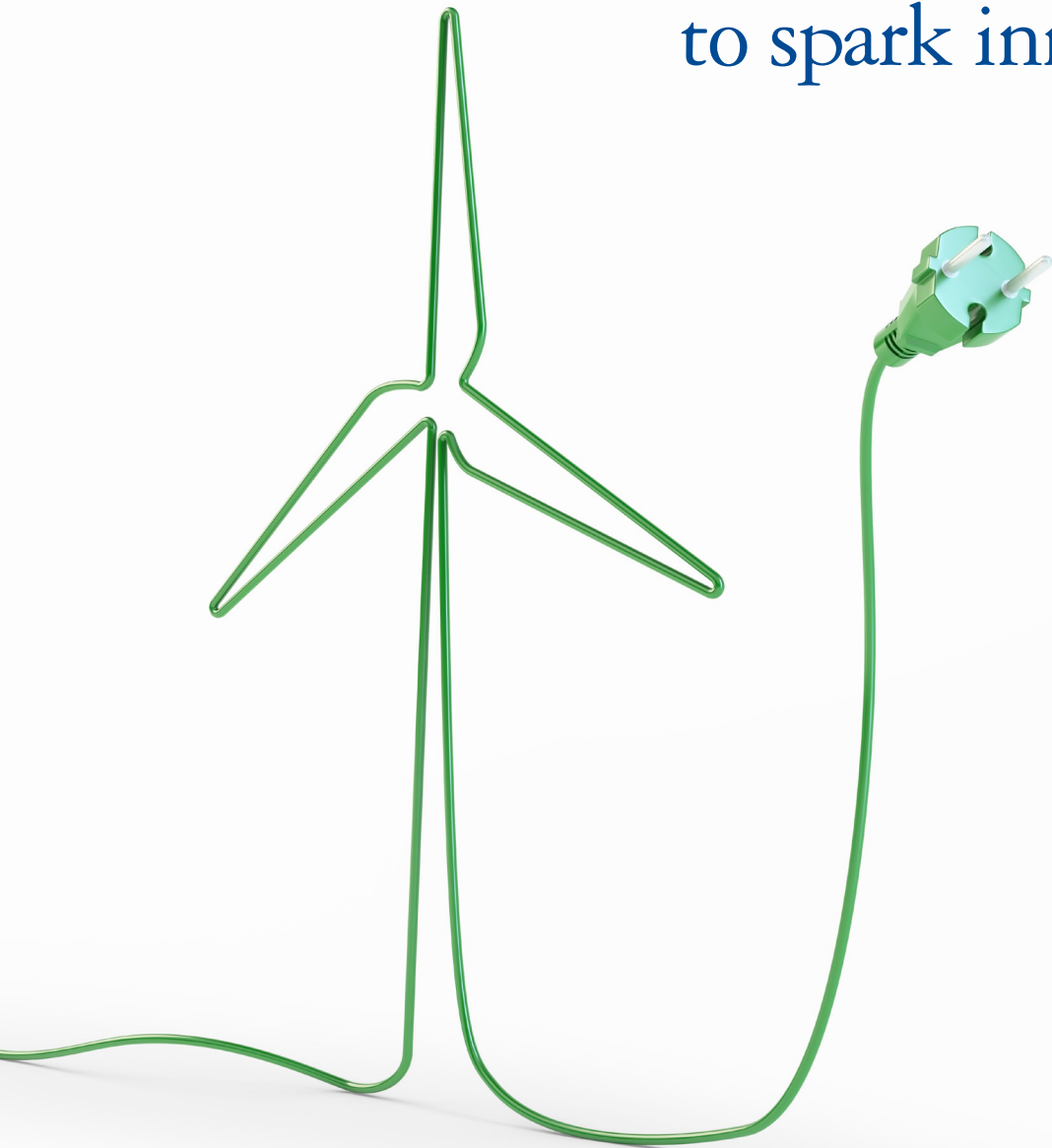
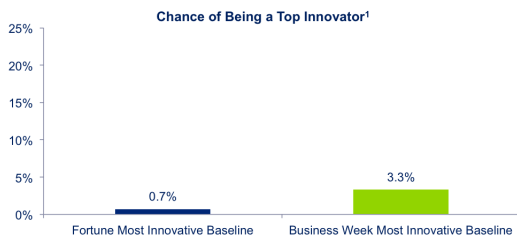


Sustainability Driven
Innovation
Harnessing
sustainability's ability
to spark innovation

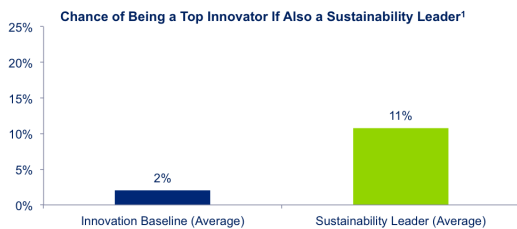


Introduction

Innovation is an important issue for many organizations, and companies have tried to many different methods to foster it, from cultural changes to incentivizing employees for being innovative. However, few have made the connection between innovation and sustainability or have used sustainability as a way to improve innovation performance. Many senior business leaders still view sustainability as disconnected from the core of the business—however, our research suggests that is not the case at all, but rather that sustainability is strongly tied to the ability of the company to innovate. Our recent research demonstrates that being a sustainability leader can significantly raise your company’s chances of being a top innovator.



Drawing on a number of lists ranking both sustainability and innovation leaders¹, we analyzed the relationship between the two and came to the following conclusion: sustainability drives innovation, and it does so in a very significant way. When we averaged across multiple lists (to prevent the results from being affected by the characteristics of or definitions used by any specific list), the outcome that sustainability leaders are more than 400% more likely to be considered innovation leaders.



To substantiate these results, we looked at two common (and legitimate) questions:

- How do we know the results were causation, not just correlation?

- How do we know that sustainability leads to innovation, not the other way around?

To address the first question, we considered what we would likely see if something else were causing both sustainability and innovation to be correlated. (A common suggestion for the “something else” was highly effective corporate management, but there are other possibilities as well.) Then we considered how the results we see would differ if sustainability leadership was directly causing innovation leadership.

Based on our analysis, if sustainability leadership were causing the increase in innovation leadership, we would likely see a longitudinal effect—that is, the likelihood of innovation leadership should change over time. This is because a sustainability leader’s use of sustainability as a lens can lead to innovative ideas, some of which take time to become visible from the outside and therefore would show up in future years’ innovation results.

Therefore, a company should see part of the innovation effect from sustainability in the same year that it becomes a sustainability leader and part of it in the following year. For example, if a company were a sustainability leader in, say, 2009, we should expect to see an increase in the likelihood of innovation leadership in 2009 and a further increase in 2010, as more of the innovative ideas driven by sustainability come to fruition.

This is different from what we would expect if something else, such as strong management, were causing both sustainability and innovation leadership. In that case, sustainability leadership and innovation leadership should move together over time, with both being stable. For example, if a company were a sustainability leader in, say, 2009, we would expect to see that the innovation leadership benefit would be about the same in 2009 and 2010. This means that if a sustainability leader in 2009 were 400% more likely to be an innovation leader that same year, we would not expect that to increase in 2010. To return to the example of effective management, we would expect that to be relatively consistent from year to year, because the same management team is in place or because a tested succession plan has left the organization with a strong management team.

Key Takeaways

- Sustainability leaders are much more likely than average to be innovation leaders
- The evidence is consistent with the idea that the relationship is causal, not just correlation
- Sustainability's ability to spark innovation can be harnessed, and it can be incorporated into organizations' innovation processes

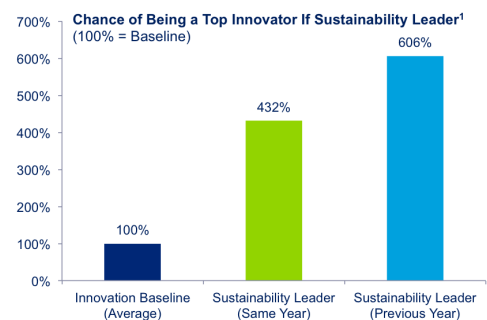


What this means is that the two competing hypotheses—sustainability leadership causes the increase in innovation leadership, versus sustainability is not the cause—would lead to very different patterns in the data. This means looking at the longitudinal data can enable us to tell which hypothesis is supported by the data and which is not.

When we do examine the longitudinal data, we find that there is a very significant further increase in innovation leadership the year after sustainability leadership. To use our examples above, a 2009 sustainability leader is 400% more likely to be an innovation leader in 2009 and 600% more likely to be one in 2010. This is exactly what we would expect if the hypothesis that sustainability leadership causes the increase in innovation leadership were true. But it is not at all what we would expect if the hypothesis that they are correlated but not causally related were true.

Another possible alternative explanation for the results, other than sustainability leadership causing innovation leadership, is that the causality is in fact the reverse—innovation leadership causes sustainability leadership. To test this hypothesis, we looked for two things:

- Is the relationship between innovation and sustainability stronger or weaker than the relationship between sustainability and innovation (i.e., the reverse relationship)?
- Does innovation show the same longitudinal relationship with sustainability that sustainability does with innovation?



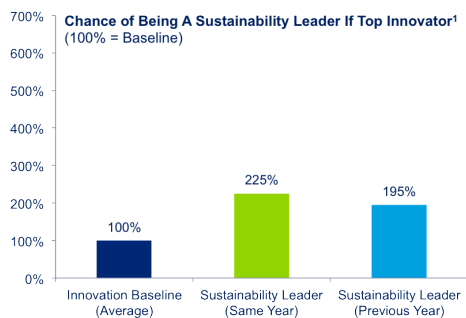
As seen in the chart above and the one below, the answer to both questions is no. The sustainability-innovation relationship does go both ways (which makes sense,

Why Sustainability Drives Innovation

Why are we seeing such a strong link from sustainability to innovation? Sustainability can provide a different “lens” for thinking: it helps companies to approach situations differently, either thinking about different subjects (e.g., emissions) or thinking differently about existing subjects (e.g., thinking about supply chains from the perspective of making suppliers more sustainable). Thinking differently can unlock companies’ innovative potential—they may see situations from a different point of view, they may reexamine their perspective of what’s important, and they can tap into new ideas.

Sustainability can also help drive innovation by adding constraints. While constraints are often seen as reducing the ability to be creative, that is frequently not the case. The constraints imposed by sustainability can actually serve as an impetus for companies to think differently and therefore innovatively. For instance, viewing emission standards as a new constraint may lead to ideas for improving energy efficiency and reducing use.

as an innovative company may be more open to more sustainable technology and ideas) but the connection from sustainability to innovation is much stronger. In addition, the connection from innovation to sustainability does not show the longitudinal increase that the connection from sustainability to innovation does.



This means that the evidence supports the idea that sustainability leadership causes innovation leadership and does not support either of the alternative hypotheses: that they are correlated but not causally related or that the causation is from innovation to sustainability.

Making It Happen

Companies can use sustainability to their advantage and turn these new ways of thinking and innovative outputs into concrete improvements: improved focus, ideas, and decisions about which ideas to pursue. No matter what your organization’s innovation process—even if you don’t have a formal innovation process at all—just the act of including sustainability in your thinking can create real value.

One example of this is Sterilmed, a part of Johnson & Johnson. The organization was hearing more and more from customers looking for it to bring additional solutions to market that would align with their sustainability strategies. Sterilmed is known for its core offering, reprocessing products that had been designed as single use devices, which has sustainability as well as cost benefits.

Though known in part for sustainability, the company wanted to do more to align its sustainability efforts with its customer value proposition. Based on customer feedback, the company recognized that the organization’s reputation and brand were at risk if they did not take action to address potential gaps in sustainability performance. As Mike Gustafson, President of Sterilmed, noted, “Our team had spent a lot of time in the field with our customers and the sustainability concerns were consistent. We knew that we needed to do more to incorporate sustainability into our operations to continue to offer our customers world class service and products.”²

The leadership team decided that they would take the opportunity to view the company's situation with a fresh perspective. Working with Daniel Aronson and Chris Park of Deloitte, along with Erol Odabasi, Director of Sustainability for Medical Devices & Diagnostics and Keith Sutter, Senior Product Director of Sustainable Marketing, the team decided to try an innovation process that explicitly incorporated sustainability as a way to generate innovative approaches to their customers' business issues and their own. (Note that while sustainability would be a core part of the process, the issues addressed would be business issues, not just sustainability ones.)

The Process

See	Focus	Generate	Screen & Develop	Rank & Execute
See the landscape for innovation <ul style="list-style-type: none"> • Scan current state environment • Collect industry, economic, demographic and customer information • Identify opportunities 	Focus the opportunities <ul style="list-style-type: none"> • Define customer and non-customer needs • Identify constraints • Narrow opportunity set 	Generate ideas and options <ul style="list-style-type: none"> • Target customer and non-customer needs • Create solutions set for innovation • Develop insight portfolio of options 	Screen and develop options for viability <ul style="list-style-type: none"> • Perform diagnostic of options • Value potential size, total return, cost and risk • Down-select options 	Rank and execute options through implementation <ul style="list-style-type: none"> • Conduct small-scale pilot tests • Commercialize in stages • Evaluate and measure achievement of predefined goals

The core of the process was an all-day innovation session with Gustafson and top executives from the organization. In preparation for the session, the participants were provided with homework assignments to better understand what to expect out of the day and the role sustainability would play in it. The pre-work also allowed the team to gather information that would make the session more efficient, including existing innovation ideas and observations about customers' needs.

During the facilitated session, the leadership team considered the business' challenges and potential opportunities (not just sustainability ones) and to use specific sustainability innovation techniques to generate ideas for addressing them. First the group converged on a common understanding of the existing ideas and customers' needs, and then it generated ideas, sorted and ranked them, decided on next steps and assigned accountability for carrying them out.

This provided the team with several opportunities to both brainstorm and refine their ideas, and to put new twists on existing ones.

See	Focus	Generate	Screen & Develop	Rank & Execute
Sustainability can help see the situation differently, changing what might appear important	Sustainability can help focus on areas where there is untapped potential for innovative value	Sustainability can help spur new ideas that could otherwise be overlooked	Sustainability can help raise issues that add value to both screening ideas and developing the survivors further	Sustainability criteria can help round out ranking systems and help protect execution from problems

Reflecting on the outcomes, Gustafson said, "The workshop fostered novel thinking about the products and services we offer our clients. In fact one of the ideas we developed during the session will allow us to use our waste collection infrastructure to communicate sustainability messages to our customers in unique ways."²

See	Focus	Generate	Screen & Develop	Rank & Execute												
		<table border="1"> <thead> <tr> <th>Technique</th> <th>Example</th> </tr> </thead> <tbody> <tr> <td>Substitution</td> <td>Environmentally Preferable Materials (EPMs)</td> </tr> <tr> <td>Catalytic</td> <td>Leadership in Energy and Environmental Design (LEED)</td> </tr> <tr> <td>Tailoring</td> <td>Drip Irrigation</td> </tr> <tr> <td>Benefit Ownership</td> <td>Car Sharing Services</td> </tr> <tr> <td>Lifetime</td> <td>Packaging Reuse</td> </tr> </tbody> </table>	Technique	Example	Substitution	Environmentally Preferable Materials (EPMs)	Catalytic	Leadership in Energy and Environmental Design (LEED)	Tailoring	Drip Irrigation	Benefit Ownership	Car Sharing Services	Lifetime	Packaging Reuse		
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Outcomes

The outcomes from the day included the following:

- Understanding of marketplace and Sterilmed sustainability drivers
- Alignment of proposed ideas to customer sustainability goals and Sterilmed value proposition
- Prioritized list of short and long term sustainability projects to solve business challenges
- Identification of resources and owners and timeline for prioritized projects
- Sterilmed leadership commitment to action plan on prioritized projects

There were a few areas that Sterilmed decided to focus on coming out of the session—one example was work on product packaging.

Customers were asking for packaging to be made more recyclable—and which is particularly important because of the importance of sustainability in the value proposition of Sterilmed's products themselves. As a result of the session, Sterilmed established a project team with the goal of redesigning the packing to be recyclable and meet other customer expectations (work that continues today). Another example was incorporating sustainability information and messaging into the design of new collection bins, not only to increase customers sustainability but also to help drive increased collection of devices, which translates into greater supply for Sterilmed.

Overall, the leadership team was able to develop several concrete ideas for how to create growth and better satisfy the needs of their customers. The overarching consensus from the team was that without viewing their business from the perspective of sustainability they would either (1) have not thought of some of the ideas at all or (2) the ideas would have been operationalized in a very different manner. As Gustafson said, "The workshop provided the kick start we needed. Through this process we have been able to move forward with meeting our customers' sustainability needs faster than I would have expected."²

Conclusion

Sustainability and innovation go together. Our research has shown that companies that pursue sustainability significantly increase their chances of becoming innovative leaders in the process. Additionally, as Sterilmed discovered, introducing sustainability into the innovation process can lead to new ideas and greater differentiation.

As Mike Gustafson said when asked what advice he would give others considering traveling the same path:

Even if your company is not thinking about how to incorporate sustainability into business operations, it is very likely that at least some of your customers are. You are putting your organization at risk and potentially missing out on valuable opportunities if you don't include it in your search for innovative ways to provide value to customers.

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Endnotes

1. "World's Most Admired Companies—Best in Innovation," *Fortune*, 2006–2011; "50 Most Innovative Rankings," *BusinessWeek*, 2006–2010; "100 Best Corporate Citizens," *Corporate Responsibility Magazine*, 2006–2011; "Green Rankings," *Newsweek*, 2009–2010.
2. D. Aronson and H. Patterson, interview with Sterilmed personnel, Aug. 28, 2013.

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