

SPECIAL REPORTS

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SETS THE
FUTURE

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INCENTIVES
PROPEL
ECONOMIC
DEVELOPMENT

AUGUST 2020

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THE MAGAZINE FOR DEMAND-DRIVEN ENTERPRISES

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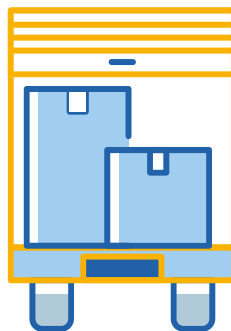
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BITE SIZED SUPPLY CHAIN/LOGISTICS INFORMATION

AIR CARGO IS A THING AGAIN

Cargo is propelling United Airlines' bottom line during the COVID-19 pandemic. Cargo revenue represented 27.3% of the company's total operating revenue compared to 2.6% in the same period in 2019. Half-year results show cargo revenue grew 14.6% to \$666 million. How did cargo fly so high? The airline quickly launched cargo-only services,



involved the cargo team in operations planning, and leveraged its hub locations and strong relations with freight forwarders to fill flights.

—United Airlines Second Quarter 2020 Financial Results



PRIMED FOR SPACE

Amazon has received government approval to put more than 3,200 satellites into orbit with the goal of beaming internet service to Earth, reports APNews.com. Imagine the global supply chain connectivity; the world will truly be your warehouse by 2026.

“Every day is peak season now.”

—Andrew Meyer, CEO & co-founder, Pickle Robot (see *Reshaping Retail*, p. 34)

\$81.4B BY 2027



That's how much the global forklift market is projected to reach, up from \$45 billion in 2019, thanks to the boom in e-commerce and increased investment in infrastructure.

—Allied Market Research



“The world has moved to a digital-first economy and I don't think there is any going back.”

— Dan Schulman, chief executive officer and president, PayPal. He says the COVID-19 crisis has meant a tipping point for digital payments that, during the past three to five months, accelerated e-commerce penetration that otherwise could have taken three to five years to accomplish. The digital payments company showed strong growth across its business, stemming from an increase in digital payments during the pandemic.

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FLORIDA SETS THE FUTURE

A geographic launching strip into the rest of the country and the world, Florida's panhandle shines with world-class business amenities and infrastructure. See why the state anticipates an even brighter future as a logistics leader.



Transportation metrics add up to lean operations

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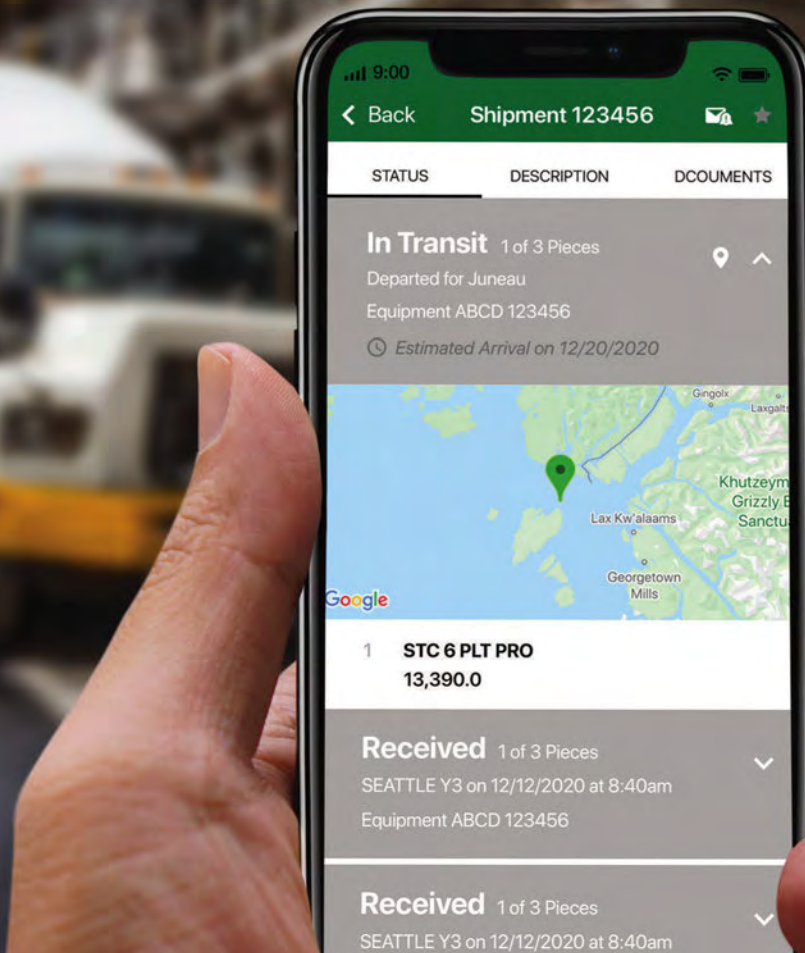
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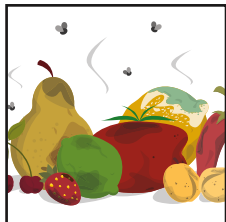
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YARD AUTOMATION ADDRESSES THREE WEAK SPOTS TO BUILD RESILIENCE

While there aren't many quick fixes when it comes to mitigating global disruption, supply chain leaders can turn to solutions that directly address three weak spots that were highlighted as a result of the COVID-19 outbreak: demand, labor, and energy.

bit.ly/YardAutomation



CRYING OVER SPILLED MILK: FOOD WASTE LESSONS

Food waste is a huge supply chain challenge, and COVID-19 exposed the true extent of its vulnerabilities. Adapting in near-real time offers valuable lessons for improving quality control and understanding technology's critical role.

bit.ly/FoodWasteLessons



REOPENING DISTRIBUTION CENTERS POST-COVID-19

Like most businesses recovering from disruption, fulfillment and distribution centers can't flip a switch and return to normal. Reopening requires following a rigorous methodology and creatively leveraging existing technology.

bit.ly/DCsReopen

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CHECKING IN

Let's Not Forget



Keith Biondo, Publisher

Virus Times has reminded us that we have the capacity to quickly adopt “new” technologies, adapt to new working conditions, and remain highly productive.

Certainly the “new” technologies for collaborative work are not really new. They are new just to a large swath of workers who had no reason to Zoom under pre-COVID-19 working conditions. And yet, driven by necessity for the most part, we’ve plugged in, pivoted,

and plunged on, getting the work done.

An important lockdown reminder for many outside the logistics profession is that it takes people to make it all work. Sounds obvious, right? Yet business visionaries continue to regale us with tales of what the latest technology can do.

One example is insourcing. Grocery heavyweight Ahold Delhaize’s new enterprise plans rely heavily on new technology to allow internal staff to manage previously outsourced functions. Converting to a self-managed supply chain will “improve speed to shelf and deepen relationships with vendors,” says Chris Lewis, the company’s executive vice president of supply chain. It will also undoubtedly enhance the ability to match demand to supply.

“Once the transformation is complete,” Lewis adds, “Ahold Delhaize will save \$100 million per year.” That is a lot of savings that the company can reinvest in employees. If one lesson of 2020 is a trend toward insourcing, then the pivot point in that process is people.

As we reset and recover, companies in the near term will face C-level pressure to cut costs by reducing head count and diverting those corporate resources to invest in more technology. But choosing one over the other is a mistake. Staff cross-training, technology training, mentoring, smart recruitment, and well-defined internship programs may reap benefits that are tougher to quantify in ROI in the near term. Investing in people will be a force multiplier for any and all technology investments in the long term.

One more reminder during COVID-19 times: Enterprise leaders must take the long view wherever possible. Continue to invest in those transformative technologies that will drive success in an economic environment fraught with risk and yet one target rich with opportunities.

Let’s not forget we must also continue to invest in the transportation and logistics people who can wring every ounce of ROI out of those important technology investments and ensure enterprise success. We need patience, fortitude, investment, process, and most importantly, people.

Keith Biondo

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STAFF

PUBLISHER Keith G. Biondo
publisher@inboundlogistics.com

EDITOR Felecia J. Stratton
editor@inboundlogistics.com

SENIOR EDITOR Katrina C. Arabe
karabe@inboundlogistics.com

CONTENT MANAGER Jaclyn Ix
jix@inboundlogistics.com

CONTRIBUTING EDITORS
Sandra Beckwith • Merrill Douglas • Karen Kroll

CREATIVE DIRECTOR Jeof Vita
jvita@inboundlogistics.com

DESIGNER Ellen Swandiak
ellen@inboundlogistics.com

DIGITAL DESIGN MANAGER Amy Palmisano
apalmisano@inboundlogistics.com

PUBLICATION MANAGER Sonia Casiano
sonia@inboundlogistics.com

CIRCULATION DIRECTOR Carolyn Smolin

SALES OFFICES

PUBLISHER: Keith Biondo
212-629-1560 • FAX: 212-629-1565
publisher@inboundlogistics.com

WEST/MIDWEST/SOUTHWEST: Harold L. Leddy
847-446-8764 • FAX: 847-305-5890
haroldleddy@inboundlogistics.com

Marshall Leddy
612-234-7436 • FAX: 847-305-5890
marshall@inboundlogistics.com

SOUTHEAST: Gordon H. Harper
404-229-9691 • FAX: 404-355-2036
south@inboundlogistics.com

MIDWEST/ECONOMIC DEVELOPMENT: Joseph Biondo
516-578-8924
jbiondo@inboundlogistics.com

NORTHEAST: Rachael Sprinz
212-629-1562 • FAX: 212-629-1565
rachael@inboundlogistics.com

MARKETING & SALES ASSISTANT: Ivana Thomson
212-629-1579
ithomson@thomasnet.com

MEXICO & LATAM: Guillermo Almazo
212-629-1560
mexico@inboundlogistics.com

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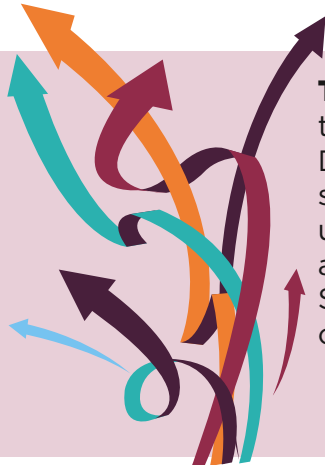
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GOODQUESTION

Readers Weigh In

What's the most significant way COVID-19 has changed the supply chain?



The pandemic has increased uncertainty to a level never seen before in supply chains. Demand patterns are all over the place, supply lines are disrupted, lead times are uncertain, and nobody is quite sure when and how things will change going forward. Supply chain planning? More like supply chain prognosticating!

—Ryan Purcell

Director of Global Impact, LLamasoft

COVID-19 highlighted the critical importance of forging logistics partnerships that combine technology and experienced people. Whether shippers are looking to build supply chain resilience, nearshore supply chain elements, or navigate market volatility, technology-enabled partnerships backed by expertise are more important than ever.

—David Commiskey
VP of Customer Solutions
GlobalTranz

The cost of air freight has increased, and some customers have been forced to shut down.

—Jeff Cullen
CEO, Rhenus Canada

Online commerce has exploded, and consumers won't change once the pandemic subsides. That's putting huge pressure on last-mile delivery. For truck drivers, COVID also has shined a bright and deserving spotlight on their role as essential to the economy for keeping store shelves filled. We are seeing more acts of kindness shown to our drivers, and more appreciation for the work they do every day.

—Greg Orr
President, CFI

Where companies purchase critical components for their manufacturing and production facilities will change. Companies will

reassess and rebuild their vendor network closer to the United States, pending the initial implementation phases of USMCA. We foresee a need for even more cross-border expertise as many manufacturers aren't familiar with the new trade regulations on top of wanting to source more domestic materials.

—Rick Kerr
Operations Manager, Green Bay Office
Sunset Transportation

We've seen a shift toward low-volume, high-frequency, and manufacturing-on-demand strategies as companies work to preserve cash flow during the pandemic. Instead of ordering 10,000 units and storing them, uncertainty in the market is causing manufacturers to order 1,000 units at a time with greater frequency.

—Jim Belosic
President and CEO, SendCutSend

It brought to light just how complex supply chains are. We can no longer take for granted that goods can be moved easily and quickly through international logistics. Businesses are revisiting supply chain design and possible localization, which has caused healthy debate around resiliency versus efficiency and cost.

—Jason Haelzle, P.Eng.
Food & Agriculture Sector Leader, GHD

Supply chain executives have to think more differently than they ever have before. With an urgent need to minimize the risks of human-to-human contact, supply chain leaders need to change the way they're approaching automation. Distributors are looking for smaller, more diversified suppliers rather than single-region, large suppliers.

—Nick Young
IoT Architect, OST

GOODQUESTION

The COVID-19 pandemic has thrust the pharmaceutical industry into the spotlight. This challenge brings to light the importance of real-time cold chain visibility for life-saving pharmaceutical products that are shipped every day around the world.

—Tom Weir
Chief Operating Officer, CSafe

Much of the pandemic's e-commerce growth will be permanent. Both pure online and brick-and-mortar retailers will need to adjust their reverse logistics programs to accommodate higher return volumes. Store retailers will face choosing between return-to-store options for online shoppers or keeping e-commerce returns online amid store-crowding concerns.

—Ken Bays
VP, Supply Tech Product Development
Inmar Intelligence

The most significant impact is the seismic change in consumer behavior and the speed at which it occurred. Existing trends have been accelerated or amplified while others are just emerging.

—Brad Eckhart
Partner, Columbus Consulting

It emphasized the need for data sharing. 3PLs and supply chain providers that were successful from the start made operational shifts immediately—one of those was sharing information and data with customers so that they can keep up with increased demand through more accurate forecasting.

—Kevin Williamson
CEO, RJW Logistics Group

It exposed the resiliency cost. Companies that didn't invest in resiliency had no idea how exposed

they were; they couldn't pivot because they were so locked into doing things the cheapest way possible.

—John McPherson
Director of Global Solutions, rfxcel

The COVID-19 crisis uncovered vulnerabilities in supply chains where paper-based processes and a lack of real-time information disrupted many. The need for further digitization of the supply chain became very apparent as a way to build more collaborative platforms with trading partners, suppliers, and customers.

—Juliann Larimer
President and CEO, Peak-Ryzex

It has changed three key components of the retail supply chain: sourcing decisions for raw materials and finished goods; agility in inventory distribution; and last-mile delivery with omnichannel fulfillment. Retailers must find innovative ways to deliver goods to consumers as fast and as cost-effectively as possible.

—Meyar Sheik
Chief Commerce Officer, Kibo



Visibility Gets More Visible

COVID-19 confirms retailers must have visibility into demand and inventory across all channels. Before COVID-19, research revealed that even mature supply chains were still challenged to understand demand and inventory visibility. COVID-19 illuminated this as retailers discovered supply chain operations were not remotely prepared for online grocery needs.

—Patty McDonald
Global Solution Marketing Director, Symphony RetailAI

Supply chain visibility, the foundation for agility and resiliency, is more critical than ever before, as companies seek ways to increase operational strength and adaptability. Companies need near-complete visibility into their supply chain to mitigate future disruptions.

—Mahesh Veerina
CEO, Cloudleaf

With many more consumers ordering goods online, supply chain stakeholders need real-time insight into new and evolving consumer demands—and their own ability to meet these demands. The IoT can help with this, enabling retailers to predict consumer needs by tracking which products are flying off shelves or helping manufacturers ensure on-time deliveries by offering insight into container whereabouts and conditions.

—Hussain Suleman
Vice President of Sales, Sigfox USA

Have a great answer to a good question?

Be sure to participate next month. We want to know:

Should the emergency suspension of Hours-of-Service rules be extended indefinitely?

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Quick TIP

Streamline shipping processes by using self-service platforms for instant access and results. The need for simplicity and timely access to information has never been more paramount than in today's supply chain.

—Lance Malesh

Chief Commercial Officer
BDP International



Re. In Defense of You

bit.ly/in_defense_of_u

IL publisher Keith Biondo responds to an article in *The New York Times*, "What Happened to the Great American Logistics Machine?" by David Segal.

Your June editorial is on point. The power of your pen rings true and makes a point much stronger than I could. Keep up the great work.

—Bill McClennen
Subscriber

Thank you for speaking up for us. We do much with what we are given each day.

I believe the author of *The New York Times* article may be confusing production with logistics. We just move it; the shortages I saw were from

increased consumption for which production did not meet.

Our society holds many unrealistic expectations these days. Improvement and progress are great, and happen every day; perfection is not a reasonable standard. What's the old saying? "You can have it good, fast, or cheap. Pick which two."

—Danny R. Schnautz
Clark Freight Lines



Re. Leveraging Data for Speed and Efficiency

bit.ly/leveragingSCdata

There has been tremendous adoption of APIs throughout the shipping ecosystem, with TMS providers, ELD solutions, and visibility platforms all trending toward data sharing in some

facet. However, these partnerships will remain limited in scope until there is standardization across the board, making it so that every API can talk to each other.

Today we're seeing companies and vendors be very selective in which providers they will work with, but these types of allegiances tend to ignore how shippers have built their tech stacks.

In short, we're seeing that companies hoping to sell solutions to shippers are still expecting a full rip-and-replace of existing infrastructure.

—Chris Lankford
VP of Engineering
NEXT Trucking



Re. COVID-19 Supply Chain Resources & Recovery Strategies

bit.ly/recovery_tips

A global, interconnected supply chain network is invaluable. But a hyper-local network is, too. Without a hyper-local supply chain, shippers are more at risk of being directly impacted by uncontrollable global circumstances.

It is imperative to have hyper-local options and resources to counter-balance impacts felt by other markets.

Right now, the entire globe is dealing with COVID-19, but there may be peaks and ebbs in cases that will impact different markets in different ways in the coming year. Companies must optimize what is available locally to route resources locally—it provides a safety net where there was none previously.

—Lior Sion
CTO and Founder, Bringg

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10 TIPS

Leveraging USMCA

After two years in the making, the United States-Mexico-Canada Agreement, or USMCA, is officially a reality. Here's how to use the new rules to your advantage.

1 TAKE A REVISED APPROACH TO CERTIFICATION OF ORIGIN.

Importers are no longer required to complete a certificate of origin document; they can achieve certification of origin by using informal documentation, such as commercial invoices, which the importer, exporter, or producer can complete. The five-year record-keeping requirement remains the same under the USMCA.

2 PAY ATTENTION TO NEW AUTOMOTIVE RULES.

During the next three years, 40% to 45% of all auto parts must be made by workers who earn at least \$16 per hour. Mexico has agreed to change its labor laws, which sets the stage for unionizing. Regarding country-of-origin rules, the deal requires that 75% of vehicle componentry be manufactured in the United States, Mexico, or Canada; NAFTA requires 62.5%. In addition, 70% of all steel, aluminum, and glass used in producing an automobile must originate in North America.

3 REVISIT CANADIAN DAIRY IMPORTS.

Restrictions on the import of U.S. ultra-filtered milk into Canada are no longer in place, which allows U.S. farmers to sell milk in Canada without pricing arrangements. In addition, U.S. producers will have

access to an additional 3.6% of Canada's dairy market.

4 LEVERAGE DE MINIMIS THRESHOLDS.

Relating to tariffs and taxes, the USMCA increases de minimis thresholds to encourage e-commerce trade among the three countries. These thresholds determine at what price point a tariff or tax will be applied. NAFTA, which was developed before the advent of online shopping, did not address this issue.

5 TAKE NOTE OF SECTION 232 TARIFFS.

The United States maintains the right to impose tariffs

under Section 232 of the Trade Expansion Act of 1962, which authorizes the president to impose tariffs on the grounds of national security.

6 EXPECT ENHANCED PROTECTION OF INTELLECTUAL PROPERTY.

Modernizing intellectual property terms to keep up with the pace of innovation was a top priority of the new agreement. The USMCA features stronger protection for patents and trademarks in financial services and biotech. It also includes regulations for overseeing the growth of digital trade as well as investing in innovation.

7 TAP INTO MONITORED EXCHANGE RATES.

The three countries agreed not to manipulate exchange rates and to consult each other on their respective economic policies.

8 REMEMBER THE SUNSET CLAUSE.

The three countries agreed to the Sunset Clause, which states that the USMCA will expire after 16 years. Then they can choose to revisit, renegotiate, or withdraw from the deal, and will review the agreement every six years.

9 LEVERAGE ADVANCE RULINGS PROVISIONS.

Advance rulings are written documents from the customs authority of a USMCA country that address specific questions. Now, anyone related to the trade transaction, not only a domestic resident, can request an advance ruling for an exporter or producer.

10 TAKE INTO ACCOUNT THE CHINA CLAUSE.

A USMCA country that intends to negotiate a trade agreement with China, North Korea, or Cuba must notify the other two partners in advance. Before signing the agreement, it must allow the two partners to examine the final text. If the agreement is signed, the other two members have the right to withdraw from the same USMCA, if they consider it.

SOURCE: VINCENT TOUYA, MANAGING DIRECTOR, DACHSER USA

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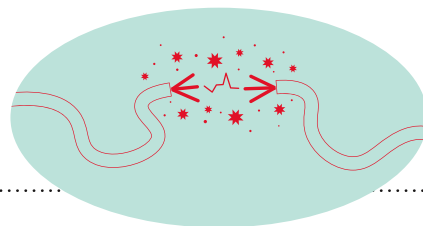


We Deliver Value

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BOEING FIGHTS FOR FLIGHTS

A single Boeing aircraft is composed of more than 3 million parts, making its supply chain a massive global undertaking. Successfully managing such a complex operation requires rigorous planning years in advance to accurately predict changes in demand and adapt accordingly. How does the company do it?

Partnerships: Before 2007, Boeing sent designs to each partner producing its components; the partners would then send the parts to Boeing for testing and assembly. With its 787 Dreamliner aircraft, however, Boeing worked with suppliers to design, test, and validate their own parts, which reduced costs, increased productivity, and sped up delivery.

Adaptability: Boeing's expansive supply chain enables the company to adapt to different market demands around the globe. When Japan and China started to build their own products, Boeing began selling more of its products in those countries to offer a more economic option. Boeing also brought back more of its operations, such as building the Boeing 777's wings, to the United States.

Reusing parts: To manage costs and keep up with demand, Boeing harvests retired planes for serviceable materials. Tearing down a single airplane can salvage up to 6,000 parts for reuse. Boeing previously outsourced these teardowns, but now handles them from start to finish.

COVID-19 response: As air travel declined, Boeing shipped more than 2,300 3D-printed face shields to the Department of Health and Human Services and airlifted more than 150,000 units of personal protective equipment from China to the United States in May 2020. As countries start to reopen, Boeing has resumed some of its aircraft operations.

THERE'S ELECTRICITY IN THE AIR

Traditional aircraft production stalled as a result of COVID-19, but all-electric aircrafts may be a source of business for suppliers, and aid in commercial aerospace supply chain recovery.

For example, Toray Industries, which supplies carbon fiber materials for Boeing and Airbus aircrafts, is set to lose revenue as a result of the decrease in aircraft orders during the pandemic. However, the supplier signed an agreement in July 2020 with Lilium, a German electric aircraft startup, to supply carbon fiber composites, leveraging an opportunity in all-electric aircrafts.

Trends after crises occur indicate that the demand for smaller aircrafts recovers more quickly than the demand for larger aircrafts, which require a higher volume of freight or passengers to be profitable. Thus, the short and cheap flights offered by small, all-electric aircrafts can help meet demand in the near term.

These aircrafts will likely be available in the near future. MagniX, a developer of all-electric aircrafts, expects certification from the U.S. Federal Aviation Administration in late 2021, while other industry analysts expect that air freight and passenger volume may recover by 2023. This indicates that all-electric aircrafts could play a role in the recovery of the commercial aerospace industry.



DEFENDING THE AEROSPACE SUPPLY CHAIN

The spread of COVID-19 particularly affected mid- to lower-tier suppliers in the commercial aerospace manufacturing supply chain, according to Deloitte's Midyear Aerospace and Defense Industry Outlook report. Other major findings in the report indicate:

A resilient defense sector. Military projects have been a priority as the U.S. federal government strengthens its defense industrial base. The sector's rate of growth may decrease in 2020, but manufacturers were largely protected from disruption by a solid defense budget and the Department of Defense's policy decisions.

Fewer mergers and acquisitions. Manufacturers are likely to be more cautious, and mergers and acquisitions are expected to decrease as many focus on liquidity. New policies that restricted foreign investment in the defense industrial base may prevent international deals in the near term.

Advanced technology is key. Technology is the most important factor in combating challenges, such as workplace safety, brought by the pandemic. Advanced technologies are expected to drive businesses' recovery and better position them to adopt robotics and automation, which will make the manufacturing process more efficient as companies operate with reduced workforces.

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READERPROFILE *as told to Karen Kroll*

Reading the Room



ANNETTE DANEK-AKEY is executive vice president of supply chain at multinational publishing company Penguin Random House.

RESPONSIBILITIES: Manage distribution, transportation, customer service, fulfillment, reverse logistics, and remainder sales. Oversee 1,700 employees in three distribution centers that ship 1.5 million books per day.

EXPERIENCE: EVP and SVP, supply chain, Penguin Random House; SVP and VP, fulfillment, and other roles with Random House; industrial engineering manager and project analyst, Bantam Doubleday; industrial engineer, Sears Logistics.

EDUCATION: M.S., industrial engineering, Purdue University, 1993; B.S., industrial engineering, Bradley University, 1992.

Whenever you're up against a constraint you tend to be more creative, and that's what happened to us during the pandemic. We were deemed essential and stayed open, so we had to be quick to figure out how to operate and keep people safe.

Our original intent was to use our facility in Reno, Nevada, which we took over in January 2020, to ship to independent bookstores within the region. Because of the sudden variability in demand, we made the facility a picking and shipping point, whether the order is staying on the West Coast or not.

We also had the location set up to only do parcel shipments, and then we added less-than-truckload and truckload shipments.

Thankfully, we have great people, and we built all these capabilities on the

fly with help from our other facilities, using WebEx calls and the like. We live-tested our processes and adjusted as we went along.

Now, I also have to think not just about getting the job done, but how an employee will feel if, for instance, someone new comes in from a different part of the country to help out at that facility. Even though it might be OK, I need to go the extra step and ask.

As the leader, I set an example. I was the first to wear a mask, and then I walked around so people saw me wearing it. I said, "If I don't see you with a mask on, I'm going to call you out. You can call me out, too, if I'm not wearing mine." Normally, my style is participative, but I needed to lead by example in this situation.

Every single day for probably six weeks, I said, "Safety has always been our

Annette Danek-Akey Answers the Big Questions

1 If you had \$1 million to start a new venture—whether a business or a philanthropic endeavor—what might you do?

I would start an escape room. It would be for profit, with a nonprofit component so school kids could use it. Escape rooms are great team-building exercises. They put you in an intense situation where you're forced to work with each other. I really have a passion for escape rooms; I've visited nearly 100 of them.

2 What are the first metrics you check in the morning?

Work in process, billings, and financials from the previous day. I also check attendance, which is not usual these days.

3 What book made an impression on you?

Oh, the Places You'll Go! by Dr. Seuss is a great metaphor for my job. I set a vision for our supply chain and work to get us there. Challenges come up, but you keep learning and moving forward.

top concern, but I am telling you now, safety really is number one. Productivity is secondary.”

We had to temporarily change attendance policies and allow people to take time off, choosing with or without pay. We reinvented punching in and out to maintain social distancing. Those who can work from home, are.

We’re stocking masks, cleaning supplies, and hand sanitizer, and bought tons of plexiglass. I put a vice president in charge of our inventory because it’s critical that we track and trace it. We’re opening dock doors to cross-ventilate. Social distancing has become a standard operating procedure.

“I love process improvement and anything that can help make a warehouse operate more safely, more productively, and with higher quality.”

Even during the pandemic, the other work doesn’t stop. For instance, we need to connect the Reno systems to our warehouse and transportation management systems and our enterprise resource planning system. Not having this has limited our flexibility. Communication and teamwork have helped us get around this.

I started as an industrial engineer specializing in workflow, efficiency, and automation. I love process improvement and anything that can help make a warehouse operate more safely, more productively, and with higher quality.

As a kid, I was always in the library. I love to read, and one perk of my job is getting to meet authors and read books before they go on sale. That’s cool. ■

CAN EVERYONE ON YOUR TEAM
SOLVE THIS?

$$ICC = \frac{C + T + I + W + X + (S - R1) + (O - R2)}{\text{Annual \$ Material Cost}}$$

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[IN FOCUS]

NOTED

The Supply Chain in Brief

> GOOD WORKS



• **Qatar Airways Cargo** is offering free service to charities for transporting medical equipment, humanitarian relief, and essential products through December 2020 to help deliver goods where they are needed most. The airline also donated 2.2 million pounds of freight to select customers to give to charities of their choice.

• **Penske Logistics** donated trucking assistance to Baby2Baby, a nonprofit that provides essential items to children living in poverty, which received a \$3 million clothing donation from Old Navy. Penske

picked up the donations from Old Navy facilities and delivered them directly to members of the Baby2Baby network across the United States.

• **Circle Logistics** helped Sandymount Technologies, a Massachusetts-based technology provider for the brewing industry, meet increased demand for hand sanitizer by shifting from transporting beer to moving ethanol. The logistics service provider helped Sandymount reduce costs by 50% and ship more than 1 million bottles of hand sanitizer in three months.

• **Crowley Solutions** helped deliver 5 million N95 masks in Maryland to assist in the state's pandemic response. To ensure the masks reached emergency response and first-responder personnel, the supply chain and technology services provider managed essential logistics services, including sourcing, purchasing, certifying, transporting, customs clearance, and delivery.

> M&A

■ **Lineage Logistics**, a global provider of temperature-controlled logistics solutions, signed a definitive agreement to acquire cold storage company **Ontario Refrigerated Services**.

■ Machine learning fulfillment platform **Blue Yonder** acquired **Yantriks**, a software-as-a-service provider of commerce and fulfillment microservices.

■ **Aptean**, a provider of enterprise software solutions, acquired **WorkWise**, a provider of enterprise resource planning and customer relationship management software.

■ **Mark-It Express Logistics**, a Midwest intermodal trucking and freight brokerage company, acquired the operating assets of **Sava Transportation**, based in Maywood, Illinois.

> SHOVEL READY

Tesla selected Austin, Texas, to site its new Cybertruck Gigafactory, which will build all-electric vehicles destined for the East Coast. Spanning 4 to 5 million square feet, the factory will be open to the public, with a boardwalk and hiking trails.



Port City Logistics is building its new headquarters complex and warehouse facility in Port Wentworth, Georgia. The third-party logistics provider expects the facility to handle an additional 50,400 TEUs through the Port of Savannah each year.

> UP THE CHAIN

M. Sanjeev was named vice president of **Ford's** Global Center of Excellence, overseeing inbound logistics, supply chain, compliance, digitization, and automation at Ford's International Markets Group. Sanjeev moves to the new role from his position as general manager of supply chain management and supplier manufacturing for Ford's Asia-Pacific and Africa regions.

> SEALED DEALS



• Alcohol logistics company **Johnston Logistics UK** signed a contract to handle logistics for **When in Rome**, an environmentally friendly craft wine company that packs wine in bag-in-box packaging made from recycled materials.

• **Soundboks**, a Danish manufacturer of Bluetooth-enabled portable speakers, selected **RK Logistics** as its third-party logistics partner for warehousing, e-commerce order fulfillment, and

transportation management. RK will handle Soundboks' full line of speakers and accessory products for U.S. customers.

• **Transfesa Logistics** initiated multimodal food transportation for **Kellogg's**. The rail service incorporates direct routes between Spain, Portugal, and Great Britain. Shipments initially include products such as cereal and Pringles potato chips. Four of the connections will be from Great Britain to Spain and six from Spain to Great Britain.

• **Pet Supplies Plus** is the first company to implement **Manhattan Associates'** new Manhattan Active Warehouse Management solution. The cloud-native system allows team members to visualize, diagnose, and take action anywhere in their supply chain. It automatically scales to meet demand fluctuations.

> GREEN SEEDS

GEODIS aims to reduce its carbon emissions by 30% by 2030. The transportation and logistics service provider initiated a program to help reduce greenhouse gas emissions, set up partnerships with main subcontractors, and develop low-carbon solutions for customers.

Wabash National released the Wabash MSC refrigerated trailer, a thermally efficient, eco-friendly refrigerated haul that uses solar power and all-electric refrigeration technology. This zero-emission solution provides lower operating costs and maximized payload capacity, and is resistant to corrosion.

Consumer and professional goods manufacturer **Kimberly-Clark** plans to reduce direct and indirect emissions by 50% by 2030. The Texas-based company also plans a 20% cut in

its indirect downstream emissions that account for products in use and the end of life for its goods and services.

Delta Cargo joined the Sustainable Air Freight Alliance, a collaboration between shippers, freight forwarders, and airlines to track and reduce emissions from air freight and promote responsible transport. The airline committed \$1 billion during the next 10 years to mitigate all emissions from its global business.

ORBIS released a recyclable plastic material that can be integrated into customers' products to meet their sustainability goals. Coastline plastic waste is blended with other materials during the manufacturing process to create finished goods. Once the packaging reaches the end of its life cycle, it is recyclable through ORBIS' recycling program, which recovers and reprocesses obsolete and surplus packaging into new products.

> RECOGNITION



Bobby Jordan is the winner of the **Landstar All-Star Truck Giveaway**, receiving a new 2020 Freightliner Cascadia. Jordan was randomly selected from a pool of Landstar's Safe Drivers and Roadstars, designated based on their high levels of safety, productivity, and excellence in customer service. *Pictured: Jim Gattoni, Landstar president and chief executive officer (left), with Jordan in front of his new truck.*

Combilift received the **2020 Red Dot Design Award** for its new **Combi-CBE8** electric-powered forklift, which features the first compact counterbalanced design. The international design competition honors smart and innovative product designs from more than 50 countries each year.



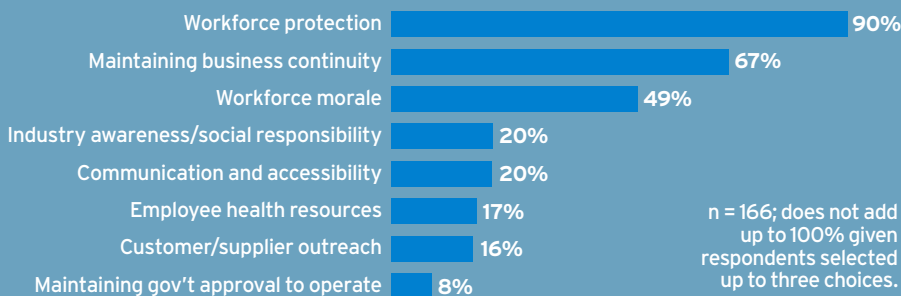
Werner Enterprises was named the National Shippers Strategic Transportation Council's **Carrier of the Year** in the national truckload category. The shipper-selected award recognizes carriers that demonstrate excellence in transportation performance and value.

[IN FOCUS]

TAKEAWAYS

Shaping the Future of the Global Supply Chain

WHAT ARE YOUR TOP 3 PRIORITIES IN REACTING TO COVID-19?



SOURCE: GLOBAL COLD CHAIN ALLIANCE

Cold Changes

Most cold chain businesses say that taking extra measures to protect the workforce is their No. 1 issue (*see chart*), according to the Global Cold Chain Alliance's survey studying the ripple effects of COVID-19. Other key findings include:

• Common challenges.

More than 50% of respondents say that supply chain disruptions, such as keeping up with demand surges, slowdowns in food service, and manufacturing issues, are the most common challenges they face.

• **Responses.** The top COVID-19 response was to protect employees through staggering shifts, social distancing, and remote working,

followed by maintaining business continuity and workforce morale.

• Impact on revenue.

Comparing actual Q1/Q2 revenue versus expected Q1/Q2 revenue, 54% of respondents report some type of decrease, 11% report no change, and 35% report an increase. Respondents say the next six months may look similar to the past few months.

• **Increased costs.** About 80% of respondents predict an increase in costs, with the most common uptick being a 1% to 5% increase.

• Government priorities.

Access to personal protective equipment and cleaning are the top priorities respondents want governments to focus on, followed by financial support for employees and employers.

• **Working from home.** Measures taken to reduce

person-to-person contact caused operational changes across the cold chain. Work-from-home rates went from 4.5% of the workforce to 19.8% during the pandemic, and respondents expect about 10.6% to continue to work remotely. This could lead to an increase of 6.1% of the workforce working remotely moving forward.

• Industry-wide trends.

About 75% of respondents say that the pandemic will increase the growth rate of e-commerce/direct-to-consumer delivery of chilled and frozen products. Respondents are optimistic that the growth rate of the industry as a whole will be even more significant because of the pandemic. Conversely, 73% of respondents say that global trade opportunities will decrease or remain the same relative to pre-COVID-19 predictions.

3PLs PLAY PIVOTAL ROLE

Order volumes increased by 81% for third-party logistics (3PL) providers supporting e-commerce since the lockdown began, according to data from 3PL Central's customer base. These are the highest order volumes per 3PL ever, on par with Black Friday in 2019.

3PL warehouses fulfilling e-commerce orders experienced a consistent increase in order volume week over week. Order volume from March to April 2020 increased to 154% of its initial volume, the data says. Since the beginning of 2020, order volume processed through 3PL Central increased to 174% of its initial volume.

With 3PL Central processing more than 1 million orders per week, its customers are a barometer for the growth of the 3PL warehousing market as a whole, the company says. Of its top 100 customers, the average growth rate per 3PL exceeds 61%, with more than 80% experiencing growth.

Of the total 3PLs, 45% experienced growth, specifically those fulfilling e-commerce orders for essential items and nutraceuticals. 3PLs focusing on business-to-business fulfillment of nonessential items were hit the hardest, the research says.

"It's a tough environment right now, with people facing a tremendous amount of fear and anxiety daily," says Rachel Trindade, chief marketing officer. "Our customers play a pivotal role in calming those fears by making sure people get the essential items they need from the safety of their home."

TAKEAWAYS

Hopping on the Transformation Train

Global disruption has failed to halt shippers' digital transformation plans: 52% of companies say they will increase their spending on digital transformation, and those concerned with economic disruption are 20% more likely to invest in digital transformation, according to a global research study from IFS.

However, these numbers aren't consistent across all geographies or industry verticals. Construction is in the lead, with 75% of respondents in this sector saying they have plans to invest in 2020. Information technology (58%) and manufacturing (55%) companies come next. On the other side of the coin is the energy and utilities sector at 37%, followed by retail at 35%.

"Examining the specific industries, it is clear that the construction industry, which has historically been a laggard when it comes to enabling technology, is investing heavily to catch up with more digitally mature sectors such as manufacturing," says Antony Bourne, industries senior vice president, IFS. "This disparity in investment levels aligns very well with what we see across our own customer base."

Execution is another story, however. The ability to deliver a measurable return on investment quickly, and meet the expectations of stakeholders, is the No. 1 concern for 64% of decision-makers, the study says.

"Providing the necessary process transparency and analytics to ensure effective and informed decision-making is critical in these trying times," Bourne says. "Nothing less than a considered and resolute attitude toward adopting digital transformation will help companies thrive, now and in the future."

DIGITAL TRANSFORMATION INVESTMENT IN 2020 AND BEYOND

PLANNED SPENDING

52% increase
18% decrease
17% unchanged
9% reviewing
3% no plan

ECONOMIC DISRUPTION

70% disrupted
30% undisrupted

- 70% of respondents plan to invest in digital transformation.
- Those facing disruption are 20% more likely to spend.

SOURCE: IFS

Our Business Priorities:

- ✓ The Customer
- ✓ The Customer
- ✓ The Customer
- ✓ Service
- ✓ Service
- ✓ Service

- RAIL INTERMODAL
- OVER-THE-ROAD
- CRITICAL CAPACITY
- TEMPERATURE CONTROL
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TAKEAWAYS



Supply Chains Need Long-Term Resilience

Before COVID-19 struck, supply chains were praised for their just-in-time capabilities. Now entirely new levels of supply chain resilience are needed, according to the Council of Supply Chain Management Professionals' (CSCMP) 2020 State of Logistics Report.

In 2019, the U.S. economy achieved 2.3% growth, and the logistics sector grew to \$1.65 trillion in expenditures. Productivity improved, bringing its cost to 7.6% of gross domestic product, an improvement from 7.9% in 2018, says CSCMP.

Road freight, the largest segment of U.S. logistics spend, was already slowing down in 2019 after years of low capacity and increasing rates reversed in favor of shippers. COVID-19 has been more economically damaging than a standard recession; the current recession ended 126 months of growth, the longest economic expansion in U.S. history, the report says.

When economic recovery starts, it will likely be staggered. The consumer confidence index dropped 18.1 points in early April 2020, and March saw an 11.9-point decline, the report says. Among the steps needed to build long-term supply chain resilience, according to the report:

- Support demand for surges in areas such as groceries and e-commerce.
- Reconfigure supply chains for other sectors that have plummeted, such as heavy industry.
- Adapt to the ripple effects of social distancing as the industry feeds a larger consumer appetite for home delivery.
- Redirect idle trucks and distribution center capacity to booming sectors.
- Recognize that even with superior agility, logistics providers cannot reconfigure all capabilities and relationships on the fly.
- Be more flexible when coping with uncertainty, emphasizing optionality and inventory rather than lean operations.

"It is abundantly clear logistics have a driving role in assuring resilient supply chains," says Michael Zimmerman, partner with Kearney and co-author of the report. "Logistics practitioners will need to become even more agile as they navigate recovery in the second half of 2020 and into 2021."

Food Fights

With restaurants providing only delivery or takeout during the pandemic, consumers turn to retailers and grocers to fill the gap. The impact on the food industry varies both by state and by sales channel, with fresh meat leading the increase in dollar sales (see *chart*), reports Hilco Global. Other trends in the report include:

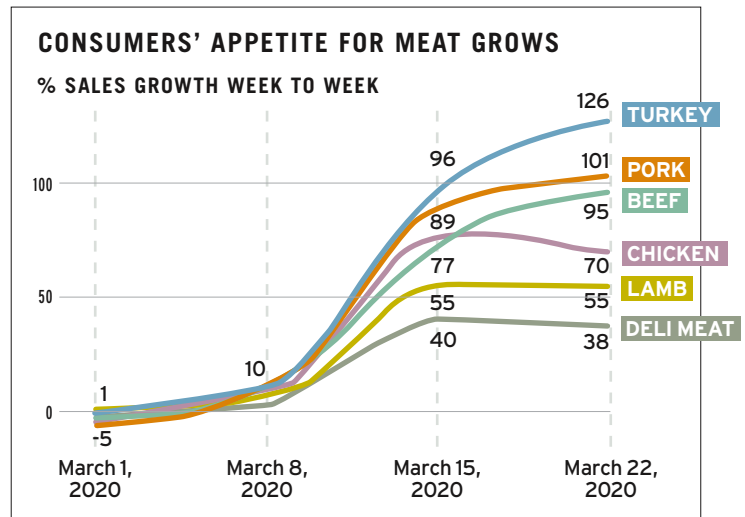
Food retail: The boom started in February 2020 in the United States as awareness of COVID-19 increased. Retailers were not prepared for the volume surge, and had inventory levels consistent with approximately two weeks' supply on average. Costco saw sales increases of 12%, which escalated to 28% by the end of February. Kroger saw an increase of 30% in March 2020. While a lot can be attributed to stockpiling, significantly more people now eat at home.

Food delivery: Services such as Instacart, Shipt, Walmart Grocery, Target, and their associated apps saw significantly increased volume and new user adoption, as consumers look for more delivered foods to minimize their risk of exposure.

Food service: Pre-pandemic, U.S. food service was a \$280 billion industry. Sysco and US Foods experienced massive sales reductions since the start of the crisis due to closures and lower volume. Many distributors pivoted to support the retail market via their relationships; for example US Foods partnered with grocery supplier C&S Wholesale Grocers.

Some drive revenue in creative ways to help pay rent and support staff. Panera Bread, for example, sells groceries that it used to prepare for dine-in customers via its digital platforms or Grubhub. Even with this additional volume, however, sales are expected to decrease.

Packaging and distribution: Food producers face challenges in acquiring the materials and personnel to produce, package, and distribute products. Milk retail sales increased 53% the week of March 21, 2020, and its average retail price was up 11.2%, according to Nielson. However, the dairy industry is one of the most negatively impacted because the products are highly perishable. The Dairy Farmers of America and Land O'Lakes had many farmers dump their milk due to the inability to ship it quickly enough.



SOURCE: HILCO GLOBAL



TAKEAWAYS

Building Industrial Real Estate Demand

E-commerce sales may reach \$1.5 trillion by 2025, which would increase demand for industrial real estate to an additional 1 billion square feet, according to real estate service provider JLL. E-commerce sales hit \$602 billion in the United States at the end of 2019, and total e-commerce sales could top \$1.5 trillion by 2025 combined with new projections, JLL predicts.

“E-fulfillment is among the most intensive uses of logistics real estate,” says Chris Caton, head of global strategy and analytics for Prologis. “We estimate these customers require 1.2 million square feet of distribution space for each \$1 billion in sales, which means e-commerce requires three times the space of traditional through-put distribution.”

Online grocery shopping has been one of the fastest-growing segments of e-commerce during the pandemic, as many shoppers experimented with ordering items online for the first time. Surveys suggest this trend will continue beyond the pandemic. Cold storage facilities alone could grow up to 100 million square feet to keep up with overall demand, according to JLL.

“E-commerce has been one of the biggest game-changers to supply chain management since the introduction of the World Wide Web and the internet,” says Rich Thompson, JLL global supply chain and logistics consulting leader. “It has fundamentally changed the way consumers buy as well as their expectations for delivery.”

GETTING OUT OF THE WOODS

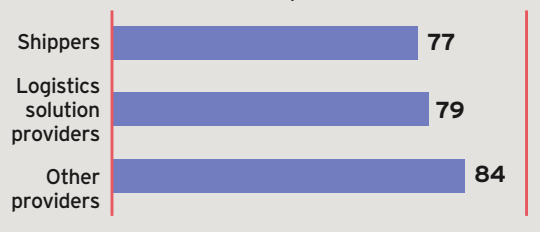
COVID-19 radically changed the workplace and how supply chains operate. Shippers that scale their technical infrastructure and put the customer first will thrive, says a study by Reuters Events and CalAmp. Other key findings include:

Preparedness: Shippers say their logistics solution providers are managing the uncertainty of customer demand, scoring them an average of 72/100. However, providers score shippers only an average of 59/100.

Demand: 51% of shippers say a lack of clarity on customer demand is the biggest bottleneck, echoed by 46% of solution providers.

HOW SMOOTH WAS YOUR TRANSITION TO REMOTE WORK ON A SCALE OF 1 TO 100?

1 = not smooth, 100 = entirely smooth



SOURCE: CALAMP

Sourcing: Dependence on Chinese manufacturing greatly challenged shippers. Without visibility into alternatives or a validated sourcing procedure, companies shoulder potential risks when switching suppliers.

E-commerce: 47% of shippers say they increased their e-commerce operations. U.S. retailers have seen year-on-year e-commerce revenue growth comparable to peak

seasons, from a high of 49% at the start of 2020 to 68% by April 2020.

Remote work: Most shippers and providers report a smooth transition to remote work (*see chart*) and high productivity. However, employees with child care duties and uncertain living arrangements may struggle with productivity in the long term. Creating a digital office environment and social practices will play a pivotal role.

INDUSTRY INSIGHT

In its 2020 survey covering companies' priorities and challenges related to cybersecurity, advanced technologies, succession planning, and trade developments, technology company Sikich finds:

- **50%** of manufacturing and distribution executives say they experienced a cyberattack in the past year, but most haven't taken important cybersecurity prevention measures.
- **40%** say they perform data breach prevention, such as penetration testing, phishing exercises, and assessing vendors' data security efforts.
- **50%** say their companies experienced cyberattacks during the past 12 months.
- **86%** say their companies use cloud storage and solutions.
- **60%** say they use forecasting software, data-driven customer service technologies, advanced analytical tools, and the Internet of Things.
- **50%** use robotics, robotic process automation, and 3D-printing/additive manufacturing, and 39% use blockchain and augmented virtual reality.
- **74%** say they have a succession plan, up from 60% in 2019. However, 37% say it has been three or more years since they had their businesses valued.
- **54%** say talent retention is the biggest challenge they face related to succession.
- **65%** say they believe the United States-Mexico-Canada Agreement will benefit their business, even as trade uncertainty persists.

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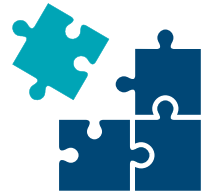
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Supply Chain Challenge?

SOLVED



Eliminating Spreadsheets in Air and Ocean Freight Procurement

Alpega's freight procurement module TenderEasy significantly improved CooperVision's international freight procurement process, yielding savings in time and freight spend.

THE CHALLENGE

As one of the world's leading manufacturers of soft contact lenses, CooperVision, a division of CooperCompanies, has a global supply chain crossing several international borders. When it came to freight procurement, their bid process and evaluation of air and ocean carriers was intensely time-consuming. Their biannual full freight RFQ for international freight was conducted manually using only Excel spreadsheets.

To compare bids across carriers, CooperVision had to take the information submitted from 14 carriers' individual spreadsheets and identify common lanes and current rates. They didn't have a way to examine the differences between their current rates and newly submitted rates, applying their volume or shipment characteristics. And with the unwieldiness of analyzing all those spreadsheets, they conducted only one round of bids.

CooperVision was then asked to collaborate with another division of CooperCompanies to help leverage its larger volumes and drive additional cost savings. Knowing they'd add lanes to the RFQ, CooperVision realized they were increasing the workload and complexity to run a proper RFQ by 30-40%. Multiple spreadsheets weren't going to do it. They required a better way.

They needed a tool that could collect all bids, validate the data, separate rates

out by appropriate site, and provide the ability to make comparisons reliably and quickly—saving time in the process.



THE SOLUTION

After vetting several providers, CooperVision selected Alpega's TenderEasy solution. Much of what they were seeing in the market were general business procurement tools tied to an ERP, whereas TenderEasy was a stand-alone procurement solution specifically designed for freight. This allowed CooperVision to focus on the basis data used in bids and how to use TenderEasy within their existing business process versus trying to modify the actual software.

CooperVision now uses TenderEasy for their ocean and air freight procurement. They've onboarded new carriers, realized a 50% time savings, and expect to recognize substantial savings in 4 out of 5 key lanes that drive a significant portion of their international freight spend. Their RFQ process is simpler, smoother, and quicker.

They've gone from one round of carrier submissions to two during their RFQ process. With TenderEasy, after

the first round they can analyze the data, narrow down the group, provide carrier-specific feedback on rates, and start the second round within 3 days. This allows CooperVision to spend their time at meetings with carriers collaborating on cost-saving opportunities like routing adjustments, consolidation programs, etc., outside of submitted rates.

TenderEasy also provides the ability to run "what if" scenarios, i.e., what if we increase volumes in a certain region? What if we use these carriers for 0-500 kilos and others for 501 kilos and up? The ability to experiment and get to a greater level of granularity in analyzing scenarios with carriers was appealing in terms of forward planning.

With TenderEasy, the entire freight procurement process is made more efficient by automating what were manual, multiple steps. CooperVision found it easy to learn, logically designed, and intuitive. Using Alpega's TenderEasy has allowed them to achieve their goals and cut the time it takes to run their biannual RFQ in half.

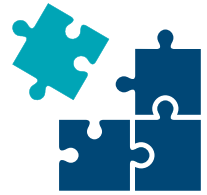


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Supply Chain Challenge?

SOLVED



True Manufacturing Embraces More Efficient, Visual Load Building

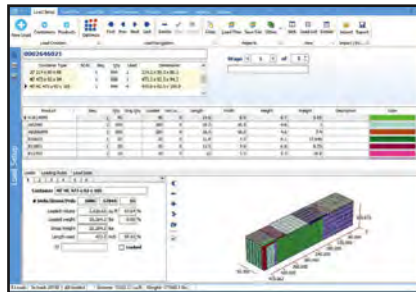
By turning to MagicLogic Optimization and integrating Cube-IQ, its load planning optimization software solution, True Manufacturing reduced work hours and increased efficiency.

THE CHALLENGE

True Manufacturing is a well-established firm that has been in business for 75 years. Originally, the family-run company began building commercial refrigeration units in their backyard. Operations quickly expanded when the company started exporting its products internationally by the 1950s. Now, True Manufacturing American-made products are renowned worldwide, and it remains a privately owned business. One factor that has helped the company remain a success is its ability to adjust to changing manufacturing processes.

Excellent load building ensures products arrive safely and are packaged appropriately. Previously, True Manufacturing load planners used pre-printed forms and needed to complete calculations manually to determine how many units could fit onto a trailer, while ensuring these units were oriented correctly, so each load remained safe and stable. Once complete, the form was faxed to the appropriate distribution center so that it could be staged and later loaded.

Although effective, this system was time-consuming and required multiple steps to complete. Load planners needed to ensure their calculations were accurate, something that couldn't be rushed when completed manually. There could be potential delays if the fax machines failed to work properly, or while the plans were calculated.



The old system didn't provide full-color diagrams for packers that would help the load to be staged more quickly and effectively. Moreover, printed load plans weren't always necessary, and did not align with True Manufacturing's commitment toward finding greener manufacturing solutions.

True Manufacturing was keen to find an alternative and more modern way to plan loads that would streamline the entire process. They decided Cube-IQ would be the best option. Cube-IQ is our flagship load planning software designed and developed in-house at MagicLogic Optimization Inc.

THE SOLUTION

Working with MagicLogic Optimization Inc., True Manufacturing purchased Cube-IQ, which integrated seamlessly into their ERP system. One reason why Cube-IQ is so popular with load planners worldwide is that it covers more operational requirements than any other software. We offer

more versions that can be tailor-made for specific industries and that meet different implementation scenarios. As True Manufacturing discovered, we can adapt our software to specific operational requirements.

With Cube-IQ fully integrated, Cube-IQ has a complete vision of all available products and their dimensions, and the customer's sales order. Instead of complicated calculations, load planners now need only drag and drop the order file onto the load setup screen. Simply clicking the "optimize" button produces an easy-to-read diagram within seconds. The diagram is viewable online and can be rotated to see every angle. It can also step through the loading plan so packers can easily see which items to load next. When necessary, the loading plan is printed directly at the distribution center.

Since implementing Cube-IQ software, True Manufacturing has reduced its working hours by more than 2,000 hours. Outdated fax machines have been removed entirely from their operations.

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[INSIGHT]

3PLLINE

by *Randy Ofiara*

Vice President, Enterprise Sales, BlueGrace Logistics
contactus@mybluegrace.com | 800-697-4477

3 M's to Cut Supply Chain Costs

As the global supply chain settles into the COVID-19 technology-driven and customer-centric decade, there's no time to pause and reflect on what has happened. Now is a time for action. Pick up the pace and ensure your processes are leaner and faster, and you are equipped to meet your customers' expectations.

The three M's—measure, manage, and maximize—are key areas to explore to realize your company's full potential and get the biggest, fastest savings in your supply chain today.

1. Measure. Measuring is all about understanding how your supply chain functions. To measure your supply chain is to create an overview of your operations and, within that, to understand key processes and where your company's strengths and weaknesses lie.

Creating an overview of your supply chain is the first step in measuring what your company is doing right now and what your current process looks like. Turn that information into actionable items that your company can use to make better business decisions.

Measuring can help you:

- Analyze the need for process improvements.
- Understand where cargo can be consolidated to increase cost savings.
- Measure carrier cost structures to maximize efficiencies and lower costs.

- Achieve better financial efficiency in your supply chain network.
- Enhance control over shipment scheduling.

2. Manage. Managing is all about the internal conversation in your organization and understanding the flow of goods, money, and information. It's about understanding why key stakeholders—vendors, purchasing, customer service, and sales—make the decisions they do and how those decisions affect your supply chain.

The data and analytics gathered during the measure phase can create the insight necessary to understand why these decisions are being made and how you can improve them.

The manage phase has four key advantages:

- Visibility across the entire supply chain, from sourcing raw materials to delivering finished goods.
- Modeling future supply chain scenarios as your company grows/changes to ensure speed to market while maximizing cost structures.

- Complete insight into production, partner, and supplier performance to ensure responsiveness to customer needs.
- A global perspective to stay updated on the latest developments and optimize processes across North America.

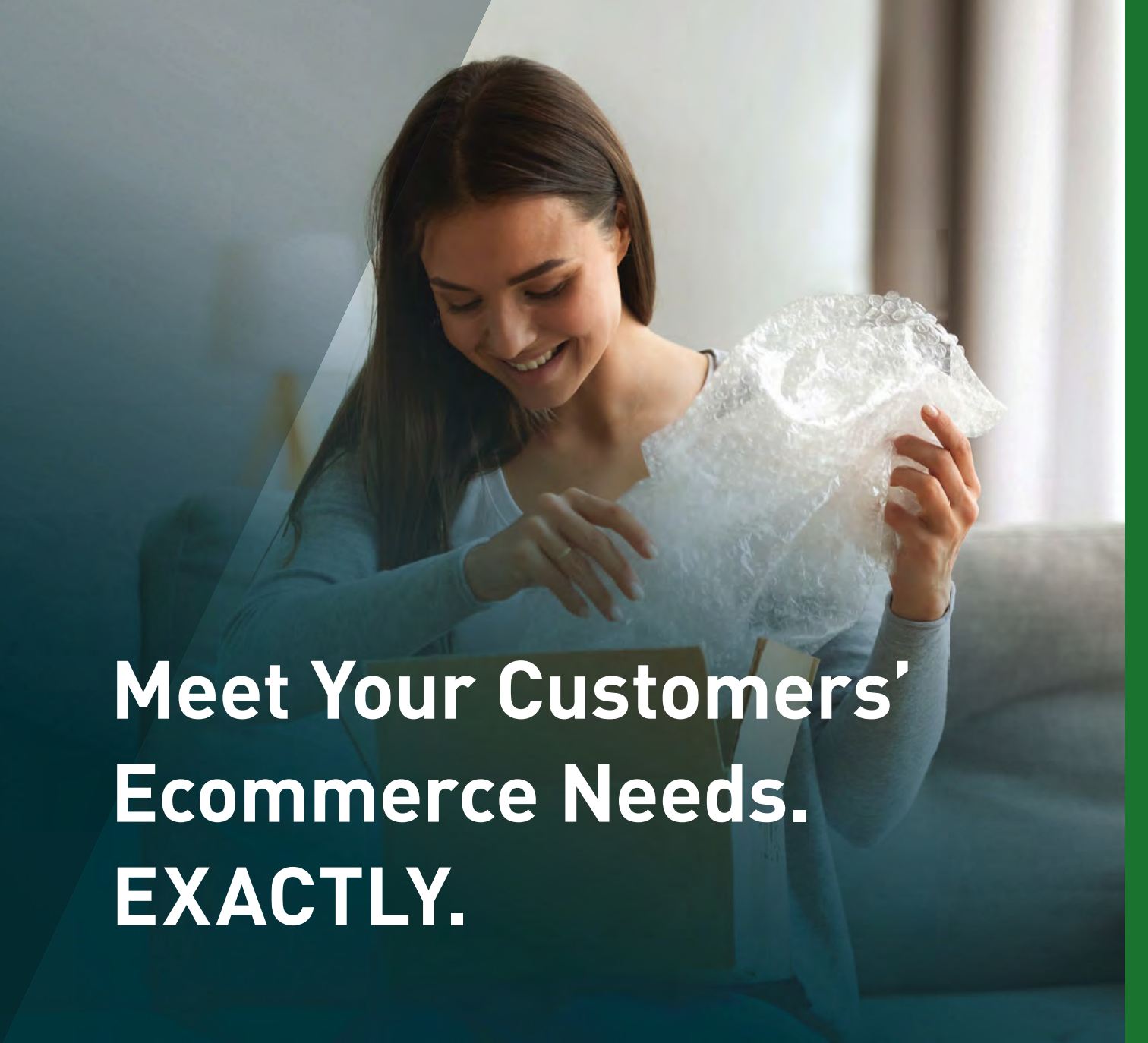
3. Maximize. Maximizing is making the most possible good out of every factor and decision within your organization. For example, technology helps maximize efficiency and, in turn, increase profitability.

The other two M's are crucial in maximizing, as they help you understand the organization's layout and what steps to take to see the most benefits, whether it's further developing strengths or optimizing a specific aspect of the operation.

A well-managed supply chain provides the ability to execute best practices in demand planning, procurement, logistics, inventory management, information systems, compliance, distribution, and risk management.

PUT IT INTO ACTION

During periods of uncertainty, dedicating time, energy, and money to anything that doesn't have an immediate apparent return can be terrifying. But taking that first step is most important, as it lays the path toward improvement and growth in the future. ■

A woman with long dark hair, wearing a light blue long-sleeved shirt, is smiling and looking down at a package she is unwrapping. She is holding a piece of clear bubble wrap in her left hand and using her right hand to peel it away from the package. The background is a soft-focus indoor setting with a window and curtains. A dark blue triangular graphic element is on the left side of the image.

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Logistics and Transportation Leader

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10 Ways to Leverage Intermodal

Intermodal, the movement of containers and trailers, has been a boon to the supply chain for decades. It embraces standardization—standard container sizes and rail schedules, and standard trucking from ports and terminals to customers—which has reduced transport costs and mistakes, and improved freight service across the globe.

The downside of standardization is that shippers sometimes miss the remaining potential of intermodal. Adopt these 10 practices to tap into those benefits:

1. Contract backup supply chain legs. The existing value of international intermodal within established supply chains is well known. Supply chain models need to create secondary and tertiary backup transportation networks, complete with contracted international rates and capacity.

2. Make large players your first, not only, stop. Start your intermodal conversations with large providers such as J.B. Hunt, Schneider, Hub Group, and C.H. Robinson. Next, vet smaller intermodal marketing companies (IMCs) and trucking companies to see what combination of rates, equipment, and drayage they offer. Evaluate both equally.

3. In balanced lanes, any provider works. Balanced lanes, where a shipper loads the same volume in and out, offer an extra look at finding the best provider based on service, rates, equipment, and fees. A balanced lane by a single shipper

is the crown jewel of intermodal. Shop around to get the best deal.

4. In imbalanced lanes, look to IMCs. If you move different volumes in and out, then IMCs and trucking companies are an option. Both have access to the EMP and UMAX services, a fleet of free-running 53-foot domestic rail containers managed through the Blume reservation system. This combined 80,000-plus container fleet aggregates imbalanced demand into a combined network offering.

5. I can get contract rates for two-plus years? Disrupt the burden of the contracting and bid process from a 12-month to a 24-month contract process. Go beyond the annual freight bid process for a standard 12-month contract with a market-based rate escalator that adjusts, fairly, for market-based demand.

6. Learn from less-than-truckload (LTL) and package delivery. LTL and package delivery companies love the performance, service consistency, and value that high-frequency and high-speed rail service provides. It also lets truck drivers spend weekends and holidays with their families.

7. Blocking, bracing, and distributed loading. Intermodal freight experiences a large amount of stress during handling. Blocking, bracing, and loading within the containers' lading capacity is a must-have, not a nice-to-have. Importantly, overweight containers are a hazard; load containers to their marked lading capacity.

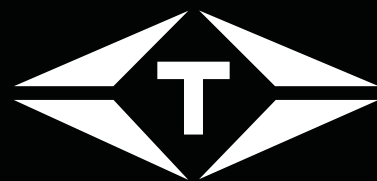
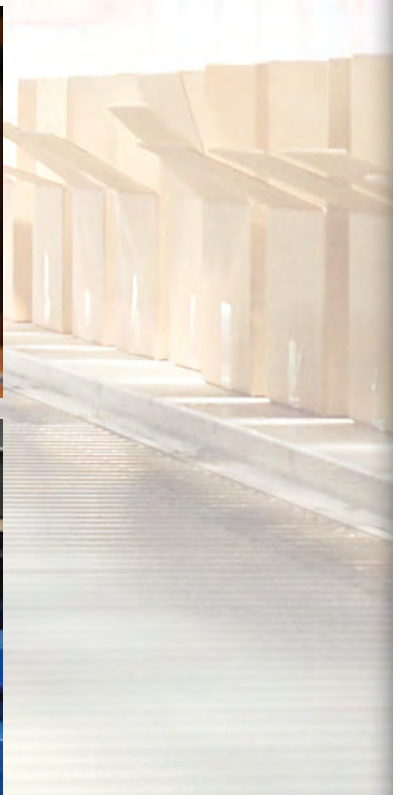
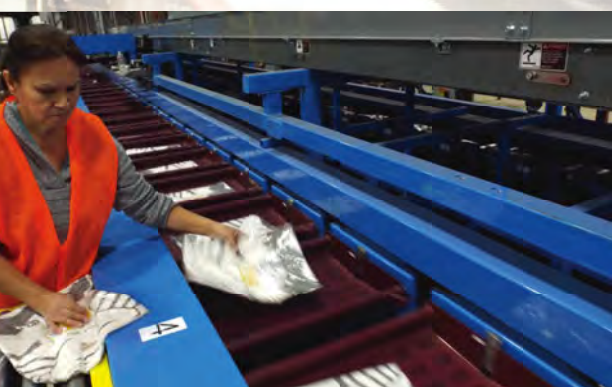
8. Find nonstandard commodity opportunities. Intermodal refrigerated containers, insulated containers, and tank containers are more prevalent than just a few years ago. Convert 10% to 20% of your specialized loads into intermodal or some of your surge freight to a specialty container.

9. Value draymen. Schedule draymen and pay on time. Offering a reasonable accessorial schedule, simple mobile apps, clean restrooms, face masks, and cold water/hot coffee are some simple and meaningful ways to treat a vital resource.

10. Truck + intermodal = success. The best transportation networks move a combination of intermodal and truck freight. Strive to keep consistent truck and intermodal lanes for easier transportation management.

COMBO DEAL

Take a more complete look at the full range of intermodal offerings. The right combination of truck and intermodal delivers supply chain service, savings, and performance. ■



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[INSIGHT]

COVIDRECOVERY

by David Goldberg

CEO, DHL Global Forwarding U.S.

david.goldberg@dhl.com | 973-568-2090

5 Lessons Learned During the Crisis

As a major player in the freight forwarding industry, and having been through the SARS epidemic in China, I have learned and implemented some key lessons that are vital not only in navigating a pandemic, but doing so efficiently.

1. Preparedness. Businesses struggled and reacted to every new crisis or issue daily. No one had a comprehensive plan to navigate a health crisis, hurricane season, giant dust clouds, and even a locust invasion.

Having an effective and adaptable business contingency plan in place for your employees and operations provides the basis of a plan for future crises. The key word is flexible—one solution won't fit all, but forming plans to safeguard the health and safety of your employees is the first step to ensure your operations keep running effectively.

2. Adapt and accelerate new technologies and digitization. New technologies are drastically changing the way we work by improving productivity, repurposing our teams to higher-value tasks, and supporting the ability to provide a superior level of quality to customers.

This has never been more important than now when most of the world is working remotely. Service providers also have to liaise with customers about digitization efforts. We need to not only invest in new technologies and

digitization, but also encourage our customers to implement them.

3. Flexible workplace. Employers have to create flexible and multitasking job positions, focused on critical business processes, to assure continuity in the midst of a global calamity, with an end-to-end perspective. Remote offices and online resources for employees are crucial. The workplace and the way we work won't be the same—it can't be—but employees can work remotely effectively and efficiently with an increase in engagement.

4. Leadership. Companies need to develop resourceful and change-agile mindsets in all team leaders to make decisions and deliver results under ambiguous circumstances.

Foster competencies and skill sets of current and future employees so they can give clarity, direction, and respect in a crisis, and are able to motivate and build trust with employees and teams spread over long distances. You have to connect and engage with employees and build a high morale to deliver results for customers and the business.

You need leaders who create other

leaders and develop decision-making skills and business judgment at all levels within the organization. Leadership is one thing when your teams sit outside your office, but a completely different endeavor with large virtual teams who don't meet often.

Working at home at the start of the crisis was a novelty, but as it continues, keeping your teams engaged and motivated will be a key task for leaders.

5. Environment of authenticity. This is a two-pronged need. First, be authentic and transparent with your employees. Understand that they are adapting to a new normal as well, as an employee and in their personal life. They need your support to navigate this challenging time. It's not only the right thing to do, but will also boost productivity and encourage engagement and passion for your company. There is no truer advocate for your business than an employee who believes in the values you stand for.

Second, authenticity builds your brand into something influential and gives substance to your services and products. This is especially important with customers, and illustrates that your high values align with your high quality of business. A commitment to quality should be a no-brainer for any business, but during times of crisis, it establishes you as a reliable and trustworthy company that is there to navigate any challenges and difficulties together. ■



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NEW STRATEGIES SUCH AS BOPIS, BOPAC, MICROFULFILLMENT, AND DRIVE-THROUGHS COULD TRANSFORM RETAIL LOGISTICS FOREVER.

BY MERRILL DOUGLAS

The COVID-19 pandemic has been brutal to brick-and-mortar retail. As many as 25,000 stores could close permanently in 2020, according to market research company Coresight Research. That's far more than the 9,302 closures Coresight counted in 2019.

For e-commerce, though, 2020 has been an endless Christmas. "Every day is peak season now," says Andrew Meyer, chief executive officer and co-founder of Pickle Robot, a Cambridge, Massachusetts, firm that makes robots for parcel shipping operations.

As of May 2020, online purchases represented 20% of all retail sales, compared with 11% in 2019, according to commercial real estate company Jones Lang LaSalle. Consumers spent 77% more online in May 2020 than they did in May 2019, finds a June 2020 report from Adobe.

Besides sending more shoppers online, government orders to close nonessential businesses as well as shoppers' fears about enclosed public spaces have also boosted newer forms of retail fulfillment. For example, when cloud commerce company Kibo surveyed its customers in April 2020, it found a 563% jump in buy online, pick up in store (BOPIS) orders compared with April 2019.

To survive in this era, retailers have implemented strategies that stretch from their fulfillment operations to the storefront, parking lot, and customer's doorstep. Some of these changes could become permanent. After all, the trends we're seeing now—the swell in online commerce, customer demand for new fulfillment options, and increased digitization in the supply chain—were already underway before 2020. COVID-19 has just shifted the transition into overdrive.

"It's as though you were looking at a wave, and then a tsunami hit," says Meyer Sheik, president and chief commerce officer at Kibo in Dallas, Texas.

AT THE BACK END

One process COVID-19 has shaken up is demand forecasting. How can retailers determine what to stock, in what quantities, and where?

"With COVID, it was unclear whether the past rules would apply," says Sudheesh Nair, chief executive officer at ThoughtSpot, a vendor of business analytics technology in Sunnyvale, California. In a volatile marketplace, a company can't simply collect historic data on consumer behavior, add current information, and then use that to

model the future. “Artificial intelligence starts to play a bigger role,” he says.

To generate a forecast in the COVID-19 era, ThoughtSpot might use data from sources such as Google, the Johns Hopkins Coronavirus Resource Center, and social media to profile a specific ZIP code. The data could indicate, for example, how many people are staying home versus commuting to work.

In one neighborhood, the forecast might tell a retailer to stock nearby stores and fulfillment centers with electronics that stay-at-home workers require. Another ZIP code, where people head out each day to jobs in hospitals or grocery stores, would call for a different range of products.

“These kinds of forecasts were not even a consideration before COVID,” Nair says. “It became clear that you cannot make decisions at the macro level when the world is changing at the granular level.”

In the fulfillment center, e-commerce and omnichannel retailers face a double bind: They must keep up with the volume surge while practicing social distancing and periodically stopping work to deep-clean their facilities.

Retailers also contend with ongoing demand for fast delivery, requiring them

to store inventory closer to consumers, says Jeff Cashman, senior vice president and chief operations officer at GreyOrange, an Atlanta-based robotics systems developer. In response, some retailers implement “microfulfillment”—shipping orders from small facilities in densely populated areas, including their own stores.

Pandemic-related store closings have sped some of this movement to microfulfillment. When jewelry brand Kendra Scott shut its 108 stores in March 2020, for example, it quickly turned those locations into small e-commerce fulfillment centers, according to a Glossy.co report.

GreyOrange’s robots deliver mobile storage units to associates who stand at picking stations, taking items from the units for order fulfillment. The technology offers a safe solution for the COVID-19 era. “Inherently, each of these stations is social distancing,” Cashman says. “They’re more than six feet apart.”

The robots also let companies switch fulfillment strategies quickly as order volumes fluctuate over time. “I can put 20 robots in a store’s storage room and roll in another 20 during peak season,” Cashman says.

A parcel handling robot from Pickle Robot, known as Dill, offers a similar advantage on the loading dock.

Eventually, Pickle aims to refine Dill so it can load or unload a trailer.

Pickle envisions putting a Dill robot at each door to load or unload, with one human supervisor assigned to multiple doors to handle dropped packages and other occasional problems.

This approach eliminates the need for associates to crowd together at the back of a truck. With one person supervising five or six dock doors, social distancing is easy. “Your nearest neighbor is not a person; it’s a robot,” Meyer says.

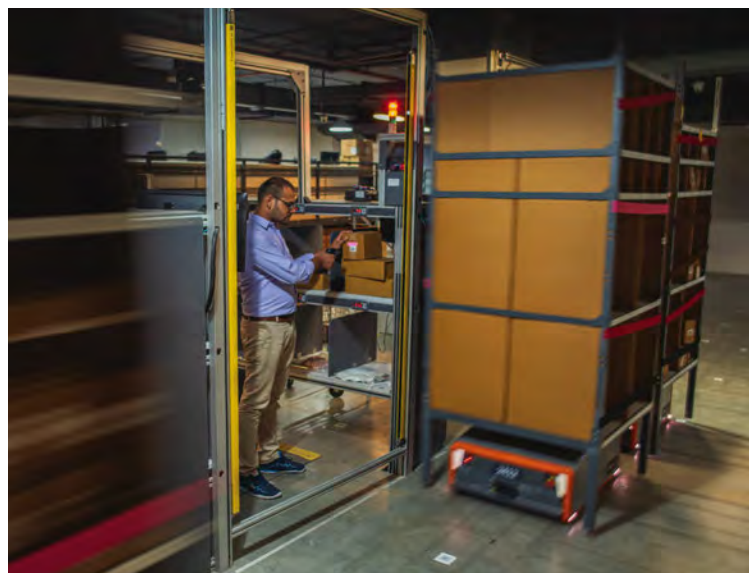
Robots also help maintain consistent operations when illness could force some employees into two-week quarantine just when the facility needs to work at 100% capacity, Meyer adds.

BOPIS, BOPAC, DRIVE-THROUGH

At the customer-facing end of the supply chain, retailers have used a variety of techniques to put product in consumers’ hands, whether stores are open or closed. Classic e-commerce, which delivers to consumers’ doors, remains popular. But other fulfillment modes, such as BOPIS, buy online, pick up at curbside (BOPAC), and drive-through shopping also play a role in the COVID-19 world.

The trend toward BOPIS and BOPAC may seem counterintuitive. If you can

To support microfulfillment strategies, GreyOrange’s robots deliver mobile storage units to associates who stand at picking stations, taking items from the units to fill orders. The technology also lets retailers switch fulfillment strategies quickly to match order demand.





At the Birmingham, Michigan, farmers market, consumers can shop right from the driver's seat. This drive-through model kept the market open during the lockdown.

receive products in the safety of your home, why venture out at all?

Part of the allure lies in the fact that before COVID-19, more than 80% of retail sales still took place in brick-and-mortar stores. When nonessential stores shut down, more consumers got comfortable with e-commerce. But if a closed store offered curbside pickup, that was the next best thing to a traditional shopping experience, says Sheik.

For retailers, BOPAC offered a way to keep moving product off shelves even while stores were closed. "The idea was for retailers to leverage existing assets—stores that they pay rent on and are shut down—and provide convenience for customers while also making the sale contactless," Sheik says.

To meet this demand, Kibo recently launched a stand-alone BOPAC application that runs on top of its order management system.

Michigan's Birmingham Shopping District chose a drive-through model to keep its farmers market running during the state's COVID-19 shutdown. City officials borrowed the idea from a local restaurant that, when forced to close, started selling bundles of produce to customers in their cars.

"You drove up and popped your trunk, they put the package in the back and you dropped \$10 in their bin," says Jaimi Brook, operations and events manager for the Birmingham Shopping District.

At the farmers market, starting in May 2020, customers drove past a line of tables, stopping where they liked to buy the items they wanted. A typical Sunday

drew about 300 cars. In past years, the market attracted 2,000 to 2,500 visitors on a typical Sunday, but unlike the drive-through consumers, they weren't all there to shop, Brook says.

If conditions let Birmingham resume its walk-up market later this season, there might still be accommodations for shoppers who aren't ready for business as usual. "We have discussed having a first 30 minutes or one hour that's drive-through only," Brook says.

CROWDSOURCED DELIVERY

Retail chain Tractor Supply Company has seen a big jump in digital orders since the start of the pandemic. "A majority of those transactions are either being delivered, or picked up via our new contactless curbside pickup," says Rob Mills, executive vice president and chief technology, digital commerce, and strategy officer at the company, based in Brentwood, Tennessee.

E-commerce orders filled from Tractor Supply's distribution centers ship mainly via UPS and the U.S. Postal Service, with less-than-truckload (LTL) and white-glove service for certain shipments. But for items available in the company's 1,462 stores, local customers can get same-day or next-day delivery, thanks to a partnership with Roadie, a crowdsourced delivery service based in Atlanta.

Much like the ride-sharing services Uber and Lyft, Roadie recruits individuals who drive their own vehicles and use a mobile app to accept the jobs they want.

As the pandemic has swelled demand for local delivery, Roadie has had no problem recruiting drivers to keep pace. "All of a sudden, everybody from busboys to knee surgeons to bartenders was furloughed," says Marc Gorlin, founder and chief executive officer. "Roadie made a great side hustle for folks whose regular gigs were not in place."

Tractor Supply started working with Roadie about three years ago, when Roadie's same-day service was available in only about 20% of the retailer's locations. Pre-COVID-19, Tractor Supply was already making plans to expand the Roadie option to more stores. "The COVID-19 pandemic just accelerated those plans," Mills says.

With Roadie already integrated into its systems, Tractor Supply could scale up easily. The company's existing ONETractor omnichannel strategy played an important role as well.

"A lot of the investments we had previously made in our infrastructure helped pave the way for quickly activating things like Roadie delivery from all stores, and other recent changes such as mobile point-of-sale devices across the chain, contactless payment options, a redesigned e-commerce site, and a new mobile app," Mills says.



A partnership with Roadie enables Tractor Supply to provide customers same-day and next-day delivery for most inventory directly from its stores.

New retail models such as same-day delivery will remain important well into the future. “We’re not going back to pre-COVID-19 conditions any time soon,” says Gorlin. “The key for retailers is adding the optionality of retail.” Consumers need to be able to engage with retailers in the ways that work best for them.

HAPPIER RETURNS

Some e-commerce retailers have also modified the return process to fit the COVID-19 era. That includes companies using a Return Bar operated by Happy Returns, based in Santa Monica, California. The company has established Return Bars in brick-and-mortar outlets across the United States, including stores in the Harmon Face Values and Cost Plus World Market chains.

Consumers start their return transactions online and then bring their items to the Return Bar, with no need to worry about packaging or shipping labels. A “Returnista” at the bar assembles all the returns bound to the same e-commerce

merchant in one box and ships it via UPS to a Happy Returns processing hub.

When the pandemic closed

Happy Returns’ brick-and-mortar partners, it shut down the return service as well. But as stores started to reopen in mid-May 2020, Happy Returns went back into business with some modifications to take physical contact out of the process.

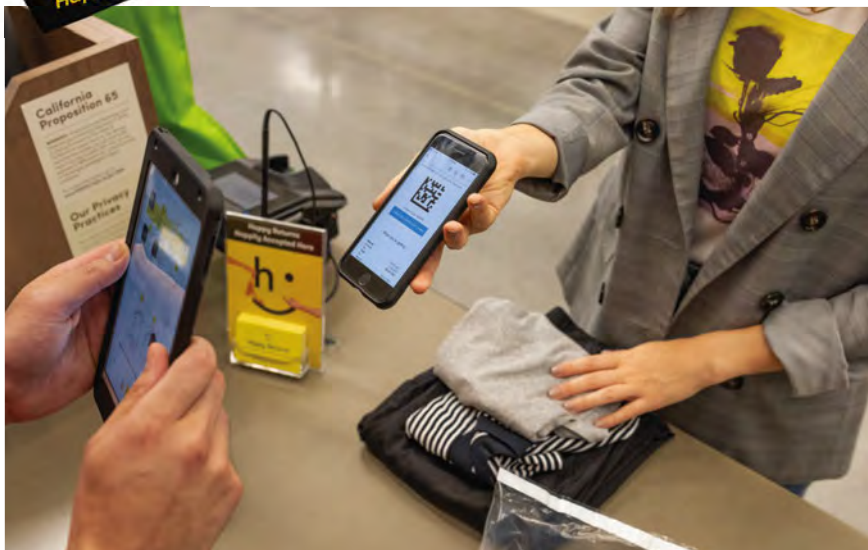
Today, when a customer starts a return online, the software generates a quick response (QR) code. At the Return Bar, they show that code to the Returnista. “The QR code can be scanned from a distance,” says David Sobie, co-founder at Happy Returns.

Pre-COVID-19, the Returnista used to examine the returned item to confirm its condition. Today, the online merchants forego that step in order to eliminate another touch point. Instead, the customer holds up the item, and the Returnista eyeballs it to make sure it matches the description in the QR code, Sobie says. Then the customer places the item in a polybag, the Returnista scans a QR code on the bag, and the customer places the bag in a tote—no mutual contact required.

The old process also required the Returnista and customer to pass an iPad back and forth. The QR code has eliminated that step.

Like others involved in pandemic-era retail, Sobie doesn’t anticipate an eventual return to the old normal: “These changes are here to stay.” ■

To keep in-person returns box-, label-, and contact-free, Happy Returns provides consumers with a QR code that can be scanned from a distance at a Return Bar.



A BRIGHT SPOT RETURNS TO BRICK-AND-MORTAR

While COVID-19 has dealt a serious blow to brick-and-mortar shopping, the rise in e-commerce sales could offer at least one new opportunity for physical stores. E-commerce shoppers return their purchases at a higher rate than traditional shoppers. And, according to one study, when they make returns in brick-and-mortar stores, those locations gain higher revenues.

Researchers at the University of Washington and Carnegie Mellon University studied data collected by Happy Returns, a Santa Monica, California-based firm that accepts returns for more than 30 e-commerce retailers, using Return Bars set up in stores owned by several retail partners.

Focusing on one partner, Paper Source, researchers found that the presence of the Return Bars increased average store revenue by 6.5% and average store transactions by 8.2%.

“Existing customers change their purchase behavior after using the return service,” the researchers say. “In particular, they visit stores more often, purchase more items, and generate higher revenue after their first return service.”



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A semi-truck is shown from a side profile, driving on a multi-lane highway. The sky is a mix of orange, yellow, and blue, indicating sunset or sunrise. The truck's trailer is covered in a large, semi-transparent digital overlay. This overlay features a purple grid pattern with white sine waves and various data points, suggesting a focus on technology and data analytics in logistics. The title '16 TRANSPORTATION METRICS THAT MATTER' is written in large, white, sans-serif capital letters, slanted upwards from left to right, positioned over the top half of the truck and the sky.

16 TRANSPORTATION METRICS THAT MATTER

Here are the metrics shippers monitor to make sure the right freight gets to the right place at the right time. BY SANDRA BECKWITH

When it comes to transporting goods, shippers want to know if the right freight is getting to the right place at the right time. And because transportation ranks at the top of operational expenses for many shippers, they want this to happen as cost-effectively as possible.

Shippers, third-party logistics (3PL) providers, and carriers alike can now use technology to monitor the transportation metrics that matter the most. But relying on technology alone to ensure accountability is a mistake. Building relationships with carriers and working together to identify cost-effective routes as well as minimize disruptions are also effective strategies.

It's important to select carriers that will be partners. "If there's a conversation to be had on why a metric isn't being met, if it's a true partnership, both sides will have a point," says Andrew Lynch, president of Zipline Logistics, an Ohio-based 3PL. For example, if a delivery didn't reach its destination on time, it could be because the product wasn't ready in time to meet that goal.

Looking at the best ways to work together has an impact on metrics, too. "You have to arrange shipping patterns so carriers and drivers are in a position to succeed, which attracts them to your freight," Lynch adds.

Most shippers and carriers review data on metrics at least quarterly to better understand root causes behind successes or failures. Here are the 16 key metrics they pay attention to:

1. BILLING ACCURACY

"We know what rates we've contracted for," says Stephen Smith, senior vice president of global operations at PFS, a Texas-based 3PL.

2. CARBON FOOTPRINT

As shippers continue to reduce their carbon footprints, they want carriers and other supply chain partners to do the same. With a goal of optimum fuel efficiency, they're examining equipment age and maintenance.

"Route optimization so they aren't driving a lot of empty miles along with transportation mode selection are also



Supply chain managers and shippers use technology provided by companies such as Overhaul to monitor key transportation metrics.

important," says Ronald Greene, who handles security and intelligence at supply chain technology company Overhaul in Texas.

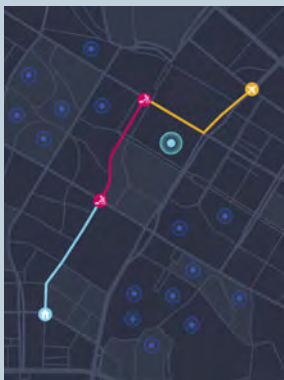
3. CLAIMS

How reliably does the carrier deliver an order intact? "Shock and vibration can damage highly sensitive electronics while temperature and humidity are a concern for pharmaceutical products," says Chris Wolfe, chief executive officer at PowerFleet, a New Jersey-based tracking and monitoring technology provider. The company's new LV-710 FreightCam

MAPPING BETTER METRICS

Bad maps can cost companies time and money during last-mile deliveries to residences and businesses, according to Mapillary's 2020 Mapping in Logistics report.

The Mapillary survey of 219 U.S. delivery drivers reveals that applications with broken maps cause delays and other problems that impact



delivery windows and costs. These issues add up to \$2.5 billion in wasted salary and \$611 million in extra gas expenses.

The research reveals that:

- 78% of those surveyed say map problems cause them to drive more than five extra miles because of bad routes, while 22% drive between 15 and 25 extra miles and 11% travel an extra 25 to 50 miles daily.
- 72% say they take more than four minutes to find the exact delivery location,

compared with 36% who take more than seven minutes and 14% who take more than 10 minutes doing the same.

- 96% of drivers waste anywhere from 15 to 60 minutes every day waiting for the right delivery window because maps indicate it takes longer to arrive to a drop-off point than it actually does.
- Approximately two-thirds (62%) of respondents take more than four minutes to find parking.

• 86% return with undeliverable packages; 38% of them take back more than 25 packages weekly.

- Half report that a problem with one delivery then delays the other deliveries for the rest of the day.
- 99% of those surveyed say that better maps would help them be more effective.

Mapillary is a street-level imagery platform that uses images from a global network of collaborators to improve maps.

photographs cargo before departure and after arrival to document any in-transit damage that leads to claims.

4. DOCK CONGESTION

Because dock congestion can lead to detention, which, in turn, impacts drivers' electronic log requirements and on-time delivery, shippers and carriers monitor dwell time at the dock.

"There's a downstream effect when dock congestion causes delays," says Lynch. "If I miss a delivery at Walmart tomorrow, they might not be able to take me for another four to five days."

5. EQUIPMENT CONDITION

This is often about age, interior cleanliness, and security. "Some shippers won't accept equipment that's older than 10 years," says Greene. Cleanliness is an issue for food and pharmaceutical products in particular.

6. FLEXIBILITY

As COVID-19 has shown, supply chains need to be able to adjust quickly as circumstances change. Wolfe is concerned that supply chains have become so specialized that it's hard to pivot when necessary.

He cites food processors that struggled to redirect shipments to channels that were still operating when restaurants and event venues shut down.



Before and after shots provided by PowerFleet's LV-710 FreightCam can document any in-transit damage leading to a freight claim.

7. NETWORK STABILITY

Shippers and carriers want commitments honored. "Shippers complain about carriers reneging and carriers complain that shippers don't give them the volume they've committed to," says Ahmad El-Dardiry, chief revenue officer and general manager of shipping solutions at Transfix, a digital freight marketplace in New York City.

When COVID-19 challenged network stability, solid shipper-carrier relationships made a difference. "Good shippers tried to make sure their carriers remained buoyant and got volume, even if it was soft," he adds.

8. ON-TIME DELIVERY

This is particularly important with just-in-time manufacturing industries such as automotive. Technology helps soften the impact of delays by updating receivers quickly so they can adjust accordingly.

"EDI used to be the standard, but there's now a push to use APIs that provide a more frequently updated link into the carrier's system so we get information faster," says Mike McClelland, senior vice president of transportation at 3PL Kenco.

9. ON TIME IN FULL

For retail and consumer packaged goods segments, on time in full is "the king of all metrics," says Lynch. Miss this requirement and you'll be fined a fee based on percentage of overall sales.

"Consumer products companies attribute hundreds of thousands of dollars in lost sales to stores being out of stock because a truck didn't make it to the distribution center in time to hit a sale," he says.

10. ON-TIME PICKUP

Like on-time delivery, a late pickup creates a ripple effect in the entire delivery timeline. "This is especially important for bigger operations with a limited number of doors," says Smith. "If the order isn't picked up on time, it causes dock congestion and other problems. It's a flow metric."

Metrics offer insight into carrier performance and benchmarks for improvement goals, providing fodder for crucial conversations. Metrics can help determine which carriers get more of your freight in the future, and which get less. They can provide substance for price negotiations and inspire both parties to modify processes to achieve more efficient and effective transportation. These metrics can help determine how well your carrier is working for you.

TRACKING CARRIER PERFORMANCE

On-time pickup	<input checked="" type="checkbox"/>
On-time delivery	<input checked="" type="checkbox"/>
Claims-free percentage	<input checked="" type="checkbox"/>
EDI compliance	<input checked="" type="checkbox"/>
Billing accuracy	<input checked="" type="checkbox"/>
Tender acceptance	<input checked="" type="checkbox"/>
Quarterly customer satisfaction surveys	<input checked="" type="checkbox"/>

METRICS TRACKED COURTESY OF KENCO.

11. OUT-OF-NETWORK SHIPMENTS

Out-of-network shipments originate from points that are less than optimal. That means they can be expensive and inefficient.

"We spend a lot of time working with multifacility organizations to identify the optimal shipping location for each destination," says Lynch.

12. SAFETY

While safety on the road is important to all shippers, Wolfe says it's particularly important in certain situations.

"With dedicated, private-label hauling offered by third-party logistics providers such as Ryder and Penske Logistics, the trailer might have the brand's name on it, so safe operation is crucial," he explains.

13. SECURITY

Security is especially important to companies shipping cargo that might be at higher risk for theft—pharmaceuticals or consumer electronics, for example.

In addition to requiring equipment that can be properly secured and drivers avoiding high-risk routes, “In North America, the rule is drivers go four hours without stopping because that helps minimize cargo theft,” says Greene.

14. TRACKING

While using GPS devices for tracking driver and freight location is standard, “We now have technology that’s affordable enough for shippers to track their own freight,” says Wolfe. Companies attach tracking devices to pallets to monitor everything from trailer temperature to vibration and shock.

El-Dardiry adds that Transfix uses technology to help carriers optimize loads and deliver goods on time. “We need to monitor where carriers are on the previous load—are they on track? If not, they won’t be on track for the next load, so we know to dispatch another truck for that so we deliver on time,” he says.

15. TRAILER UTILIZATION

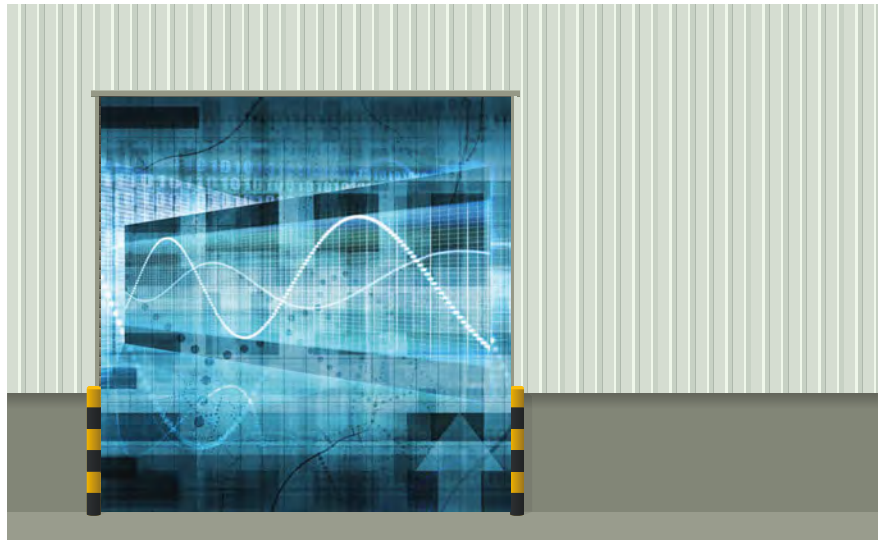
Is a trailer loaded to 100% capacity? If not, it’s costing the shipper more.

When Zipline Logistics hauls consumer packaged goods going to different destinations, it often consolidates orders into one trailer that delivers to several locations. “Increasing the number of pallets in a trailer can affect landed cost per unit by double-digit percentages,” says Lynch.

16. VENDOR COMPLIANCE

An increasing number of companies issue requirements about how vendors need to package and label merchandise so it moves through their supply chains as efficiently as possible. “Without correct labeling on the master carton, scanners can’t read labels correctly, which delays shipment,” says Smith.

When this happens, the buyer issues a chargeback to the vendor. ■



WAREHOUSE METRICS ALSO MATTER

Transportation isn’t the only area where companies improve logistics efficiencies by collecting and analyzing performance data. Metrics can work wonders in the warehouse as well.

There are 34 key operational metrics of particular importance to most distribution professionals, according to the Warehousing Education and Research Council’s (WERC) 2020 annual benchmarking study.

WERC groups these metrics into five categories: customer, operational, financial, capacity/quality, and employee (plus perfect order and cash-to-cash cycles). The study is designed to help warehousing managers, directors, and supervisors—and their C-level bosses—compare their operations against others in the field to improve their own performance.

The most popular benchmarking metrics used have shifted since the previous year’s report. In 2019, five of the top 12 metrics focused on employees; the 2020 study notes that half of employee-focused metrics are in the top 12.

Operations are now prioritizing capacity and quality, with the top five metrics being:

1. Average warehouse capacity used
2. Shipped complete per customer order
3. Order picking accuracy (percent by order)
4. Percent of orders with on-time delivery
5. Peak warehouse capacity used

The top three facility types represented by survey participants are:

- Regional (25%)
- Omni-channel (25%)
- Centralized (17%) and wholesale (17%)

Their companies report annual sales between \$100 million and \$1 billion (45%), less than \$100 million (32.5%), and greater than \$1 billion (22.5%).

With regard to what’s being picked, the majority of facilities (41.4%) utilize broken case picking as opposed to pallets, and more than 50% say their customers are either end consumers or retailers.

SOURCE: WERC.ORG/PAGE/DCMEASURES

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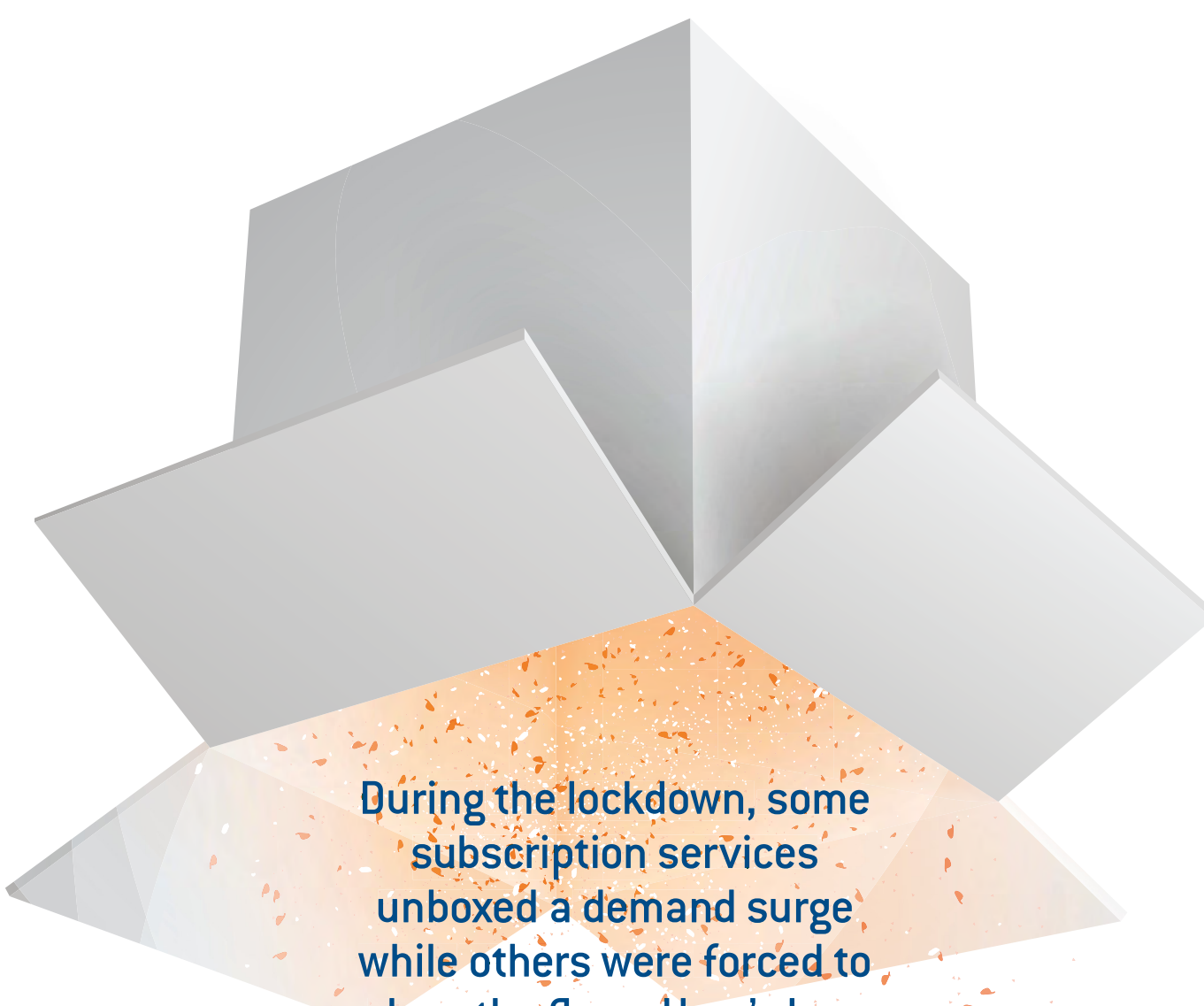
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Shaking Up Subscription Services



During the lockdown, some subscription services unboxed a demand surge while others were forced to close the flaps. Here's how successful services deliver the goods.

BY KAREN KROLL

IN JANUARY 2020, Pipsticks, which offers a monthly sticker subscription, moved much of its final production and kit assembly from California to an area of China that wasn't heavily affected by COVID-19.

The timing proved fortunate. Several of Pipsticks' domestic employees were at high risk for the virus due to other health issues and age, and had to stop working as the pandemic emerged in the United States, says Nathan Vazquez, co-founder and chief executive officer with the company, which is based in San Luis Obispo.

Now, because products arrive in "a ready-to-ship state," he says, Pipsticks has been able to meet most delivery deadlines



Gobble's meal plan service provides and preps the ingredients needed to cook a meal in 15 minutes. Consumers on lockdown are cooking more and avoiding supermarkets, contributing to Gobble's business growing to double what it was before the pandemic.

even as subscription sales jumped, and with a skeleton warehouse crew.

Pipsticks split its remaining California warehouse staff into two teams. Team A works Monday and Tuesday, Team B on Thursday and Friday. The teams alternate Wednesdays.

"If someone shows symptoms or tests positive, we can send their team home for an appropriate time and have the second team take up the slack," Vazquez says. Employees who can work remotely are doing so.

Even with these actions, Pipsticks has had to transport a few products facing delays via air instead of ocean shipping.

"Stickers are reasonably small, so while air freight is not desirable, it's viable in a pinch," Vazquez says.

Like Pipsticks, some subscription companies have seen sales jump during the past few months, even as they've had to rework operations to manage changing transportation routes and reduce employees' exposure to COVID-19.

Alcohol delivery companies, for instance, boomed—growing by 700% in April 2020, according to 1010data, a provider of analytical intelligence.

One driver is the massive shift from brick-and-mortar retail to e-commerce. "Consumers who had never been online,

got online," says Barb Renner, vice chair and leader, U.S. consumer products, with consulting firm Deloitte.

Data from the U.S. Department of Commerce shows online retail sales jumped nearly 15% between the first quarter of 2019 and the first quarter of 2020. What's more, the 2020 numbers include just a few weeks of lockdowns.

Subscription services provide an experience that differs from the one offered by brick-and-mortar retailers, even absent a pandemic: the fun of receiving a package at home and anticipating what might be inside.

Subscribers "sign up not just for products, but also for an outcome," says Amy Konary, global vice president, subscribed strategy group, with Zuora, a platform for subscription businesses. Konary is also founder of the Subscribed Institute, a think tank for the subscription economy.

The outcome that draws consumers to subscriptions might include surprise, convenience, or a healthier lifestyle. Subscription services that provide these outcomes tend to enjoy some resilience, even during economic crises.

RISE UP

Demand at Rise Gardens, which offers indoor hydroponic gardening systems, has jumped 750% since March 2020.

"The lockdown has been a blessing for our company and it has been a true challenge to keep up with demand," says Hank Adams, founder and chief executive officer with the Chicago-based firm.

Also boding well for many subscription businesses is that younger consumers are shifting from "ownership to usership," says Christopher George, co-founder and chair of the Subscription Trade Association. "They rent and lease more than they buy."

Not all subscription businesses have thrived. Apparel and accessory subscription services dropped 70% in April, as consumers sheltered at home and cut back on clothes shopping, 1010data reports.

Because subscription companies build direct relationships with their customers, most gain a deep understanding of their

preferences. “There are a lot of advantages to knowing their preferences,” Konary says. This knowledge helps many respond more quickly to changes in demand.

That’s especially true when demand surges. Gobble, a meal prep company whose dinner kits are designed to be ready in 15 minutes, saw its weekly shipment numbers triple in March and April 2020, driven both by new customers and existing ones ordering at higher rates. “Consumers were eager for home delivery, especially for food and other essentials,” says Aamir Mausoo, general manager, East Coast, at Gobble. Since then, business has settled to about double its pre-pandemic size, he adds.

Gobble was one of the few meal kit companies that didn’t refuse new customers or make major service changes while absorbing the spike in demand. Instead, the company doubled its fulfillment staff and added extra shifts, essentially working around the clock.

While Gobble didn’t experience major supplier disruptions, it still doubled its vendor base. The company also partnered with carriers to help improve service, find new routes, and troubleshoot issues.

Mausoo and his team continue to work to quickly respond to demand fluctuations. “Responding quickly to demand can only be done through

TOP mapped out a push into retail stores, but COVID-19 had other plans. The feminine hygiene products subscription service moved online, and saw subscriptions rise by 25% and nonsubscription orders grow by 165%.



As consumers turn to gardening as a soothing hobby that also eases concerns over food availability during COVID-19, indoor gardening service Rise Gardens is leveraging the opportunity. Customers choose the varieties they want and receive new pods every month.

accurate planning, recruitment, training, and the productivity of our team,” he adds.

ENHANCING BOTH ONLINE AND OFFLINE

During the past few months, Blender Bombs, which offers a nutritional booster for smoothies, enhanced its website to better convey the value of its subscription services. “We want people to add the booster to their daily nutrition plan,” says Scott Maynor, president at Blender Bombs.

The company also checked that its subscription software was running efficiently and supporting its web offerings appropriately.

The company’s marketing efforts extended offline. Some employees embarked on a cross-country road trip in the Blender Bombs RV, handing out samples where they safely could. “It was a way to get in front of people and still socially distance,” Maynor says.

Maynor and his team continue to calculate the optimal subscription discount. “Is it 10% or 12% or free shipping?” he asks. If a customer orders just one item each month, providing free shipping may mean the company essentially provides the product for free.

Blender Bombs also had to adjust its supply chain to respond to a few COVID-19-related disruptions, including difficulty sourcing coconut cream

powder from organic coconuts, a key ingredient in its balm butter. Fortunately, the company identified a new supplier whose product offered the flavor, texture, and shelf life Blender Bombs needed, and at a price it could handle.

These efforts appear to be working. During the past 90 days, Blender Bombs’ subscription base jumped by 30%, Maynor says.

As consumers move more of their shopping to e-commerce, many companies that sell through both retail stores and online subscriptions are similarly focusing more of their efforts online. That’s the case with The Organic Project (TOP), a provider of organic feminine hygiene products based in Duxbury, Massachusetts.

While TOP had planned for a greater push into retail in 2020, many stores are delaying new product launches due to the pandemic, says Denielle Finkelstein, co-founder and president. At the same time, online traffic on TOP’s website jumped about 60%. This was driven by a rise in subscriptions of about 25% and in nonsubscription orders of 165%. “We quickly pivoted to push more business online,” Finkelstein says.

Fortunately, TOP was ready. It had placed a large order in preparation for its April retail launch; these products arrived in February, as the pandemic

emerged in the United States. And because many of TOP's manufacturers are based in Europe, the company hasn't seen disruptive hiccups in production. As a precaution, however, it's adding a four-week cushion to upcoming deliveries.

BUILDING SUPPLY CHAIN REDUNDANCY

The pandemic has highlighted the value of supply chain safety planning and redundancy. Rise Gardens uses many of the same suppliers as companies in the medical device industry, which were given priority early in the pandemic.

The experience hammered home "the importance of redundancies on the supply chain," Adams says. He and his team identified the critical components that become harder to source when a supply chain disruption occurs, and dramatically increased inventory of those products.

Rise Gardens has also increased its safety inventory. "It became clear that, as a startup, this safety inventory would be make-or-break in key moments, and especially in moments of high growth," Adams says.

Some companies launched new subscription models as part of their attempts to survive COVID-19 and eliminate retailers' margins. The transitions can work, but most also introduce challenges.



Before the pandemic, Pipsticks moved final production and kit assembly from California to China. Its stickers are now provided ready to ship, which allowed the subscription service to keep up with demand during the lockdown, even with a skeleton warehouse crew.

The companies have to establish new operating models and work through new supply chain obstacles, such as learning to pick and pack individual orders, says Kim Kuesel, an associate partner with Clarkston Consulting.

They also need to collaborate and share data with supply chain partners. "Understand what levers they can pull and how they can help you succeed in a crisis," Kuesel says. A strong relationship with a supplier may mean they're more inclined to work with you during a crisis.

Customer acquisition and retention costs can be high. Given the absence of

physical store fronts, many subscription models rely heavily on ads, says Jim Martindale, chief executive officer with consulting firm Navint Partners.

To remain relevant, companies must encourage consumers to continue to use their subscriptions. That can require regularly tweaking their offers. For instance, a food company might offer customers a promotional product in the first month they subscribe, then 10% off orders from a partner company in the second month, and a related item—say, a cookbook—in the third.

A NEW NORMAL

While it's difficult to predict how the COVID-19 pandemic will continue to affect businesses, it has already had a profound impact. "COVID-19 has been a huge accelerator for digital transformation," Martindale says. He predicts continued growth in subscription offerings.

At the same time, some rationalization is likely as companies evaluate whether subscription services are an effective and profitable way to engage with consumers. "Companies that provide a unique experience or differentiated product offering and can draw in subscribers, react to supply chain challenges, and be flexible will survive," Kuesel says.



As a way to get in front of customers while maintaining social distancing, Blender Bombs sent employees out in RVs to distribute samples of its smoothie supplements.





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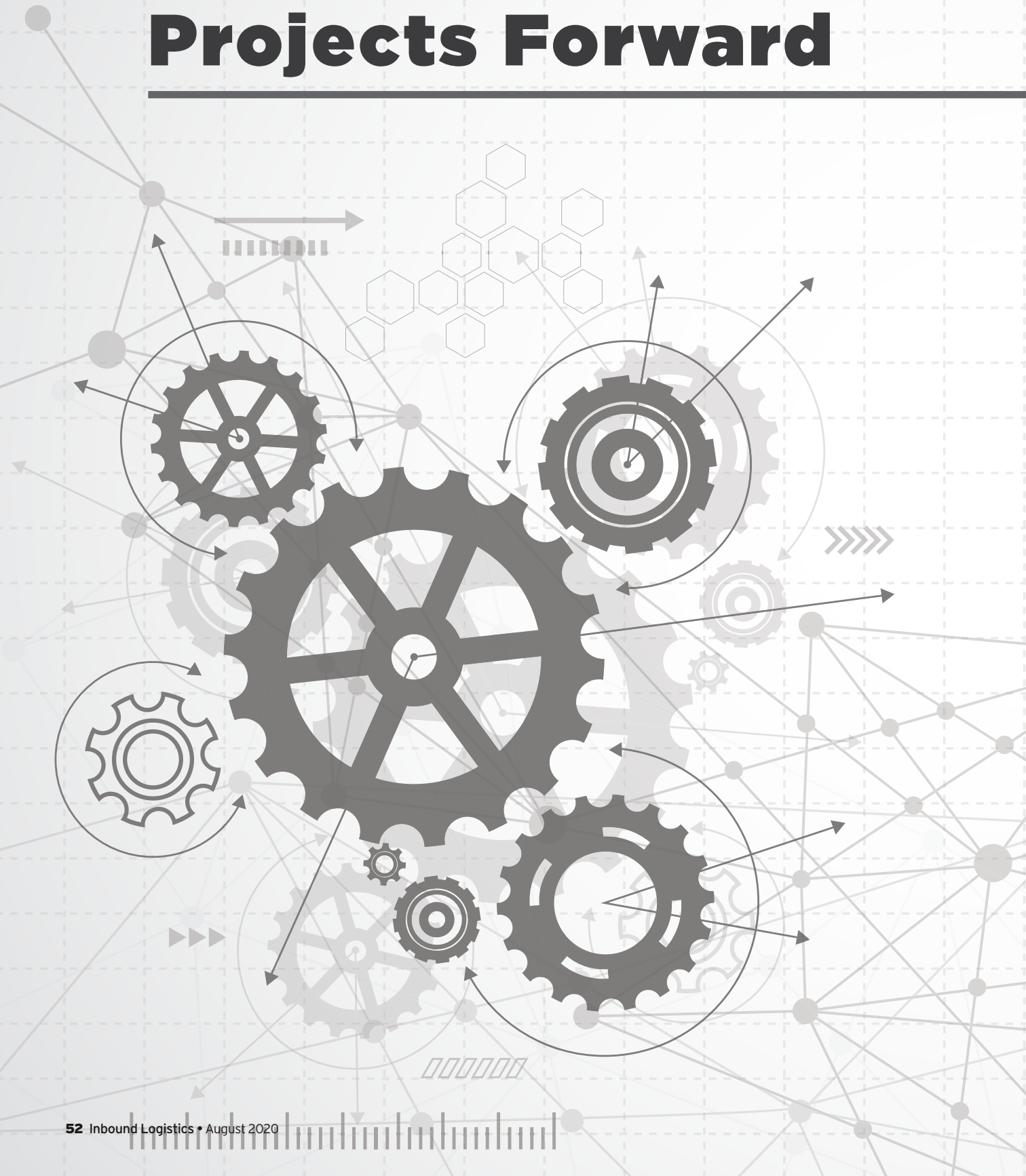
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Economic Development in High Gear

Incentives Propel Projects Forward





Regional organizations draw companies to their sites with incentive packages and other enticements, securing site selection decisions and driving investment.

Site selection requires companies to examine and analyze an array of crucial components in depth. Among these myriad elements, the incentive package often plays an integral role in the final decision.

Incentives frequently enter the decision-making process after a company identifies qualified locations. At that point, incentives become instrumental for their potential cost savings and cost avoidance impact on other site criteria, says Linda Burns, incentives practice leader for Wadley Donovan Gutshaw Consulting, a Bridgewater Township, New Jersey-based advisory services provider for location decisions.



Economic Development in High Gear Incentives Propel Projects Forward



Private and public officials welcomed Aircraft Solutions to the Global TransPark in Kinston, North Carolina, on Dec. 19, 2019. ElectriCities worked with Aircraft Solutions for two years to bring them to North Carolina. The aircraft recycling company will invest nearly \$100 million into Kinston, creating 475 jobs. Pictured from left to right: Jim Trogdon, secretary, Dept. of Transportation; John Rouse, executive director, Global TransPark; Dontario Hardy, mayor of Kinston; Gov. Roy Cooper; and Sven Daniel Koechler, Ph.D., general manager of Aircraft Solutions.

Incentives play an increasingly prominent role in site selection since the pandemic because companies are considering factors such as financing and loan guarantees earlier as part of a site's business case, says Jason Hickey, president and CEO of Hickey & Associates, a Minneapolis-based site selection company. This is also true because companies need more support to hire, train, and retain workers than ever before.

"Companies need more help to make site selection decisions on the financial side, and incentives go way beyond just the tax breaks and the grants that make the news," Hickey says. "There are many other factors that transcend the more stereotypical or traditional incentive base."

The value of specific incentives varies depending on a company's needs. Incentives that can be quickly realized typically are more attractive, but some locations may be able to provide a greater total benefit with longer terms, such as through property tax abatement, tax credits, or utility discounts, notes Brandon Talbert, managing director of Austin Consulting, site selection consultants based in Cleveland.

Tax credits that can be refunded or sold at near-market value are attractive

to companies, particularly those that do not carry the tax liability to fully utilize the credits.

Among the most appealing incentives, "cash is still king, especially in the current economic climate," Burns says.

"The ability to negotiate a cash grant incentive brings the greatest benefit to a company, especially if it is performance-based to minimize default recovery," Burns says.

Talbert says he has seen an increased focus on new and expanded workforce training incentives as many businesses struggle to hire and retain qualified

workers. Workforce incentives often are directed to regional technical colleges or institutions rather than companies, and their offerings may not translate to a company's specific needs, which may include specialized training.

"States that can offer greater flexibility in targeting incentives in a way that aligns with the company's needs and schedule have a leg up in this area," Talbert says.

The workforce's current prominence as a site selection consideration means "a more forward-looking approach is needed to help companies better prepare to minimize future risks," such as a pandemic, Burns says.

"Regions should work together to develop and promote labor talent pipelines to support retention of existing businesses and recruit others," Burns says. "State and county-based incentive programs should be modified to return to earlier practices where the cash was given directly to the companies versus channeled through community colleges or managed via state training."

Incentive packages often emerge from a cohort of community partners. The stalwart efforts of two regional power organizations demonstrate the value of that kind of collaborative commitment to economic development.

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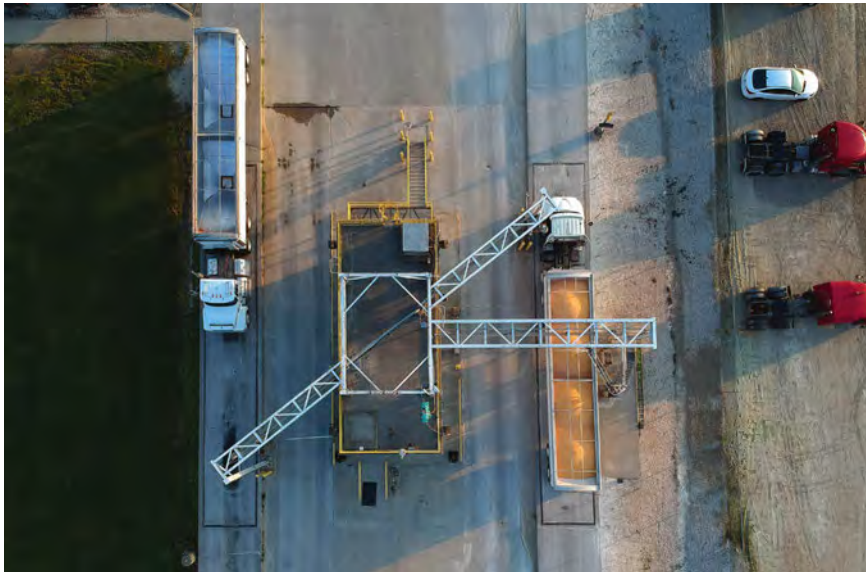


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Economic Development in High Gear Incentives Propel Projects Forward



Grain Processing Corp. broke ground in 2019 on the \$70-million expansion of its plant in Washington, Indiana. It received economic development assistance from Hoosier Energy, a generation and transmission electric cooperative based in Bloomington, Indiana.

A VALUABLE PARTNER

ElectriCities of North Carolina is a not-for-profit membership organization comprising public power communities in North Carolina, South Carolina, and Virginia and providing management services to North Carolina's two municipal power agencies. As part of its efforts, ElectriCities supports its communities with an in-house economic development team that provides a variety of services, including extensive site selection advocacy to attract business investment.

Brenda Daniels, manager of economic development for ElectriCities, says its services are free to companies and site selectors considering North Carolina for a project.

"We will make sure that site selectors are picked up at the airport and taken to each site to meet with the county and/or municipality and at some point with state officials," Daniels says.

A recent success story for ElectriCities came at the end of 2019 when Aircraft Solutions, an aircraft recycling company, announced plans to invest nearly \$100 million into the community of Kinston, creating 475 jobs. Aircraft

Solutions' new center will be located at the Global TransPark—a 2,500-acre multimodal industrial property. Daniels says ElectriCities worked with the company for two years to bring them to North Carolina.

"After intensive research and great support from various sites, such as the ElectriCities Business Relocation Program, as well as excellent communications with each of the involved public departments, we are confident that Global TransPark is the right location for our tremendous project," said Sven Daniel Koechler, Ph.D., general manager of Aircraft Solutions USA Inc., at the time of the announcement.

SMART CERTIFICATION

ElectriCities' Smart Sites program is a major incentive for companies considering the area. If they pass a rigorous engineering review, pieces of property in public power communities across the state are designated as "Smart Sites," meaning they are ready for new tenants. The certified sites program eliminates approximately six months

of work for clients, Daniels says. All engineering work is completed. A key aspect of Smart Sites is each property's on-site municipal electric service; sites also have water and sewers within 500 feet and are within five miles of an interstate or interstate-quality highway.

"It adds up to encourage faster construction with fewer uncertainties and less risk," Daniels says. "It is effective for those companies looking to identify the one site for their new facility quickly since all the work has been completed."

ElectriCities also offers funding for community improvement projects that can help attract economic development. For instance, its Smart Communities Grant is a matching grant of up to \$5,000 for anything related to economic development within its member communities. The more extensive Downtown Revitalization Grant is offered at the \$10,000 non-matching level and dedicated for projects in downtown districts.

ElectriCities collaborates with local partners to develop incentive packages for companies considering the area.

"We work directly with our members on their incentives and then work with the counties on helping match the incentives for the clients," Daniels says. "We try to encourage them to provide the best package first rather than waiting for the company to come back for another round. Sometimes you don't get that chance."

GENERATING INCENTIVES

Hoosier Energy, a generation and transmission electric cooperative based in Bloomington, Indiana, can offer an array of incentives tied to electrical power to businesses considering its region for a new site or investing in improvements to an existing one.

Those incentives start with economic development riders (EDR) that discount electric costs for facilities for a period of six years.

Harold Gutzwiller, manager of economic development and key



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TOA, a Japan-based auto parts supplier, began a \$72-million expansion of its plant in Mooresville, Indiana, in 2014 with the support of Hoosier Energy and other regional partners.

accounts for Hoosier Energy, says the EDRs have proved helpful in attracting businesses to the cooperative's region.

Hoosier Energy provides wholesale power and services to 18 member distribution cooperatives in central and southern Indiana and southeastern Illinois. The cooperative's energy resources deliver power through a nearly 1,700-mile transmission network.

SUBSTANTIAL BENEFITS

"Projects we participated in with the EDR have resulted in hundreds of millions of dollars of new investment and created thousands of new and retained jobs," Gutzwiller says.

The discounts start at 30% in year one and decrease by 5% per year. The average savings over the six-year period is 17%. Hoosier Energy currently has "a number of EDRs in force at this time," Gutzwiller says.

"The EDR is particularly helpful for consumers with high energy use," he adds. "With the savings being front-loaded, it is especially helpful to new facilities as they begin operations."

In addition to EDRs, Hoosier Energy has a robust rebate program related to new facility construction and existing

facility upgrades to encourage the installation of high-efficiency equipment and lighting. The company has provided millions of dollars in rebates.

"Rebates continue to be popular as commercial and industrial consumers desire to become more efficient in their use of electricity," Gutzwiller says.

FOCUS ON RENEWABLES

Renewable energy is critical to Hoosier Energy's future. Earlier this year, the cooperative's board of directors voted to close its last coal-fired power plant in 2023.

With the closure, Hoosier Energy expects to reduce its carbon footprint by nearly 80% as renewable energy plays a major role in replacing existing coal generation. That emphasis on renewables benefits its customers.

"Hoosier Energy and our member/owner cooperatives offer new and existing consumers a number of renewable options—anything from renewable energy credits to onsite renewable generation," Gutzwiller says.

Among its newer incentives offerings, Hoosier Energy has the capacity to provide a market-based rate for new projects with a minimum demand of

20MW. Hoosier Energy will act as the load-serving entity for the new load.

Ultimately, Hoosier Energy's focus in economic development is about assisting its member/owner distribution cooperatives in their efforts to attract new investment and employment opportunities.

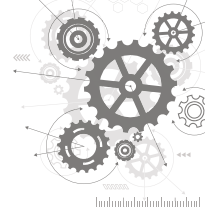
"In this role we work with the distribution cooperatives, municipalities, and the state to ensure we are participating as a full partner and offer the appropriate incentives for each individual project, understanding one size does not fit all," Gutzwiller says.

Crucially, Hoosier Energy has the flexibility to tailor incentives to fit the needs of individual projects.

"Hoosier Energy and our member/owner distribution cooperatives are governed by a board of directors that, if necessary and warranted, can quickly develop individualized incentive packages based on the specific requirements of a project," Gutzwiller says.

WINNING TOGETHER

An incentive package should be "win-win" for both company and community because it's in the parties' best interests that each succeeds, says Hickey.



“There needs to be the right amount of accountability and transparency on both sides of the deal,” he says.

In pursuit of win-win agreements, post-performance incentives are on the rise. These incentives kick in after a company has opened a new site and met predetermined milestones. If they don’t meet the milestones, companies don’t earn the incentives—but they also don’t face penalties or clawbacks.

“Companies want to make sure that the government doesn’t take on too much risk and governments don’t want businesses to take on too much risk,” Hickey says. “This is part of that evolution.”

Flexibility is an essential element of incentive programs that align with both parties’ interests. Locations that tailor their incentives to provide the greatest value to a company will be the most appealing, Talbert says.

“Having the flexibility to tailor incentives that fit a particular project’s needs or that target a specific location weakness will send a positive message to the company and can be the difference-maker in their final decision,” Talbert says.

Incentive programs must remain in step with trends to properly serve businesses, notes Burns. As an example, she points to the rise of home-based workers.

“This was an increasing trend due to enhancements in technology that have exploded with the onset of the virus

those jobs when determining eligibility and amount of incentive benefits.”

The current downturn has illustrated that incentive packages can be undermined with steep penalties when companies fail to comply with an agreement, noting that “penalties or clawbacks at a time when companies are struggling is not ideal for either the company or the location in the long run,” notes Talbert.

On that point, Burns says incentive programs should be re-examined and revised in the current environment to increase flexibility and modify existing agreements to avoid default penalties.

Ultimately, incentives are a key element of a site location package but should always be viewed within the full perspective of a site’s advantages and shortcomings.

“There is often significant variability in operating costs and one-time costs from one location to another,” Talbert says. “Furthermore, selecting a location with suboptimal logistics or that can’t support a company’s workforce needs, can have significant negative ramifications on the business.

“Conversely,” he adds, “selecting the right location can pay dividends for years to come, irrespective of incentives.” ■



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pandemic,” Burns says. “Economic development organizations must modify their practices and policies to factor in

FLORIDA *sets the* FUTURE



The Sunshine State is a strategic and economic powerhouse, driving companies' logistics success and setting the stage to play an even more substantial role in the coming years.





While nine U.S. states have at least one panhandle—an elongated protrusion—it can be argued that Florida’s panhandle, a 200-mile strip at its northwestern end, is easily the most well-known in the country.

In a logistics sense, the entire state of Florida is something of a panhandle, functioning as a geographic landing and launching strip into the rest of the country and the world.

The third-largest state and fourth-largest economy in the United States, Florida offers world-class business amenities and infrastructure. That’s why companies from around the world choose it as the site for their national and international headquarters.

Florida is home to nearly 3,000 headquarter offices, including 16 Fortune 500 corporate headquarters. Moreover, numerous international firms base key facilities in Florida to take advantage of the state’s easy access to global markets.

IDEAL BUSINESS CLIMATE

Florida’s geographic location makes it one of the primary logistics sites for any business seeking to access the U.S. East Coast or Gulf Coast.

Florida’s low corporate tax burden, absence of a personal income tax, and modern infrastructure provide the perfect climate for business. A nexus point for international business, Florida is truly the Sunshine State—the strategic

and economic center of the Americas.

Capitalizing on and enhancing Florida’s geographic advantages are trucking, railway, port, and airport assets that rival or exceed those found anywhere else on the globe. Companies across all industries can benefit from the state’s huge market, large workforce, and tremendous diversity, notes Enterprise Florida, a public-private partnership that serves as the state’s principal economic development engine.

Florida’s government and economic development leaders work together to ensure the state’s business climate remains favorable to companies of all sizes. A right-to-work state, Florida is developing legislative, fiscal, and marketplace initiatives such as insurance tort reform, targeted industry incentives, and other business-friendly initiatives. Businesses looking for workforce training, road infrastructure, or specialized locations may also qualify for specific incentive programs.

In the logistics sphere, Florida has one of the world’s most extensive multi-modal transportation systems, featuring international airports, deepwater shipping ports, extensive highway and rail networks, and multiple hubs that

allow for high-speed data transmission from around the United States to Europe, Latin America, and Africa.

“Florida consistently ranks among the best states to do business in thanks to its pro-business policies, competitive business costs, and streamlined regulatory environment,” says Ray Ramu, executive vice president and chief customer officer for Saia Inc. In business for nearly a century, Saia offers nationwide coverage, non-asset truckload service, and third-party logistics.

PLANNING FOR GROWTH

“The state’s favorable tax structure, government policies, and relatively low costs make planning for future growth easy as well,” Ramu says. “Additionally, the state offers a relatively low cost of living and high quality of life as well as typically favorable weather, which is advantageous for companies and individuals alike.”

Florida is a key market for Saia. “We offer next-day service for the entire state and to and from Florida from portions of the Southeast,” Ramu says. “This, combined with our enhanced residential white-glove service, our guaranteed services, access to Puerto Rico via the Jacksonville gateway, and our array of specialty products and services—including those offered by 3PL LinkEx—provides tremendous value to customers.”



A major player in the intermodal sector, both domestic and international, Florida East Coast Railway is a 351-mile freight rail system along the east coast of Florida. It is the exclusive rail provider to South Florida’s ports and connects with other railway systems.



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Photo: Miami-Dade Aviation Department

Miami International Airport (MIA) offers service to more than 160 cities on four continents, with dedicated freighter service to 112 global destinations. MIA serves as a distribution hub for perishable products, telecommunications equipment, pharmaceuticals, and textiles.

Through its extended and partner coverage, Saia serves the entire continental United States, Alaska, and Hawaii, as well as Canada, Mexico, and Puerto Rico. The company handles more than 26,000 daily shipments.

ENHANCING PROCESSES

Saia LTL Freight was founded in 1924 in Houma, Louisiana, by Louis Saia, Sr., a produce dealer who realized there was more success to be achieved in delivering produce than selling it. The first Saia truck was his car with the rear seats removed. Today, Saia is a billion-dollar-plus powerhouse with nearly 170 terminals and offices, including nine terminals in Florida.

Nationwide, Saia employs more than 10,000 people. The American Trucking Associations' Safety Management Council has recognized Saia LTL Freight for its outstanding safety record.

Known for its commitment to promoting a safe and healthy environment, the company makes substantial investments and process enhancements to continuously improve the fuel economy of its fleet and the energy efficiency of its facilities.

"Our goal is to keep reducing our carbon footprint and minimize our use of resources," Ramu says. "Our fleet initiatives include modernizing our equipment to improve fuel efficiency, transitioning to alternative fuels when practical, and using new technologies to become even more efficient at routing

drivers, loading trucks, and handling freight on our docks."

Within its facilities, Saia also has energy-saving policies in place and a phased upgrade to LED lighting. Other conservation initiatives include the recycling of used oil, hazardous waste, scrap metal, waste paper/cardboard, and tires.

In these challenging times, can Saia continue to serve Florida and the rest of its vast coverage area with the same intensity Louis Saia, Sr. brought to the company nearly 100 years ago?

"Now more than ever, Saia has the capability to deliver logistical solutions for any aspect of a business's transportation or shipping requirements," Ramu says. "We provide consistent, dependable LTL service along with an arsenal of specialty products for both domestic and international shipping needs."

TEAM EFFORT

You might say that Florida is a state of partnerships—in the air, on land, and at sea.

As one example, Emir Pineda, manager of Aviation Trade & Logistics for Miami International Airport (MIA), is quick to point out the essential connections the airport enjoys with the state's ports and over-the-road logistics providers through MIA Cargo HUB, the world's largest gateway to Latin America and the Caribbean. MIA serves as the hub for distribution

of perishable products, hi-tech commodities, telecommunications equipment, textiles, pharmaceuticals, and industrial machinery.

"Florida is well-positioned for many reasons," Pineda says. "Shippers have more ports available (11 cargo ports) to them in Florida than just about any other state in the union. And you can connect to the world through Miami."

One of 19 commercial airports in the state, MIA offers service to more than 160 cities on four continents, with dedicated freighter service to 112 global destinations.

INNOVATION STATION

"These connections play really well when it comes to e-commerce," Pineda says, adding that Amazon has announced plans for a one-million-square-foot distribution center in South Dade, the southern area of Miami-Dade County.

"Take this into account when it comes to innovation," Pineda says. "Think of Florida as a hub for innovation."

In that regard, he notes, Florida is not only a gateway to the world but to the entire universe. Home to the Kennedy Space Center, Florida is first when it comes to all things interplanetary. "We track trade in space," Pineda says. "I don't think any other state can say that."

Speaking of trade, the network extending from MIA Cargo reaches international proportions that may surprise casual observers. The airport's top cargo destination is Brazil, followed

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INTERMODAL

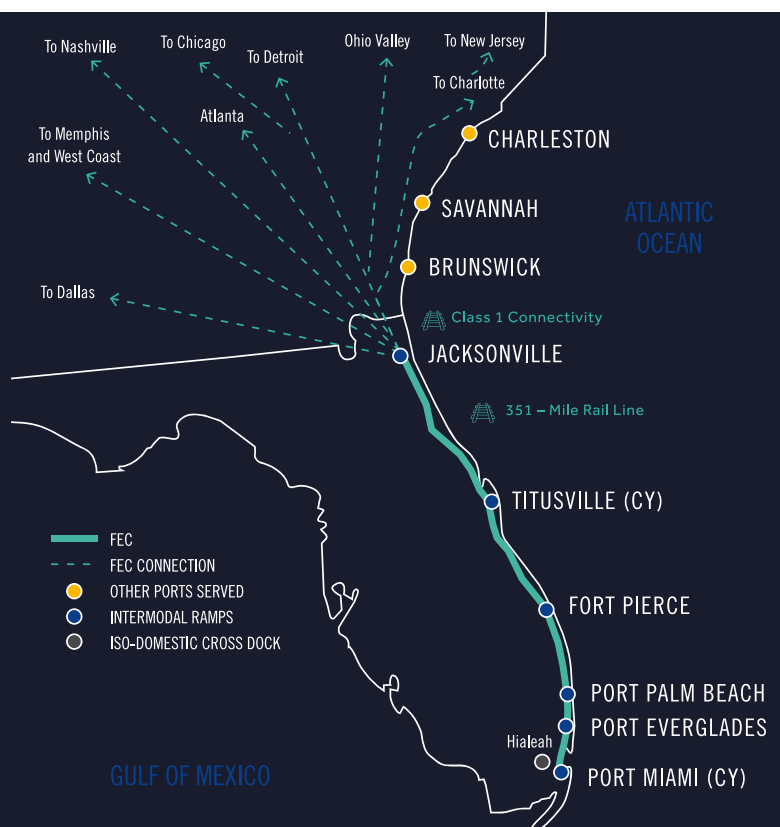
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by Colombia and Chile. On the import side, China ranks first.

The largest number of international visitors arriving at Miami International come from Canada, followed by the United Kingdom.

Traffic likewise is heavy domestically. “Fifteen million trucks come in and out of Florida every week,” Pineda says. “In all directions, we are well positioned to be your trade partner for logistics.”

Florida logistics leaders are not only looking up, they are looking ahead. “Florida has an infrastructure plan for logistics,” Pineda explains. “This is a dedicated effort coordinated by the Florida Department of Transportation.” Pineda worked with the Florida Chamber of Commerce Trade & Logistics Institute on its most recent five-year plan.

GROWTH EXPECTATIONS

Plans for growth factor in expectations that the volume of cargo at MIA will nearly double in the next decade from 2.5 million tons to 4.5 million tons. Consequently, Miami International is updating its infrastructure—adding new buildings and renovating existing structures.

The airport also is acquiring more land. “We’re handling today’s cargo and planning for tomorrow,” Pineda says, adding that a new truck staging area is expected to be built in approximately two years as part of the new development plans.

Growth and change are especially important for Miami International in part because cargo moves not only on passenger flights but significantly on cargo flights as well.

More than 100 airlines serve the airport, and it functions as the number-one perishables airport in the region. Pineda points out that 89% of the flowers, 61% of the fruits and vegetables, and 48% of the seafood that arrive by air into the United States come through MIA.

Pharmaceuticals also figure heavily into the airport’s traffic. While most of the pharmaceuticals are received from India, and most are sent to Brazil, handling them safely and securely requires highly developed local expertise. MIA is the first airport in the Western Hemisphere to be designated an International Air Transport Association (IATA) Pharma Hub.

Miami International also is designated as a Foreign Trade Zone (FTZ) magnet site, which translates into the entire airport serving as an FTZ. The airport is working on establishing a Cargo Communication System, which is an electronic platform enabling information exchange between public and private stakeholders to improve the airport community’s competitive position, with the goal of lowering costs and increasing efficiency and communication among all stakeholders.

Located on 3,230 acres of land near downtown Miami, MIA is operated by

the Miami-Dade Aviation Department and is the property of Miami-Dade County government.

TRACKING SUCCESS

Notwithstanding the enduring romance of rail travel—immortalized in all manner of books, songs, and movies—the fact is that trains are serious business. And no business leaders understand—and rely—on that fact more than logistics and supply chain practitioners.

In Florida, the entity keeping logistics providers on track is Florida East Coast Railway (FEC), which offers carload service and functions as a major player in the intermodal sector, both domestic and international.

A 351-mile freight rail system trekking its way along the east coast of Florida, FEC is the exclusive rail provider to South Florida’s ports and connects with other railway systems to move freight throughout the country.

“Florida East Coast Railway provides rail service throughout the state from Jacksonville and down to Miami,” explains Nathan Asplund, the company’s CEO.

Principal among FEC’s attributes and areas of expertise are:

Carload. FEC moves a variety of carload commodities, including aggregates (crushed rock), automobiles, perishables, packaged foods, building and industrial materials, ethanol, bio-fuels, and other petroleum products.



Port Tampa Bay plans to create a highly efficient on-port logistics park to offer enhanced services to its tenants and users. Its strategic and master plans—dubbed Vision 2030—are in progress and include expanding and modernizing its marine terminals.

Miami International Airport



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Saia LTL Freight was founded in 1924 in Houma, Louisiana, by Louis Saia, Sr., a produce dealer. The first Saia truck was his car with the rear seats removed. Today, Saia is a billion-dollar-plus powerhouse with nearly 170 terminals and offices, including nine terminals in Florida.

Intermodal. Truck-like intermodal service provides shippers the convenience of door-to-door service and shipment tracing with delivery speeds that match those of trucking, with enhanced reliability and reduced carbon emissions.

Over-the-road. FEC's regional trucking carrier, Raven Transport, provides line-haul, heavy-haul, and tanker transportation services for the Southeast, Midwest, and Northeast, with operating authority to service all 48 contiguous states.

Real estate. The railway has multiple industrial development sites available to help companies advance their strategic position within the state along FEC's mainline track from Jacksonville to Miami, including parcels and third party-owned land and facilities.

FLEXIBLE SOLUTIONS

FEC operates on-dock at PortMiami and near-dock in Port Everglades, with direct rail services to Charlotte, Savannah, and Atlanta. FEC operates intermodal terminals in Miami, Fort Lauderdale, Fort Pierce, Titusville, and Jacksonville, giving customers the flexibility of running eight trains daily in each direction to comply with transit times and facilitate on-time performance.

"Also in our portfolio," Asplund adds, "we offer a door-to-door service connecting the U.S. Southeast with

south Florida, attending Georgia, North and South Carolina, and up to Tennessee with FEC-owned 53-foot containers."

From this expansive perspective, Asplund views the Florida landscape and he likes what he sees on the horizon. He says the challenges posed by the industry curtailments due to the global health crisis have prompted creativity in the Sunshine State.

"The current situation has led Florida to look for side developments," Asplund says. "Tourism has been impacted as well as local consumption and investment. Although South Florida is heavy in real estate, the geographic location puts the state in a very productive and efficient location near the Caribbean, Central and South America.

"This puts PortMiami in a prime location for the supply of these countries," he adds. "Apart from that, the Miami area specifically is a big supplier of limestone and raw materials for the construction industry."

Looking beyond the horizon, Asplund sees even better things to come for FEC. "Our alliances with the two Class 1 railroads connecting in Jacksonville have broadened our services and capabilities to reach other markets to supply South Florida as our biggest destination domestically," he says.

"FEC is working to offer highway-like service between Jacksonville and Miami, attending the increasing regulations

from electronic logging devices (ELDs), electronic hardware attached to a commercial motor vehicle engine to record driving hours, and others," he adds.

LOGISTICS LIFE FORCE

More than 70% of the Earth is water, and where there is water there is life. Those two salient facts have much to do with the logistics life force that water represents in the state of Florida. And at the center of it all is Port Tampa Bay near downtown Tampa on the western coast of the Florida Suncoast, approximately 25 sea miles from the Gulf of Mexico.

"Port Tampa Bay's strategic geographic location presents excellent logistics options for companies that serve the market," says Raul Alfonso, executive vice president and chief commercial officer of Port Tampa Bay.

"There are substantial efficiencies and savings to be obtained by moving product to our port to reach this market, instead of serving it as part of a domestic supply chain from other out-of-state ports," he adds. "We have confirmed savings in port operations and inland (trucking) of more than \$800 per container load."

Such savings are attainable by companies that have chosen to deploy a new Central Florida First strategy that takes advantage of the port's new ocean services, ease-to-market accessibility,

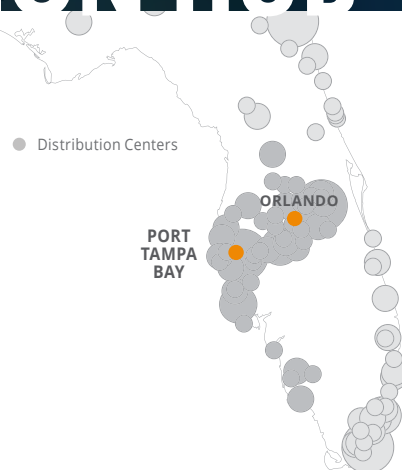


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Florida's largest port, Port Tampa Bay offers a strategic location that plays a bigger role in supply chain networks for shippers and distributors. Near downtown Tampa on the western coast of the Florida Suncoast, the port sits approximately 25 sea miles from the Gulf of Mexico.

and ability to generate economies of scale on inland last-mile distribution—for example, one truck driver being able to complete three or four deliveries daily from Port Tampa Bay to the market's distribution centers along the I-4 Corridor.

The rising impact of e-commerce has increased Port Tampa Bay's role in supply chain networks for shippers and distributors.

"Port Tampa Bay offers our users the opportunity to rationalize services, improve on delivery transit times, and reduce operating costs," Alfonso says. "These are reasons why we are becoming a new, efficient alternative to serving our fast-growing market, for the major trade lanes handling the containers carrying consumer goods into our market."

VISION FOR THE FUTURE

Port Tampa Bay's role in the Florida logistics infrastructure is not limited to the part it plays once products land or launch. Florida's largest port, Port Tampa Bay has land assets available for development.

"Our plans are to create a highly efficient on-port logistics park to offer great efficiencies to our tenants and users," Alfonso says, adding that the port's strategic and master plans—dubbed Vision 2030—are in progress.

For example, the Ports America container terminal at Hookers Point is being expanded to accommodate

capacity of more than 1 million TEUs. Just 200 yards away from the Ports America Terminal, the 130,000-square-foot Port Logistics Refrigerated Services facility provides services to the food/perishables imports and distribution industry.

LOGISTICS PARK, PHASE ONE

"Between the two terminals, we will start the construction of a near-dock, rail-served transload facility, to be operated by Perry-Taylor Distribution Services, supporting our two terminal operations," Alfonso says. "This is the first phase of our future logistics park, which can accommodate more than 300,000 square feet of additional facilities."

Meanwhile, CSX, a leading supplier of rail-based freight transportation in North America, serves the port's diverse portfolio of logistics and transportation services. CSX offers regular intermodal services into the Tampa and Central Florida markets, with excellent northbound capacity to connect Port Tampa Bay's international traffic to all major markets in the United States.

Officials of Port Tampa Bay and its private-sector partners are bullish about the port's future as a major logistics hub.

"We are implementing these development plans, alongside the State of Florida Department of Transportation and the federal government, who understand our region's growth and the importance of

Port Tampa Bay as a major economic engine for the future of our state and our region," Alfonso says.

The Central Florida region is, in fact, the fastest-growing area for commercial and industrial real estate development. The region is the state's primary distribution hub for all types of consumer products, including food products, beverages, furniture, and building and construction materials.

The region also boasts more than 380 million square feet of facilities, with more than 10 million square feet of additional capacity currently under construction.

ECONOMIC SUPER-STATE

Given all this, it is no hyperbole when Enterprise Florida calls the state "a true economic super-state."

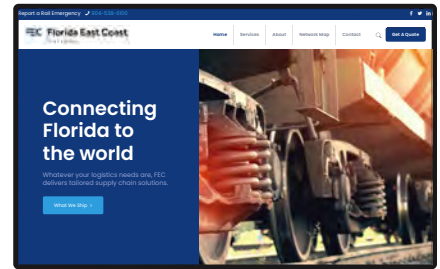
The Florida Department of Economic Opportunity (DEO) makes its confidence in the future official, stating: "Florida will have the nation's top-performing economy."

For those seeking to establish a base for business, including warehouse and distribution facilities—or are in search of an ideal portal through which to move their products—the DEO has this to say: "Florida is committed to increasing its global competitiveness as a destination for business, capital, talent, innovation, and entrepreneurship."

In short, Florida is working hard to fuel the future. ■

FLORIDA EAST COAST RAILWAY • www.fecrwy.com

The Florida East Coast Railway (FEC) is a 351-mile freight rail system located along the east coast of Florida. It is the exclusive rail provider for PortMiami, Port Everglades, and Port of Palm Beach. FEC connects to the national railway system in Jacksonville, Florida, to move cargo originating or terminating there. Based in Jacksonville, FEC provides end-to-end intermodal and carload solutions to customers who demand cost-effective and premium quality.

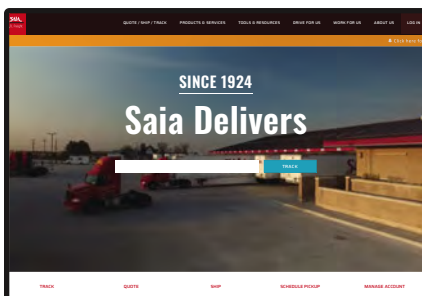
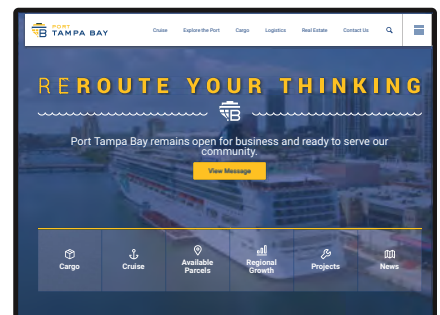


MIAMI INTERNATIONAL AIRPORT • www.miami-airport.com

Miami International Airport (MIA), located on 3,230 acres of land near downtown Miami, is operated by the Miami-Dade Aviation Department and is the property of Miami-Dade County government. Founded in 1928, MIA now offers more flights to Latin America and the Caribbean than any other U.S. airport, boasts a lineup over 100 air carriers, and is the top U.S. airport for international freight. MIA is also the leading economic engine for Miami-Dade County and the state of Florida, generating business revenue of \$31.9 billion annually.

PORT TAMPA BAY • www.porttb.com

Tampa/Hillsborough County boasts some of the highest-rated international and domestic shipping facilities in the nation. Strategically located on Florida's west coast, Port Tampa Bay is easily linked to rapidly expanding markets in Central and South America, and beyond the Panama Canal. The port also provides ship building, maintenance, and repair. To learn more about these services, point your browser to the port's website.



SAIA • www.saia.com

For nearly 100 years, Saia LTL Freight has been providing customers with fast, reliable, regional and interregional shipping. With 169 terminals located in 34 states, Saia LTL Freight offers a range of products and services that are backed up by a guarantee like no other in the industry. Our Customer Service Indicators, or CSIs, allow us to measure our performance each month against a set of six indices that our shippers said are the most important to them.



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meets WMS



flexible + smart + affordable

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THE CUSTOMER

Tacony Corporation is a Fenton, Missouri-based manufacturer and wholesale distributor of a diverse line of products and services, including sewing machines, vacuum cleaners, and commercial floor care equipment.

THE PROVIDER

Sunset Transportation, based in St. Louis, offers a wide portfolio of 3PL services and technologies. Its customized solutions include logistics optimization and management, freight audit and payment services, and expedited delivery.

by Karen Kroll

Family-owned Tacony Corporation offers sewing and home and commercial floor care products in more than 100 countries. Because of the number of products it sells and the geographic span of its operations, supply chain visibility and efficiency are key. At the same time, providing timely, accurate deliveries has become ever more critical, given rising customer expectations.

Until several years ago, however, Tacony had little visibility to its shipments. In addition, management wanted to be confident it was providing the service customers expect today.

“Customers have become used to instant gratification,” says Nick Hinman, director of supply chain and business operations with the Fenton, Missouri-based organization. “We needed to broaden our ability to deliver the best customer experience.”

Tacony entered into a partnership with Sunset Transportation in 2018. The third-party logistics (3PL) provider now manages most of the company’s freight. Through this collaboration, Tacony has been able to cut costs, streamline transportation operations, and boost service levels. “Sunset has helped us be better at freight management,” Hinman says.

LOOKING FOR VISIBILITY

The product line offered by Tacony, a family-centric, third-generation manufacturer and distributor, includes Riccar vacuums, Baby Lock sewing

machines, Madeira threads, and Powr-Flite commercial floor cleaners. It sells some products to retailers and others directly to consumers.

In 2018, Tacony’s management team knew it needed greater visibility into its supply chain, as well as greater automation of its shipping function. For instance, the company wanted to better understand the freight charges it was paying so it could be confident the amounts it charged customers accurately reflected all freight costs. Tacony moves about 500,000 shipments annually.

Tacony issued a request for proposal (RFP) to a handful of 3PLs. Sunset Transportation, based in St. Louis, Missouri, met its requirements. “Our companies align on values,” Hinman says, noting the partnership is based on collaboration, the execution of deliverables, and cost.

By bringing Sunset on to manage most of its transportation function, Tacony gained greater insight into its transportation costs and access to solutions that allowed it to automate many processes. Sunset offers

CASEBOOK STUDY

Cleaning Up

CHALLENGE:

Home care equipment provider Tacony wanted to boost transportation visibility and efficiency while meeting customers' expectations for quality service.

SOLUTION:

- Partner with a 3PL to function as an extension of the company.
- Establish a small group of domestic carriers that have expertise in Tacony's product lines and routes.
- Integrate, via API, Tacony's ERP with the 3PL's rating and routing system.
- Execute an RFP for final-mile deliveries.
- Standardize management of pickup schedules.

RESULTS:

- Inbound shipments move more quickly.
- Ability to easily identify available freight provider(s) that meet the customer's requirements at a reasonable cost. Internal staff is freed up to handle other projects.
- Greater visibility, for both the company and its customers, of accurate freight costs and the progress of shipments in transit.
- Freight charges to customers more accurately reflect the actual costs.
- Recouped tariffs on products that were actually exempt.
- Flat rate accessororial charges streamline operations and let customers know their costs up front.
- Bills of lading populated automatically.

NEXT STEPS:

Planning to expand the 3PL partnership as the company grows.

logistics management, transportation management and shipper technologies, and freight payment services, among other solutions. Its business rests on a foundation of five promises: savings, visibility, data-driven decisions, continuous improvement, and relationships.

GETTING GOING

When the two companies began working together, one goal was "boosting supply chain visibility," Hinman says.

"Tacony did not have any reporting or data visibility at the shipment or transaction level," says Sarah Eggleston, director of national sales and product development with Sunset Transportation. For instance, Tacony couldn't easily determine duties and taxes at the transaction level, nor evaluate how tariffs on products from China were impacting its business.

To start, Sunset and Tacony addressed less-than-truckload (LTL), full truckload, and small parcel freight. "We focused on gaining better visibility around them, and then brought on additional modes," Eggleston says. Each year, Tacony sends more than 20,000 LTL shipments.

One step was an application programming interface (API) integration of Tacony's enterprise resource planning (ERP) and Sunset's rating and routing system. This allows Sunset to obtain data at the sales order level and use that to

identify available freight provider(s) that meet the customer's requirements at a reasonable cost. By leveraging Sunset's knowledge, Tacony's internal staff is freed up to handle other assignments.

Sunset's rating service is able to calculate accurate freight costs and provide transit information in real time. "Now, Tacony understands their costs up front," Eggleston says. When invoicing its customers for freight, Tacony can be more confident it is recouping all expenses.

Another benefit: "Customers have better visibility up front about the total freight cost they're being charged," Hinman says. Once a shipment is en route, Sunset's web-based platform provides on-demand routing and tracking information, as well as progress against key performance metrics.

Before Tacony partnered with Sunset, it had shipped everything with one carrier, whose accessororial charges would vary — one customer might pay one rate for a liftgate, and another might pay a different rate. Not only is Tacony now using a small pool of carriers, but with Sunset, Tacony negotiated flat-rate accessororial charges that apply across all carriers.

"Everybody gets the same accessororial charge now, so that helps streamline things," Hinman says. Moreover, Tacony's sales and customer service teams can let customers know up front the delivery charges to expect.



By automating sales order information, Tacony frees warehouse associates to ship products rather than populate bills of lading.

Sunset also began managing Tacony's international imports and exports, including full and less-than-container-load (LCL) shipments, as well as air freight. As part of this, Sunset examined the cost and time required to move LCL ocean shipments of raw materials. By altering transportation modes, raw materials now move more quickly to Tacony's facilities.

Products coming from China have been subject to a changing roster of tariffs. Sunset has been working with Tacony to identify the products that fall under exclusions. "We're able to leverage Sunset's knowledge and ensure we're staying compliant, as well as taking advantage of anything we may have missed in the past," Hinman says.

A new RFP helps streamline Tacony's final-mile deliveries, ensuring competitive prices and service levels. "We handle only about 5,000 final-mile loads each year, but they're an intricate mode of transport," Hinman says.

Final-mile shipments to residential addresses raise some challenges. For instance, sewing desks that require some installation include the risk of damage, as well as the need to schedule deliveries with consumers. Sunset worked with Tacony to review multiple carriers and identify the one(s) with the best networks as well as quality service.

"We didn't look just at cost and we didn't look just at the customer experience," Hinman says. "We had a collaborative discussion about which carrier we thought was the best one to move forward with, and then we worked to transition from our existing carrier to the new one."

DEFINED BY COLLABORATION

Collaboration defines the relationship between Sunset and Tacony, Hinman says. For instance, both companies' customer service teams work together. All of Tacony's suppliers go through Sunset to schedule inbound containers, truckloads, and pallets. Sunset works directly with Tacony's warehouse management team members across the world to manage the pickup and movement of freight.



To help improve visibility and transportation management of its home care products, including its floor care division, Tacony Corporation entered a collaborative partnership with Sunset Transportation.

"It's collaborative up and down the chain of command throughout both organizations," Hinman says.

Daily, Sunset reports on the schedules of inbound freight at all Tacony's locations. Monthly, the two companies review performance metrics to ensure the relationship is meeting expectations.

Like many companies, Tacony has been impacted by the COVID-19 pandemic. Hinman and his team worked with Sunset to navigate the changing world. For instance, the two companies jointly diverted freight headed to states with new shelter-in-place requirements, where some of Tacony's customers had to temporarily close their businesses. As a result, these customers were unable to accept freight already headed to them.

By working together, staying in constant communication, and making rapid adjustments, "we were able to manage through it without disruption," Hinman says.

The Tacony-Sunset collaboration has generated both hard and soft ongoing savings. "The soft savings include process improvement, customer service, and the overall visibility that we have into our supply chain that wasn't there before," Hinman says.

For instance, transit times on the thousands of LTL shipments Tacony makes each year have been reduced. Sunset also helped streamline the documentation associated with these shipments. Previously, Hinman's team had to manually complete the bills of

lading. "Instead of shipping products, our warehouse associates were busy populating bills of lading," he says.

Now, all information associated with the sales order—such as the address, accessorial charges, and weight—passes electronically. "Sunset rates the shipment, selects the carrier, autopopulates the bill of lading, and sends that back to our warehouse," Hinman says. "All we do is print the label and the bill of lading and apply it to the shipment."

FOCUSING ON SALES

Because Sunset has standardized management of pickup schedules, Tacony warehouse employees no longer spend time calling carriers to provide pallet counts. "Our warehouse teams just focus on sales orders and execution of operations, and not on managing freight," Hinman says.

Sunset also helped Tacony optimize its transportation network, ensuring it has the carriers in the locations it needs to support its customers.

Sunset's freight audit and payment service reviews spending on parcel services—another area that previously lacked visibility. Sunset is able to collect data at the shipment level in real time.

For shipments that carriers bill directly to Tacony, Sunset can capture the same data elements it would on the shipments it manages. "We merge the two datasets to give the full picture," says Jill Gross, director of business implementation at Sunset.

As Tacony grows, it plans to expand its successful partnership with Sunset. ■

IN THIS SECTION:

3PL - Logistics IT

3PL

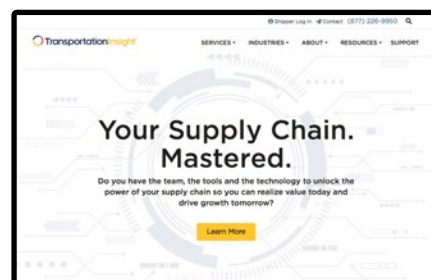


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tracking, warehouse and transportation management systems exceed standards and accelerate goods to market via high-velocity Distribution Centers in multiple port gateways. Regal distributes to 90% of U.S. within 3 days.

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IN THIS SECTION:

Ocean - Retail Logistics

OCEAN

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RETAIL LOGISTICS

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IN THIS SECTION: Retail Logistics

RETAIL LOGISTICS



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Ruan's Integrated Supply Chain Solutions offer it all, including Dedicated Contract Transportation, Managed Transportation, and Value-Added Warehousing. We combine the flexibility of our non-asset and asset-based capabilities with optimal technology and superior service focused on continuous improvement, cost savings, and supply chain efficiency. The Ruan team partners with customers to evaluate, optimize, and deliver a one-source, integrated supply chain solution.

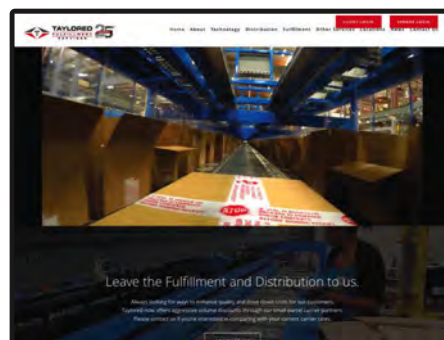


SADDLE CREEK LOGISTICS • www.sclogistics.com

Saddle Creek is an omnichannel supply chain solutions company providing a variety of integrated logistics services, including warehousing, fulfillment and transportation. Our custom solutions leverage advanced operational methods and sophisticated technologies to help retailers, manufacturers and ecommerce companies get products where they need to be quickly, cost-effectively and seamlessly. For more information, visit www.sclogistics.com.

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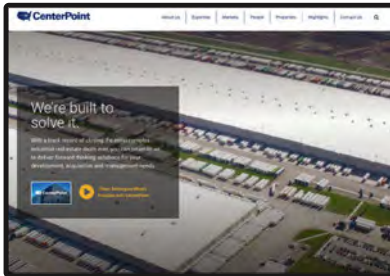
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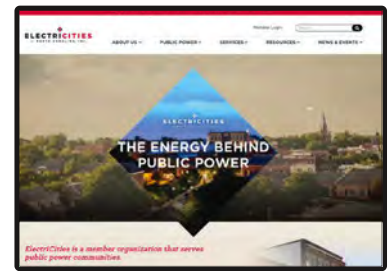
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This membership organization includes public power communities in North Carolina, South Carolina and Virginia. ElectriCities also provides management services to the state's two municipal power agencies - North Carolina Municipal Power Agency Number 1 and North Carolina Eastern Municipal Power Agency. ElectriCities serves the needs of public power communities through collective strength, wisdom, and action - while promoting more success for its citizens. For more information, contact Brenda Daniels at (800) 768-7697, ext. 6363.

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Landstar's network of independent sales agents and transportation capacity providers offers greater flexibility and a local presence that has a global reach. The Landstar network is unmatched in the industry. With more than 1,100 independent agents, 9,000 leased owner operators, 14,000 trailers and 44,000 other available capacity providers, we have the flexibility and experience to find a solution to your transportation challenge.



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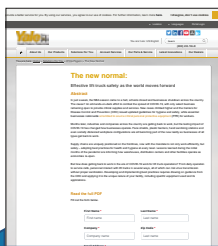
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In today's market, distributors and third-party logistics (3PL) providers that deploy advanced technology at a rapid pace earn loyalty from their customers and become market leaders. Watch this case study to learn how the Tecsys warehouse management system at Delmar International is an integral part of a technology platform that empowers pickers to make quick and accurate decisions, perform flawlessly, and deliver excellent customer service.



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Whether you're starting a network analysis project or implementing a transportation management system, it can be difficult to nail down your priorities in a dynamic transportation environment. Developing a spend and revenue diagram can help your transportation team get started. Read this free whitepaper to discover how to collect data, develop a diagram to identify savings opportunities, and plan for a strategic assessment.



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Like many other of-the-moment technologies, the Internet of Things (IoT) sparked sensational plans and visions, but provided less of a return than expected. IoT does offer many diverse applications for retailers and manufacturers, just not necessarily in the areas the industry thought it would when the technology first emerged. Read this free whitepaper to explore real ways in which IoT can elevate your retail operations.



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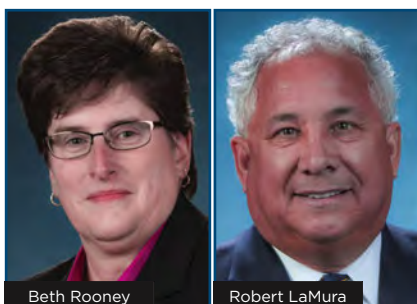
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podcast



Beth Rooney

Robert LaMura

How a Global Gateway Remained a Safe Port in the Storm of COVID-19

GUESTS: Beth Rooney, Deputy Director; and Robert LaMura, Manager of Maritime Industry Relations; Port Authority of New York and New Jersey

bit.ly/PortofNYNJSCIPD

As COVID-19 derailed businesses around the world, ports had to quickly shift their day-to-day operations to keep services uninterrupted. Beth Rooney and Robert LaMura of the Port Authority of New York and New Jersey discuss the strong initiatives they took to protect employees and keep cargo moving, and how this major gateway remained open for business throughout the pandemic.



[IN FOCUS]

SPOTLIGHT

Order Picking Solutions

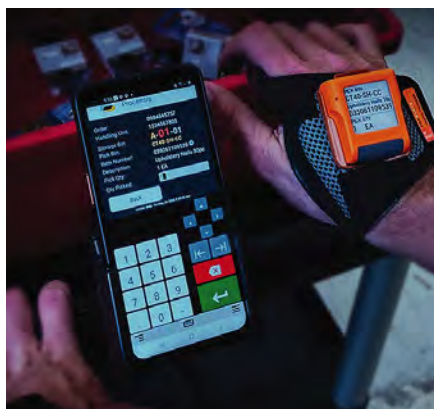
> **PRODecant Solution:** This automated solution from DLN Integrated Systems is designed for distribution facilities requiring broken case picking. It consists of a robotic system that utilizes vision technology to identify the unique specifications of a carton to automatically open and empty the contents into a tote. The tote is then routed, typically via conveyor, to a forward pick location or automated storage and retrieval system (AS/RS).



> **V2 Wireless Pick-to-Light:** This new cloud display device from Voodoo Robotics helps warehouse pickers/kitters find the right inventory quickly, increasing pick rates and accuracy while reducing errors. By displaying text, barcodes, QR codes, icons, and arrows, the wireless IoT device guides pickers to the right product for increased productivity. Using two AAA batteries, the device can run for years, depending on usage.



> **Procensis Wearable Picking Bundle:** This new product bundle enables hands-free scanning, delivering up to 20% efficiency gains in picking applications. It combines Ivanti Velocity, powered by Wavelink, with ProGlove's MARK display wearable scanner and the Samsung Galaxy XCover Pro, an enterprise-ready smartphone, to increase warehouse productivity and accuracy. The bundled solution is available from mobility and network design solutions provider Procensis.



> Sherpa Mobile Robotics System:

These collaborative robots eliminate downtime by incorporating Wiferion's etaLINK 3000 series inductive loading systems, which enable in-process charging. When the robot drives to the charging station, no matter from which direction, the charging process starts automatically. The systems are designed for multiple logistics functions, from materials handling to sorting and picking e-commerce goods.

> **Toyota Order Picker:** With a 3,000-pound lifting capacity, this system from Toyota Material Handling addresses the challenges of high-reaching warehouses. With lift heights up to 390 inches and cushioned mast staging, it helps operators comfortably reach tall racks for order picking. Utilizing wire guidance and double rail guidance systems, the order picker maneuvers narrow aisles in warehouses with minimized rack impact during case picking.



> **Auto Shelf:** By integrating a robot into every shelf, Prime Robotics' system accelerates pick speeds in warehouses. The solution eliminates the time that traditional autonomous mobile robotics systems spend picking up and moving shelves: All shelves move and bring products to the pick stations, eliminating human error and improving inventory accuracy.

> **Picavi Pick-by-Vision:** The solution, which utilizes smart glasses, recently integrated push notifications to allow warehouse staff in the control room to communicate directly with individual workers or a team of workers, regardless of their location in the warehouse. The system features two methods of communication: In addition to sending text messages, the microphone in the smart glasses can be used to send voice messages.



> **Robotic Store Replenishment (RSR):** This robotic picking solution from Berkshire Grey is modular, letting retailers scale the number of orders fulfilled simultaneously into the thousands and the number of items picked per week into the millions. It also enables efficient autonomous picking of smaller inventory quantities. The RSR solution is integrated into standard distribution processes with the robotic systems working side-by-side with manual break pack operations.

[IN FOCUS]

INBRIEF

New Services and Solutions

>PRODUCTS

> Safe Load Testing

Technologies' new Tilt

Testing Tool evaluates load stability for over-the-road transportation. Detachable for easy handling, the tool lets shippers validate a load's stability by tilting it.

> Shippers who want to remove lithium-ion powered recorders and trackers from their loads due to safety concerns have a new option with the **Tive Solo 5G Non Lithium-Ion Tracker**. Powered by nickel-metal hydride batteries, the new device is available in either a disposable single-use or multi-use option.

>TECHNOLOGY

> Shippers can secure truck capacity and access **Uber Freight's** real-time pricing and tendering capabilities by integrating directly with **BluJay's** Transportation Management via API. The partnership between **BluJay Solutions** and **Uber Freight** aims to give businesses end-to-end visibility.

> **BDP International**, a logistics and transportation solutions company, launched **BDP GO**, a new self-service platform that provides shippers with instant freight



> **DHL Express** added four 767-300 Boeing Converted Freighters as part of its efforts to continue modernizing and growing its fleet with cost-efficient and reliable freighters. Boeing converted the aircraft from passenger to freighter configuration to fit the needs of DHL Express and meet the rising global demand for express services.

quotes and bookings. It lets shippers secure FCL and LCL bookings, receive booking confirmation and applicable documentation, and track and trace cargo movement in real time.

> Shippers gain supply chain visibility with the recent partnership between TMS provider **Alpega** and **project44**, a multimodal visibility platform. The integration gives Alpega customers live shipment tracking and visibility data directly linked to the transportation order in Alpega TMS, providing real-time insight for improved shipment execution and exception management.



> **A. Duie Pyle** expanded its Westfield Integrated Distribution Center in Westfield, Massachusetts, adding a 35,500-square-foot service center and an 8,800-square-foot fleet maintenance facility. Reopened on July 27, the expanded facility now features 53 LTL cross-dock doors to improve transit times.

> The **Yale** MTR007-F Heavyweight Handler makes loading and unloading flat-pack and odd-shaped items less time-consuming and labor-intensive. Yale Materials Handling's new solution uses a floor-level base support to slide under items and a tall, tilting load backrest to support them during transport.



> **Aptean**, a software solutions provider, introduced Aptean Pay and Aptean eCommerce to support retailers' e-commerce transition. Aptean Pay is a cloud-native payment platform that allows businesses to accept digital payments from customers. Aptean eCommerce helps businesses launch an online storefront for B2B or B2C transactions, leveraging Aptean Pay as its payment platform.

>SERVICES

> **Gebrüder Weiss** expanded its import consulting program in the United States. Gebrüder Weiss USA and its team of licensed professionals can help shippers with the U.S. import process, including tariff classification, invoice descriptions, valuation, country of origin marking, anti-dumping and countervailing duty, and intellectual property rights.

> **Dayton Freight Lines**, a provider of regional LTL transportation services, relocated its Nashville Service

Center to a new facility to improve service to Tennessee shippers. The new facility has more than quadrupled in size for a total of 76 doors and is located off Highway 40, on the east side of Nashville.

> Small- and medium-sized manufacturers of frozen and refrigerated foods now have the option to work with a network of regional, family-run cold storage providers through a new program from **RLS Logistics**. The cold chain solutions provider created the joint venture to give shippers an entrepreneur-led alternative to larger providers.

>TRANSPORTATION

> **Dachser Chile's** weekly LCL service from Hamburg, Germany, to San Antonio, Chile, has seen a 35% increase in demand since launching in April. The service offers a 30- to 32-day port-to-door transit time.

> **Yang Ming Marine Transport** added two new 11,000-TEU container vessels: *YM Triumph* and *YM Truth*. Both vessels, equipped with 1,000 plugs for reefer containers, joined THE Alliance's Trans-Pacific routes in August 2020.

> To increase cargo capacity, **DSV** expanded its air charter network, adding Macau (Hong Kong) to Mexico City; Frankfurt to Mexico City and Guadalajara (round trip); Hong Kong to Taipei; Taipei to Huntsville; Hong Kong to Seoul; and Seoul to Sao Paulo.

> **OOCL** is expanding its China to Southeast Asia service network in September 2020 by introducing the China Indonesia Philippines service (CIP). The CIP port rotation includes Shanghai, Ningbo, Da Chan Bay, Jakarta, Surabaya, Manila South Harbor, and Hong Kong.

> Designed to protect temperature-sensitive life-science products, Tempcell ECO is made from 100% recycled corrugated cardboard. **Softbox's** packaging system is constructed to create effective insulation layers that offer efficiencies similar to traditional expanded polystyrene parcel shippers.



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**BICYCLE MAKERS AND RETAILERS RACE TO CATCH UP TO SURGING DEMAND FOR BIKES
AMID ABRUPT TURNS IN CONSUMER BEHAVIOR**

CYCLING AT FULL SPEED



MULTI-SPOKE SUPPLY CHAIN

Trek, which accounts for about 30% of the \$6-billion U.S. bike market, is staying in front of the pack by responding swiftly to point-of-sale (POS) data. The bike maker, which also sells a proprietary POS system to thousands of independent dealers, noted the demand uptick in April and ramped up orders.

It had to navigate its circuitous 120-day supply chain, which consists of about 50 suppliers, providing components, from wheels, grips, pedals, handlebars, shifters, brakes, and cables. The parts make their way to one of four Trek assembly plants in China, Taiwan, Germany, and Wisconsin.

Fortunately, the bike maker keeps about 60 days' worth of buffer stock, and with orders boosted in April, expects to replenish inventory in August. In fact, the company expects 2020 sales to be more than double sales in 2019, which was itself a record year.

BIKE RENTALS ACCELERATE

NYC bike ridership has nearly doubled between March and June 2020, according to CitiBike, a bike-sharing system serving New York City.

STATIONARY BIKES ON THE MOVE

Indoor bikes are riding high. Peloton's revenue for the quarter that ended March 31, 2020 marked a sales peak, representing a 66% year-on-year increase.

U.S. bicycle sales total (including indoor bikes, helmets, and other accessories) in April 2020, up 75% from 2019, marking an all-time sales pinnacle, according to market research firm NPD Group.



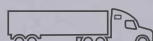
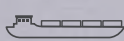
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