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The Transportation Management Benchmark Report

*The New Spotlight on Transportation Management and
How Best in Class Companies Are Responding*

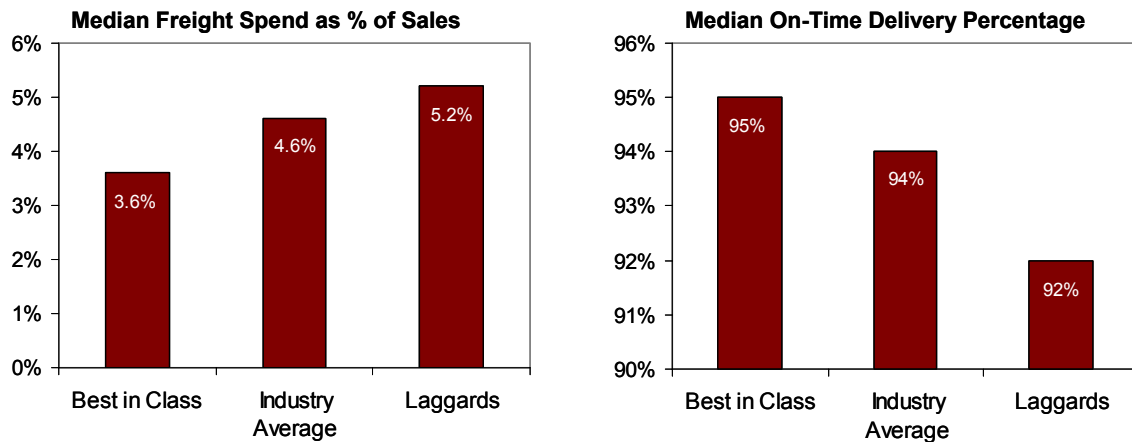
September 2006

Executive Summary

Transportation management is moving out of the shadows and into a strategic role in driving supply chain excellence. In recognition of this, most companies are actively re-evaluating their transportation management processes, organizational structure, and technology. More than **three-quarters** of transportation executives surveyed by Aberdeen have been asked to make recommendations for transportation process improvement in just the past six months. Nearly **two-thirds** have also recommended improving their transportation management technology.

Companies that are Best in Class in transportation management have been able to decrease their total freight budget over the past two years (discounting changes in sales volume). By comparison, 82% of all respondents saw their freight costs stagnate or increase. Across all study participants, the average increase in freight budgets over the past two years has been 10%. As Figure i shows, the Best in Class also lead in other key metrics, including a **69% advantage** in transportation spend as a % of sales over Laggards.

Figure i: Best in Class Performance Advantages



Source: AberdeenGroup, September 2006

Key Findings

Domestic outbound transportation no longer dominates the transportation agenda. Inbound freight and international shipments are gaining focus. Other study findings:

- **Four times more** firms are planning to adopt commercial transportation management applications vs. build systems in-house. **Nine out of 10** companies are concerned that their current transportation technology will not meet their future needs.
- **Fully 54%** of respondents now provide other departments with online transportation cost and status information, up from 31% in Aberdeen's 2004 study.
- **The Best in Class are twice as likely** to do daily scorecarding and share tactical capacity forecasts with carriers; they also control a greater % of inbound freight.



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Chapter One: Issue at Hand

Key Takeaways

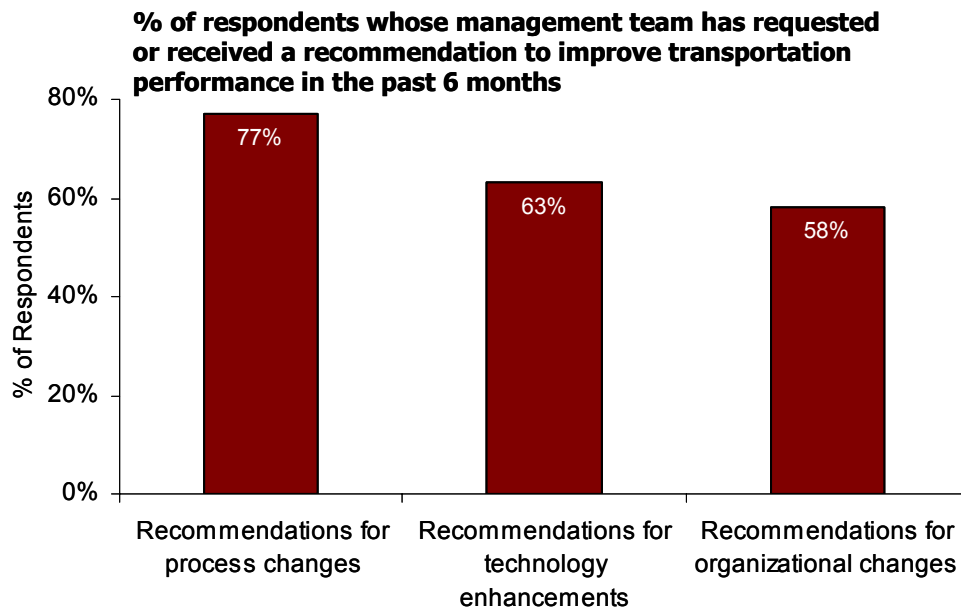
- There is **increasing awareness** of the cost and service impact of transportation on overall supply chain performance.
- Most companies are seeking to **improve three dimensions**: process, technology, and organizational structure.
- **Fully 91% of companies are concerned** that their current transportation management technology will not meet their future needs.

We are entering an intensely challenging time for supply chain managers to deliver on the transportation expectations of both their internal and external customers. In recognition of this, most companies are actively reevaluating their transportation management processes, organizational structure, and technology.

Aberdeen's benchmark of 173 manufacturers, distribution organizations, and retailers in August 2006 finds that more than three-quarters have been asked to make recommendations for transportation process improvement in just the past six months. As Figure 1 shows, nearly two-thirds have also recommended improving their transportation management technology. And a majority has made suggestions on reorganizing the transportation department, typically to increase centralized planning or break down the barriers between international, domestic common carrier, and private fleet operations.



Figure 1: Most Companies Are Acting to Improve Transportation Management



Source: [AberdeenGroup](#), September 2006

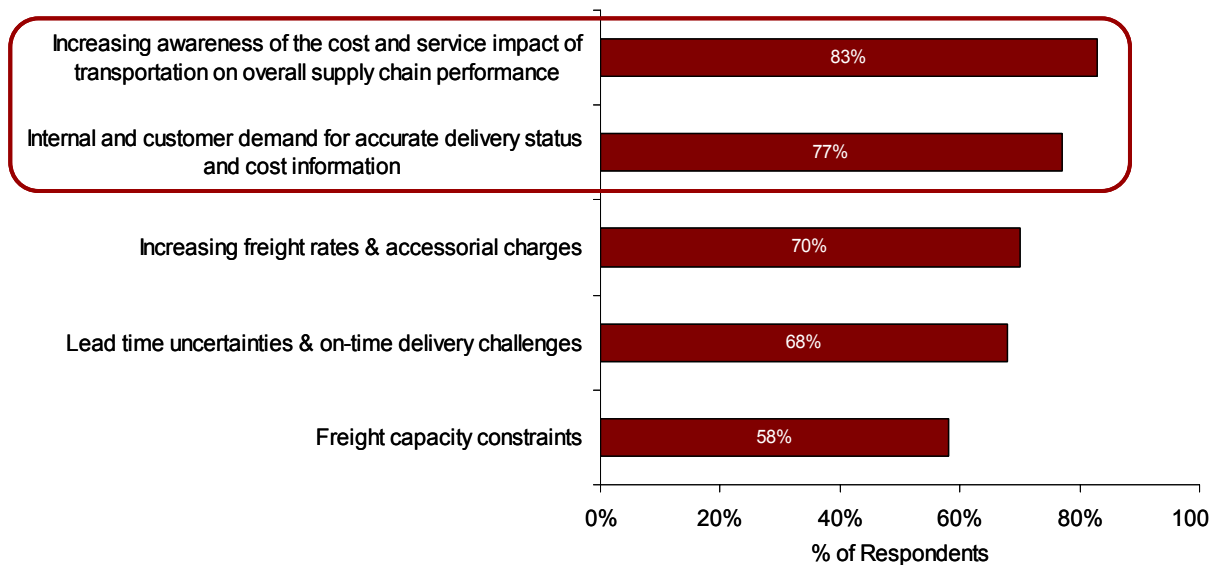
Large companies are even more active: 89% of enterprises over \$1 billion say transportation technology recommendations have been made or requested, and 94% say process recommendations are being considered.

Top Drivers for Transportation Management Improvement

Why are supply chain organizations and their executive management so concerned with transportation management today? Rising freight rates, higher fuel costs, and constrained transportation capacity may be the most obvious drivers, but the Aberdeen study finds that these pressures are, in fact, *not* the top reasons companies are focused on transportation management improvement.

Rather, 83% of companies cite an increasing awareness of the cost and service impact of transportation on overall supply chain performance. In other words, transportation is no longer seen as an isolated budget line item to be monitored but as a critical component of overall supply chain excellence (Figure 2). Likewise, more than three-quarters say that they are driven to improve their transportation processes because of internal and customer demand for accurate delivery status and transportation cost information. This information is increasingly important to making better execution and strategic decisions throughout sales, purchasing, manufacturing, logistics, and finance operations.

Figure 2: Top Pressures for Improving Transportation Processes



Source: AberdeenGroup, September 2006

Transportation organizations are gaining new success and respect by transforming themselves from tactically oriented traffic departments to full partners in supply chain strategy decisions. Likewise, transportation technology is evolving from a departmental level shipping system into a crucial information hub for end-to-end supply chain operations.

The fact that seven out of 10 companies have seen their freight budgets increase since 2004 is acting as an accelerator to transportation reinvention. “I knew that times had changed when I went out to lunch with a transportation carrier’s sales representative – and I picked up the check,” says the transportation director for a \$600 million salt and specialty fertilizer company.

Small, midsize, and large companies are about equally likely to be experiencing these budget increases. On average, study participants report they have experienced an increase over the past two years of 14.5% in truckload rates, an 11.5% increase in both less than truckload rates and ocean rates, and a 15.1% increase in international air rates.

- “We’ve been able to keep our rate increases to only 1.8% since 2004,” says the transportation manager at a \$2 billion retailer. “But it’s still hard to explain to executives that this is good!”

Chapter 2 documents the tactics used by Best in Class companies to achieve freight budget decreases in this time of carrier rate increases.

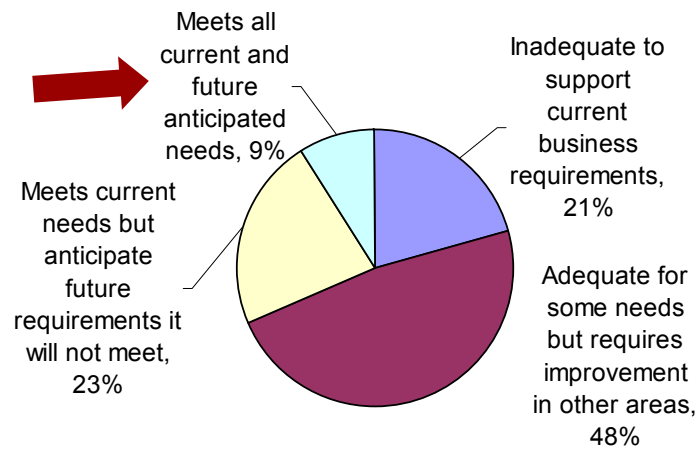
The Cracks Are Showing in Current Transportation Technology

Study results show that most companies are coming to grips with the fact that their legacy ERP or homegrown transportation management technology will not be adequate to take them forward. Fully 69% say that their current transportation management system cannot meet all their current needs, and 91% say it won’t support their anticipated future



requirements (Figure 3). Chapter 3 analyzes technology advances that are increasing companies' success rates with new transportation management technology.

Figure 3: Most Companies Aren't Satisfied with Their Transportation Technology



Source: [AberdeenGroup](#), September 2006

Today, a third of study participants rely primarily on commercial transportation management systems, with another 31% citing plans to migrate to commercial applications. These are similar adoption intentions to Aberdeen's 2004 transportation study, suggesting that the recent uptick in commercial transportation management software sales will continue.

Chapter Two: Key Business Value Findings

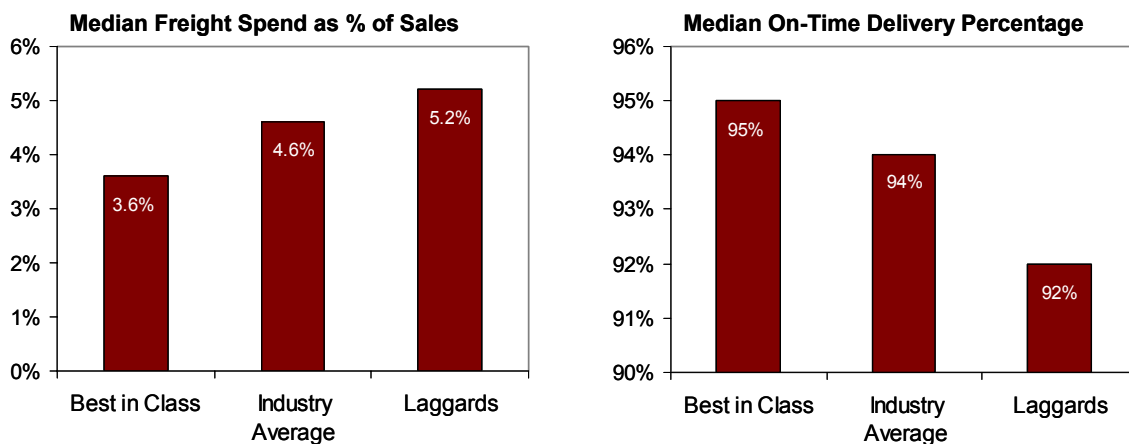
Key Takeaways

- Best in Class have lowered their freight spend since 2004 and enjoy a **69% advantage** in transportation spend as a percentage of sales over Laggards.
- Best in Class have a **3 percentage point advantage** in on-time delivery performance over Laggards.
- **A major shift** in focus by many transportation management organizations is that out-bound domestic transportation no longer dominates the transportation agenda.

Companies considered Best in Class in transportation management have been able to decrease their total freight budget over the past two years (discounting changes in sales volume). By comparison, 12% of respondents saw their freight costs stagnate, and 70% saw them increase. Across all study participants, the average increase in freight budgets over the past two years has been 10%.

The Best in Class are about evenly split between enterprises with over \$1 billion in annual revenue and with small and midsize firms. Industry Average companies are defined in this study as those companies that have experienced flat or slightly increasing freight budgets. Laggards have seen freight budgets increase by more than 10% since 2004. As Figure 4 illustrates, the Best in Class lead in a number of important areas, including a 69% advantage in transportation spend as a % of sales (revenue) over Laggards.

Figure 4: Best in Class Performance Advantages



Source: AberdeenGroup, September 2006

Best in Class Practices

The study results show that the Best in Class take notably different actions than their peers. For instance, they are the most likely to have centralized transportation procure-



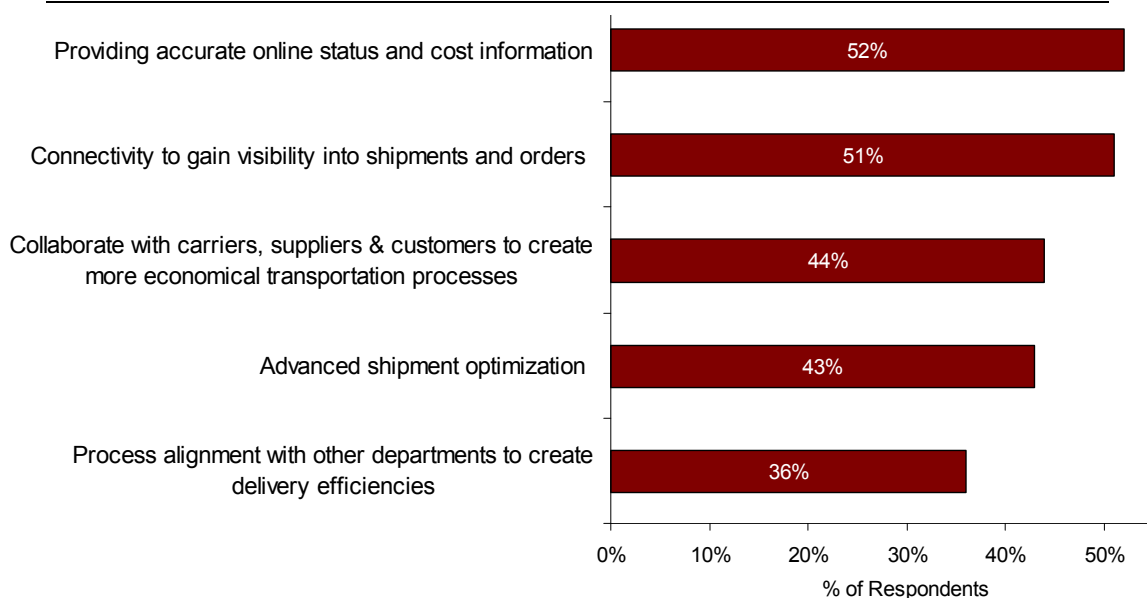
ment and contracting across their entire company, as well as to have centralized domestic transportation planning and international transportation execution. In addition, the Best in Class:

- *Are more likely to use commercial transportation management applications*
- *Share transportation information more effectively internally and with customers*
- *Control a greater percentage of inbound freight*
- *Have better visibility to transportation costs*
- *Are twice as likely to be using shared shipping schedules (e.g., backhauls or closed-loop tours) across internal divisions or locations, as well as with other companies*
- *Are twice as likely to be sharing tactical capacity forecasts with carriers*
- *Are two times more likely to be doing daily transportation scorecarding*

Keys to Transportation Management Success

When asked to select the top three most important actions for achieving transportation management success at their companies, study participants highlighted these key areas: online information sharing, connectivity, and collaboration (see Figure 5). All these areas are enhanced by modernizing a company's transportation management technology to Web-based solutions built for information management.

Figure 5: Most Important Actions for Transportation Management Success

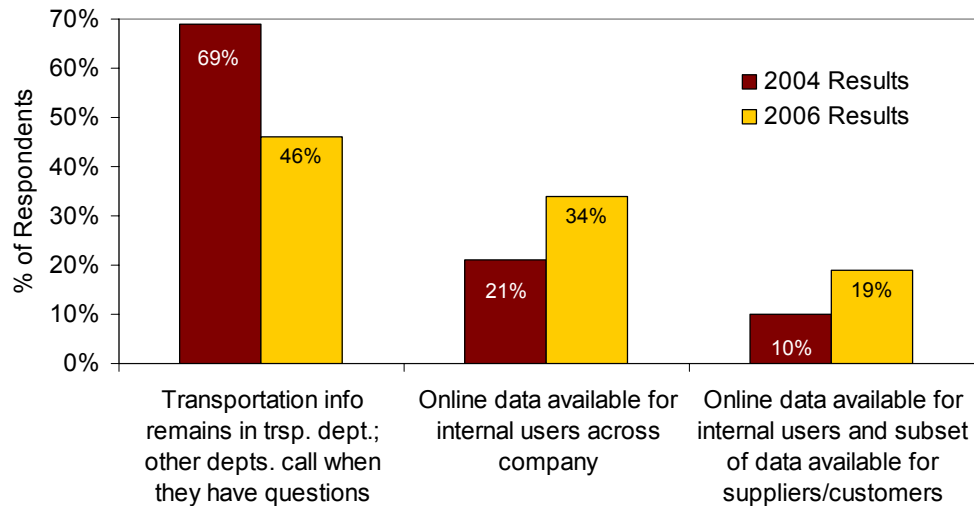


Source: AberdeenGroup, September 2006

Information Sharing Drives Down Freight Spend

Companies with the lowest overall transportation spend as a percentage of sales are the most likely to view cross-company transportation information sharing as of top importance. Companies are making significant strides in information sharing compared to their capabilities measured in Aberdeen’s 2004 transportation benchmark (Figure 6).

Figure 6: Methods of Transportation Information Sharing, 2004 vs. 2006



Source: [AberdeenGroup](#), September 2006

This real-time information really does make a difference. Companies that track more than 80% of their domestic shipments *are twice as likely* as their peers to have an on-time delivery rate of 95% or higher, according to a July 2006 study conducted by Aberdeen. They also drive better efficiency across the company.

- “We want to send an estimated time of arrival status update to our stores so they can better plan work crews for unloading,” reports a retail transportation director.
- By using the visibility capabilities of a transportation management system, the transportation manager at a food and beverage manufacturer reports that he will be able to be alerted if a “truck unloaded” message isn’t received within two hours after the appointment scheduling time at their bottling facilities. This will enable him to take proactive steps to avoid demurrage charges, which have historically cost the company hundreds of thousands of dollars a year.

Discussions with Best in Class companies have shown ratios as high as 8:1 – that is, eight people outside of the transportation department access transportation status, costs, service options, and the like for every one person inside the transportation department. Companies that don’t have at least a 2:1 ratio are severely under exploiting the value of transportation information to drive cross-functional productivity, cost, and service benefits. These benefits can go well beyond basic shipment tracking and typically extend to other areas of the supply chain.

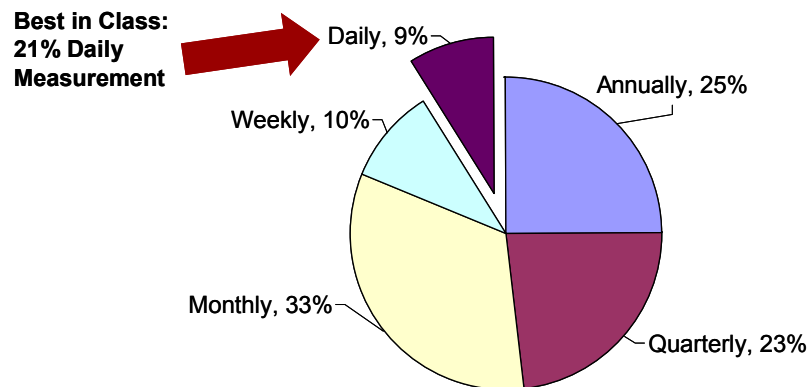


“We have more than 30 items in our transportation management system’s visibility solution that we can alert against,” says the transportation director for consumer goods company Church & Dwight. “It lets us alert against shipments for our transportation staff and at the order level for our customer service representatives. This also helps us track costs at an order level, such as overnight layovers or detentions charges, so we can understand the true cost to serve a customer.” The company also uses the system’s customer portal to let customers see their order status and other selective information.

Scorecarding Transportation Management Performance

Good performance starts with good measurement (Figure 7). Best in Class companies are three times as likely as their Industry Average and Laggard competitors to have moved to daily scorecarding and are nearly three times less likely to rely on annual scorecarding.

Figure 7: Frequency of Transportation Performance Measurement



Source: AberdeenGroup, September 2006

“We monitor on a weekly basis our average inbound miles and rates, including fuel surcharges, as well as metrics like ‘ready to ship’ versus ‘expected ship date’ from vendors,” explains a retail transportation manager. “We’re monitoring this to see the impact of sourcing changes and to make sure lead times and costs are controlled. This has helped us reduce lead times by multiple days.” The transportation group also uses this information to send to the CFO a weekly report estimating freight costs for the current month and year. Another side benefit of the weekly scorecarding process has been extremely accurate data for carrier rate negotiations.

360-Degree Transportation Management Comes of Age

A major shift in focus by transportation management organizations is that outbound domestic transportation no longer dominates the transportation agenda. For many companies, inbound management and international transportation management are now almost equal in improvement focus.

Table 1: Focus Areas for Transportation Management Improvement

	Domestic Outbound	Domestic Inbound	International Inbound	International Outbound
Improvement Focus Scale of 1 (least focus) to 4 (highest focus)	2.88	2.79	2.59	2.39

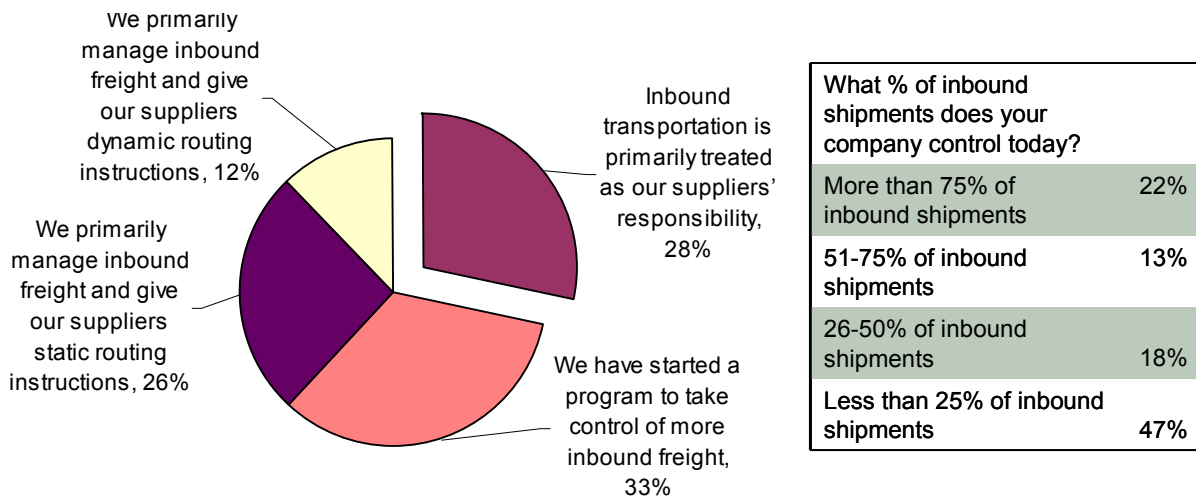
Source: AberdeenGroup, September 2006

Inbound Transportation Management: Finally, Real Activity

One of the hottest discussion points for a number of years has been inbound freight management. While there were a few high-profile examples like JC Penney, for most companies it remained a great topic of conversation but when you looked under the cover, not much was going on. This is changing: Nearly three-quarters of companies surveyed are focusing on inbound freight management and some have made significant progress. As Figure 8 shows, about 22% of companies now manage more than three-quarters of their inbound shipments.

Inbound freight management initiatives are now occurring across all sizes of companies and all types of industries. One government defense agency reduced its freight costs from an average of 23 cents a pound to 10 cents a pound via an inbound freight management initiative, saving more than \$10 million a year.

Figure 8: Inbound Freight Management Is a Major Focus



Source: AberdeenGroup, September 2006

Companies should not feel that they have to apply inbound freight management universally. Some of the most successful programs are those that evaluate on a vendor-by-vendor case whether to take back control of the shipment and who pays for the freight. If the cost savings is negligible, the company will let the vendor continue controlling the freight spend to let them enjoy whatever economies or efficiencies those movements



bring. This reduces the management burden on the internal transportation group and also strengthens vendor relations.

A best practice is to leverage a good transportation management system to gain visibility to all the inbound freight, regardless of who is controlling it. Make sure the system used for inbound freight management (which often takes the form of a supplier transportation portal) is architected to be scalable across lots of vendors and is built for high performance and ease of use. Study participants also recommend allocating plenty of time to train vendors during the launch process. A key to success, report many, is to gain the support of the procurement director or vice president of merchandising in order to gain vendor participation.

Ace Hardware has launched a corporate initiative to reduce inventory, increase inventory turns, and improve lead time dependability. To support this, the retailer launched an inbound management program to reduce inbound freight variability. Ace traditionally gave its suppliers varied purchase order delivery date requests and the Ace distribution centers often didn't align carrier appointment dates with the Ace buyer "want dates." This could result in loads sitting for up to an extra week at a supplier's location.

Ace has conducted a successful pilot with six suppliers to compress the order-ship cycle time. Suppliers commit to a consistent, short order-ship cycle; carriers commit to timely and accurate pick-up and delivery; and Ace's distribution centers commit to specific day-of-week delivery and unload schedules. The result has been a **24% reduction in inventory** for the goods from these suppliers. This program is now being expanded to 30 key suppliers.

Ace has an organizational advantage because the entire supply chain (from purchasing through transportation) reports to one senior vice president. She is the project sponsor and has formed a cross-functional team to address all issues.

Another best practice is to optimize across inbound and outbound freight in one planning process to identify additional backhaul, continuous moves, and consolidation opportunities. About a quarter of companies report doing this today, and another 35% of firms plan to do so.

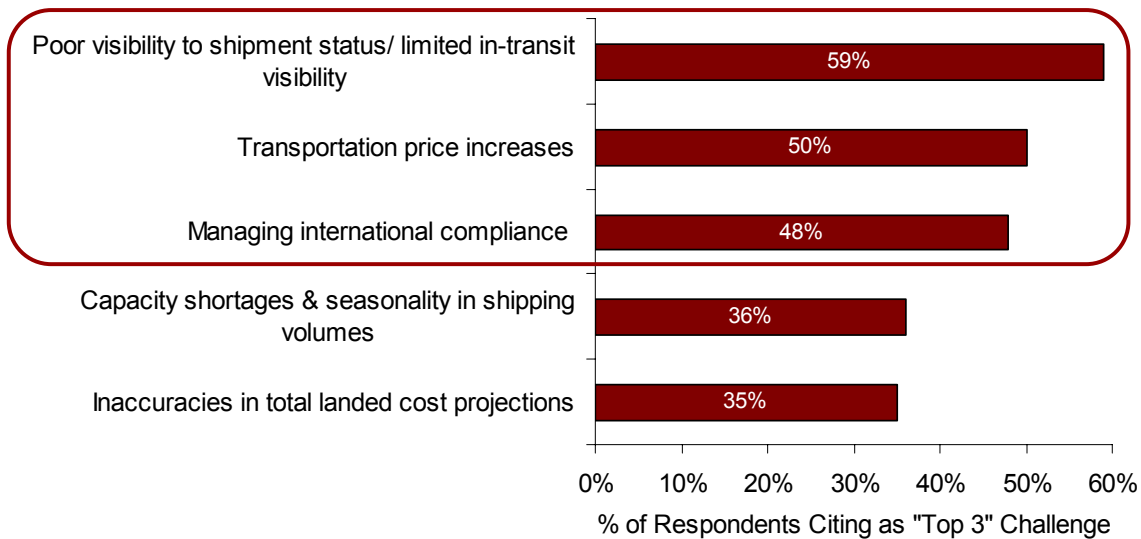
International Transportation Management Comes in From the Cold

Approximately eight out of 10 companies say they feel pressured to improve their transportation processes because of growing international shipment requirements. Today, 39% of participants say they are going to seek to adopt a commercial international transportation management system vs. just 12% in Aberdeen's 2004 benchmark. Another 9% say they plan to build a new system in-house to manage international requirements.

Figure 9 lists the areas in which companies are facing the toughest international challenges. Visibility, rising prices, and growing international compliance requirements (e.g., documentation for security and customs clearance) top the list.



Figure 9: Top International Transportation Challenges



Source: AberdeenGroup, September 2006

Poor visibility impacts not just the supply chain organization but also creates uncertainty in the finance organization. Aberdeen’s 2006 [Global Supply Chain Benchmark Report](#) identified that an astounding 90% of enterprises believe their global supply chain technology is inadequate to provide the corporate finance organization with the timely information it requires. This information includes accurate transportation costing and delivery dates for budget and cash flow planning and management.

Improving international shipment visibility and transportation management often has a strong impact not just on transportation costs but on working capital optimization via being able to reduce inventory holding requirements because of shorter, more predictable lead times.

A European pharmaceutical company has 180 users worldwide that use an on-demand international visibility system to monitor 750 trade lanes on six continents. By effectively mining the information collected, the company found significant opportunities for consolidating shipments, lowering transportation spend, reducing expediting costs, and addressing potential shipping issues before they impact customer service. It also helped them exploit more opportunities for competitive advantage in new markets. All total, the company cut its inventory costs by \$55 million and lowered its total logistics costs by 5% through its international visibility initiative.

Companies are also looking to manage international shipments more actively. About half of companies are considering the value of dynamic routing of international shipments (vs. static, itinerary-based routing) and taking control of the international shipment execution process.



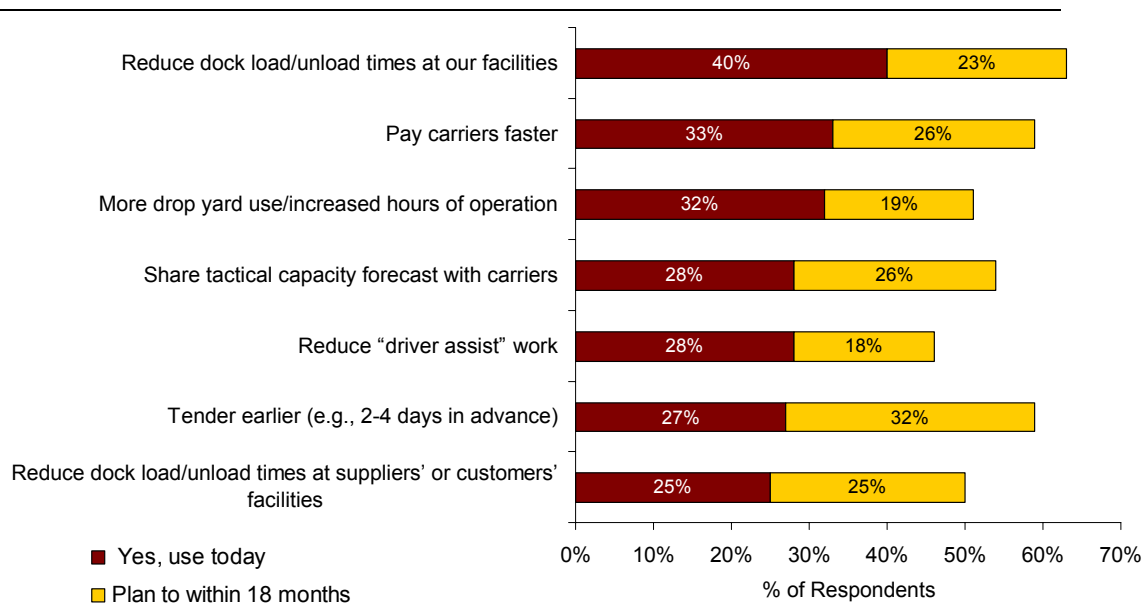
Carrier Collaboration Moves to a “Must Do”

Aberdeen research has been documenting for over two years the importance of becoming an easier customer for carriers to serve. Companies that excel at this are keeping their freight rates flat and are enjoying good access to capacity, even in peak capacity periods. Many companies are revamping their yard and dock processes to move drivers in and out faster, ideally in less than one hour. Companies are discovering that using online and more optimized appointment scheduling can help achieve these objectives, as well as moving to less driver assist work and more drop trailer usage. Just 12% of companies give their carriers and suppliers access to a Web-based self-scheduling application today, but an additional 30% say they plan to do so in the next 18 months.

The companies achieving the greatest improvements don’t stop at their own facilities but also monitor supplier and customer turnaround times, realizing that delays at these locations also impact their freight rates. Some companies, such as Casco, a large North American corn sweetener and starch manufacturer, have even launched marketing programs with their customers to educate them on how they can work together to reduce dock delays and lower transportation costs. Other companies are converting problematic clients to customer pick-up.

Figure 10 shows how widespread these collaborative practices are becoming. Companies that have not yet launched a carrier collaboration program should make it a priority.

Figure 10: Carrier Collaboration Programs Are Becoming Mainstream



Source: AberdeenGroup, September 2006

Even performing simple actions like tendering earlier and electronically to carriers and sharing with them a tactical capacity forecast (e.g., a two to four week rolling forecast of transportation requirements) has proved to cut tender turndowns by 40% to 50% for many companies. Today, only 36% of companies report tendering electronically to carriers.

ers, though this is a step up from the 2004 benchmark, which found just 26% of companies doing electronic tendering.

Other companies, such as Unilever, also leverage longer-term product forecasts to identify capacity spikes often caused by promotions or new product introductions. By comparing these spikes to the trucking capacity index, they can identify if they need to pre-buy capacity for those busy periods.

Best Practices for Organizing the Transportation Management Group

How to organize the transportation department is one of the most conflict-ridden issues facing companies. Aberdeen’s past best practice research finds that companies that centralize operations generally achieve better transportation cost reduction and on-time delivery performance. They are able to aggregate spend to lower freight rates, create new shipment efficiencies, and provide unified visibility to all orders and shipments for customer service representatives and others.

Table 2 shows companies’ current organizational structure; results are roughly the same across all sizes of companies. More than half of companies surveyed have centralized transportation contracting and international freight planning.

Table 2: Organizing the Transportation Management Group

Management Area	Local/Facility Level	Centralized for Division	Centralized for Entire Company
Transportation contracting and procurement	22%	19%	60%
Domestic transportation planning	38%	21%	42%
Domestic transportation execution	45%	18%	37%
International transportation planning	25%	23%	53%
International transportation execution	34%	20%	46%

Source: AberdeenGroup, September 2006

Companies don’t necessarily need to move to full transportation centralization to improve results. Here are three models to consider:

- Model 1: Complete planning and execution centralization.** This is the strategy taken by PPG Industries, a \$10 billion diversified manufacturer. PPG operates a load control center to plan and execute shipments for 35 North American manufacturing plants and 16 distribution centers. For PPG, this central model is driving process consistency, enabling more dedicated fleet usage because capacity can be used across facilities, and simplifying interactions for carriers by giving them one point of contact. PPG moved to an on-demand transportation management system to power its load control center to improve load consolidation and carrier interactions and enhance visibility. Results have included a \$1 million to \$2 million annual freight savings; typical per-load savings of \$40 to \$70 for motor freight; and a 50% increase in shipments per planner.



- **Model 2: Centralized planning with local execution.** The large tire-maker Goodyear moved to a load planning center, which uses a premise-based transportation management system to create daily shipment plans. These plans are then executed by the local Goodyear facilities. This has generated better scheduling, visibility of transportation activities and costs, consistent service and quality, and improved transportation procurement. Goodyear has seen annual contract freight savings of 3% or more and average trip weight for its private fleet has increased by 6-10%.
- **Model 3: Local planning and execution with centralized visibility.** Unilever Foods division has 15 North American plants and six distribution centers. With a mostly truckload shipment model that doesn't leave much room for more shipment consolidation, the company decided to focus on centralizing transportation information rather than centralizing people or planning activities. To achieve this, its distributed transportation groups were moved onto a common on-demand transportation management system. The results include dramatic on-time delivery improvements for low-performing plants and less fire fighting in a capacity-challenged environment, including reducing first-offer reject rates by 21 percentage points. Unilever Foods is also able to keep customers better informed about requested arrival date exceptions, improving customer satisfaction.

Centralization Success Factors

Web-based interfaces and service-oriented architectures are simplifying the execution of centralization strategies but centralization is still an enormous shift for most companies. Business processes, roles and responsibilities, metrics, and more must be redesigned. Moreover, the specific needs of business units and regions must not be whitewashed over in designing processes or configuring software.

- “Merging the transportation needs and requirements of four separate business units was our biggest technology implementation challenge,” says a transportation director at a large food and beverage manufacturer.
- “Transportation optimization parameters that work well for the East Coast can be lousy for the West Coast,” reports a transportation manager for a large dairy.

One aspect that centralization (at least of shipment visibility) helps is to enable shared shipping schedules across divisions or locations (e.g., backhauls or closed-loop tours). A quarter of companies create these shared shipping schedules today – and 33% more plan to do so within the next 18 months. Aberdeen also sees a resurgence of interest in creating shared shipping schedules across companies: Just 9% are doing this today but another 31% say they plan to explore the option.

Another organizational wall that many companies are considering breaking down is the division between the private or dedicated fleet operations and the common carrier-focused transportation group. Just 14% say that they dynamically assess if shipments should travel by common carrier vs. their fleet, but another 23% say they plan to explore doing so in the next 18 months. “We are trying to optimize the mix options of transportation fleets and make a collaborative process throughout the supply chain network,” explains a transportation manager at a billion dollar consumer goods company.

Chapter Three: Implications & Analysis

Key Takeaways

- Respondents are **four times more likely** to be planning to adopt new commercial applications than to be planning to build systems in-house.
- Best in Class companies are **45% more likely** than Laggards to rely on commercial transportation management systems.

Achieving transportation management excellence increasingly requires automation and optimization. Best in Class companies – those organizations that have reduced their freight budgets since 2004 – are 45% more likely than Laggards to be using commercial transportation management systems. Table 3 shows some of the benefits realized by Best in Class companies that use commercial solutions.

Table 3: Best in Class’s Benefits from Commercial Transportation Technology

Benefit of Using Commercial TMS	% Receiving Benefit
Better visibility to costs	85%
Reduced freight costs through improved shipment optimization	71%
Reduced freight costs through improved shipment execution	59%
Better visibility to shipment status	53%
Streamlined communication with carriers	53%
Improved on-time delivery performance	53%

Source: *AberdeenGroup*, September 2006

Companies with the best on-time delivery performance are also more likely to be leveraging technology. They are 70% more likely to be tendering electronically to carriers and receiving electronic status messages, and 68% more likely to share online transportation information with internal users and with customers or suppliers. They are also more likely to be practicing each of the carrier friendly transportation practices discussed in Chapter 2.

Assessing Your Transportation Management Maturity

Table 4 outlines the primary differences between Best in Class, Industry Average, and Laggard companies. Use this table to assess your organization’s maturity level in each of the five dimensions.



Table 4: Transportation Management Competitive Framework

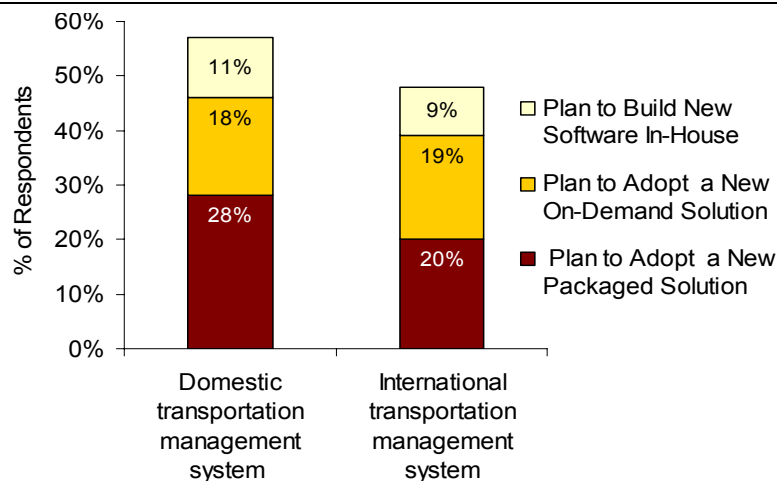
	Laggards	Industry Average	Best in Class
Process	Improvement focus: ○ Domestic outbound management	Improvement focus: ○ Carrier collaboration ○ Inbound freight management	Improvement focus: ○ International trsp. mgmt ○ Private fleet/common carrier synchronization
Organization	Facility-level organization	Business unit or division level organization	Centralized organization, especially for transportation procurement and planning
Knowledge	Other departments call when they have questions about transportation costs and shipment status	Online data is available for internal users across the company	Online data is available for internal users and a subset for suppliers or customers
Technology	Use spreadsheets or homegrown transportation execution system	Use homegrown software or commercial transportation management system	Use a commercial transportation management system
Scorecarding	Quarterly or annual	Monthly or weekly	Daily

Source: AberdeenGroup, September 2006

Companies Seek New Transportation Technology

As previously mentioned, nine out of 10 companies believe that their current transportation technology is not sufficient for their future needs. Respondents are four times more likely to be planning to adopt commercial applications (either packaged applications or on-demand software – also called “software as a service”) than to be looking to build new software in-house. It should also be noted that 51% of enterprises report relying to some degree on their logistics service providers’ transportation management technology.

Figure 11: New Transportation Technology Investment Plans in Next 18 Months



Source: AberdeenGroup, September 2006



The most-recent generation of transportation management applications have service-oriented architectures that drive more agile and streamlined processes, role-based user information access, and increased cross-functional value.

LG Electronics, the giant billion dollar consumer electronics company, sought to reduce costs and increase performance across its Korean transportation and distribution operations. Distribution and transportation processes were not synchronized and the resulting information bottlenecks translated into reactive management, buffer inventories, and disparate manual transportation planning. Manual delivery plans were based upon fixed routing methodologies that did not factor in real-world variability and led to sub-optimal capacity utilization and driver assignment, higher costs, and service level challenges.

LG Electronics deployed a commercial transportation management system and focused on using its order consolidation, dynamic hub selection, and continuous move asset planning capabilities. Leveraging the system's service-oriented architecture toolkit, LG Electronics was also able to create cross-company workflows across multiple internal organizations, including transportation managers, inventory planners, and customer service representatives. This enabled LG Electronics to oversee distribution with a holistic view of both inventory and capacity, with all groups working from a single version of the truth. Access to real-time information has led to better planning, execution, and exceptions management. The company is able to configure and reconfigure workflows and create role-based user interfaces.

Achievements included:

- 8% reduction in overall transportation and distribution costs, resulting in \$3.2 million savings (recurring)
- Significant enhancements in service levels and customer satisfaction
- Established a highly configurable technology architecture to support future growth and changing regional management demands

Deployment Times for Transportation Management Technology

On average, commercial transportation management applications are implemented in 10.1 months and deliver payback in 13.7 months. Integrating the transportation management system to other enterprise systems continues to be the biggest challenge cited by companies.

- “Connection to other systems and data complexities [was our biggest challenge],” says the director of logistics for a billion-dollar wholesaler.
- “We totally underestimated the resources and time to address ERP integration,” says the director of logistics for a midsize telecommunications equipment manufacturer.

On-demand transportation management software is helping companies become operational with their new systems in much shorter timeframes (e.g., in two to three months), with much lower burden on internal IT staff, and with faster payback (typically in under a year.)



- Ace Hardware began implementation of an inbound supplier portal in April of this year to coordinate carrier tendering and supplier ready-to-ship data entry, among other tasks. It has implemented a total of 350 suppliers to date. The quick implementation was helped by the fact that the solution was an on-demand transportation management system that minimized internal project requirements.

Companies that have moved to on-demand systems also say this deployment model provides easier information access for all types of users across their company, as well as delivers pre-connected connectivity to many carriers. See the [Software as a Service Buyer's Guide](#) for more information on how to assess whether an on-demand transportation management application is right for you.

In addition to core transportation management system functionality, companies are also seeking to use more commercial software for freight audit and settlement technology (31% of companies say they use a commercial solution today), transportation procurement (20% currently use a commercial application), shipment visibility, inbound transportation portals, and web-based dock appointment scheduling.

International Transportation Management Technology

In international transportation management, companies are seeking increased technology support for both planning and execution processes. Recent advances in transportation technology solutions include:

- **Closed-loop international transportation management platforms**, often delivered on an on-demand basis. These closed-loop systems support contract procurement, booking, allocation, tracking, and settlement processes for ocean and air shipments. These platforms also typically come with already established electronic connections to freight forwarders and carriers, reducing the time and cost to establish electronic messaging.
- **Transportation execution technology** that makes it easier to enforce corporate shipping rules and create spot buys for ad hoc or capacity constrained shipments, which often result in the greatest freight overruns.
- **Transportation optimization technology** that can be used to direct forwarders to execute off better plans and make better use of shipment consolidation and pooling opportunities.
- **Transportation procurement technology** that can be used to negotiate lower ocean and air rates by enabling more flexible expressions of bid options by carriers and forwarders, identifying freight that best fits their networks and capacity availability.

Enterprises with international freight expenditures above \$15 million should be evaluating how these solutions can deliver savings and improved budget accuracy for their organizations.

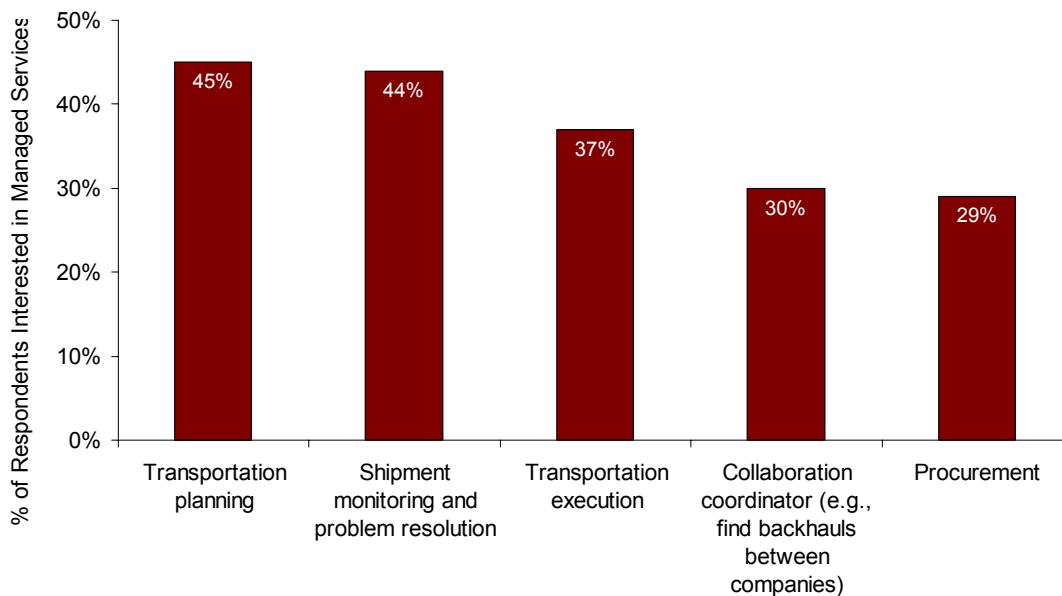
Managed Services for Transportation

Some enterprises are starting to look to their transportation management solution providers to bolster their internal staff capabilities via managed services. These “managed services” can be viewed as a lighter-weight alternative to full business process outsourcing

(BPO), in which responsibility for an entire business process is transferred to a BPO vendor.

By comparison, managed services are typically focused on *augmenting* current staff, not replacing staff. Figure 12 shows that 45% of companies say they are interested in considering managed services for transportation planning, and 44% would consider using them for shipment monitoring and problem resolution. Managed services can come from a software vendor, consulting firm, or logistics service provider.

Figure 12: Interest Level in Managed Services for Transportation



Source: [AberdeenGroup](#), September 2006



Chapter Four: Recommendations for Action

Key Takeaways

- The Best in Class take **notably different actions** than their peers.
- To improve performance, companies should focus on a **stepwise approach** to upgrading their carrier collaboration, inbound freight management, international transportation automation, visibility, and online information sharing capabilities.

As transportation management moves out of the shadows and into a strategic role in driving supply chain excellence, companies must ensure they are organizing and enabling themselves for success. This includes rethinking organizational processes, information sharing practices, and enabling technology.

This benchmark study found that the Best in Class take notably different actions than their peers. In particular, they are more likely to:

- *Use commercial transportation management applications*
- *Share online transportation information internally and with business partners*
- *Control a greater percentage of inbound freight*
- *Run a carrier collaboration program, including sharing tactical capacity forecasts*
- *Perform daily transportation scorecarding*

Based on research interviews, companies that achieve the best paybacks on their transportation technology implementations are also rethinking organizational structures, processes, and metrics in conjunction with their implementations, understanding that technology alone does not provide results.

Discussions also reveal that these companies are likely to take a stepwise approach to upgrading their capabilities, aiming to gain value as quickly as possible from each step up the maturity curve. For instance, rather than attempt a big bang transportation implementation that may take a year or more, they strive to make their system operational as quickly as possible. They seek to deliver better online access to transportation information and low-hanging opportunities for improved shipment aggregation immediately, and then activate more functionality via a disciplined continuous improvement process.

- “We didn’t change all our optimization at once,” explains a retail transportation director whose company implemented a new commercial transportation system. “We switched to more advanced optimization by product commodity and region.”

Steps to Success

Following are recommendations for action based on a company’s current maturity stage, which can be roughly gauged using Table 4 in Chapter 3.



Laggard Steps to Success

1. Consider switching to a commercial transportation management system

Commercial transportation management systems, especially those with web-based, service-oriented architectures, let you improve corporate access to transportation information. They typically also improve shipment aggregation and mode shifting to reduce freight spend. The rise in accessorial charges and the swings in fuel surcharges are causing the static route guides that many Laggards use to result in more costly shipments. Moving to a system that supports per-shipment optimization and fully considers accessorials can drive significant savings.

For instance, as truckload stop-off charges rise, companies are discovering that LTL tariffs can be cheaper. Similarly, one midsize specialty retailer saw its transportation costs drop 14% per package and produce a 100% return on investment within 15 weeks of implementing a new commercial transportation system that performed per-shipment optimization across parcel and LTL.

2. Implement a carrier collaboration program

About a third of companies are using carrier collaboration tactics to become easier customers for carriers to do business with; companies with comprehensive programs report smaller transportation rate increases and dramatically reduced tender turn-downs. Focus especially on tendering electronically and earlier, sharing tactical capacity forecasts, and reducing dock dwell time.

3. Move transportation cost and status information online

Fully 73% of companies say that they feel pressured to improve their transportation management capabilities because internal and external stakeholders want better access to transportation costs and delivery times. Exploit the value of transportation information by moving the information online for access across the company.

4. Increase scorecarding frequency

The majority of companies now scorecard transportation performance at least monthly; Best in Class companies are twice as likely as their peers to be doing daily scorecarding. Keep in mind that the best companies scorecard not just carrier performance but also internal performance such as dock dwell times, shipment documentation quality, etc. Also use analytics to evaluate if your company is becoming complacent in always using the same carrier. One company found that by simply creating more competition on certain lanes from its major distribution hub it was able to achieve a 12.9% freight savings.

Industry Average Steps to Success

1. Consider centralizing more transportation processes

Evaluate the three models of transportation organization centralization to see which one is most practical for your organization. Identify opportunities for shared shipping schedules across divisions or locations (e.g., backhauls or closed-loop tours).

2. Extend visibility

Look to expand visibility capabilities to include line item visibility, exception reporting or alerts, and root cause analysis. Consider extending selective views of information out to customers or other business partners. Investigate how to use web services to integrate transportation information into other enterprise applications or portals.



3. Assess inbound freight opportunities

About 35% of respondents say they now control 50% or more of their inbound freight. Evaluate the benefits of increasing your inbound freight management but avoid a knee-jerk reaction to try to take over it all. To protect trading partner relationships, it's typically better to assess the benefits on a vendor by vendor basis.

4. Leverage technology and services for procurement and payment

Although out of scope for this report, technology-enabled transportation procurement and freight audit and settlement are other opportunities that Industry Average companies should be concentrating on; the emerging discipline of transportation spend management is critical for continued cost control. Companies with large freight spends should consider the benefits of expressive bidding tools, which enable carriers to match better their network capabilities and capacity availability to your requirements, often resulting in 3% to 15% rate reductions.

5. Extend technology and process enhancements to international freight

To rein in costs and create more agile distribution processes, nearly four out of 10 companies now say they are going to seek a commercial international transportation management system vs. just 12% in Aberdeen's 2004 benchmark. Many software vendors are building out international capabilities. In addition, there are tried-and-true on-demand solutions that provide robust ocean and air transportation management functionality and pre-existing connections to carriers and freight forwarders.

Best in Class Next Steps

1. Move to more dynamic processes to improve end-to-end freight flows

If you have a private or dedicated fleet, test the value of moving to a dynamic assessment of whether shipments should travel by common carrier vs. your fleet. For international freight flows, assess the value of moving from static, itinerary-based routing for international shipments to dynamic routing.

2. Reevaluate your transportation management system

Fully 69% of Best in Class companies say they have made recommendations for technology enhancements in the past six months. Remaining at Best in Class status will require exploiting technology to drive additional cost savings and productivity benefits for the company. Improved shipment visibility, freight audit and settlement automation, inbound transportation portals, and Web-based dock appointment scheduling are among the areas the Best in Class have earmarked for investment.

3. Synchronize transportation, yard, dock, and warehouse activity

Creating faster throughput at distribution centers is another focus of transportation innovators. Constraint-based dock scheduling tied to inbound and outbound transportation visibility and schedules and (if a facility is large enough) a yard management system can reduce driver turnaround time, improve distribution center labor productivity, and enable more goods to flow through a facility.

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Appendix A: Research Methodology

In August 2006, Aberdeen Group examined the transportation management processes, technology, and intentions of 173 enterprises. Responding supply chain, logistics, and operations executives completed an online survey that included questions designed to determine the following:

- The degree to which transportation management impacts corporate strategies, operations, and financial results
- The structure and effectiveness of existing transportation management procedures
- Current and planned use of technology to aid these activities
- How Best in Class companies achieve better results

Aberdeen supplemented this online survey effort with telephone interviews with select survey respondents, gathering additional information on transportation management strategies, experiences, and results.

The study aimed to identify emerging best practices for transportation management and provide a framework by which readers could assess their own transportation management capabilities.

Responding enterprises included the following:

- **Job title/function:** The research sample included respondents with the following job titles: C-level executive or vice president (26%); director or manager (58%); other (16%).
- **Industry:** Some 36% of companies were from consumer goods or retail organizations; 18% were in logistics-related industries; 15% were in process-related industries; 13% were from high tech or telecommunications equipment manufacturers; and 11% were from aerospace, automotive, and industrial equipment manufacturers. Other sectors accounted for 7% of respondents.
- **Geography:** Three-quarters of study respondents were from North America, with the rest primarily from Europe.
- **Company size:** Fully 40% of respondents were from large enterprises (annual revenues of US\$1 billion or more); 34% were from midsize enterprises (between \$50 million and \$999 million in revenue); and 24% of respondents were from small businesses (less than \$50 million in revenue).



Appendix B: **Related Aberdeen Research**

Related Aberdeen research that forms a companion or reference to this report includes:

- [Solution Provider Guide for Transportation Management Systems](#) (September 2006)
- [Transportation Management: TMS Innovations to Meet Today's Fresh Priorities](#) (September 2006)
- [The Software as a Service Buyer's Guide](#) (August 2006)
- [Global Supply Chain Benchmark Report](#) (June 2006)
- [Best Practices in International Logistics](#) (January 2006)
- [Best Practices in Transportation Management](#) (June 2005)
- [Creating a "Carrier Friendly" Program to Gain Control of Rates and Capacity](#) (April 2005)
- [New Strategies for Transportation Management Benchmark Report](#) (September 2004)

Information on these and any other Aberdeen publications can be found at www.Aberdeen.com.



*Aberdeen Group, Inc.
260 Franklin Street
Boston, Massachusetts
02110-3112
USA*

*Telephone: 617 723 7890
Fax: 617 723 7897
www.aberdeen.com*

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