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September 25, 2007

Understanding Supplier Cost-Price Management Part 2

Metro Stores' RFID Chronology

# Avoiding Expensive Conveyor Control System Modifications

***Smart Decisions at the Start Can Avoid Pricey Invoices Later***

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**Adjust magnification as needed to read on-line, or print to read hard copy.**

# Better Preparation and Negotiation Can Avoid Expensive Material Handling Control System Modifications Later

## A $50,000 Scanner Change? How Small Mods Turn into Big Dollars

When implementing a new material handling automation system in distribution or manufacturing, companies often leave themselves open to significant charges for changes down the road to the control systems - charges that could be reduced with better upfront strategies.

Case in point: we recently spoke with a consumer goods manufacturer that needed to have a modification made to a conveyor system to read a new bar code symbology and send a new data element to the WMS for cartons that had that type of label. The work involved some modest scanner configuration, and some minor changes to the control system logic. **Price tag from the vendor: $50,000.**

It's a story familiar to many if not most automation users. Most may not like the cost, but in the end, pony up anyways.

So, how do fairly minor control system changes result in such large price tags?

There are two key factors, according to **Mark Fralick**, SCDigest Technology editor and president of ROI Solutions, a consulting company focused on distribution projects.

First, Fralick says, even small modifications become "projects" for the automation vendor. That

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"Automation and WMS companies have pricing templates that pile on a lot of project management and other overhead costs based on the estimate of the real work to be done," Fralick says.

That can result in a small amount of software work turning into a large overall quotation.

Certainly in many cases the project management costs are justified. In others cases, however, the pricing template may vastly overstate the real effort. The vendor should be challenged to line-item the total cost, and review and justify the overhead elements.

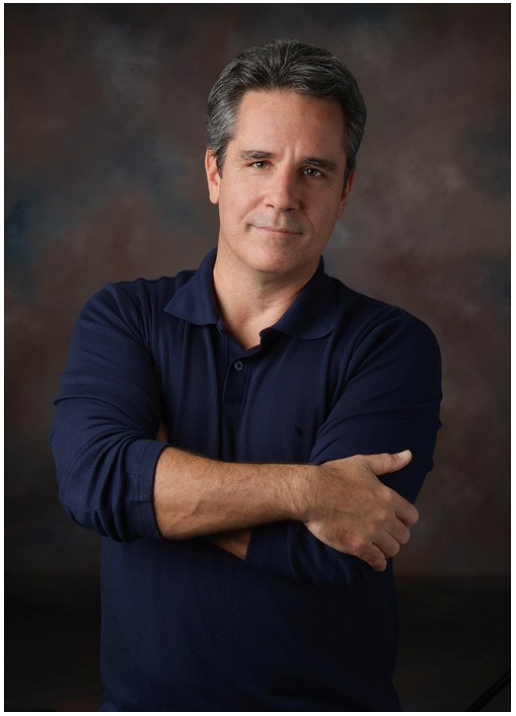
"These charges are usually just part of a standard formula," Fralick said.

## Having Another Option Provides Leverage

While challenging hours and overhead that seem excessive can help, if a company has no alternative to get the work done except to use the automation vendor, it has little leverage to get the quote to a more reasonable level.

The key to achieving leverage: getting access to the automation control source code as part of the original contract negotiation.

"Getting the source code and having the right to make your own modifications if needed now gives you another option when the inevitable changes happen," said Fralick. "It is a perfectly reasonable request, and



***SCDigest's Mark Fralick*** *says getting the source code from material handling automation vendors as part of the contract will significantly increase leverage for modification cost later.*

something most vendors will accede to in order to win the original business," Fralick said.

"You may never actually do the modifications," Fralick said. "But having that option gives you a real option, and will require the vendor to sharpen their pencil for future quotes."

While making modifications to someone else's code can involve risk, it's a practice many companies do in fact adopt, Fralick said. When looking at the vendors at the time the system provider is being determined, having an idea of which of the potential control systems would be easiest to work with should be among the evaluation criteria. ■

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**The Issue:**

- Companies often face high cost to material handling control systems after the original implementation

**Recommendations:**

- Insist on line-item detail to see if standard vendor pricing models are not appropriate for a specific modification
- Negotiate rights to the control source code at contract time to have another option, which provides negotiating leverage

# Manufacturing Supply Chain News: Lego, the "Toy of the Century," had to Reinvent the Supply Chain to Save the Company

## Product Innovation Drove Complexity, and Skyrocketing Costs; Losing $337,000 in Shareholder Value Per Day

Lego is one of the most iconic brands not only in the toy category, but in consumer products generally. So much so that its connectable construction blocks were named "toy of the 20th century" by Fortune magazine.

But that didn't guarantee financial success. In fact, in a very interesting case study in the Strategy + Business magazine from consulting company Booz Allen, it turns out supply chain complexity and dated processes almost killed the company earlier this decade – and that a subsequent supply chain transformation helped turn the company and the bottom line around.



### Rapidly Changing Market Brings Problems

In the 1990s and beyond, many factors were potentially threatening to Lego's business. Many kids were spending more time with video games than traditional toys. Knock off products from China were coming to market at lower cost. The traditional retail channels were changing dramatically from small mom and pop toy shops to the major big box retailers – sound familiar?

Lego Group, headquartered in Denmark, lost money four out of the seven years from 1998 through 2004. Sales dropped 30 percent in 2003 and 10 percent more in 2004, to $1.35 billion world wide. Executives estimated that the com-

pany was destroying $337,000 in shareholder value every day, despite it lofty position in the toy hierarchy.

The company had been trying to innovate its way to success, launching Lego-based theme parks and video games. But as things got really bad in 2004, it turned out that the best opportunity to turn the ship around was through supply chain excellence.

The article says that, "The company leadership knew it had to address those problems, and that the supply chain posed the most immediate opportunity for improvement. The Lego Group's supply chain was at least 10 years out of date. Poor customer service and spotty availability of products were eroding the com-pany's franchise in key markets. Speedy attention to the supply chain, the leaders reasoned, would not only buy them time to deal with the other challenges, but could help set in motion a virtuous circle of improvements that would support subsequent changes in the rest of the company."

Lego supply chain had been built for custom delivery to the smaller retailers that dominated the market from the time the company was started. Although it had made many positive changes in serving the US market, all told Lego was well behind global competitors in crafting its supply chain for the big-box stores. Lego had also fallen behind to companies that operated with much greater supply chain sophistication, analyzing and optimizing every cost driver to provide just-in-time service to the new retail giants.

With a new CEO on board, Lego decided that among the many problems it needed to work through, fixing its supply chain was the number 1 priority.



***Lego had also fallen behind to companies that operated with much greater supply chain sophistication, analyzing and optimizing every cost driver to provide just-in-time service to the new retail giants.***

## Opportunities across Many Processes


Lego's analysis showed problems and opportunities across many functional and process areas:

**Product Development:** Lego had been introducing hundreds of new SKUs, more focused on product innovation than the impact on supply chain costs. Many new products cost the company money.

**Sourcing and Procurement:** Incredibly, Lego dealt with some 11,000 suppliers. It frequently sourced unique (and therefore higher cost) materials, and did little to leverage its total buying power.

**Manufacturing:** Production processes and lines were not set up to leverage its production scale, almost operating as a vast series of small, independent toy producers. Long term planning was a rarity, and fire drills common.

**Logistics:** There was little distinction in service policies between small mom and pops and the major retailers now accounting for the preponderance of the business.

To address these issues, Lego set up a two-track approach. One cross functional group was developed to focus on the overall supply chain strategy, while another was formed to drive those strategies through to execution. A "War room" approach soon developed, with dozens of people involved. Change management, always an issue, was deemed especially difficult at Lego, a close-knit, family owned company. To address this, executives decided to go with near total transparency – strategies and potential changes were widely communicated throughout the company. The article notes that as slow as this process was, "Working through it had an important benefit: When the teams finally reached a consensus, the decision stuck."

***Lego had also fallen behind to companies that operated with much greater supply chain sophistication, analyzing and optimizing every cost driver to provide just-in-time service to the new retail giants.***

The key changes to the supply chain naturally follow the issues identified above:

**Simplification**: Lego reduced the number existing color options in half, for example, and developed a cost matrix that calculated for designers the high cost impact on the supply chain of changing product colors and shapes.

**Sourcing**: Lego reduce significantly its number of plastic resin suppliers, and signed longer term contracts which reduced and stabilized pricing, lowering costs and enabling better planning.

**Rethinking Quality**: There was an incredibly strong quality mentality in the company, so much so that cost reducing ideas were regularly scrapped as potentially reducing quality. It also fostered innovation that lost money in the name of being the best. Lego rebalanced that thinking.

**Manufacturing**: Lego rationalized production lines, reducing the number of products that could be made on each machine, adding simplicity and reducing changeover costs. It established more fixed production cycles, and better tied manufacturing to the rest of the supply chain. For example, it was no longer be acceptable to make manual changes in a molding machine without informing the finished-goods packing team, an important consideration since different kits are packaged in different boxes. While it had some manufacturing in Asia, new facilities were built in Eastern Europe to better service the European market.

**Logistics**: The number of logistics service providers was cut from 26 to 4. It also put a distribution center in Eastern Europe to take advantage of lower costs there than in Germany and other major markets – a step few at the time had taken. It also began working much more closely with retailers on joint forecasting and logistics planning.

## The Results

The supply chain transformation has led Lego to return to profitability in 2005 for the first time since 2002, and saved the company about $100 million, with more savings to come. Inventory turns have improved by at least 12%. It has gone from being well behind the competition in supply chain excellence to what it believes is a slight competitive advantage already in some area.

Just as importantly, Lego believes getting the supply chain right was essential to meeting other business challenges. "Getting the right product to the right place at the right time at the right cost was an important early step in grappling with an array of strategic challenges" for Lego, the article notes.■

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# Supply Chain Technology: Is the Vision of a Single ERP Simply a Beyond Realistic Expectations

## Complexity is a Killer, MIT Researcher Says; the Goal: Plug and Play Components

In the never ending debate about ERP versus best-of-breed solutions, and the value of enterprise software generally, **a recent article** in MIT's Sloan Management Review casts more doubt about the idea of a single enterprise system to manage the supply chain.

The problem is complexity. The greater the scope of a single dominant system, the greater the complexity of stitching the entire system together across multiple processes.

"These massive [ERP] programs, with millions of lines of code, thousands of installation options and countless interrelated pieces, introduced new levels of complexity, often without eliminating the older systems (known as "legacy" systems) they were designed to replace," says Cynthia Rettig, in the Sloan Review. "In addition, concurrent technological and business changes made closed ERP systems organized around products less than a perfect solution: Just as companies were undertaking multi-year ERP implementations, the Internet was evolving into a major new force, changing the way companies transacted business with their customers, suppliers and partners."

Notes the Wall Street Journal's Ben Worthen, "ERP systems are supposed to simplify business by giving companies systems with which store and track all their information– everything from employee records to customer orders to product inventory. Yet according to one study cited in the

article, 75% of ERP projects are failures — they either never worked, didn't work as intended, or were so unhelpful that different business units went out and bought their own alternative systems."

Some observers actually predicted this eventual state of affairs. In the late 1990s, an analyst at Forrester Research urged CIOs just implementing ERP at their companies to already consider their migration strategies to the next thing.

"In the end, ERP systems became just another subset of the legacy systems they were supposed to replace," Rettig writes.

## Can SOA Come to the Rescue?

In theory, a company software portfolio founded on Service Oriented Architecture (SOA) principles could provide more flexibility and less cost and risk.

In an SOA-based structure, different applications from ERP vendors, best-of-breed providers, and internally developed solutions, can interact at a more independent level, increasing flexibility and reducing complexity. The system does not have to work as a single, integrated whole, but, to use a perhaps overused analogy, more like a series of interchangeable Lego blocks that can be changed over time without disturbing the connected parts.

"The hallmark of Service-Oriented Architecture — one might reasonably argue its entire raison d'être — is the fundamental modularity of its software business processes" Rettig adds. "A self-contained business process adopts parts of the functionality from multiple enterprise applications to automatically complete a set of tasks. For example, a single business



***In an SOA-based structure, different applications from ERP vendors, best-of-breed providers, and internally developed solutions, can interact at a more independent level, increasing flexibility and reducing complexity.***

process might begin with an order from a customer on the Internet in a web services system and send it to manufacturing in an ERP system. The same business process would set up delivery in a logistics system and then send all the relevant information to billing in an accounting system as well as a customer relationship management system. Companies would build (or purchase) business modules for their core processes." (ERP vendors like SAP, Oracle, Infor, Microsoft and others have all been building SOA-based platforms for their enterprise solutions.)

That sounds like a much better world than the one most companies find themselves in – but getting there won't be easy. First, among both ERP and best-of-breed vendors, there is wide disparity in the level of real SOA-ness in the solution technology base. Second, most corporations themselves are simply very early in the SOA journey. Rettig cites recent research that found only 6 percent of companies have made it to the more advance levels of SOA infrastructure – a percentage SCDigest suspects is actually exaggerated. (See **Is Service-Oriented Architecture (SOA) Technology the Wave of the Future?**)

And by the way, Rettig also cites the mountains of evidence that the IT function is too often disconnected from the business – as if that's a surprise.

**Do you agree or disagree? Share your perspective by emailing us a feedback@scdigest.com**

## The Issue:

- Is ERP just to hard and complex to provide a single system to run a company's supply chain?

## Important Developments:

- Service Oriented Architectures do offer the promise of enabling a "lug and play' environment, so that an inflexible monolithic system is not required, but individual software providers (ERP and best-of-breed) are at highly varying levels of "SOA-ness," and corporations themselves are mostly very early in the SOA journey.

# Does the Charge of Railroad Gouging on Fuel Surcharges Hold Up Under Analysis?

## Data and Methodology from the Snavely King Report Look Sound; Is there Potential Trouble for the Truckers Too?

**The News**: The American Chemical Council last week released the report it commissioned from research firm **Snavely King**, which estimated that five Class 1 rail carriers operating in the United States had overcharged shippers by about $6.5 billion in excess fuel surcharges from 2003 through early 2007. (See **American Chemistry Council Report Charges Railroads With Overcharging on Fuel Surcharges to the Tune of $6.5 Billion Since 2003**.) SCDigest reviews the full analysis below.

**The Impact:** All told, we think the report and analysis do not smack of research sponsor bias and are on solid ground. Wherever possible, Snavely King used actual fuel surcharge revenue and cost data from SEC reports, and employed conservative estimates where the data was not available. The report also makes a strong case that the rail carriers may have been in part "double dipping," raising base rates due to rising operating costs that included increases in the cost of fuel, then also adding the heavy diesel fuel surcharges. It also makes clear the importance of understanding the fuel index upon which a carrier bases its surcharges – which for many are from as far back as 2002, meaning they have very low base fuel costs, leading to high surcharges.


While focusing on rail, we can't help but wonder if a similar analysis and potential legal action may also occur against trucking services providers, which some have also been accused of padding the bottom lines with surcharge revenue.

**The Story:** Against the backdrop of a somewhat questionable legal action against the rails charging abuse of the surcharge program (see **Shipper Suit Alleges Price Fixing by Rail Carriers on Fuel Surcharges, though Details are Questionable**), which seeks class action status that could enable hundreds of shippers to pile in, the Snavely King report (paid for by the American Chemistry Council) seems to be based on a simple but solid analytic approach.

It also comes after the Surface Transportation Board earlier this year prohibited rail carriers from using surcharge fees based on a percent of the freight bill. Now, for non-contractual carriage, the surcharges have to be based on a per mile or weight standard. (See **Surface Transportation Board Finalizes Rail Surcharge Regulations**.)

For the period in question, the researchers took the fuel costs reported each year by the five publicly trade rail carriers in their SEC statements. Two of those carriers (Union Pacific and Burlington Northern) also reported fuel revenues in those filings, while the others (Norfolk Southern, CSX and Kansas City Southern) did not. Snavely King used a conservative estimate of those carriers' fuel surcharge revenues for the full analysis – and as with any estimates, these could be challenged.

To estimate the alleged "overcharge," the research simply calculated the incremental cost of fuel for a given year over the previous year, versus the incremental fuel surcharge revenue for the same period. To the ex-

***To estimate the alleged "overcharge," the research simply calculated the incremental cost of fuel for a given year over the previous year, versus the incremental fuel surcharge revenue for the same period. To the extent the incremental revenue was greater than the incremental cost, it was deemed excessive.***

tent the incremental revenue was greater than the incremental cost, it was deemed excessive – and this approach identified $6.5 billion in such overcharges over the analytic time period (2003 through the first quarter of 2007, after which the STB ruling became effective.).

In fact, as the chart nearby shows, the analysis found rail carriers actually lost money on the cost of fuel versus the surcharges in 2003, made a slight profit in 2004, a larger profit in 2005, and then a giant p4ofit in 2006 – almost $4 billion between the five carriers.

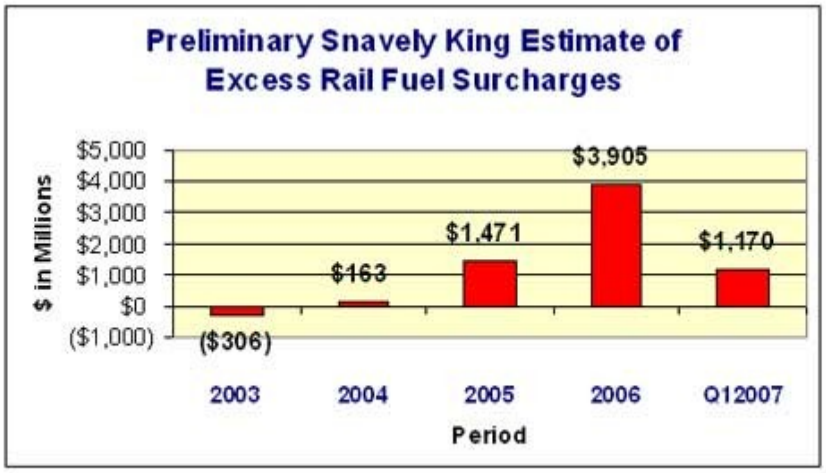
## Importance of the Base Index

The report also notes the importance of the base fuel index in establishing surcharge levels. Most of these carriers have been using base pricing from as far back as 2002. For example, Burlington Northern and Union Pacific have based their surcharges on diesel prices of $1.29 and $1.35 per gallon, respectively – a level not seen since 2002.

The other carriers use the price per barrel of West Texas Crude in their calculation, with a base of just $23 per barrel, again far below current levels and reflective of the market price in early 2002.

The report does note that recently, Norfolk Southern has adopted a new rate base of $64 per barrel.

## Are Rising Fuel Expense Built into Rates




Source: American Chemical Council/Snavely King

***The nearly $6.5 billion in alleged overcharges started small, then reach a peak in 2006 and Q1 2007, according to the report.***

The other key allegation of the report is that carriers have been in effect double dipping, as rising fuel costs have increased operating expenses used to justify overall rate increases, and then more than recovering from the fuel surcharges themselves.

"It is essential that an effective index accurately captures short term changes in fuel prices. Though rates are not cost based, the railroad has the ability over the long term to change rates in order to reflect changes in its operating costs," the report states. "Fuel as a percentage of operating cost has increased over the last five years, and railroads have considered those cost increases in proposing rates. Over time the fuel cost increases tend to be reflected in the base rate."

It continues: "Accordingly, often fuel cost increases experienced in earlier time periods have been made a part of the base rate. When fuel costs decline, the railroads could continue collecting a fuel surcharge compensating for incremental fuel cost they no longer incur. This is clearly an unreasonable practice."

## Not All Carriers Benefited Equally

While the $6.5 billion is calculated across all five carriers for the period, the alleged surcharges excess were not equally distributed across them. Burlington Northern, CSX, Norfolk Southern and Union Pacific are all alleged to have overcaptured in excess of $1 billion each during the period. Although much smaller than the others, Kansas City Southern (KCS) seems to have overcharged relatively less, and the report says that "It should be noted that from 2003 through 2005, KCS did not recover enough fuel surcharge revenue to cover the year to year increase in fuel costs under conservative estimates," though it says with more moderate estimates KCS did in fact book profits in that period.

## Will Truckers Be Next?

Rail carriers are probably more subject to legal claims than truckload and LTL carriers because they are more regulated as monopolies in many service areas. Nonetheless, this work may result in similar claims and analyses for the truckers as well, whom many have also accused on boosting profits from fuel surcharges.

An analysis earlier this year from researchers at investment bank Bear Stearns, however, estimated that truckload carriers were not much profiting from surcharge fees, but that LTL carriers might be booking some extra profits from the surcharges. ■

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**Do you agree or disagree? Share your perspective by emailing us a [feedback@scdigest.com](mailto:feedback@scdigest.com)**

# Global Supply Chain: Dollar's Fall, Growing Affluence Worldwide, Means Sourcing and Logistics Patterns Will Change

## After Years of Import Binging, Exports are Rising - as Will Offshore Supply Costs; Volkswagon Looks to Increase Production in the US as Dollar Loses Value

Supply Chain and logistics practitioners in the US might soon be impacted by the world of finance and economic policy, as the steep decline in the value of the dollar combined with growing affluence in other areas of the globe are likely to change sourcing and logistics patterns.

The likely result: higher levels of export logistics activity, and changes in the relative prices of goods from global sources.

### The Dollar's Steep Slide

For a variety of reasons, the value of the dollar has been drifting slowly downward against many foreign currencies over the past few years, before dropping even more sharply this summer.

For example, the dollar is at its weakest value versus the Euro since 1999; an index from the bankers at J.P. Morgan comparing the value of the dollar to a basket of the currencies of 16 large US trading partners is at a low not seen in more than 10 years.

Some expect further weakening. "I expect to see more and more weakening of the dollar in the coming months and years," predicts Princeton economist Alan Blinder, a former vice chairman of the Federal Reserve Board.



One exception: China, which maintains a fixed exchange rate versus the dollar. However, by doing that as the dollar declines in value elsewhere, it will make the sales of Chinese companies to the US less profitable, and should force many Chinese suppliers to raise prices.

### Get Ready for more Export Logistics

So what does this mean for supply chain and logistics professionals? The good news is that exports




from the US to the rest of the globe should increase, as US manufactured goods become relatively less expensive versus competitive sources.

Indeed, the US trade deficit has been shrinking significantly, as import volumes have slowed and export volumes surged in 2007.

The opportunity for exports is also enhanced by growing affluence in many parts of the globe, increasing their demand for globally produced goods. India and China continue to enjoy thriving economies, while the Russia, the Middle East and Africa are benefiting from strong oil and other commodity prices.

All this combines to suggest companies should be looking hard at export logistics processes and flows to ensure they can best capitalize on global market opportunities.

## Changing Sourcing Cost Dynamics

The changing value of the dollar will also mean the net prices of many offshore sources will increase – or in the case of China, may drive price increases from Chinese factories.

On the margin, this may mean some decisions to go offshore will not be profitable – a line that will continue to shift in favor of domestic production if the dollar does continue to fall further.

The Wall Street Journal, for example, reported last week that Volkswagon "is considering building cars in the U.S. again for the first time in nearly 20 years, as a way of reducing its exposure to currency fluc-

***The changing value of the dollar will also mean the net prices of many offshore sources will increase – or in the case of China, may drive price increases from Chinese factories.***

tuations. By making cars in the U.S., where costs and revenue are in dollars, companies help to insulate themselves from unfavorable exchange-rate changes." Volkswagon's has been losing money in North America, in part due to the Euro's strength against the dollar.

Perhaps importantly, the value of the Mexican peso has not changed much versus the dollar, meaning that some offshore work going to Asia may look more attractive south of the US border.

The decreasing value of the dollar is not all good news, of course, as it is likely to be accompanied by rising inflation and lower total economic growth, according to many economists. ■

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## The Issue:

- The falling US dollar and rising affluence in other parts of the globe are changing supply chain dynamics

## Recommendations:

- Relook at current offshore prices in light of relatively higher currency values in many companies
- Factor in potential currency changes in scenario analyses for offshore decisions
- Get export logistics top in top shape as export volumes may rise for many companies, sometimes to new markets

# Understanding Metro Store's RFID Timeline

## Long Journey of Retail RFID Pioneer Shows Its Staying Power - and How Long It Really Takes for New Technology to Find Its Place

Metro Group, the German retailer that is the world's firth largest merchant, has arguably been the most aggressive company on the planet when it comes to RFID research and deployment. It's "Future Store" in Dusseldorf, later recreated for the CeBit Conference in Germany, drew observers from around the globe hoping to understand Metro's vision for RFID and complementary technologies.

But that showplace was developed in 2003. Four -plus years later, Metro is just now starting to get real traction with its RFID efforts. The challenges along the way include:

Metro really operates three supply chains base on store type formats, each with unique requirements.

- Results from early EPC technology were mediocre, and the company had to wait for the so-called "Gen 2" readers and tags that would boost readability to be commercially available.
- Suppliers balked, facing costs with uncertain benefits
- Different standards for different product areas
- Consumer privacy groups protested certain elements of the company's RFID plans, certainly diverting some resources from the program and perhaps slowing some aspects down


To its credit, Metro has continued to push forward, most recently culminating in a series of announcements this summer, including plans for substantial tagging at the pallet level. But manufacturers and retailers would do well to understand the time lines generally associated with new technology – four years flies by very quickly.

## 2003

**April 28** – Metro opens its "Store of the Future," featuring broad use of RFID and other technologies. Inbound products have tags and are automatically received, the store uses "smart shelves" and self-check-out systems based on RFID, etc.

**July 3 –** Galeria Kauthof, Metro's Department Store chain, begins a pilot for RFID item-level tracking of apparel.

## 2004

**January 12 –** Metro says it will begin using RFID technology throughout its entire supply chain. Beginning in November 2004, approximately 100 suppliers initially will affix "Smart chips" to their pallets and transport packages for delivery to ten central warehouses and around 250 stores for all three of the companies formats (Metro Cash & Carry, Real hypermarkets, Extra supermarkets and Galeria Kaufhof department stores).

**March 5 –** Metro abandons use of RFID tags in its Future Store's loyalty cards, following consumer concerns over personal privacy issues. The company issues a position statement explaining that RFID will continue as planned, with the exception loyalty cards, which will use bar codes.

**April 2** – Metro says it is preparing for tagging at the carton level, which could happen as early as Q4 of this year. (It doesn't.)

***To its credit, Metro has continued to push forward, most recently culminating in a series of announcements this summer, including plans for substantial tagging at the pallet level. But manufacturers and retailers would do well to understand the time lines generally associ-***

**July 7** - Metro opens its RFID Innovation Center in Neuss, where its trading partners can familiarize themselves with RFID technologies before the roll-out scheduled to start in November 2004.

**Late 2004** – Metro has put RFID portal readers in just nine DCs and 11 stores, well behind the January schedule.

**November 2 –** Metro begins its RFID rollout, with 20 suppliers tagging a limited number of pallets for DCs and some stores across all three retail chains.

## 2005

**January 24 –** Metro says it is receiving expected benefits from initial RFID-based processes, and plans to roll out additional DCs and stores in March. Time frame for 100 suppliers tagging pallets is pushed back until end of 2005.

**October 11 –** Metro says it will start using EPC Gen 2 tags and readers in mid-2006

**Late October** – Metro launches EPC Global-accredited RFID test center.

## 2006

**January 16** – Metro, Procter & Gamble and IBM jointly release a a new research study that they say clearly quantifies the financial benefits of RFID implementation in retail and industry.


*Metro's Future Store in Dusseldorf*

**February 13** – Metro CEO Hans-Joachim Korber calls for a single global identification standard for EPC, saying a lack of such a standard is a factor in the lack of implementation progress.

**March 15 –** Metro has a "Future Store" display area at the huge CeBit Technology exhibit that received thousands of visitors.

**July** – Just 50 Metro suppliers are tagging a small portion of their pallets. The initiative is well behind schedule.

**October 26** – Metro says improvements in RFID technology will enable it to roll out dock door readers in 150 sites by mid-2007.

**December 6** – In a new research effort, Metro says it is testing active RFID tags on shipping containers moving to its German DCs from Asian ports.

## 2007

**March 28** – Metro says it will begin a pilot to track high value apparel items using UHF tags. The earlier tests for item-level apparel tagging used high frequency RFID tags.

**May 25** – Metro tells top suppliers pallet-level RFID tagging will be required on all shipments to 180 of its locations. Says case level tagging could begin in 2008.

**June 26** – Metro's investment in RFID gear gets serious, as it announces plans for major investments to support the supplier mandates of its own RFID data collection infrastructure.

**September 20** – Apparel pilot using UHF tags goes live Metro's Galeria Kauhof chain, with an entire floor of one store RFID-enabled. ■

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**Do you agree or disagree? Share your perspective by emailing us a feedback@scdigest.com**

# Understanding Supplier Price-Cost Management in Sourcing Part 2

## University of Wisconsin's Dr. Ed Marien Says You Have to Focus on the Difference Between Cost and Price

***Dr. Ed Marien*** *is currently president of Marien & Associates in Lodi, WI, and emeritus professor at the University of Wisconsin and director of its Supply Chain Logistics Management program. He has done a substantial amount of research and writing on a variety of purchasing and strategic sourcing strategies. He continues sharing his insight and perspective on the concept of "Supplier-Price-Cost Management" in part 2 of this interview with Supply Chain Digest. Part 1 is available at here:* ***Understanding Supplier Price-Cost Management in Sourcing***

**Supply Chain Digest:** How do the concepts we talk about last time – such understanding the difference between purchase price and actual cost, relate to strategic sourcing programs?

**Marien:** What you begin to do is to look at procurement decisions through a couple of specific filters.

The first is how critical the product or service is to the operations of the buying company. The second filter is to understand whether this is a buyer or seller's market and who is in control.

So, using these filters, you have to look at different price-cost models. I'll give you an example, using capital equipment. I know one utility company that has a cycle buying process where every year they replace four backhoes.

So once a year they bid these backhoes out. Part of the deal may be for the seller to take the old ones off their hands and dispose of them. But they have a full maintenance department, which will repair and maintain this equipment. So, purchasing goes out to alternative dealers and does a great job of getting bids and selecting sellers for this equipment, which might cost $150,000-250,000 each. Often, purchasing is using one of the reverse auction services to enable this process.

But the equipment has to be maintained, so the question is this: What sorts of parts and supplies inventories need to be kept to do that? What is the mix of brands and models across the equipment fleet, and how does the mix impact inventory lev-

els and overall maintenance costs? And if you really begin to take a big picture view of this, you may get into a single brand strategy and pursue a full lifecycle leasing and service contract with which the supplier does the service and the buyer eliminates some or all of the maintenance and inventory management functions.

**Supply Chain Digest:** Meaning finding the lowest total cost of ownership option?

**Marien:** Exactly. Many utilities companies, just to stick with that example, are looking at the cost of the maintenance function – the people, facilities, inventory, capital equipment, etc. Is there a lower total cost solution available?

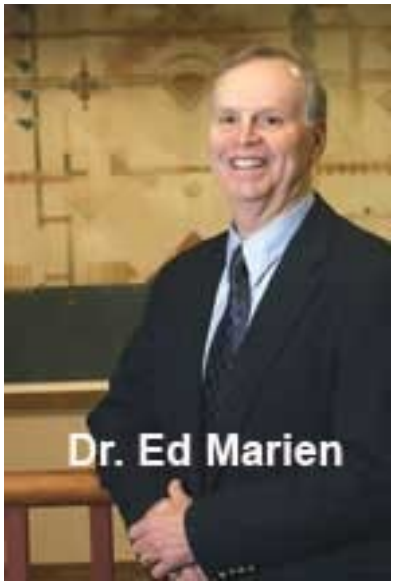
This may result in a changing strategy from a once per year, single bid type of approach to a single source, long-term strategy that may result in a lower total cost solution.

It may not be the lowest per unit cost, but it will be the lowest total cost to the company, and may result in increased equipment uptime at the same time.

In the traditional view, cost was associated directly with price – what the company paid for the backhoes. With Supplier Price-Cost Management, I may be looking instead at a lifecycle approach that evaluates total lifecycle system costs.

**Supply Chain Digest:** What is the "Sourcing Grid"?

**Marien:** It dates back to the 1980s, and relates to the two filters I mentioned previously. Many others have developed variations on this theme over the years. But the basic concept underlying all of them is pretty simple.




***"With Supplier Price-Cost Management, I may be looking instead at a lifecycle approach that evaluates total lifecycle system costs."***

**The Issue:**

- Companies often face high cost to material handling control systems after the original implementation

**Recommendations:**

- Insist on line-item detail to see if standard vendor pricing models are not appropriate for a specific modification
- Negotiate rights to the control source code at contract time to have another option, which provides negotiating leverage

On one axis, I look at to what degree the market for this product or service is characterized by buyer or seller control. In a buyer's market in which supply is plentiful, it may be a more commodity-oriented item with pricing being straightforward as the appropriate costing approach.

In a seller's market, the opposite tends to be true – constrained supply, differentiated products, and/or more complex pricing.

On the other axis, we look at how critical that product or service is to our business. What you wind up with is a two-by-two matrix that can help you organize how you are going to approach procurement of different goods and services.

For some items, we want to develop strong relationships with our suppliers, and examine the buyer's costs, the supplier's costs, and possibly intermediary costs together to design the lowest total cost solution, as well as define other performance metrics that address uptime of equipment and customer/user satisfaction.

**Supply Chain Digest:** If a product is commodity like, does that mean I should always just buy it like a commodity, very transactionally?

**Marien**: A couple of thoughts on that – first, the frequency of the purchase is another consideration. It usually just not worth the effort to put to much time in price-cost analysis or relationship development for infrequently purchased items.

Second, I may certainly want to look at total cost in detail even for very commodity-oriented items, rather than just considering the purchase price. Let's take something like office supplies, which in general are highly commoditized products.

But until recently, here at the

University of Wisconsin, as with many organizations, purchasing office supplies was a long and not easy process, with a lot of hand-offs. And we often had large pockets of inventory – mini-warehouses – all over the campus.

Now, we use a service that enables us to order the products easily, get them delivered quickly, and at very attractive prices. So, we took something very much in the commodity category – office supplies – where normally you might just go out and get the cheapest price, and took a much more strategic approach that lowers total cost and improves user satisfaction.

**Supply Chain Digest:** So what's the bottom line here?

**Marien:** The bottom line is to assess product/service criticality with the goal of calculating the value and payback of moving from commodity-type buys of products and services to strategic sourcing. Strategically, top management must review their buying processes and determine if they will allocate resources to strategic sourcing with suppliers for cost efficiencies and/or competitive advantages. ■

**Dr. Marien still leads a variety of seminars on sourcing, logistics and supply chain management as part of the University of Wisconsin's Executive Education programs (http://uwexeced.com/purchasing/default.htm). He can be reached at emarien1900@charter.net.**

**Do you agree or disagree? Share your perspective by emailing us a feedback@scdigest.com**