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SPECIAL REPORT

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Five Supply Chain Imperatives for Pharmaceutical Companies

The supply chain within the pharmaceutical industry is playing an increasingly important role to address new cost, performance, and quality challenges. As a result, pharma companies are following best practices of other industries like consumer goods and high tech to successfully run their outsourced supply chains.

By Patrick Lemoine, Vice President, Product Marketing, E2open

□ The pharmaceutical industry has been one of the best-performing industries of the past decades. Over the years, pharma companies learned to excel at many disciplines – research and development, manufacturing, sales and marketing – while at the same time maintaining the highest safety and quality standards. As a result, both sales and profits rose more than in most other industries.

Yet, in recent years, the industry has been facing significant challenges:

- The competitive intensity has significantly increased with the fast rise of generics. Overall, the product portfolio has grown more complex, with niche products and the need to serve new markets playing an increasingly important role.
- For over-the-counter (OTC) products, large drugstore chains are imposing the same high standards (e.g., on-shelf availability, promotions, etc.) as they do to

consumer products companies. As a result, the pressure to have the right product at the right time on the right shelf is more intense than ever.

- Healthcare providers and government reforms continue to put strong downward pressure on prices.
- Quality regulations, the rise of counterfeited drugs, and the serialization mandate are forcing pharma companies to make their

supply chains more robust to ensure full traceability.

All of this is putting new demands on the supply chain function to help address these challenges and bring the products to market in a cost-effective manner and with the highest service level. At the same time, pharma companies are increasingly relying on a global network of R&D partners, suppliers, logistics providers, and



contract manufacturing organizations (CMOs) to develop, test, produce, ship, and distribute their products. Using specialized outsourcing partners for key supply chain activities provides significant cost benefits and enables pharma companies to focus on their core competencies. Furthermore leveraging external partners also addresses the flexibility and response time requirements of the market.

Today, there is hardly a large pharma company that is not leveraging the benefits of outsourcing to some degree. Outsourcing has clearly paid off, with pharma companies being able to rely on specialized companies that can perform the work at a lower cost and, in many cases, do a better job at it. However, this new outsourced model brings additional complexity when it comes to addressing the product, cost, and quality challenges the pharma industry is facing. How do you tightly run a supply chain that is increasingly virtual? How do you run an outsourced supply chain when your ERP system has no data model to store inventory held at DCs managed by a third-party logistics provider or no visibility of your CMO's quality performance? How do you manage workflows that involve exchanging information back and forth with outside parties across the multiple tiers of your supply chain?

FIVE LESSONS FROM THE BEST

Leading pharma companies are following the successes of other industries like high-tech and consumer goods. In essence, there are five recommended courses of actions for pharma companies:

1. **Connect and collaborate using a business network.** This is the foundation to run a multi-enterprise supply chain. The modern approach is to leverage the cloud to connect electronically to all outside supply chain partners. With the software-as-a-service (SaaS) model, there is no need to force suppliers or CMOs to install, run, and maintain specific software applications. A cloud network provides a wide range of connectivity options, depending on the partner's technological maturity. Furthermore, to support this emerging outsourcing model that requires multiple actors to work in sync, these should not be point-to-point connections but a true, multi-tier network – connecting everyone, like the Internet does. Beyond the connectivity and end-to-end visibility that is enabled, collaboration capabilities are needed to support the business interactions between the different actors, routing the information in both directions as required by the business – like an ERP system but for the

entire supply chain. Without such a platform, it is almost impossible to enable the level of real-time visibility and coordination among all supply chain partners that is needed.

2. **Understand the true demand.**

Demand forecasts are only an educated guess of what the future demand will be. In reality, the OTC business is in many aspects no different from other consumer products businesses. So, the most innovative pharma companies are now doing what leading consumer products companies are doing: they are capturing vast amounts of demand-related information which is then fed into sophisticated demand sensing solutions to better predict true demand. This means going all the way to point-of-sale (POS) data or even using signals like weather forecasts or trends via social media – whatever data is relevant to the business. This improved demand picture then needs to be propagated to all supply chain actors, ensuring that the pharma company, suppliers, and CMOs are truly aligned. Consumer goods companies have realized higher on-shelf availability and lower inventories with such an approach.

3. **Control the quality at the CMOs.** In the pharma industry

which is heavily regulated and where quality is critical, companies need to ensure end-to-end traceability. When external parties such as CMOs are involved, this means pharma companies need to have visibility into their partners' manufacturing operations. It is indeed critical to track product quality across the multi-tier, multi-enterprise supply chain.

For this, companies connect to their CMO's manufacturing execution systems (MES) to capture relevant manufacturing

data at all stages of production. This provides the pharma company very granular factory transaction visibility to track material flows, lot genealogy, processing steps, and any associated parameters such as yields or test results – critical information to ensure traceability. This a key requirement for any serialization initiative.

4. Quickly re-plan across the network. A key requirement for pharma companies today is to quickly detect and respond to changes in the demand and supply picture. This requires visibility of the end-to-end supply chain, not only of the in-house operations. However,

even if companies are able to integrate all the up-to-date supply chain data in a complete end-to-end plan, traditional planning systems lack the fast problem resolution and decision support capabilities required to manage tradeoffs and iterate through multiple alternative what-if scenarios. Leading pharma companies are using state-of-the-art planning appli-

“A key requirement for pharma companies today is to quickly detect and respond to changes in the demand and supply picture.”

cations that give them rapid decision support with what-if scenario capabilities. These tools allow planners to rapidly evaluate the impact of new information – be it a supply disruption or an unexpected order – and easily compare alternative plans to select the best option to be shared with all supply chain partners impacted.

5. Better manage the distribution. Finally, on the distribution side, pharma companies are also increasingly relying on a range of external partners for transportation, warehousing, and other value-added services. Given how critical it is to ensure the right

supply of the right product at the right location, pharma companies are taking the lessons from consumer product companies and are tightly managing their distribution partners. In particular, this includes complete downstream inventory visibility and the support of different replenishment models. Leading pharma companies are also proactively managing

the allocations to the different channels, as real time as required. This is particularly important in the OTC segment, where pharma

companies need to optimally and profitably allocate the right products to the right channels and make reliable commitments when competing for shelf space at drugstore chains and pharmacies.

A SUPPLY CHAIN OPERATING NETWORK FOR PHARMA COMPANIES

The pharma industry is going through major changes and supply chain function has a key role to play to help address the new cost, performance, and quality challenges. Leading pharma companies have already developed new strategies that, to a large extent, leverage the experience of consumer product

companies while taking into account the specifics of the pharma industry. A cloud-based network to enable end-to-end visibility and collaboration among supply chain partners combined with dedicated decision support applications that leverage the data in this network is the best set-up for pharma companies to run

an increasingly outsourced supply chain. The early adopters are capturing a range of benefits, including:

- Up-to-date, end-to-end supply chain visibility – shared across all partners
- Full quality control of CMOs – as required for traceability and serialization

- Higher on-shelf availability, yet lower inventories
- Through smarter channel allocations, better margins but also higher ranking with channel partners – ultimately leading to higher market share ■

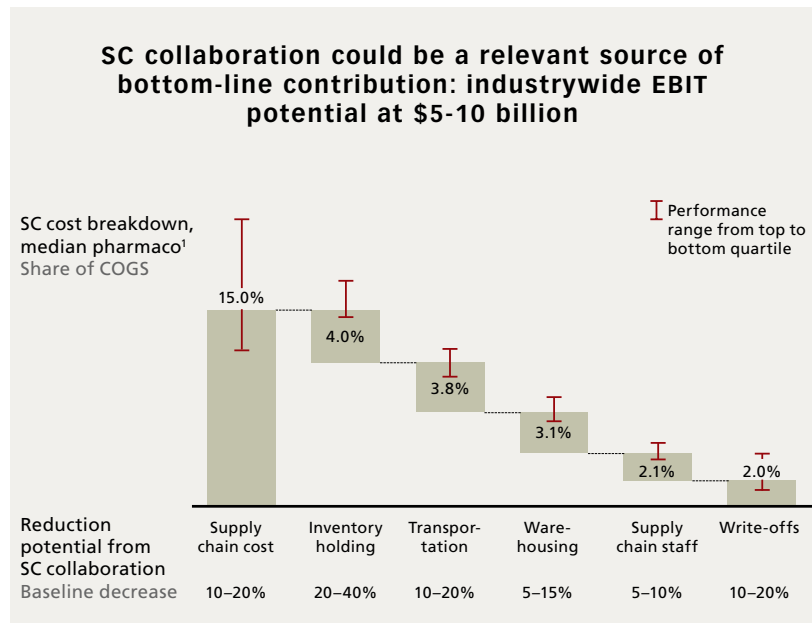
Unlocking the Value of Supply Chain Collaboration

An increasing focus on contract manufacturing can be expected to drive the need for more advanced cooperation models

By **Knut Alicke, Denis Fedoryaev and Patrick Oster, McKinsey & Company**

■ Supply chain collaboration is underleveraged in the pharma industry. Although other sectors, such as consumer and retail, have put more focus on managing their supply chain, most of Pharma’s collaboration efforts still center on the commercial side. However, as the results of a recent joint ECR/McKinsey collaboration survey indicate, in the near future industry executives anticipate an increasing focus on supply chain collaboration in such areas as demand planning and fulfillment or supply chain flows and processes. Given the dynamics of client discussions in health care, we expect this shift to take place in pharma as well. Today, less than half of the value chain in pharma is externalized,

FIGURE 1.



- Improvement potential across all main cost areas of 1.5–3.5% in COGS
- EBIT uplift in both Rx and Gx segments estimated at \$5 billion to \$10 billion

¹ SC cost COGS share and component breakdown vary depending on individual pharmaco SC performance; provided is indication of median industry performance

SOURCE: McKinsey POBOS Supply Chain, Evaluate, BMI, McKinsey analysis and expert estimates

which is considerably lower than in the automotive or aerospace industries where it reaches 70 to 80 percent. An increasing focus on contract manufacturing, however, can be expected to drive the need for more advanced cooperation models. This trend will be further accentuated by regulatory actions, such as the May 2013 U.S. FDA guidance for the pharma industry on quality practices in contract manufacturing arrangements. The consumer and retail, automotive, and high-tech industries have already seen examples of successful collaboration efforts, albeit each of them in its own distinct focus area:

- **Consumer and retail:** large-scale supply chain information sharing.
- **Automotive:** multi-tier demand and supply transparency.
- **High tech:** integrated planning, electronics manufacturers have successfully implemented integrated planning — spanning the entire supply chain.

Many large pharma companies embarked on creating supplier network platforms in the area of supply chain information sharing, but both the depth of data exchange and the level of integration remain low. Better examples of supplier collaboration have been seen with contract manufacturing organizations (CMOs) established as pharmaceutical plant spin-offs.

Demand-and-supply transparency is also weak within the sector. While principles underlying supply chain collaboration in other industries are applicable to pharma, additional constraints are imposed on the industry by the uniqueness of the pharma supply chain. These constraints are numerous and start with pharma’s stringent regulatory requirements that impose strict product availability requirements, long lead times associated with switching suppliers, and high

complexity in change management because master data are extensive; they must be absolutely accurate at all times.

CONSTRAINTS AND COMPLEXITY

Most understand pharma supply chain networks are increasingly complex. Pharma’s specialized supplier base — focusing on concrete therapeutic areas as well as particular production steps, combined with a fragmented network of

FIGURE 2.

Set of SC collaboration levers revolves around four key areas: planning, inventory management, inbound and outbound processes, and logistics

(NOT EXHAUSTIVE)

MAIN COLLABORATION LEVERS	
1 Collaborative planning	1. Joint review and setting of 1 base planning parameters 2. Joint demand and replenishment planning (CPFR) 3. Data sharing on supply constraints and demand peaks 4. Integrated planning automation and end-to-end information flow optimization 5. Joint improvement initiatives on forecasting accuracy and plan adherence 6. Joint SC business plans and shared SC KPIs 7. Embedded planners at key partners 8. Multitier transparency of demand and supply
2 Collaborative inventory management	9. Vendor-managed inventory (VMI) 10. VMI peer collaboration 11. End customer demand segmentation and tailoring of replenishment schedules and levels and locations of inventory (e.g., based on sales velocity and volume) 12. Joint definitions of SKU allocation rules for make-to-order vs. make-to-stock production modes 13. Consignment stock arrangements
3 Collaborative inbound and outbound processes	14. Packaging material optimization (improving handling efficiency) 15. Standardization of packaging units, handling containers, label information 16. Shipment and bundle size optimization 17. Serialization and traceability 18. Establishing information exchange processes for, e.g., advance ship notice, electronic invoices, smart labels
4 Collaborative logistics	19. End-to-end modeling of distribution network , including transportation routes, warehousing configuration, 20. Sharing of logistics facilities and transport (e.g., truckload split, backhauling) 21. Leveraging partner network and transport for direct deliveries 22. Joint optimization of logistics operations (e.g., speed-docking, green trucks, energy efficiency) and delivery modes (FTL/LTL freight optimization — direct delivery, local and remote milk run, cross-docking) 23. Joint peer LSP management and setup 24. City logistics: better consolidation of deliveries to end customers and convergence of manufacturers’ and wholesalers’ order quantities and frequencies

manufacturing plants for different purposes (e.g., formulation, bulk, primary packaging, secondary/tertiary packaging for market access) — fuels complexity.

SKU complexity is becoming more pronounced, with the average number of SKUs per packaging line increasing. Different technologies, dosage forms, packaging sizes, and numerous country-specific

are all the more reason to improve collaboration. The high product availability expectations that put increased pressure on the customer service levels would also be substantially improved via collaboration. In sum, we see no reason why supply chain collaboration in pharma could not be as successful as in other industries once prerequisites are in place.

local-market specifics, the main “customers” of most pharmaceutical manufacturers are likely a wholesaler, a pharmacy, a retailer or a hospital, which can make supplier collaboration tough. Intermediate warehousing and distribution points within these networks could be managed via distributors or logistics services providers (LSPs). Customer collaboration in pharma is virtually nonexistent. The willingness to collaborate was also dampened on the wholesaler end after industry players started switching to direct-delivery models on above-average wholesaler mark-up products, resulting in wholesalers losing business to LSPs or having to offer less profitable LSP services.

“The industry-wide potential impact of supply chain collaboration amounts to \$5 billion to \$10 billion in earnings before interest and taxes (EBIT) improvement.”

requirements are just a few parameters driving SKU complexity. The growing trend toward more personalized medicine has become a contributing factor as well.

As opposed to the consumer and retail or high-tech sectors, where manufacturers most often deliver to retail distribution centers, the immediate Pharma customers are predominantly wholesalers. These intermediaries effectively impose another layer of uncertainty on the supply chain, making demand forecasting and logistics optimization more challenging.

Long lead times in switching suppliers or strict product availability requirements, for example,

THREE DISTINCT OPTIONS FOR PHARMA

The taxonomy of external-collaboration models for pharma companies encompasses the following three distinct options: supplier collaboration, customer collaboration and peer collaboration. Selection and management of suppliers can drive the performance of the entire supply chain down to end customers. As such, it should be a key topic for pharma external-supply departments, perhaps even in the context of a broader cross-functional supplier development program.

Depending on the market size, regulatory requirements and

The primary example of peer collaboration is PharmLog in Germany, a joint venture set up by six major Pharma companies. Joint venture activities include a wide range of shared distribution and warehousing functions including order and stock control, receiving and storage, picking and packaging, batch control, repackaging, etc.

CASE FOR SUPPLY CHAIN COLLABORATION

The value of supply chain collaboration already demonstrated in other industries ranges from working capital improvement and cost reduction to decreased spending and higher sales. It also fosters

revenue growth through better on-shelf availability and flexibility to address demand changes. Collaboration can generally have a positive impact on a wide range of supply chain performance metrics, including service level (supplier and customer), stockouts, order changes, forecast accuracy, production planning accuracy, lead time, flexibility and agility.

While improvement of service

higher cost share. Results of this magnitude require that prerequisites are in place, the right approach is chosen, and the most critical levers are engaged. Given today's industry size of about \$900 billion in the combined originator (Rx) and Gx segments, as well as the current cost structure, the industry-wide potential impact of supply chain collaboration amounts to \$5 billion to \$10 billion in

and the drive for cross-functional collaboration.

As mentioned earlier, full-scale customer collaboration programs have not taken off in the pharma industry. One recent noteworthy initiative is the launch of a global forecasting excellence program by a major Gx player, which includes a joint forecasting pilot with a select customer. The impact is yet to be shown.

“Before launching any collaboration, a company should first run a comprehensive optimization of both supplier and customer footprints and define its strategic partners in both pools.”

level or product availability generates significant value on its own, the financial benefit of collaboration can be expected from reducing the five main supply chain cost buckets: inventory holding, transportation, warehousing, supply chain staff and write-offs (See Figure 1).

COSTS

Pharma supply chain costs vary depending on individual supply chain performance. McKinsey estimates that the full reduction potential from supply chain collaboration across all main cost buckets could achieve around 1.5 to 3.5 percent COGS improvement. This is especially relevant for generics players that have a significantly

earnings before interest and taxes (EBIT) improvement.

Following a successful procurement transformation, a global pharma company launched a supplier collaboration program to deliver value-driven savings beyond pure price reduction. Several supplier pilots were launched, with the following outcomes: 50 percent reduction of inventory, 15 percent European transport cost decrease, 17 percent packaging-material cost reduction, and 20 percent capacity increase for filling operations. Success was attributed to the careful design of program architecture and approach, thoughtful selection of the right suppliers for the pilots, dedication of company resources to supplier capability building,

HOW TO MAKE COLLABORATION INITIATIVES WORK

To increase the odds of achieving significant benefit, it is crucial to ensure, prior to launching an initiative, that the prerequisites for collaboration are in place and that the right approach is being applied. There are five critical prerequisites that management should consider before launching collaboration efforts.

1. Commitment and resources:

Collaboration should be positioned as a strategic priority with explicit senior-level commitment and accountability from partners. There must be available resources to form a

joint, dedicated supply chain team, with involvement of other functions.

2. Data exchange mechanism:

The sharing mechanism should be realized by setting up an independent clean team to ensure confidentiality. In later stages, it should be transformed into the IT interface with clear governance rules.

3. Value-sharing scheme:

The sharing of benefits, costs and risks should be clearly defined up front. This is particularly true for situations when value cannot be directly attributed to the collaboration initiative or when a performance metric improvement is difficult to translate into the financial equivalent.

4. Performance tracking:

Performance of the collaboration initiative should be tracked via jointly determined metrics with clear measurement processes that are well understood and

transparent to partners. The performance-tracking system should feed the value-sharing scheme.

5. Program architecture: While the launch of a collaboration program can represent several pilots with suppliers, customers and peers, in the end there must be a structured project approach to each collaboration initiative.

Another important factor for success is selecting the right partners. Unlike companies in many other sectors, even the top players in pharma cannot claim a good understanding of their upstream and downstream strategic partners. Before launching any collaboration, a company should first run a comprehensive optimization of both supplier and customer footprints and define its strategic partners in both pools.

The set of potential supply chain collaboration levers is broad and dependent on specific

circumstances and roles. There are, however, four main areas where supply chain collaboration can deliver high impact: planning and forecasting, inventory management, inbound and outbound delivery and handling processes, and logistics setup (See Figure 2). Most of the levers described in each area are applicable across all supply chain collaboration models:

Despite cultural and trust hurdles with external parties and relatively long time-to-impact, supply chain collaboration can clearly offer substantial benefits. This is particularly the case in the cost areas of inventory holding, transportation and warehousing, supply chain staff, and write-offs. To achieve benefits, however, it is important to ensure that the fundamental prerequisites — such as commitment and resources, data exchange mechanism and value-sharing scheme — are in place and that the most critical collaboration levers are engaged. □

Building Strengths in Healthcare Supply Chain

As operations become more complex, even small improvements in efficiency can translate into huge savings

By **Thomas Ebel, Katy George, Erik Larsen and Ketan Shah, McKinsey & Company**

□ Products, markets, regulators and patients are making new demands on pharmaceutical and

medical device supply chains, from the factory floor to the bedside, and these demands are increasing

at an accelerating rate. For example, McKinsey's proprietary POBOS benchmarks suggest that

complexity, as defined by number of SKUs per packaging line, has increased by more than 50% over the last 5 years. The industry's current supply chain model will not be able to meet these challenges forever, forcing companies in the sector to develop new capabilities and new ways of working in order to transform speed, efficiency, flexibility and reliability across the entire value chain.

Better supply chains won't just allow pharma and medical device companies to tackle the issues they face today. Higher supply chain performance has significant and strategic benefits for pharma and medical device companies. First, it can reduce costs, by shortening manufacturing lead times, slashing inventory levels across the value chain, and cutting product obsolescence. Second, it can improve access, reducing drug and device shortages in developed markets and delivering affordable healthcare to millions more people in emerging markets. Third, it can transform safety, by making it harder for counterfeit products to enter the supply chain and reducing the human and financial toll of medication errors.

We estimate that end-to-end supply chain expenses (including conversion cost, warehousing and distribution, inventory carrying cost and obsolescence cost) now represent nearly 25% of the pharma value

chain costs and more than 40% of the medical device value chain costs. The annual spending is so vast — about \$230 billion in pharma and \$122 billion in medical devices — that even minor efficiency gains could free up billions of dollars for investments in other areas. Our analysis suggests that, just by adopting some straightforward supply chain advances that are already well established in other industries, the healthcare sector has the potential to improve its margins by \$130 billion. With greater collaboration across the value chain, the impact of supply chain innovation in healthcare could be even larger.

A NEW HEALTHCARE SUPPLY CHAIN

A typical Asian laptop manufacturer can accept an order on a Monday and deliver a pallet of freshly assembled computers to a European customer on Tuesday of the following week.¹ A typical pharmaceutical manufacturer can take an order for blister packs of pills and deliver them in about 75 days.

How can medical device and pharmaceutical manufacturers develop the superior supply chain capabilities currently enjoyed by fast moving consumer goods companies or consumer electronics manufacturers? We have found that most need to strengthen capabilities in five key areas: segmentation,

speed, measurement, alignment and collaboration.

The first three of these are “internal” capabilities that companies can develop by themselves. The last two, potentially the most powerful, require them to work together with their customers, their suppliers and even their competitors.

1. Segmentation. Many pharma and medical device companies are close to running one-size-fits-all supply chains. Where they do differentiate between product lines, it is often only for cold-chain products. In practice, however, profitability, value density, demand variability, criticality to patients and the cost and service expectations of customers can all vary significantly. These differences can have a profound effect on the optimum planning, production, inventory carrying and logistics processes for different products, markets and customer groups.

Leading companies, in the healthcare sector and others, are now tackling these problems by intelligently segmenting their supply chains according to differing product characteristics and customer requirements. They then develop appropriate forecasting, production, inventory and distribution strategies for each category.

2. Speed. In the changing pharma and medical device environment,

using high inventory levels to maintain service is becoming a costly and ineffective approach, but it is still the one adopted by the majority of healthcare players. Typical replenishment times in the sector are around 75 days, with the best pharma players achieving 30. High inventory levels hide other problems, too, reducing the incentive to improve manufacturing efficiency and leaving companies with large quantities of obsolete or defective stock on their hands when things go wrong. Our research shows that obsolescence alone wastes \$51 billion globally per year across the healthcare sector, for example (mainly at providers and manufacturers).

There is plenty that companies can do today, even with existing manufacturing processes, to greatly improve their supply chain speed. Closer collaboration with customers can help improve forecasting and provide better transparency of real demand. Sharing forecast data with suppliers can help too, ensuring that production is not delayed by shortages of packaging materials, for example. Companies can increase their production frequency, shifting the average for a majority of their SKUs in packaging from once in 2-3 months to once every 2 weeks, for example. This can go along with shortening the “frozen” planning windows from 3 months to 3 weeks,

allowing faster market supply and best use of available demand data. In addition, optimum selection of routes, transport modes and delivery frequencies can accelerate the movement of product between production sites, regional distribution centers and end customers.

3. Measurement. Any systematic attempt to improve a business process requires companies to understand their current level of performance. Many pharmaceutical manufacturers still struggle to

obtain sufficient transparency on supply chain metrics, however. The challenges are diverse, including a lack of standard definition of key metrics, different calculation approaches in local systems, and a lack of central data transparency. While metrics like inventory reach, forecast accuracy, and customer service level are mostly available, there is a particular need to improve the transparency of key structural drivers or capabilities. Responsiveness (for example, replenishment lead time); manufacturing frequency; supply reliability (shown by production or supplier service level); and stability (for

instance, share of rush orders, planning accuracy) are often not systematically measured or managed across the network.

Another area where transparency can translate into bottom-line benefits is cost-to-serve. Pharmacos need to build transparency on their total cost of supply, including conversion, transport (inbound, interplant, primary/secondary distribution), warehousing, inventory holding, staff and obsolescence. This enables both operational cost savings and optimization of

“Performance transparency is a key building block on the journey to a new healthcare supply chain.”

route-to-market approaches and product portfolios.

Performance transparency is a key building block on the journey to a new healthcare supply chain. Upping the game isn’t just about IT investments. It requires particular attention to cross-functional alignment and operational discipline.

4. Alignment. Imagine a future where manufacturers could monitor real-time patient demand changes and shift their production schedules accordingly; hospitals and pharmacies knew exactly where short-supply devices and

drugs are and when they would be delivered; and regulators could recall adulterated products with accuracy from every point in the supply chain. Unfortunately, in today's world, manufacturers and their trading partners struggle to deliver "perfect orders" and spend countless hours chasing down errors in financial transactions and cleaning up the orders they receive from customers.

The healthcare industry must align around a single set of global data standards that support the processes and capabilities required to cost-effectively achieve the kinds of benefits we describe in this article. The grocery industry has demonstrated the value of this kind of global data standards alignment with its adoption of GS1 standard barcodes, a change which was nothing short of revolutionary and has created billions of dollars in value. While new processes, tools and systems were required to deliver this value, data standards were a critical prerequisite. The healthcare industry is still to adopt a common global data standard, but that may have to change if the industry wants to reap similar benefits as in the grocery sector. Without a single, global data standard, tackling the challenges of product complexity, global reach and improved supply chain safety and security will be significantly more costly and difficult

for pharmaceutical and medical device companies.

5. Collaboration. Effective, transparent communication through the use of common standards is part of the challenge for true end-to-end supply chain integration, but as in other sectors, different players in the supply chain need to find ways to collaborate more effectively on the basis of that data in order to reap the full potential benefits.

For example, when two channel partners in the healthcare industry embarked on a recent collaborative project to improve supply chain performance, they were able to identify opportunities to reduce their joint inventory by 20 percent while still increasing service levels enough to deliver a predicted 1% increase in revenues.

Often, the key barriers to such collaboration are not technical, but cultural. In the example above, just getting to the collaboration table was the most significant challenge for the two companies, which had previously had a primarily transactional relationship. Making the collaboration work required great care in determining how it would be managed and how benefits would be shared, with considerable involvement from senior managers to overcome roadblocks. But as a result of the process, the two companies now enjoy a closer and more

open working relationship, laying the foundations for future collaborations in other areas.

Many companies struggle to create any significant impact in their efforts to improve supply chain performance because they limit their change efforts to functional silos, like manufacturing, warehousing or logistics. In practice, the supply chain function is one of the most cross functional of all business processes, and any attempt to drive improvement must also be cross functional in nature. The most successful supply chain improvement efforts make strenuous efforts to overcome the problem of local optimization, often by using an integrated "control tower" approach, in which a small group of leaders from across the organization work closely together to identify opportunities for performance improvement and to capture them by driving change quickly though the entire organization.² One company that had initially failed at reducing inventory, subsequently achieved 23% inventory reduction while improving service levels with this approach.

In 1975, the business case for barcodes in the grocery business estimated the annual benefits to the industry at \$400 million. Twenty years later, research showed that the benefits exceeded \$16 billion³, thanks in part to almost universal adoption of barcode

standards and the enormous value of point-of-sale data gathered and shared electronically.

Given the synergies of teamwork, technology and imagination, the global healthcare system is likely to benefit from advances we can't foresee today, just as the grocery

industry has from what began as an approach to speeding checkouts.

RESOURCES:

1. *Evaluate, CPAT, BMI, OECD, EFPIA, HRI, Espicom corporate reporting; POBOS, McKinsey analysis.*

2. *“17 Billion Reasons to Say Thanks: The 25th Anniversary of the UPS and Its Impact on the Grocery Industry” (PWC, 1999)*
3. *“17 Billion Reasons to Say Thanks: The 25th Anniversary of the UPS and Its Impact on the Grocery Industry” (PWC, 1999) □*

ADDITIONAL RESOURCES:

E2open Manufacturing Visibility Solution Brief

Leading supply chains increasingly depend on contract manufacturers for a significant amount, if not all, of their production of goods which introduces several supply chain challenges. Learn how E2open's Manufacturing Visibility solution enables end-to-end visibility and helps companies track, trace and manage quality across their entire supply networks.

Push to Pull: From Supply Chains to Patient-Centric Value Networks

A patient-centric model senses demand, and also shapes demand, across the healthcare ecosystem at a granular level—translating the analyses of patient and treatment data into insights, patterns and signals that indicate what supply-side

products and services are needed, when and where. This Accenture report explains why life sciences companies must move away from the traditional product “push” of supply and instead focus on the “pull” of the needs and wants of patients and healthcare providers.

Webinar: Best Practices For Life Science Companies

Supply chain management is playing an increasingly important role for the pharmaceutical industry - an industry that is facing new cost, performance, and quality challenges. As a result, many pharma companies are following approaches that have proven successful in other industries such as consumer goods. In this webinar, Patrick Lemoine, VP of Product Marketing at E2open, will address five best practices you should start looking into if you haven't already.