback cycle.

**Question #28: Do you pay salaries at?**

**Conclusion:**
Despite mixed profitability results, hybrid organizations generally pay self-defined market rate salaries or above.

**Question #29: Is compensation of employees tied to performance on sustainability issues?**
Conclusion:
A significant minority of companies do tie compensation directly to sustainability performance but more than might be expected at a traditional for-profit company.

Question #30: Do you track the environmental sustainability performance of your organization?

Conclusion:
The majority of companies track environmental sustainability performance.

Question #31: How often do you track the environmental sustainability performance of your organization?
Conclusion:
Most companies that track environmental sustainability performance do so at least every three months. Those that continually monitor performance often have key supplies or inputs that implicitly tie to their environmental sustainability goals.

**Question #32: How do you track this [environmental sustainability] performance? (choose all that apply)**

- Upstream (suppliers)
- Company Operations
- Downstream (product impacts)

Conclusion:
Most companies that track environmental sustainability performance not only monitor their internal operations, but also upstream or downstream.

**Question #33: Which of the following do you measure? (choose all that apply)**
Conclusion:
In addition to traditional environmental sustainability measures, companies also measure:

- Recycled content in primary packaging
- Sustainability of formulas and packaging
- Project impacts
- Chemical recovery
- Air emissions (NOx, PM10, and SOx)
- Ingredients organic content
- LEED standards
- Wood not burned
Question #34: Which tools do you use? (choose all that apply)

- Customized in-house tools
- Carbon Disclosure Project
- ISO 14001
- Global Reporting Initiative

Conclusion:
The vast majority of respondents use in-house custom tools to measure environmental sustainability. In addition, some companies use:

- External consultants
- Third party auditors
- Industry standards
- State and local-based programs (e.g. California Climate Registry)

Question #36: Has your company developed any notable innovations?

Conclusion:
It seems that most respondents believe they have at least one notable innovation. Perhaps this is true of hybrid organizations in general if the nature of hybrid organizations requires innovations to meet often conflicting mission-driven and financially-driven goals.

Question #38: How widely has this innovation been adopted within your industry?
Conclusion:
Our sample of hybrid organizations believes themselves to be at the cutting edge of new business ideas.

**Question #39: What are the sources of your company's innovations?**

<table>
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<tr>
<th>Source</th>
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<th>21%-40%</th>
<th>41%-60%</th>
<th>61% - 80%</th>
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<td>15%</td>
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<tr>
<td>Staff</td>
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<td>36%</td>
<td>33%</td>
<td>5%</td>
<td>3%</td>
</tr>
<tr>
<td>External to the Org</td>
<td>36%</td>
<td>41%</td>
<td>13%</td>
<td>3%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Conclusion:
Hybrid organizations appear to rely largely on Internal R&D and Senior Leadership for innovations.
Appendix 5. Statistical Analysis and Correlations

#6 Organizational Structure vs. #7 How Sustainability is Addressed:

The research team hypothesized that there might be a correlation between an organization’s structure (flat or hierarchical) and how sustainability is addressed within the organization (fully integrated, special task force, separate group, or affiliated external group). Some examples include:

- Flat and fully integrated
- Hierarchical and separate group
- Hierarchical and special task force

The results of the correlations are shown in the table below:

<table>
<thead>
<tr>
<th></th>
<th>Other</th>
<th>Hierarchical</th>
<th>Flat</th>
<th>Other</th>
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The complete proportions are depicted in the following table:

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<td>64%</td>
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</table>

Conclusion:
There are no strong correlations but there is a slight positive relationship between flat organizations and organizations fully integrating sustainability. In addition, it is noted that most hierarchical as well as flat organizations fully integrated sustainability throughout their organizations.
#1 Age of Organization vs. #26 Profitability:

It was hypothesized that there might be a correlation between the age of an organization and their profitability. The results of our analysis are shown in the table below:

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<td>Lower Age</td>
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</table>

Conclusion:
The survey results show that even though it is possible to be profitable within the first year of incorporation (e.g., Jasco), the chances for a hybrid organization to be profitable is more likely the older the organization. The older the organization, the more likely to be profitably but also non-profitability may be a result of being a younger organization.
#19 Leadership Style vs. #6 Organizational Structure:

The team hypothesized that there might be a correlation between an organization’s chief executive leadership style and their organizational structure (flat or hierarchical). Some examples include:

- Flat and participative
- Hierarchical and servant

The results of the correlations are shown in the table below:

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<tr>
<th></th>
<th>Other</th>
<th>Hierarchical</th>
<th>Flat</th>
<th>Other</th>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Servant</td>
<td>50%</td>
<td>50%</td>
<td>0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Conclusion:
Although the statistical correlations are not particularly strong, our survey data does show that 80% of organizations with quiet leaders were also flat, and 62% of organizations with participative leadership were also flat. There were no organizations that were flat and had a servant leader.
#30 If Sustainability is Tracked vs. #7 How Sustainability is Addressed:

It was hypothesized that there might be a correlation between if sustainability is tracked and how it is addressed (fully integrated, special task force, separate group, or affiliated external group). Some examples include:

- Not tracked and affiliated group
- Tracked and fully integrated
- Tracked and task force

The results of the correlations are shown in the table below:

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Other</th>
<th>Affiliated</th>
<th>Separate</th>
<th>Task Force</th>
<th>Fully Integrated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>-1.00</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>-0.11</td>
<td>0.11</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affiliated</td>
<td>#DIV/0!</td>
<td>#DIV/0!</td>
<td>#DIV/0!</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Separate</td>
<td>0.19</td>
<td>-0.19</td>
<td>-0.07</td>
<td>#DIV/0!</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Force</td>
<td>-0.16</td>
<td>0.16</td>
<td>-0.05</td>
<td>#DIV/0!</td>
<td>-0.03</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Fully Integrated</td>
<td>0.05</td>
<td>-0.05</td>
<td>-0.76</td>
<td>#DIV/0!</td>
<td>-0.47</td>
<td>-0.33</td>
<td>1.00</td>
</tr>
</tbody>
</table>

The complete proportions are depicted in the following table:

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Other</th>
<th>Affiliated</th>
<th>Separate</th>
<th>Task Force</th>
<th>Fully Integrated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>8%</td>
<td>0%</td>
<td>8%</td>
<td>8%</td>
<td>0%</td>
<td>85%</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>14%</td>
<td>0%</td>
<td>0%</td>
<td>5%</td>
<td>81%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>40%</td>
<td>60%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affiliated</td>
<td>#DIV/0!</td>
<td>#DIV/0!</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Separate</td>
<td>100%</td>
<td>0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Force</td>
<td>0%</td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fully Integrated</td>
<td>56%</td>
<td>44%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Conclusion:
Correlations were weak but none of our respondents addressed environmental sustainability via an affiliated organization or an internal task force. In fact, almost all respondents tracking environmental sustainability categorized themselves as fully integrating sustainability. A separate division may mean that their whole mission is to track. A task force may do one-off projects and are therefore unlikely to track environmental metrics.

It is also interesting to note that many of the companies surveyed believe that environmental sustainability is fully integrated throughout their organizations yet many of these same companies do not track environmental sustainability. This result implies that either fully integrated sustainability companies do not need to track metrics, or that they are unable to track metrics. Based on our in-depth case studies, it seems that the latter is the case, often due to lack of resources and time.
#21 Frequency of Business Strategy Communication vs. #31 Frequency of Sustainability Tracking:

It was expected that there might be a correlation between the frequency of strategy communication (quarterly, bi-annually, annually, other, never) and the frequency of sustainability tracking (quarterly, bi-annually, annually, other). The results of the correlations are shown in the table below:

<table>
<thead>
<tr>
<th>How often is the company’s overall business strategies shared with all levels of company employees?</th>
<th>How often do you track the environmental sustainability performance of your organization?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Other</td>
</tr>
<tr>
<td>Other</td>
<td>1.00</td>
</tr>
<tr>
<td>Never</td>
<td>#DIV/0!</td>
</tr>
<tr>
<td>Quarterly</td>
<td>-0.63</td>
</tr>
<tr>
<td>Bi-Annually</td>
<td>-0.29</td>
</tr>
<tr>
<td>Annually</td>
<td>-0.29</td>
</tr>
<tr>
<td>Other</td>
<td>-0.08</td>
</tr>
<tr>
<td>Quarterly</td>
<td>0.09</td>
</tr>
<tr>
<td>Annually</td>
<td>-0.01</td>
</tr>
<tr>
<td>Bi-Annually</td>
<td>#DIV/0!</td>
</tr>
</tbody>
</table>

The complete proportions are depicted in the following table:

<table>
<thead>
<tr>
<th>How often are the company’s overall business strategies shared with all levels of company employees?</th>
<th>How often do you track the environmental sustainability performance of your organization?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Other</td>
</tr>
<tr>
<td>Other</td>
<td>30%</td>
</tr>
<tr>
<td>Never</td>
<td>#DIV/0!</td>
</tr>
<tr>
<td>Quarterly</td>
<td>40%</td>
</tr>
<tr>
<td>Bi-Annually</td>
<td>33%</td>
</tr>
<tr>
<td>Annually</td>
<td>33%</td>
</tr>
<tr>
<td>Other</td>
<td>33%</td>
</tr>
<tr>
<td>Quarterly</td>
<td>44%</td>
</tr>
<tr>
<td>Annually</td>
<td>38%</td>
</tr>
<tr>
<td>Bi-Annually</td>
<td>#DIV/0!</td>
</tr>
</tbody>
</table>

Conclusion:
There does not seem to be any correlation between the frequency of communications of business strategy and the frequency of sustainability tracking.
#16 Strategic Partnerships vs. #18 CEO's Previous Sector:

The research team hypothesized that there might be a correlation between the sector in which the CEO previously worked (For-profit, Non-profit, Government, Hybrid enterprise, Other) and the strategic partnerships of an organization (Government institutions/agencies, Non-profit organizations, Community organizations, None of the above, other). Some examples include:

- Non-profit background and non-profit or community organizations
- Government background and government institutions / agencies

The results of the correlations are shown in the table below:

<table>
<thead>
<tr>
<th>CEO Previous Work Sector</th>
<th>Strategic Partnerships</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Other (please specify)</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>1.00</td>
</tr>
<tr>
<td>For-profit</td>
<td>-0.41</td>
</tr>
<tr>
<td>Non-profit</td>
<td>-0.09</td>
</tr>
<tr>
<td>Government</td>
<td>-0.06</td>
</tr>
<tr>
<td>Hybrid enterprise</td>
<td>-0.10</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>-0.11</td>
</tr>
<tr>
<td>Government institutions/agencies</td>
<td>-0.22</td>
</tr>
<tr>
<td>Nonprofit or Community</td>
<td>-0.05</td>
</tr>
<tr>
<td>None of the above</td>
<td>0.12</td>
</tr>
</tbody>
</table>

The complete proportions are depicted in the following table:

<table>
<thead>
<tr>
<th>CEO Previous Work Sector</th>
<th>Strategic Partnerships</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Other</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>0%</td>
</tr>
<tr>
<td>Government institutions/agencies</td>
<td>0%</td>
</tr>
<tr>
<td>Non-profit organizations</td>
<td>4%</td>
</tr>
<tr>
<td>Community organizations</td>
<td>5%</td>
</tr>
<tr>
<td>None of the above</td>
<td>8%</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>0%</td>
</tr>
<tr>
<td>For-profit</td>
<td>27%</td>
</tr>
<tr>
<td>Non-profit</td>
<td>14%</td>
</tr>
<tr>
<td>Government</td>
<td>67%</td>
</tr>
<tr>
<td>Hybrid enterprise</td>
<td>25%</td>
</tr>
</tbody>
</table>

Conclusion:
There is a strong connection between CEOs having served in the nonprofit and government sectors, and their current organizations’ strategic alliances. CEOs with this background tend to lead organizations with strategic alliances with government, nonprofit, and community organizations. However, CEOs with background in the for-
profit or hybrid enterprise sector did not necessarily exclude them from having current strategic alliances with government and nonprofit organizations.
#22 Environmental Communication vs. #23 Founding Environmental State

It was hypothesized that there might be a correlation between where sustainability is communicated (Articles of incorporation, Mission statement, Vision statement, Branding, Logo, Other) and where the environmental mission came from (from founding or evolved later). Some examples include:

- Articles and founding
- Mission statement and founding
- Branding and evolved later

The results of the correlations are shown in the table below:

<table>
<thead>
<tr>
<th></th>
<th>Articles of inc.</th>
<th>Mission statement</th>
<th>Vision statement</th>
<th>Branding text</th>
<th>Logo</th>
<th>Other (please specify)</th>
<th>Founded</th>
<th>Evolved</th>
<th>No Mission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Articles of inc.</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mission statement</td>
<td>0.18</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vision statement</td>
<td>0.18</td>
<td>-0.01</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Branding text</td>
<td>-0.08</td>
<td>-0.05</td>
<td>0.33</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Logo</td>
<td>-0.14</td>
<td>0.14</td>
<td>0.14</td>
<td>0.19</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>-0.03</td>
<td>-0.13</td>
<td>0.19</td>
<td>0.09</td>
<td>0.05</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Founded</td>
<td>0.19</td>
<td>0.45</td>
<td>0.13</td>
<td>-0.21</td>
<td>0.05</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evolved</td>
<td>-0.18</td>
<td>-0.33</td>
<td>-0.16</td>
<td>0.17</td>
<td>0.02</td>
<td>-0.03</td>
<td>-0.92</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>No Mission</td>
<td>-0.06</td>
<td>-0.35</td>
<td>0.06</td>
<td>0.11</td>
<td>0.16</td>
<td>-0.07</td>
<td>-0.33</td>
<td>-0.06</td>
<td>1.00</td>
</tr>
</tbody>
</table>

The complete proportions are depicted in the following table:

<table>
<thead>
<tr>
<th></th>
<th>Articles of inc.</th>
<th>Mission</th>
<th>Vision</th>
<th>Branding text</th>
<th>Logo</th>
<th>Other (please specify)</th>
<th>Founded</th>
<th>Evolved</th>
<th>No Mission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Articles of inc.</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mission statement</td>
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<td>10%</td>
<td>0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vision statement</td>
<td>85%</td>
<td>13%</td>
<td>3%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Branding text</td>
<td>77%</td>
<td>19%</td>
<td>3%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Logo</td>
<td>81%</td>
<td>14%</td>
<td>5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>88%</td>
<td>13%</td>
<td>0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Founded</td>
<td>18%</td>
<td>92%</td>
<td>87%</td>
<td>62%</td>
<td>44%</td>
<td>18%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evolved</td>
<td>0%</td>
<td>57%</td>
<td>71%</td>
<td>86%</td>
<td>43%</td>
<td>14%</td>
<td></td>
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</tr>
<tr>
<td>No Mission</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>0%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Conclusion:
There is a moderate correlation between founding a company with an environmental mission and actually having that mission as part of the overall mission statement (correlation ~0.45). In addition, of those organizations founded with an environmental mission, 92% and 87% had that goal show up in their mission statement and vision statement respectively. Conversely, if their environmental mission evolved, there is a very high portion of this mission showing up in their branding text, indicating that their mission was potentially more externally driven.
#9 Source of Funding vs. #25 Profitability

The team hypothesized that there might be a correlation between where funding is sourced (Traditional market-rate equity, Traditional market-rate debt, "Patient" or below market-rate debt, "Patient" or below market-rate equity, Grants, Founder(s), friends, or family, Re-investment of operating profits) and margin of profitability (Other, <0%, 1-5%, 6-10%, 11-20%, Confidential). Some examples include:

- Patient or below market-rate equity / debt and lower profitability
- Grants and lower profitability
- Founder(s), friends, or family and lower profitability

The results of the correlations are shown in the table below:

<table>
<thead>
<tr>
<th></th>
<th>Trad. market-rate equity</th>
<th>Trad. market-rate debt</th>
<th>&quot;Patient&quot; or below market-rate equity</th>
<th>Grants</th>
<th>Founder(s), friends, or family</th>
<th>Re-investment of operating profits</th>
<th>If other, please specify type and %</th>
<th>Other</th>
<th>&lt;0%</th>
<th>1-5%</th>
<th>6-10%</th>
<th>11-20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trad. market-rate equity</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-1.00</td>
<td>-1.00</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trad. market-rate debt</td>
<td>-0.08</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-1.00</td>
<td>-1.00</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Patient&quot; or below market-rate debt</td>
<td>-0.20</td>
<td>-0.36</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td>-1.00</td>
<td>-1.00</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Patient&quot; or below market-rate equity</td>
<td>-0.20</td>
<td>0.25</td>
<td>-0.20</td>
<td>1.00</td>
<td></td>
<td></td>
<td>-1.00</td>
<td>-1.00</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grants</td>
<td>0.70</td>
<td>-0.30</td>
<td>0.63</td>
<td>-0.32</td>
<td>1.00</td>
<td></td>
<td>-1.00</td>
<td>-1.00</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Founder(s), friends, or family</td>
<td>-0.15</td>
<td>-0.34</td>
<td>0.17</td>
<td>-0.33</td>
<td>0.03</td>
<td>1.00</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Re-investment of operating profits</td>
<td>-0.26</td>
<td>0.51</td>
<td>0.65</td>
<td>-0.32</td>
<td>0.25</td>
<td>0.21</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If other, please specify type and %</td>
<td>-1.00</td>
<td>#DIV/0!</td>
<td>#DIV/0!</td>
<td>#DIV/0!</td>
<td>-1.00</td>
<td>-1.00</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>0.22</td>
<td>#DIV/0!</td>
<td>#DIV/0!</td>
<td>#DIV/0!</td>
<td>0.18</td>
<td>#DIV/0!</td>
<td>#DIV/0!</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;0%</td>
<td>-0.09</td>
<td>-0.55</td>
<td>0.43</td>
<td>-0.38</td>
<td>0.41</td>
<td>-0.02</td>
<td>-0.26</td>
<td>-0.17</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5%</td>
<td>0.04</td>
<td>0.35</td>
<td>-0.53</td>
<td>0.07</td>
<td>-0.39</td>
<td>-0.13</td>
<td>-0.40</td>
<td>-0.13</td>
<td>-0.48</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-10%</td>
<td>#DIV/0!</td>
<td>#DIV/0!</td>
<td>#DIV/0!</td>
<td>#DIV/0!</td>
<td>0.34</td>
<td>#DIV/0!</td>
<td>-0.05</td>
<td>-0.17</td>
<td>-0.13</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11-20%</td>
<td>-0.08</td>
<td>0.17</td>
<td>-0.25</td>
<td>0.40</td>
<td>0.43</td>
<td>#DIV/0!</td>
<td>-0.13</td>
<td>-0.48</td>
<td>-0.35</td>
<td>-0.13</td>
<td>1.00</td>
<td></td>
</tr>
</tbody>
</table>
Conclusion:
Our data shows that companies able to reinvest operating profits typically show a significant correlation with operating at higher margins (>6%). In addition there are moderate correlations between organizations with >11% profit margin and those receiving below market-rate equity, as well as organizations with >6% margin and those obtaining below market-rate debt. Conversely, if you receive traditional equity or debt, you are more likely to not be operating at a loss (negative correlations). Lastly, there is also a moderately significant correlation with those organizations operating at a loss and those receiving below market-rate debt and / or grants.
#9 Source of Funding vs. #30 Tracking Environmental Performance

The team hypothesized that there might be a correlation between the source of funding (Traditional market-rate equity, Traditional market-rate debt, "Patient" or below market-rate debt, "Patient" or below market-rate equity, Grants, Founder(s), friends, or family, Re-investment of operating profits) and if the organization tracks environmental performance. Some examples include:

- Grants and tracking
- Traditional market-rate equity and not tracking
- Patient capital and tracking

The results of the correlations are shown in the table below:

<table>
<thead>
<tr>
<th></th>
<th>Trad. market-rate equity</th>
<th>Trad. market-rate debt</th>
<th>&quot;Patient&quot; or below market-rate equity</th>
<th>&quot;Patient&quot; or below market-rate equity</th>
<th>Founder(s), friends, or family</th>
<th>Re-investment of operating profits</th>
<th>If other, please specify type and %</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional market-rate equity</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional market-rate debt</td>
<td>-0.10</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Patient&quot; or below market-rate debt</td>
<td>0.08</td>
<td>-0.24</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Patient&quot; or below market-rate equity</td>
<td>-0.25</td>
<td>-0.04</td>
<td>-0.15</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grants</td>
<td>0.51</td>
<td>0.30</td>
<td>0.51</td>
<td>0.05</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Founder(s), friends, or family</td>
<td>-0.31</td>
<td>-0.12</td>
<td>0.07</td>
<td>-0.11</td>
<td>0.19</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Re-investment of operating profits</td>
<td>-0.20</td>
<td>0.26</td>
<td>0.53</td>
<td>0.39</td>
<td>0.50</td>
<td>0.12</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If other, please specify type and %</td>
<td>#DIV/0!</td>
<td>#DIV/0!</td>
<td>#DIV/0!</td>
<td>#DIV/0!</td>
<td>-1.00</td>
<td>-1.00</td>
<td>-1.00</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>-0.27</td>
<td>0.04</td>
<td>0.19</td>
<td>0.52</td>
<td>0.27</td>
<td>0.14</td>
<td>0.16</td>
<td>0.50</td>
<td>1.00</td>
</tr>
<tr>
<td>No</td>
<td>0.27</td>
<td>-0.04</td>
<td>-0.19</td>
<td>-0.52</td>
<td>-0.27</td>
<td>-0.14</td>
<td>-0.16</td>
<td>-0.50</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Conclusion:
There is a significant correlation between those organizations tracking environmental performance and those receiving patient capital. There is a smaller correlation with those tracking organizations and those receiving grants.

→ group patient and grants; traditional
→ use secondary table
**#22 Environmental Communication vs. #28 Salaries**

The team also hypothesized that there might be a correlation between where the environmental goals are communicated (Articles of incorporation, Mission statement, Vision statement, Branding, Logo, Other) and the salaries organizations pay (Above Market, 1-25 Below, 26-50 Below, >50 Below, Confidential). Some examples include:

- Mission statement and 1-25 below
- Vision statement and 26-50 below

The results of the correlations are shown in the table below:

<table>
<thead>
<tr>
<th>Articles of incorporation</th>
<th>Mission</th>
<th>Vision</th>
<th>Branding text</th>
<th>Logo</th>
<th>Other (please specify)</th>
<th>Above Market</th>
<th>1-25 Below</th>
<th>26-50 Below</th>
<th>&gt;50 Below</th>
<th>Confidential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Articles of incorporation</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mission statement</td>
<td>0.18</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vision statement</td>
<td>0.18</td>
<td>-0.01</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Branding text</td>
<td>-0.08</td>
<td>-0.05</td>
<td>0.33</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Logo</td>
<td>-0.14</td>
<td>0.14</td>
<td>0.14</td>
<td>0.19</td>
<td>1.00</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>-0.03</td>
<td>-0.13</td>
<td>0.19</td>
<td>0.09</td>
<td>0.05</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Above</td>
<td>-0.03</td>
<td>0.03</td>
<td>0.03</td>
<td>0.09</td>
<td>0.16</td>
<td>-0.05</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market</td>
<td>-0.09</td>
<td>0.21</td>
<td>0.09</td>
<td>0.14</td>
<td>0.01</td>
<td>0.08</td>
<td>-0.48</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-25 Below</td>
<td>0.09</td>
<td>-0.09</td>
<td>-0.09</td>
<td>0.06</td>
<td>0.27</td>
<td>-0.14</td>
<td>-0.14</td>
<td>-0.33</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>26-50 Below</td>
<td>0.14</td>
<td>0.11</td>
<td>-0.14</td>
<td>-0.18</td>
<td>0.06</td>
<td>-0.12</td>
<td>-0.12</td>
<td>-0.28</td>
<td>-0.08</td>
<td>1.00</td>
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<tr>
<td>&gt;50 Below</td>
<td>-0.06</td>
<td>0.06</td>
<td>0.06</td>
<td>-0.21</td>
<td>0.16</td>
<td>0.33</td>
<td>-0.07</td>
<td>-0.16</td>
<td>-0.04</td>
<td>-0.04</td>
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<tr>
<td>Confidential</td>
<td>0.02</td>
<td>-0.38</td>
<td>-0.02</td>
<td>-0.13</td>
<td>0.04</td>
<td>0.00</td>
<td>-0.17</td>
<td>-0.41</td>
<td>-0.12</td>
<td>-0.10</td>
</tr>
</tbody>
</table>

The complete proportions are depicted in the following table:

<table>
<thead>
<tr>
<th>Articles of incorporation</th>
<th>Mission</th>
<th>Vision</th>
<th>Branding text</th>
<th>Logo</th>
<th>Other (please specify)</th>
<th>Above Market</th>
<th>1-25 Below</th>
<th>26-50 Below</th>
<th>&gt;50 Below</th>
<th>Confidential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Articles of inc.</td>
<td>14%</td>
<td>43%</td>
<td>14%</td>
<td>14%</td>
<td>0%</td>
<td>14%</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Mission statement</td>
<td>18%</td>
<td>58%</td>
<td>8%</td>
<td>8%</td>
<td>3%</td>
<td>8%</td>
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</tr>
<tr>
<td>Vision statement</td>
<td>18%</td>
<td>55%</td>
<td>8%</td>
<td>5%</td>
<td>3%</td>
<td>3%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Branding text</td>
<td>19%</td>
<td>58%</td>
<td>10%</td>
<td>3%</td>
<td>0%</td>
<td>10%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Logo</td>
<td>24%</td>
<td>52%</td>
<td>0%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Other</td>
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<td>63%</td>
<td>0%</td>
<td>0%</td>
<td>13%</td>
<td>13%</td>
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</tr>
<tr>
<td>Above</td>
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<td>88%</td>
<td>88%</td>
<td>75%</td>
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<td>72%</td>
<td>44%</td>
<td>20%</td>
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</tr>
<tr>
<td>26-50 Below</td>
<td>33%</td>
<td>100%</td>
<td>67%</td>
<td>33%</td>
<td>33%</td>
<td>33%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;50 Below</td>
<td>0%</td>
<td>100%</td>
<td>100%</td>
<td>0%</td>
<td>100%</td>
<td>100%</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Confidential</td>
<td>17%</td>
<td>50%</td>
<td>83%</td>
<td>50%</td>
<td>50%</td>
<td>17%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Conclusion:
There are no strong correlations in our data but it is interesting to note that approximately half the respondents are paying at market rates, and there appears to be a pretty even split of organizations paying above and below market rate.