

# The Economics of Sustainability Initiatives



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## The Idea in Brief

The title of this paper, “The Economics of Sustainability Initiatives,” is far more nuanced than might be thought at first glance. The title has at least three intertwined meanings:

1. It refers to the concept of linking financial and nonfinancial performance. In other words, businesses should be able to explain how an initiative to reduce CO<sub>2</sub> emissions drives innovation that results in reduced costs or development of new products or services.
2. The title refers to how a corporate culture of sustainability impacts market performance. This does not imply that a sustainability report alone changes the perceptions of analysts and investors about a company. A corporate culture of sustainability means that an organization is serious about factors including, but not limited to, board involvement in sustainability issues, robust stakeholder engagement, emphasis on environmental and social criteria in selecting suppliers, and candor regarding nonfinancial disclosures.
3. The phrase *economics of sustainability initiatives* also refers to a company’s understanding of—and its ability to discuss—the inextricable connection between the company’s business model, strategic objectives, risk factors, material issues, current performance, and future targets into the broader environmental, economic, and societal context in which the company operates. This point is about a company’s ability to write a rich contextual narrative about its ability to create value over time.

The purpose of this paper, and subsequent papers in this series, is to communicate an imperative to move from a sustainability strategy (that is, discreet initiatives and tactics) to a sustainable strategy (that is, a coherent plan to balance long term viability—for the benefit of both shareholders and society—with demands for short term competitiveness and profitability).

## Interest in Nonfinancial Information

Investors are showing increased interest in nonfinancial information. The fall 2011 *Journal of Applied Corporate Finance* article “Market Interest in Nonfinancial Information”<sup>1</sup> analyzed nonfinancial metrics included in Bloomberg’s database for three bimonthly periods starting November 2010 and ending April 2011. There were almost 44 million total hits to the 247 nonfinancial metrics in the Bloomberg database, where a “hit” is defined as every time a user accessed one of the data points.

The analysis in “Market Interest in Nonfinancial Information,” provided a number of insights, including the following:

- There was a high degree of interest in a company’s environmental, social, and governance (ESG) disclosure score from both global and U.S. users of Bloomberg data. This metric, which is calculated by Bloomberg, measures transparency about ESG performance and policies.
- At both the global and U.S. levels, there was greater interest in environmental and governance information than social information.
- There was a wide variation in the type of information that was of interest to investment firms. Broker-dealers (sell-side firms) were interested primarily in greenhouse gas (GHG) emissions. In contrast, buy-side firms (money managers, insurance firms, pension funds, and hedge funds) were most interested in the disclosure scores determined by Bloomberg. See the appendix “Market Interest in Nonfinancial Information by Investor Type (Top 3 Items)” for a summary of findings related to investor interest.

The analysis also suggests growing market interest in whether and how well companies are building sustainability into strategy and operations. In response, companies are publishing a greater number of reports providing data that is captured by Bloomberg. Approximately 3,070 companies published sustainability reports<sup>2</sup> in 2012 using the Global Reporting Initiative (GRI) guidelines. Of these, approximately 460 were self-declared integrated reports.<sup>3</sup> In addition, 53 percent of the companies of the S&P 500 are currently publishing a sustainability report<sup>4</sup> and 499 of the 500 companies made at least one sustainability disclosure in a financial filing or linked financial performance to a sustainability initiative.<sup>5</sup>

Ninety-five percent of the largest 250 public companies in the world issued sustainability reports and 80 percent used the GRI’s Sustainability Reporting Guidelines in 2011.<sup>6</sup> Traditionally, companies in Europe or Asia publish more sustainability reports than other parts of the world. However, in the past two years, reporting numbers in the United States have increased by 44 percent, rapidly outpacing the global growth in sustainability reporting, which is estimated to be a 20 percent increase.<sup>7</sup>

As promising as the increase in the number of corporate sustainability reports appears to be, many organizations—both U.S. and non-U.S.—have failed to fully understand market interest in nonfinancial information around ESG and other sustainability-related variables. This lack of understanding can be seen via rote compliance with GRI guidelines, particularly with respect to materiality determination,<sup>8</sup> and the publication of sustainability reports that focus on corporate initiatives around ESG issues without sufficiently linking initiatives specifically to corporate strategy. Further, quantitative information often is not linked to specific industry benchmarks or prepared according to reporting criteria and is rarely accompanied by an assurance report from independent

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<sup>1</sup> Robert G. Eccles, Michael P. Krzus, and George Serafeim, “Market Interest in Nonfinancial Information.” *Journal of Applied Corporate Finance* 23, no. 4 (2011).

<sup>2</sup> Terminology regarding the reporting of nonfinancial information is inconsistent and confusing. Some people use the terms *corporate social responsibility* (CSR) and *sustainability* interchangeably; whereas for others they mean different things. Each term also has different meanings. For some companies, their CSR report is about philanthropic contributions and community activities. For others, it is about their environmental, social, and governance (ESG) performance more broadly. Similarly, for some companies, their sustainability reports are solely about carbon emissions and other environmental concerns; whereas for others it is about ESG performance more broadly. This paper will use the term *sustainability report* to refer to the entire range of ESG performance information. For a discussion of the origins of the concepts of CSR and sustainability, see chapter 5 of *One Report: Integrated Reporting for a Sustainable Strategy* by Robert G. Eccles and Michael P. Krzus (2010).

<sup>3</sup> Global Reporting Initiative (GRI), Sustainability Disclosure Database, <http://database.globalreporting.org/pages/about>, accessed April 2013.

<sup>4</sup> Governance & Accountability Institute, “2012 Corporate ESG /Sustainability / Responsibility Reporting—Does It Matter?,” [www.gai-institute.com/research-reports/2012-corporate-esg-sustainability-responsibility-reporting-does-it-matter.html](http://www.gai-institute.com/research-reports/2012-corporate-esg-sustainability-responsibility-reporting-does-it-matter.html), accessed June 2013.

<sup>5</sup> “Integrated Financial and Sustainability Reporting in the United States,” Investor Responsibility and Research Center Institute and Sustainable Investments Institute. [http://irrcinstitute.org/news/first-comprehensive-study-on-state-of-integrated-reporting-in-united-states\\_pr\\_04\\_29\\_2013.php](http://irrcinstitute.org/news/first-comprehensive-study-on-state-of-integrated-reporting-in-united-states_pr_04_29_2013.php), accessed April 2013.

<sup>6</sup> KPMG International. “KPMG International Survey of Corporate Responsibility Reporting 2011,” [www.kpmg.com/PT/pt/IssuesAndInsights/Documents/corporate-responsibility2011.pdf](http://www.kpmg.com/PT/pt/IssuesAndInsights/Documents/corporate-responsibility2011.pdf), accessed May 2013.

<sup>7</sup> Global Reporting Initiative, Focal Point USA. “Trends in External Assurance of Sustainability Reports: Spotlight on the USA,” <http://grifocalpointblog.org/usa/documents/>, accessed May 2013.

<sup>8</sup> Robert G. Eccles, Michael P. Krzus, and Liv A. Watson, “Integrated Reporting Requires Integrated Assurance.” *Effective Auditing for Corporates: Key Developments in Practice and Procedures*, edited by Joe Oringel, 161–177. London: QFINANCE Key Concepts, Bloomsbury Information Limited, 2012. Robert G. Eccles, Michael P. Krzus, and George Serafeim, “Note on Materiality.” Harvard Business School Note 313-142, May 2013.

accounting firms. Accordingly, effective use of relevant, reliable nonfinancial reports represents an opportunity for organizations to enhance trust and create value with shareholders and key stakeholders.

### The Drivers of Change

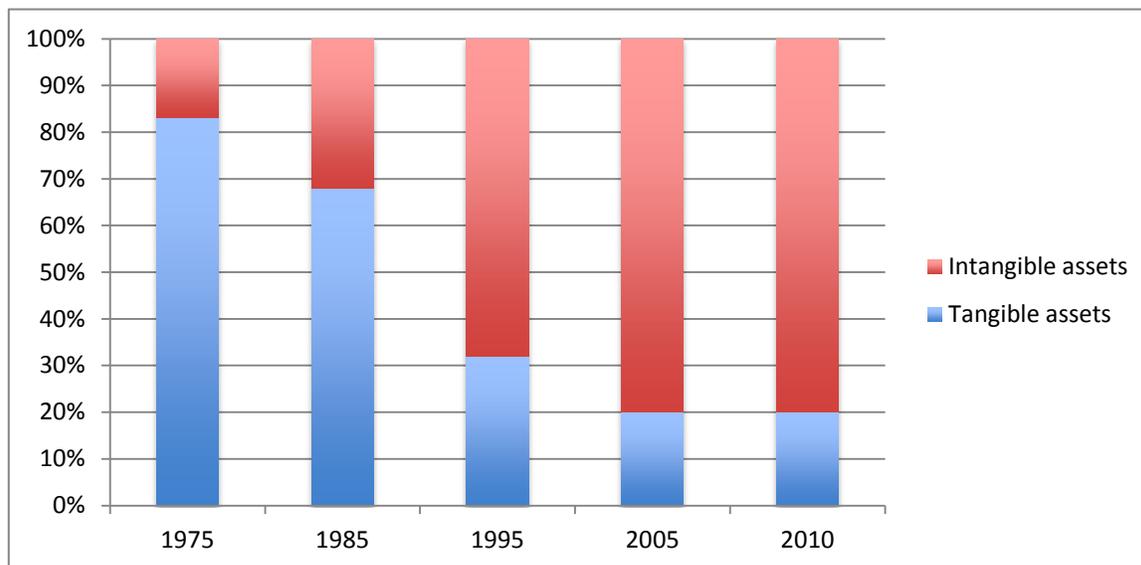
Events and trends are converging to change the content of corporate reporting. For example, financial results are no longer the sole driver in determining whether a company is a high performer and the effects of the 2008 financial crisis on business linger on in the form of declining trust.

Traditional financial reporting such as Securities and Exchange Commission (SEC) Forms 10-K and 20-F do not tell the whole story about a corporation. Annual reports and regulatory reporting are focused on backwards looking financial metrics. Growing market interest in nonfinancial information and the number of companies providing ESG information demonstrates that executives know that performance depends on nonfinancial data.

The portion of market value attributable to tangible assets began shrinking between 1985 and 1995; see table 1, “Components of S&P 500 Market Value.” Intangibles, such as innovation capacity, quality of management, people, and strategy to name a few, are the real sources of business value. The ability to create and sustain these intangibles elements means more to the markets than bricks and mortar.

**Table 1**

**Components of S&P 500 Market Value<sup>9</sup>**



Today’s global supply chains are fraught with both human rights risks and opportunities as evidenced by reputational damage to Apple resulting from Foxconn’s poor treatment of employees and Starbucks’ successful C.A.F.E. practices<sup>10</sup> to improve conditions for global coffee growers. Consider the recent garment factory disasters in Bangladesh—the April 2013 collapse of an eight-story commercial building in Rana Plaza in which more than 1,000 people died and the November 2012 fire at the factory of Tazeen Fashions in which more than 100 people died. From a U.S. perspective, which company suffered more reputational damage—the factory owners or large U.S. and non-U.S. retailers whose apparel was produced at those factories?

Technology, specifically the Internet, and the proliferation of social media and the availability of iPads and smartphones is driving a “radical openness,” to use the words of Canadian futurist Don Tapscott.<sup>11</sup> Therefore, the likelihood of keeping a scandal—poor working conditions in a supplier’s facility, environmental contamination, customer dissatisfaction, or regulatory violations—a secret is almost zero. As a result, such information presents insights for key stakeholders into important organizational risks and opportunities.

<sup>9</sup> “Intellectual Capital Equity®,” Ocean Tomo, [www.oceantomo.com/about/intellectualcapitalequity](http://www.oceantomo.com/about/intellectualcapitalequity), accessed May, 2013.

<sup>10</sup> “Responsibly Grown and Fair Trade Coffee,” Starbucks Coffee Company, [www.starbucks.com/responsibility/sourcing/coffee](http://www.starbucks.com/responsibility/sourcing/coffee), accessed May 2013.

<sup>11</sup> Don Tapscott, *Radical Openness: Four Unexpected Principles for Success*, [www.amazon.com/Radical-Openness-TED-Books-ebook/dp/B00B14RIQS/ref=sr\\_1\\_6?s=digital-text&ie=UTF8&qid=1358368174&sr=1-6&keywords=tapscott](http://www.amazon.com/Radical-Openness-TED-Books-ebook/dp/B00B14RIQS/ref=sr_1_6?s=digital-text&ie=UTF8&qid=1358368174&sr=1-6&keywords=tapscott), accessed, April 2013.

We can look to research and data to reinforce the shift away from a purely short-term financial perspective on performance to a host of other factors, including trust, that can have a significant effect on an organization's long-term financial performance. The Edelman Trust Barometer<sup>12</sup> tells us that in 2008 operational excellence drove corporate reputation. In 2013, operational excellence is near the bottom of the Edelman Trust Barometer list of attributes that form the basis for trust, falling below other societal concerns such as "has ethical business practices," "treats employees well," and "addresses society's need in its everyday business."<sup>13</sup>

Investor actions to better integrate ESG information into analysis and models are yet another driver of changing expectations about corporate reporting. In November 2012, the CalPERS Investment Committee agreed to several business objectives for 2013. CalPERS will move to implement specific measures to integrate ESG into investment decision-making processes and support the integration of financial and sustainability information into the corporate reporting cycle.<sup>14</sup>

In its September 2012 paper "Mainstreaming ESG Integration," Wellington Management stated the following:

Our ability to accurately forecast financial outcomes is limited by imperfect and incomplete information. Increasing complexity and greater unpredictability compel us to get more and better data and to conduct due diligence that considers both direct and indirect influences over time. External factors can meaningfully impact the future outlook for an enterprise, particularly in a connected world with finite resources. It is in this context that consideration of ESG factors is taking hold as an additional measure of risk and investment value.<sup>15</sup>

AXA Investment Managers published a report, "Piloting ESG Integration," in October 2012, which concluded that "ESG integration can be seen as a natural step in the evolution of long-term investment."<sup>16</sup> One of the commitments made by the almost 1,200 signatories<sup>17</sup> of the U.N. Principles for Responsible Investment is to incorporate ESG issues into investment analyses and decision-making processes.<sup>18</sup>

The foregoing drivers of change are combining to make the need for better disclosure of the economics of sustainability initiatives a business imperative.

### The Economics of Sustainability Initiatives

The phrase *economics of sustainability initiatives* is analogous to another expression, *linking financial and nonfinancial performance*, which is often used to capture the same underlying concept. Whether expressed as *economics of sustainability initiatives* or *linking financial and nonfinancial performance*, the critical point is that neither of the previous phrases refer to a stand-alone initiative or "bolt-on" project. Both phrases are part of a business process and an element of corporate culture.<sup>19</sup>

The International Integrated Reporting Council<sup>20</sup> (IIRC) uses the phrase *connectivity of information* in their *Consultation Draft of the International <IR> Framework*<sup>21</sup> to discuss a more comprehensive approach to disclosure about the economics of sustainability initiatives. The IIRC consultation draft states that "an integrated report should show, as a comprehensive value creation story, the combination, inter-relatedness and dependencies between the components that are material to the organization's ability to create value over time."<sup>22</sup>

The economics of sustainability initiatives are really part of a broader discussion that answer questions around two key criteria:<sup>23</sup>

- Does the report include a narrative or quantitative assessment of how the material issues and the company's ESG performance are linked to overall business financial success?
- Does the report place the company's business model, strategic objectives, risk factors, material issues, current performance, and future targets into the broader environmental, economic, and societal context in which the company operates?

<sup>12</sup> Edelman Trust Barometer 2013. [www.edelman.com/insights/intellectual-property/trust-2013/](http://www.edelman.com/insights/intellectual-property/trust-2013/), accessed April 2013.

<sup>13</sup> Ibid.

<sup>14</sup> CalPERS Investment Committee, Agenda Item 9a, Global Governance Program Update, November 13, 2012.

<sup>15</sup> Wellington Management, "Mainstreaming ESG Integration," September 2012.

<sup>16</sup> AXA Investment Managers, "Piloting ESG Integration," October 2012, [www.axa-im-international.com/white-papers/-/news/research-ia-white-paper-esg/10341/maximized/Jv9H?redirect=http%3A%2F%2Fwww.axa-im-international.com%2Fwhite-papers](http://www.axa-im-international.com/white-papers/-/news/research-ia-white-paper-esg/10341/maximized/Jv9H?redirect=http%3A%2F%2Fwww.axa-im-international.com%2Fwhite-papers), accessed April 2013.

<sup>17</sup> U.N. Principles for Responsible Investment, Signatories to the Principles for Responsible Investment, [www.unpri.org/signatories/signatories/](http://www.unpri.org/signatories/signatories/), accessed April 2013.

<sup>18</sup> U.N. Principles for Responsible Investment, The Six Principles, [www.unpri.org/about-pri/the-six-principles/](http://www.unpri.org/about-pri/the-six-principles/), accessed April 2013.

<sup>19</sup> Robert G. Eccles and Michael P. Krzus, "Novo Nordisk: A Commitment to Sustainability." Harvard Business School Case 412-053.

<sup>20</sup> International Integrated Reporting Council (IIRC), [www.theiirc.org](http://www.theiirc.org), accessed May 2013.

<sup>21</sup> IIRC, "Consultation Draft of the International <IR> Framework," [www.theiirc.org/consultationdraft2013/](http://www.theiirc.org/consultationdraft2013/), accessed April 2013.

<sup>22</sup> IIRC, "Consultation Draft of the International <IR> Framework," [www.theiirc.org/consultationdraft2013/](http://www.theiirc.org/consultationdraft2013/), p. 18, accessed April 2013.

<sup>23</sup> Framework LLC, "The State of Integrated Reporting: Innovation and Experimentation in the Merging of ESG and Financial Disclosure," <http://framework-llc.com/integrated-reporting-study/>, accessed April 2013.

The IIRC consultation draft goes on to explain the following:

The more that integrated thinking underlies the organization’s unique value creation story by being embedded into its activities, the more naturally will the connectivity of information flow into management reporting, analysis and decision-making, and subsequently into the integrated report. Accordingly, introducing ways to improve integrated thinking within the organization can help drive the integrated reporting process.<sup>24</sup>

The IIRC Emerging Integrated Reporting Database<sup>25</sup> captures emerging global practices to report on the larger process of connectivity of information and the specifics of the economics of sustainability initiatives. The key components of connectivity of information disclosure<sup>26</sup> and IIRC staff comments explaining why disclosures by a range of companies are emerging as notable practices follow in table 2, “Connectivity of Information.”

**Table 2**

**Connectivity of Information**

Key Component of the Connectivity of Information <sup>27</sup>	What the IIRC is Looking For
<p>An analysis of existing resource allocation and how the organization will combine resources or make further investment to achieve its targeted performance.</p>	<p>Extracted from IIRC staff comments on the Rio Tinto Annual Report 2011:<sup>28</sup></p> <p>Rio Tinto combines the company's overall vision, strategy, strategic drivers, business model and KPIs to provide a holistic insight into the strategic direction of the business.</p> <p>Rio Tinto's strategic vision outlines the benefits of holding a sector leadership position, with particular focus on the benefits which it brings to stakeholders, including; delivering superior returns to shareholders; ensuring widespread and lasting economic benefits to host country communities; responding to customer needs; and providing employees with leading training and career development opportunities and appropriate financial rewards.</p> <p>A key component of Rio Tinto's strategic drivers is the company's license to operate, which explains the importance of sustainable development and the role that it has in stakeholder engagement.</p> <p>Key performance indicators (KPIs) are then reporting on to measure financial and sustainable development performance, with relevance to strategic drivers explained. An overview of principal risks and uncertainties is then provided categorized into external, strategic, financial, operational and sustainable development risks with descriptions and mitigation.</p> <p>Information about how the organization's strategy is tailored when, for instance, new opportunities and risks are identified or past performance is not as expected.</p>

<sup>24</sup> IIRC Consultation Draft. op. cit., p. 18.

<sup>25</sup> IIRC, IIRC Emerging Integrated Reporting Database, [www.theiirc.org/resources-2/other-publications/emerging-integrated-reporting-database/](http://www.theiirc.org/resources-2/other-publications/emerging-integrated-reporting-database/), accessed May 2013.

<sup>26</sup> IIRC Consultation Draft. op. cit., p. 18–19.

<sup>27</sup> IIRC Consultation Draft. op. cit., p. 18–19.

<sup>28</sup> IIRC Emerging Integrated Reporting Database. <http://examples.theiirc.org/fragment/91>, accessed May 2013.

Key Component of the Connectivity of Information <sup>29</sup>	What the IIRC is Looking For
<p>Linking the organization’s strategy and risks with its key performance indicators.</p>	<p>Extracted from IIRC staff comments on the Eskom Integrated Report 2011:<sup>30</sup></p> <p>Eskom links the identified material issues, which are also the strategic objectives of the business, to both the KPIs and risks, which align with these objectives. By doing this, a joined-up insight is provided into how the business measures progress and how the overall strategic objectives could be impacted by risks. Eskom assists with navigation by highlighting where further information can be found on both the KPIs and risks, which maintains the conciseness of information without compromising on detail.</p>
<p>An analysis by the organization of its activities in the past-to-present period can provide the intended report users with useful information to assess the plausibility of what has been reported concerning the present-to-future period. The explanation of the past-to-present period may also be useful to the intended report users in analyzing the quality of management.</p>	<p>Extracted from IIRC staff comments on the Natura Annual Report 2011:<sup>31</sup></p> <p>Natura presents a concise summary table of the strategic sustainability targets, performance and targets for the future.</p> <p>For each commitment that Natura made in the previous year, the company reports progress indicating whether the target was achieved, underway or not achieved. For each commitment a target is set for the coming year with clear quantitative goals provided for each, giving a clear and measurable set of measures for the company's performance to be assessed against.</p>
<p>Environmental policies, energy efficiency, cooperation with local communities, or technologies to tackle social issues, along with their implications for cost reduction or new business opportunities</p>	<p>Extracted from IIRC staff comments on the Fibria Sustainability/CSR Report 2011.<sup>32</sup></p> <p>Fibria presents a simplified version of the company's business model that aims to facilitate understanding regarding the 'connection between financial and non-financial performance'. The model firstly identifies the inputs, indicating the key capitals involved in the manufacturing of Fibria's products. Fibria then highlights the activities that turn the inputs into outcomes, before identifying what the impacts of the overall process are.</p> <p>Fibria attributes the presentation of the business model to their reporting to the IIRC with the following note: "...following the proposal by the IIRC that organizations should demonstrate that integrated disclosure must address the relevant externalities affecting the company, as well as resources and relationships used and affected, and how the business model interacts with externalities and the resources and relationships to create and maintain value over time."</p>

<sup>29</sup> IIRC Consultation Draft. op. cit., p. 18–19.

<sup>30</sup> Ibid. <http://examples.theiirc.org/fragment/62>, accessed May 2013.

<sup>31</sup> Ibid. <http://examples.theiirc.org/fragment/87>, accessed May 2013.

<sup>32</sup> Ibid. <http://examples.theiirc.org/fragment/33>, accessed May 2013.

Key Component of the Connectivity of Information <sup>33</sup>	What the IIRC is Looking For
<p>Long term customer relationships, customer satisfaction, and reputation, along with their implications for revenue and profit growth</p>	<p>Extracted from IIRC staff comments on the Danone Sustainability/CSR Report 2011:<sup>34</sup></p> <p>Danone presents a detailed yet clear table that articulates for each of the key stakeholders what Danone's prior commitments have been, the company's performance and the company's future commitments.</p> <p>The achievements are reviewed, not only for the year-in-review, but also for the year prior to this, demonstrating the journey which the business has been on. For each stakeholder group Danone indicate the company's commitments for the coming year and in some cases specific targets.</p>

Two other companies that provide excellent examples of the economics of sustainability initiatives are BASF<sup>35</sup> and Novo Nordisk.<sup>36</sup> BASF discloses how the company creates value for BASF (shareholders) and value for society (stakeholders).

<sup>33</sup> IIRC Consultation Draft. op. cit., p. 18–19.

<sup>34</sup> Ibid. <http://examples.theiirc.org/fragment/103>, accessed May 2013.

<sup>35</sup> BASF is the world's leading chemical company. BASF employed about 110,000 people and had about 385 production sites worldwide. <http://report.basf.com/2012/en/servicepages/welcome.html>, accessed May 2013.

<sup>36</sup> Novo Nordisk is a global healthcare company with 90 years of innovation and leadership in diabetes care. The company is headquartered in Denmark, employs approximately 35,500 employees in 75 countries, and markets its products in more than 180 countries. [www.novonordisk.com](http://www.novonordisk.com), accessed May 2013.

In the example that follows, BASF describes how sustainability driven innovation led to the development of a more economical and environmentally friendly concrete. The benefit to BASF was sales growth in high-performance concrete mixtures and the benefit to society was a reduction in GHG emissions resulting from use of the new concrete mixture.<sup>37</sup>

### Green Sense® Concrete

Performance package for more economical and environmentally friendly concrete

#### Value for BASF

15%

**Annual sales growth** since 2011 in high-performance concrete admixtures in North America

#### Value for the environment

Approximately

24%

**Fewer greenhouse gas emissions** since 2011 through the use of Green Sense® concrete in North America

**Value for BASF** Demand is growing for systems for sustainable construction. With Green Sense® Concrete, we offer a unique performance package that enables our customers to optimize their concrete mixtures with regard to environmental friendliness, performance and production costs. This also pays off for BASF: In North America, we increased our sales of high-performance concrete admixtures by an average of 15% per year in 2011 and 2012.

**Value for the environment** Thanks to our expertise in concrete technology, we can formulate concrete mixtures for our customers that contain a high proportion of recycled materials. This significantly decreases the carbon footprint and environmental impact of buildings. Since 2011, the use of Green Sense® Concrete in North America has led to savings of around 24% in greenhouse gases and approximately 23% in energy in the production process compared with conventional concrete mixtures.

<sup>37</sup> BASF Report 2012, p. 75, <http://report.basf.com/2012/en/servicepages/welcome.html>, accessed May 2013.

The second example refers to the development of a biodegradable polymer used in oil extraction. Use of a 100 percent biodegradable polymer created value for society and increased the recovery factor from reservoirs, thus creating value for BASF.<sup>38</sup>

**Schizophyllan**  
Biopolymer that enables increased crude oil production

<b>Value for BASF</b> Up to <b>10%</b> <b>Higher oil recovery factor</b> from reservoirs	<b>Value for the environment</b> <b>100%</b> <b>Biodegradable</b>
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**Value for BASF** In the production of crude oil, water is often injected into reservoirs to improve extraction. Water thickened with Schizophyllan can displace more crude oil, increasing the recovery factor from a deposit by up to 10%. Although Schizophyllan is biodegradable, our laboratory trials have also shown it to be extremely resistant to salt and heat.

**Value for the environment** Schizophyllan, which is produced by a fungus, is fully biodegradable. We are currently testing the biopolymer in a pilot project in a deposit with a depth of approximately 1,300 meters.

Another example can be found in a white paper series launched by Novo Nordisk in 2010. The first paper was titled “Blueprint for change: the climate challenge.”<sup>39</sup> This paper captured the story of how climate change emerged as a focal point of Novo Nordisk’s environmental strategy. Novo Nordisk made a public commitment to reduce CO<sub>2</sub> emissions from global production by an absolute 10 percent from 2004 to 2014.

Novo Nordisk’s “Blueprint for change: the climate challenge” included a look back at the first five years of climate action initiatives. Value creation was grouped into two categories: value to business and value to society, both of which are summarized in the following. Among the benefits described as creating value for Novo Nordisk were as follows:

- Since 2004, energy savings have realized a total of 24 million USD in cost savings corresponding to a 10 percent reduction in global energy consumption.
- Half of all energy saving projects are paid back in less than 1 year with an average pay-back period of 1.9 years.
- The energy savings conducted from 2004 to 2009 will continue to yield annual cost savings of approximately 8 million USD in the future.
- Intangible value of future risk mitigation, employee engagement, trust, and reputation.

Among the benefits to society were as follows:

- 28,000 tons CO<sub>2</sub> reduction achieved by the end of 2009 through the energy savings program, which is equivalent to around 4,500 fewer cars on the road every year.
- At the end of 2009, an additional 50,000 tons CO<sub>2</sub> reduction had been achieved through the sourcing of wind power, which is equivalent to taking an additional 8,000 cars off the road every year.
- Novo Nordisk’s partnership with DONG Energy, one of the leading energy groups in Northern Europe, helped to drive construction of the world’s largest offshore wind farm, which supplied power equivalent to the annual electricity consumption of 200,000 households.

<sup>38</sup> BASF Report 2012. Ibid, p. 84.

<sup>39</sup> “Blueprint for change: the climate change challenge,” Novo Nordisk, April 2010.

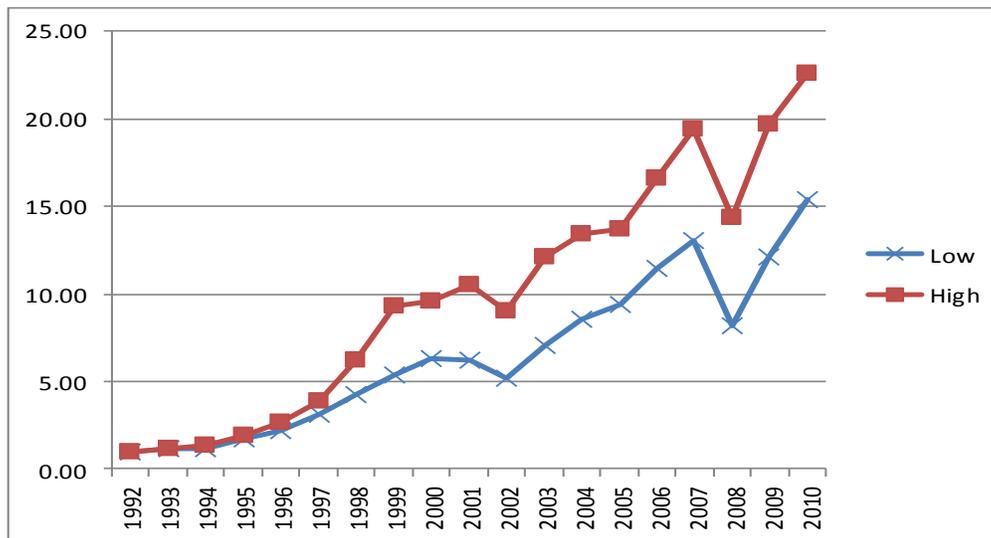
[www.novonordisk.com/images/Sustainability/PDFs/Blueprint%20for%20change%20-%20Climate.pdf](http://www.novonordisk.com/images/Sustainability/PDFs/Blueprint%20for%20change%20-%20Climate.pdf), accessed May 2013.

## The Benefits of Moving From a Sustainability Strategy to a Sustainable Strategy

The Harvard Business School working paper “The Impact of a Corporate Culture of Sustainability on Corporate Behavior and Performance”<sup>40</sup> examined 180 U.S. companies during an 18-year period. High sustainability companies (those that adopted and followed specific ESG policies for several years) outperformed low sustainability companies. The authors found, from 1992 to 2010, \$1.00 [U.S.] invested in 1992 in “high-sustainability companies” would have grown to \$22.60 [U.S.] at the end of 2010. For the same period, \$1.00 [U.S.] invested in 1993 in “low-sustainability companies” would have grown to \$15.40 [U.S.]. See table 3, “Corporate Culture and Performance.”

**Table 3**

**Corporate Culture and Performance**



Some have commented that the Harvard Business School paper relates to sustainability reporting, not integrated reporting. In reality, the paper has nothing to do with publishing either a sustainability or an integrated report. The attributes that define a high or low sustainability company relate directly to the concept of integrated thinking. The high sustainability firms were characterized by the following:<sup>41</sup>

- Board involvement in sustainability issues and clear connection between executive compensations and ESG goals
- Robust stakeholder engagement
- A consistent message that the company takes a long term view and a larger percentage of long term investors
- Attention to nonfinancial metrics related to employees
- Emphasis on environmental and social criteria in selecting suppliers
- Openness and candor regarding nonfinancial disclosures

The 2012 CDP Global 500 Climate Change Report<sup>42</sup> reached a similar conclusion, as did studies by Accenture and MIT Sloan and Boston Consulting Group.<sup>43</sup>

<sup>40</sup> Robert G. Eccles, Ioannis Ioannou, and George Serafeim, “The Impact of a Corporate Culture of Sustainability on Corporate Behavior and Performance,” [www.hbs.edu/faculty/Publication%20Files/12-035.pdf](http://www.hbs.edu/faculty/Publication%20Files/12-035.pdf), accessed April 2013.

<sup>41</sup> Robert G. Eccles, Ioannis Ioannou, and George Serafeim, “The Impact of a Corporate Culture of Sustainability on Corporate Behavior and Performance.” Presentation by Eccles and Serafeim at the Sustainable Business Forum, March 23, 2012.

<sup>42</sup> Carbon Disclosure Project, “2012 CDP Global 500 Climate Change Report,” [www.cdproject.net/CDPResults/CDP-Global-500-Climate-Change-Report-2012.pdf](http://www.cdproject.net/CDPResults/CDP-Global-500-Climate-Change-Report-2012.pdf), accessed May 2013.

<sup>43</sup> Accenture, “Driving Value from Integrated Sustainability—High Performance Lessons from Leaders,” [www.accenture.com/SiteCollectionDocuments/PDF/Accenture\\_Driving\\_Value\\_from\\_Integrated\\_Sustainability.pdf](http://www.accenture.com/SiteCollectionDocuments/PDF/Accenture_Driving_Value_from_Integrated_Sustainability.pdf), accessed May 2013 and “Long-Term Growth and Short-Term Differentiation and Profits from Sustainable Products and Services,” [www.accenture.com/SiteCollectionDocuments/PDF/Accenture-Long-Term-Growth-Short-Term-Differentiation-and-Profits-from-Sustainable-Products-and-Services.pdf](http://www.accenture.com/SiteCollectionDocuments/PDF/Accenture-Long-Term-Growth-Short-Term-Differentiation-and-Profits-from-Sustainable-Products-and-Services.pdf), accessed May 2013. MIT Sloan and Boston Consulting Group, “Sustainability: The Embracers Seize Advantage,” <http://c0426007.cdn2.cloudfiles.rackspacecloud.com/MIT-SMR-BCG-sustainability-the-embracers-seize-advantage-2011.pdf>, accessed

A collaboration between the IIRC and BlackSun Plc resulted in publication of “Building the Business Case for Integrated Reporting.”<sup>44</sup> Among the findings were the following:<sup>45</sup>

- One of the most mentioned benefits of integrated reporting is the opportunity it provides to connect teams from across an organization, breaking down silos and leading to more integrated thinking.
- Improved internal processes leading to a better understanding of the business: changes to systems driven by integrated reporting requirements are providing greater visibility across business activities and helping to improve understanding of how organizations create value in the broadest sense.
- Increased focus and awareness of senior management: a shift to integrated reporting is increasing the interest and engagement of senior management in issues around the long-term sustainability of the business, which is helping senior management gain a more holistic understanding of the organization.
- Better articulation of the strategy and business model: better understanding of organizational activities is enabling companies to establish a holistic business model and helping to streamline communications.
- Creating value for stakeholders: organizations are starting to identify ways to measure the value to stakeholders of managing and reporting on sustainability issues.

### The Challenges

Companies looking to adopt integrated reporting or to better link financial and nonfinancial performance in a sustainability report face a myriad of challenges. Two critical challenges are the following:

- *Materiality determination.* It is frustrating to open a sustainability or integrated report and find a materiality matrix only to discover that a company has identified 50 material issues. That is simply unrealistic. Many organizations, including the GRI, the IIRC, and the Sustainability Accounting Standards Board,<sup>46</sup> are attempting to provide better guidance. In a future whitepaper we will explore the materiality determination for sustainability and integrated reporting.
- *Controls over nonfinancial information.* The quality of controls over nonfinancial information is poor in comparison to Sarbanes-Oxley driven controls over financial reporting. Companies will need to focus heavily on nonfinancial reporting systems and processes before we start seeing nonfinancial information in a Form 10-K. In a future whitepaper we will explore how controls over sustainability disclosures and other nonfinancial information can be improved.

What should the CFO do with respect to sustainability and integrated reporting?

- Ensure that the sustainability group has regular dialogue and works closely with the accounting and finance groups
- Require an evaluation of controls over nonfinancial information
- Provide oversight and guidance for stakeholder and shareholder dialogue
- Implement an educational program for accounting, finance, and sustainability groups to understand the relationships between financial and nonfinancial performance
- Communicate to the board and CEO, and to all main business units, how the company is mitigating ESG risks and leveraging opportunities for innovation
- Determine whether ESG risks are identified as material in the company’s sustainability report but not in the company’s Form 10-K and take steps to resolve inconsistencies

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May 2013 and “The Innovation Bottom Line,” <http://aca3318ae75562500643-ca1b2d270cca3d1f89a77092d5cd33a3.r63.cf2.rackcdn.com/MIITSMR-BCG-Sustainability-Report-2013.pdf>, accessed May 2013.

<sup>44</sup> BlackSun Plc and the IIRC, “Building the Business Case for Integrated Reporting,” [www.theiirc.org/resources-2/other-publications/building-the-business-case-for-integrated-reporting/](http://www.theiirc.org/resources-2/other-publications/building-the-business-case-for-integrated-reporting/), accessed April 2013.

<sup>45</sup> Ibid.

<sup>46</sup> The Sustainability Accounting Standards Board, a U.S. not-for-profit organization, is in the process of using the SEC definition of *materiality* to identify material nonfinancial issues for 89 industries in 10 sectors.

## Conclusion

The ability to understand the economics of sustainability initiatives is fundamental to an organization's ability to develop and implement sustainable strategy; in other words, balance the imperative for long term viability—for both shareholders and society—with demands for short term competitiveness and profitability. Sustainable strategies are the only way a business can create value in ways that benefit the interests of shareholders and society.

Companies should not be thinking of sustainability and integrated reports in terms of good public relations or as an expression of “doing well by doing good” because that tired adage has been disproved time and time again. Sustainability and integrated reports should be reflections of the way organizations do business and how management and the board of directors perceive the role of business in society. That approach does more than preserve a license to operate; it establishes a company's license to lead.

## Appendix — Market Interest in Nonfinancial Information by Investor Type (Top 3 Items)<sup>47</sup>

### Broker-Dealers

1. Greenhouse gas (GHG) emissions: scope 3<sup>48</sup>
2. GHG emissions: scope 1<sup>49</sup>
3. GHG emissions: scope 2<sup>50</sup>

### Money Managers

1. Environmental, social, and governance (ESG) disclosure score
2. GHG emissions: scope 1
3. Total GHG emissions

### Insurance Firms

1. Governance disclosure score
2. ESG disclosure score
3. Social disclosure score

### Pension Funds

1. Governance disclosure score
2. Percent independent directors
3. CEO duality

### Hedge Funds

1. Environmental disclosure score
2. ESG disclosure score
3. Total energy consumption

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<sup>47</sup> Robert G. Eccles, Michael P. Krzus, and George Serafeim, "Market Interest in Nonfinancial Information." Fall. *Journal of Applied Corporate Finance* 23, no. 4 (2011).

<sup>48</sup> Scope 3 emissions include indirect GHG emissions from sources not owned or directly controlled by the entity but related to the entity's activities. (U.S. Environmental Protection Agency, [www.epa.gov/oaintrnt/ghg/](http://www.epa.gov/oaintrnt/ghg/), accessed May 2013.)

<sup>49</sup> Scope 1 emissions are direct GHG emissions from sources that are owned or controlled by an entity. Scope 1 can include emissions from fossil fuels burned on site, emissions from entity-owned or entity-leased vehicles, and other direct sources. (U.S. Environmental Protection Agency, [www.epa.gov/oaintrnt/ghg/](http://www.epa.gov/oaintrnt/ghg/), accessed May 2013.)

<sup>50</sup> Scope 2 emissions are indirect GHG emissions resulting from the generation of electricity, heating and cooling, or steam generated off site but purchased by the entity, and the transmission and distribution losses associated with some purchased utilities (for example, chilled water, steam, and high temperature hot water). (U.S. Environmental Protection Agency, [www.epa.gov/oaintrnt/ghg/](http://www.epa.gov/oaintrnt/ghg/), accessed May 2013.)

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