# SUPPLY CHAIN AND PROFITABILITY

Your supply chain is simply the flow of your product from raw material through point of sale. If you can visualize each physical step that your product takes from its component parts or ingredients, through its manufacturing and packaging processes, to each step of intermediate shipment and storage until it gets to the ultimate consumer, **that is your supply chain.** Whether you are directly involved or not, each step in the supply chain adds costs to your product, and impacts your pricing and your customer service levels.

An improved supply chain can lead to improved profits in three ways:

## Reduced Costs

A benchmarking study conducted by PRTM of Weston, Massachusetts showed that companies who are best in supply chain management have costs which are 45% lower than the costs of their average competitor. This represents between 3% and 7% of sales. Reduced costs are certainly great motivation for better supply chain management.

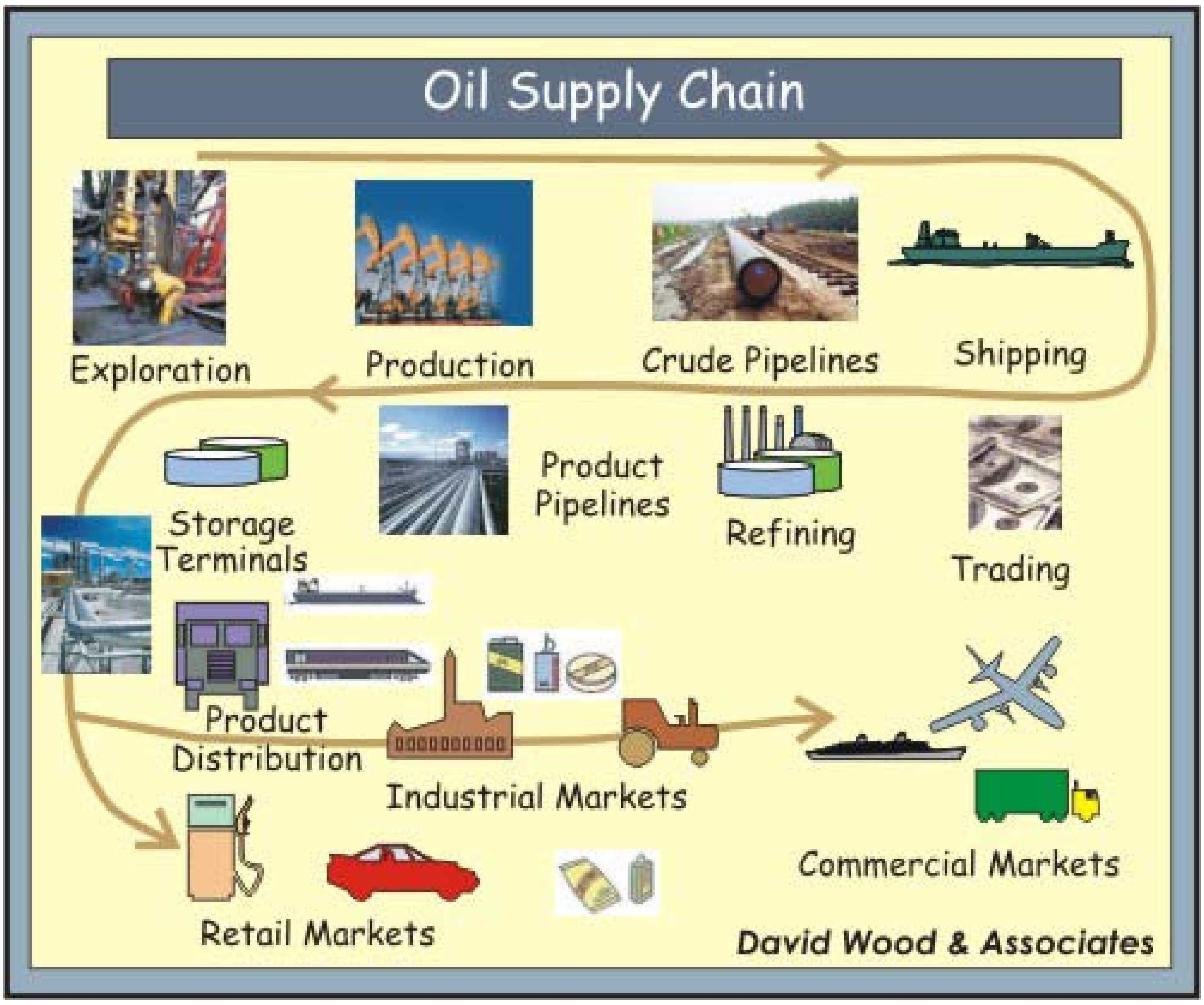
## Improved Customer Service

Service is becoming an increasingly important factor in your customers' decision-making. Service problems are often related to an inadequate flow of information across supply chain steps. As your business grows, higher volume may expose inefficiencies, resulting in late orders, or higher costs. Investing in supply chain functions and supporting information systems will ensure better service, which translates into increased volume and profits.

## Reduced Working Capital

By streamlining your supply chain processes, you have less of a need to hold inventory to give assured service. This can be achieved by increasing the quality and availability of sales and production information. This means that the money that you have had tied up in inventory can be freed up to do other things in your business. More cash on hand means increased flexibility for your business. In addition, lower inventories reduce the likelihood that the product will become obsolete and discarded.

These supply chain benefits add up to a chance to make a significant improvement in your competitive position. Better profits mean more pricing flexibility. Better service means more loyal customers. A better working capital position means more flexibility to expand your business. In short, a better supply chain will result in a more profitable business




# SUPPLY CHAIN FUNDAMENTALS

Although the concept of supply chain may seem complex, a few underlying principles determine supply chain costs.

## Minimize Time

Time is money in the supply chain world. The faster product moves through your supply chain to your consumer, the faster you are reimbursed for your business investments.

## Minimize Distance

For most businesses, the distance from your manufacturing point to your customer is just a part of the total distance that your product travels. Consider each step that the product experiences from its initial purchase as raw material, and whether each step adds value to your product at the most effective cost.

## Minimize Handlings

Every time a product is handled, it costs money, and increases the likelihood that the product will be damaged or misplaced. Handlings can be reduced by streamlining other parts of your supply chain process.

## Maximize Density

Just as time is money in the supply chain world, space is also money. The more product that you can safely pack into a given amount of space, the lower your costs will be, whether it is on a shelf, in a truck, or in a warehouse.

## Maintain Flexibility

The later you wait before committing yourself to a course of action, the better cost and service you can expect. The concept of postponing the final identity of a product has application across a broad array of industries. Designing your product offerings so that components are standardized is another way to maintain flexibility.

## Minimize Inventory and Maximize Inventory Turns

Any time you hold inventory, you are incurring several costs. These include the out-of pocket costs for storage and handling, as well as the more hidden cost of tying up working capital. Damage and obsolescence become larger risks as your inventory increases.

## Collect and Exploit Data

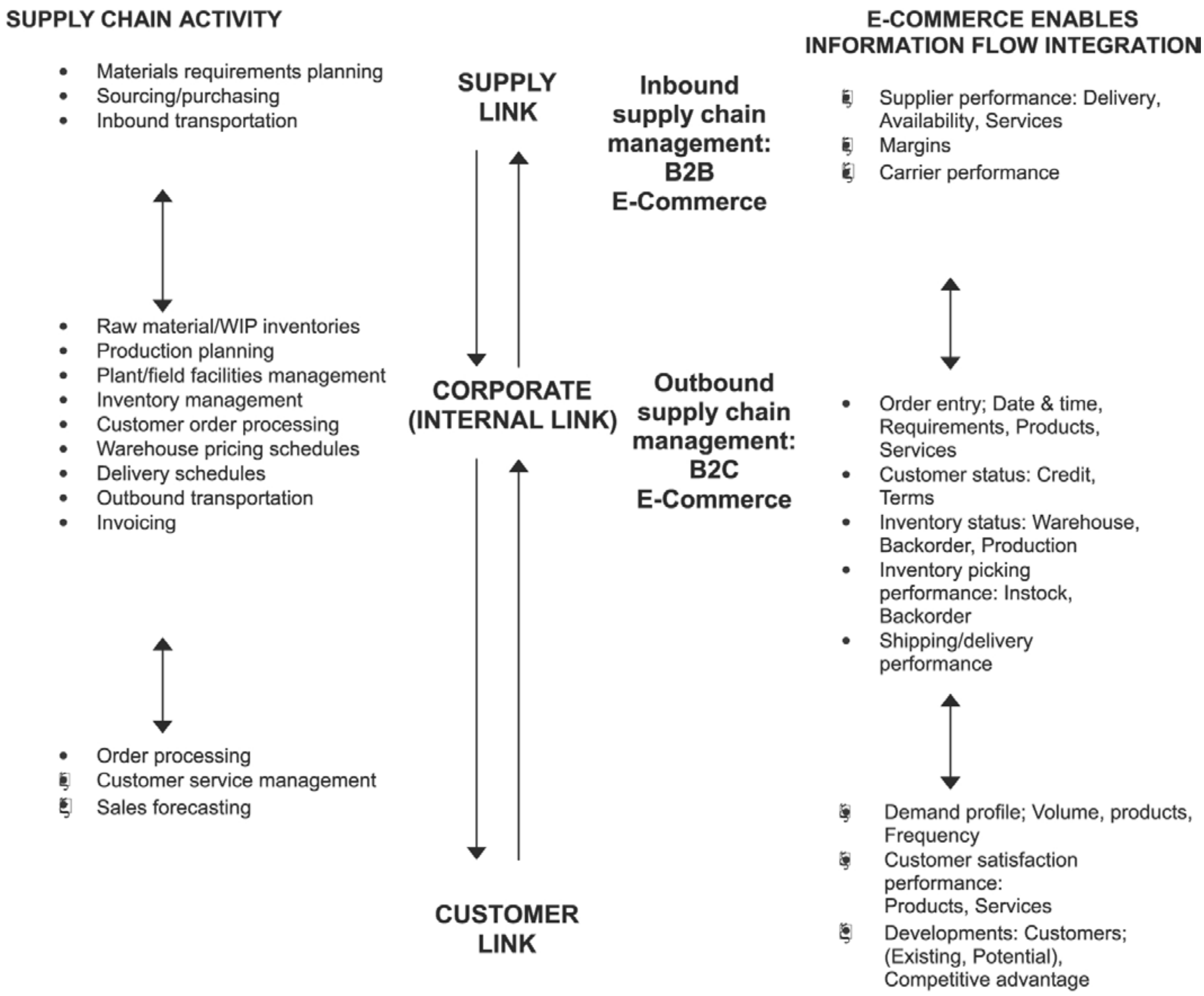
Information is the lifeblood of the supply chain. Be sure that you design information systems for your supply chain that capture not just product flow, but the costs associated with each activity. New technologies are being developed with the ability to monitor real time costs and movements, making this aspect of supply chain management a critical competitive factor.

## Strategize and Execute with Supply Chain Partners

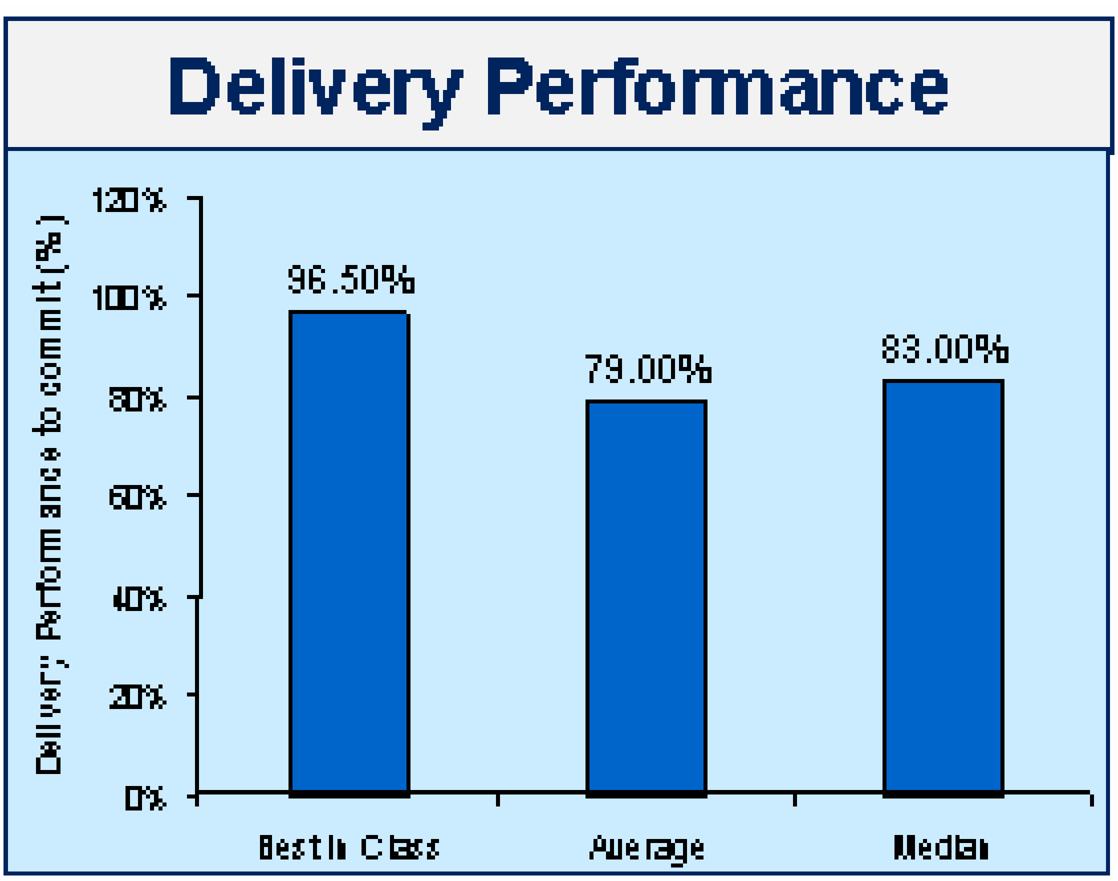
Providing product to the consumer at the lowest delivered cost with the appropriate level of service requires active participation by everyone involved in the supply chain, both inside and outside your organization.
Through dialogue you'll be able to determine where there are conflicts or opportunities across supply chain parties, and devise a course towards the lowest possible system cost.

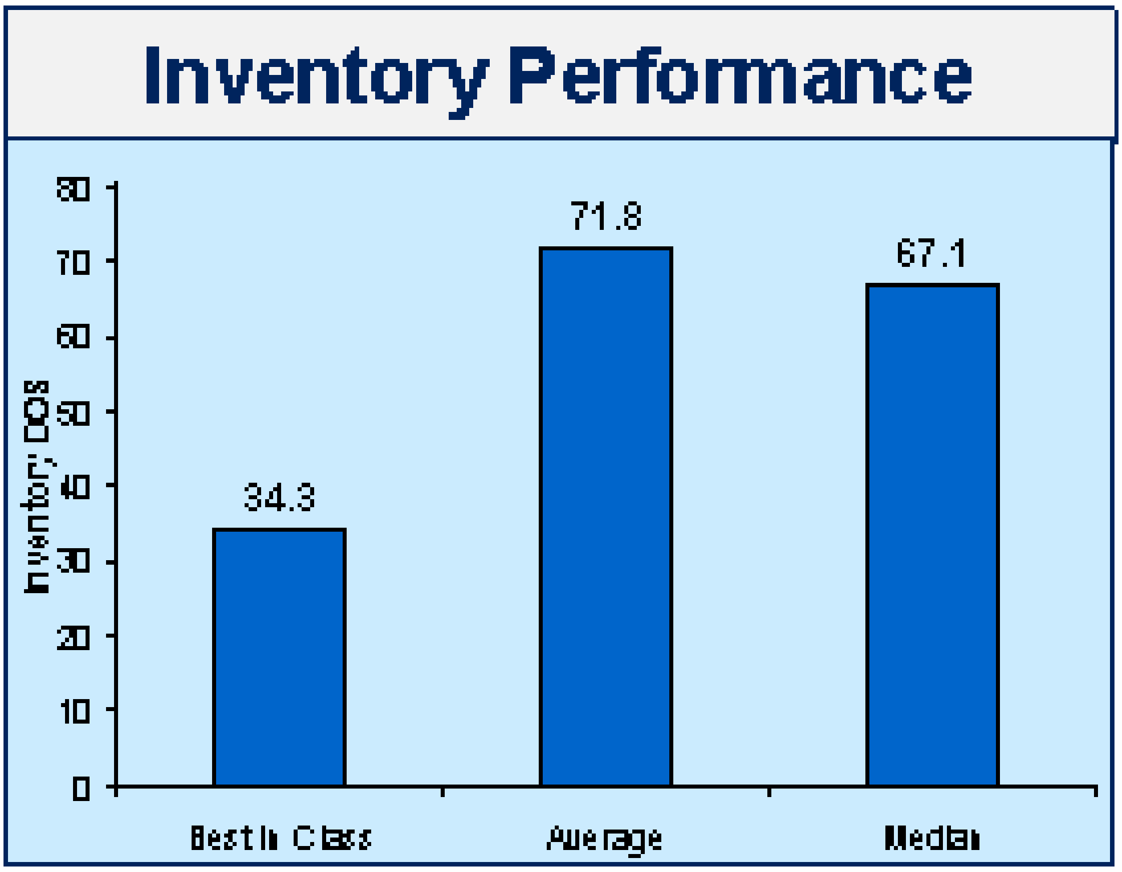
## Watch Your Competition

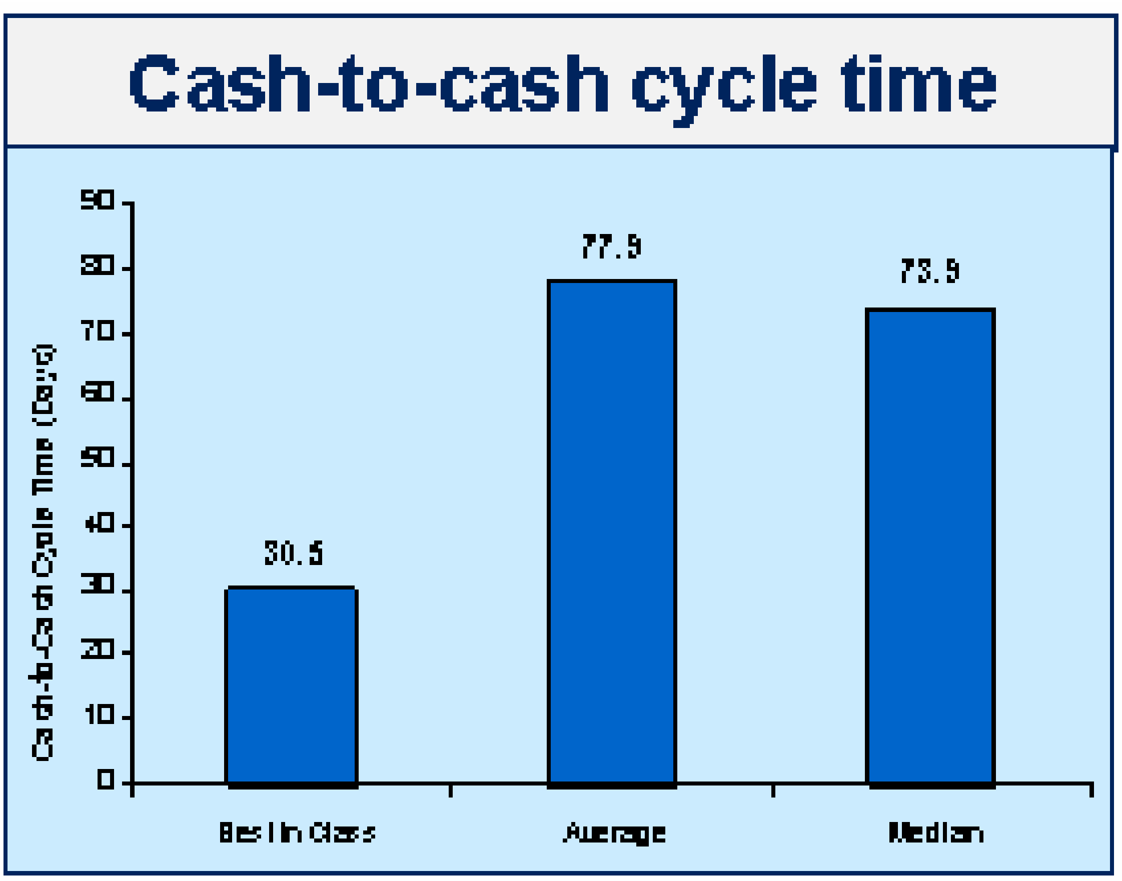
Both customer and consumer needs are fluid, and every competitor is likely to approach these needs in a different way. Being first with a bad idea may be costly, but being last with a good idea is even more costly, as you lose any chance at a competitive advantage.




**Source:** Based on Gattorna *et al.* (1996)






Source: Electronic Equipment Industry benchmark from The Performance Measurement Group (PMG), a PRTM subsidiary

# WHEN TO REVIEW YOUR SUPPLY CHAIN

The supply chain is an essential part of your business and should be constantly measured and evaluated. There are some signals that may indicate that your supply chain needs special attention, either to solve existing problems, or to ward off new problems that could emerge.

## Customer Service Problems

Missed deliveries and out-of- stocks make everyone's life miserable. They are costly to you, and erode your customer's faith in your ability to execute. Chronic service problems may have a single cause, but more often they result from a number of weak links in the supply chain. It is best to understand the root cause of the problem before embarking on a costly and possibly inadequate solution.

## High Inventories

Inventories often mask problems in the supply chain. Addressing the root causes of high inventory levels will result in lower costs for storage, handling and transportation, and fewer problems with damaged or misidentified stock.

## New Customer Demands

Customers are always looking for new ways to improve profits, through lower costs or increased volume. As a consequence, they make new demands of their suppliers to help them meet their internal objectives. It is critical that you understand how your supply chain can accommodate these changes, and what the impact on your costs will be. Then you will be prepared to collaborate with your customer for solutions that have a mutual benefit.

## Supply Chain Costs are Rising

Your supply chain costs should be as low as possible, given your business objectives. If your costs are rising, the reasons must be understood. Geographical expansion can cause supply chain costs to rise, but so can an increase in emergency deliveries due to production problems. The cause of any cost increase should be quantified and addressed to be sure your business remains competitive and profitable.

## You're Entering a New Channel of Distribution

Entering a new channel of distribution is a critical moment for your business. If your supply chain is not ready to meet the needs of the new channel, the implications could be disastrous.

Be sure that you fully understand what will be expected of your supply chain, and what the cost impacts of the change will be. What you learn may change your decision about when or whether to enter that channel. In any case, you must make plans to meet the channel's needs as efficiently as possible.

## You've Completed or are Considering a Merger or Acquisition

A merger or acquisition is a radical change to your supply chain, and creates a great opportunity to make significant improvements. It is likely that there are ways to combine the formerly separate supply chains and discover big savings for your company, especially if the product lines and channels of distribution are similar.