

For 25 years, this section has engaged and enlightened with insight from industry insiders and leading contributors. Tackling the challenges confronting shippers today, from cold chain complexities to freight spend management, Logistics Knowledge Base provides practical advice and actionable takeaways. Get the information you need from today's logistics leaders to drive transformative change at your enterprise today.

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## The Relationship Between Supply Chain Resiliency and Sustainability

**Companies with robust sustainability programs learned supply chain resiliency is an inevitable side effect of those initiatives. Here's how sustainability supports resiliency.**

**T**he COVID-19 pandemic shined a spotlight on the frailty of the global supply chain. As a result, business leaders have spent the better part of two years pursuing solutions and strategies that can help build more resilient supply chain operations. This enhanced focus on agility and resiliency has also driven increased interest in supply chain sustainability efforts—and for a good reason.

Companies that already had robust sustainability programs in place before 2020 learned that supply chain resiliency was an inevitable side effect of those initiatives. As a result, advocates of environmental, social, and governance (ESG) programs may now find it easier to get support from the boardroom as the world moves beyond the pandemic.

### Why Does Sustainability Create Resiliency?

In a Stanford Graduate School of Business study, 63% of buyers and 73% of suppliers said their sustainable procurement practices helped them endure the pandemic. The same study showed 70% of procurement leaders saw supply chain resilience as the desired outcome for their sustainability efforts. In addition, MIT's State of Supply Chain Sustainability report showed many companies maintained or increased their sustainability investments throughout the pandemic.

Sustainability intersects with resiliency in a variety of ways:

- **Responsible partnerships.** When suppliers, carriers, logistics partners, and

other stakeholders willingly share data about their operational practices, it becomes easier to identify risky partnerships. Building a sustainable operation requires eliminating contracts with businesses that behave in risky ways. When markets become volatile, the company can then rely on a more robust partner network to help it weather the storm.

- **Established visibility.** Sustainable companies already have visibility in their supply chains, and visibility is a cornerstone of resiliency. With transparency between supply chain partners, all parties can identify mutual risks and implement measures to mitigate them. As a result, sustainable companies communicated with partners and reacted more quickly to disruptions caused by COVID-19.

- **Climate change.** The effects of climate change have already begun showing themselves in the form of more frequent storms, flooding, wildfires, droughts, and more. These events have a disruptive effect on the supply chain, meaning decarbonization efforts tie directly into future supply chain resiliency.

### Does Your Logistics Partner Support Your ESG Efforts?

Third-party logistics (3PL) companies play a crucial part in supporting broader corporate sustainability initiatives. Your 3PL can support your ESG efforts in the following ways:



- **Transportation.** Logistics providers can optimize routes to use less fuel, locate inventory nearer to your customers to minimize delivery distances, and consolidate shipments to reduce the number of trucks on the road.

- **Packaging.** A 3PL can help you identify greener packaging options for your shipments to reduce landfill waste.

- **Energy-efficient warehouses.** Simple adjustments such as climate control, LED lighting, and solar panels optimize energy usage in the warehouse.

- **Reverse logistics.** Your 3PL can optimize your reverse logistics practices, keeping usable inventory out of landfills and allowing you to resell or dispose of returns responsibly.

- **Fair labor practices.** When it provides a good work/life balance, fair wages, and responsible labor practices, your 3PL functions as an extension of your ESG initiatives.

- **Data transparency.** Sharing data allows you to work with your 3PL to identify risks and areas for improvement.

If you want to have a sustainable supply chain, choosing a logistics partner that can align with your company values and practices is essential.

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# Key Habits of Highly Effective Cold Chain Shippers

**Maintaining optimum conditions for temperature-sensitive cargo takes experience and know-how. Here are four attributes of effective and reliable cold chain shippers.**

**T**he North American cold chain market is expected to reach \$118.55 billion by the end of this year, with industries from pharmaceutical to food manufacturers dependent on the latest advancements in efficiency and reliability. As e-commerce grows and rail and truckload volumes soar, there has been an increased need for specialty services such as refrigerated shipping.

Keeping cargo at optimum temperatures during transport takes experience that only comes from following rigid standard operating procedures (SOPs) combined with state-of-the-art technology, as well as clear protocols if problems arise. Here are four habits of highly effective cold chain shippers.

## Know Your Commodity

When transporting temperature-sensitive freight, what you are shipping is as important as how it's shipped. Produce is different from frozen packaged goods, which are different from pharmaceuticals or nursery stock. All stakeholders involved in the shipment—shipper, driver, dispatcher, receiver—should be familiar with the product and its specifications. The cargo's temperature set point, acceptable temperature range, and, in the case of produce, pulping instructions, should be clearly and accurately documented on all required paperwork.

**About Hub Group.** For over 50 years, Hub Group has helped customers meet their supply chain needs with a focus on service, integrity, and innovation. For more information about our cold chain capabilities, visit [www.hubgroup.com](http://www.hubgroup.com) or contact your Hub Group representative today.

## Transparency and Visibility

Less than a decade ago, cold chain shippers would wave goodbye to their freight at the loading dock, hoping their shipment would get to its destination safely and unspoiled. That scenario has changed with the advancements in new freight technologies providing visibility that mitigates risk and adds



agility. Whether shipping by rail or by truck, cold chain providers can now deliver real-time information through GPS location tracking and onboard temperature-monitoring.

## Following SOPs to the "T"

As food moves through the supply chain, it is rarely more at risk than when in transit. Following a strict set of guidelines and SOPs is crucial for every step of the shipment's journey. Shippers, drivers, and receivers should each have

their own set of procedures to follow. Critical aspects of successful cold chain shipping include pre-cooling both cargo and trailer, knowing when to run a reefer unit on continuous versus start-stop, avoiding mixed loads of fresh and frozen cargo, and understanding best practices for loading and unloading temperature-sensitive freight.

## Access to Capacity in a Tight Market

Since the beginning of the pandemic, freight volumes have skyrocketed, and what scarce capacity there was in the truck market has become even scarcer. Refrigerated shippers were most affected, as there are fewer reefer units in the market than dry vans. Being able to access additional capacity when the market is volatile is essential to a successful cold chain strategy. Having the option to use asset-based or brokerage transport gives shippers multimodal solutions—a clear advantage when capacity becomes an issue.

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# Achieving Exponential Growth with Your Warehouse Management System

**A warehouse management system provides business agility in an unparalleled manner—integrating all aspects of the supply chain to allow companies to scale.**

**S**upply chain management is evolving to accommodate new technology and business models. Maintaining the status quo is no longer enough to keep up with demand in a rapidly changing marketplace. Companies require an agile, modern, and up-to-date warehouse management system (WMS) that when used in conjunction with a manufacturing execution system (MES), supports exponential growth. It is possible to develop sustainable manufacturing while enabling the business to seize opportunities for further development by using the innovative digital features a WMS has to offer.

## Simplified Automation

By providing real-time inventory tracking through digitization, it becomes easier to fulfill orders while keeping your focus on the bigger picture. Advanced WMS software can facilitate smooth order fulfillment by analyzing stock against scheduled deliveries. Precision tracking enables companies to move inventory between warehouses, monitor sales, and reduce the risk of spoilage through automated tracking.

## Singular Focal View

By integrating digital access to logistical information, the WMS facilitates communications between all vested stakeholders. With all parties able to view the inventory status in real-time, the physical flow of goods can be better planned and thus more cost-effective.

The automated nature of a WMS allows for comprehensive shipment planning. By integrating all facets of the supply chain, scheduling shipments becomes more efficient (e.g., by delivery

date, by location, by product size/weight).

Tracking the sequence of order deliveries against the manufacturing schedule allows companies to control inventory, prevent backlog, and facilitate the shipment process. With a WMS, all those involved in the supply chain, from manufacturing to shipping, remain in the know at all times.

## Manufacturing and Warehouse Tracking

Advanced WMS platforms enable the assembly process to continue while accurately tracking raw materials. Instead of informational downtime during production, a modern MES provides details on work in progress and finished goods. It tracks all supplies whether warehoused, in transit, or in production. This reduces expenses due to loss, damage, overproduction, or downtime.

The WMS provides agility through quick response to incidents across the supply chain. It allows manufacturers to avoid loss through prioritizing tasks based on the most relevant metrics (e.g., expiration dates of raw materials, shipment issues, downtime due to maintenance). The savings resulting from this increased efficiency promote steady growth.

## Sustainable Digitization

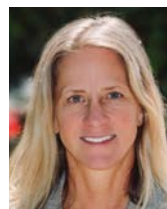
Warehouse management systems streamline the transition from paper-based processing to automation. Using modern WMS, businesses can automate manufacturing while utilizing AI to optimize profitability. From algorithmic analysis streamlining productivity to the Internet of Things allowing precision tracking of inventory, a WMS offers ample opportunities for development.

The technology available for integrating the manufacturing and warehousing processes is designed to foster true business growth. By limiting the probability of human errors through automated checks and balances, the WMS reduces loss and fosters business advancement. AI analysis can pinpoint opportunities for further economic development based on the focus of the company. From environmentally friendly campaigns to reducing the cost of labor using robotics, the digitization process offered by a WMS is the first step towards exponential growth.

## Rapid Deployment of Integrated Functions

This rapid growth is predicated on the forward focus of the company, without issues of human error, inventory loss, or high client attrition rates. The WMS can ensure compliance with relevant regulations and client needs, with objectivity only achievable through automation. Streamlining data exchange across all aspects of the supply chain accelerates the process of receiving information. This allows manufacturers to respond to the needs of consumers, in real-time, without incurring extra costs.

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## Transportation Spend Management in 2022

**Shippers using data intelligence can often insulate themselves from transportation management challenges and at the same time, reduce logistics costs. Here's how:**

**S**upply chain upheavals made transportation spend management extremely difficult in 2021. We can expect a volatile market to continue, because the factors that affect spot rates and freight volumes aren't going away anytime soon, including constraints on new truck builds, depleted used truck inventory, severe driver shortage, growing freight demand, and supply chain disruption.

### **A transportation market correction is coming, but disruption still looms.**

Assuming supply chain backlogs and equipment imbalances dissipate following the peak season, a transportation market correction is likely coming in 2022. When it does, shippers can expect transportation pricing to return to a normal rate of inflation rather than a steep pullback.

Until then, inventory replenishment will be an ongoing effort and will create a ripple-down effect for many shippers. For some, delivery delays will result in a surplus of untimely or misplaced product. Others will grapple with a returns process that echoes the historic spike in e-commerce since COVID-19 emerged. Capacity constraints will continue.

To plan for market corrections—or disruptions—and develop response strategies, you need to know which areas of your network are the most susceptible to transportation spend management risks.

### **Expect logistics cost pressures to persist.**

Truckload rates at record highs triggered an unprecedented number of new entrants in the carrier marketplace. Anticipated cost increases in 2022 will hit new carrier operations the hardest, especially as inflationary pressure drives up truck and trailer prices. Driver



compensation and diesel fuel prices are two more looming carrier cost drivers in 2022, according to American Transportation Research Institute (ATRI).

Meanwhile, brokers are paying more for capacity as they solve difficult challenges during high demand. At times in 2021, as much as 25% of total truckload freight moved on the spot market. Pre-pandemic, 13% of shipments were spot moves. That uptick adds production costs for brokers on top of increased transportation rates, so operating margins are shrinking while volume grows.

As increased market demand continues to stretch capacity thin into 2022, expect higher quotes for short-term contracts and higher premiums in the spot market. Knowing the current rates in this environment can help you improve your negotiating position and your ability to control transportation costs.

### **Transportation analytics enable better spend management.**

When 2022 brings unplanned freight volumes, network disruptions or difficult conversations about transportation costs, effective spend management will depend on in-depth and accurate insights on rates, carrier performance, and market forecasts.

Intelligence-based carrier sourcing solutions help you access a complete picture of transportation providers who have capacity to service lanes where you need additional volume.

Freight rate analytics with broad, deep data sets, and rate lookups for single or multiple lanes can help you evaluate mini-bids and quotes from carriers in the spot market. These current market rate insights ensure you get fair prices in every demand environment.

At the same time, rate forecasts on key lanes—both daily for the coming week and weekly for the coming year—empower you to pinpoint the biggest expected increases. This might highlight a need for alternative plans or a review of your current contract rates to make sure they stay in alignment.

To further support strategic planning, granular benchmarks on network performance identify where your carrier- and lane-level costs surpassed market averages last year, so you can more closely monitor and plan for those costs in 2022.

Combined, these solutions allow you to navigate logistics challenges while improving transportation spend management in the year ahead.

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## Is Labor Status Quo Crippling Your Operation?

Discover the ways your normalcy undermines business success and how to fix it.

**A** lot of operations leaders think things must be fine because production lines are running, workers are working, and stuff is getting shipped. But just because things are running does *not* mean your business is healthy, profitable, and growing.

Overreliance on the status quo conceals the importance of change. But why should you stay the same when the world is changing all around you? You shouldn't.

There are actions you can take to embrace change instead of the status quo.

### High Turnover

**The Status Quo:** I can't afford to pay my employees higher wages.

**A Powerful Revelation:** Spending more money on the right people ultimately decreases cost per unit. Higher pay satisfaction has been correlated with higher productivity and organizational loyalty in contingent workers.

**Take Action:** Scour your systems for operational inefficiency. Lower your cost per unit as much as possible so that you have more room to pay competitive wages.

Leaders thinking with the status quo see labor like any other expense: the less you can get away with spending for an equal asset, the better. But people aren't the parts of a kit, or the cardboard boxes stacked in a corner of your warehouse. And contingent workers don't exist in a bubble once they start work on your floor. They realize when they're underpaid and will leave you for a warehouse with more competitive pay if you fail to offer them a satisfying wage.

Your operation becomes a training

ground for other businesses that pay their workers more. You become nothing more than just another stop on the road to a "real" job for the kind of workers you desperately need to keep.

The status quo claims that high turnover is an unfortunate, but unavoidable, characteristic of outsourced labor. It doesn't have to be. Find the money to pay your workers well, and they will stay loyal to your business.

**Beyond the Status Quo:** Start seeing labor as a long-term investment. When you put more energy, care, and yes, money into your workforce, you get a higher return on that labor investment in the form of higher productivity, efficiency, and loyalty.

### Staffing Agencies

**The Status Quo:** Staffing agencies are a necessary evil. At the very least, I save money by working with them.

**Discover the Harsh Reality:** Staffing agencies often are a net loss when you factor in the costs associated with high turnover and lower productivity.

**Take Action:** Fire all staffing agencies in favor of a solutions partner that offers workforce planning strategy, a focus on training new workers, and on-site assistance to eliminate operational inefficiency. These things can make your contingent workforce a profit center.

When you're forced to deal with staffing agencies daily, the glaring issues with the service they provide start to feel normal. For many operational managers, mediocrity becomes their highest expectation for their contingent workforce as a consequence.

Many staffing agencies claim cost savings despite these glaring issues. Companies that work through staffing agencies see cost savings on paper, but ultimately lose money due to higher turnover and lower productivity. The core problem is not one of contingent labor.

The problem is, the staffing agency model is broken. Staffing agencies rarely get you 100% filled. They do a poor job at training workers for your floor, if they manage to train them at all. They fail to make your systemic turnover and productivity problems their concern even though they're sending the workers. And you'd think none of them had ever heard of a drug test from the way they fail to use them.

Despite this, the status quo insists that staffing agencies are necessary. To find a solution, you need to look to things you haven't tried before.

### Smart Resources

Smart Resources is the contingent workforce planning resolution that's been outside your status-quo radar. We give you a contingent workforce, and then partner with you to solve the turnover, productivity, efficiency, and cost-per-unit.

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**-By Kelly Blair and Cary White**



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## Addressing Supply Chain Pain Points for Shippers

**Sophisticated tools can help shippers contend with their most frequent challenges.**

**S**hippers must navigate a daunting array of complex challenges when operating in today's often turbulent supply chain landscape. Potential pain points are rampant.

Fortunately, shippers can turn to a variety of solutions and tools that can help drive capacity, control for rates, enable visibility, manage inbound and outbound execution of shipments, and improve the freight audit and payment processes—cumulatively addressing those nagging obstacles that frequently surface.

### Order Management

For instance, a lack of information on inbound orders can cause shippers to need to devote additional costs to labor throughout the supply chain. However, an order management tool within a transportation management system software solution can serve to provide shippers with full visibility for tracking and tracing shipments and the capability to manage events.

That visibility includes a view of purchase order fulfillment and creates the ability to quickly review with the supplier the timing of the shipment to schedule labor at distribution centers for outbound shipment execution.

### Shipment Execution

When shippers struggle to find capacity from their providers, it leads to increased freight spend and labor costs. Getting status updates on shipments also can eat up time and resources. Through outbound shipment execution tools, shippers can take sales orders



and interface with a transportation management system to manually or auto rate and auto tender shipments to transportation providers. Shippers can gain visibility of shipments down to part level, order number; receive alerts for shipments out of the delivery window; and at the same time control costs.

### Spot Auction

Global inbound shipments have been in turmoil in 2021 and are forecasted to remain that way at least through the first three quarters of 2022. Ocean shipments, in particular, are facing not only capacity challenges and longer transit times, but extremely high rates.

Operating in these markets means relying heavily on spot auction tools and automated bidding solutions to identify and lock in the best possible rates that match capacity and transit needs. Spot auctioning can be executed for all modes in a timed automated tool for both inbound and outbound shipments.

### Contract Management

Contract management is a necessary condition for successful

end-to-end procurement and supplier performance—and arguably even more critical than the “sourcing” phase in the end-to-end supplier engagement process. Contract management tools can improve business functioning, control spending through better visibility of spending and identification of future savings, help to monitor and evaluate suppliers, and ensure compliance with clear rules and procedures.

### Procurement Tool

An RFP bid/tender sourced in one tool for multiple transportation providers offers the ability to run global multi-modes and establish tasks and activities. Shippers can build a generic bid and quickly view the low-cost providers. They also can award and allocate multiple providers a percentage of the lane or lanes that need carriers.

### Freight Audit and Payment

Tech-based tools can help avoid early payments (driving cash flow), duplicate payments, and late payment penalties, while ensuring shippers take advantage of payment terms. They also provide data for future rate negotiations and invaluable visibility to supply chain costs.

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**—By Dave Maddox**



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**nVision Global is an industry-leading provider of configurable freight invoice auditing, TMS services & solutions, managed services, business intelligence and multi-modal visibility technology.**

## Data Management — Vital Today!

**Managing information gathered from a strong TMS provides a solid pre-audit program to double-check the accuracy of bills and also delivers these value points.**

**Y**ears ago, I named my business “Freight Management,” but today it should be called “Data Management,” since that seems to be the business in which we find ourselves. Driven by competitors, by our clients, and by our own imagination, the effective collection of information can be invaluable if properly used and directed.

There are value points in managing information gathered from a strong TMS system that can also provide a solid pre-audit program to double-check accuracy of bills before payment. These points include:

**1. Tracking the duty paid on imported items** with an eye to how much then reships to Canada, or falls into other categories, which will allow you to regain much of the duty paid.

**2. Having visibility of all shipments moving inbound or outbound until delivered.** This information can be pushed or retrieved. This assumes that the freight is tendered by the shipper, or by the vendor, via the TMS that picks the approved carrier for the speed and distance of the shipment. The TMS usually notifies the carrier electronically and a bill of lading is prepared for printing for the consignee.

**3. Out-of-region freight moving** from a warehouse outside the service zone is costly and a good TMS reporting system will identify these types of occurrences. Additionally, it should identify what SKUs are involved and how frequently it happened in the past week or month. All of this adds extra costs to the bottom line.

**4. Double/triple orders** moving the same day to the same customer can be identified and allow steps to be taken in the future to consolidate such orders onto one bill of lading, not two or three.



This typically happens when you have many items for sale and a customer such as Walmart will create an order for each one, which then triggers a bill of lading for each. In some cases, they insist on a bill of lading for each PO. A master bill of lading can overcome this need, which includes all the individual bills of lading onto one transaction. Additionally, carriers will even consolidate the orders and then send one bill.

**5. How often is the shipping staff or the vendor using the wrong carrier** for the size, speed, and distance of the order? This, too, can be expensive, and it is good to know when this occurs and where the failure is occurring.

**6. Sometimes freight costs rise,** and you may not be sure why. A good TMS should provide a report on all shipments for any period of time with average mileage, average weight, and cost per pound. Maybe freight order size is down, which will tend to raise the cost per pound, or orders are simply farther away than normal.

**7. Identifying when accessories (which are logged and summarized) of a given type are spiking.** This could mean more home deliveries, more inside deliveries, etc. Counter-action can then be taken to mitigate the costs.

**8. Defend against charge back from the major retailers.** This is now a major profit center. Allegations of late arrival, etc. are charged against you. A good TMS provides status and location of all shipments during the move, which will help that defense.

**9. Develop a report card on all carriers** for on-time delivery, claims ratio, or other factors

**10. You can also chart the cost of fuel** month to month, so you can better see the trends and prepare yourself or your customers.

**11. By receiving a delivery receipt from the carrier,** the process for filing claims for loss and damage is made easier and more accurate.

**12. Finally, a good TMS will provide accurate accrual reports** at the end of the month. However, all open orders across all modes must reside in it. The TMS can then calculate the charges you can expect from the carrier even if not billed or received yet.

Freight Management has such a TMS, and additionally the staff to manage it. Data management has become our main business.

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**—Robert Walters**



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