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USER'S GUIDE

sSWOT

A SUSTAINABILITY SWOT

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INTRODUCTION

The sustainability SWOT (sSWOT) is designed to help drive action and collaboration on environmental challenges creating real business risks and opportunities. It helps individuals engage and motivate colleagues—particularly those with limited knowledge of environmental issues or corporate sustainability. Use this guide to work across internal departments, as well as suppliers, customers, or other stakeholders on strategies to create and sustain long-term value.

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SUSTAINABILITY SWOT (sSWOT)



A MESSAGE FROM THE “ROAD TEST” COMPANIES

We accepted an invitation from the World Resources Institute (WRI) to review and test an early version of the sustainability SWOT (or sSWOT). We found the sSWOT to be a powerful means of showing how environmental challenges can shape strategic risks and opportunities.

We applied the sSWOT at our organizations in different ways and some of our stories are included in this guide. We urge others to use it to collaborate with internal colleagues and external partners (suppliers, customers, and even competitors).

The sSWOT can help you assess options for action—together with colleagues and partners—on the environmental challenges creating new business risks and opportunities.

Braskem

Jorge Soto, Director, Sustainable Development
Brazilian multinational chemicals company and largest producer of thermoplastic resins in the Americas



EDUCATION CORPORATION of AMERICA

Kyle Crider, Manager of Environmental Operations
Owner and operator of 30+ private institutions of higher education located throughout the United States



that was easy.[™]
Mark Buckley, Vice President, Environmental Affairs
World's largest office products company and second largest internet retailer



Stephen Bickell, Sustainability Tutor
UK-based provider of supported distance learning for real estate and construction professionals



Drummond Lawson, green giant (director of sustainability)
San Francisco-based producer of home cleaning, laundry and hand care products



TARGET.
Katie Dillon, Manager, Corporate Sustainability
North American-based upscale discount retailer



Lucas Urbano, Sustainability Manager
The Brazilian Dairy division of the dairy and nutritional products company, Group Danone



Gabriela Burian, Director, Sustainable Agriculture Ecosystems
Global provider of technology-based solutions and agricultural products to improve farm productivity and food quality



Rick Love, Manager, Environmental Sustainability
Provider of innovative, high-technology products and services to the aerospace and building systems industries worldwide

DELPHI

Kimberly Bowden, EH&S Sustainability Manager
Global supplier of electronics and technologies for automotive, commercial vehicle and other sectors



Péricles S. Weber, Environment Director
Water and sanitation services provider for the state of Paraná in Brazil



Robyn Lunning, Environmental and Social Risk Manager
Diversified financial services company head quartered in the U.S. with offices in more than 35 countries



Amanda Kardosh, Sustainability Manager
Brazil-based fleet management company with a customer portfolio of approximately half a million vehicles

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ABOUT THE sSWOT

The World Resources Institute (WRI) created the sustainability SWOT (sSWOT) to help companies take action on environmental challenges.* It pushes companies to explore collaboration with internal departments, as well as suppliers, customers, or other stakeholders on strategies to create and sustain long-term value.

The sSWOT can help engage and motivate colleagues—particularly those with limited knowledge of environmental issues or corporate sustainability. Most importantly, it can help identify and communicate new insights to senior decision makers.

In partnership with companies in WRI’s [Next Practice Collaborative](#), and through workshops, road tests,** and interviews with dozens of companies and sustainability experts, we put a new twist on the familiar SWOT (**S**trengths, **W**eaknesses, **O**pportunities, **T**hreats) to help you:

- Evaluate your company’s strategies and translate insights about environmental challenges (for example, climate change and resource scarcity) into risks or opportunities that your company can act on.
- Get others motivated about opportunities to invest, innovate, and collaborate on environmental challenges in ways that increase business value.
- Convince colleagues and decision makers (for example, senior managers, CEOs, CFOs, or Boards of Directors) that environmental challenges are not as far removed from your company’s core interests as may be assumed.

FOOTNOTES

* Sustainability, as a concept, is much broader than environmental issues. This guide provides a flexible framework to help business translate environmental challenges into core business interests and strategies. Social concerns (for example, human rights and labor standards) can be included in the analysis by supplementing the questions and considerations highlighted in this guide.

** See the “Insights from Road Tests” boxes for examples and experiences of individuals who pilot tested the sSWOT at their companies.

INTRODUCTION

Big changes

The concept of sustainability—*meeting today's needs without jeopardizing the ability of future generations to meet their needs*¹—is penetrating board rooms across multiple industries.² It is now discussed in leading business journals, like the *Harvard Business Review* and the *MIT Sloan Management Review*, as a major driver of business innovation and competitive advantage.³ It is increasingly influencing business value and business decisions.⁴

Sustainability directors from companies across multiple sectors have told WRI they are looking for a way to communicate and collaborate with others on environmental challenges. They want to demonstrate to colleagues, customers, and suppliers that environmental challenges are not removed from core business interests. They need a means of drawing connections to the other trends (for example, economic or demographic changes) that business unit managers, senior executives, or boards of directors are more familiar with.

Sustainability connects long-term environmental and social challenges with economic priorities (for the purposes of this guide, the emphasis is on environmental challenges). Companies can look at these connections for important business risks as well as opportunities to provide new solutions (*see Box 1*).

Consider the big trends—“megatrends” or “metatrends”—that are transforming markets and creating new ways to meet customers’ future needs. Populations

are growing and flocking to cities. By 2030, urban areas will be home to more than a billion additional people. In that time, there are projected to be two billion new middle class consumers, along with billions more low-income consumers, in growing markets around the world. Meanwhile, today’s technologies are creating new opportunities. Take the rapid growth in information, computing and mobile communication technologies. These and other innovations create new possibilities for disruptive business models, strategies, and partnerships.

Corporate sustainability champions are looking for ways to act on these changes. They are finding ways to change internal operations and processes to address environmental challenges, minimize costs, and improve productivity. They are seeking opportunities to generate new revenue with products and services that create or use cleaner energy and safer materials, and conserve natural resources. They are collaborating with others to preserve and create business value (*see Box 2*). They have helped WRI create a

Sustainability directors want to demonstrate to colleagues, customers, and suppliers that environmental challenges are not removed from core business interests.

practical and compelling framework to translate environmental challenges into risks or opportunities that their company can act on.

Adding an “s” to SWOT

A sustainability SWOT (or sSWOT) provides a new twist on the familiar strategic analysis framework. It is a comfortable format for starting a conversation, but it is designed to help push colleagues into unexplored territory. It encourages teams to consider broader connections and opportunities for collaboration inside and outside the company. It challenges teams and decision makers to think about the long-term environmental challenges (like climate change or natural resource scarcity) that will be creating significant business risks or opportunities in the years ahead.

Such changes could arguably fit into a traditional SWOT analysis: an assessment of a company’s internal strengths and weaknesses, in relation to the external opportunities and threats. However, a study on conducting SWOT analyses with a special emphasis on sustainability

and life-cycle analysis showed that companies can identify new risks and opportunities, as well as new ways of communicating complex issues to colleagues.⁵ WRI's sSWOT adapts and strengthens the traditional SWOT by prompting teams to:

- **START WITH THE BIG PICTURE, THEN FOCUS ON THE FIRM:** The sSWOT begins with *threats* and *opportunities* and pushes teams to think beyond the company's four walls. It emphasizes connections between environmental challenges and other trends creating big changes in future markets. After starting big, the sSWOT analysis narrows to the company level by drawing connections to *strengths*, *weaknesses*, and *priority action items*.
- **THINK BROADLY TO CREATE NEW VALUE OR ASSESS VALUE AT RISK:** The sSWOT focuses on how environmental threats impact not just the company, but other important stakeholders, like

customers and communities. These can represent risks, as well as opportunities to create new solutions for the business and the environment.

- **FIND A "COLLABORATIVE EDGE" BY LEVERAGING CORE COMPETENCIES AND ADDRESSING VULNERABILITIES WITH PARTNERS:** The sSWOT emphasizes strengths that a company already has and those a company can build by collaborating with others (companies, customers, suppliers, communities). Likewise, it emphasizes *weaknesses* that a company can address with other stakeholders (and in some cases, competitors).

Companies which "road-tested" the sSWOT note that it creates a "common language" for engaging colleagues and a "bridge" for thinking about a company's current operations and where it needs to be to be competitive in future markets.

Companies which "road-tested" the sSWOT note that it creates a "common language" for engaging colleagues and a "bridge" for thinking about a company's current operations.

BOX 1

BUSINESS THOUGHT LEADERS: THINK BIGGER AND BROADER TO FIND RISKS AND OPPORTUNITIES

The late C.K. Prahalad—who championed the concept of "core competency"—pointed out that big social and environmental challenges present immense untapped market opportunities for new products, services, and business models. He urged companies to create **next practices** since incremental improvements on existing best practices would not be enough to tackle these challenges. Companies should think ahead and think even bigger:

Next practices are all about innovation: imagining what the future will look like; identifying the mega-opportunities that will arise; and building capabilities to capitalize on them.⁶

Similarly, Michael Porter—the father of modern corporate strategy—suggests companies should think broadly about society's big challenges and identify links between business interests and communities' interests. He and his colleagues point to **shared value** as a driver of innovation and business growth:

The opportunities have been there all along, but have been overlooked... Society's needs are large and growing, while customers, employees, and a new generation of young people are asking business to step up.⁷

BOX 2

THINK BIGGER AND BROADER TO FIND RISKS AND OPPORTUNITIES

A study by the MIT Sloan Management Review and Boston Consulting Group showed that companies deriving profits from their sustainability efforts are far more likely to be taking a collaborative approach as they

tackle environmental, social, and economic challenges (see Kiron, et al., 2011). They are increasing collaboration across business units. They are engaging customers, local communities, suppliers, policymakers and

even competitors. Toyota, as one example, has created partnerships with traditional rivals like Ford and BMW to combine expertise and advance clean vehicle and battery technologies.

Figure 1 | Companies who are profiting from sustainability are more likely to be working with others, including...

A collaborative edge?

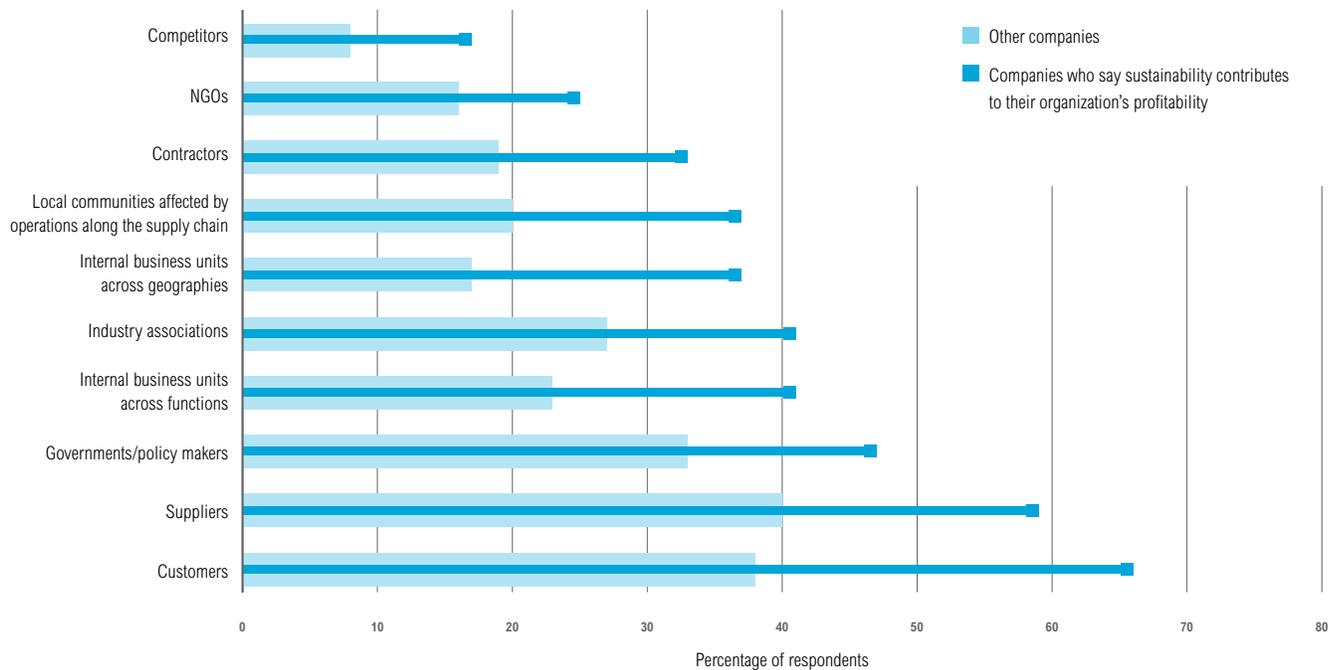


Figure 1 adapted from a 2011 MIT Sloan Management Review and Boston Consulting Group survey of nearly 3,000 executives that showed “Harvesters” (companies creating profits from sustainability efforts) are more likely to take a collaborative approach to environmental challenges.

1. WHERE TO START

The flexibility of the sSWOT framework allows for multiple applications. It can be a new analysis or it can complement an existing or earlier analysis—even traditional SWOT analyses. Road testing companies have found success linking the sSWOT with an ongoing initiative or interest area (see “Insights from Road Tests”). Several companies have also found that initial applications with one business unit can lead to interest in the sSWOT in other business units and for other types of applications.

The starting point can be a specific environmental challenge. For example, you and your team may wish to better understand the impacts of climate change on key markets. You may be doing this to explore the risks

posed by climate change, but the exercise could also reveal a growing need for a new business model, or a new product or service innovation. It might reveal the need to raise the level of ambition (for example, higher revenue goals for energy-efficient products) or expose a strategic gap where more attention or data are needed (for example, understanding future climate change impacts on suppliers or customers).

Or, you may be seeking to set new performance goals to track an environmental indicator. For example, you may be concerned about how water risk (scarcity, quality concerns) affects your (or your suppliers’) facilities. The sSWOT may point to unexplored or unexpected partnership opportunities with other companies or stakeholders who have

a shared interest in managing water resources to ensure future availability.

Or, you may be working to embed environmental considerations into broader strategic decisions or even traditional SWOT analyses. For example, a business unit may be developing its next five-year strategy and you may want them to use the sSWOT to inform investments in R&D and innovative new products or services to meet changing demand patterns.

As you explore options for using the sSWOT, keep in mind one question:

What (or who) do you want to inform?

The answer to this question will guide all subsequent steps. It is helpful to have one person and one decision point in mind, driving the sSWOT analysis. This may be challenging, but such specifics will help better focus conversations with colleagues. The answer might involve:

- **A SPECIFIC PERSON AND DECISION.** Target, the North American retailer, used the sSWOT to work with the food business director and her team to assess options for sustainable food initiatives.
- **A SPECIFIC OUTPUT.** The College of Estate Management, a UK-based educator for the real estate and construction industry, used the sSWOT to develop a report for their Board of Directors on future business development opportunities related to sustainable buildings.
- **A SPECIFIC QUESTION.** The Brazilian Dairy unit of Group Danone, a dairy and nutrition products

You may be exploring the risks posed by climate change, but the exercise could also reveal a growing need for a new business model, product or innovation.

company, used the sSWOT to answer the question: is our five-year sustainability strategy ambitious enough? They started with a set of “pillars,” which were topic areas like social innovation and ecosystem services, and used the sSWOT to see if there were any related or additional big issues or developments to factor into their plans.

To engage colleagues and decision makers, consider framing the sSWOT analysis in the context of:

- **YOUR COMPANY’S MISSION STATEMENT OR CORE VALUES.** Braskem, a chemicals company present in Brazil, the U.S. and Germany, is drawing on the sSWOT within its strategic review process of the company’s sustainability strategy, which aims to build buy in across the company’s operations and drive the implementation of its 2020 Vision, “to be the world leader in sustainable chemistry, innovating to better serve people.”
- **A TOPIC THAT IS “ALL CONSUMING” OR AT THE TOP OF ALL EXECUTIVES’ PRIORITY LISTS.** At Delphi, creating value has become increasingly critical in business decisions and was an essential component of the sSWOT. The company, after emerging from bankruptcy and experiencing growth in the competitive global automotive sector, must see strategic investment relating to environmental challenges framed as both near-term and long-term cost savings.

To prepare for the analysis, consider trying one of the following pre-sSWOT activities:

- **SENIOR LEADER BUY-IN.** Target’s sustainability team reached out to a key business unit director to secure her support for the sSWOT analysis. This helped ensure that her team would be engaged and committed to the exercise. Other companies have noted the benefits in letting other departments “own” the analysis or engaging a third-party facilitator to conduct the sSWOT to ensure widespread buy-in for the results.
- **BACKGROUND RESEARCH.** Several individuals using the sSWOT at their companies conducted background research on relevant topics (for example, climate change impacts on water supplies or upcoming regulations on waste management) and completed a partial sSWOT analysis on their own to inform conversations with colleagues. Several also prepared PowerPoint slides to introduce the sSWOT framework and key insights about environmental challenges of interest.
- **ONE-ON-ONE CONVERSATIONS WITH COLLEAGUES.** The sustainability director at the College of Estate

The sSWOT may point to unexplored or unexpected partnership opportunities with other companies or stakeholders who have shared interests.

Management briefed colleagues in individual meetings before convening a group to complete the sSWOT analysis. This gave him an opportunity to connect the sSWOT to individual colleagues’ specific interests. It also helped maximize the use of time during the brief window when the group would be able to meet all together.

- **sSWOT STAGING.** Several individuals used a phased approach to the sSWOT analysis at their company. The sustainability team at Danone Brasil, for example, chose to engage a small team in the initial exercise and then expanded to engage a broader group of colleagues internally. Whom you engage—and at what stage—is unique to each company and analysis, but is an important consideration. Some companies note that they initially want to engage “friendly” colleagues to build up support before taking the insights to other colleagues who are generally skeptical of environmental initiatives.

INSIGHTS FROM ROAD TESTS:



The College of Estate Management (CEM) is a UK-based provider of distance learning for real estate and construction professionals. The sustainability director at CEM wished to explore with colleagues the emerging risks and opportunities that environmental challenges present for the organization. He used the sSWOT as a means of “opening doors and opening minds,” showing colleagues that the increasing global interest in sustainable buildings had implications for core business interests, such as attracting students and demonstrating leadership in their sector. He linked the sSWOT to a report to the Board of Directors and has begun exploring additional uses of the sSWOT framework to build interest and awareness of sustainability issues among students and faculty at CEM.

Start with the environmental challenges that are shaping future markets and identify areas where such challenges are creating large, unmet needs in society.

2. ENVIRONMENTAL CHALLENGES (and connections to other big trends)

The sSWOT is designed to help connect environmental challenges with other big trends that are shaping future markets. Use the sSWOT analysis to show environmental challenges in relation to the trends colleagues, customers, or other stakeholders are tracking.

What do you and others see changing?

Start with the environmental challenges that are shaping future markets.⁸ Consider the list below and identify areas or markets where such challenges are creating large, unmet needs in society (this is purposefully broad—you will focus on the specific issues facing your company in a later step: **7. What to Prioritize**).

- Greenhouse gas (GHG) emissions, climate variability and extremes
- Natural resource scarcity (energy, materials)
- Water availability, quality
- Food availability, impacts of production
- Loss of ecosystem services (for example, flood control, pollination, natural pest regulation)
- Waste, hazards (air quality, chemical pollution)

Next consider how the environmental challenge(s) are connected to one or more of the four other common categories of big trends (*see Figure 2 on page 12*).⁹

- Innovation and technological advances
- Demographic and social shifts
- Global economic dynamics
- Political and regulatory priorities

Your company may already have a working definition and timeframe for “megatrends” or “metatrends.” If no definitions or timeframes exist, or if it is useful to supplement existing definitions, consider focusing on big trends with impacts that are:

- (a) real and observed;
- (b) long-term (shaping markets for 5+ years); and
- (c) large-scale (impacts across multiple sectors or markets).

Look for trends that are influencing (and are influenced by) environmental challenges like climate change (*see Box 4*). Point to connections, such as the links between the growing global middle class and food, energy and freshwater scarcity.

Identify current or future environmental challenges and socio-economic shifts that are changing the role of business in society. These will be intersections where there are increasing expectations for corporate stakeholder engagement, transparency, leadership, and innovation with partners in your value chain.

This is a chance to listen to others. Seek out those who are involved in day-to-day operations at the company (those on the factory floor), as well as those charged with thinking about long-term market needs (like strategy groups and R&D teams). Gather insights from expert colleagues, as well as government

agencies, universities, consultants, think tanks, NGOs, suppliers, customers, or other companies (see Box 5). Keep in mind that changes can occur slowly over time, or can happen quickly and unexpectedly. Find ways to continually monitor and update perspectives on big trends and environmental challenges.

BOX 4

INSIGHTS FROM ROAD TESTS: 

Sanepar, a drinking water and sanitation service provider in Brazil, used the sSWOT to look at greenhouse gas (GHG) and climate change challenges in the years ahead. A team within the company identified an increasing need to reduce (mitigate) GHG emissions, based on the growing GHG contributions from the wastewater sector and the need for reductions in the future. They also identified a growing need to deepen the company's knowledge about adaptation to climate change, particularly the possible effects and impacts on: drinking water supply, wastewater and

solid waste treatment, infrastructure and the supply chain. They found these challenges closely linked to the core interests to the company, including objectives for ensuring a safe supply of water and reducing pollution (air, water, soil) within their watersheds.

The company created a matrix, based on Figure 2 (see page 12), to evaluate how these environmental challenges are linked to other big trends that are real and observed, long-term, and large-scale. They found compelling connections to:

Demographic and social shifts, including increased vulnerabilities to water-borne illnesses in growing communities.

Global economic dynamics, including increased demands for electricity.

Political and regulatory priorities, including stricter regulations and new regulatory frameworks in Brazil on sanitation.

Innovation and technological advances, including new technologies to manage and monitor energy and water use.

BOX 5

INSIGHTS FROM ROAD TESTS: 

Staples used the sSWOT to frame a conversation with a dozen large corporate customers. They gathered input on the big trends and environmental challenges their customers identified and the opportunities for Staples to help those customers achieve their business and sustainability goals. Together, the group

that was easy:
identified important trends relating to supply chain management (for example, the need for GHG emissions data on purchased products and services) and hazardous chemicals or materials (for example, new policies to encourage 'green' alternatives).

Illustrative examples of connections between environmental challenges and other big trends shaping tomorrow's markets.

	Demographic and Social Shifts <i>Ex: Global population to be 9 billion by 2050 (70 percent in cities)</i>	Global Economic Dynamics <i>Ex: More than 2 billion more middle class consumers by 2030</i>	Political and Regulatory Priorities <i>Ex: Increasing pressure for public, private sector transparency</i>	Innovation and Technological Advances <i>Ex: New possibilities with more data, sensors, and mobile communication</i>	
CONNECTIONS = THREATS AND OPPORTUNITIES					
CONNECTIONS = THREATS AND OPPORTUNITIES	Reduce greenhouse gases (GHGs); adapt to climate variability, extremes (sea level, floods)	how to support suppliers, customers, employees at risk in areas vulnerable to climate change impacts	a need to lower customers' greenhouse gas emissions/capita	regulatory pressure to reduce GHG emissions, disclose climate change risks	technology/software to track, manage greenhouse gases; prepare for climate impacts
	Develop alternatives for scarce natural resources (energy, materials)	cost pressures on raw materials, energy resources	impacts of increasing purchasing power and resource consumption	how to create and share energy natural resource data across borders, industries	new network solutions for managing energy resources (smart grid)
	Produce food without disrupting natural systems (fertilizer impacts)	a need to reduce waste: 1/3 of food produced for humans is lost or wasted globally ^a	how to manage demand for meat without degrading soil, depleting water resources	new food labeling requirements	how to create new local distribution systems, reduce waste, increase land productivity with ICT tools
	Ensure supply of freshwater (water quality, quantity)	how to manage water resource demands; current trajectory: 2030 demand will exceed supply by 40 percent ^b	increasing water prices reflecting true value and cost	reputational risks in communities where freshwater resources are becoming scarcer	high-efficiency technologies, desalination, climate modeling
	Preserve, restore ecosystem services (natural flood control, natural pest regulation)	urban sprawl, development impacts on critical ecosystems (wetlands, flood plains)	how to manage supply chain demand for land, forest products; world lost forest area equal to Costa Rica from 2000-2010 ^c	valuation and investment in ecosystem services	global communication and GIS tools for monitoring and managing critical ecosystems
	Eliminate chemical, air, water pollution; health risks (waste management, toxics)	concentration of pollution, waste in urban areas	consumer demand for safe, environmentally-friendly products and services	new disclosure and manufacturer responsibility for toxic materials	how to leverage real-time monitoring and communication tools to track pollution, protect customer health

3. THREATS (and consequences for you and others)

Now, begin to translate insights on environmental challenges and big trends into the sSWOT framework, starting with *Threats*, by asking:

Where are environmental challenges creating broad threats to future business value?

Look at direct threats to your company as well as at indirect threats impacting others across the value chain (from raw materials to production and distribution to consumption and disposal). Consider where environmental challenges, together with other big trends, may result in costs, changes in consumer preferences or other unexpected impacts either upstream (suppliers) or downstream (customers, communities).

Look for evidence that multiple companies, industries, customers, and communities are investing time and resources to address these environmental challenges. The College of Estate Management, for example, saw that several competitors were building sustainability into their curriculum in an effort to attract students. This helped reinforce the need to take a close look at how environmental challenges are impacting the real estate and construction industry.

Consider where environmental challenges, together with other big trends, may result in costs, changes in consumer preferences or other unexpected impacts.

BOX 6

INSIGHTS FROM ROAD TESTS: DELPHI

Delphi, the global automotive and electronics supplier, used the sSWOT to examine waste management challenges on the horizon. Based on their observations of big trends, they noted important threats in growing markets where recycling infrastructure does not yet exist. They recognized that growing markets with increasing

populations, like those in Asia-Pacific, are likely to see increasing pressure on existing landfill space. Meanwhile, they also identified increasing regulatory pressure to increase recycling rates and upward pressure on raw materials as demand increases for scarce resources like water and fuel.

BOX 7

INSIGHTS FROM ROAD TESTS: TARGET

Target, a leading North American retailer, has a well-recognized brand and a wide-range of products. They used the sSWOT to look at specific product areas where environmental challenges could create reputational risks, economic or health impacts to their customers, or disruptions to their supply of raw materials. For example, they looked at the physical

impacts of climate change upstream on suppliers in the agricultural industry, as farmers in North America face more frequent droughts and increasing temperatures. They used the sSWOT to help highlight important risks and identify opportunities for sustainable food initiatives.

4. OPPORTUNITIES (for solutions from you and others)

The *Threats* identified in the sSWOT are a good place to start looking for new *Opportunities*. The scale of today's environmental challenges requires innovation and collective action by multiple parties across the value chain and beyond. Addressing *Threats* will involve multiple stakeholders and industries. To identify *Opportunities*, ask:

Where is there a growing gap where we and others can create new solutions for environmental challenges?

Consider new possibilities that did not exist ten years ago. These are the types of changes that create innovative business models, products or services to address environmental change.

Look for those threats where current and best practices are not sufficient to meet the scale and pace of the problem. For example, comparing projected GHG emissions to the reductions science suggests are necessary in the coming years shows an urgent and immediate need for business innovation to reduce GHGs.

Consider the business value to create with others by reducing costs (for your company or for customers or suppliers) or creating new revenue with innovative products, services, or new business models.

Consider new possibilities that did not exist ten years ago. For example, more than 5.5 billion people now use cell phones. Growth in mobile communications is one indication of how the world has changed. These are the types of changes that create new opportunities for innovative business models, products, or services to address environmental challenges. Think about new (or newly affordable) technologies that can transform an industry.

BOX 8

INSIGHTS FROM ROAD TESTS:



Ecofrotas is a fleet management services company in Brazil, with a portfolio of fleets that amount to nearly half a million vehicles. They recognized a growing opportunity to help their customers switch from gasoline to alternative fuels, like ethanol, particularly as policies emerge in Brazil seeking to reduce GHG emissions from the transportation sector. They identified opportunities to work together with customers who share their interest in reducing GHG emissions. This included close relationships with loyal customers, a user-friendly system for paying at the pump with an Ecofrotas branded corporate card, and an approved Voluntary Carbon Standard methodology for producing carbon reduction credits. Using the data they have on customers' purchases of ethanol, they can demonstrate GHG reductions from the fuel switch, and monetize the carbon reductions to incentivize customers to buy more ethanol—if they can find the right partner(s) to purchase the carbon credits.

BOX 9

INSIGHTS FROM ROAD TESTS:

STAPLES

that was easy:

Staples used the sSWOT to frame a workshop with several of its large corporate customers. The company invited several major brand companies to share insights about the big trends shaping their sustainability strategies in the coming years. Staples and its customers shared many of the same objectives, including reducing energy use or adopting clean energy technologies. They identified opportunities to work closer together to share experiences—for example, from Staples' efforts to power its headquarters with 100 percent onsite renewable energy—and develop strategies that would reduce GHG emissions and fuel costs related to the delivery of Staples office products.

Identify opportunities to work closer with other like-minded companies and develop strategies to reduce GHG emissions and fuel costs.

5. STRENGTHS (to leverage together with partners)

You and your colleagues will already be familiar with your company's core competencies. But with the sSWOT consider how *Threats* and *Opportunities* might introduce a need to reapply those strengths in a new way or pivot to provide solutions in a new market. Ask:

What are unexpected ways we can apply our strengths to environmental challenges?

Start with the familiar list of things your company, unit, or team is great at; the sources of your competitive advantage that allow you to lead markets and capture big opportunities. You might also include broader strengths, including those related to your values, mission, corporate culture, environmental credentials, or supply chain relationships.

Include unconventional strengths or new and creative ways of leveraging existing competencies. There are companies which have remained among the Fortune 100 for decades, thanks to their ability to adapt and apply core strengths (for example, engineering capabilities or R&D innovation) to new markets as times change. Not surprisingly, many of these enduring companies (like DuPont, Siemens, and GE) are now positioning themselves to provide solutions to environmental challenges like climate change, sustainable food production and wider access to clean energy.

Consider the strengths you can add and share through partnerships which can break down seemingly insurmountable barriers. One company cannot transform an industry by itself. It will need supporting partners, like customers, suppliers, or supporting infrastructure and policies (for example, to ensure adequate demand for low-carbon products or a sufficiently skilled workforce for upgrading buildings

with energy-saving technologies). Consider making a list of potential partners including:

- Any suppliers who can (or would need to) provide new types of materials or products.
- Any customers who are (or would need to be) interested in buying new products or services.
- Potential new alliances or joint ventures (for example, with companies in other sectors or with smaller companies with new technology or business model innovations) to fill gaps in needed competencies (for example, to gain intellectual property or access new markets).
- Examples of solutions or support from communities (for example, data, information, or participation in decisions about future resource management).
- Examples of valuable expertise or support from universities, governments, NGOs, or even competitors.

BOX 10

INSIGHTS FROM ROAD TESTS: DELPHI

Delphi, while looking for ways to achieve “zero waste to landfill” ambitions, listed strengths that included:

Information systems for waste management. A database with information on waste volumes, recycling metrics, and other key indicators to track performance.

Strong customer connections. Close working relationships with major auto manufacturers (key customers) and mutual interests in creating waste management systems that will reduce operational costs.

Delphi recognized that its information systems could enable a more comprehensive waste management approach, comparing practices at similar facilities and identifying cost-effective new approaches. The company is exploring pilot projects to drive toward “zero waste to landfill” at its headquarters and at facilities across each of its regions. The Environmental, Health & Safety team will be developing a toolbox and using available metrics to spotlight cost saving potential.

The strengths also pointed to a strategic opportunity to work with customers. By engaging companies like General Motors (GM) and Ford, Delphi can combine expertise on innovative waste management practices. For example, Delphi may be able to work with a partner like GM to identify recycling vendors in growth regions like Asia Pacific or even co-invest in waste management systems for production facilities located nearby one another.

6. WEAKNESSES (and risks to address together with partners)

Every organization has vulnerabilities, obstacles, risks, or blind spots. The sSWOT provides an opportunity to highlight others who have a shared interest in addressing and mitigating those weaknesses. Ask:

Who else has similar weaknesses or faces similar risks from environmental challenges?

Start by highlighting factors that put your company at risk as environmental challenges impact markets. This can include risks to operations, reputation, brand, suppliers, products and services or employees. It can include obstacles preventing your company from supporting customers and communities that face environmental threats. It can include data or information gaps (for example, does your company understand its exposure to water risks or ecosystem degradation?). Gather input from partners on what they see as your company's vulnerabilities, obstacles, risks, and blind spots.

Consider a wide range of partners who may face similar risks within and outside your industry. Other industries may have already confronted and addressed weaknesses that your industry is now facing. EMC, for example, is a leading global information technology provider

Consider a wide range of partners who may face similar risks within and outside your industry.

and is working to address electronic waste (e-waste) hazards. They wanted to find a way to track the ultimate destination of electronic components at the end of their useful life. They partnered with the Environmental Defense Fund and the open innovation platform, Innocentive, to put out an open call for ideas. One of the winning solutions came from the fresh food industry, which suggested adapting the system they use (to track products like blueberries) with unique, nested labels that will help determine where different components end up at the end of the disposal supply chain.

Identify specific companies, customers, investors, governments and interest groups (civil society, other sectors) that would benefit from action to address identified vulnerabilities, obstacles, and risks. This could include companies with similar operations, raw materials, customers, or parties working to protect communities at risk.

BOX 11

INSIGHTS FROM ROAD TESTS:



Sanepar's sSWOT analysis pointed out climate change as an environmental challenge, which can create risks or opportunities on sanitation activities. Looking for others who shared those risks or opportunities, the team identified potential partnerships, such as working with the state electric utility (which manages water resources for electric generation) and the meteorological institute (which provides climatic information for the region). Both organizations could face similar challenges in the next years due to climate change (variation in precipitation, temperature; intensity of winds, fires) and increasing water and energy needs in growing communities.

7. WHAT TO PRIORITIZE (and present to decision makers)

The sSWOT analysis can produce numerous insights, so the next step will be to filter and present them to key decision makers.

Which insights will influence your CEO, CFO, Directors, or other decision maker, or keep him/her up at night?

Identify the three or four insights most likely to resonate with a senior executive (even if the C-suite is not the immediate audience). These may be the insights that most clearly link environmental challenges with core business drivers or the performance indicators that an executive is tracking on a regular basis. Consider links to:

- *Opportunities:* revenue growth, new customers, new markets, operational and financial stability, leadership positioning.
- *Risks:* rising costs, reduced margins, new competitors, production or supply chain disruptions, staff retention challenges.

You may choose to use other methods or processes to assess the materiality of the insights highlighted in your sSWOT analysis. Companies like Ford use a “materiality matrix” to evaluate the level of impact and concern for various sustainability issues (see example in Ford’s 2010/2011 sustainability report, available online).

When presenting the insights, revisit the original context for the analysis (identified in **1. Where to start**). Showcase the connections to your company’s mission statement, core values or business drivers which inform executives’ priority lists.

Identify options for strong messengers and explore opportunities to connect with those individuals. It may be that the best person

to deliver the message to your CFO is another CFO. The best person to deliver a message to a CEO may be the CEO of a key customer. Consider reaching out to contacts at other companies to share (pre-competitive) insights from your sSWOT analysis and explore connections between senior leaders. Otherwise, arm yourself with examples of other senior leaders who might inspire others to see risks and opportunities in environmental challenges.

BOX 12

INSIGHTS FROM ROAD TESTS:



The sustainability team at Danone Brasil used the sSWOT as a means of assessing whether their sustainability plans for the next five years covered important risks and opportunities to innovate. They first worked through the sSWOT in detail with a core group that included colleagues from R&D and purchasing. Next they expanded the group to involve other departments, including some business leaders who were familiar with sustainability concepts.

Identify strong messengers and explore opportunities to connect with those individuals. It may be that the best person to deliver the message to your CFO is another CFO.

8. WHERE TO ACT (with pilots and partnerships)

The sSWOT is designed to be thought-provoking, but ultimately is meant to drive action and change at your company. Execution is the real challenge. There will be various opportunities to act, so at the end of your analysis ask:

What can we do (together with partners) in the near-term, mid-term, and long-term?

Consider categorizing your insights according to when and how you will be able to act:

Near-term: next year's budget and current operations. It may be that the logical immediate next step is to gather additional input and support from other, more skeptical colleagues or decision makers. For example, you may want to brief key business units on regulatory action that will take effect in your (or your customers' or suppliers') markets in the next few years.

Or you may take the insights directly to external stakeholders, like customers or suppliers. Ecofrotas, for example, convened a meeting of a dozen customers to share the insights from their internal sSWOT analysis and gather additional input (and build interest) for their low-carbon fuel solutions.

Companies may find that launching a pilot project as soon as possible is an effective way to prove a concept, or learn what needs to be reconsidered.

Mid-term: partnerships to explore in the next 1-3 years; provide a "bridge" to the future.

Where strong relationships already exist, a company may be able to collaborate with others relatively quickly and act on insights from the sSWOT analysis. In other cases, it may take time to identify the right partners and create a trusting relationship. Your company might want to work with suppliers, customers, or even competitors to develop new technologies, inform new policies, or create new industry standards (for example, environmental reporting metrics) that will help prepare the company for upcoming challenges and shifting trends. Companies (and competitors) in the iron, steel and cement industries are co-investing in pilot projects to test low-carbon technologies that will help the industry comply with climate change regulations in Europe.¹⁰

Sanepar identified opportunities to collaborate more closely with an electric power utility facing similar challenges managing common water resources and adapting to climate change (see Box 13).

Long-term: investigation, monitoring, or planning priorities for the changing 3-30 years ahead. This is a deliberately wide time period as companies, depending on the industry, may find it important to highlight insights about impacts that are still decades away. For example, if a future growth market like Indonesia will be exposed to significant rising sea levels by 2040, a company may choose to develop

BOX 13

INSIGHTS FROM ROAD TESTS:



The team at Sanepar took the results from its sSWOT analysis to organize proposal of strategies into the following categories:

Address as part of ongoing activities: insights that can help inform or reinforce initiatives already underway at the company. This included insights about the value of engaging Sanepar's stakeholders on changes and challenges affecting the sector. The company is sharing perspectives with policy makers and other sanitation companies, and disclosing information about Sanepar's sustainability strategies and greenhouse gas emissions.

Explore new risks and opportunities: insights where Sanepar can encourage actions. This included efforts to engage research institutions on climate change science and modeling and explore partnerships with organizations that have shared interests in managing water resources. It also included new efforts to work with suppliers to develop appropriate technology solutions for GHG management.

Search for additional information: insights that needed further background research. The team visualized items in the context of the sanitation sector to further investigation into topics like: risks and impacts of climate change, emissions trading schemes, appropriate GHG mitigation technologies and carbon foot-print analyses.

long-term plans and partnerships to ensure critical areas are more resilient to such threats.

More information needed. Some threats or opportunities may need additional information or context before you can identify action items. For example, your company might gather additional market data to demonstrate specific opportunities emerging in regions with greenhouse gas regulations (for example, Europe or California) or cities with greenhouse gas targets (for example, New York City or the 13 low carbon pilot zones in China).

There may also be threats or opportunities where the case for action is not strong. These might be areas where action or planning is premature, or issues are determined to be unrelated to your company's future markets. These may be areas where market interventions and future regulatory action may be needed to align business and public interests.

In all cases, consider revisiting your sSWOT periodically (for example, annually) to monitor changes and update the analysis.

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