Product Lifecycle Logistics

*Experience the difference. Realize the value.*

# Big Picture. Big Value.

## Consumer Packaged Goods Manufacturers Can Reduce Supply Chain Costs 10%–20% with Product Lifecycle Logistics

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Manufacturers in the margin-challenged consumer packaged goods (CPG) industry look for efficiencies in every nook and cranny of their supply chains. Still, millions of dollars in potential savings remain elusive. Why? Because the focus is on wringing small, incremental savings from discrete supply chain functions. Although individually optimized, these functions are collectively out of sync.

CPG companies need to attack the structural blind spots in their organizations that prevent them from looking across departmental silos and managing their supply chains as one, combined whole. This approach, called Product Lifecycle Logistics, breaks through the barriers to supply chain efficiency. By eliminating the waste and redundancy that are part of today's compartmentalized supply chains, Product Lifecycle Logistics can reduce supply chain costs by an average of 10% to 20%.



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## Supply Chain Dysfunction:

"What we have here is a failure to communicate" There is a common theme prevalent in many supply chains today. Companies often fail to recognize that a strategic decision in one area of their supply chain could lead to waste and inefficiency in another. These failures can be directly attributed to a lack of communication by departments who directly impact the supply chain. These breakdowns lead to scenarios.

Without talking to the people responsible for its transportation or distribution, a manufacturer's marketing group creates new "green" packaging using recycled paper. The packaging, however, can't withstand the handling impact inherent in the company's distribution process. Result: A large percentage of products are returned because of damage. This triggers a mad scramble to repackage the next wave of products, adding hundreds of thousands of dollars in costs.

By allowing suppliers to manage inbound shipping of raw materials on a prepaid basis, one health and beauty product manufacturer assumes it is streamlining its own supply chain. Result: Unable to control the scheduling of deliveries and lacking the visibility to know when and how shipments would arrive, the company can't predict staffing needs and has to maintain a much deeper supply of inventory to avoid shortages.

The Solution: **Product Lifecycle Logistics.**

## What Do We Mean By Product Lifecycle Logistics?

Theoretically, a product at its inception has maximum profit potential. Supply chain costs reduce that potential, so it only makes sense that the management of logistics, through every step of the product's life (see Figure A), should be coordinated in a systematic, integrated way.

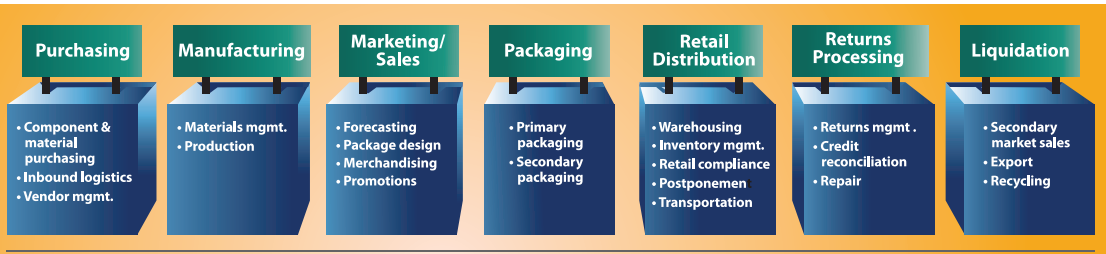
Unfortunately, CPG manufacturers focus less on combining and more on optimizing individual functions, such as packaging, distribution and freight management, often outsourcing to separate service companies in an attempt to lower costs. But although costs in each individual "silo" may drop initially, the lack of centralized coordination often leads to waste, duplication of efforts and missed savings opportunities.

Product Lifecycle Logistics is a more intelligent, holistic approach for planning, conducting and evaluating supply chain operations. It requires developing a strategy with an understanding of the interrelationship among discrete functions, so companies can achieve maximum efficiencies and sustain them over time.

Product Lifecycle Logistics can reduce supply chain costs 10% to 20% percent by making CPG companies:

- Smarter. Being able to access and analyze information up and down the supply chain, and across functions, leads to faster, better-informed decisions.
- Faster. Combining process steps and supply chain functions reduces touch points and cycle time.
- More agile. Coordinating actions throughout the supply chain enables faster response to changing market conditions.
- Greener. A faster cash cycle reduces inventory, freight moves and, ultimately, carbon emissions.

Figure A




*The advent of supply chain management promised greater coordination across supply chain functions. Today, that promise remains largely unrealized as corporate functions continue to manage individual stages of the product's journey in isolation.*



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## Simplifying the Supply Chain "Tear down those walls"

The solution to simplifying CPG supply chains is to treat products as one inventory stream, not as separately managed ripples of raw materials, finished goods and returns.

It's about managing across, not within, functions. CPG companies are beginning to realize the payoff from this holistic approach.

Using back-end supply chain data to inform front-end design
A large food manufacturer discovered that one of its metal cans was prone to denting, leading to unsold products and lost revenue. The 3PL that conducted the damage research shared its findings with the product design group.
The fix: A higher-basis weight can was specified and the company reduced its unsaleables rate by over 40% with an associated annual savings of more than $500,000.

When returns skyrocketed on a new electrical lawn and garden product, a root cause analysis by the manufacturer's 3PL partner learned that a requirement to charge the device before the first use was buried on an inner page of the owner's manual.
The fix: Marketing republished the manual and, more immediately, the 3PL attached hang-tags reminders to the device handles, virtually eliminating the costly returns.

Combining packaging with distribution to reduce inventory, freight costs Although labor is cheaper in off-shore manufacturing markets, packaging products too early in the cycle can backfire when demand veers from long-term forecasts.

A leading lock manufacturer that had been completing retailer-specific packaging at its Asian factory determined that U.S. inventory levels were rising because of poor forecasting.
The fix: To respond more accurately to real-time market demand, the company decided to do final packaging in the United States. By combining packaging with distribution, the company drastically reduced finished goods inventory. In addition, bulk shipping of locks in densely packed containers, rather than in bulky finished packages, reduced international shipping costs

Collaborating across functions drives better ROI for trade promotions Trade promotions are the backbone of retail sales, with promotion spending making up anywhere from 8% to 20% of CPG company revenues. But supply chain inefficiencies can drain the profit from these investments.

At the root of these inefficiencies is a lack of organizational coordination across functions, leading to inaccurate inventory and excess labor and transportation costs.



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For a grocery product manufacturer with high demand in the summer, promotions were a yearly initiative. Yet fractured communication between its marketing and logistics groups led to repeated problems—inadequate truck capacity, high expedited freight costs, poor fill rates and a reputation among retailers as an unreliable vendor.

The fix: To improve promotion support and overall transportation efficiency, the company outsourced freight management to the same 3PL that manages its distribution center. With the traffic team located within the CPG manufacturer's corporate headquarters, communication barriers have been eliminated.

Today, the 3PL participates in early-stage planning for promotions and gets advance notice of product volumes, time frames and shipping lanes. This data is communicated to carriers to lock in capacity at attractive rates.

Using returns to support retail distribution with the right level of coordination, a large percentage of store returns can be redistributed immediately from the return center, creating a multifunction process at the back end of the product lifecycle.

A global manufacturer of apparel leverages its reverse logistics operation to feed its secondary market channels, including its own outlet stores and off-price retailers. This is technically a distribution function, but the company's inventory management systems on the distribution side are not designed to handle the inventory requirements of secondary channels. Although major retailers will order large volumes of one SKU (specific style, waist size, length and color), outlets and smaller discount retailers want the apparel manufacturer to create a new SKU, such as "same style and color, any size."

The fix: The apparel manufacturer's reverse logistics 3PL has the advanced systems to handle this. As a result, returns that are onsite inspected and labeled "return to stock" are resold immediately and shipped into secondary market channels.

Combining returns processing and liquidation to reduce return-to-vendor (RTV) expenses big money is spent at the end of a product's lifecycle, when it has lost much of its value and when companies want to limit further investment.

Consider the RTV process within a retailer's return center. Every day, thousands of truckloads of returns are shipped back to vendors for final disposition. CPG manufacturers are starting to recognize that much of this freight and labor expense is unnecessary and are working with retail customers to manage returns processing and final disposition concurrently.

A midsize consumer electronics manufacturer contracts with a 3PL that operates the return center for the manufacturer's largest retail customer. The collaborative arrangement between retailer and supplier allows the 3PL to inspect the manufacturer's returns and determine the proper product disposition. As a result, a growing percentage of this company's returns are now diverted to liquidation or recycling directly from the return center, avoiding the costly, time-consuming journey back to the manufacturer's facility.



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## Monitor And Adapt...Monitor And Adapt...Monitor...

The human body is pretty good at providing signals that make us change our behavior. Shivers probably mean a jacket is in order. A toothache should trigger a visit to the dentist.

Your supply chain provides signals too. Only they're not so obvious.

They come in the form of data and reports that, unless monitored and shared, do not prompt an adaptive response. Product Lifecycle Logistics is about adaptation—paying attention to data gleaned during a product's supply chain journey and using actionable intelligence to make positive changes. But corporate structures have to enable this capability, and many companies lack this central monitoring function.

Does this critical oversight role exist for your supply chain? If not, the function could be managed internally or by a qualified 3PL—one experienced across all forward and reverse supply chain services.

## The First Step: Value Stream Mapping

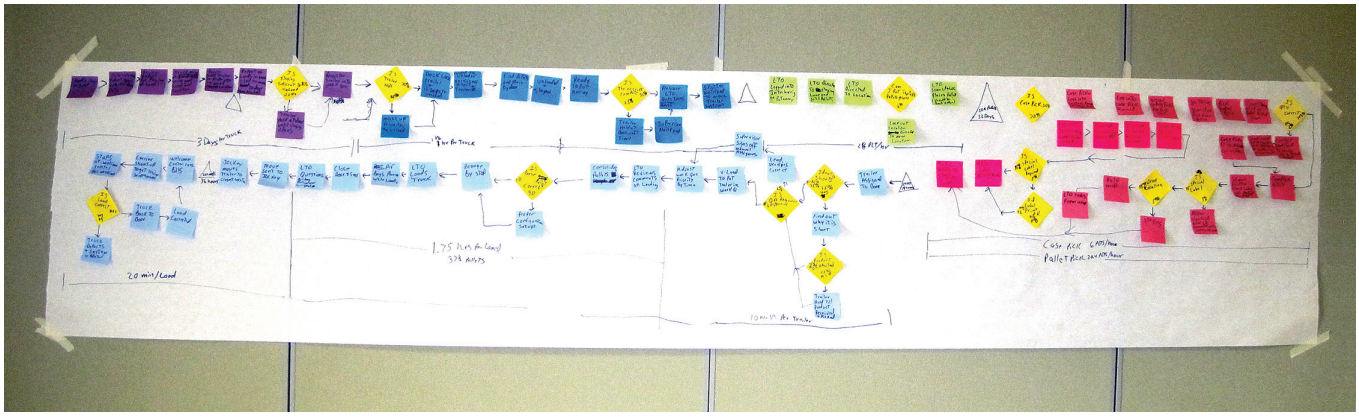
How do you move a company from compartmentalized logistics management to a more centralized management of the entire product lifecycle? One effective tool is value stream mapping, a process that brings together the people who coordinate individual stages of the product flow, up to and including representatives of the final customer.

As simple as this might sound, value stream mapping events are often the first time different departments have, together, looked at the movement of goods and information from cradle to grave.

The purpose of value stream mapping is to eliminate waste by moving from vertical to horizontal thinking. In other words, look across the operational divides that obstruct big-picture thinking and saving opportunities. Typically, value stream mapping is a multiday event conducted by an objective outsider with knowledge of the CPG supply chain. 3PLs can help here because they can involve logisticians from their staff experienced in managing Kaizen, or continuous improvement, events.

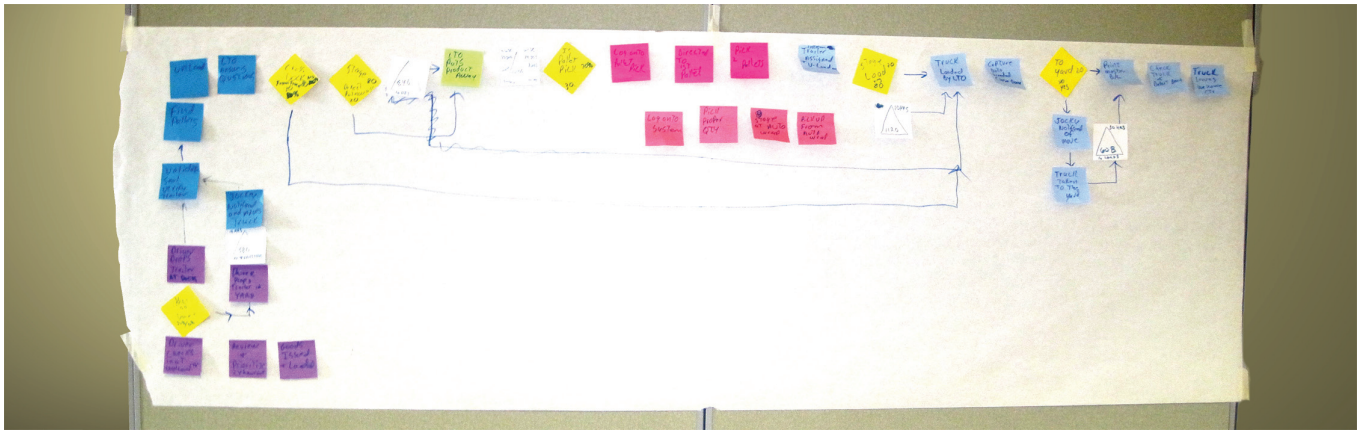
As a first step, a cross-functional team literally "maps" out every step of the current process—either for the entire supply chain or just one facility. Pictured below is an example from a recent value stream mapping event that depicts the complex distribution process for a large food manufacturer.

Next, the team takes a hard look at where value is being lost—through redundancy, lack of information or poor communication—and maps out the ideal future state.





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Pictured above is the simplified future state for the same food manufacturer's distribution process.

Finally, the team defines the ultimate future state process and the projects and action steps required to get there.

Target "Future State" Distribution Process Value stream mapping exercises sometime reaffirm the efficacy of an existing process. More often, though, they lead to bold action and breakthrough gains like the following.

During the global food manufacturer's value stream mapping exercise, 18 "high impact, low effort" Lean initiatives were identified to streamline the distribution supply chain. Combined, these initiatives increased throughput by 21% with no increased staffing or capital investment.

It's important to understand that the objective of value stream mapping is to identify value in the eyes of the customer—not internally. That is a significant difference between process mapping and value stream mapping.

## To Drive Savings, Connect The Dots

CPG supply chains have become global, complex and more difficult to manage. Ironically, the corporate structures established to cope with this complexity create new problems. Individual supply chain functions have become hyper-efficient, but leaders lack the information and visibility to recognize and act on inefficiencies across the broader supply chain.

Until each functional area views the decision-making process from a position of 'Would I make this same decision if I owned the whole supply chain vs. just my functional area?' true breakthrough gains in performance, cost-reduction, and waste-elimination will be unattainable.

Product Lifecycle Logistics addresses this issue by "connecting the dots" within complex supply chain organizations. By sharing strategies and actionable data across functions—manufacturing, marketing, packaging, distribution, returns—these departments can use the insights to make more informed, profitable decisions. In turn, this holistic approach better enables CPG companies to collaborate and deliver value to their customers—the retailers.

The supply chain remains a rich source of profit-driving savings for CPG manufacturers. But until you look up and down the entire product lifecycle, combining supply chain functions, that additional value will be lost.



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