



EMBRACING SUSTAINABILITY

A Framework for Green Packaging

EXECUTIVE SUMMARY

Sustainability has gone mainstream. Consumers, retailers, and manufacturers are embracing sustainability as a social and business cause. Yet sustainability is a complex topic, and it's sometimes hard to know the best path to forge. This paper reviews a simple way to put sustainability into the right strategic context at your company, and it outlines a comprehensive menu of sustainability tactics that can be put into effect for packaging. Ultimately, delivering sustainable solutions and delivering excellent business results can go hand in hand with a well-designed roadmap and supportive partners.

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INTRODUCTION

Sustainability – being “green” – has gone mainstream. Major brands in every sector from fast food to fashion have spent significant resources making sure their products and corporate image stack up well in terms of environmental and social impact.

Consumers are demanding solutions that are better for the planet. Sales of LOHAS (Lifestyles of Health and Sustainability) products reached \$300 billion in 2008, up 36% from 2005. Today, about 80% of U.S. adults are looking for more sustainable offerings.

Manufacturers and retailers are setting goals and protocols to increase sustainability. On the manufacturer side, for example, P&G has published a scorecard meant to measure and reward improvement across its supply base. On the retailer side, Wal-Mart’s Sustainability Scorecard is meant to drive transparency and competition among suppliers and to reduce the cost and impact of packaging.

But what does being green really mean in packaging? This paper digs into a set of important assertions:

- **Put sustainability into context** – we review three questions that help define the right frame of reference for your sustainability approach.
- **Pull the right levers** – we share a comprehensive sustainability framework with multiple levers you can pull.
- **Pick your partners wisely** – we highlight the importance of finding partners that walk the talk and can help you navigate the many options available to you.

Before we begin, we will first turn to some of the complexities of sustainability to highlight how important it is to have a vision and strategy in mind.

THE DEVIL IS IN THE DETAILS

Sustainability is not an easy topic.

Sustainability buzzwords abound – *Organic, Regrind, Eco-Friendly, Toxin-Free, Renewable, All-Natural, Biodegradable, Paraben-Free, Carbon Footprint, Bio-Resin, Light-Weighted*. With no standardized definitions, this world of new terminology can be misleading and confusing. There are some governing bodies and some volunteered guidelines, but much of this is a grey area.

Consumers, unsurprisingly, get confused. Indeed, some consumers are skeptical of companies’ “green” claims. And other consumers have outdated impressions and bad data in their heads (like “aerosols destroy the ozone”). Between the skeptical disbelief, the misinformation, and the volume of new information on this topic, it’s hard to keep it all straight. As a result, what consumers say they want and what they are willing to pay for are often two different things.

Even experts can be confused or confusing. For example, ask a glass company if glass bottles are more sustainable than plastic bottles; they will say they are. Ask a maker of plastic bottles the same question, and they will give you the opposite answer. Who is right and who is wrong? It really depends on what variables you want to include and how broad of a system you want to consider. For instance,

glass takes more energy to form, but it comes from plentiful sand. Plastic is lighter and easier to transport, but it comes from scarcer petroleum. The one that's more "sustainable" depends on how you weigh each variable in the equation and what your goals are.

Of course, all of these complexities serve to muddy the waters even further for consumers.

PUT SUSTAINABILITY INTO CONTEXT

In general, consumers want packaging that is beautiful, functional, and more sustainable. But only a minority of passionate consumers is really willing to pay more for sustainability.

Sorting out what role sustainability has in a company's overall strategy is important, because this notion provides the critical context for how much to invest in or rely on sustainability as a tactic. Indeed, most companies have a balanced scorecard; is sustainability meant to improve the "financial and shareholder" metrics or the "social and community" metrics or both?

While each company will have different aims, we've found three questions help drive clarity in the role of sustainability in packaging and corporate strategy:

What are your sustainability goals?

Is sustainability meant to be a direct revenue booster (where consumers go out of their way to buy your product due to specific features and benefits) or an indirect revenue booster (where a positive aura of sustainability lifts your sales broadly)? Or are your aims more focused on profitability, thereby requiring a close analysis of unit volume, unit prices, and product costs (with all the puts and takes that sustainability creates)? There are, of course, many more angles one could put on this question, but the issue is essential nonetheless. Because smart strategy is about making tradeoffs, what are you willing to trade off to have more sustainable solutions?

How do you perform today vis a vis sustainability?

Look at your company through an objective lens and see where you're already doing well or lacking compared to your competition, what your customers are asking for, and what consumers in general want. Then compare this feedback to your goals to determine whether there are small changes that can move the needle or whether larger initiatives are required. For example, research indicates that consumers generally place more value on recycled content and lightweighting than on the efficiency of your manufacturing footprint. Does this apply in your market?

What changes do you anticipate?

First, from a consumer view, what are you counting on? How much are you betting on market-share gain or willingness to pay more for certain changes? Second, what types of changes are in-scope for your infrastructure and supply chain? Enhancing packaging sustainability can impact filling lines, raw material suppliers, and your warehousing network. Contemplating what degree of change is possible or expected can help shape your "green" strategy.

With this context established, we can turn to a comprehensive framework with multiple ways to improve packaging sustainability.

PULL THE RIGHT LEVERS

Packaging can contribute to the overall sustainability of a product by being made from responsibly-sourced materials that are safe, manufactured using clean production technologies, efficiently recoverable after use, in line with consumer needs and choices, cost effective, and designed holistically with the product itself. Juggling all of these factors can be a challenge.

In simple terms, however, these considerations can be boiled down to four families of actions that can improve packaging sustainability: Material Inputs, Material Outputs, Energy & Climate, and People & Community. A sustainable package or supply chain will likely draw from all four categories, allowing you to choose the elements that best fit your goals, current sustainability status, and the resources at hand.

Material Inputs

Goals: Reduce toxicity, increase renewability, and consider extraction.

Examples of actions:

- Increase usage of post-consumer and post-industrial materials.
- Use bio-based and petroleum-free resins.
- Phase out PVC or Polycarbonates.
- Reduce plasticizers and phthalates.
- Use non-bleached papers.
- Switch to sustainably-harvested wood pulps.
- Use soy-based inks.

Material Outputs

Goals: Reduce waste, increase reusability, and consider end of life.

Examples of actions:

- Incorporate biodegradable materials or additives.
- Lightweight components.
- Improve recyclability by designing for component disassembly.
- Improve recyclability by using all-plastic components.
- Use black or non-colored resins to improve post-consumer applications.
- Use heat-transfer or poly labels to improve regrind.
- Adopt reusable pallets and tray liners.

Energy & Climate

Goals: Reduce emissions, increase locality, and consider energy use.

Examples of actions:

- Improve plant operations – energy conservation, water reclamation, renewable energy use, and reduced heavy metal and carbon emissions.
- Select materials and processes thoughtfully – for example, HDPE and Polypropylene

resins use less energy to produce and process than PETE; post-consumer resins are more efficient than virgin resins.

- Consider transportation efficiencies – pallet optimization, increased top-load strength, nesting for better pack-out, and localized manufacturing.

People & Community

Goals: Reduce liability, increase visibility, and consider alliances.

Examples of actions:

- Look to third-party certifications – accreditation of materials, processes, facilities, and personnel by governing bodies.
- Embrace worker conditions – green workspace design and human rights audits.
- Create NGO alliances – charitable donations, community outreach, and corporate dashboards.

While the nuances and details of each action family are beyond the scope of this paper, this framework can guide deep discussions with your suppliers and partners to turn these ideas into reality.

SPOTLIGHT ON DETAILED DASHBOARDS

The Sustainable Packaging Coalition (SPC) is an industry working group dedicated to implementing sustainable packaging solutions. The SPC published an outstanding study, the *Sustainable Packaging Indicators and Metrics Framework*. The study is available at SustainablePackaging.org in the Projects menu under Sustainable Packaging Metrics. This study presents an exceptionally comprehensive set of metrics to evaluate and benchmark packaging solutions.

The *Framework* was refined by the Global Packaging Project (GPP). A useful summary of their approach and conclusions are presented in *A Global Language for Packaging and Sustainability*. This can be found at GlobalPackaging.MyCGForum.com.

The GPP proposes a slate of 40 metrics; a partial summary is provided here:

ENVIRONMENTAL ATTRIBUTES & LIFE-CYCLE INDICATORS

ATTRIBUTES

Packaging Weight and Optimization	Substances Hazardous to Environment
Packaging to Product Weight Ratio	Renewable Content
Material Waste	Packaging Reuse Rate
Recycled Content	Cube Utilization

LIFE CYCLE INDICATORS

Cumulative Energy Demand	Global Warming Potential
Water Use	Ozone Depletion
Land Use	Non-Renewable Resource Depletion

ECONOMIC & SOCIAL ATTRIBUTES

Total Cost of Packaging	Packaged Product Shelf Life
Packaged Product Wastage	Community Investment

CORPORATE PERFORMANCE CHECKLIST

Energy Audits	Occupational Health
Child Labor	Discrimination
Excessive Working Hours	Remuneration

These scorecards can get very complex very quickly. Considering your overall sustainability goals and the four major categories of actions outlined above (Material Inputs, Material Outputs, Energy & Climate, and People & Community) is a smart way to get started.

PICK YOUR PARTNERS WISELY

Not all packaging suppliers embrace sustainable solutions with equal commitment. A 2011 survey conducted by Berlin Packaging showed that less than 50% of respondents (manufacturers of packaging) comply with predominant retail sustainability scorecard metrics.

Sustainability Dashboard Compliance

	% That Comply
Energy & Climate	
Reduce your corporate greenhouse gas emissions	59%
Publicly available greenhouse gas reduction targets	13%
Materials Efficiency	
Measured the total amount of solid waste generated	45%
Publicly available solid waste reduction targets	12%
Publicly available water use reduction targets	9%
Nature & Resources	
Publicly available sustainability purchasing guidelines	23%
Obtained 3rd party certifications	45%
People & Community	
Know the location of 100% of the facilities	77%
Process for managing social compliance at the manufacturing level	52%
Resolve issues found during social compliance evaluations	36%
Invest in community development	36%

Source: 2011 Berlin Packaging Supplier Sustainability Survey

The 2011 Sustainable Packaging Survey by Packaging Digest supports the theme that not all suppliers embrace sustainability. Only 72% of survey respondents pursue waste reduction as a sustainability practice (indicating that nearly a third do not), 50-60% have initiatives for energy conservation and use of recycled materials, and 32% have adopted policies aimed at reducing transportation and freight.

As you decide which levers are most important to your sustainability strategy, you will want to survey your suppliers and partners to make sure they can execute.



SPOTLIGHT ON BERLIN PACKAGING

Berlin Packaging is a leading supplier of rigid packaging. Sustainability is not a separate practice area or discipline within Berlin Packaging; instead, it is part of the regular dialogue of meeting the unique needs of each customer.

Indeed, as part of Berlin Packaging's commitment to increasing the net income of its customers, Berlin takes pride in being a comprehensive resource for cutting-edge technologies and trends within the packaging industry. Sustainable packaging solutions are an important part of this.

Some of the ways Berlin Packaging has pushed the sustainability agenda include:

- Early adoption of bio-based resins, including Polyhydroxybutyrate (Biopol).
- Supplying multiple products with enhanced recyclability; all-plastic trigger sprayers is one example.
- Partnering with Eco.logic brands on their fiber-based eco.bottle™.
- Regular work to reduce gram weight in containers and closures.
- Regular work to reduce freight and greenhouse gases by sourcing packaging closer to the filling location or changing package cube efficiency.
- Focus on reducing and eliminating the need for secondary packaging.
- Member of the Sustainable Packaging Coalition™.

From regulatory issues and retailer preferences to the latest available green material or processing platforms, Berlin Packaging helps customers stay ahead of the curve.

GETTING STARTED

Improving packaging sustainability doesn't need to be a big bang. There are many ways to dial in improvements over time. Start by building a roadmap that can guide any changes. You can do this by:

- Collecting feedback from your key constituents – your consumers, customers, and suppliers – and researching how you compare to your competitors. Can sustainability be a source of competitive advantage and, if so, in what ways?
- Deciding on your overall goals and what role sustainability plays in your overall strategy. How can it be incorporated on your corporate scorecard?
- Determining what degrees of freedom you have with sustainability. Are there certain things about your go-to-market approach and offering that you can and can't change?

With this information in hand, the next step is to review the four levers in our sustainability framework to identify the best tactics to accomplish your goals. At this point, you will be ready to choose the right supply chain partners to support your efforts.

SUMMARY

Sustainability is good for the earth, good for your community, and can be good for your business. Sustainability is here to stay, and packaging can play an important role in a sustainability strategy. The challenge is to sift through the complexity to define what the right strategy is for you. Understanding where sustainability fits on your corporate dashboard and what tradeoffs you're willing to make is essential in building this strategy. Once you have established that foundation, you can select the best tactics and actions to meet your goals. There are four major families of actions that can improve packaging sustainability – Material Inputs, Material Outputs, Energy & Climate, and People & Community – and they can all play a role. Ultimately, delivering sustainable solutions and delivering excellent business results can go hand in hand with a well-designed roadmap and supportive partners.

ABOUT BERLIN PACKAGING

Berlin Packaging is North America's premier Hybrid Packaging Supplier of plastic, glass and metal containers and closures. With over 33,000 available SKUs, over 100 packaging consultants, and more than 80 sales and warehouse locations across North America, the company has the right products, expertise, and geographic proximity to help customers increase their net income through packaging products and services. Berlin Packaging supplies billions of containers and closures annually as well as warehousing and logistics services for customers of all sizes in all industries. It is the only company in its sector to be ISO 9001 certified, to have Customs-Trade Partnership Against Terrorism (C-TPAT) certification, and to achieve 99% on-time delivery of its shipments every month for over seven years. Related services include Studio One Eleven, a full-service custom packaging and graphic design division; Berlin Global Packaging Group, a global sourcing solutions provider including custom packaging, order and quality management, and logistics; E3, a consulting division that helps customers unlock profit; Berlin Financial Services, which provides financing for equipment and capital improvements; Dangerous Goods, offering safe, economical, UN-certified packaging solutions for shipping dangerous and temperature-sensitive goods; Freund Container & Supply, a need-it-now packaging and industrial supplies provider with no minimum order requirements; and Qorpak, a global supplier of laboratory packaging and supplies. The company can be reached at 1-800-2-BERLIN, BerlinPackaging.com, and on LinkedIn and Twitter.

In 2011, Berlin Packaging's corporate headquarters location was LEED Gold Certified.