

Packaging Sustainability

*Evaluating the Benefits of
Environmentally Friendly Packaging*

Supply Chain Consortium

Benchmarking & Best Practices

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Packaging Sustainability

Introduction

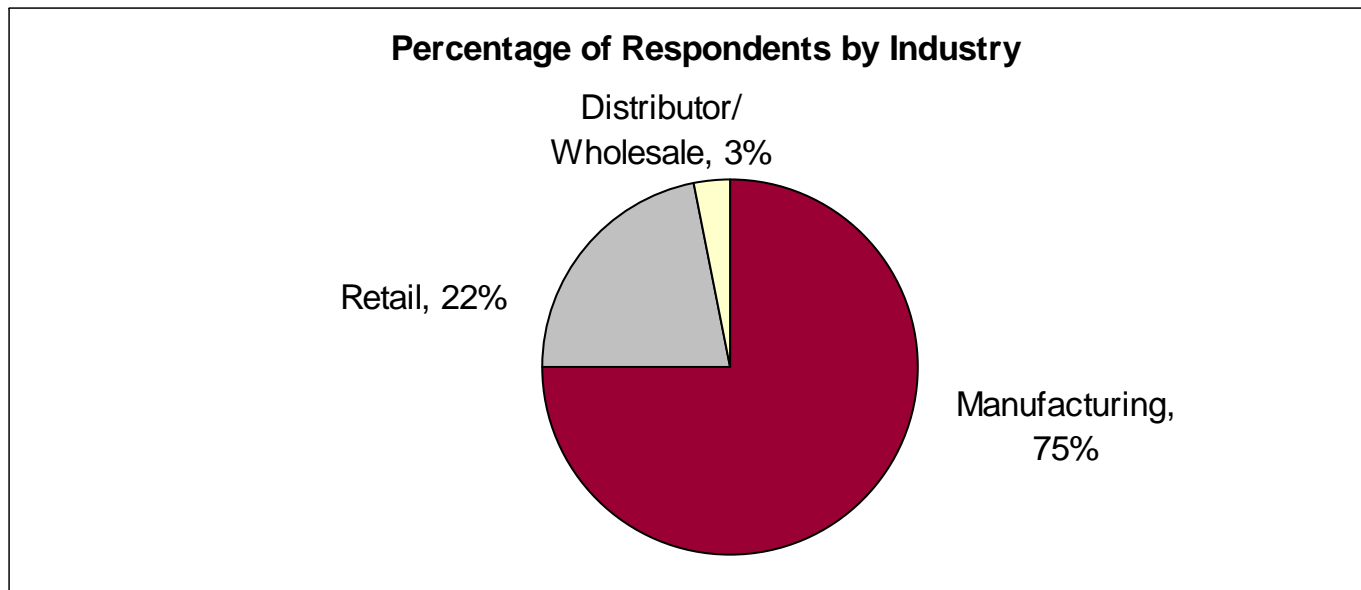
In December 2007, *Packaging Digest* and the Sustainable Packaging Coalition (SPC) released the results of a joint survey that looks at the state of sustainability and packaging. According to an article by *Packaging Digest*, the survey shows that “sustainability is a hot button for the industry, and its impact is likely to grow in coming years.”

From their 2007 survey data, 73% note a growing emphasis on packaging sustainability within their companies over the year leading up to the survey. The data also shows that while awareness of the issues is increasing, packaging businesses are, in general, slow to incorporate sustainable business practices, particularly in the U.S. where sustainability directives are not as deeply and federally mandated as they are in other countries.

The Supply Chain Consortium still sees this as a Hot Topic and has created and administered a new survey in order for participants to learn more about what other companies are currently doing in regards to packaging sustainability.

Benchmark Data

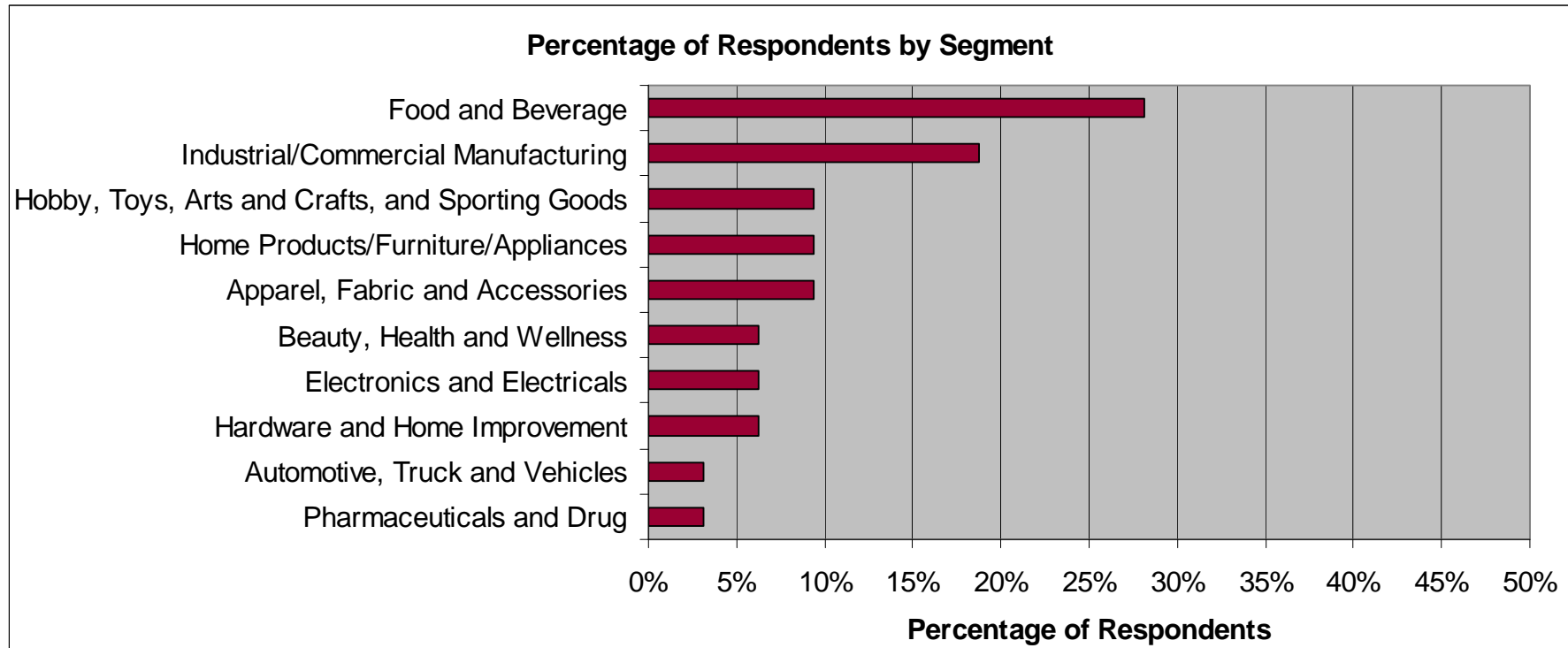
Participant Demographics



- Throughout the report, the number of responses and the percentage of companies answering each question varies depending on the topic and question, but in general, the distribution of responses provided in the figure above hold true for the results in this report.
- The majority of survey respondents are manufacturers, while only 22% are retail companies.

Benchmark Data

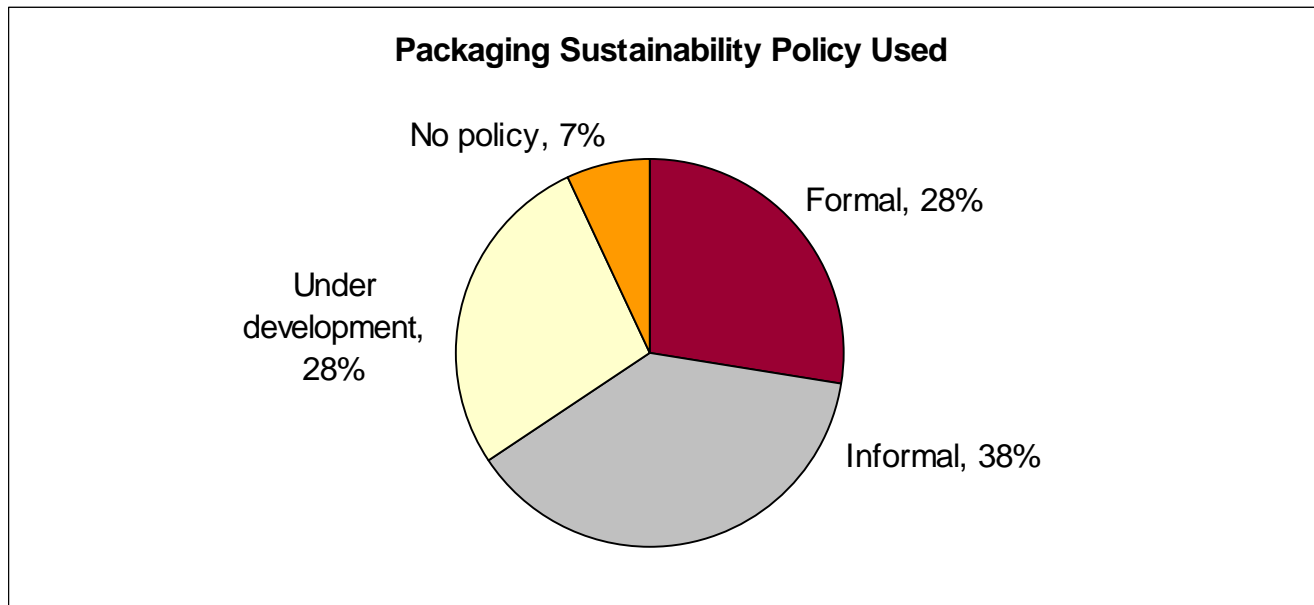
Participant Demographics



- Nearly 30% of the surveyed companies are food and beverage, while another 19% are industrial/commercial manufacturers.
- Other segments represented by survey companies include (1) hobby, toys, arts and crafts, and sporting goods; (2) home products/furniture/appliances; and (3) apparel, fabric and accessories.

Sustainable Packaging Policy

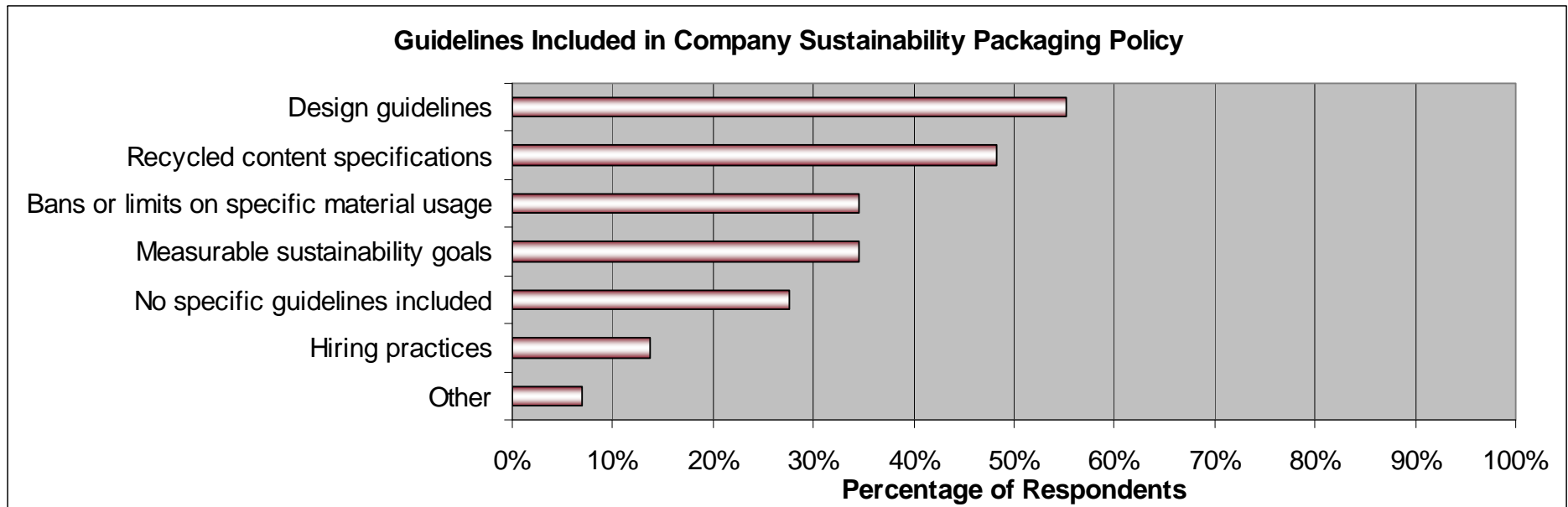
Utilizing Sustainable Packaging Policy



- More than a quarter of the surveyed companies have a formal packaging sustainability policy in effect, while another 38% indicate that they have an informal policy.
- Only 7% of companies do not have a policy in place.

Sustainable Packaging Policy

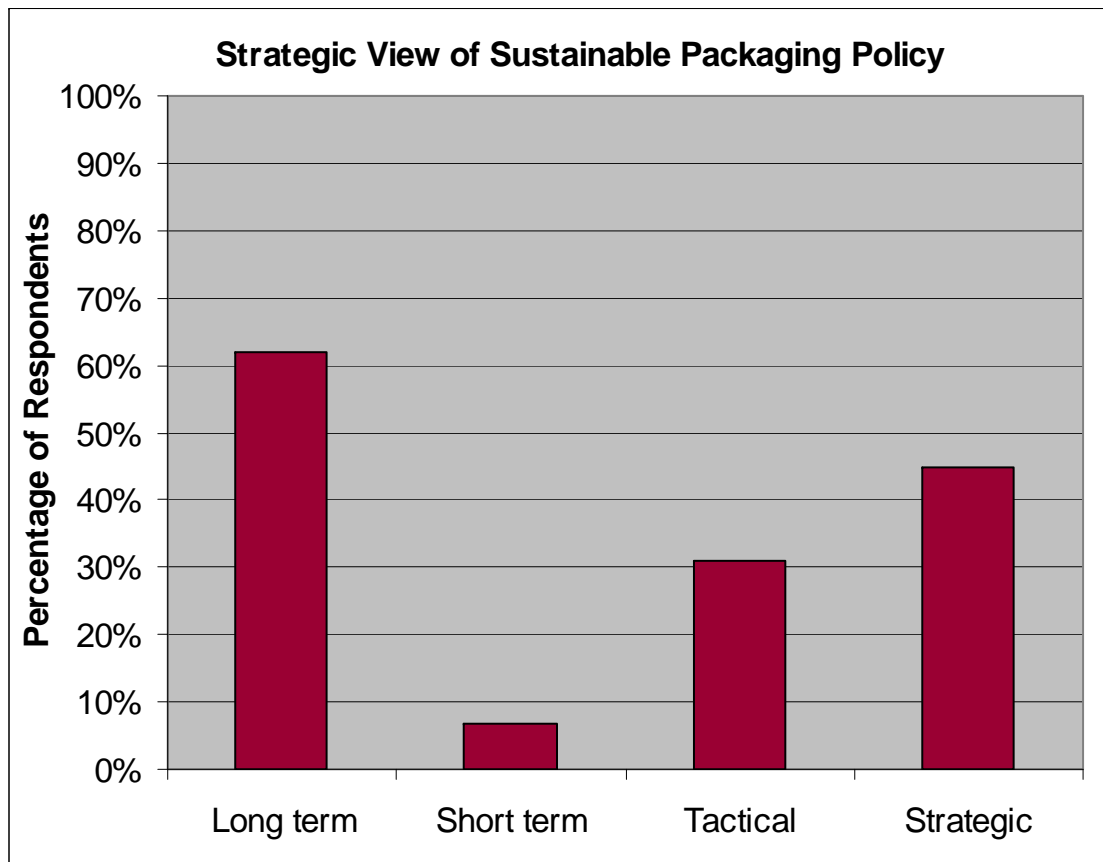
Guidelines for Sustainable Packaging Policy



- The most common guidelines included in the surveyed companies' sustainability packaging policies are for design (55% of respondents) and recycled content specifications (48% of respondents).
- Twenty-eight percent do not have any specific guidelines in their packaging sustainability policy. However, these companies may still be developing a policy.

Strategic View of Sustainable Packaging

Strategic View of Sustainable Packaging Policy



- More than 60% of companies view their use of a sustainable packaging policy as long term, while only 7% view their policy as short term in nature.
- Nearly half of the companies view their sustainable packaging policy as a higher-level strategic process that provides overall direction to the company.

Strategic View of Sustainable Packaging

Impact of Sustainable Packaging

Area of Impact	Percentage of Respondents
Energy and material costs	79%
Concern over environmental and economic issues	76%
Meeting corporate sustainability initiative goals	55%
Energy and material availability	52%
Gaining market share	41%
Accessing new markets	28%
Increasing global competitiveness	28%
Other	10%

- Sustainable packaging impacts companies' overall strategic direction through energy and material costs (79% of respondents) and concern over environmental and economic issues (76% of respondents).
- Executives found less impact in increasing competitiveness and in access to new markets, indicating that sustainable packaging may be more about “hard” savings rather than “soft” benefits.

Eco-Friendly Packaging Materials

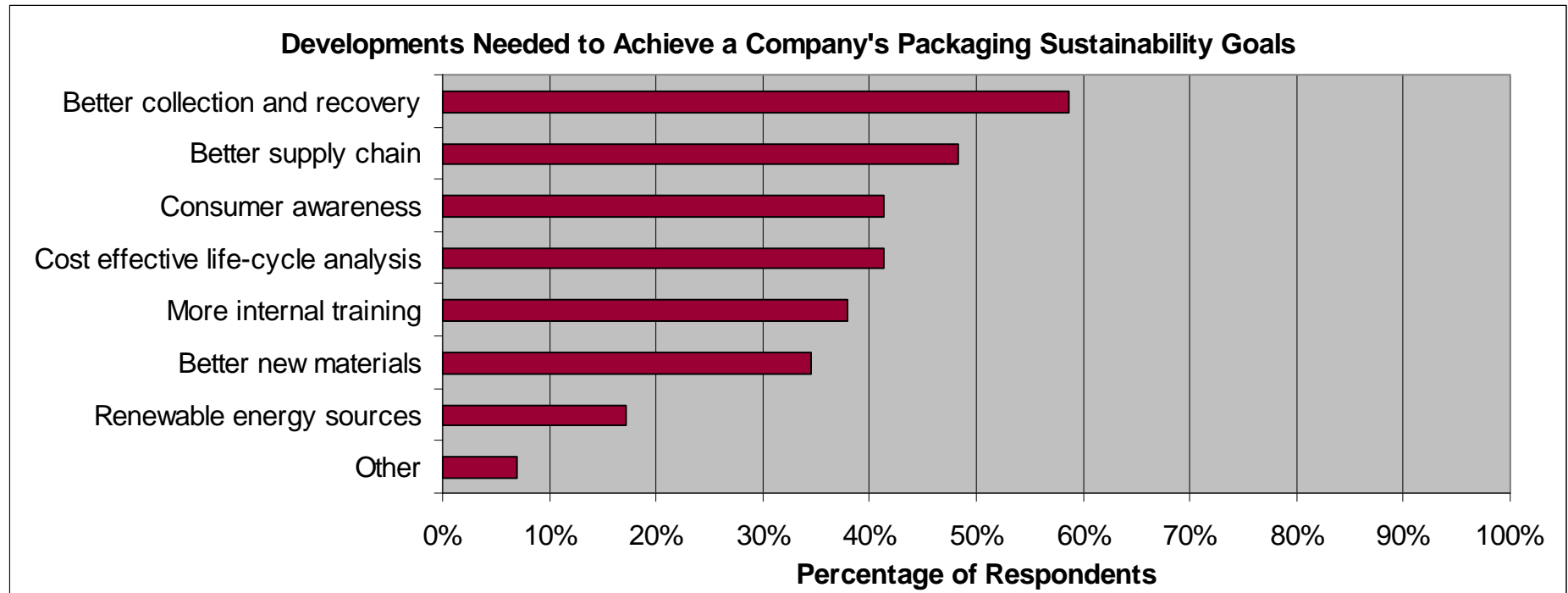
Management Objectives for Packaging Materials

Management Objectives with Respect to Eco-Friendly Packaging Materials	Percentage of Respondents
None	41.4%
Business operations should be designed so that they are easily adaptable to all foreseeable packaging innovations	31.0%
Packaging material that enters a manufacturing process should leave as a reusable product	27.6%
Business operations should be designed to produce no packaging waste	13.8%
Other	6.9%

- More than 40% of respondents do not have any management objectives with respect to eco-friendly packaging materials.
- Nearly one-third of surveyed companies have this common objective: Business operations should be designed so that they are easily adaptable to all foreseeable packaging innovations.

Achieving Packaging Sustainability

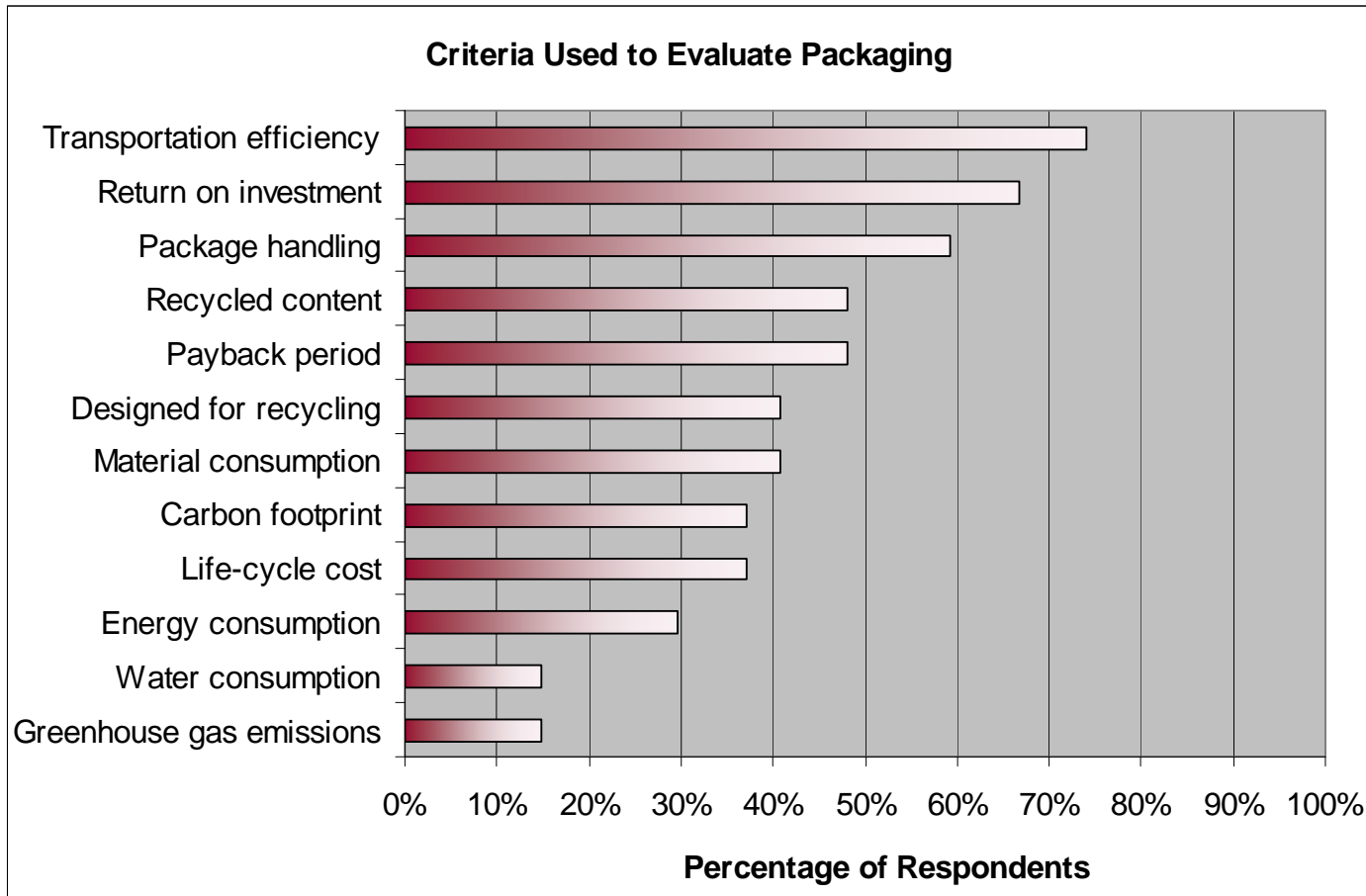
Developments to Improve Packaging Sustainability Goals



- The most commonly selected developments that respondents say that they need to achieve packaging sustainability goals are (1) better collection and recovery and (2) a better supply chain.
- Consumer awareness and cost effective life-cycle analysis are also important developments.

Packaging Evaluation Criteria

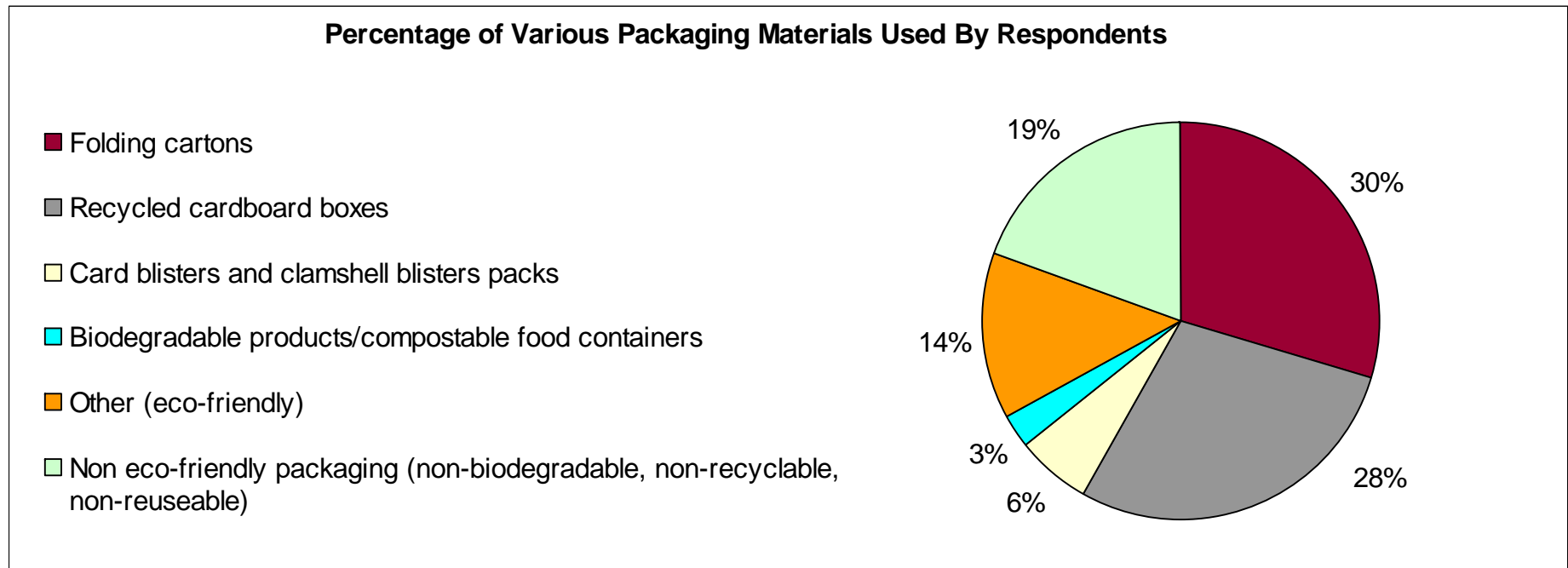
Packaging Evaluation Criteria



- Nearly three-quarters of surveyed companies feel that transportation efficiency is the most important criteria they use when evaluating packaging materials.
- Other important evaluation criteria are the ROI for improved materials, the methods used to handle packaging, the percentage of recycled content in the packaging material, and the payback period.

Packaging Materials and Characteristics

Packaging Materials By Category



- For survey participants, the most common types of packaging materials utilized are folding cartons (30%) and recycled cardboard boxes (28%).
- Nearly one-fifth of the packaging materials used by surveyed companies are non eco-friendly materials that are non-biodegradable, non-recyclable and non-reusable.

Packaging Materials and Characteristics

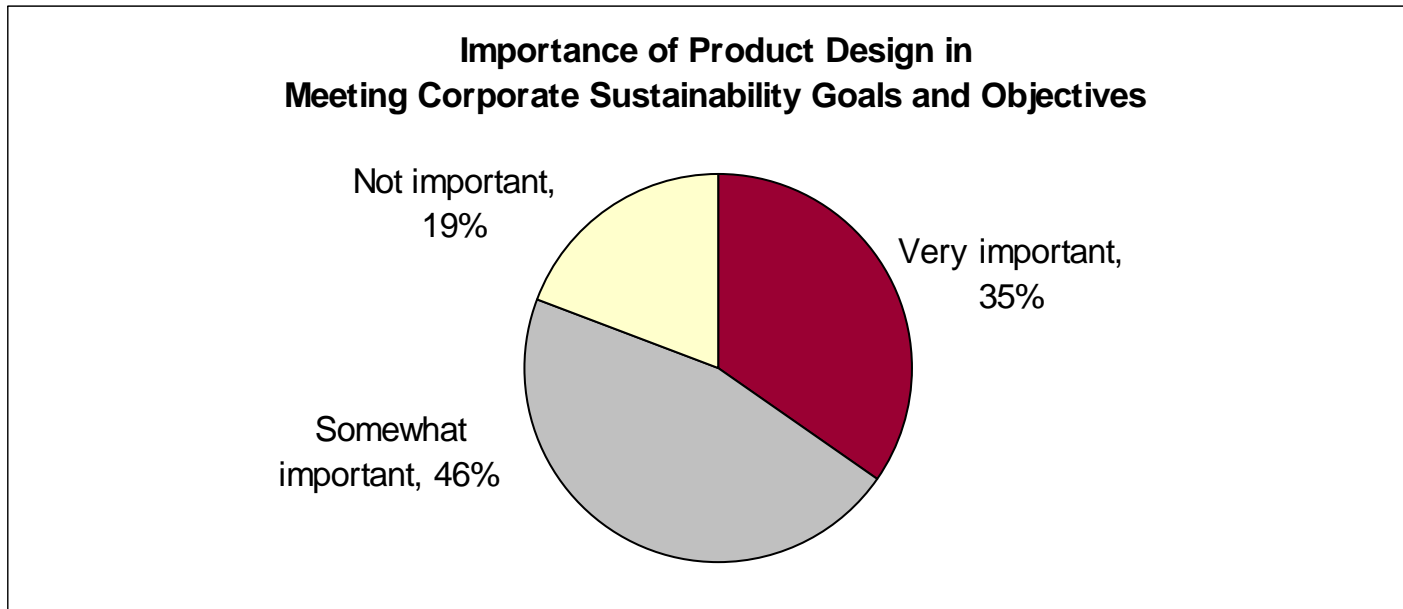
Green Packaging Characteristics

Green Packaging Characteristics	Extent Used for Packaging			
	Low	Moderate	High	Not Used
Made from recycled material (100% or varying lesser percentages)	15%	41%	33%	11%
Made from annually sustainable materials (eg., bamboo farms, corn, soya, cotton)	31%	4%	8%	58%
Made from organically farmed material (eg., organic bamboo or corn)	33%	7%	0%	59%
Recycled materials (eg., cardboard papers, corrugated paper, glass)	15%	33%	44%	7%
Biodegradable materials (eg., clamshells, unbleached paper)	22%	30%	7%	41%
Reusable products (eg., glass bottles)	33%	19%	15%	33%

- Recycled materials and materials made from recycled materials are most commonly used for green packaging.
- Green packaging made from organically farmed material and annually sustainable materials are not used by the majority of respondents.

Sustainable Design

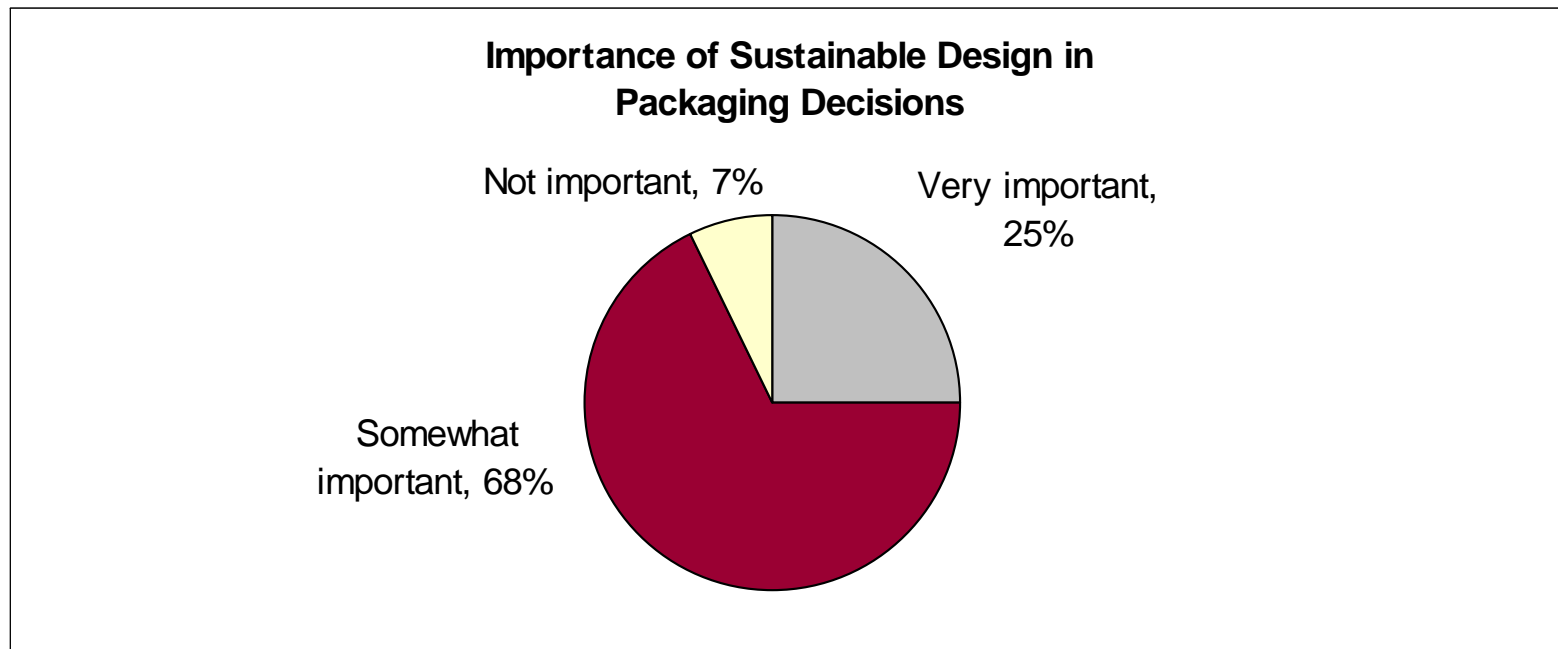
Importance of Sustainable Design



- More than a third of respondents indicate that product design is very important in meeting corporate sustainability goals and objectives.

Sustainable Design

Sustainable Design's Influence on Packaging Decisions



- Only 7% of companies surveyed feel that sustainable design practices have little or no influence on packaging decisions.

Sustainable Design

Rules of Green Design

Rules of Green Design	Percentage of Respondents
Products are being designed to minimize waste.	72%
Materials used should be the least toxic available.	56%
Close interactions should be developed between suppliers, customers, and competitors to minimize packaging and maximize reuse and recycling.	48%
The absolute minimum of materials and energy should be used in all processes.	40%
Industry should get most of its materials by recycling materials already in use or disposed of, rather than from raw material.	32%
Products are designed to be easily adaptable to foreseeable material innovations.	24%
Every product should be designed so that it can either be reused itself or used to create other useful products.	24%
Every business should be designed to improve the local habitat and species diversity and to minimize any effects on natural resources.	20%
Every bit of energy in manufacturing should produce a material transformation.	12%

- The most commonly followed rules of green design are: Products should be designed to minimize waste (72% of respondents) and materials used should be the least toxic available (56% of respondents).

Closing Thoughts

Key Takeaways

When projecting the evolution of sustainable packaging, the future appears to be bright. Sustainable packaging is a very important issue for all types of companies across all aspects of their end-to-end supply chains, and it continues to be thought of as a long-term, higher-level strategic process that provides overall direction to the company.

Companies like Wal-Mart are accelerating the sustainable elements of their business model as they strive to discern what “sustainable business practices” really means. They are discovering that instead of a defensive tool, sustainability is a powerful offensive strategy. More and more companies are realizing the impact that sustainable packaging has on energy usage, material availability and costs. The increased consumer interest in environmental issues is also a major motivator for sustainable packaging initiatives.

According to Datamonitor’s April 2009 report, *Sustainable Packaging Trends: Consumer Perspectives and Product Opportunities*, “Ecological issues are undoubtedly firmly in the mainstream of society with [more than] 75% of consumers stating that protecting the environment is important to them. However, there is a pronounced attitude/behavior gap with around 25% of consumers not acting on their beliefs by buying environmentally-friendly products.”

Closing Thoughts

Key Takeaways (continued)

Companies are now working to improve their use of packaging sustainability initiatives. The Consortium's survey respondents indicate that they need:

- A better collection and recovery process;
- Higher end-user awareness;
- A better designed supply chain; and
- A life-cycle analysis process that identifies the cost effectiveness of sustainability initiatives.

Sustainable packaging projects are resting on the shoulders of transportation efficiency, improved package handling, and the percentage of recycled content in the packaging material. Initiatives that are “green” (financially) and “green” (environmentally sound) are what is needed.

Report Authors

To learn more about packaging sustainability as well as benchmarking and best practices, resources are available to members through the Supply Chain Consortium: www.supplychainconsortium.com.

Join the LinkedIn Supply Chain Consortium Group: www.linkedin.com/groupRegistration?gid=1966314

SUPPLY CHAIN EXCELLENCE

Bruce Tompkins
Executive Director

6870 Perry Creek Road
Raleigh, NC 27616

(919) 855-5527 Office
(919) 345-0479 Mobile

btompkins@tompkinsinc.com

TOMPKINS
ASSOCIATES

SUPPLY CHAIN EXCELLENCE

Chris Ferrell
Associate Director

6435 Hazeltine National
Suite 105
Orlando, FL 32822

(407) 362-0369 Office
(919) 624-3947 Mobile

cferrell@tompkinsinc.com

TOMPKINS
ASSOCIATES

SUPPLY CHAIN EXCELLENCE

Sandy Tompkins
Sr. Analyst

6870 Perry Creek Road
Raleigh, NC 27616

(919) 855-5525 Office
(919) 606-4986 Mobile

stompkins@tompkinsinc.com

TOMPKINS
ASSOCIATES