



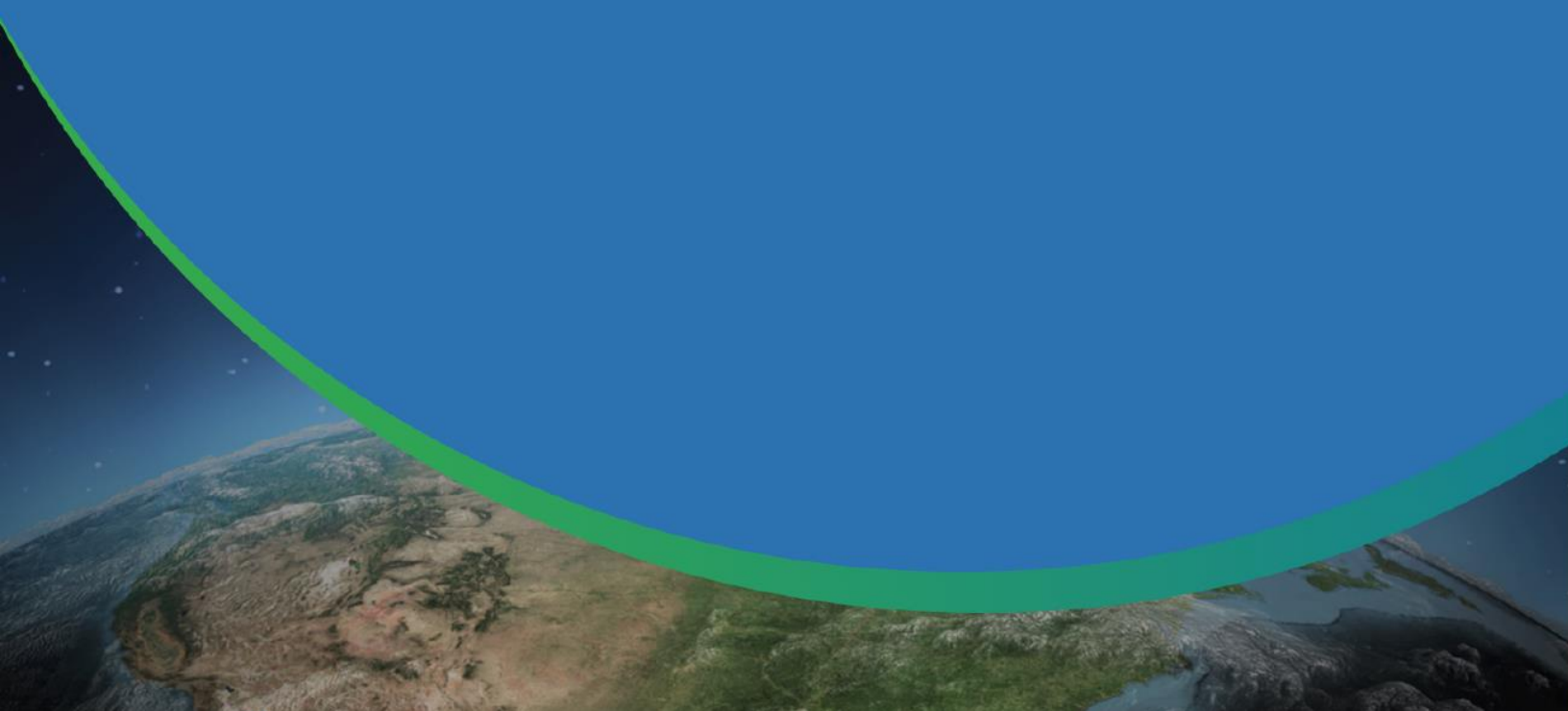
**GEMI**

Global Environmental  
Management Initiative



# QUICK GUIDE

SUSTAINABILITY 101



## Background on GEMI Quick Guides

The purpose of the GEMI Quick Guide series is to provide a closer look into the methods that corporations use to address sustainability topics. These guides feature practices to address real-time issues and sustainability concepts, accompanied by mini case studies from member companies. The GEMI Quick Guides incorporate members' experiences and support the GEMI mission of "collaborating for sustainable business solutions."

## About this Quick Guide

The **GEMI Quick Guide: "Sustainability 101"** provides a short, easy-to-read, yet comprehensive view of how companies today are reaping business value from sustainability. The guide is designed to:

- Provide a baseline understanding of the subject;
- Offer a simple approach to tackling this often complex, sometimes vague topic that is fraught with misconceptions; and
- Support discussion within your own organization (and with your suppliers and customers) about how to build greater business value from your company's approaches to sustainability.

The Quick Guide is organized around *five action steps* for a company to consider as its executives grasp what sustainability can mean for them:

1. Engage. Listen. Learn.
2. Do a 2020 reality check.
3. Study innovation across industries.
4. Explore how your company can win.
5. Chart your sustainability course.

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## Seizing Opportunities and Managing Risks

At its core, sustainability is about building foundations for future success. For company leaders, that requires understanding the trends that will impact your businesses and customers. Then build on those trends to shape your future. Increasingly, that requires positioning your company to win in the marketplace while helping to solve the world's pressing challenges.

The Conference Board *CEO Challenge 2015* report defines sustainability as “...the pursuit of a business growth strategy that creates long-term shareholder value by seizing opportunities and managing risks related to the company’s environmental and social impacts.”<sup>i</sup>

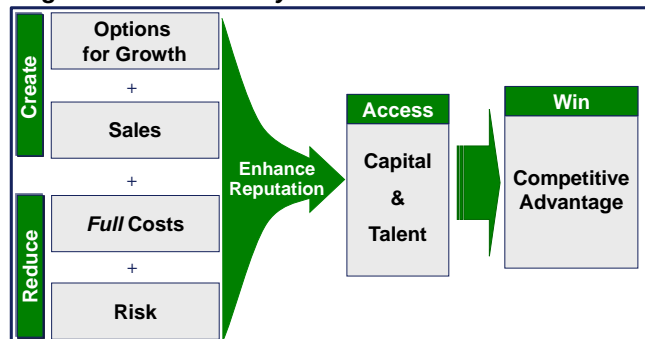
- **Seize Opportunities:** Sustainability is not about “limits to growth.” Instead, sustainability represents massive growth opportunities for those innovative companies that **create value** by reducing their own footprints and helping customers reduce their footprints dramatically.
- **Manage Risks:** Climate risk, resource supply disruptions, and water shortages increasingly will result in volatile commodity prices, stranded assets, restrictions on license to operate, and reputational harm. Today’s leaders **protect value** by managing those risks very well.

## The Business Case for Sustainability

The business case for sustainability is well established (Figure 1). Companies reduce cost and risk by cutting energy, water, waste, materials, and negative social impacts. Sustainably advantaged products can drive sales and create tomorrow’s options for growth by helping your customers reduce their footprints. Those actions strengthen your brand and reputation, giving you better access to capital and talent – resulting in competitive advantage.<sup>ii</sup>

Companies internalize sustainability to drive competitiveness in different ways. As examples: 3M is “Starting with technology and culminating with the improvement of every life on the planet.”<sup>iii</sup> AT&T aims to “Create a more interconnected, seamless and sustainable world.”<sup>iv</sup> DuPont is “...creating shareholder and societal value while reducing the environmental and social footprint in the value chains in which we operate...”<sup>v</sup> Johnson Controls is working to “Make products in more earth-friendly ways.”<sup>vi</sup> Lockheed Martin is: “...fostering innovation...to...propel responsible growth...”<sup>vii</sup> Waste Management is: “...Contributing to a economy where more waste has a chance to be reclaimed.”<sup>viii</sup>

**Figure 1: Sustainability Business Case**



## Why Sustainability Now?

The transformation of companies – even entire industries – is not new. FedEx reinvented shipping in 1971<sup>ix</sup>. Apple created new products seemingly before individuals knew they wanted them. Across industries today, companies increasingly recognize that the “take - make - waste” industrial model is no longer viable. That model is being replaced by a new “circular economy” that offers significant business opportunity by creating wealth from waste.<sup>x</sup> [See page 13 for definition of “circular economy” and selected sustainability phrases.]

The convergence of global megaforges<sup>xi</sup> (i.e., population growth, urbanization, resource and fresh-water scarcity, ecosystem decline, and more) and business realities that companies face represent the greatest set of risks and most significant business opportunities in a century. That is what sustainability is about.

## [Step 1] Engage. Listen. Learn.

### The Challenge

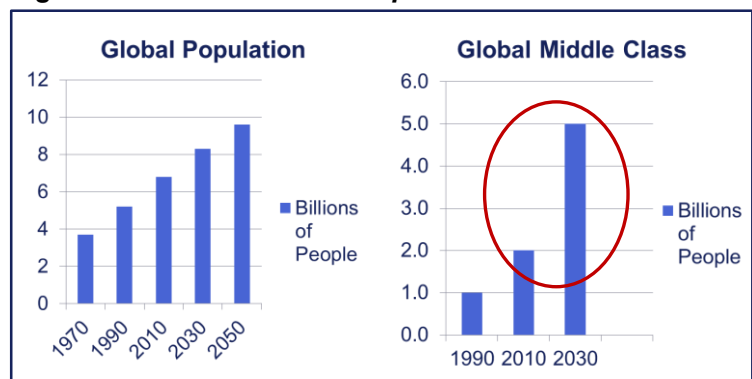
Sustainability is hard work. The first step toward capturing value from sustainability is simply *to learn*. Though initially some business leaders considered sustainability a fleeting trend, such narrow perspectives have changed dramatically. Today, U.S. business leaders are beginning to understand the essence, scale, and profound global impact of demographic, environmental, and societal “megaforges.” Such leaders are coming to grips with what “sustainability” *fully means* to their companies, employees and their families, customers, and supply chain partners. They begin to see the *immense upside business potential from sustainability*. To grasp the big picture, think about basic economics: the laws of supply and demand.

#### Onslaught of Demand –

The story about population is *not* that the total number of human beings will continue to grow (though that is true). Far more significantly, *the global middle class will double in the next 15 years from 2.5 billion in 2015 to about 5 billion near 2030* (Figure 2). Think about the implications! *What will happen in the developing world “megacities” when the number of middle class consumers doubles? How will we produce food to feed twice the number of middle class people on a fixed land base?*

In understanding that one billion people in the developing world do not have access to clean drinking water, Procter & Gamble, recognized a growth opportunity. The company developed a water purification (PUR) packet that “quickly turns 10 liters of dirty, potentially deadly water into clean and drinkable water.”<sup>xii</sup> [See Procter & Gamble case example on page 11.]

**Figure 2: Growth of Global Population and Middle Class**



Source: Created from data produced by United Nations, Population Division

#### Supply (Resource) Constraints –

Resource supply disruptions and a host of environmental challenges require successful companies to be smarter about all sources of supply...renewable and non-renewable. Regarding *renewable resources*, ask yourself how your company – across the full value chain – can approach zero negative impact on climate (greenhouse gas emissions), forests (destruction of biodiversity and the rainforest), land (diminished soil fertility), and oceans (depleted fisheries).

In the area of *non-renewable resources*, the pressure is not necessarily about the *availability* of resources. Instead, companies increasingly will feel pinched regarding the *impact* of how they use and manage those resources. For example, though the planet still has an abundance of coal, can we afford the resulting carbon dioxide impact?

#### 10x Faster; 300x the Scale

The convergence of these “mega” supply-and-demand forces is happening quickly. A McKinsey study<sup>xiii</sup> observes: “Compared with the Industrial Revolution, we estimate that this change is happening ten times faster and at 300 times the scale, or roughly 3,000 times the impact...”

For virtually every company in every industry, companies will need to *transform* themselves in order to compete. The financial community has begun to encourage this transformation. For example, JP Morgan Chase has been quantifying ecosystem damage; and BlackRock<sup>xiv</sup> aims to understand how CEOs plan to capture growth opportunities and shareholder value from sustainability trends.

## [Step 2] Do a 2020 Reality Check.

### Reduce, Reduce, Reduce.

Over the past 20 years, many companies have kept their core businesses the same while working to reduce energy, resource use, waste, and negative social impacts. Though “reduce” is *not* a very exciting conversation for many companies, it is the launching point to “growth” – and it ties in with the sustainability business case (Figure 1).

The year 2020 is not far away. What will it look like? Given the megaforges described above, the conversation that companies should have today in the C-suite is to address: *“How should we transform our company in order to compete and win in this new reality...today and in the future?”*

## The Opportunity for Tomorrow’s Business

The exciting sustainability conversation is about *growth*. As these megaforges play out in the coming decades, opportunities exist for each company to position itself for sustained growth and profitability. Across a range of industries, *traditional* and *next-generation* companies have begun to unleash that “power of innovation” to transform how to do business.

The reality is that, in order to survive, **many traditional companies across industries will have to change more in the next 10-15 years than in the past 100 years.**

**Figure 3: Examples of Industry Transformation**

Industry	Yesterday’s (Linear) Focus	Tomorrow’s (Circular) Focus
Aerospace	More flights; more fuel & carbon	More connection; less carbon
Apparel	Sell clothing	Sell; lease and take back
Automotive	Sell cars and trucks	Sell mobility solutions
Chemicals	Make chemicals from hydrocarbons	Make chemicals from biomaterials and recycled chemical products
Energy (oil & gas and utilities)	More energy; more carbon	More energy; less carbon
Food and Beverage	More food that tastes good	More food; more health; less water; less waste
Hotels & Leisure	Sell lodging from a facility	Sell lodging from a host
Industrial	Make; sell and forget	Make; lease; take back; remanufacture
Information Technology	Sell equipment and services	Help solve the world’s toughest challenges
Mining	Mine ore	Mine landfills & warehouses (take back)
Pharmaceuticals	Sell drugs	Sell health solutions
Retailing	Sell “stuff”	Sell solutions
Waste services	Haul, dispose waste in landfills	Sell, recycle, reuse; eliminate waste

Provided in Figure 3 are brief descriptors of how a number of industry sectors are beginning to transform toward tomorrow’s “circular economy” focus.

The challenge in all of this is to get the timing right: to invest in new technologies and business models just ahead of when they will reap rewards.

## Tackling Opportunities from Both Extremes

Who will innovate and ultimately win in the marketplace, thereby profiting from the convergence of these megaforges? Will it be old-line players, new startups, or some of each? Ask yourselves these questions: *“Who are the top few start-up companies in our industry that potentially could disrupt the entire sector over the next five to ten years? What technologies and business models will provide them competitive advantage?”*



## [Step 3] Study Innovation Across Industries.

### Transformation

Industry transformation toward sustainability is under way. For some industries, that transformation has been gradual, such as the forest products sector sourcing from sustainable-yield forests, or the apparel sector addressing human rights issues. In other industries, that change can appear sudden as seen in start-up companies disrupting business areas or entire industries. Highly visible start-ups include: Lending Club (founded 2006) becoming the world's largest online credit marketplace; Airbnb (2008) shaping a new marketplace for people to list and book accommodations nearby or around the globe; and Uber (2009) transforming the "taxi business" with private cars and rideshares.

### Industry Examples

The needs of consumers and businesses are changing – although in many cases without the traditional customers recognizing that change is needed. Each of the following examples illustrates how a company has *altered dramatically* how its industry provides goods or services. *Taking innovative, bold steps to –*

**Reduce the environmental impact of consumer products:** Procter & Gamble is striving to use "100% renewable or recycled materials for all products and packaging...having zero consumer waste go to landfills...designing products to delight customers while maximizing the conservation of resources."<sup>xv</sup>

**Transform how water is sourced and used:** The Coca-Cola Company has a goal of being water neutral by 2020."<sup>xvi</sup> The company is "replenishing, or balancing, the water used in our finished beverages – an estimated 35 percent so far."

**Grow environmental services:** Sealed Air is developing ways toward a more sustainable future, "protecting products, preserving food, providing healthcare solutions or making the world a safer and cleaner place."<sup>xvii</sup>

**Drive sustainable forestry:** For decades, the pulp and paper industry has been moving from the old model (cutting down virgin forests) to sourcing primarily or only from "sustainable yield" forests.

**Close the metals loop:** Boeing and Alcoa formed (2013) a "closed-loop program to significantly increase the recycling of internal aluminum aerospace alloys used during the production of Boeing airplanes."<sup>xviii</sup>

**Use bio-based chemicals:** DuPont's transformation from an explosives company in the 1800s to a chemical company in the 1900s to a biology and science company today is well documented. AkzoNobel Chemicals, DSM, and BASF are moving away from hydrocarbons, using bio-based chemicals.

**Upend the hotel industry:** Airbnb (founded in 2008) is on track to become one of the world's largest hotel chains – *without owning a single hotel room*. They are disrupting the entire industry.

**Generate more electricity with less carbon:** Duke Energy has brought five new natural gas combined-cycle plants on line since 2011 – and retired older, less efficient coal units. Natural gas emits about half the carbon dioxide of coal."<sup>xix</sup>

**Turn waste into a resource:** Faced with a growing number of large customers with goals to approach zero waste, Waste Management developed new solutions to turn "waste into a resource."

### The Core Premise of Sustainability

**Today's companies can be tomorrow's successful companies if they can decouple growth from resource consumption across the full value chain.** That is the core premise behind sustainability and the circular economy. For individual companies, this is an opportunity to completely rethink your value proposition to existing customers. Caterpillar is remanufacturing equipment to make it last far longer. Philips is selling lighting as a service. Zipcar launched ride-sharing. Many companies are working hard to eliminate the very concept of waste, starting by achieving zero waste to landfill.

## [Step 4] Explore How Your Company Can Win.

### Make the Conversation Upbeat!

Innovation lies at the core of realizing value from sustainability. While innovation is at the heart of the *opportunity side* of sustainability, it is also at the heart of the *risk side*. Many companies have found ways to reduce their energy use dramatically by unleashing the creative thinking of their employees. However, such approaches based on incremental goals will yield incremental results. In contrast, tomorrow's company leaders will drive innovation by setting bold, almost unimaginable, long-term goals to, for example: dramatically cut energy use, GHG emissions, carbon intensity, water use, human rights abuses, and so on. Many leading companies already have set this drive in motion.

Likewise, many S&P Global 100 companies have developed a "sustainable" product portfolio to help drive growth.<sup>xx</sup> Examples include: 3M, Coca-Cola, DuPont, Johnson & Johnson, and P&G, among others.

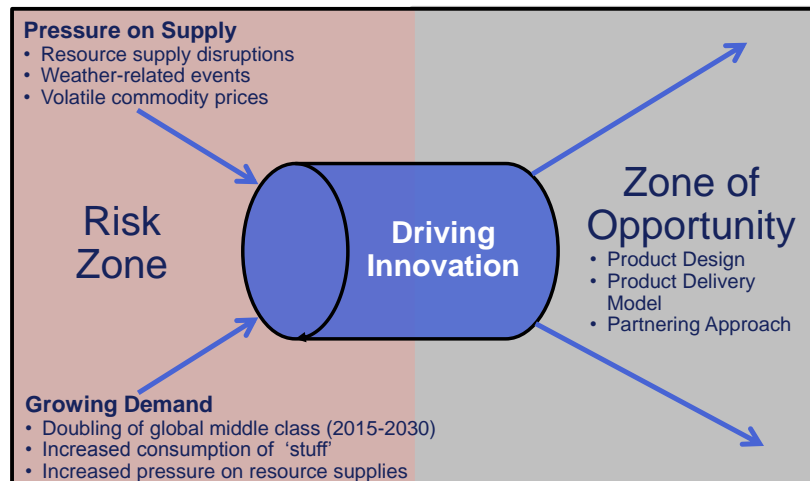
### Plan to Win

Here is how your company can win in the new "circular economy."

**First: Explore the Risk Zone.** Delve deeply into understanding your customers' sustainability-related risks (Figure 4). By focusing on customers, you shine the light on the lifeblood of your company's business.

*How can you help your customers achieve their (typically "2020") sustainability goals? What specific resource supplies are at risk of disruption? How great is the carbon risk? What are the implications of potential risks on the company's product portfolio and customer base?*

**Figure 4: Zones of Risk and Opportunity**



**Second: Drive Innovation.** A company can drive "sustainable" innovation in several ways:

- **Product Design:** Work with your R&D, technology, and innovation leaders to select product lines with which to experiment. Ask yourselves: *In what different ways can we meet the same customer needs while using dramatically less energy and materials? How can we approach zero waste throughout the full life cycle? How can we use lifecycle assessment (LCA) methodologies to drive business growth?*
- **Product Delivery Model:** How can you convert a traditional "linear / make and sell" product delivery approach into a service or a solution? For example, Michelin increasingly sells "distance" instead of tires – and then takes back the tires at the end of life. Philips sells lighting as a service.
- **Partnering Approach:** One of the major challenges with sustainability is that *you have to do it yourself, but you cannot do it alone*. The auto and manufacturing sectors have found this (partnering with aluminum providers) regarding the "lightweighting" of materials.

**Third: Pilot the Opportunity Zone.** You do not have to reinvent the wheel. Study how other companies have piloted an innovative business solution. As an example, Google is funding a start-up, Sidewalk Labs, as an "urban innovation company" that will pursue technologies to cut pollution, curb energy use, streamline transportation, and reduce the cost of city living.<sup>xxi</sup>

## [Step 5] Chart Your Sustainability Course.

### Begin by taking these proven actions...

- 1. Speak C-suite Language; Find the Hook(s).** For every company, a particular “magic hook” on which to drive sustainability becomes critical to propel action. For some companies (e.g., Johnson & Johnson’s *Credo*), the hook is the *core values*. For others like 3M and GE, the hook is *innovation*. For many companies, at least initially, driving *efficiency and cost reduction* is the hook. For others, *meeting customer needs* is the hook. To find the hook, speak the language of your C-suite executives.
  - **CFO:** Focus on managing risk and driving productivity improvement; and assess the impacts of resource supply disruptions, carbon risk, volatile commodity prices, and stranded assets.
  - **Human Resources:** Engage in “the war for talent,” knowing that millennials care deeply about unemployment, resource scarcity, climate change / environment, and income inequality.”<sup>xxii</sup>
  - **Business Leaders:** Intensely focus on creating different ways to meet those needs (as seen with Airbnb) – even if the customer never thinks about them.
  - **R&D / Technology:** Drive to unleash innovation that propels tomorrow’s growth.
  - **Investor Relations:** Learn to tell the story about how the company is seizing growth opportunities, while also mitigating sustainability-related risks.

C-suite members do not read the “green” news. Instead, look for “sustainability” and “innovation” in core business publications and media, namely: Fortune, Business Week, Fast Company, The Financial Times, Sloan Management Review, Harvard Business Review, Wall Street Journal, CNBC, Bloomberg Business, and more.

- 2. Identify internal advocates.** One proven way to address sustainability risks – and particularly opportunities – is to *assemble a team of high-potential employees* across your company’s functions, age levels, lines of business, and geographies, especially from Europe (as many European countries are years or decades ahead of the U.S. when it comes to sustainability). The right individual/s may be within the sales organization in Asia or other parts of the world. Perhaps the right internal advocate is within R&D or new product development. Moreover, the recruitment director in Human Resources may be seeking to hire millennial applicants who want to work for responsible companies.
- 3. Save Money.** Over 100 companies globally have proven that reducing environmental and/or social impacts can save money. As an example, 3M launched its Pollution Prevention Pays program in 1975. The 3P program has prevented 2.9 billion pounds of pollutants and saved more than \$1.5 billion.<sup>xxiii</sup>

The “efficiency” (footprint reduction) path to sustainability should be an easy sell. What could be a more natural fit with zero defects than zero waste? The drive toward zero (physical) waste through a company’s approaches to procurement, production, assembly, transportation, and sales should align fully with Six Sigma, Lean, or whatever that quality program is referred to within your company. [See the *Union Pacific* and *Perdue Farms* case examples on pages 12 and 11, respectively.]

- 4. Uncover stories from your customers and suppliers – and their customers/suppliers.** Given the availability of “instant knowledge” about a company from media and internet sites or through all manner of instant communication, it is more valuable than ever for a company to define its “own story” that addresses the full supply chain. Then share that story accurately and broadly. Toward that end, deploying your customers’ voices and opinions is critical. [See *Ashland* case example on page 10.]
- 5. Collect Data.** Are you sitting on some compelling data that is relevant to different C-suite executives in your organization? If so, consider how that data can help. For discussions with business leaders and sales and marketing executives, collect data on *customer inquiries* or requests for sustainability information. Research your major *customers’ sustainability goals*. For the CFO, collect data on your company’s *baseline resource costs*. Include all forms of energy (fuel, electricity, transport, etc.), materials, water, and other inputs.



## Conclusion: Start Now

The industrial economic model launched over a century ago resulted in the one-way, linear “take, make, waste” flow. That worked well for a long, long time. GDP growth has raised billions of people out of poverty. Today, however, we are in the waning years of that model. The tide has started to turn. Major industrial companies with a decades-long outlook have come to realize they must change. In the meantime, hundreds of young start-up companies recognizing massive new opportunities have tried to position themselves to become the next Google. Some have achieved early success and are still “on a roll.”

At the same time, the old linear model chugs along on many fronts. We still often use traditional, carbon-intensive resources to power our iPhones. Detroit still churns out cars and trucks on ever-more efficient assembly lines.

These conflicting signals (continuation of the old “linear” model with ever stronger signals about the new “circular” model) make it tough for companies to know how to respond. That is actually good news! Smart companies recognize this period for what it is: the transition zone when some undercurrents flow in one direction, while others flow in the opposite direction. Company leaders should use this transition time to:

- Engage, listen, and learn. Figure out what this sustainability “stuff” is really all about.
- Look forward 5-15 years and face reality.
- Study examples of innovation across every industry sector in your company’s value chain.
- Explore how your company can win – by reducing risk and driving growth through innovation.
- Plot your course. You do not have to do everything at once. Plan your strategic route.

Every company in every industry will need to transform in order to survive and thrive. The questions to ask today include: *If we start a major change now, how many years (decades) will it take to move from the linear model to a more circular one? How long will our “sunk” capital investments in the old linear model play out? Are those smart investments for our stakeholders?*

Some industry sectors have an easier time than others in aligning with the core principles of sustainability. Consider grouping companies generally in three clusters:

- *Lucky Few:* The “lighter footprint” sectors (e.g., financial services, information technology, and service sectors) align reasonably with sustainability. So too do the health care and pharmaceutical sectors. Change is needed, but companies in these sectors do not have to rethink everything.
- *Many in the Middle:* Core consumer products and industrial companies across various sectors need a major redesign across their full value chain. Many rely almost entirely on hydrocarbon energy to produce (and power) their products. Likewise, most do not actively manage (and reap value from) their products after customer use.
- *Complete Rethink:* Industries that extract nonrenewable resources (e.g., coal, oil and gas, mining, etc.) face a serious “rethink.” However, transformational change is happening.

Sustainability never has been a question of “if.” *Sustainability always has been a question of “when.”* Given the time necessary to work through the five steps in this Quick Guide, the time to start is now.

## Case Examples

### Case Example: Ashland, Inc.

Ashland is a global specialty chemical company operating in more than 100 countries. The chemistries Ashland provides enable pharmaceuticals that excel in form and function, anti-aging ingredients in skin-care products, more sustainable building products, lighter yet stronger wind-turbine blades, and advanced recycled motor oils that reduce energy consumption.

One of Ashland's business units (Valvoline<sup>xxiv</sup>) needed to respond to a request from a major customer (Walmart) about its sustainability efforts. Valvoline had not previously embraced sustainability and needed to develop a program that over time addressed specific requirements. The sustainability effort was led by the Senior Vice President of Valvoline and driven through the organization down to the operational sites.

The results of Valvoline's initiatives have led to reduced energy consumption, reduced waste generation, and (in several cases) zero landfill sites. Water reduction was minimal, since the business did not consume large quantities of water. Conservation efforts have maintained water consumption to pre-2012 levels.

Visit: <http://www.ashland.com/commitments/products/sustainability-in-action/nextgen>

### Case Example: Gannett Fleming

Gannett Fleming<sup>xxv</sup> is a planning, design, technology, and construction management service firm with more than 2,000 employees in 65 countries and with 2014 revenues in excess of \$327 million.

With respect to Gannett Fleming's work in the private sector, there is a clear link between being green *and* the bottom line. Nearly \$70 million of the global "infrastructure and environmental" firm's annual revenue is generated from private-sector clients who elect only to work with firms that have a documented corporate sustainability program.

The results of Gannett Fleming's internal strategic sourcing program created an "aha moment" among the firm's leadership. In mid-2013, the firm formalized a partnership with a large national retailer to handle procurement of office supplies, products, office furniture, shipping, and equipment. The program goal is to realize cost reductions from contractual pricing, reduce the administrative burden associated with accounts payable, eliminate unnecessary office supply purchases and waste, and be better equipped to monitor its cleaning product purchases to ensure it uses environmentally friendly supplies. Within only one year, Gannett Fleming has been able to demonstrate:

- 38 percent of the products it purchased included recycled, remanufactured, or other green attributes.
- None of its corporate purchases were made at a retail store, which means it eliminated any carbon emissions associated with travel to a store.
- The company had 191 fewer deliveries for office supplies in 2014 than 2013, eliminating 860 pounds of CO<sub>2</sub>.
- It significantly reduced the administrative burden associated with processing payments for supplies, which saved time and money.

Visit: <http://www.gannettfleming.com>

### Case Example: P&G's Children's Safe Drinking Water Program

Launched in 2004, the P&G Children's Safe Drinking Water program is reducing illness and death caused by drinking contaminated water, particularly among children in the developing world. At the core of the program is P&G's water purification packet – developed in collaboration with the U.S. Center for Disease Control. The packet contains a “powdered mixture that removes pathogenic microorganisms and suspended matter, making previously contaminated water clean.”

- Proven to eliminate disease-causing microorganisms.
- Removes more than 99.99999% of common waterborne bacteria (including those that cause cholera), 99.99% of common waterborne viruses (including those that cause hepatitis A), and 99.9% of protozoa.
- Proven to reduce diarrheal disease incidence in the developing world by up to 90%.
- Removes dirt and other pollutants.
- Can be used to make clean drinking water for the entire family, including infants, and is considered an effective technology by the World Health Organization.

Global emergency relief organizations, such as AmeriCares, CARE, IFRC, PSI, Save the Children and World Vision, have provided clean drinking water using the P&G packets since 2004.<sup>xxvi</sup>

Visit: <http://www.cdc.gov/safewater/cdc-at-work.html>

### Case Example: Perdue Farms Inc.

Perdue Farms is the family-owned parent company of Perdue Foods and Perdue AgriBusiness. The company is “dedicated to enhancing the quality of life for everyone we touch through innovative food and agricultural products,”<sup>xxvii</sup> and had sales of approximately \$6 billion in 2014.

“We were sustainable before sustainability was cool... We had tracked our water and energy usage for a very long time, and were always looking for ways to reduce them. Back then, it was called “frugality.” Now, we’ve expanded those basic metrics into a comprehensive environmental scorecard used to assess the performance and environmental impact of each of our facilities against annual improvement goals that are set. These improvements, as measured by the scorecard results, are a core part of our management incentive program.”

Visit:

[http://perduedefarms2015.marriner.com/Corporate\\_Responsibility/Our\\_Aspirations/Communities/Environment/Environmental\\_Stewardship/](http://perduedefarms2015.marriner.com/Corporate_Responsibility/Our_Aspirations/Communities/Environment/Environmental_Stewardship/)

### Case Example: Smithfield Foods

Smithfield Foods is the world's largest pork processor and hog producer, with revenues exceeding \$15 billion in 2014. In early 2010, the company "adopted a set of goals and sustainability targets to exceed all regulatory guidelines or previous achievements." The following year, the company "expanded some of these targets and put more focus on *value creation*," which underpins the company's sustainability strategy.<sup>xxviii</sup>

With an underlying objective to "keep all animals safe, comfortable, and happy," the company reached several targets ahead of schedule. In early 2015, they adopted a new series of goals and targets. Company management considers a facilities-based target as "achieved" for 2014 if 100 percent of locations have met the standard. Targets are noted as "on track" if they are less than 100 percent achieved but making appropriate progress.

Targets are established, for example, for Employees, Animal Care, Environment, Food Safety & Quality, and Helping Communities.

Two example targets (and 2014 results) include:

- Remain 100% Pork Quality Assurance Plus compliant at all company-owned and contract farms. [Results: 100% of company-owned and contract farms were PQA Plus compliant.]
- Maintain PQA Plus certification for all suppliers and move toward site assessments. [Results: 100% of live animals were delivered by PQA Plus certified suppliers. 100% of supplier locations were site assessed.]

Visit: [www.smithfieldfoods.com/integrated-report/sustainability-progress-commitments](http://www.smithfieldfoods.com/integrated-report/sustainability-progress-commitments)

### Case Example: Union Pacific Railroad

Founded more than 150 years ago, Union Pacific Railroad connects 23 states in the western two-thirds of the United States by rail, which provides a critical link in the global supply chain.<sup>xxix</sup> For the full year 2014, Union Pacific reported net income of \$5.2 billion.

More than 90 percent of the company's greenhouse gas emissions come from locomotive fuel to transport customers' products. While as a company "we had frequently communicated that trains were four times more fuel efficient than trucks, we learned that statistic wasn't as valued as a public goal."

"When we proposed a goal to improve fuel efficiency, our senior management understood how such a goal clearly states the company's commitment to sustainability."

Visit: <https://www.up.com/aboutup/environment/operations/index.htm#>

## Definitions

- **Circular Economy:** An alternative to a traditional linear economy (make, use, dispose) in which we keep resources in use for as long as possible, extract the maximum value from them while in use, and then recover and regenerate products and materials at the end of each service life.
- **Closed Loop:** Also referred to as the Circular Economy, where materials, at the end of their useful life, are consistently repurposed, recycled, reused, reclaimed, restored, or otherwise converted to some use rather than discharged as waste.
- **ESG (Environment, Social, Governance):** The term often used by the investment community to refer to sustainability.
- **Footprint:** A measure of an organization's (or a human's) demand on the Earth's ecosystems. Unless otherwise noted, in this context is used as a measure of the full impact across the supply chain of an organization's operations, including, for example, consumption, use and emissions of energy, materials, resources, water, etc.

## For Further Reading

Among the many valuable business-oriented documents to deepen your knowledge of sustainability, we recommend the following:

- "Navigating the Sustainability Transformation," The Conference Board Director Notes: January 2015. Author: Gib Hedstrom. [[www.conference-board.org/publications/publicationdetail.cfm?publicationid=2885](http://www.conference-board.org/publications/publicationdetail.cfm?publicationid=2885)]
- "Integrating Sustainability into Your Core Businesses – A Road Map," The Conference Board Research Working Group report, May 2015. Authors: Pat Mahon and Rob Shimp. [[www.conference-board.org/publications/publicationdetail.cfm?publicationid=2947](http://www.conference-board.org/publications/publicationdetail.cfm?publicationid=2947)]
- "Sustainability and the CFO: Challenges, Opportunities and Next Practices," April 2015 – Corporate EcoForum and World Environment Center [[http://www.corporateecoforum.com/wp-content/uploads/2015/04/CFO\\_and\\_Sustainability\\_Apr-2015.pdf](http://www.corporateecoforum.com/wp-content/uploads/2015/04/CFO_and_Sustainability_Apr-2015.pdf)]
- "Circular Advantage: Innovative Business Models and Technologies to Create Value in a World without Limits." Authors: Peter Lacy, Justin Keeble, Robert McNamara, 2014. Accenture LLP. [<https://www.accenture.com/in-en/insight-circular-advantage-innovative-business-models-value-growth.aspx>]
- "Creating Opportunity out of Adversity – Building Innovative, People-Driven Organizations," The Conference Board CEO Challenge® 2015 Report. Authors: Charles Mitchell, Rebecca L. Ray, PhD., Bart van Ark, PhD. [<https://www.conference-board.org/topics/publicationdetail.cfm?publicationid=2888>]
- "Expect the Unexpected: Building business value in a changing world." KPMG report. Authors: Yvo de Boer, Barend van Bergen. [<https://www.kpmg.com/Global/en/IssuesAndInsights/ArticlesPublications/Documents/building-business-value.pdf>]
- "Gaining an Edge from the Circle: Growth, Innovation and Customer Value through the Circular Economy," Accenture report. Author: Peter Lacy. [<https://www.accenture.com/gr-en/insight-circular-economy-gaining-edge>]
- "GEMI Quick Guide for Cultivating Sustainability within an Organization." GEMI. [[http://www.gemi.org/Resources/2014/GEMI\\_CSWO-QuickGuide-Dec2014Final.pdf](http://www.gemi.org/Resources/2014/GEMI_CSWO-QuickGuide-Dec2014Final.pdf)]
- "GEMI Quick Guide on Engaging Employees in Sustainability." GEMI. [<http://gemi.org/wp-content/uploads/2015/01/GEMI-EES-QuickGuide-FinalMarch2015.pdf>]
- "GEMI Quick Guide on Materiality." GEMI. [<http://gemi.org/wp-content/uploads/2015/09/GEMI-MaterialityQuickGuide-2015.pdf>]



## About the Authors

**Gilbert (Gib) Hedstrom** is president of Hedstrom Associates, an advisory firm specializing in business consulting and executive counsel on sustainability strategy. Schooled in finance at GE, Hedstrom spent 20 years at Arthur D. Little where he was vice president and managing director. He has over 25 years of experience advising CEOs and board members about how to handle difficult environmental and business challenges, and has reported directly to boards of directors of Fortune 500 companies on over 50 occasions.

Hedstrom has had a long association with GEMI and The Conference Board. He advised GEMI leadership on sustainability after he spoke at the Rio Earth Summit in 1992 and several times since then. Currently, he is program director of three member-only Conference Board councils addressing issues of sustainability: Chief Environment, Health and Safety Officers' Council; Sustainability Council I: Implementation and Execution; and Sustainability Council II: Products, Technologies and Solutions.

Hedstrom has authored several books and written dozens of articles related to environment, governance, strategy, and sustainability. He has built The Sustainability Scorecard™ over the past 18 years, with input from over 50 companies, and used the Scorecard in presentations to Fortune 500 boards of directors. He is frequently called upon to speak on business risks and opportunities created by environmental and social trends.

He earned his MBA (Corporate Strategy) and MS (Natural Resource Management) from the University of Michigan and a BA in Economics and Geology from Hamilton College.

**Patricia (Pat) Mahon** has more than 30 years of experience in integrated marketing and communications strategy development, program creation, and implementation. Her marketing and communications experience includes publications and conference development, media and public relations, and complex document production for colleges and universities, nonprofit organizations, consulting firms, businesses, and the U.S. government.

Ms. Mahon spent about 18 years at Arthur D. Little (ADL), leading the marketing and communications initiatives for the Environment, Health, Safety and Sustainability practice, and for the North America Management Consulting group; and 4 years developing marketing communication outreach at Navigant Consulting for the Energy Practice. Previously, she led the Boston University Office of Publications Production and managed book production at MIT Press.

She earned a BA at Trinity College, and pursued continuing courses at Northwestern University's Kellogg School, the School of the Museum of Fine Arts, and RISD. She works with students in the A Better Change program as they go through the college application process.

## About GEMI

GEMI is the global leader in developing insights, networking, and creating collaborative sustainability solutions for business. For 25 years, GEMI has captured the vision and experience of global corporate environmental, health and safety (EHS) and sustainability leaders from diverse business sectors through the development of a wide range of publicly-available, solutions-based tools designed to help companies improve the environment, their operations and add business value. For more information, please contact [info@gemi.org](mailto:info@gemi.org)

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## Footnotes

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