



Creating Sustainable Value: Connecting the Dots

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IMAGINE driving into an unfamiliar city looking for a good place to eat. You reach for your smartphone and search for restaurants in the area. Your phone's dining app comes back with a list of restaurant names and customer ratings. You then filter the list to include only establishments with a 4- or 5-star rating that serve your favorite cuisines. So far, so good. You've identified 10 good dining options and your mouth is watering.

But wait! You realize that your dining app has provided you with no addresses and no navigation. You have a list, but no directions. This is little help when you're eager to sample the local cuisine. Frustrated and hungry, you drive down the road to the first restaurant with a name you recognize from back home—a safe, but unsatisfying choice.

Unfortunately, that's the same type of situation many organizations face today about ESG issues, covering a range of Environmental, Social, and Governance concerns. Tools and methods such as the Materiality Assessment can help you narrow your list to high-priority issues that may impact the world *and* your business. However, these tools don't necessarily help you connect those issues to your company's strategy and financial performance in a way that is actionable. As a result, your company lacks a cause-and-effect roadmap for creating sustainable value. And without such a map it's easy to get lost—or not even take the first step towards your sustainability goals.

In this paper, we introduce the Sustainable Value Creation Map, a tool we have developed at WholeWorks to help our clients connect sustainability to their business strategy and results—as well as to positive social, environmental, and economic impact. By 'connecting the dots,' we aim to help managers see more clearly the cause-and-effect linkages between potential ESG initiatives and more traditional business drivers such as competitive strategy and shareholder value creation. Mapping these linkages and making them explicit is a key step to making sustainability a natural part of smart business thinking.

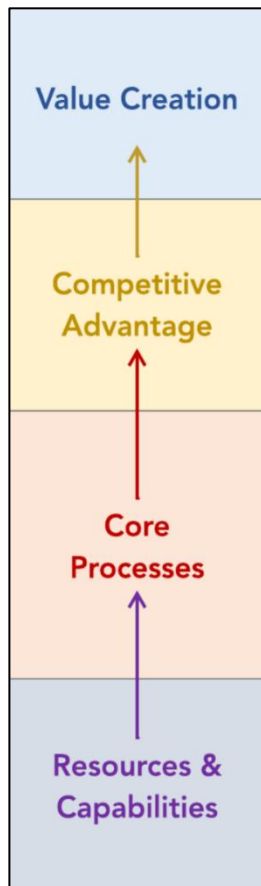
Moving Beyond False Trade-offs

Our guiding premise is that there are many opportunities to both do well and do good in business, but they are often dismissed due to the inability to effectively address these two objectives together. As a result, managers may fail to recognize the potential of sustainability to stimulate innovation, increase revenues, decrease costs, reduce risks, attract capital, and strengthen the business in other ways.

Instead, they see sustainability as an unnecessary expense, distraction from the core business, or something 'nice to do' if there's enough time and money. This makes it more difficult to generate management support and gain traction with ESG initiatives. This leads to a self-fulfilling prophecy where under-resourced ESG initiatives fail to deliver results, thus justifying their relegation to the sidelines.

Making ESG an integral part of the business requires understanding how ESG initiatives can strengthen a competitive strategy and create financial value. Let's see how the Sustainable Value Creation Map© (SVCM) does that.

Strategy-driven Value Creation



The SVCM builds on the basic business value creation logic shown to the left. In simplest terms, a good, well-executed strategy enables a company to achieve a competitive advantage in its target market in a way that is profitable and with minimum capital investment. For example, a discount airline must offer competitive fares with flights to convenient destinations and provide reliable service. At the same time the airline must keep costs low and make productive use of their expensive capital assets (e.g., airplanes). This is how companies create financial value: by providing a higher Return on Invested Capital (ROIC) than their investors can get elsewhere for the same level of risk.

An important part of strategy is deciding which dimensions of competitive advantage your company will emphasize. A discount airline will certainly offer low fares but may choose to serve only high-traffic destinations or limit its in-flight services (e.g., no seat selection). Another airline may fly to small regional airports and offer seat selection but charge higher fares. Through these strategic choices, airlines position themselves in the market to be more attractive to their target customers and thus gain market share.

To create value, a firm must also establish and execute a set of core business processes that enable it to achieve its competitive advantage. For an airline this means paying close attention to flight operations, gate turnaround, and safety procedures. In the hotel business, it means creating efficient and friendly check-in and checkout processes, housekeeping procedures, and property maintenance.

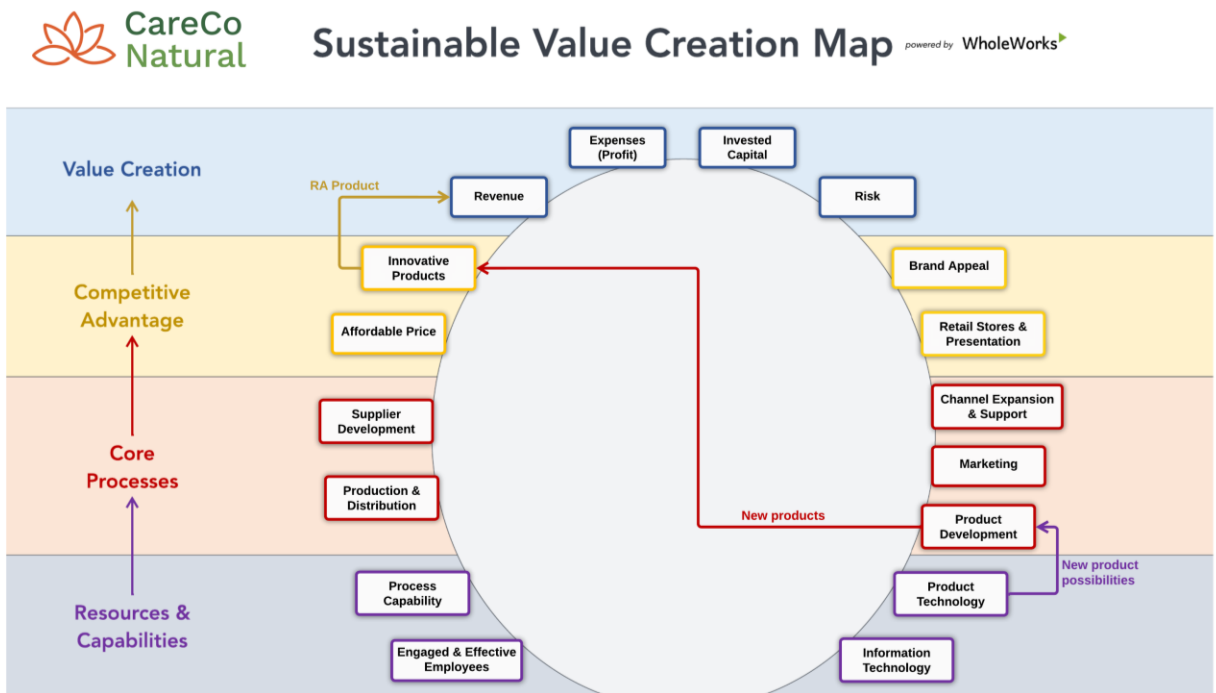
At a deeper level, value creation requires companies to build up unique capabilities and resources over time. Think of these as stocks or reservoirs that keep yielding benefits. They may require investment over years, but once these capabilities are built up, they enable the core processes to work more efficiently and effectively.

In our airline example, key physical resources would include their fleet of airplanes, airport gates and maintenance facilities. For a pulp and paper company, they would include the forest ecosystem that provides their wood supply. For a chemical company, a key resource would be the knowledge gained from years of investment in product technology (through research or acquisition). For a hotel business, creating a positive work environment where its employees are engaged will enable it to deliver a better guest experience. An e-commerce business that invests in superior technology to create a better online shopping experience will gain market share. As each of these examples shows, Resources & Capabilities are valuable because of their pervasive, long-term impact across the business.

Introducing the Sustainable Value Creation Map

The Sustainable Value Creation Map (SVCM) depicts the key elements and interdependencies of strategy and value creation on a single page. This allows managers to explicitly trace the pathways along the value creation chain and literally ‘connect the dots’ from bottom to top.

Let’s look at an example of the SVCM for CareCo Natural, a fictional consumer products business that sells hair and skin care products through its retail partners (physical stores and online).



The topmost layer of the map shows the four drivers of financial value: revenue, expenses (profit), invested capital, and risk. To create value, the firm must deliver a higher rate of return to its investors that they can get elsewhere with the same level of risk. Revenue growth and expenses (the net of which is profit) determine the returns that CareCo Natural generates for its investors. The *rate of return* on invested capital (ROIC %) delivered to investors also depends on the level of invested capital, which is why CareCo Natural also needs to minimize the capital assets needed to operate the business.

Risk is a value driver because of the potential loss of future profits and because it can increase the cost of capital. This is why ESG investors are paying increasing attention to potential risks from ESG issues. In the case of CareCo Natural, risks to value include climate change (e.g., severe weather disrupting operations), reputational damage (e.g., from poor working conditions at an upstream supplier), and product safety (e.g., long-term health impacts of skin care products).

The four value drivers at the top of the SVCM apply to any firm, but how they are driven depends on the nature of the industry and the strategic choices made by a company's managers.

The layers of the SVCM above capture the most essential elements of CareCo Natural's strategy. For example, the Competitive Advantage layer includes four factors that determine the Relative Attractiveness (RA) of CareCo Natural's products relative to competitors (and thus drive revenue): product, brand, price, and store presentation. The lower layers reflect key elements of the company's competitive strategy: investments in Core Processes and Resources & Capabilities that ultimately drive the value creation factors at the top of the Map.

In the example above, Product Technology is highlighted as an important capability for CareCo Natural because it accelerates Product Development. This enables the company to develop more innovative products that are attractive to consumers, which in turn helps CareCo Natural gain market share. The increase in revenue drives value creation. This is just one of several cause-and-effect pathways that define how investment in product technology (like research) can contribute to the company's strategy.

In the example below, Process Capability is highlighted as a value driver. This resource represents the accumulation of knowledge and experience gained from process improvement work in CareCo Natural's factories. This improves the efficiency of factory operations and eliminates various forms of process waste (materials, energy, water, unnecessary labor, etc.), thus lowering production costs. It also minimizes the inventory (part of Invested Capital) required to fulfill orders from customers. Finally, to the extent that safety is part of CareCo Natural's process improvement culture, this can also reduce the risk of accidents or leaks of toxic chemicals, for example.

Connecting the Dots with Sustainability Initiatives

The logic of the value-creation pathways above may seem obvious. After all, managers are assumed to know how their business model works. But while senior executives may have a clear view of the overall business, managers and employees responsible for specific functions, departments or business units may not have a grasp of the full picture—how the various elements of strategy across a business work together to create value.

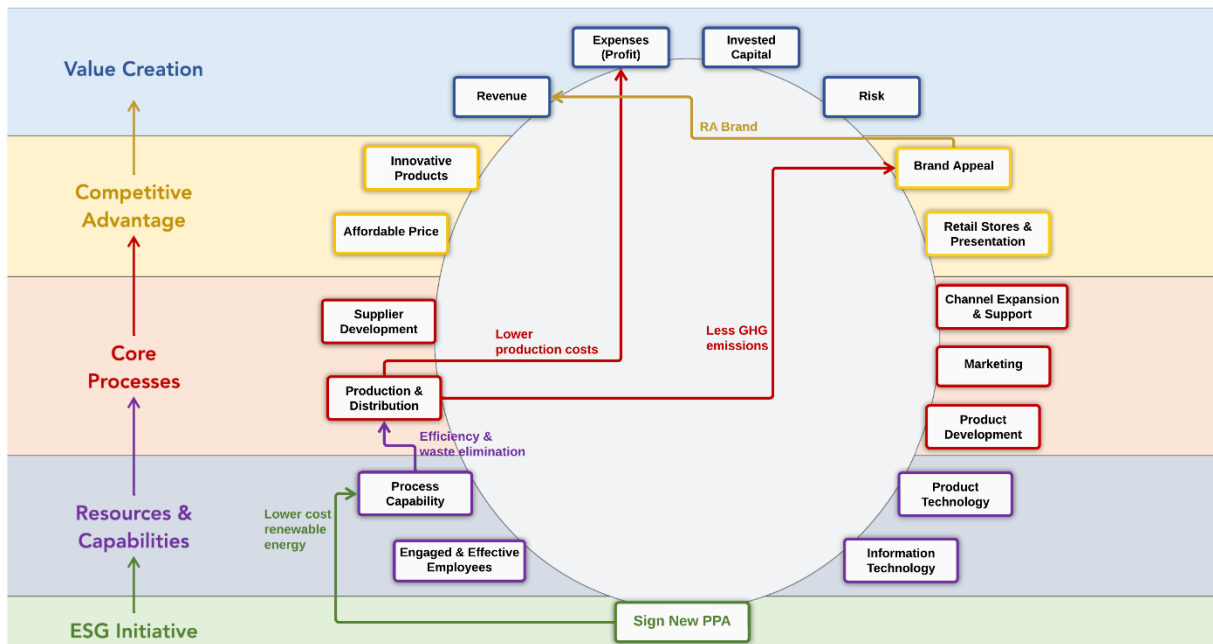
Without such a picture, however, how can managers assess whether their decisions are contributing to business performance in a positive way? This is where the Sustainable Value Creation Map can help. It makes the logic of *business systems thinking* explicit.

The missing link that we'll now add to the SVCM is how sustainability can contribute in new ways to drive strategic value creation. Too often, sustainability is viewed as an expense without strategic benefit. But this neglects important ways that sustainability can stimulate new business ideas and create value.

The example below shows the Sustainable Value Creation Map for CareCo Natural with a new layer added for an ESG initiative focused on purchasing renewable electricity using Power Purchase Agreements (PPAs).



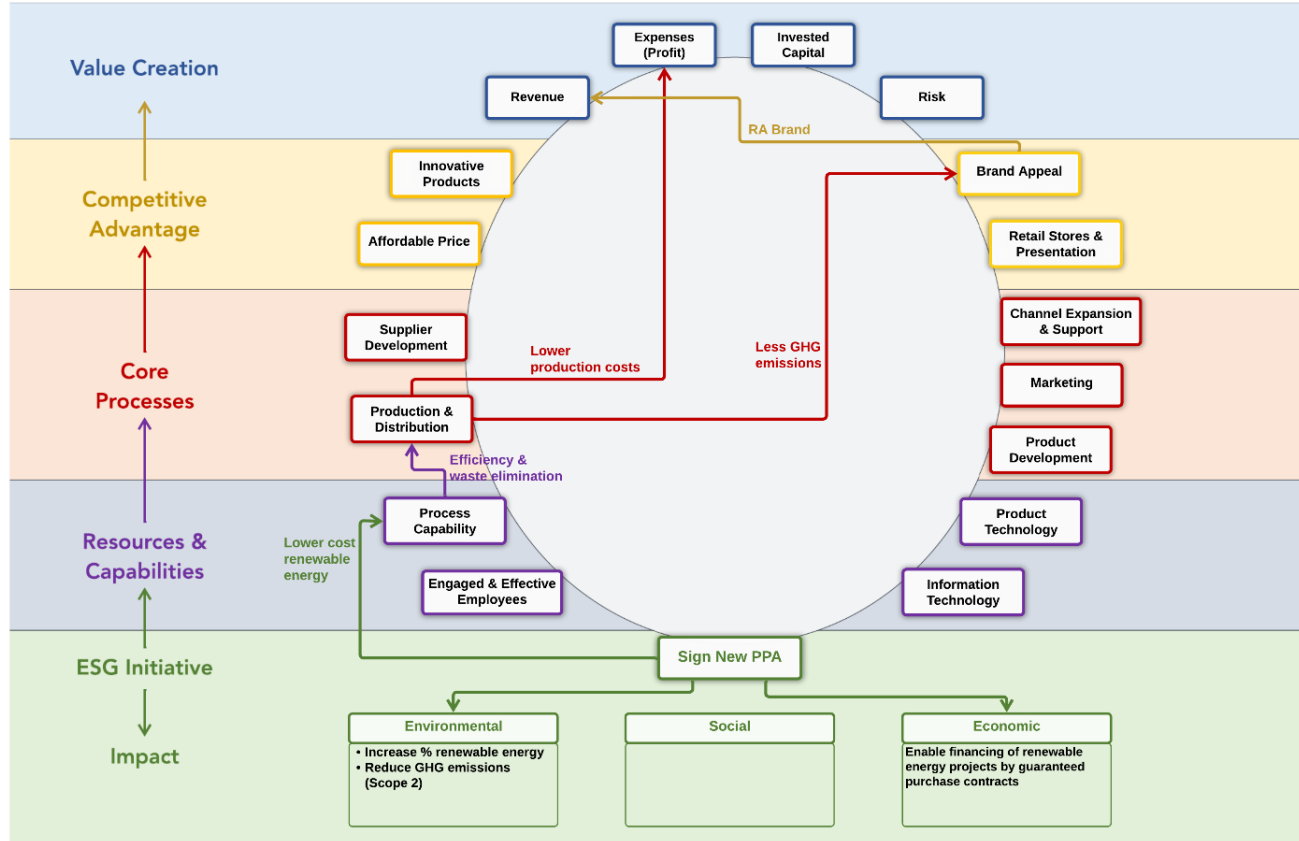
Sustainable Value Creation Map powered by WholeWorks



The upper portion of the map shows several ways that this ESG initiative also creates financial value for CareCo Natural. The most direct is decreasing the cost of electricity. This lowers production costs, thus increasing profitability.

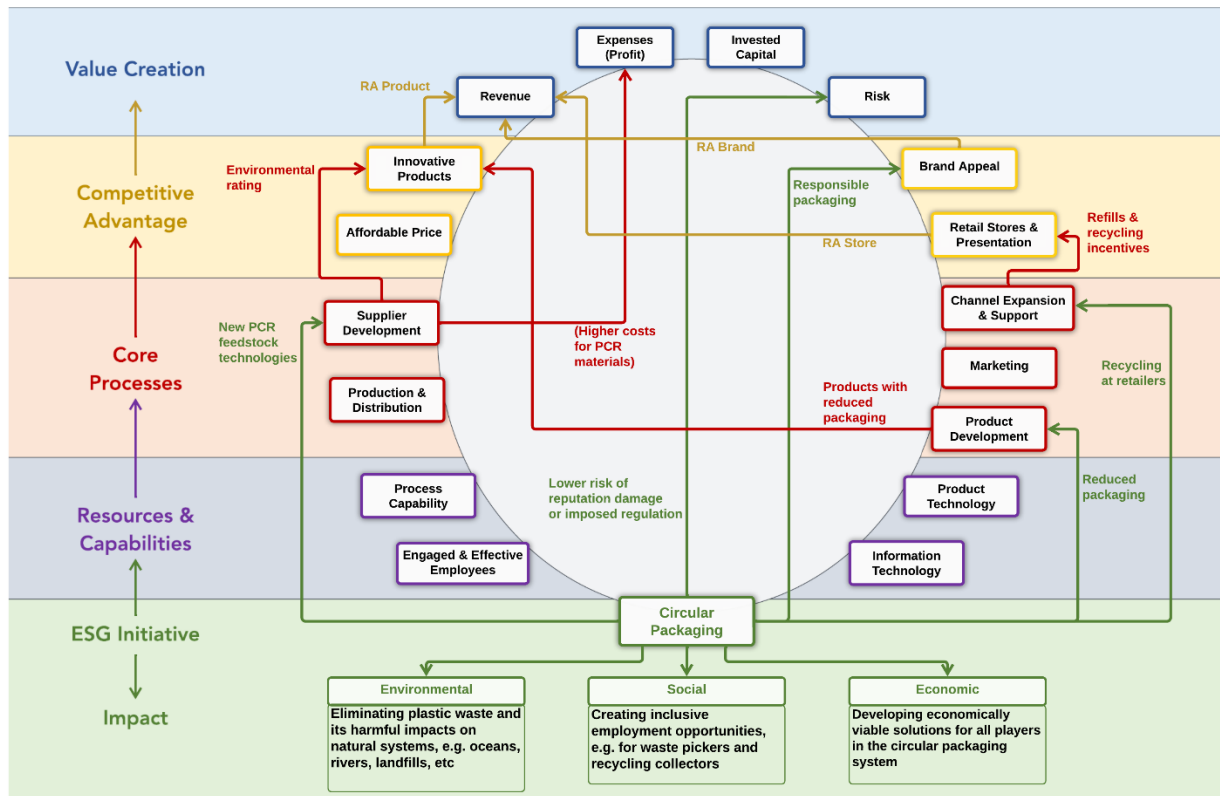
However, this need not be the only path to value creation. The map above shows two additional ways that CareCo Natural might shape this initiative to further strengthen the business. The first adds process improvement efforts to improve plant energy efficiency, thus decreasing the amount of electricity needed to power the plant. This further reduces production costs and GHG emissions. The second acknowledges the benefit of certifiable GHG reductions to CareCo Natural's sustainability reputation and brand strength. Through its sustainability reporting and marketing communications, CareCo Natural can communicate meaningful steps it has taken to address climate change, thus increasing the relative attractiveness of CareCo Natural's products with environmentally conscious consumers. This in turn helps boost revenue and adds value.

We can also extend the SVCM to show how an ESG initiative creates environmental, social, and/or economic value—across the 'Triple Bottom Line'. For example, the PPA initiative achieves a positive environmental impact by reducing greenhouse gas (GHG) emissions. It also achieves economic value by enabling a renewable energy project to proceed, i.e. having a guaranteed buyer helps the producer secure financing for the project.



Using the SVCMap to Identify New Ways to Create Value and Impact

Another example below illustrates a SVCMap for an ESG initiative focused on Circular Packaging. This initiative seeks to eliminate plastic waste by finding ways to reduce, reuse, or eliminate plastic (especially single use) packaging. Too often, initiatives such as this are pitched to senior managers based only on their environmental merits, or as a response to external stakeholder pressure. Less common is to view an initiative like this as a proactive business opportunity and means of creating financial value. The SVCMap can help make these innovative possibilities more explicit.



For example, the map above includes an industry partnership where CareCo Natural collaborates with suppliers and retail partners to develop new packaging solutions that require a systems approach. This includes developing new technologies that convert Post-Consumer Recycled (PCR) materials into high quality feedstocks for packaging, for example. It also includes redesigning products to reduce or eliminate packaging (e.g. shampoo bars, refillable bottles, powders) and to promote recycling or refilling of containers at retail stores. Ultimately, these new pathways can lead to increased revenue opportunities or cost reductions beyond what conventional business thinking might reveal. They also help reduce the risk that CareCo Natural will suffer reputational damage from inaction, or have regulations imposed that constrain the business in unproductive ways.

The circular packaging initiative is an example of an ESG initiative that clearly has the capacity to create value for the firm. However, such an initiative also creates value beyond the firm, addressing a broader perspective of sustainability across the ‘triple bottom lines:’ environmental, social, and economic.

In terms of environmental value, the circular packaging initiative positively impacts the environment by reducing plastic waste, keeping it in circulation instead of in landfill, in waterways, or littering the landscape. At the same time, the solutions developed must be economically viable for all the players within the circular packaging system. This requires industry

coordination, and possibly government incentives or changes to regulations. A sustainable solution also includes finding opportunities to reconsider and reframe employment opportunities in ways that are inclusive, and thus create social value. For example, how might the collection and sorting of waste be converted from demeaning and dangerous work to an opportunity for growth and advancement in society?

Thus, the SVCM is not only a means of visually representing the business case for sustainability. It is also a way to push the boundaries of business strategy to reveal new product and service possibilities and achieve new competitive advantages. And it can help you push the boundaries of environmental, social, and economic value creation at a broader systems level.

Achieving the dual objective of creating positive impact on the macro scale while strengthening the business isn't easy. It requires thinking creatively about what new connections ESG initiatives can generate, rather than viewing them as necessary evils to the business. Mapping these connections and making them explicit is an important step in finding ways to contribute to a more just and sustainable world.

Looking for Help in Integrating Sustainability in your Organization?

As with any mapping tool, the power of the Sustainability Value Creation Map comes from the strategic thought process that takes place as a management team draws and debates new connections. It's this process that separates 'check the box' sustainability exercises from meaningful integration—and is best learned through practice.

That is why we've developed several virtual and/or in-person opportunities to accelerate our clients' ability to do that with very practical approaches, including assessment, analytics, mapping, simulations (our own or customized), workshops, coaching, and facilitation. Our goal is to help organizations move sustainability from the sidelines to the frontlines and thereby achieve their aspirations to benefit society and the environment as well as their investors.

To learn more, see <https://www.wholeworks.com/> or contact us at Support@WholeWorks.com or [WholeWorks LLC on LinkedIn](#).

Resources and Inspiration

The Sustainable Value Creation Map© builds on several frameworks that have guided sustainability strategy over the past two decades. We acknowledge the valuable foundation these have provided in the development of this tool. To learn more, see:

- Robert S. Kaplan and David P. Norton, *Strategy Maps: Converting Intangible Assets Into Tangible Outcomes* (Boston: Harvard Business School Press, 2004). [The Balanced Scorecard features layers similar to the SVCM.]
- Stuart L. Hart, [*Capitalism at the Crossroads: New Generation Business Strategies for a Post-Crisis World, Third Edition*](#) (Upper Saddle River, NJ: Prentice Hall, 2010). [Chapter 3: The Sustainable Value Portfolio features the Sustainable Value Framework which first described the core linkages between sustainability and business value creation.]
- David J. Collis and Michael G. Rukstad, "[Can You Say What Your Strategy Is?](#)", *Harvard Business Review* (April 2008); Roger L. Martin, "[Five Questions to Build a Strategy,](#)" *Harvard Business Review* (May 26, 2010). [These classic articles help boil business strategy down to its essence and bring focus to an otherwise complex maze of frameworks and methodologies.]
- SAP, Impact Through Innovation: SAP Integrated Report 2016, available at <https://www.sap.com/docs/download/investors/2016/sap-2016-integrated-report.pdf> [SAP has been a pioneer in integrated reporting and mapping the cause-and-effect connections between sustainability initiatives and financial performance. In 2015, their website featured an interactive map that highlighted these connections. This was an early inspiration for our SVCM map. See "Connectivity of Financial and Non-Financial Indicators," pp. 215-223 in their 2016 Integrated Report.]

About WholeWorks

WholeWorks is dedicated to making the world a more just and sustainable place by helping professionals and leaders integrate sustainability into the core of their business models, processes, and operations. Nearly 400 leaders and professionals from 36 companies successfully completed a Sustainable Business program from WholeWorks, most of which were rigorous, simulation-based programs. Today, WholeWorks works directly with companies to address specific challenges and opportunities. For more information, see <https://www.wholeworks.com/>.

About Matthew J. Mayberry, Ph.D.

Matt Mayberry is founder and CEO of WholeWorks. For more than 25 years, Matt has developed and delivered award-winning, simulation-based leadership programs for leading firms that include: Dow Corning (now part of Dow, Inc.), Nike, Wendy's, British Columbia Ferry Services, and Starwood Hotels and Resorts Worldwide. In addition, he has led WholeWorks'

systems modeling consulting that has enabled numerous organizations to successfully address complex challenges and opportunities. Matt received his Ph.D. in physics from M.I.T. and his MBA from Stanford. Matt has developed and taught numerous courses in sustainable business and systems thinking at both the undergraduate and MBA level, including Green Mountain College, and the University of Vermont Grossman School of Business's Sustainable Innovation MBA program.