

# PRACTIX

*Good Practices in Purchasing & Supply Chain Management*

## The Greening of Expedited Packaging: A U.S. Postal Service and Supplier Collaboration

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### Executive Summary

Many organizations are increasing their focus on sustainability — efforts to find more efficient and effective ways to do business profitably while lessening the negative impact of current operations on future generations. The U.S. Postal Service (USPS) is no exception.

At the Postal Service, both internal and external forces have motivated projects in sustainability. Internally, some employees were personally motivated to consider environmental issues in their areas of decisionmaking. This was true of the leadership in supply management and marketing. Independent of a major organizational initiative, supply management had already initiated several sustainability projects, and the chief marketing officer had identified opportunities for sustainability efforts. The addition of sustainability to the 2007 update to the USPS Transformation Plan provided a

platform for taking further action. Externally, environmental organizations had pressed the Postal Service to address issues such as the amount of bulk mail that ends up in landfills and the type of material that is shipped.

This paper discusses one USPS sustainability initiative: the “green” redesign of expedited packaging. Leadership and collaboration drove the success of this initiative. The leadership of Anita Bizzotto, former Chief Marketing Officer, and Susan Brownell, Vice President of Supply Management, led to collaboration with suppliers, which resulted in the redesign of expedited packaging, an important consumer product. The USPS team forged a collaborative relationship with a supplier, MBDC ([www.mbdc.com](http://www.mbdc.com)), a consultancy that focuses on reorienting products, processes and systems to generate what it terms “Cradle to Cradle” material flows. The complex,



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two-year process ultimately involved 200 suppliers, 1,400 ingredients and 39 strict criteria.

Through leadership and collaboration, USPS' Supply Management Category Management Center and the marketing team created a shared vision with internal constituents and with key suppliers that ultimately led to the adoption of rigorous new sustainability standards for expedited packaging. The results of the two-year process included a change in packaging design, reduction in the types of packages, estimated savings of 15,000 metric tons of carbon emissions annually and no cost increase.

### The U.S. Postal Service

The U.S. Postal Service was established in 1775 and became an independent organization of the Executive Branch of the U.S. government in 1970. The USPS currently employs approximately 700,000 career and noncareer employees and operates nearly 37,000 retail outlets. The Postal Service delivers to 148 million addresses and has a mail volume of 212.2 billion pieces. It is ranked as the number one most trusted government agency and is listed in Forbes' ranking of the top 30 U.S. businesses. The USPS operates on its own revenues and is able to retain earnings. Fiscal year 2007 revenues were \$74.8 billion, assets were \$25.8 billion, and spend was \$13.1 billion.

### The Supply Management Organization

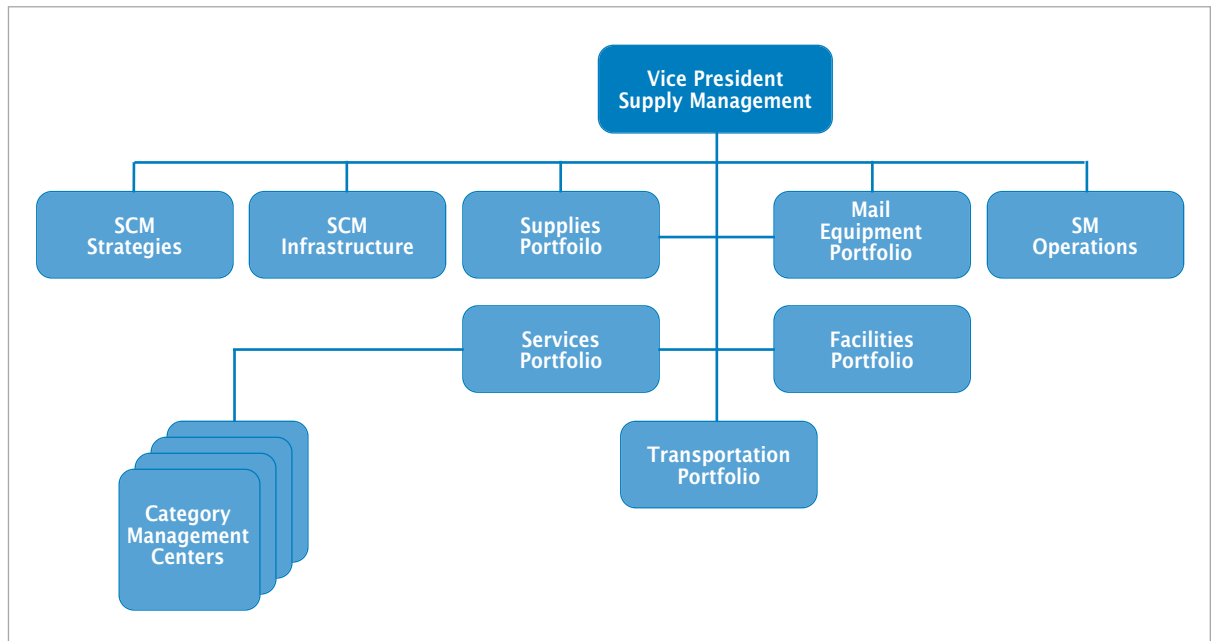
The mission of the supply management group, led by Susan M. Brownell, Vice President, Supply Management, is to “work proactively with internal business partners and suppliers to deliver best value supply chain solutions that are timely, cost effective, and operationally efficient to further the business and competitive needs of the Postal Service.” This mission is aligned with the USPS mission to “provide trusted, affordable, universal service” and the USPS vision to “be profitable to deliver for future generations.” The redesign of expedited packaging fit perfectly with the organization’s mission and vision.

Purchasing at the USPS is a private–public hybrid in which private sector practices and philosophy have been adopted while the Postal Service operates under public sector oversight (e.g., Congress, Courts, Government Accountability Office, Office of Inspector General). The Postal Service is subject to both public sector laws (e.g., Service Contract Act, Davis-Bacon Act) and private sector laws (e.g., Sarbanes-Oxley).

Spend is grouped into five major categories: transportation, mail equipment, facilities, supplies and services (see Figure 1).

Figure 1:

Supply Management Organization



In fiscal year 2007, annual purchase spend was \$13.1 billion, with transportation the largest category at \$6.1 billion, mail equipment at \$1.9 billion, facilities at \$1.8 billion, supplies at \$1.7 billion and services at \$1.4 billion.

The USPS supply management group has developed Commodity Strategy Sourcing Plans and a Supply Chain Relationship Management System (SCRMS). So far, 106 strategy plans have been developed covering over 80 percent of spend. Successful category strategy development is driven by cross-functional integration, especially by including clients in strategy development. Category teams conduct regular strategy review meetings to align and integrate suppliers with the plan.

The Supply Chain Relationship Management System is a collaborative Web-based tool used with key stakeholders and suppliers for performance improvement and monitoring. It is designed to provide actionable strategies, tactics and data resulting in better business decisions, continuous improvement in supply chain performance and optimal supplier relationships. System functionality includes scorecards, supplier development plans and diversity reporting.

This structured and disciplined approach to supply strategy development and execution provided the foundation for the internal and external collaboration necessary to complete the sustainability initiative successfully.

### Enhancing Sustainability

The 2007 update to the USPS Strategic Transformation Plan includes six tenets:

1. Generate revenue
2. Increase efficiency
3. Improve service
4. Create a customer-focused culture

5. Enhance sustainability
6. Prepare regulatory studies and meet reporting obligations

The Postal Service defines sustainability as “meeting the needs of the present without compromising the future.” Two goals are included as subcategories of sustainability: (1) to develop environmental leadership and (2) to reduce energy use. Toward these ends, Postal Service employees are working to expand environmentally friendly business practices and accelerate energy conservation. Each functional unit has developed broad plans to achieve these goals. For example, supply management is building green thinking into supply chain planning, processes and action. The supply management planning process that is already in place for many spend categories provided a ready avenue for including sustainability goals.

By integrating environmental activities into day-to-day operations, Postal Service management intends to engage every employee to take ownership and responsibility for sustainable business practices. As a result of these efforts, the Postal Service has been honored with 37 White House “Closing the Circle” awards and eight (2000–2007) Environmental Protection Agency “WasteWise Partner of the Year” awards.

### The Greening of Expedited Packaging

The impetus for greening expedited packaging was twofold. The strategic implications were made explicit with the inclusion of sustainability in the 2007 update to the Postal Service Transformation Plan. Additionally, subsequent to the introduction of Cradle to Cradle packaging, external pressures intensified as “do not mail” bills were introduced in numerous states. These bills are analogous to the “do not call” registry that prohibits telephone solicitation. Mailers are especially concerned because direct mail remains a primary form of commerce, advertising and information exchange. According to the Direct Marketing Association ([www.the-dma.org](http://www.the-dma.org)), advertising

mail contributed more than \$686 billion in increased sales to the U.S. economy in 2007. Mailers, printers, and forest and paper products companies, as well as the Postal Service, stand to lose a primary source of revenue if efforts to curb direct mail are successful, and consumers may lose easy access to information from advertisers (though some may not regret the loss).

The Postal Service is under intense pressure from environmental groups over what the groups perceive as the amount of direct mail that ends up in landfills. Consumers, as well, have expressed concern about the volume of direct mail they receive and its environmental impact. At the same time, people and organizations at every point in the supply chain — from consumers to retailers, to the Postal Service, to printers and advertising agencies, to forest products companies — stand to lose revenues and jobs as waste prevention increases. Some question whether job creation in waste prevention will make up for lost jobs if efforts to curtail direct mail are successful. Many individuals across this supply chain are looking for solutions that are both good for the environment and, consequently, good for future generations while also sustaining businesses and keeping profits strong and employment high.

The Postal Service has responded to the competing demands of this aspect of its business in several ways. First, the Postal Service has established a mailer technical advisory committee to advise the mailer community about consumer concerns and materials options. Today, through the efforts and commitment of various constituencies, much of what constitutes direct mail is printed on recycled — or at least Forest Stewardship Council (FSC)—certified — papers. FSC-certified paper has a fiber content that has been independently evaluated by the FSC to come from forest-friendly sources ([fsc-bc.org/Glossary.htm](http://fsc-bc.org/Glossary.htm)). Efforts to increase recycling, particularly curbside, will reduce the amount of paper and paperboard that ends up

in landfills. Efforts are also underway to focus on the front-end of business — the design and redesign of products to reduce or eliminate waste.

The contradictory nature of the Postal Service position calls for leadership and collaboration. Chief Marketing Officer Anita Bizzotto's personal interest in sustainability and her professional drive and leadership, coupled with a similar perspective on the part of Supply Management Vice President Susan Brownell, led the pair to seek a new path that might preserve and enhance Postal Service revenue from direct mail and respond to consumers' concerns by reducing the amount of waste ending up in landfills.

### The Cradle to Cradle Approach

**Cradle to Cradle versus Cradle-to-Grave**  
The Postal Service partnered with MBDC, a consultancy whose “design paradigm models human industry on natural processes, creating safe and healthy prosperity” ([www.mbdc.com](http://www.mbdc.com)). This approach to design requires a level of multiple-stakeholder engagement that may be new and challenging to individuals who have focused primarily on reuse, recycling and reclamation.

Cradle-to-grave products are dumped in landfills at the end of their useful life. Even reusing and recycling products and reclaiming materials still typically result in waste that ends up in landfills. Cradle to Cradle products are made of materials that are perpetually circulated in closed loops to maximize material value without damaging ecosystems. The redesign of expedited packaging followed the Cradle to Cradle approach.

**Cradle to Cradle Design: Waste Equals Food**  
According to MBDC, the Cradle to Cradle design approach focuses on eco-effectiveness, where the key concept is “waste equals food.” Product designers focus on using natural, safely biodegradable materials that can be returned to

the soil to feed ecosystems instead of depleting them. Material recovery programs reuse everything that is nonbiodegradable. Nothing ends up in a landfill.

Therefore, rather than working to minimize toxic pollution and the waste of natural resources, Cradle to Cradle designers seek to return a product or its components or ingredients to a useful purpose, to make equally valuable new products without generating toxic pollution or wasting natural resources in the first place. The benefits may include liability and risk reduction; regulatory, legal and material cost reduction; product and service innovation; product and brand differentiation; customer relationships extending beyond the sale; increased competitive advantage; and tangible social responsibility.

### **Cradle to Cradle Design Protocol**

Working with the Postal Service team to design or redesign products to be eco-effective, MBDC used its Cradle to Cradle design protocol to assess the materials used in products and production processes. According to MBDC, the protocol is “a scientifically based, peer-reviewed process used to assess and optimize materials used in products and production processes in order to maximize health, safety, effectiveness, and high quality reutilization over many product life cycles.” The protocol employs design chemistry, which incorporates scientific and ecological knowledge into product and process design. The protocol is founded on the Intelligent Products System developed by Michael Braungart and his colleagues at the Environmental Protection and Encouragement Agency (EPEA) in Hamburg, Germany.

The protocol has four basic steps:

**Step 1:** Materials are inventoried.

**Step 2:** Materials are evaluated.

**Step 3:** Materials are categorized as green, yellow, orange or red based on human health and environmental relevance criteria. The following definitions apply:

*Green:* Little or no risk. This chemical is acceptable for use in the desired application.

*Yellow:* Low to moderate risk. This chemical is acceptable for use in the desired application until a “green” alternative is found.

*Orange:* There is no indication that this is a high risk chemical for the desired application, but a complete assessment is not possible due to lack of information.

*Red:* High risk. “Red” chemicals (also sometimes referred to as “X-list” chemicals) should be phased out as soon as possible. “Red” chemicals include all known or suspected carcinogens, endocrine disruptors, mutagens, reproductive toxins and teratogens. In addition, chemicals that do not meet other human health or environmental relevance criteria are “red” chemicals. (Source: [www.mbdc.com/c2c\\_mbdp.htm](http://www.mbdc.com/c2c_mbdp.htm))

**Step 4:** Materials are optimized by positively selecting replacements for “red” chemicals and using “green” ones as available.

Three levels of certification are possible: silver, gold and platinum. Silver certification was achieved on the Postal Service project. The Postal Service is moving toward a higher level of Cradle to Cradle certification in all its products.

### **Collaboration with Materials**

The marketing and Category Management Center (CMC) team at the Postal Service established a partnership approach with eight to 10 major suppliers of packaging ingredients. Rather than change the specification and send it out for rebid, the team set a vision and worked to motivate suppliers to collaborate on this initiative. Suppliers participated in gathering and sharing information rather than waiting for a new specification to become a requirement. The marketing and CMC team also set a realistic timeframe by acknowledging that the change would not happen overnight and would probably be a one- to two-year process to silver certification.

The team established a cost-neutral goal, meaning that no one's cost would increase, but there was no expectation of hard dollar savings. Savings would be measured in other ways, primarily a reduction in carbon emissions, public relations benefits and an increase in competitive advantage. Suppliers' responses were varied but mostly good. They were instructed to adopt as many recommendations as possible and to alert the team to any pending cost increases. Some suppliers were interested in collaborating on this project because they saw an opportunity to differentiate themselves from their competitors while further developing their working relationship with the Postal Service. Not one supplier was dropped during the process, and 10 major suppliers achieved silver certification.

MBDC's role in the collaboration process was to provide scientific and technical expertise. Their scientists evaluated all ingredients and recommended changes and substitutes.

### Results and the Future

During the two-year process, MBDC worked with 200 suppliers and analyzed 1,400 ingredients to ensure each met 39 strict criteria. The results were:

- Changed packaging design
- Reduced types of packaging
- No increase in cost (cost neutral)
- Estimated savings of 15,000 metric tons of carbon emissions annually
- 2008 White House "Closing the Circle" Award: Honorable Mention for Waste Prevention

Supply management plans to certify other products. The goal is to make environmental

stewardship part of business processes across the entire organization — rather than leaving it up to individuals, which might result in one-off projects and would be less likely to be sustained over time. In the meantime, leaders provide guidance and resources. The goal is to be good environmental stewards who balance environmental factors with all other factors (such as revenues and profits) to make best-value decisions consistently. At a minimum, projects should be cost neutral.

In the supply management organization, a separate set of green criteria for each category team is being incorporated into the commodity strategy sourcing planning process. This is true for commodity teams procuring services, such as travel and general, selling and administrative (GS&A) items, as well as teams procuring goods. Supply management leaders ask thought-provoking questions during the planning process and earliest stages of a project to get each supply management employee thinking about environmental stewardship and energy conservation. Next year, environmental goals will be added to the snapshot report for each commodity.

As in many organizations, the environmental group at USPS is struggling for a voice and corporate stature. They want to take advantage of every opportunity to build a stronger presence in the organization. The Cradle to Cradle approach to design and redesign fits perfectly with the fact that the largest portion of cost and quality is driven in during the design stage. Supply management's managers are well-positioned to take a leadership role in the multistakeholder collaboration required for such a project.

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