

MARCH 2020

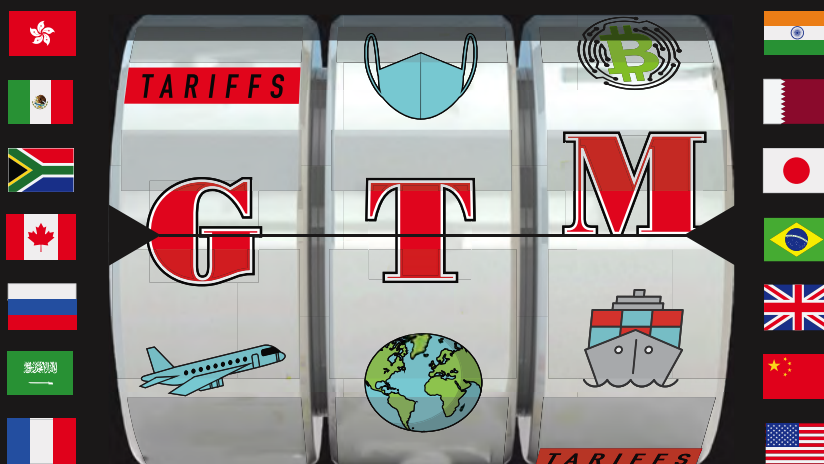
SPECIAL REPORT
**WAGER ON
GEORGIA**

inbound logistics

a **THOMAS**™ company

THE MAGAZINE FOR DEMAND-DRIVEN ENTERPRISES

STACK THEM ODDS



WINNING PLAYS FOR GLOBAL TRADE

GLOBAL LOGISTICS GUIDE

**DOUBLE DOWN ON
THESE REGIONS**

IMPORT CHEAT SHEET

**SAFE BETS AGAINST
DISRUPTION**

QUOTE. SHIP. TRACK.



We provide all-inclusive transportation solutions at no cost with no 3PLs, no intermediaries, and no contracts.

Its shipping, simplified.

FREETMS.COM

Info SNACKS

BITE SIZED SUPPLY CHAIN/LOGISTICS INFORMATION

Don't Get Hurt

"If you don't acquire good visibility, what you don't know about your supply chain can and will hurt you."

—Greg Schlegel, executive in residence, supply chain risk at Lehigh University, Bethlehem, Pennsylvania

SEE "WHEN BAD THINGS HAPPEN TO GOOD SUPPLY CHAINS" PAGE 62



10 CONSECUTIVE MONTHS

Length of the latest air cargo demand slump. While the global coronavirus outbreak is having an impact, it was the Lunar New Year that caused the latest decline.

—International Air Transport Association

JUST ANOTHER BRICK IN THE MALL

Burlington Stores is ending its e-commerce operation and focusing on growing its brick-and-mortar business. E-commerce accounted for only 0.5% of sales, and customers prefer the treasure hunt in physical shops, according to the off-price retailer.



hours per year

The amount of time Americans lose due to traffic congestion, costing \$1,377 per driver. Boston is the worst area in the nation, with the average driver losing 149 hours.

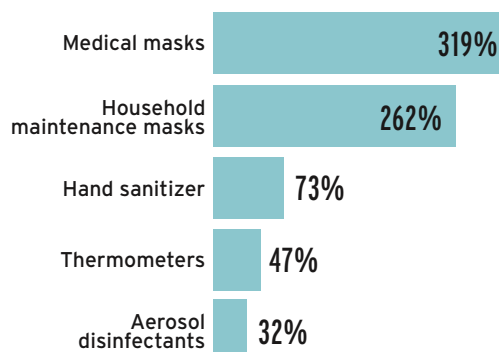
—Inrix

"We believe that the front door of our store is now on the customer's pocket."

— Craig Menear, CEO and president, Home Depot, referring to mobile commerce. Digital sales for the home improvement retailer grew 21.4% for all of fiscal 2019, and 50% of online orders are picked up at a Home Depot store.

SALES AT FULL MASK

Year-over-year dollar sales growth of health-related consumer packaged goods in the United States in the four weeks ending on February 22, 2020:



CONTENTS

MARCH 2020 | VOL. 40 | NO. 3

24

2020 GLOBAL LOGISTICS GUIDE

Get a snapshot of the opportunities and concerns affecting supply chain hubs around the globe.

52

GLOBAL TRADE MANAGEMENT SYSTEMS: A SMART BET

Betting on GTMs can help you hit the jackpot with supply chain visibility, tariff compliance, and automated transactions.

57

GLOBAL TRADE MANAGEMENT GUIDE 2020

From resource planning and transportation management to analytics, these GTM solutions can take the stress out of managing your global supply chain.

62

WHEN BAD THINGS HAPPEN TO GOOD SUPPLY CHAINS

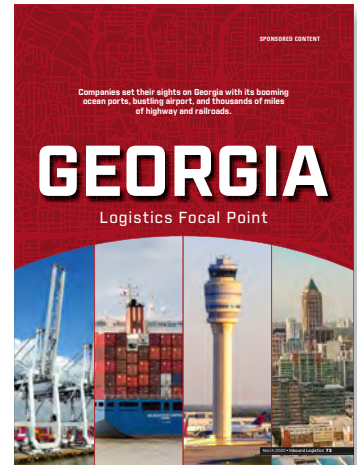
The coronavirus is just one of many disruptions that can make a good supply chain suddenly go bad.

66

SPONSORED

E-COMMERCE ENGINE: TECHNOLOGY REVS UP EFFICIENCY

Technology helps the supply chain stay on course as it navigates e-commerce and omnichannel roadblocks.



73

SPONSORED

GEORGIA: LOGISTICS FOCAL POINT

With booming ports, a bustling airport, and ample highways and railroads, the Peach State is a sweet spot for international trade and logistics.



INPRACTICE

18 READER PROFILE

How Stephanie Benedetto, co-founder and CEO of Queen of Raw, created a blockchain-enabled marketplace for unused materials that empowers people, fosters profit, and protects the planet.



nVision Global®

**Save 8%-12%
On Your
Freight Spend**



Global Leader in Freight Audit and Payment Over the Past 25+ Years

- Freight Audit & Payment • TMS
- Contract Management • Rate Procurement
- Freight Claims • Shipment Visibility
- Business Intelligence

Contact us Today to Learn More About nVision Global's Solutions!

Asia +86-181-6723-8979 / +6-016-770-4327 | Europe (EMEA) +3-143-799-9088

Central America +506-2271-5613 | North America +1-770-474-4122

South America +55 15 98112 8314



Scan me

Atlanta, GA (USA) • San Jose, Costa Rica • Maastricht, Netherlands • Cluj, Romania
• Sao Paulo, Brazil • Kolkata, India • Delhi, India • Ningbo, China

sales@nvisionglobal.com www.nvisionglobal.com

CONTENTS

MARCH 2020 | VOL. 40 | NO. 3

INFOCUS

1 INFO SNACKS

16 VERTICAL FOCUS: AUTOMOTIVE

20 NOTED

22 TAKEAWAYS

102 PRODUCT SPOTLIGHT

Materials handling innovations

104 IN BRIEF

112 LAST MILE

Upcycling bears fruit



INSIGHT

8 CHECKING IN

Flexing muscle on China trade compliance

10 GOOD QUESTION

What supply chain insight would you share with your younger self?

12 DIALOG

14 10 TIPS

Preparing for global trade disruption

28 LEAN SUPPLY CHAIN

Accounting for lean

30 RISKS & REWARDS

Seven smart steps to help minimize risk

32 ECO DEV

How to ensure port resiliency after a critical incident

26 SPONSORED KNOWLEDGE BASE

The need for speed: overcoming the final hurdles to faster e-commerce deliveries...26

True next day—why it matters...27

34 SPONSORED SOLVED

Caffeine fix: mug maker meets brewing demand...34

Gaining 100% end-to-end visibility at the SKU level...35

36 SPONSORED THOUGHT LEADERS

Finding a strategic supply chain partner



*The latest
materials
handling
innovations*

102

10

GOOD QUESTION

What supply chain insight would you share with your younger self?

INFO

94 WEB_CITE CITY

100 SUPPLY CHAIN INSIGHTS

108 CALENDAR

110 RESOURCE CENTER

Inbound Logistics (ISSN 0888-8493, USPS 703990) is mailed monthly to approximately 60,000 business professionals who buy, specify, or recommend logistics technology, transportation, and related services, by Thomas Publishing Company LLC, 5 Penn Plaza, NY, NY 10001. José E. Andrade, co-chairman; Carl T. Holst-Knudsen, co-chairman. Periodicals postage paid at New York, NY, and additional mailing offices. All rights reserved. The publisher accepts no responsibility for the validity of claims of any products or services described. No part of this publication may be reproduced or transmitted in any form or by any electronic means, or stored in any information retrieval system, without permission from the publisher. POSTMASTER SEND ADDRESS CHANGES TO: Inbound Logistics, 5 Penn Plaza, New York, NY 10001

You promised your customers. We'll help deliver.

As a leading national LTL carrier, Old Dominion works to make your job easier. We take your success seriously and it shows in our #1 rankings for value, satisfaction, responsiveness and overall performance.* With over 21,000 employees working in more than 236 service centers, we take pride in helping you ship confidently from coast to coast and everywhere in between.

For more information, visit odfl.com or call 1-800-235-5569.

HELPING THE WORLD KEEP PROMISES.®



©2020 Old Dominion Freight Line, Inc. All rights reserved.
*Source: 2019 Masto & Co. National LTL Carrier Report.

OD·DOMESTIC

OD·EXPEDITED

OD·PEOPLE

OD·GLOBAL

OD·TECHNOLOGY

LINKS

MARCH 2020



For up-to-the-minute information, bookmark the IL news page. Enjoy opinions, commentary, and links to the latest news to help you stay on top of your game.
bit.ly/IL-news



Tune in to get insights and diverse points of view from leaders in the industry.
bit.ly/ILMagPodcastPage

WEB_CITE CITY

The most comprehensive online directory of supply chain websites—organized by category, cross-referenced, and fully searchable.
bit.ly/IL_WCC

CONNECT WITH US

[linkedin.com/company/
inbound-logistics](https://www.linkedin.com/company/inbound-logistics)

twitter.com/ILMagazine

[facebook.com/
InboundLogistics](https://www.facebook.com/InboundLogistics)

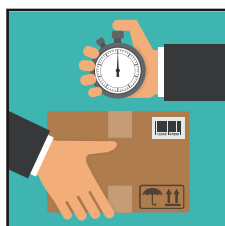
[youtube.com/user/
InboundLogistics](https://www.youtube.com/user/InboundLogistics)

MORE NEWS ONLINE



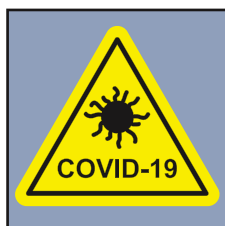
ARE YOU READY TO JOIN THE CIRCULAR SUPPLY CHAIN?

As the pressure to shift from a traditional linear supply chain to a circular one intensifies, companies will need to revisit how they produce and deliver products. Here are four things to consider before kicking off your sustainability project.
bit.ly/circular_SC



THE DELIVERY ECONOMY IS HERE TO STAY. HOW TO GET AHEAD OF THE RACE.

Customers expect low-cost, fast, and highly transparent delivery of goods. To thrive in this new delivery economy, supply chain stakeholders have to define what makes a great delivery experience and align strategies to customer experience expectations.
bit.ly/delivery_economy



HOW IS CORONAVIRUS IMPACTING E-COMMERCE?

As COVID-19 continues to upend supply chains, companies are rewriting inventory strategies and reconsidering trade routes. How is the virus disrupting e-commerce operations, and how can retailers respond and recover?
bit.ly/covid19impacts

inboundlogistics.com

inbound
logistics
THOMAS company



DECISION SUPPORT TOOLS

Search our databases of the Top 100 providers in key segments of the supply chain industry.



FIND A
3PL PROVIDER
bit.ly/3PL-DST



FIND A
TRUCKING COMPANY
bit.ly/truck-DST



FIND A LOGISTICS IT
PROVIDER
bit.ly/IT-DST



FIND AN AIRFREIGHT
FORWARDER
bit.ly/airfreight-DST



FIND A LOGISTICS
SCHOOL
bit.ly/edu-DST



> GREATER TOGETHER



At DSC Logistics, we combine innovative solutions, collaborative partnerships and high performance operations to unlock the potential of your supply chain.

We've joined with CJ Logistics, *The Global SCM Innovator*, creating an integrated global network with expanded capabilities.

Learn more at
DSCLOGISTICS.COM/SOLUTIONS

CHECKING IN

Flexing Muscle on China Trade Compliance



Keith Biondo, Publisher

The Trump administration is using a novel approach—e-commerce shipment enforcement—to ensure that China complies with Phase 1 of the U.S.-China trade deal signed in January 2020.

Trade compliance intersects with billions of dollars of e-commerce shipments in Operation Mega Flex, which the Department of Homeland Security outlined in late February 2020. Mega Flex targets what U.S. trade negotiators call the “seven deadly structural sins”

that would violate China’s trade partnership with the United States. Two of those “sins” are intellectual property theft and illicit production and shipments.

Accordingly, parts of the Phase 1 agreement state that China promises to cut harmful shipments to the United States—MDMA, meth, fentanyl and other opiates, fake coronavirus meds, and fake high-end goods such as the iPhone 11 and AirPods—which e-commerce players deliver by the millions.

The partial trade deal does, on paper at least, offer benefits to the United States, says *The New York Times*. The bulk of the tariffs remain in place but, given compliance history, “enforcing the deal will be difficult,” *The Times* opines.

That’s where the e-commerce connection comes in. The Trump administration plans to ensure compliance by holding e-commerce companies, including Amazon, Facebook, Alibaba, AliExpress, Instagram, and eBay, financially responsible for helping China traffic in products that the trade deal forbids.

Operation Mega Flex is a “monthly look under the hood of thousands of Chinese packages that come in by air to the various ports around the country,” explains Dr. Peter Navarro, Trump’s director of trade and manufacturing policy, to determine violations that have been going on for years.

Why have these violations been going on for so long? Partly because in the past, case law was determined when the U.S. government, and specifically the Department of Justice, “didn’t understand the implications of e-commerce,” Navarro says. To remedy that, the Trump administration is targeting regulatory laws on the books to align regulations with market realities.

President Trump signed an executive order in January 2020 that levies civil penalties against companies that allow the sale of counterfeit products. Moving forward, the White House is working to bring a “proposal to the Hill” that will rewrite the regulatory laws needed “to hold these e-commerce platforms accountable,” Navarro states.

Will compliance be as difficult as *The New York Times* predicts? Perhaps. But at least Amazon is listening. According to a Reuters report, Amazon recently flexed its own compliance muscle by barring one million bogus coronavirus products from being sold on its marketplace. Voluntarily.

Keith Biondo

inbound
logistics
a THOMAS company

Vol. 40, No. 3

March 2020

THE MAGAZINE FOR DEMAND-DRIVEN ENTERPRISES

www.inboundlogistics.com

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
Jennifer Baljko • Merrill Douglas
Karen M. Kroll • Mike Ogle

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

FREE SUBSCRIPTIONS

www.inboundlogistics.com/free



Inbound Logistics supports sustainable best practices. Our mission is rooted in helping companies match demand to supply, eliminating waste from the supply chain. This magazine is printed on paper sourced from fast growth renewable timber.

Inbound Logistics welcomes comments and submissions. Email us at editorial@inboundlogistics.com; call (212) 629-1560; or mail 5 Penn Plaza, NY, NY 10001. For advertising or subscription information, call (212) 629-1560, or e-mail publisher@inboundlogistics.com. Inbound Logistics is distributed without cost to those qualified in North America. Interested readers may subscribe online at bit.ly/get_il. Subscription price to others: in North America: \$95 per year. Foreign subscriptions: \$229. Single copy price: No. Amer: \$10, foreign \$19, back issues \$15.



END-TO-END VISIBILITY, DELIVERED.

**Get up-to-the-second insights
to boost your supply chain.**

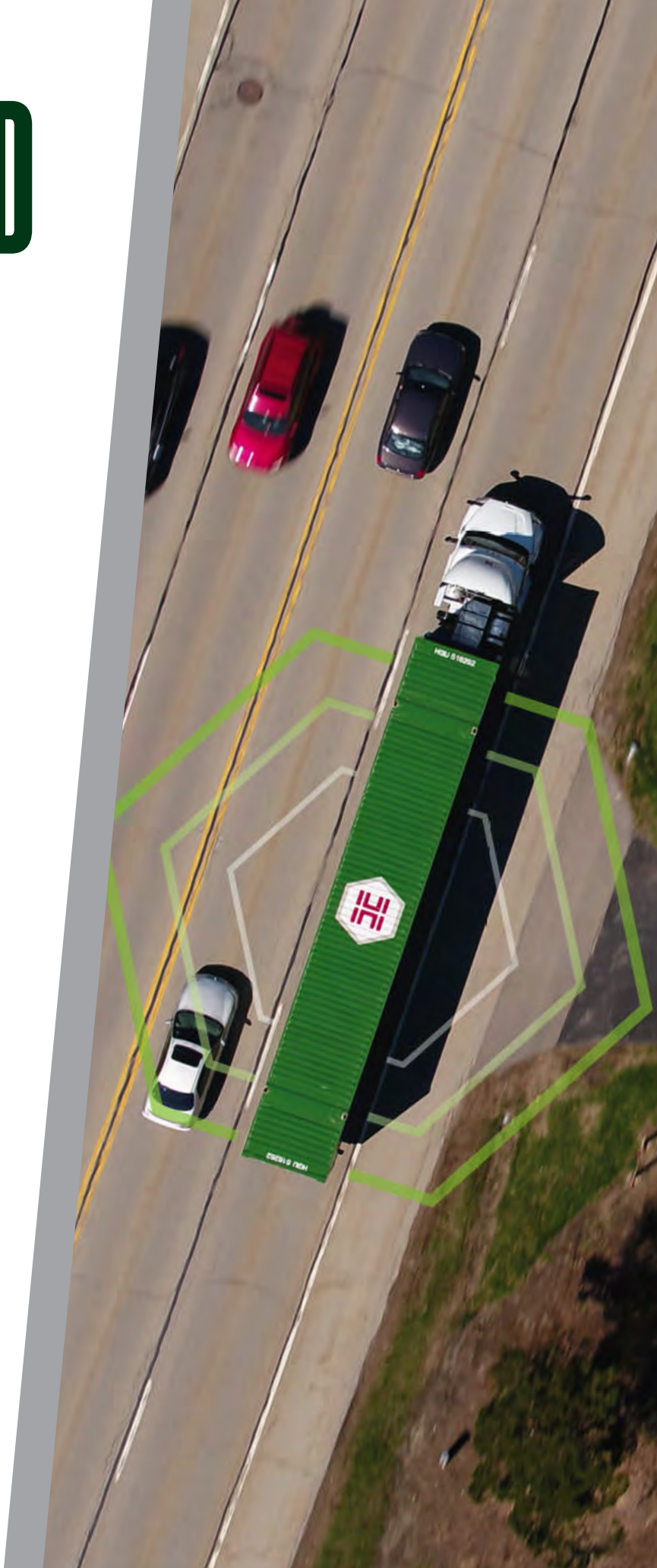
Anytime. Anywhere.

Hub Group puts the power of
industry-leading technology in
your hands, enabling you to
drive smarter business decisions.



**Hub
Group®**

hubgroup.com/visibility



GOODQUESTION

Readers Weigh In



What supply chain insight would you share with your younger self?

Supply chains are more straightforward than they appear.

All the acronyms and industry-specific terms seem confusing, but they're all in service of moving things from origin to destination.

Ethan Frisch

Co-founder

Burlap and Barrel

Take emotion out of your decision making and always be forward thinking with your long-term strategic plan in mind.

Take care of the now, but never allow it to jeopardize your long-term strategic plan, and always do what is right for the business and not what is easy to do or to achieve a quick win.

Dan Paget

Sr. Manager, Global Logistics

Columbia Sportswear Company

Supply chain is a combination of management with engineering.

It's about designing global networks so that materials, information, and money can flow efficiently. And then managing the people, processes, and technologies in these systems to create the most value for your customers, and for your company.

Daniel Stanton

Author, Supply Chain Management

for Dummies

Take emotion out of your decision making and always be forward thinking.

Be more proactive about creating and organizing a data-driven supply chain.

While there is always a cost, investment in new technologies that lay a foundation of digital data will only increase in value over time.

John McPherson

Director, Global Solutions

rfxcel

Remember it's a people business.

It is a dynamic environment and requires skills related to building relationships, understanding technology, high-level execution, problem solving, strong attention to detail, and having a drive to always improve. Stay curious and seek to understand the complexity of

supply chain, and don't be afraid to challenge the status quo.

Dave Reiss

SVP, Strategic Partners

Arrive Logistics

Eliminate the silos.

A chain should be coupled links that are connected to make a strong entity but that fails to exist in 2020. Use technology to create the links that are needed to enable connectivity.

Justin Bailie

Co-founder and Chief Strategy

Officer, Rose Rocket

Benchmark transportation rates.

It's a best practice to occasionally contact providers outside the usual pool to request quotes on high-volume lanes, and there are third-party firms that can compare rates with the market and companies of similar size and spend.

Richard Singh

Business Development Analyst

Allyn International

Have a great answer to a good question?

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

Is supply chain visibility improving? What's one blind spot shippers should address ASAP?

We'll publish some answers. Tell us at editorial@inboundlogistics.com or

tweet us: [#ILMagazine](https://twitter.com/ILMagazine) [#ILgoodquestion](https://twitter.com/ILgoodquestion)

Ever Innovative, Ever Efficient, Ever Reliable

By introducing the paperless i-B/L and digitalized i-Dispatch document transmission, Evergreen ShipmentLink portal is now offering a pioneering functionality to turbocharge your efficiency.



www.evergreen-line.com

[INSIGHT]

DIALOG

@ILMagazine

Want to join the conversation?

FOLLOW US:

[in](https://www.linkedin.com/company/inbound-logistics) [linkedin.com/company/inbound-logistics](https://www.linkedin.com/company/inbound-logistics)

[f](https://www.facebook.com/InboundLogistics) [facebook.com/InboundLogistics](https://www.facebook.com/InboundLogistics)

[t](https://twitter.com/ILMagazine) twitter.com/ILMagazine

[y](https://www.youtube.com/user/InboundLogistics) [youtube.com/user/InboundLogistics](https://www.youtube.com/user/InboundLogistics)

[i](https://inboundlogistics.com/cms/podcast) inboundlogistics.com/cms/podcast

DROP US A LINE:

editorial@inboundlogistics.com

Quick TIP

Instead of taking major tax hits by importing directly from China to the United States, consider Canada as an intermediary. By shipping to Canada first, retailers can secure much-needed tariff relief from China and

duty-free shipping to the United States by leveraging the existing infrastructure of 3PLs.

—Rebecca Steele

Content Marketing Manager, PFS

Fast TAKES

Which country do you see as up-and-coming for sourcing?

The smart money is on Mexico as the sourcing hub of the future for products sold in the United States. Proximity, quality, and speed-to-market are becoming more important than cheap labor, and as Mexican factories become more flexible, there is no better country to consider for an agile sourcing strategy.

—Mark Burstein

President, NGC

Mexico is becoming an even more present destination for sourcing. With global trade tensions, executives are planning ahead and doubling down. Mexico is well positioned and takes away the uncertainty of looming tariffs.

—Ross Spanier

SVP, Sales and Solutions
GlobalTranz

With a stable pro-business government, a growing economy, a deep-water port, and a low-wage but literate workforce, Cambodia is set to become increasingly important for sourcing. Rich in resources including chromite, antimony, manganese, molybdenum, tungsten, bauxite, copper, lead, zinc, and tin, the country has already doubled its export volume in the past two years.

—Jerry Critchfield

VP, Transportation Operations
Weber Logistics

Re. The Death of Your Profession?

bit.ly/SCM_prognosis

I finally got to reading my usual business catch-up magazines and blogs last month and loved your writeup. I agree with your conclusion; technological advance does not equate to loss of jobs whether it be cars replacing horses, or computers replacing accounting clerks.

—Joseph Alba

Metropolitan Airport News

- Communicate with every supplier that you have a couple of options to support them during the period and assure them that if they need to pause current production, the relationship will be there when they are ready.

- If your supplier says they can continue operating, you will need to assess if this is realistic or not. Your supplier may be hoping they can continue operating. Ultimately, you need transparency so your operations can continue.

- For future disruptions, you will need to have an open dialog with suppliers and create a game plan to overcome the next disruption.

Risk assessments and continuous monitoring for risks associated with your suppliers are key

first steps. And determining which alternative vendors can fill in as a replacement will be critical in minimizing disruption.

—Danny Thompson

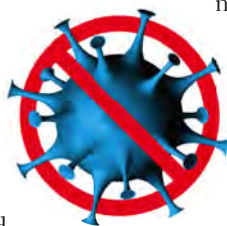
SVP, Market and Product Strategy
APEX Analytix

Re. Coronavirus Precautions

bit.ly/covid-19supplychain

Here's how to maintain key supplier relationships in an unpredictable environment.

- Identify which suppliers and alternate suppliers are located in the affected region, and determine ways that your company can help your suppliers. This could look like early payments on open invoices, alternate supply routes, or a donation to a local cause trying to alleviate the current problem.



Only pay for the speed you need... Dynamic Routing!SM

DESTINATION: FAIRBANKS

ETA: 9:30 - 11:30 A.M.

S	M	T	W	T	F	S
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	1	2	3	4
5	6	7	8	9	10	11



ALASKA

LYNDEN
Innovative Transportation Solutions

On time and on budget.

At Lynden, we understand that plans change but deadlines don't. That's why we proudly offer our exclusive Dynamic Routing system. Designed to work around your unique requirements, Dynamic Routing allows you to choose the mode of transportation – air, sea or land – to control the speed of your deliveries so they arrive just as they are needed. With Lynden you only pay for the speed you need.

lynden.com | 1-888-596-3361

10 TIPS

Preparing for Global Trade Disruption

Finished goods importers are especially vulnerable when unexpected disruptions take place. These suggestions can help you through what is shaping up to be a trying 2020.

1 TREAT YOUR RESPONSE TO COVID-19 AS A RISK MANAGEMENT AND MITIGATION PROJECT.

There has to be C-level recognition of imminent supply chain threats and an organization-wide focus on addressing those threats. Form a supply chain risk mitigation team that is made up of professionals from sourcing, purchasing, sales, logistics, finance, and IT.

2 INCORPORATE S&OP BEST PRACTICES.

Because the sales and operations planning function compares forecasted/budgeted supply chain outcomes with actual results and then makes operational adjustments, importers will have a leg up on how best to mitigate supply chain risks.

3 DEVELOP A RESPONSE PLAN.

Conduct a current-state analysis of all outstanding purchase orders (POs) placed on vendors in the affected country. Based on the outcome, execute a rolling review on the status of all outstanding and planned PO releases. Done on a product category and item-specific level, this provides a detailed view into immediate and medium-term actions.

4 CALL YOUR VENDORS TWICE WEEKLY.

Use these calls to understand where in the supplier's

master production schedule your POs are accounted for. This is essential to understanding updated cumulative lead times (CLT). After the previous night's review with vendors, hold a daily morning huddle with the risk mitigation team to formulate PO-specific risk mitigation activities.

5 CHANGE ERP OR MRP SOFTWARE WITH PO-SPECIFIC UPDATES IN HAND.

Unless CLT updates find their way into supply chain planning software tools, the system will continue thinking that in-house dates are accurate when they're not.

6 MAKE OCEAN CONTAINER BOOKINGS THREE WEEKS BEFORE THE DESIRED SAILING DATE.

Whereas normal trade practices call for a two-week window for container bookings, an extra week may help secure space on ships. Also, anything longer

than three weeks may result in steamship lines rejecting a booking, so it's best not to extend things too long. Make sure vendors aren't exaggerating booking needs in an effort to secure space. If a vendor books for five containers when they only need two, steamship lines will soon pick up on no-show bookings and potentially refuse future bookings.

7 ENGAGE WITH FREIGHT FORWARDERS, CUSTOMS BROKERS, AND OTHER LOGISTICS SERVICE PROVIDERS DAILY.

In addition to providing vital transportation services, logistics service providers (LSPs) can offer up-to-date market intelligence on issues ranging from congestion at origin ports to destination drayage bottlenecks. Insist that vendors and LSPs are in daily contact with one another regarding shipping needs, and that they convey the results of those daily huddles back to you. The transition from manufacturing

to shipping is vital to CLTs, and a lack of communication between supply chain players can cause unneeded delays.

8 FORMULATE A STRATEGY FOR POSSIBLE CONTINUATION OF DISRUPTION BEYOND THE END OF THE FIRST QUARTER.

Importers negotiate ocean freight rates with carriers and non-vessel operating common carriers in the March-April time frame. As part of that negotiation, hammer out clauses on ocean freight rates, no-role clauses, arbitrary charges, and the acceptance of general rate increases and/or peak season surcharges.

9 CONSIDER ALTERNATIVE PORTS OF LADING AND/OR PORTS OF DISCHARGE.

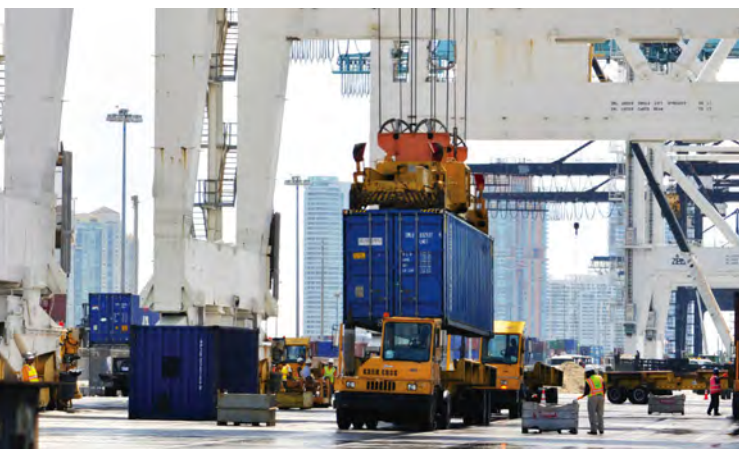
Because some ports in China and the United States run the risk of bottlenecks when production ticks upward, it may be prudent to consider other ports. This will require a change in CLTs, but the net result may actually be better.

10 INCLUDE THE USE OF AIR FREIGHT IN YOUR RISK MITIGATION PLAN.

Airfreight rates from China or the country experiencing disruption are through the roof, so it's best to engage now with freight forwarders for updates to both rates and air cargo capacity.



WE BRING YOU CLOSER TO YOUR CUSTOMERS



NORTH AMERICA

CARIBBEAN

CENTRAL AMERICA

SOUTH AMERICA

In today's fast moving world, improving the supply chain is the only way to bridge the gap between you and your trading partners. To accomplish this, you will need an innovative team of dedicated professionals with over 35 years of experience in logistics and ocean transportation. You will need more than a positive customer experience. You will need a company committed to improvement and innovation. At Seaboard Marine, your customers are closer because our customers are at the center of everything we do.

SEABOARD
MARINE

WWW.SEABOARDMARINE.COM



ON THE ROAD TO SUSTAINABLE MOBILITY

Mercedes-Benz, working with Circulor, a startup specializing in blockchain technology, is conducting a pilot project dubbed Ambition 2039 that aims for a carbon-neutral new passenger car fleet in less than 20 years. This transformation will require detailed knowledge of all climate-relevant processes associated with the entire vehicle value chain.

In a first step, Mercedes-Benz is creating transparency of carbon dioxide emissions and using secondary material in the supply chain. The project partners will first focus on cobalt, which enters the supply chain from recycling facilities. A blockchain-based system maps the production flow of the materials as well as the associated carbon emissions.

In the long term, Mercedes-Benz is pursuing the goal of a circular economy and is working to close material cycles. For this purpose, the mapping of the material flow also records the amount of recycled material in the supply chain.

The network also displays whether Mercedes-Benz's sustainability requirements in terms of working conditions, human rights, environmental protection, safety, business ethics, and compliance are passed on to all companies involved. The automaker calls on its direct suppliers to comply with these standards, as well as carry the provisions into upstream value chains and monitor their compliance.

RECALLING THE NEED FOR BETTER SUPPLY CHAIN MANAGEMENT

Product recalls are an emerging risk for auto original equipment manufacturers (OEMs), compounded by the complexity of global decentralized supply chains, stringent government safety mandates, and increasing cost pressure for suppliers.

Global auto companies source components from numerous manufacturers worldwide. Managing this complex global supply chain is an increasingly difficult challenge for OEMs. The January 2020 recall of 63 million Takata air bags reveals major gaps in the auto industry's supplier relationship management practices.

Most supplier programs are built only for Tier 1 suppliers; more than 70% of OEMs have zero visibility of their Tier 2 and 3 suppliers, finds Research and Markets' latest report. The immediate need is for auto companies to develop robust, responsible relationships with suppliers to reduce the risk of recalls.

A strong OEM-supplier governance mechanism will also ensure socially responsible recalls and quicker recovery from a recall crisis. Strategic supply chain management, supported by supply chain analytics and software systems for supplier tracking and management, is crucial. Especially against the backdrop of the commercialization of autonomous and smart cars, the focus on "zero-defect" manufacturing should gain more significance.

Auto OEMs also need to move from reactive firefighting to recall prevention by stepping up quality-management strategies from single quality processes to integrated quality systems, the report concludes.

SHIFTING TO SMART FACTORIES

The auto industry is motoring ahead in smart factory adoption, and is set to increase investment by more than 60% in the next three years, resulting in productivity gains of more than \$160 billion, according to a new report from the Capgemini Research Institute.

Key points of the report include:

- The automotive industry has exceeded previous expectations on smart-factory development.
- Automotive is moving faster than other industries to convert factories into smart facilities.

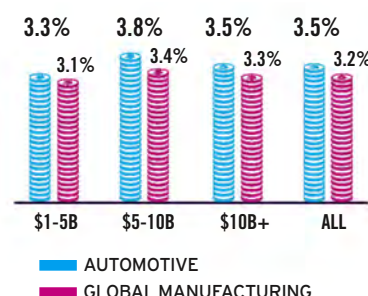
Projected investment levels and productivity gains related to smart factories are significant, the report finds, but only 10% of auto firms are ready to take advantage through deployment.

The industry has set stiff performance targets for smart factories, but these are a long way from being fulfilled: Of the

35% productivity improvement target, just 15% has been achieved. Only an 11% gain occurred in overall equipment effectiveness and reduced stocks/work in process, compared to targets of 38% and 37%, respectively. Many initiatives are yet to be scaled fully.

AVERAGE ANNUAL INVESTMENTS IN SMART FACTORIES

(as a percentage of revenue, next three years)



SOURCE: CAPGEMINI RESEARCH INSTITUTE

WE DELIVER THE ONE THING EVERY COMPANY NEEDS BUT CAN'T BUY.

We deliver confidence. We deliver it by the truckload, because we know companies can't thrive without it. Penske is built around helping your day-to-day operations run as smoothly and efficiently as possible. Our truck rental, leasing, contract maintenance and logistics solutions will help you carry the load so you can focus on your core business. Learn more at gopenske.com.



Rental
Leasing
Logistics



READERPROFILE *as told to Karen Kroll*

Cultivating Raw Talent



STEPHANIE BENEDETTO

is co-founder and CEO of Queen of Raw, an online marketplace that makes buying and selling unused fabrics efficient and transparent.

RESPONSIBILITIES: Developing and enhancing Queen of Raw's blockchain-enabled marketplace for unused materials, hiring and managing staff, attracting both customers and suppliers.

EXPERIENCE: Associate, Baker Botts; associate, Cadwalader, Wickersham & Taft; legal assistant, Davis Polk & Wardwell

EDUCATION: J.D., Emory University School of Law, 2006; B.A., philosophy, political science, economics, University of Pennsylvania, 2002

In 1896, my great-grandfather left Austria and landed at Ellis Island. To make a living, he repurposed old fabrics and furs by hand into beautiful garments, with minimal waste and toxins because his bottom dollar depended on it. I still wear many of those garments today.

While my great-grandfather didn't describe his job as sustainable, that's very much what it was. Today's supply chains are more complex, but Queen of Raw's vision is to use technology and advanced logistics to return to the way my great-grandfather did business, which made sense for people, the planet, and profit.

I had an earlier startup—a company that invented a leather alternative. Building that business was an incredible experience, but we were still manufacturing something new. I would go to factories and warehouses and see

fabric in mint condition that was going to be burned or sent to a landfill. More than \$120 billion worth of excess fabric sits in warehouses around the world.

On the flip side, companies were dying to get their hands on fabric. It was a supply-demand mismatch and a logistics challenge we could solve.

THE NAME GAME

Queen of Raw was the first name I thought of for my business. I was raised in a household that was predominately female and went to an all-women's school. Both experiences helped me feel empowered to take on challenges. Feeling like a queen and wanting other people to feel like the kings and queens of their domain rang true to me.

When deciding on a name for my company, I didn't like the word

Stephanie Benedetto Answers the Big Questions

1 If you had unlimited time and money to travel anywhere, where would you go?

Africa. We have a not-for-profit arm and it does incredible work in Africa. My plans are to travel there, both to see the wonderful women we work with and to truly experience the continent.

2 What would you tell your 18-year-old self?

Don't be afraid to get your ideas out there, test solutions, and learn how to solve world problems.

3 How would you describe your job or company to a child?

My company won a competition in which we had 60 seconds to pitch Ashton Kutcher.

I practiced this pitch on my four-year-old son: 'Are you naked right now? You're not, because you're using fabric. It's where it's supposed to be, covering things like us, and where it's not supposed to be, sitting in warehouses, being burned, or sent to landfills. We're solving that problem.'

“sustainable” because it means so many things to so many people. But “raw materials” can apply not just to textiles, but to other materials. And when the name “Queen of Raw” was available in both dot-com and social media, I took that as a sign. It has served us well.

The company’s technical co-founder and I knew our solution had to be quick, easy, and cost-effective for all parties. Rather than warehouse the fabrics in one location, our machine learning and artificial intelligence tools enable buyers to locate inventory near their manufacturing operations, cutting transportation costs and emissions. We also use blockchain to verify product data.

The solution also allows companies to track their progress toward sustainability goals with established standards, similar to the United Nations sustainable development goals.

We collect the funds prior to shipping. The buyer’s price includes the cost of the goods and shipping, plus any estimated customs duties and taxes.

EASY DOES IT

Then our system breaks apart the order. If it includes multiple suppliers, each seller gets its portion of the order, including the invoice, packing slip, and tracking label. All the sellers need to do is slap the label on the roll, receive

payment minus our commission, and send it out the door.

Early on, the economics of our business model worked, but sustainability wasn’t top of mind at many enterprises. To educate the market, we turned to podcasting and developing a YouTube series. Over time, we built a community of 100,000-plus users. Today, some of the world’s biggest brands buy and sell on our platform.

We face challenges every day, but I’m running this company so my children will have clean water, clean air, and a planet to live on. In 2019, our solution saved well more than one billion gallons of water. ■

THIS BAG IS NOT A TOY

WE TAKE OUR PLASTIC BAGS SERIOUSLY. PLASTIC BAGS FOR THE APPAREL INDUSTRY.

*AVOID CHARGEBACKS
VENDOR COMPLIANCE EXPERTISE*

► **READY TO SHIP • BAGS IN STOCK** ◀

The logo for Absolute Packaging & Supply, Inc. features the word "Absolute" in a large, bold, sans-serif font. Below it, "PACKAGING & SUPPLY, INC." is written in a smaller, all-caps, sans-serif font. The text is flanked by two stylized, dark gray shapes that resemble folded plastic bags or the ends of a roll of material.

Paterson, NJ • www.thisbagisnotatoy.com • 973.278.0202

[IN FOCUS]

NOTED

The Supply Chain in Brief

> GREEN SEEDS



Fast-fashion brand **H&M** became the first retailer to roll out a line of clothing made from Circulose, a new natural

material derived from old jeans, T-shirts, and other cotton clothing, which can help retailers reduce their waste, climate, and deforestation footprint.

The **CMA CGM Group** partnered with the *Energy Observer*, a hydrogen-powered vessel sailing around the world, to promote the use of hydrogen as a zero-emission fuel source for the shipping industry. The hydrogen is made from seawater using solar, wind, and hydropower. Producing and burning hydrogen does not result in any greenhouse gas or fine-particle emissions.

The **ReadyRefresh by Nestlé** beverage delivery service achieved carbon neutrality and earned the CarbonNeutral company certification in accordance with The CarbonNeutral Protocol, a global standard for carbon-neutral programs. ReadyRefresh plans to further reduce its emissions and explore insetting projects within the land and forest areas the company owns.



Photo: Nestlé

m&a

■ Global transportation and logistics company **Maersk** agreed to acquire **Performance Team**, a warehousing and distribution company based in the United States.

■ Global logistics solutions provider **Odyssey Logistics & Technology** acquired **RPM Consolidated Services**, a full-service logistics and warehousing provider that specializes in Jones Act markets.

■ **Trimble Transportation**, a solutions provider for the long-haul trucking, field service management, rail, and construction logistics industries, acquired **Kuebix**, a transportation management system provider.

■ **Pelican BioThermal**, a temperature-controlled packaging designer and manufacturer, acquired **NanoCool**, a temperature-controlled packaging solutions provider based in New Mexico.

■ **Alabama Motor Express**, a trucking and third-party logistics company, acquired all the assets of **Powell Transport Solutions**, a trucking asset firm specializing in refrigerated freight.

■ **A&R Logistics**, a North American supply chain services company for the chemical industry, acquired **First Choice Logistics**, a provider of bulk liquid transportation and logistics services to the chemical industry.

> SHOVEL READY

Stonemont Financial Group, a real estate investment firm specializing in industrial development and net-lease assets, opened the Southwest International Gateway Business Park, a 540-acre rail-served industrial park built for cross-border shippers. Located in El Campo, Texas, the park is designed for up to 8 million square feet of industrial space as well as full intermodal and transload capabilities.



> SEALED DEALS

- **cargo-partner** now provides logistics services to help **Minth**, an automotive supplier, produce more than 88,000 cars per year, handling approximately 120

different SKUs. The logistics provider set up a full automotive logistics process at its automotive competence center in Dunajska Streda, Slovakia.

- **PlaceMakers**, a building materials and hardware supplier based in New Zealand, will use **Descartes Systems Group's** cloud-based route planner to centralize its distribution planning operations. The solution will help automate route planning and execution to better serve PlaceMakers' more than 300,000 retail and trade customers.

- **Saint-Gobain Rigips**, a provider of gypsum and plaster products, is adopting **Sixfold's** live shipment visibility platform to enable its sales teams and planners to provide customers with real-time shipment data. For the first time, customers will be able to track the status of their goods without calling a carrier.

> GOOD WORKS

Lufthansa Cargo and its joint venture **ANA Cargo** supported the Australian bush fire relief effort by transporting two tons of relief supplies from Germany to Australia aid stations. The supplies, handmade by more than 20,000 volunteers, included knitted pouches and nests for orphaned and injured animals.



Employees at **Southeastern Freight Lines**, a provider of less-than-truckload transportation services, completed more than 6,200 hours of community service across 94 projects in 2019, which involved serving meals to families in need and volunteering at veteran organizations, homeless shelters, and domestic abuse shelters.

> RECOGNITION

- South Carolina Ports Authority president and chief executive officer **Jim Newsome** received the **Distinguished Service Award** from The University of Tennessee–Knoxville's Global Supply Chain Institute. Newsome serves on the Dean's Advisory Council of the Haslam College of Business, mentors supply chain students, and established a supply chain management scholarship.



- **Rock-it Cargo** earned top honors in the **Transportation Company of the Year** category at the annual Pollstar Awards. The freight-forwarding logistics provider was one of six companies nominated in a category recognizing integrity, professionalism, and creative achievement in coach, cargo, and other transportation services.

- **Hub Group**, a supply chain solutions provider, nabbed The Home Depot's **3PL of the Year Award for 2019**. According to the home improvement retailer, Hub Group continuously delivers high levels of service and innovation across its dedicated, intermodal, and truckload business segments. In addition, it lauded Hub Group's contributions to its disaster response network, helping to ensure crucial supplies are available to those affected by natural disasters and other emergencies.

> UP THE CHAIN

Rent the Runway appointed **Brian Donato** as chief supply chain officer to help resolve its supply chain challenges—the clothing rental company failed to meet deliveries and temporarily stopped taking orders in fall 2019. Donato previously served as the executive vice president of operations at Bowery Farming and held several senior operational roles at Amazon.

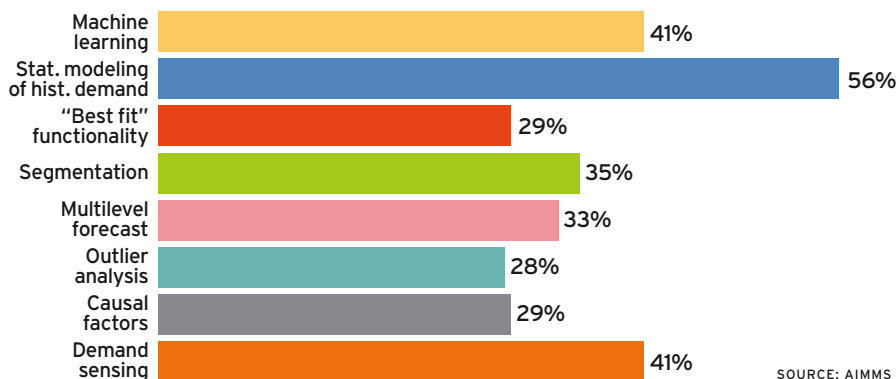


[IN FOCUS]

TAKEAWAYS

Shaping the Future of the Global Supply Chain

WHAT DEMAND-FORECASTING TECHNIQUES ARE YOU INVESTIGATING?



SOURCE: AIMMS

Predicting the Future of Consumer Demand

Improving demand forecasting is a priority for manufacturers—61% of respondents to a recent AIMMS report say that improving forecast accuracy is either important or extremely important for their organizations. However, only 2% of respondents are extremely satisfied with their forecasts. Many bet on new technologies such as machine learning and demand sensing to improve forecast accuracy (*see chart*). According to the survey:

Demand-forecasting technology makes a difference in manufacturers' satisfaction:

- **Only 2% are extremely satisfied** with the tools they use for demand forecasting
- **39% use spreadsheets** for demand forecasting, and nearly 45% of them are dissatisfied
- **30% use a specialist forecasting package**, and 61% of them are satisfied
- **23% use bundled enterprise resource planning**, and most feel indifferent about the tool

Organizations are looking into alternative techniques to improve demand forecasting:

- **56% are exploring statistical modeling** of historical demand at their organizations
- **41% are looking into machine learning**
- **41% are investigating demand sensing**
- **60% are curious about new techniques** such as demand-driven material requirements planning

Robots Arrive in Cars

North American robot unit orders increased 1.6% in 2019 compared to 2018 with 29,988 robotic units ordered, according to the Robotic Industries Association. The largest driver of the growth was a 50.5% increase in orders from automotive original equipment manufacturers and a 16.6% increase from the plastics and rubber industry.

Orders to automotive component markets were down 6.6%, and all other nonautomotive industries, including food and consumer goods, life sciences, metals, and semiconductor/electronics, contracted by single digits compared to 2018.

The fourth quarter of 2019 was the weakest quarter of the year—6,094 robotic units were ordered, valued at \$374 million. This represented a cut of 10.4% in orders and 4.2% in revenue compared to Q4 2018.



TAKEAWAYS

2019 TOP 10 U.S. POSTAL SERVICE SUPPLIERS

2019 RANK		FY19 TOTALS	2018 RANK
1	FedEx Corporation	\$2,050,717	1
2	EnergyUnited Electric Membership Corp.	\$419,662	3
3	Eagle Express Lines	\$390,445	2
4	Pat Salmon & Sons	\$341,073	28
5	Postal Fleet Services	\$248,967	12
6	United Parcel Service of America	\$211,211	5
7	Victory Packaging	\$210,918	4
8	HP Enterprise Services	\$193,054	7
9	United Airlines	\$177,324	10
10	Kalitta Air	\$170,893	21

TRANSPORT COMPANIES STAMP U.S. POSTAL SERVICE SUPPLIERS LIST

The number of transportation companies at the top of Husch Blackwell's Top 150 U.S. Postal Service Suppliers list—an annual look at the companies with the largest supplier relationships with the Postal Service—increased in 2019.

Seven of the top 10 suppliers are involved in transportation, which is one more than in fiscal year 2018.

As it has since 2002, FedEx Corporation led the top 150 list, once again surpassing the \$2 billion mark it first reached in 2018. The company saw approximately 2.5% increases in its Postal Service revenues.

Supply Chain Execs Brace for Global Slowdown

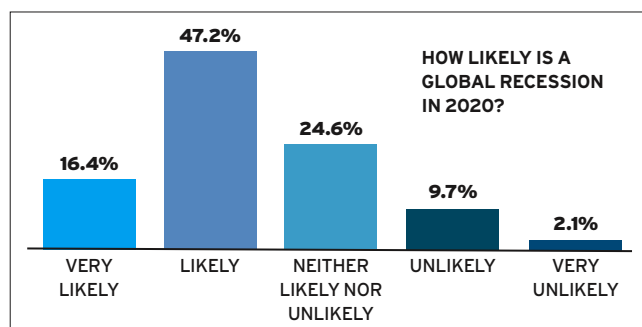
Supply chain industry executives anticipate a recession in 2020 amid concerns about downward pressure on global trade volumes, uncertain growth prospects, and ongoing friction between the United States and China.

A recession is likely in the next 12 months, according to 64% of industry professionals surveyed for the 2020 Agility Emerging Markets Logistics Index (see chart). Only 12% of the 780 respondents say a recession is unlikely.

At the same time, most logistics executives say their companies will ride out any turbulence in trade relations between the world's two largest economies. Of those with operations and investments in China, 70% say they will stay put and that their plans are unchanged despite trade tensions.

If they were to move production or sourcing from China, Vietnam and India are respondents' top places to relocate. They identify rising trade barriers as the factor most likely to hurt emerging markets growth.

The Index ranks 50 countries by factors that make them attractive to logistics providers, freight forwarders, shipping lines, air cargo carriers, and distributors. In 2020, the top 10 emerging markets are: China, India, United Arab Emirates (UAE), Indonesia, Malaysia, Saudi Arabia, Qatar, Mexico, Thailand, and Turkey.



China, India, and Indonesia rank highest for domestic logistics; China, India, and Mexico are at the top for international logistics; and UAE, Malaysia, and Saudi Arabia have the best business fundamentals.

Despite the belief that a recession is likely, emerging markets still grew an estimated 3.7% in 2019, and the IMF projects they will grow 4.4% in 2020. What is driving growth? According to respondents, modernization of customs systems and processes (23%), increased internet penetration (18%), modernization of logistics provider systems such as WMS and TMS (16%), and increased adoption of online payment systems (15%).

SOURCE: 2020 AGILITY EMERGING MARKETS LOGISTICS INDEX

TAKEAWAYS

Amazon Shoppers Won't Abandon Ship

Many U.S. consumers have negative feelings toward Amazon's impact on the retail industry and the environment, according to a recent consumer survey by Convey. The negative sentiment, however, doesn't translate to lost sales. The key to Amazon's success is its industry-disrupting shipping. Major findings include:

- **25% of Americans** have negative feelings about Amazon's impact on the retail industry as a whole, and 27% of respondents feel very or somewhat negative about its impact on the environment.

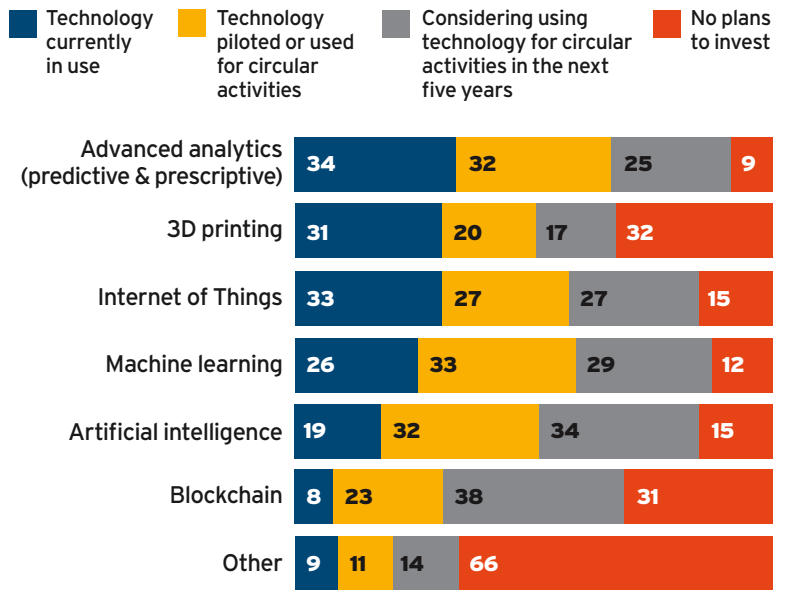
- **21% of shoppers** who disapprove of Amazon's impact on retail still report buying at least 50% of all their goods on the site. Negative environmental impact didn't sway shoppers either—24% of shoppers who believe Amazon is damaging to the environment still buy at least 50% of all their goods on the site.

- **Younger Americans** feel more strongly about Amazon's ecological footprint than older generations. More than 1 in 3 millennials say Amazon has a negative impact on the environment, which is 30% higher than respondents overall.

- **Fast and free shipping** is by far the main reason people shop at Amazon, selected by 80% of respondents, followed by its wide product selection (69%). It's the backbone of Amazon's success—25% say they would not use the site if they had to pay for shipping, and 39% say they are unsure, meaning 64% of shoppers would consider buying elsewhere if free shipping wasn't an option.

- **Consumers are more flexible** when it comes to delivery speed. While 12% say delivery within one or two days is essential for them to continue using Amazon, 55% say they would still use the site if deliveries arrived in three to four days, as long as shipping was free. This tolerance drops to 34% if packages take more than five days to arrive.

- **Package theft** remains the biggest worry for 30% of U.S. shoppers. The second biggest concern is needing to make returns (14%) and the lowest concern is poor packaging (3%).



SOURCE: 2019 GARTNER FUTURE OF SUPPLY CHAIN SURVEY ©2020 GARTNER INC

Going in Reverse in the Circular Economy

While 70% of supply chain leaders plan to invest in the circular economy in 2020-2021, only 12% have aligned their digital and circular economy strategies so far, according to a recent survey by Gartner. About 27% of respondents currently use digital technologies to improve reverse logistics, and 39% plan to do so in the next two years.

Reclaiming materials at the end of life requires reverse logistics for pickup and return to the organization or a third party. Reverse logistics will gain the most attention, says Gartner, indicating that companies are looking at how to take back products for reuse, refurbishment,

or recycling—an important step toward a circular economy.

This business model involves complex interdependencies and feedback loops, Gartner notes, starting with an ideal design and planning for end-of-life and raw material reuse. Digital technology can enable visibility and improve decision-making when it comes to raw materials and services.

Organizations currently focus on the following four technologies to advance their circular economy activities (see chart):

1. Advanced analytics
2. 3D printing
3. Internet of Things
4. Machine learning

The top four areas of the supply chain in which these digital technologies are applied are:

1. Delivery (46%)
2. Customer engagement (45%)
3. Manufacturing and remanufacturing (43%)
4. Planning (43%)

TAKEAWAYS

3PL MARKET REVENUE TO CROSS \$1.8 TRILLION BY 2026

Growing demand for low-cost services and a rapidly expanding e-commerce sector will boost the market valuation of third-party logistics (3PL) to \$1.8 trillion by 2026, according to the latest Global Market Insights report.

The rise in globalization and increasing trade activities around the world are driving 3PL market growth. Companies are adopting various software solutions for warehouse management, real-time data, online documentation for international freight, and inventory tracking.

The European 3PL market is experiencing significant growth, due to the steady development of the manufacturing sector, rising internet penetration, and improved economic conditions across the region. For instance, the U.K. became the ninth-largest manufacturing nation in the world with an annual revenue of US\$192 billion in 2019, according to The Manufacturing Organization U.K.

European free-trade agreements with various countries worldwide are also fueling market growth.

Key 3PLs are focusing on providing improved processes and delivering enhanced value-added services to gain customer loyalty. They are extensively adopting technologically advanced and cost-cutting services. These industry participants in the market are also leaning toward adopting digital technology to attract more customers.

For instance, in December 2019, J.B. Hunt Transport Services announced the integration of J.B. Hunt 360 with JDA Software's supply chain management platform to provide value-added services, including greater pricing visibility, to its customers.



I AM THE FIRST LINE OF DEFENSE AGAINST PANIC AND CHAOS.

When the customer service line rings at 3AM, chances are the person on the other end doesn't want to talk to a machine. Or listen to excuses. That's why I'm here 24/7. I am a curator of solutions. I know your business and what you need. I specialize in answers. And results. I'm not here just to listen to your problems, I own them. I am **Piloting Business™**



pilotdelivers.com / 1-800-HI-PILOT

PILOT
FREIGHT SERVICES

The Need for Speed: Overcoming the Final Hurdles to Faster E-Commerce Deliveries



Kraig Foreman
Vice President, Operations
DHL Supply Chain
Logistics.dhl.com

Retailers can feel good about the 2019 holiday shopping season, despite a shorter shopping window. But retailers can't afford to rest on their laurels. As e-commerce volumes continue to grow and the prospect of supporting next-day and same-day delivery becomes more necessary, retailers need to address new challenges to continue to expand their e-commerce operations.

Expanding the Network

The only way next-day delivery becomes cost-effective and same-day delivery becomes feasible is if the product being ordered is already close to the customer at the time of the order.

That is driving the need for retailers to rethink their network architecture. The first step in this evolution is the addition of new distribution nodes in large metropolitan areas.

The largest e-commerce operators with the scale to support dedicated e-commerce distribution networks are already moving in this direction. It will be necessary for midsize operators, who typically have e-commerce fulfillment integrated with wholesale distribution and store replenishment, to follow suit.

To manage this complexity, more midsize retailers are taking a page from the playbook of larger retailers and turning to third-party logistics (3PL) companies that have the necessary experience to manage an integrated warehouse environment.

More Sophisticated Deployment Strategies

While the challenge of expanding the distribution network is significant on its own, it also introduces another layer of complexity to inventory deployment.

As consumer demand and the network evolve, getting the in-store and online inventory mix right is increasingly difficult, as is determining the inventory needed to avoid out-of-stock situations and control inbound freight costs.

Effective inventory deployment strategies—ensuring the right product is in the right location at the right time—enable inventory to be tailored to specific markets and create benefits that extend from more effective marketing to faster deliveries.

Again, 3PLs such as DHL Supply Chain, through their scale, breadth of experience, and resources, are leading the industry in developing the tools to support more effective deployment and positioning.

Retailers need to address new challenges, from bolstering distribution networks to managing complexity, to continue to expand their e-commerce operations.

The Next Step Is a Big One

It would be nice if retailers could sit back and enjoy the fruits of the e-commerce investments they have made, but the market is too dynamic for that. Continued evolution is necessary to support growth and meet rising customer expectations.

These evolutions require specialized network engineering expertise and the ability to

integrate systems and establish an end-to-end approach to e-commerce management that extends from inventory deployment through carrier selection.

It's also necessary to continue to invest in emerging technologies while building the expertise required to leverage the full capabilities of those technologies.

A 3PL with the experience and resources of DHL Supply Chain can help retailers tackle these challenges in the coming years.

To learn more about DHL's e-commerce fulfillment services, visit bit.ly/DHL_e-fulfillment

True Next Day—Why It Matters



Brian Bourke
Chief Growth Officer
SEKO Logistics
sekologistics.com
630-919-4800

As retailers compete for the perfect delivery experience and consumers continue to pay premiums for speed and reliability, last mile delivery drives growth and profitability.

In the ever-evolving landscape of eCommerce, brands are being judged on their ability to deliver on promises; and those retailers that don't widen their delivery fulfillment options risk losing their competitive advantage.

Online shopping has become an extension of the in-store experience and, in some cases, a replacement for it. Consumers have become accustomed to receiving goods within a short timeframe. The successful retailer will be prepared with a variety of options to meet the increased demand.

True Next Day Delivery

The term 'next day' delivery can be misleading. Does it reference business days only or specific days of the week? And, what is the daily deadline for orders? By setting unclear parameters and failing to deliver, retailers risk damaging their reputations. As deadlines tighten and expectations grow, all of these nuances can make, or break, a successful delivery.

When considering next day delivery, retailers must make sure their logistics provider offers the best shipment solutions.

Later Cutoff Times Make ALL the Difference

True next day delivery adheres to later cutoff times and involves a well-connected logistics operation. Retailers often claim to offer next day delivery when, in reality, their cutoff time falls early in the afternoon. When 'next day' really means two days, retailers risk missing out on lucrative sales.

Offering a next day service with a midnight cutoff, instead of 3 p.m., could make all the difference—a well-connected provider can easily handle nationwide deliveries at a moment's notice.

The Delivery Experience Defines the Customer Experience

Tracking technology that includes GPS and barcode systems enables clients to monitor their shipments via emails, text updates, real-time tracking, notifications and photos. Customized portals can be branded to

offer a seamless, customer-focused experience from order placement to last mile delivery.

As retailers compete for the perfect delivery experience and consumers continue to pay premiums for speed and reliability, last mile delivery is proving to be the key to successful growth and profitability.

While the expense of failed deliveries is damaging to big companies, it is crippling to small businesses. All retailers should have a back-up plan for when things go awry. Tracking technology can clarify the driver/package's last location and alternate pickup options give consumers a choice.

3PLs Give You the Competitive Edge

One method of gaining coverage across multiple locations is to work with a 3PL (third-party logistics) provider or freight forwarder that is part of a large network. With experience in warehousing, transportation and distribution, 3PLs are perfectly placed to help retailers gain their competitive edge—making the delivery process seamless, efficient, simple and scalable.

Large 3PLs have multiple warehouses, or fulfillment centers, dispersed throughout the country, enabling them to transport stock from the most convenient location to save time and cost. Additionally, they assume responsibility for inventory management, warehouse storage, packing and billing.

A leading 3PL will help clients maintain excellent relationships with their customers by delivering goods in a timely, transparent way.

Get in touch to find out how SEKO Logistics' True Next Day service can support your retail operations.



[INSIGHT]

LEANSUPPLYCHAIN

by Paul A. Myerson

Instructor, Management and Decision Sciences, Monmouth University and author of books on Lean and the Supply Chain for McGraw-Hill, Pearson, and Productivity Press
pmyerson@monmouth.edu | 732-571-7523

Accounting for Lean

While it's one thing to have a lean supply chain, it's another thing to properly account for it.

Let's use the concept of economic value added (EVA) analysis to help explain and consider Lean supply chain accounting. EVA is an estimate of a firm's economic profit, or the value created in excess of the required return of the company's shareholders. EVA is the net profit less the dollar charge for raising the firm's capital.

The idea is that value is created when the return on the firm's economic capital employed exceeds the cost of that capital. Companies can determine this amount by making adjustments to generally accepted accounting principles (GAAP).

CUTTING HOLDING COSTS

For example, rather than producing in large lots to spread fixed costs over many units—which in traditional accounting may be a good thing as it lowers the cost per unit—EVA and Lean look at reducing lot size to save on holding costs associated with the excess inventory that has been created.

However, EVA and Lean also consider the capital and other investments—such as reducing changeover times—needed to decrease lot size.

Lean accounting works well with EVA by focusing on the value stream—from customers through to suppliers—for an item or a family of items (or service) instead of looking primarily at the general costs of goods sold.

Lean accounting looks at daily cost reports as opposed to after-the-fact weekly or month-end reports, which are common in traditional accounting. It views capacity as an asset instead of just idle time and sees inventory as a liability rather than an asset.

FROM BEAN COUNTER TO CONSULTANT

The Lean accounting process frees up time for financial people by eliminating a great number of transactions, reports, reconciliations, and meetings. Lean accounting enables financial people to act less like “bean counters” and more like consultants, providing timely, detailed, focused reports regarding costs at any step in customer fulfillment.

When using traditional accounting methods, companies try to break down expenses by determining the cost of each unit produced, and then create their financials based on that through standard costing.

Lean accounting is more real time, so you look at what you have sold and what it cost you to estimate your profitability continually.

This can have a huge impact on a company's manufacturing and supply chain processes. Think about it: One of Lean's main goals is to identify and eliminate waste and non-value-added processes, but traditional accounting systems have no ability to measure waste and inefficiency—and don't think in terms of value streams.

FOSTERING LEAN CULTURE

As consultants, Lean accountants can readily see the impact that expedited shipments and a quarter-end push to meet quotas and targets have on profits. Yet for the most part, today's executives are primarily driven by financial reports, which don't do a good job of modeling the supply chain.

Simple and timely information focused on value streams helps empower people at all levels of the organization. It can also foster a Lean culture centered around customer value.

Together, Lean accounting from an EVA perspective and a Lean supply chain can make sure that everyone is rowing in the same direction to reach the maximum, long-range goals and benefits of Lean thinking. ■



ACCESS A FAR-REACHING NETWORK OF FREIGHT EXPERTS WITH **DLS WORLDWIDE**



Our proven capabilities and deep understanding of domestic and international shipping are demonstrated daily through our team of dedicated transportation specialists at more than 140 offices across the United States.

LTL • Truckload • Air • Ocean • Intermodal • White Glove

Visit dls-ww.com or call 877.744.3818 to learn more.

© 1998 - 2020 R.R. Donnelley & Sons Company, all rights reserved. RR DONNELLEY, RRD, RRD (Stylized) and COMMUNICATIONS ENABLED are trade-marks or registered trademarks of R. R. Donnelley & Sons Company. All other trademarks are the property of R. R. Donnelley or their respective owners.



[INSIGHT]

RISKS&REWARDS

by Gordon Cessford

President & Regional Director of North America, Atradius
gordon.cessford@atradius.com | 410-568-3816

7 Smart Steps to Minimize Risk

Inherent risks exist in trading globally that businesses don't have to deal with when they keep things closer to home. But the rewards of expanding to new markets can far outweigh those hazards, especially if you take the following steps to minimize and manage your exposure to risks.

1. Do your research. Be aware of what's going on in global markets at a macro level. The World Bank's ease of doing business index is a good resource; it provides insight into business regulations in 190 economies. Trade credit insurers can be another valuable resource, as they keep tabs on economic developments in a range of markets and sectors.

It's also vital to be aware of any cultural elements of doing business in different markets—a big faux pas can affect the way your overseas partners see you, or even end a business relationship.

2. Don't jump too quickly into a new trading relationship. Companies new to exporting are often tempted to quickly seize an opportunity. They shortcut the documentation process or fail to have in-house counsel or an external lawyer make sure contracts, payment, and shipping terms are watertight. This can have grave consequences down the line.

3. Get close to the market and the customer. Many exporters make the mistake of trying to manage an overseas business relationship from afar. Without

having a local presence, it's impossible to get a real taste for the local market and customs, and to build a strong relationship with the trading partner. Consider setting up an office (if the opportunity is big enough), appointing a local agent, or having someone visit regularly.

4. Keep an eye on breaking news events that could impact business.

For example, the coronavirus global health crisis is affecting production in China, creating a standstill for weeks and causing massive disruption to global supply chains, logistics, and shipping. Be aware of how these types of events could affect your business, and your trading partner's business, and immediately begin looking for alternative sources of products or component parts.

5. Know where the product is in the supply chain. When a company sells to another trader and not the manufacturer, its end goal is more distant. From a risk management perspective, the farther up a company is in the supply chain, the less risky the business relationship.

6. Watch for signs that a trading partner is headed for financial difficulty. Paying late, pushing back for discounts or going MIA may indicate that a customer has hit some financial roadblocks. Stay clued in to these red flags so you can swiftly investigate the cause of the behavior change and make sure the customer can still make payments. Company leaders should also keep an ear to the ground, using their network to uncover any useful market intelligence on their customers.

7. Have an action plan for dealing with delinquent customers. First, establish the facts: Is the company truly in financial difficulty? Talk with the customer directly or engage a third-party expert to act as a go-between. If a company has a retention of title clause, goods can be recovered. If a customer refuses to communicate, the next step is to start the legal collection process.

PREPARE FOR THE WORST, HOPE FOR THE BEST

Risk management for global business boils down to preparing for the worst but hoping for the best. It hinges on proper upfront legwork, such as getting contracts squared away. It also means thinking through every detail of the business relationship and staying aware of the market, the customer, and local customs. ■

Excellence of Ocean Quality 2020



Where Ocean Excellence Meets Carrier Quality



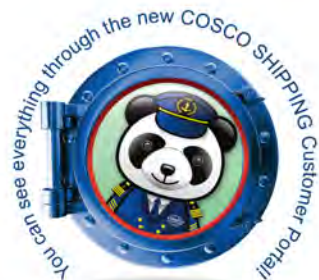
Building on the industry's strongest performance, most impressive logistics skills and unparalleled global resources, **COSCO SHIPPING** is working to bring the quality standards of ocean shipping to even higher levels. We'll do it by expanding upon the widest ranging coverage to offer even better end-to-end logistics solutions while accelerating the pace of digitalization through the use of evolving technology. Our commitment to our customers, that **We Deliver Value**, is made possible and measurable by remaining transparent and adaptable to the constantly changing qualities of commerce.

As the world's leading provider of shipping and integrated logistics solutions, we take the value proposition of our customers as our value pursuit. We will grow together. And, we will continue to create value for our customers.



We Deliver Value

COSCO SHIPPING Lines (North America) Inc.
100 Lighting Way, Secaucus, NJ 07094 (866) 830-2550



cosco-usa.com



[INSIGHT]

ECODEV

by Doug Wheeler

President and CEO, Florida Ports Council
doug@flaports.org | 850-222-8028

4 Steps to Ensure Port Resiliency After a Critical Incident

Across the nation, seaports support more than 30 million jobs and have an economic impact of more than \$5 trillion. In my home state of Florida, our ports support nearly one million jobs and have an annual impact of more than \$117 billion.

We must protect the enormous economic impact of the ports system in Florida and across the country. In Florida, we recently studied resiliency from critical incidents, including threats such as sea level rise, immediate impacts from hurricanes and other natural disasters, and even cyberattacks and security threats. This helps us understand the steps we have to take to protect our ports and the businesses located there, along with the supply chain.

Florida established innovative practices that increase resiliency:

- Our ports have entered into a memorandum of understanding to assist other impacted ports after a disaster. This could include personnel, equipment, and other resources necessary to recover quickly.
- Our 15 seaports have also invested in a single information reporting platform, known as CommandBridge, to connect and share real-time information with other ports and key state and

federal agencies during and after a critical incident.

But we can do more to continue to protect our ports—the property, the businesses, and the employees—from potential threats. These actions include:

1. Collaborate with local communities. Florida ports have worked with state and local governments and utility providers to harden electrical infrastructure, build power redundancy, and receive priority power restoration.

Additionally, our ports have provided support after large disasters, including Hurricane Michael in 2018, when Port Panama City donated acres of land for first responders to help the community's recovery process begin.

2. Get prepared for any disaster. Conducting regular simulations or scenarios of critical incidents provides a best practice in increasing resiliency and response to natural disasters or other events. Although natural disasters happen more frequently in some coastal areas, preparing for unusual events is also

critical to a faster recovery. This includes ensuring that satellite phones or two-way radios are available, and that individuals are trained in how to properly use them.

3. Update procedures. Many organizations have not updated their emergency plans for years. Sea level rise, storm surge, and flood zones require updated plans to ensure fuel and generators are stored above water levels in a natural disaster such as a hurricane. Also, move truck, rail, and cargo to safe locations and above flood-prone areas.

4. Go high tech. Technology provides support to all systems across seaports. Being able to access this technology will be critical to opening port operations and local businesses as soon as possible.

Backing up all technology and communications systems in the cloud and off-site will allow access to critical documentation, from employee contact information to security measures and logistical strategies.

Seaports are a critical hub of employment, logistics, transportation and business. Ports across the country must be prepared to provide resiliency support to tenants and other partners to coordinate response and long-term recovery of the port and the local economy. ■

An aerial photograph of a large container ship, the SEAFAR MARSEI, moving through a port. The ship is loaded with numerous colorful shipping containers in shades of red, white, and blue. To the left, several large blue gantry cranes are visible, with the name 'PORT OF WILMINGTON' partially legible on one of them. The ship's wake is a prominent white, frothy trail in the dark water.

IN. OUT. ON TO WHAT'S NEXT.

WELCOME TO DONE.

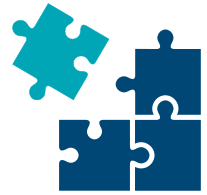
Welcome to what you need, when you need it. North Carolina Ports is more than the port with the fastest turn times on the East Coast. It's also the port with exceptional service, unique logistical solutions, and expanded offerings, like three neo-Panamax cranes, improved intermodal rail service and expanded refrigerated container capacity. We're never done finding better ways to help you discover the power of DONE. Learn how NC Ports delivers the world—faster.

855.211.1313 // NCPorts.com

**NORTH
CAROLINA
PORTS** 

Supply Chain Challenge?

SOLVED



Caffeine Fix: Mug Maker Meets Brewing Demand

With their temperature-controlled mugs in high demand on a global scale, manufacturer Ember turned to SEKO Logistics to handle an influx of orders and help establish a supply chain.

Known for their innovative, temperature-controlled technology, Ember has transformed the everyday cup of coffee into an experience, by allowing the consumer to set and maintain their ideal drink temperature for up to three hours.

THE CHALLENGE

Ember's new, innovative product was growing at a rapid pace—gaining extreme B2B and B2C popularity. With no fixed supply chain, the Ember team struggled to successfully carry out production and delivery schedules to meet the increasing demand. Their entire supply chain, from manufacturing to origin, to shipping and destination had too many parties involved. With the many variables of U.S. logistics, B2B sales, B2C sales, and a possible international expansion, Ember saw an immediate need for assistance.

THE SOLUTION

SEKO Logistics was named Ember's Global logistics partner and they immediately began the process of centralizing all of Ember's logistics operations within SEKO's suite of services. From that moment on, any and all logistical issues were forwarded to the SEKO team; with service and reliability being a primary focus.

SEKO established a centralized distribution center at their Chino, California, facility for B2B operations

and B2C fulfillment in the U.S.A. A dedicated account team was established to assist with local distribution and e-commerce fulfillment. Next, SEKO gained 100% responsibility for Global air and ocean freight from China, and established an Asia-Pacific Omni-Channel distribution center in Hong Kong to include B2B and B2C Cross-Border Solutions.

Utilizing SEKO's suite of services, Ember has now gone live in 26 countries, as well as, Tmall—China's biggest business-to-consumer online retail portal. With a goal of making every logistics decision calculated and effective, the manufacturer focuses on the total cost of ownership (TCO) and the value-justified cost (VJC) associated with utilizing a single 3PL.

As a true partner, the SEKO team constantly looks for ways to improve all U.S. and international operations on Ember's behalf. SEKO Hong Kong serves as Ember's Omni-Channel hub in which three parallel distribution centers fulfill all orders for Europe, Asia, and the U.K.

SEKO has given Ember the tools to continue to grow at a consistent, sustainable, and efficient rate. Better



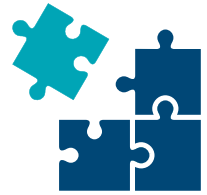
efficiency, a single point of contact, and service-based improvements aid in Ember's stellar customer experience; while a single point of inventory view (SEKO 360 and Omni>Returns) allows for international collaboration and seamless integration.



To learn more:
email: hello@sekologistics.com
phone: 630-919-4800
web: sekologistics.com

Supply Chain Challenge?

SOLVED



Why Hub Group?: '100% End-to-End Visibility at the SKU Level'

A growing CPG company benefits in multiple ways as Hub Group optimizes its supply chain with a streamlined outsource strategy.

THE CHALLENGE

Managing a supply chain can be complex, especially when it's for a carve-out company that is now a standalone accounting for a seemingly endless number of networks. Hub Group was engaged by a consumer-focused private equity firm to evaluate the end-to-end supply chain network of one of its food companies to uncover cost savings and efficiency opportunities.

The food company had a well-established brand, yet with its continued growth, it needed a more sophisticated supply chain solution. Navigating each product's point of origin with multiple incumbents complicated communications with suppliers and customers. This also hampered its ability

to govern inventory levels and on-time performance. As a result, the company experienced higher freight expenses, and its lean staff spent more time putting out fires than being strategic.

THE SOLUTION

Hub Group's supply chain and logistics specialists determined how to achieve greater overall efficiencies and cut costs. The resolution involved leveraging Hub Group's CaseStack Retail Supplier Solutions, tapping an extensive network of established carriers and relationships and enrolling the company in multiple retail consolidation and food service distribution programs.

Aside from cost savings, performance has improved dramatically, and the

company has full access to retail compliance specialists.

Hub Group's optimized end-to-end supply chain solution replaced eight incumbents with a fully streamlined outsource. This includes customs and cross-border support for inbound from Mexico, food-grade warehousing in five regions, outbound services with five retail consolidation programs, and less than truckload and full truckload for all non-consolidation consignees.

A senior leader at the company said one reason for choosing Hub Group was "because of its ability to go from pickup to destination with 100% visibility at the SKU level. It's compelling."

Using customer portal technology, Hub Group brings enhanced, 24/7 visibility into inventory levels, order tracking, and all documentation needed to avoid costly retail fines. Customers obtain the resources necessary to be proactive with their supply chain, allowing them to better focus on the complexities that come with hyper growth.



To learn more:
email: info@hubgroup.com
phone: 800-377-5833
web: hubgroup.com

THOUGHT LEADERS

Finding a Strategic Supply Chain Partner



Andrés Lopera

Chief Executive Officer
LFS
marketing@lfs-inc.com
www.lfs-inc.com
833-744-7537

Q: *Companies have many choices when looking for transportation solutions today. What are the important factors to consider when selecting a strategic partner?*

A: In this ever-changing environment marked by varying availability and unpredictable market behavior, you need a partner who can handle these challenges while you focus on growing your business.

You need a partner who can leverage your supply chain through technology and innovative processes, backed up by experts in the field with a deep passion and drive to help other businesses succeed. Your partner should always be ready to help you tackle the challenges that come along the way and make the best of the opportunities ahead.

Q: *What's more important: Technology applied to transportation and logistics, or humans with experience working as a team? Why?*

A: Both of them are musts. Lately, technology has allowed us to better approach and translate our customers' requirements into innovative solutions that add real value to their chain. On the other hand, it makes no sense to have technology without the right people behind it.

If you mix tech with expertise, a thorough understanding of the industry, and great service, then you give value to your customers and tell them you care about them.

Q: *Given today's fast pace of evolution driven by customer requests for new solutions, how important is it for providers to be flexible and versatile? How does LFS demonstrate those qualities?*

A: Would the same size shirt fit everybody? No, it wouldn't. Customers always have different needs and intentions. This is why you should always be flexible and adapt your products to their challenges.

We don't just ship. We make a huge effort to understand every customer's business and make competitive offers, each one tailor-made according to what they want, but also what would be more suitable for them. It is about knowing their real needs and offering quality and high-value solutions.

Q: *As complexity grows in global shipments, it can be very confusing for customers. What is the benefit of partnering with a provider that offers all-inclusive solutions?*

A: When you need to buy something, you have two options: You can do it yourself or look for an expert who can help you with it.

Working with LFS means building relationships with a strategic partner that will help you grow your business through expertise and well-informed choices.

Besides making it simpler by leaving all the hard work and paper processes to us, our customer will get not just a one-time product from a provider, but a sequence of growth-focused innovative solutions from a reliable partner.

Commitment to Service

The Port of Long Beach is the greenest, fastest, most efficient gateway for goods moving to and from Asia and marketplaces across America.

We're keeping our competitive edge while working sustainably, offering unrivaled customer service while we build the Green Port of the Future.



Port of
LONG BEACH
THE PORT OF CHOICE



Our name is local but our service knows no boundaries



For more than 60 years, the mission of **Atlanta Bonded Warehouse** and **Colonial Cartage** has remained constant:

to provide best-in-class integrated warehousing, transportation, and co-packaging services to the food, pharmaceutical, and related CPG industries. Our goal is nothing short of total customer satisfaction.



Inbound Logistics' 16th annual Global Logistics Guide provides an around-the-world look at the issues, opportunities, and concerns likely to affect global supply chain networks.

2020 GLOBAL LOGISTICS GUIDE

Contagion. Protectionism. Localization. When one of the largest economies sneezes, the world catches cold. When the two largest economies engage in a tariff fight, world trade bystanders get hurt.

Uncertainty is causing many companies to rethink globalization in favor of localization. The coronavirus is having a large impact beyond sickness and death—global supply chains that send high volumes of commodities and components to China are seeing large downward revisions in their GDPs. Global supply chains that depend on the output of components and finished goods based on those materials are feeling pinched as well.

Tariff threats and growing global tendencies toward higher levels of protectionism contribute to reduced trade flows. On a positive note, the continued communications revolution is expected to ease trade and consumption. The Internet of Things (IoT) and 5G are promising greater capabilities and efficiencies for procuring, producing, and tracking the international flow of goods using cloud-based software as a service.

It appears 2020 will be a year of supply chain hesitations, and then continued growth. *By Mike Ogle*

ASIA

Asia remains the most dynamic region in the world, accounting for more than 70% of global growth in 2019 (China accounts for 40% of that). A tremendous volume of goods flows within the region as well, and all these countries have strong import/export and production capabilities.

All other countries in the region have benefited from the diversification away from China, but have also been hurt by trade tensions overall.

Tourism remains strong and welcome. Continued growth is expected throughout the region, resulting from substantial infrastructure investments. Hong Kong's long-standing role as the open financial and trade capital of the region may shift to Singapore.

KEY

US FDI Foreign Direct Investment.

ALL AMOUNTS in \$U.S. billions.

X FACTOR provides a +1, 0, or -1 score based on a country's major existing or potential disruptions or opportunities/strengths.

WORLD BANK LPI SCORE

The Logistics Performance Index ranges from 1 to 5, with a higher score representing better performance. The World Bank provides the score based on its global survey of freight forwarders and express carriers on the logistics "friendliness" of countries where they operate and trade. Countries are scored based on customs, infrastructure, international shipments, logistics competence, tracking and tracing, and timeliness.



CHINA

GDP **\$13,608**
EXPORTS **\$2,656**
IMPORTS **\$2,549**
US FDI **\$117**

X FACTOR

-1

Doubly challenged due to the coronavirus and trade tensions with the United States.

- Highly criticized internationally for authoritarianism and ever-changing adjustments to views about Hong Kong and Taiwan.
- The second-largest economy, leader of the ASEAN Economic Community, and still growing strongly despite all other issues.
- Has developed into a highly influential world power with many investments in countries around the world, primarily for access to commodities.
- Infrastructure investments are still strong through the Belt and Road Initiative and the Greater Bay Area plan.

WORLD BANK LPI SCORE

3.61



VIETNAM

GDP **\$245**
EXPORTS **\$260**
IMPORTS **\$251**
US FDI **NA**

X FACTOR

1

One of the strongest GDP performers during the past decade, with projected growth of 6.5%.

- Economic and political reforms led to rapid growth, primarily as a manufactured products and components exporter. Also seeing a robust growth in services.
- Foreign investment continues to be strong.
- Unlike the rest of the region, 70% of the population is under 35 years old. Average age is rapidly rising, however.
- Education quality is high, with strong Program for International Student Assessment (PISA) scores.

WORLD BANK LPI SCORE

3.27



SOUTH KOREA

GDP **\$1619**
EXPORTS **\$713**
IMPORTS **\$631**
US FDI **\$42**

X FACTOR

0

Strong industrial leader and exporter. Expected to grow 2% in 2020.

- Diversified manufacturer of steel, automobiles, electronics, and semiconductors (its largest export category at 20%).
- High tech and highly educated. Recently announced \$51 billion in infrastructure spending and interest-rate cuts.
- On-again, off-again disputes with Japan cause some uncertainty.
- K-pop and the Academy Award-winning movie *Parasite* are well-known exports, but don't move the needle economically.

WORLD BANK LPI SCORE

3.61



JAPAN

GDP **\$4,971**
EXPORTS **\$917**
IMPORTS **\$904**
US FDI **\$125**

X FACTOR

0

Facing a recession after the effects of a value-added tax increase from 8% to 10% in October 2019, hurting private consumption.

- Economy also hurt by both trade tensions in the region and the coronavirus. Ultra-low interest rates are attempting to counter the trend.
- Hosting the 2020 Tokyo Summer Olympics can help (if they happen). Growth will be small, if any, in 2020.
- Still a stable, diversified, well-educated country with strong tech and road infrastructure. However, population is aging and shrinking.

WORLD BANK LPI SCORE

4.03



HONG KONG

GDP **\$363**
EXPORTS **\$683**
IMPORTS **\$683**
US FDI **\$83**

X FACTOR

-1

Social unrest is hurting Hong Kong, and current projections find no growth in 2020.

- Heavily dependent on the flow of people and goods. Tourism is expected to drop sharply, as is domestic spending.
- There are typically four times the number of visitors compared to the population.
- Exports, which include tourism, are twice the GDP.
- The government is pursuing stimulus measures to ride out the current storm.
- Trade with China is high in both directions as many goods are re-exported worldwide.

WORLD BANK LPI SCORE

3.92

SOUTHEAST ASIA & INDIA

Countries in Southeast Asia and India have benefited from the diversification away from China, but have also been hurt by trade tensions. India's growth pace and size is the counterweight to China. Malaysia and Indonesia together are large, business-friendly sites with a combined population approaching that of the United States.

Tourism has been welcomed and is strong. Singapore may be turning into the open financial and trade capital of the region, shifting slightly from Hong Kong's historical role. Continued strong growth is expected as infrastructure investments are substantial throughout the region.



THAILAND

GDP **\$505**
EXPORTS **\$337**
IMPORTS **\$285**
US FDI **\$18**

X FACTOR
1

Southeast Asia's second-largest economy is experiencing its slowest growth in five years.

- Experiencing high household debt. Trade tensions hurt a country heavily dependent on exports and investment.
- A surge in value of the Baht against the dollar hurt exporters and tourism, which has been a focus for the country.
- Population is rapidly aging.
- Offering a 50% tax cut for five years to manufacturers relocating production.
- Labor rules are easing and training support is provided to further stimulate foreign investment.

WORLD BANK LPI SCORE

3.41



INDIA

GDP **\$2,719**
EXPORTS **\$537**
IMPORTS **\$643**
US FDI **\$46**

X FACTOR
0

Amazon CEO Jeff Bezos told the *Financial Times*: "I predict that the 21st century is going to be the Indian century."

- The United States and India are strongly connected democracies in trade and the exchange of expertise, but tariffs create a cloudy outlook.
- Logistics costs as a percentage of GDP are well above those of other developing countries.
- Vast country with the second-largest population at 1.3 billion.
- Larger cities need significant infrastructure investment to reduce congestion and delays.
- E-commerce is growing quickly.
- Has been called the electric scooter capital of the world.

WORLD BANK LPI SCORE

3.18



MALAYSIA

GDP **\$359**
EXPORTS **\$247**
IMPORTS **\$221**
US FDI **\$14**

X FACTOR
0

One of the most open economies in the world and Southeast Asia's third-wealthiest country.

- Its diversified economy includes agriculture and commodities, but it is a leading exporter of electrical appliances, parts, and components.
- Labor is tight, and 40% of jobs are linked to exports.
- Growth has averaged more than 5% since 2010.
- Recently created two national cars and a national motorcycle to spur development and exports.
- Benefiting from diversification away from China.
- Leadership transition uncertainty is a concern.

WORLD BANK LPI SCORE

3.22



SINGAPORE

GDP **\$364**
EXPORTS **\$642**
IMPORTS **\$546**
US FDI **\$219**

X FACTOR
1

The regional center for fast, open, high-volume global trade.

- Global trade is three times the GDP, which was revised downward due to the coronavirus.
- Investing strongly to become a global hub for tech firms, but also spending heavily on protection from rising seas.
- Phasing out petrol and diesel vehicles by 2040.
- Small, agile economy is also a strong financial center.
- Manufacturing focused on value-added electronics, which have taken the strongest hit due to contagion fears.
- Low unemployment makes it challenging to find new employees. Land constrained, but converting islands into mini-hubs for industries.

WORLD BANK LPI SCORE

3.20



TAIWAN

GDP **\$590**
EXPORTS **\$336**
IMPORTS **\$286**
US FDI **\$18**

X FACTOR

0

Reelected a pro-growth leader in January 2020.

- Encourages Taiwanese companies to invest capital back into the country while building infrastructure.
- Modern, highly diversified manufacturer and exporter that also has well-developed and growing private consumption.
- Growth is slowing and should hit slightly more than 2%.
- Democracy and level of independence clash with China, causing uncertainty in long-term plans.
- The United States is its third-largest trading partner behind China and Hong Kong.

WORLD BANK LPI SCORE

3.60



INDONESIA

GDP **\$1,042**
EXPORTS **\$218**
IMPORTS **\$230**
US FDI **\$11**

X FACTOR

1

Growth expectations of 5% should continue, aided by government incentives and stronger infrastructure spending.

- Many troubled, state-owned enterprises have been targeted to become more efficient and less wasteful.
- Labor regulations are being overhauled and foreign investment is strongly encouraged.
- New leadership with a business background is seen as a strong positive.
- Building a new \$34 billion capital city, involving a planning committee of international business leaders and former government chiefs of state.

WORLD BANK LPI SCORE

3.15



BANGLADESH

GDP **\$274**
EXPORTS **\$41**
IMPORTS **\$64**
US FDI **NA**

X FACTOR

0

With an average of more than 6.5% GDP growth during the past decade, the country is becoming a fast-growing, low-cost manufacturing resource for the world, primarily in labor-intensive apparel; however, exports of ready-made garments have slowed.

- Infrastructure growth is not keeping pace, resulting in congestion and delays related to movement of goods.
- Continues to face weather-related risks, such as flooding and cyclones, because 60% of its land surface is five meters or less above sea level.
- Financial concerns rising due to underperforming loans.

WORLD BANK LPI SCORE

2.58

KEY

US FDI Foreign Direct Investment.

ALL AMOUNTS in \$U.S. billions.

X FACTOR provides a +1, 0, or -1 score based on a country's major existing or potential disruptions or opportunities/strengths.

WORLD BANK LPI SCORE

The Logistics Performance Index ranges from 1 to 5, with a higher score representing better performance. The World Bank provides the score based on its global survey of freight forwarders and express carriers on the logistics "friendliness" of countries where they operate and trade. Countries are scored based on customs, infrastructure, international shipments, logistics competence, tracking and tracing, and timeliness.

NORTH AMERICA

The biggest development in 2019 was renegotiating the North American Free Trade Agreement (NAFTA), replacing it with the United States-Mexico-Canada Agreement (USMCA). USMCA is more of an adjustment to NAFTA, but adds provisions that greatly affect agriculture and wages.

The U.S.-Mexico border flow and operations remain strong as both countries benefit greatly from the back-and-forth trade to produce products in stages. The border wall between the countries is controversial, but has little effect on trade flow so far, despite occasional threats to close the border for not curbing the flow of people and drugs from Mexico into the United States.

Canada and the United States continue a strong, stable trade relationship that is highly interdependent. Infrastructure links are good, but cross-border crossings using highways can get highly congested at some points.

KEY

US FDI Foreign Direct Investment.

ALL AMOUNTS in \$U.S. billions.

X FACTOR provides a +1, 0, or -1 score based on a country's major existing or potential disruptions or opportunities/strengths.

WORLD BANK LPI SCORE

The Logistics Performance Index ranges from 1 to 5, with a higher score representing better performance. The World Bank provides the score based on its global survey of freight forwarders and express carriers on the logistics "friendliness" of countries where they operate and trade. Countries are scored based on customs, infrastructure, international shipments, logistics competence, tracking and tracing, and timeliness.



CANADA

GDP **\$1,713**
EXPORTS **\$551**
IMPORTS **\$584**
US FDI **\$402**

X FACTOR

0

Natural resources of oil, minerals (potash in particular), and timber are abundant.

- Highly educated and more open to immigration than the United States, but does apply strong standards.
- May need better internal trade policies as IMF says non-tariff trade barriers resulting from different regulations among provinces hurt labor mobility, limit consumer choice, fragment markets, stifle competition, and limit scale of production, lowering productivity growth.
- The United States' second-largest trading partner (China is first), but its No. 1 export market.

WORLD BANK LPI SCORE

3.73



MEXICO

GDP **\$1,221**
EXPORTS **\$480**
IMPORTS **\$502**
US FDI **\$115**

X FACTOR

0

Stands to benefit from the USMCA, primarily due to reduced uncertainty rather than specific policies.

- GDP growth is only about 1% and slowing.
- Corruption is still a concern overall, despite a national strategy to reduce it.
- U.S.-Mexico border continues to have strong connection with heavy flow of goods.
- Uncertainty associated with new leadership, which is viewed as less supportive of free-market policies.
- The trend toward localizing supply chains will benefit border areas.

WORLD BANK LPI SCORE

3.05



UNITED STATES

GDP **\$20,544**
EXPORTS **\$2,510**
IMPORTS **\$3,148**
US FDI **NA**

X FACTOR

0

The No. 1 economy in the world expects to grow 2% in 2020.

- Tariffs and other trade tensions with China and the EU result in shifts of alternate sourcing to limit future risk, but imports are heavy.
- Debt continues to grow as a result of a large tax cut that stimulated the economy, but resulted in large annual deficits.
- Important election coming in November 2020 with a politically and economically divided nation.
- Infrastructure initiative promises are on-again, off-again.
- Trade hubs and innovation in IoT and cloud-based visibility are strengths.

WORLD BANK LPI SCORE

3.89

SOUTH AMERICA

Growth overall in the region has been low and looks to stay that way during the next few years. GDP per capita has declined and is below low, long-term rates. International Monetary Fund forecasts for the next five years show growth below the global average for emerging market economies.

Social unrest in several countries doesn't help, but reforms continue to show promise. Large amounts of natural resources resulted in a heavy reliance on commodity trade, but prices have stayed low. Improvement of trade-friendly policies looks to reverse the trend, but will take time.

Venezuela continues to drag down every measure of trade and growth for the region. Chile, Panama, Colombia, and Brazil continue to be the bright spots in the near-term for trade as well as internal development.



PANAMA

GDP \$65
EXPORTS \$26
IMPORTS \$28
US FDI \$5

X FACTOR

1

Panama Canal revenue (more than 10% of GDP) uncertain due to global trade issues related to tariffs and the coronavirus.

- Still a strong trading hub with continued higher growth than the rest of the region.
- Operating a new copper mine can help, but low commodity prices are an obstacle.
- Great location for the region's services trade—logistics, finance, and insurance.
- Strong for consolidation and reexport services, making it a great base within the region.

WORLD BANK LPI SCORE

3.28



COLOMBIA

GDP \$331
EXPORTS \$53
IMPORTS \$69
US FDI \$8

X FACTOR

1

The third-largest economy in South America is rising strongly as an open, pro-business country with a good talent pool.

- An emphasis on IT capabilities (Medellín is now a world-renowned tech hub) and English as a second language results in stronger ties with U.S. companies.
- Growth is still relatively strong at around 3%.
- Infrastructure outside of major cities is challenged, but investment is in progress.
- Open-border policies have resulted in a large number of Venezuelans seeking better opportunities.

WORLD BANK LPI SCORE

2.94



BRAZIL

GDP \$1,869
EXPORTS \$277
IMPORTS \$267
US FDI \$71

X FACTOR

1

By far the largest country and economy in South America (and ninth largest worldwide) with many large ports and population centers.

- China encompasses 28% of exports, decreasing 2020 GDP.
- After three years of weak growth, instituting reforms is expected to attract further investment.
- A member of the Mercosur group of trading countries in the region, focusing on free movement of goods by reducing restrictions.
- Agriculture is strong and agritech is a focus. Infrastructure is sound for access deep into the country.

WORLD BANK LPI SCORE

2.99



CHILE

GDP \$298
EXPORTS \$86
IMPORTS \$86
US FDI \$26

X FACTOR

0

Although one of the most open and diversified economies in South America, recent widespread protests are a concern.

- Commodity export levels still dramatically affect trade health (e.g., China is the top copper consumer, Chile is the top copper producer).
- GDP forecasts for 2020 and 2021 cut to about 1%.
- A long coastline, many ports, and business-friendly policies overall are strong pluses.
- 2019 was a busy year for trade agreements with the U.K., New Zealand, and Singapore.
- The United States is Chile's second-largest trading partner.

WORLD BANK LPI SCORE

3.32

EUROPE

The region is a large producer of manufacturing and transport equipment, but that is where growth has turned negative. A general slowdown puts 2020 projected growth at less than 2%. Export volumes and industrial production rate remain flat.

No-deal Brexit increases uncertainty and will result in many supply chain shifts in the region. Car production is weak across Europe, particularly in Germany. The EU's new emission standards may reduce GDP.

Negative interest rates are new; when they will end is unknown. Also concerning are the tendencies toward protectionism and the types of leaders and coalitions gaining influence. The Brookings Institution views U.S.-European relations as being at a low 3.1/10.

The EU still serves as a consistently large, diverse market that is attractive for a base of operations nearly anywhere because of its consistent rules and agreements.



FRANCE

GDP **\$2,778**
EXPORTS **\$870**
IMPORTS **\$892**
US FDI **\$87**

X FACTOR

-1

Debt rises to 100% of GDP. Unrest strong as protests erupt each time leaders try to apply reforms for competitiveness.

- Logistics infrastructure solid.
- Unemployment at 8%, a new low from the economic crisis. President Macron is pushing pension reform to reduce debt.
- A reduction in taxes and red tape for startups results in a sharp rise in new businesses—transport and storage, real estate, manufacturing, and business support services.
- Factory outputs have low growth, primarily due to consumer goods. Food and beverages (expected from cheese and wine) make up 20% of French production.

WORLD BANK LPI SCORE

3.84



UNITED KINGDOM

GDP **\$2,855**
EXPORTS **\$857**
IMPORTS **\$907**
US FDI **\$758**

X FACTOR

-1

For several years it was uncertain what kind of Brexit would take place, but it appears that the no-deal version is in progress.

- Consumer confidence has grown since the final decision.
- Prime Minister Johnson is pushing hard to reduce, if not eliminate, most tariffs to encourage strong trade. GDP growth up in the air, but expected to land at 1%.
- Trade talks with the United States are planned, but automobiles may be an unpleasant hot topic.
- Uncertainty regarding London's leadership role in the region's finances when Brexit is complete.

WORLD BANK LPI SCORE

3.99



SWITZERLAND

GDP **\$705**
EXPORTS **\$466**
IMPORTS **\$380**
US FDI **\$278**

X FACTOR

0

Saw growth in pharmaceutical and precision instruments, including watches.

- Central bank expects less than 1% inflation.
- Projecting growth of slightly more than 1%.
- Unemployment is low.
- Zurich and Geneva rank as highly livable cities, but costs are high.
- Overall one of the best educated and healthiest countries. Strong in high-tech components.
- Was leading in 5G implementation, but now halted for health concerns needing more study.
- Third-highest GDP per capita.

WORLD BANK LPI SCORE

3.90



CZECH REPUBLIC

GDP **\$245**
EXPORTS **\$192**
IMPORTS **\$177**
US FDI **\$7**

X FACTOR

0

Predicting 2020 growth around 2%.

- Low unemployment raising inflation. Industrial production is declining.
- Current leadership reversing growth in ties to China.
- Labor shortages hurting growth on production lines.
- Evaluating whether to replace aging nuclear reactors or turn to alternative sources.
- Rising interest rates, but still relatively low historically.
- Recently ranked the No. 1 manufacturing location in Europe by Cushman Wakefield.
- Still seen as a lower-cost producer, but wages are rising.

WORLD BANK LPI SCORE

3.68



BELGIUM

GDP **\$543**
EXPORTS **\$448**
IMPORTS **\$449**
US FDI **\$64**

X FACTOR
0

Debt at 100% of GDP is one of the highest in Europe. Growth expected to be only slightly more than 1%.

- Lack of new government coalition that needs to deal with debt, an aging population, and climate change.
- Brussels faces heavy congestion and pollution due to its role as the EU hub for politics and industry, but still highly attractive for services growth and company regional headquarters.
- Seen by the Organization for Economic Cooperation and Development as having a rising skills shortage.
- Ranked highly as investment destination.

WORLD BANK LPI SCORE

4.04



GERMANY

GDP **\$3,948**
EXPORTS **\$1,872**
IMPORTS **\$1,629**
US FDI **\$140**

X FACTOR
0

World leader in exports of value-added manufacturing goods with expertise in production machinery, but factory outputs are recently weak.

- Strictest fiscal discipline in the region.
- Planning for a new Tesla Gigafactory near Berlin, but faces concerns about environmental impact.
- New international airport opening near Berlin.
- Minimum wage increase several years ago appears to be having the desired effect without drawbacks.
- Concern that successors to Chancellor Merkel's leadership may be too protectionist.
- Unemployment at around 5%.
- Plans to phase out coal by 2038, but needs more generation clarity to replace it.

WORLD BANK LPI SCORE

4.20



NETHERLANDS

GDP **\$914**
EXPORTS **\$770**
IMPORTS **\$670**
US FDI **\$883**

X FACTOR
0

The Dutch government cut the maximum speed limit to 100 km per hour to lower emissions.

- Concern regarding rising seas and great amount of infrastructure dedicated to regional logistics.
- Economic stimulus plan of tax cuts and extra investments. 2020 growth expected to be about 1.5%.
- Ranked first in language skills by IMD Talent Rankings. About 70% of masters degrees are taught in English.
- Has seven of the world's top 80 universities.
- Weaker regional supply chain demands may impact the country. Housing market tight with a dense population.
- Port of Rotterdam ranked "most attractive" to serve the region.

WORLD BANK LPI SCORE

4.02

KEY

US FDI Foreign Direct Investment.

ALL AMOUNTS in \$U.S. billions.

X FACTOR provides a +1, 0, or -1 score based on a country's major existing or potential disruptions or opportunities/strengths.

WORLD BANK LPI SCORE

The Logistics Performance Index ranges from 1 to 5, with a higher score representing better performance. The World Bank provides the score based on its global survey of freight forwarders and express carriers on the logistics "friendliness" of countries where they operate and trade. Countries are scored based on customs, infrastructure, international shipments, logistics competence, tracking and tracing, and timeliness.



POLAND

GDP **\$586**
EXPORTS **\$326**
IMPORTS **\$305**
US FDI **\$13**

X FACTOR
0

Solid growth in domestic demand and rising wages.

- Labor market is tight. GDP gains are around 3.5% in 2020.
- Increasing concerns about political influence on judiciary system. Household consumption growing strongly, greatly changing urban centers.
- Tourism continues to break records. Aging population and tighter labor market lead to more automation, primarily in lower-tech industries.
- Fighting its reputation as a cheap labor location by greatly increasing minimum wages.
- Lower investments in research and development.
- High coal use. Plans to focus on energy security versus carbon footprint.

WORLD BANK LPI SCORE

3.54

RUSSIA, TURKEY, UKRAINE



The region is expected to grow 2.5% in 2020. Russia and Ukraine have both had slowdowns, but Turkey was not as bad as originally expected.

Turkey-Russia ties have strengthened and resulted in distancing from the United States. Ukraine and Russia tensions continue, but the new natural gas agreement for flows to the EU eases one major tension in the region.

Russian budget balancing for the past two years has been a surprise while debt greatly increased in Turkey.

KEY

US FDI Foreign Direct Investment.

ALL AMOUNTS in \$U.S. billions.

X FACTOR provides a +1, 0, or -1 score based on a country's major existing or potential disruptions or opportunities/strengths.

WORLD BANK LPI SCORE

The Logistics Performance Index ranges from 1 to 5, with a higher score representing better performance. The World Bank provides the score based on its global survey of freight forwarders and express carriers on the logistics "friendliness" of countries where they operate and trade. Countries are scored based on customs, infrastructure, international shipments, logistics competence, tracking and tracing, and timeliness.



UKRAINE

GDP **\$131**
EXPORTS **\$59**
IMPORTS **\$70**
US FDI **NA**

X FACTOR

0

President Zelensky, a former comedian, leads a country that has an uneven relationship with the United States overall.

- Tensions with Russia still high, but generally has strong worldwide support. Recent Russia-Ukraine deal eases one of the EU's biggest concerns.
- Moved to higher natural gas prices, which helped finances. Highly valued soil for agriculture, plus capable of heavy industrial production.
- Labor productivity continues to increase. Software exports rose to 10% of GDP.

WORLD BANK LPI SCORE

2.83



TURKEY

GDP **\$771**
EXPORTS **\$228**
IMPORTS **\$236**
US FDI **\$5**

X FACTOR

0

Country leaders take measures to support the lira, pushing for 5% growth in 2020 after the previous year's slump.

- Disputes over new natural gas found in the Mediterranean and a multicountry pipeline it hasn't been invited to join.
- Closer cooperation with Russia troubles the United States, which passed an act excluding Turkey from the F-35 jet program.
- Agricultural/industrial growth ended on an upswing in 2019.
- Rapid growth of more than 5% during the past decade.
- Women's participation in the labor force has grown.
- Construction investment high through external investments and credit, but debt grows.

WORLD BANK LPI SCORE

3.15



RUSSIA

GDP **\$1,658**
EXPORTS **\$510**
IMPORTS **\$344**
US FDI **\$15**

X FACTOR

0

Instituted a new value-added tax rate early in 2019 that increased inflation.

- One of the top five producers of precious metals.
- Continued high level of state-owned companies. Their long-time leadership is becoming a greater concern and potentially cuts growth prospects.
- Expecting 2% growth in 2020.
- Government expenditures to increase by more than 10% to stimulate growth.
- United States and EU sanctions from the 2014 Crimea annexation continue.
- Spent trillions to develop internal substitutes for goods that were previously imported.
- Had budget surplus the past two years.
- Plans item traceability by implementing codes and tags for all consumer goods.

WORLD BANK LPI SCORE

2.76



THE STRENGTH AND SPEED OF A POWERHOUSE PORT

With a robust transportation network and a roster of more than 20 ocean carriers, Port Everglades provides the quickest, most strategic course from ship to shore, and beyond. Count on us to move your cargo in powerful new ways. Visit **porteverglades.net** or call 800-421-0188.

- Less than one mile from the Atlantic Shipping Lanes
- Direct highway access
- One traffic signal to Los Angeles
- Rail connections throughout the U.S.
- On-port Foreign-Trade Zone
- Ocean shipping to 150 ports in 70 countries



MIDDLE EAST & AFRICA

These regions' dependence on commodity resource exports disrupts supply chains and lowers demand forecasts due to uncertainty.

In Nigeria, every \$10 drop in oil prices is a \$500 million drop in income per month, according to economists. Most of this region's countries face similar drops in oil, gas, and other commodities. Once the crisis passes, similar disruptions will fill gaps using infrastructure that is not yet developed to ramp back up as well as down.

Bright spots include the Expo 2020 World's Fair in the United Arab Emirates and the FIFA World Cup coming to Qatar in 2022.



SOUTH AFRICA

GDP \$368
EXPORTS \$110
IMPORTS \$109
US FDI \$8

X FACTOR

-1

The IMF sees the second-biggest economy in the continent as having weak private investment and productivity growth, with pockets of high unemployment in a divided society.

- Services are growing, but other traditional industrial sectors are flat or declining.
- State-run power firm in heavy debt, causing power outages particularly in mining.
- Growth predicted at less than 1%.
- Credit rating drop is a threat.

WORLD BANK LPI SCORE

3.38



QATAR

GDP \$191
EXPORTS \$103
IMPORTS \$66
US FDI \$11

X FACTOR

0

This export-dependent oil producer has become a significant liquefied natural gas supplier. Reserves are estimated to be strong, so the country plans to export even more throughout the 2020s.

- Investing in education and health to diversify the economy.
- Building its first large-scale solar energy plant to provide 10% of demand.
- Spending greatly on infrastructure to prepare to host the 2022 FIFA World Cup.
- Is part of the Gulf Cooperation Council.

WORLD BANK LPI SCORE

3.47



SAUDI ARABIA

GDP \$787
EXPORTS \$314
IMPORTS \$210
US FDI \$11

X FACTOR

0

Oil economy is still clearly No. 1 (80% of exports) and has dramatically raised the country's standard of living.

- Working heavily on diversification, but petrochemicals and plastics still dependent on oil. National Industrial Development and Logistics Program helps with diversification to increase focus on mining, other energy sources, and logistics.
- Saudi Aramco's initial public offering made news in worldwide stock markets.
- New laws open up foreign ownership, bankruptcy, and mortgages. Finally providing greater freedoms to women.

WORLD BANK LPI SCORE

3.01



UNITED ARAB EMIRATES

GDP \$414
EXPORTS \$389
IMPORTS \$282
US FDI \$17

X FACTOR

0

Committing \$23 billion to Indonesian infrastructure and energy projects, which involves 11 business agreements in energy, oil, gas, petrochemical, seaport, telecommunication, and research.

- Recently low oil prices have hurt finances.
- Ties its own rates to U.S. interest rates.
- Property prices have dropped.

Dubai will host the Expo 2020 World's Fair, where a demonstration of high-bay freight container storage is planned, similar to storage racks for pallets.

- Tourism and service industry is stronger than oil.

WORLD BANK LPI SCORE

3.96

KEY

US FDI Foreign Direct Investment.

ALL AMOUNTS in \$U.S. billions.

X FACTOR provides a +1, 0, or -1 score based on a country's major existing or potential disruptions or opportunities/strengths.

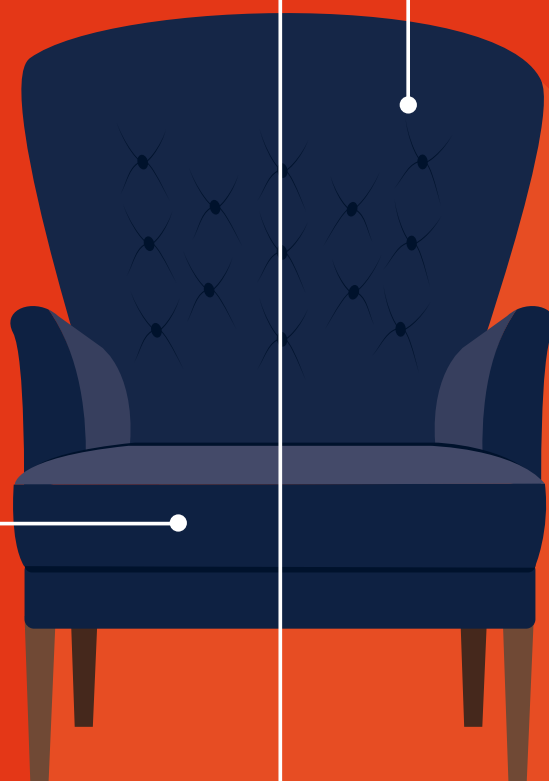
WORLD BANK LPI SCORE

The Logistics Performance Index ranges from 1 to 5, with a higher score representing better performance. The World Bank provides the score based on its global survey of freight forwarders and express carriers on the logistics "friendliness" of countries where they operate and trade. Countries are scored on: customs, infrastructure, international shipments, logistics competence, tracking and tracing, and timeliness.

CONSUMERS SEE

SC PORTS SEES

A comfy
chair.



A streamlined
supply chain
and strong
business
partnership
that offers
fast, reliable
and efficient
shipping of
any product.

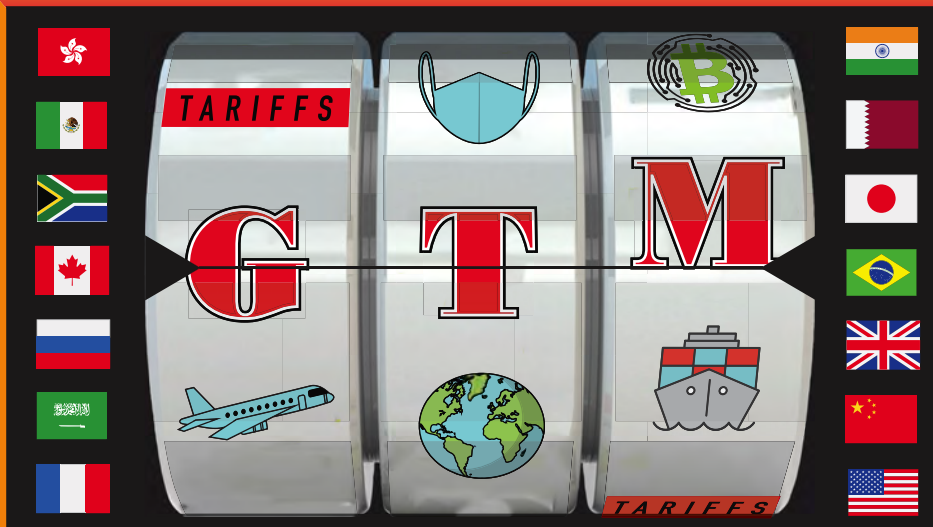
[SCSPA.COM/CARGO](https://www.scspa.com/cargo)



**SOUTH
CAROLINA
PORTS**

THE WORLD CONNECTS HERE

STACK THEM ODDS



GLOBAL TRADE MANAGEMENT SYSTEMS: A SMART BET

What's the payout on global trade management (GTM) systems? They help organizations comply with trade regulations and tariffs, automate transactions, and gain supply chain visibility. Leverage the information captured by the GTM and you hit the jackpot.

BY KAREN KROLL

As trade regulations increase in number and complexity, and tariffs change seemingly overnight, how can organizations be confident they're complying with both and minimizing potential fines and penalties? As supply chains become ever more global, how can organizations efficiently manage them?

Manual processes and spreadsheets carry the risk of error and quickly become unwieldy. That's why, for many organizations, the answer is a global trade management system (GTM). Along with experienced compliance professionals, a robust GTM can help organizations take a strategic, automated, and efficient approach to global trade compliance.

For example, Altana, an international specialty-chemicals company, uses a global trade system (GTS) to ensure it does not transact with denied parties, says Billy Duty, global head of supply chain with BYK, Altana's additives and instruments division. The system also helps Altana track shipments of some chemicals that are subject to export limits, ensuring volumes remain below those requirements.

Accuracy in global trade is key for several reasons:

- **Cost.** When auditing transactions for a client, BPE Global, a trade consulting firm, found misclassifications in two of 10 transactions. That cost the company an extra \$8,000 in tariffs. By applying the proper classification to the items being shipped, GTM systems can minimize this risk. "GTM solutions can truly support trade compliance operations," says Beth Pride, president of BPE Global.

- **Liability.** Even if a company outsources its international trade functions to a broker or freight forwarder, the shipper or importer remains responsible for complying with regulations and tariffs. A GTM solution can help ensure compliance, says Wayne Slossberg, senior vice president with QuestaWeb, a GTM solutions provider.

- **Information.** GTM systems can also help disseminate accurate information across multiple parties. Only about 20% of the information required for cross-border trade comes from the buyer. The remaining information comes from suppliers, carriers, and other entities.

"Companies that succeed, that can best control costs and ensure supply, ultimately are the ones that can manage data," notes Gary Schneider, vice president of financial services with Infor, a global software company. Again, GTM systems can play a role.

WHEN A GTM MAKES SENSE

While GTM solutions can provide value to many organizations, not every company needs one.

"It's all about your risk profile," Pride says. A company selling into a known supply chain—for instance, an established American company that can demonstrate its compliance with all regulations—typically has a lower risk profile than a company selling into regions of the world with high levels of corruption. Companies with an expansive distribution model they don't control also tend to have greater risk.

Another consideration is the frequency and severity of mistakes that occur when moving products. If customs authorities regularly hold shipments due to inaccurate trade information, or charges from brokers are mounting because they must add data or make corrections, it may be time to consider a GTM solution, recommends Linda McKee, senior director, solution management, global trade services with SAP.

Also factor in the amount of duties being paid, says Elizabeth Connell, vice president of product management with Thomson Reuters. The higher they are, the more likely the company can benefit from the tighter controls and/or

QUALITY CONTENT IS THE GOLDEN NUGGET OF A GTM SYSTEM

the identification of possible savings opportunities available through a GTM solution.

When choosing a GTM system, quality updated content, such as tariff schedules and denied party lists, is the “golden nugget,” says Ann Grackin, chief executive officer with ChainLink Research, a supply chain advisory firm. Supplying such content requires experts in international trade who constantly monitor and update the system’s database.

Because a GTM often connects to multiple other systems, such as enterprise resource planning and transportation management systems, it should be “solution agnostic,” Schneider says.

The system should handle all facets of international trade. This includes the ability to screen for denied or sanctioned business partners, in real time or batch mode; automatic determination of when import or export licenses are required, and the ability to apply for and manage them; the ability to make available the documentation required by customs authorities, as well as visibility to missing or incomplete documents; and tariff management. It should also support audit requirements by recording, maintaining, and storing relevant actions and changes.

“These features should be provided in such a way that only exceptions are highlighted,” McKee adds. This allows most transactions to flow without manual intervention.

Any GTM should be able to handle all modes of transportation, as well as multiple languages and currencies, says Johann van der Westhuizen, vice president of strategic business development with One Network Enterprises, a platform for autonomous supply chain management.

Visibility tools—say, the ability to track a shipment on its journey—while formerly “nice-to-have” features, have become critical for companies trying to make strategic sourcing and supply chain decisions.

“In the past, the compliance department was more about keeping the company out of trouble and less about bottom-line savings,” Connell says. Now, retaliatory tariffs are impacting many organizations’ bottom lines.

“Visibility and analysis tools help ensure they are taking advantage of all the savings opportunities available,” she adds.

QUESTIONS TO ASK

Even if a GTM appears to have all the capabilities a supply chain needs, a few additional questions can help check whether it will live up to its promise. Ask which features come with which versions. Are you looking at the base model or the Tesla? “It’s not always clear,” Pride says.

Also inquire about maintenance and updates. As the industry has consolidated, some investors have come from outside the GTM space, prompting concern about their

willingness to maintain and update the systems’ content and functionality during the long term. A few questions can help assess this: Have employees in product management been let go? How frequently do you release new versions? How much are you investing in the system?

STEPS TO IMPLEMENTATION

One first step to a successful GTM implementation is reviewing current processes and systems. If a supply chain organization uses several systems, all doing similar things but in slightly different ways, a GTM implementation is an opportunity to standardize and centralize these processes.

That’s the case with the four divisions within Altana. “We’re going to go to one GTM that will be centrally maintained,” Duty says. That will help boost both efficiency and compliance. Say one employee enters “ABC Company” while another writes “ABC Co.”; a centrally maintained system will offer a greater ability to catch all variations.

A second step is to define the business requirements and have a solid idea which features are most critical before contacting a vendor, Pride advises. For instance, if you’re limited to shipping no more than \$3,000 of a specific product per day, and you’re shipping from six locations, you’ll want a system that can monitor all shipments and alert you when you’re closing in on the limit.

Any GTM is only as accurate as the data within it. In particular, the harmonizing codes and final recipients “are the two things you have to get right,” Grackin says. Mistakes in either can lead to fines, penalties, delays, and other negative consequences.

Specialty-chemicals company Altana uses a GTM to track shipments of some chemicals that are subject to export limits, and ensure volumes fall below those requirements.



A GTM system can speed up U.S. Customs and Border Protection inspections and facilitate fast and straightforward customs filing.



To do its job, a global trade management system has to work with the multiple parties involved in cross-border trade, including carriers, suppliers and others. Getting everyone on board can be challenging. “Can the GTM company help?” Schneider asks. Does it have experience onboarding suppliers? Has it located staff in the regions of the world in which your suppliers are located?

While a GTM should automate most trade transactions, it may not make sense to try to automate every single one. “You want to automate as much as possible, but not spend thousands to get the last 3 to 5%,” says Joe Vernon, supply chain analytics practice leader with Capgemini America.

Given that exceptions are going to occur, plan how you’ll handle them before you implement a system. For instance, who will research potential recipients who show up on the denied party list, and check whether a mistake in their name caused them to land there? What time frame will they have?

“Weak processes can cause all kinds of problems,” Duty says, particularly if the data isn’t as clean as it should be.

Once a system is up and running, use the data it provides. “These systems collect a tremendous amount of data, but few companies leverage it,” Grackin says. If the system shows it’s difficult to get shipments out of a particular country, it may also provide insight into routes that would be more straightforward.

Many GTM systems can also offer information on a product’s chain of custody, such as the farm at which a shipment of crops was grown. This data is becoming increasingly important, given consumers’ growing interest in the provenance of the goods they buy, as well as increasing regulations around tracking the chain of custody for pharmaceutical and other products.

AI AND BLOCKCHAIN

Artificial intelligence (AI) and blockchain technology, while emerging, are enhancing the capabilities of GTMs, says Troy Duncan, managing director, trade and customs, with KPMG. Blockchain, for instance, can track products and trade documentation—a key function for products such as pharmaceuticals.

Advances in AI also promise to make trade compliance easier. Today, for instance, an employee may need to check a potential recipient’s age by pulling their driver’s license for each shipment. AI can streamline this check.

As GTM system capabilities improve, so will their value—especially as trade regulations and tariffs proliferate and change. While compliance professionals are critical to efficient, effective global trade, proper tools can enhance their efforts.

“GTM systems are starting to hit their stride,” Slossberg says. ■



... get there from here.

LOCATION



Less than 3 miles to I-95, the main interstate of the U.S. East Coast.

LOCATION

150m+ square feet of developed warehouse space within 30 minutes of the Port of Baltimore.

LOCATION

Access to 2/3 of the U.S. population within 24 hours.

marylandports.com | 1.800.638.7519 |    

Governor Larry Hogan | MDOT Secretary Gregory Slater | MDOT MPA Acting Executive Director David Thomas

2020

GTM GUIDE

Global trade management (GTM) systems connect sourcing and logistics to make global trade transparent, efficient, and cost effective.

From resource planning and transportation management to analytics, these leading vendors can help take the stress out of managing your global supply chain.

3rdwave/Blinco Systems

TORONTO, ON
3RDWAVE.CO

3rd Wave GTM

Platform: Cloud based

Description: Provides a fully automated and synchronized global trade platform for managing trade compliance from entry preparation and filing through post-summary management. Fully supports product classification, denied party screening control, and license control.

Functionality: Supplier management, transportation management, event management, compliance content, analytics and reporting

Acuitive Solutions

CHARLOTTE, NC
ACUITIVESOLUTIONS.COM

Global TMS

Platform: Cloud based

Description: Dynamically routes inbound/outbound shipments to align mode, provider, and service selection based on each shipment's need or cost.

Functionality: Supplier management, transportation management

Aptean

ALPHARETTA, GA
APTEAN.COM/PRODUCTS/
TRADEBEAM-GTM

TradeBeam

Platform: Cloud based

Description: Delivers an agile, multitenant, highly secure platform. Integrates easily with other back-office solutions.

Functionality: Event management, compliance content, analytics and reporting

BluJay Solutions

CHELMSFORD, MA
BLUJAYSOLUTIONS.COM

Supply Chain Optimization Software

Platform: Cloud based

Description: Empowers businesses to optimize their future in the global economy. Helps users improve efficiencies, minimize risk, and capitalize on opportunities for profitable growth.

Functionality: Supplier management, transportation management, booking functionality, compliance content, analytics and reporting, FTZ

CargoSmart

SAN JOSE, CA
CARGOSMART.AI

CargoSmart Transportation Management

Platform: Hosted on the vendor's website or cloud based

Description: Global shipment management solutions for collaboration, visibility, and predictive insights that leverage artificial intelligence and Internet of Things to optimize supply chain planning and operations.

Functionality: Supplier management, transportation management, booking functionality, event management, compliance content, analytics and reporting

ClearTrack

BRENTWOOD, TN
CLEARTRACK.COM

Clarity GTM

Platform: Hosted on the vendor's website or cloud based

Description: Operates a global trading network and specialized software modules, enabling the global sourcing of goods; management of product quality, safety, and supplier compliance; source to deliver logistics, purchase order, and item visibility; and the sourcing and spend management of ocean and domestic freight.

Functionality: Supplier management, transportation management, booking functionality, event management, compliance content, analytics and reporting

Descartes Systems Group

WATERLOO, ON
DESCARTES.COM

Descartes CustomsInfo, Descartes Datamyne, Descartes Denied Party Screening Suite

Platform: Licensed to user (installed locally) or cloud based

Description: Provides global trade, duties, tariffs, and restricted party data and services that help companies in diverse industries maximize margins, find new prospects, and vet trading partners.

Functionality: Compliance content, analytics and reporting, FTZ

Duane Customs & Freight Compliance Solutions

SANTOS, SÃO PAULO, BRAZIL
DUANESOLUTIONS.COM

Customs & Freight Solutions

Platform: Hosted on the vendor's website

Description: Customized compliance services for customs releases, freight forwarding, sourcing, and event management.

Functionality: Supplier management, transportation management, event management, compliance content

e-Freight Technology

ALHAMBRA, CA
EFREIGHT.COM

eCargo

Platform: Licensed to user (installed locally), hosted on the vendor's website or cloud based

Description: Freight management, security filing, and supply chain management solutions to serve the forwarding and international shipping industry.

Functionality: Supplier management, transportation management, booking functionality, event management, compliance content, analytics and reporting

e2open

AUSTIN, TX
E2OPEN.COM

Global Trade Management

Platform: Cloud based

Description: Helps companies expedite imports and exports, reduce costs of goods by qualifying for trade agreements and duty savings programs, and ensure compliance by streamlining cross-border transactions based on comprehensive global trade content.

Functionality: Supplier management, transportation management, booking functionality, event management, compliance content, analytics and reporting, FTZ

Elemica

WAYNE, PA
ELEMICA.COM

Elemica Buy

Platform: Cloud based

Description: A suite of products to digitize and optimize procure-to-pay processes. Provides procurement and finance visibility into inbound supply chain performance, collaborative replenishment tools, inventory management applications, and automation of business processes, resulting in lower transportation costs, reduced working capital, elimination of paper, and less administrative effort, while improving supplier relationships.

Functionality: Compliance content, analytics and reporting

Encompass Technologies

FORT COLLINS, CO
ENCOMPASS8.COM

Comprehensive ERP Software

Platform: Cloud based

Description: Comprehensive cloud-based ERP software helps distribution warehouses increase operational efficiency and manage growth effectively. The system's functions can be customized to fit unique business needs with products such as warehouse management, sales execution, logistics, warehouse automation, retailer ordering tools, and more.

Functionality: Supplier management, transportation management, analytics and reporting

enVista

CARMEL, IN
ENVISTACORP.COM

myShipINFO

Platform: Licensed to user (installed locally), hosted on the vendor's website, or cloud based

Description: Provides shipment visibility, carrier performance monitoring, management reporting, currency, invoice auditing, and VAT visibility across all modes through cloud-based, global freight audit and payment solutions.

Functionality: Transportation management, compliance content, analytics and reporting

Freight Management

ANAHEIM, CA
FREIGHTMGMT.COM

Logistics Consulting

Platform: Licensed to user (installed locally) or cloud based

Description: This not-one-size-fits-all system is flexible. Manages rate options, auditing, and tracking shipments until delivered. Also identifies shortages or damages so claims can be filed.

Functionality: Transportation management, booking functionality, analytics and reporting

Freightgate

FOUNTAIN VALLEY, CA
FREIGHTGATE.COM

Logistics Cloud Software

Platform: Cloud based

Description: Helps global shippers, forwarders, and carriers effectively manage the complex and demanding information flow, and perfect logistics processes. This multimodal zero-touch dispatch and 100% vertically integrated global visibility solution enables companies to manage and automate millions of rates, shipments, and schedules.

Functionality: Supplier management, transportation management, booking functionality, event management, compliance content, analytics and reporting

Freightos

MIAMI BEACH, FL
FREIGHTOS.COM

Freightos Enterprise

Platform: Cloud based

Description: Provides on-demand global freight comparisons across dozens of the world's largest logistics providers—both multimodal freight rate management and live air cargo procurement—complete with real-time pricing, capacity availability, and e-booking. Freightos also provides real-time ocean freight data with the only daily, data-backed ocean container index.

Functionality: Supplier management, booking functionality, analytics and reporting

GTM GUIDE 2020

Infor

NEW YORK, NY
INFOR.COM

Supply Chain Management

Platform: Licensed to user (installed locally) or cloud based

Description: Infor CloudSuite solutions deliver intelligent, real-time supply chain orchestration by connecting companies to their supply chain partners and digitally transforming processes from planning to delivery.

Functionality: Supplier management, transportation management, analytics and reporting

Integration Point

CHARLOTTE, NC
INTEGRATIONPOINT.COM

Global Trade Management Software

Platform: Cloud based

Description: Suite of global management products enabling companies to achieve global compliance while maximizing supply chain savings.

Functionality: Compliance content, analytics and reporting, FTZ

LOG-NET

TINTON FALLS, NJ
LOG-NET.COM

Automated Logistics

Platform: Cloud based

Description: An end-to-end global autonomous logistics system that forecasts supplier performance, driving transportation and documentary needs through the classification, importation, and distribution to customers.

Functionality: Supplier management, transportation management, booking functionality, event management, compliance content, analytics and reporting

Longbow Advantage

CHARLOTTE, NC
LONGBOWADVANTAGE.COM

Rebus

Platform: Cloud based

Description: Built by Longbow, Rebus is a supply chain management software that provides complete visibility and real-time performance analytics of supply chain and trade networks. A full-stack, flexible, out-of-the-box solution enables fast implementation.

Functionality: Analytics and reporting

Navigate

MENDOTA HEIGHTS, MN
NAVIGATE.COM

Ship Lens, Trade Key, Order Chain

Platform: Cloud based

Description: From global freight booking to final delivery, Navigate Emerald tools and specialized cloud-based applications provide sophisticated capabilities that enable full digital transformation of global supply chains. Emerald Forward enables online quotes and booking of global air, ocean, and land-based freight forwarding, anywhere shipments originate.

Functionality: Supplier management, transportation management, booking functionality, event management, compliance content, analytics and reporting, FTZ

Oracle

REDWOOD CITY, CA
ORACLE.COM

Global Trade Management Solutions

Platform: Licensed to user (installed locally), hosted on the vendor's website or cloud based

Description: Optimizes and streamlines business processes related to cross-border trade.

Functionality: Supplier management, transportation management, booking functionality, event management, compliance content, analytics and reporting, FTZ

Precision Software (QAD)

DOWNERS GROVE, IL
PRECISIONSOFTWARE.COM

Global Trade Management

Platform: Licensed to user (installed locally) or cloud based

Description: Automates documentation production and customs reporting, helping companies adhere to regulatory requirements and reduce hidden costs.

Functionality: Transportation management, compliance content, analytics and reporting

QuestaWeb

CLARK, NJ
QUESTAWEB.COM

Global Trade Management Software

Platform: Licensed to user (installed locally) or cloud based

Description: Facilitates timely and compliant movement of goods from origin to destination, across borders, anywhere in the world.

Functionality: Supplier management, transportation management, booking functionality, event management, compliance content, analytics and reporting, FTZ

SAP

NEWTOWN SQUARE, PA
SAP.COM

Global Trade Services

Platform: Licensed to user (installed locally) or cloud based

Description: Speeds customs clearance, reducing unnecessary delays. Minimizes fines and penalties from trade compliance violations

Functionality: Supplier management, transportation management, booking functionality, event management, compliance content, analytics and reporting, FTZ

SEKO Logistics

ITASCA, IL
SEKOLOGISTICS.COM

Global Trade Management Tool

Platform: Licensed to user (installed locally), hosted on the vendor's website or cloud based

Description: Fully integrated into MySEKO. Provides instant access to all current regulations for any combination of countries.

Functionality: Supplier management, transportation management, booking functionality, event management, compliance content, analytics and reporting, FTZ

Transporeon Group

FORT WASHINGTON, PA
TRANSPOREON.COM

Transporeon and Ticontract

Platform: Cloud based

Description: Provides end-to-end visibility by simplifying complicated carrier connections. Global collaborative shipment execution platform built for supply chain communication and freight assignment. Enhances communication with partners by bringing logistics-specific information into the transportation management process.

Functionality: Transportation management, booking functionality, analytics and reporting

Transportation Insight

HICKORY, NC
TRANSPORTATIONINSIGHT.COM

Enterprise Logistics

Platform: Cloud based

Description: International trade compliance guidance and document storage capabilities enable shippers to mitigate operational and financial risk in volatile trade lanes. Multimodal expertise and a blended technology platform empower businesses to respond to changing demands on global shipping patterns in client supply chains.

Functionality: Transportation management, booking functionality, event management, compliance content, analytics and reporting, FTZ

TransportGistics

MT. SINAI, NY
TRANSPORTGISTICS.COM

TGI-gTMS

Platform: Cloud based

Description: Facilitates spot bid and lane bid workflows from request through pricing management to closure. Offers ongoing tracking ability of both shipments and purchase orders through established EDI connections. Supports decision-making through analytics. Provides route pricing calculations, facilitating accruals, and provides user inquiry for rate comparison based managed lanes.

Functionality: Supplier management, transportation management, booking functionality, event management, compliance content, analytics and reporting, FTZ

**WHEN
BAD
THINGS
HAPPEN TO
GOOD
SUPPLY
CHAINS**

BY MERRILL DOUGLAS

IN THE FACE OF TRADE UNCERTAINTY AND DISRUPTION, IMPORTERS STAY RESILIENT.

IF the risk of trade disruption wasn't at the top of your mind before, that has probably changed since the outbreak of the new coronavirus in late 2019. As the epidemic forced factories in China's Hubei province to shut their doors, companies around the world began to feel the pain in their inbound pipelines.

In early February 2020, for example, automaker Hyundai temporarily stopped production at its South Korean factories for lack of necessary parts from China. And U.S. technology firms such as Dell, HP, and Qualcomm saw their supply chains threatened as contract manufacturers in and around the city of Wuhan halted production.

The coronavirus is just the latest in an endless string of disruptions that can pinch off supply lines for companies that import materials, components, or finished goods. The 2011 earthquake and tsunami in northern Japan also caused trouble for businesses that didn't have alternative sources for essential goods. Recent trade disputes—with their on-again, off-again tariffs—created uncertainties that forced some U.S. companies to rethink sourcing strategies.

And at all times, hazards such as earthquakes and hurricanes, fires, labor disputes, and supplier bankruptcies threaten to interrupt supply chains.

"Every year we see 300 to 400 factory fires," says Bindiya Vakil, chief executive officer of Milpitas, California-based Resilinc, whose technology helps companies monitor supply chain risks. According to Resilinc's annual summary of risk events reported through its system, along with fires and explosions, the top categories of supply chain disruption in 2017 to 2018 included: corporate changes (mergers and acquisitions, reorganizations, business sales, or spinoffs), natural disasters, regulatory changes, and labor strikes or disruptions (*see chart, p. 64*).

DRAMATIC IMPACT

After companies adopt just-in-time processes, consolidate supplier networks, and expand their supply chains into new parts of the world, those practices leave supply chains more fragile. "Anything from a natural disaster to a fire ultimately affects them in a more dramatic way," says Lee Galbraith, managing director and founder of Arlington, Virginia-based scoutbee, which offers a supplier discovery platform that uses big data and artificial intelligence (AI).

If a business doesn't have alternative suppliers ready to step in, a disruption can do serious damage. "There's a difference between knowing about a second source and having a second source," Galbraith says.

Before making plans to survive a disruption, though, a company must first understand which supply chain risks it faces and where they are. To achieve that, it must be able to see, in detail, what's happening in its supply chain, says Greg Schlegel, executive in residence, supply chain risk at Lehigh University in Bethlehem, Pennsylvania, and founder of the Supply Chain Risk Management Consortium.

"If you don't acquire good visibility, what you don't know about your supply chain can and will hurt you," Schlegel says.

The disaster that blindsides you won't necessarily be an epidemic or a hurricane. All it takes to throw an operation into panic is a Friday afternoon phone call announcing that a key supplier is going out of business.

To avoid such rude surprises, smart companies subscribe to technology-based services that alert them to events around the world that might interfere with their supply chains. "These services watch the world every 60 minutes, capture all the risk events—small, medium, and large—digitize those risk events, and then send an electronic bitmap to subscribers," Schlegel says. Users lay those maps over digitized maps of their own supply chains and look for overlap.

Companies such as IBM, Cisco, Coca-Cola, and Bayer Crop Science put these tools at the center of their risk management strategies. Some operate 24-hour "war rooms," where they track all their inventory against the map of potential disruptions. "If there is an area impacted by the coronavirus, for example, where an entire city region is locked down—they know that sooner than their competitors," Schlegel says.

Resilinc is one technology provider that offers this kind of visibility. To detect potential disruptions, Resilinc monitors data on its customers' own supply chain activities, data provided by suppliers, publicly available data about suppliers, and news reports and social media. Along with natural disasters, relevant news might involve lawsuits, regulatory activities, leadership changes, and cyberattacks. "Bits of news about suppliers can collectively disrupt supply chain operations," Vakil says.

QUICK RESPONSE

When a risk management platform shows an imminent trade disruption on the horizon, a company's first response should be to gather all the relevant facts. Which suppliers are affected? How much inventory does the company have on hand and en route? How soon before supplies run out?

If inventories are likely to run out soon, the company shifts into crisis management mode. "They get on the phone, scan warehouses and distribution centers, and ask how to get additional parts," Schlegel says. "People work 24/7 until they resolve the issue."

Early warning of a potential disruption provides a competitive edge. Take the case of a customer whose supplier's supplier has a factory fire. The first-tier supplier has just enough inventory on hand to fill orders for the next three weeks. If you learn about that problem before other customers do, you can place a new order immediately, before supplies run out.

A quick response also pays off when booking transportation in the wake of a disruption. Consider an importer whose supplier in China has shut down due to the coronavirus. The company might locate an alternative source in Thailand or Vietnam. It will need to book transportation from that new location—but so will many other shippers.

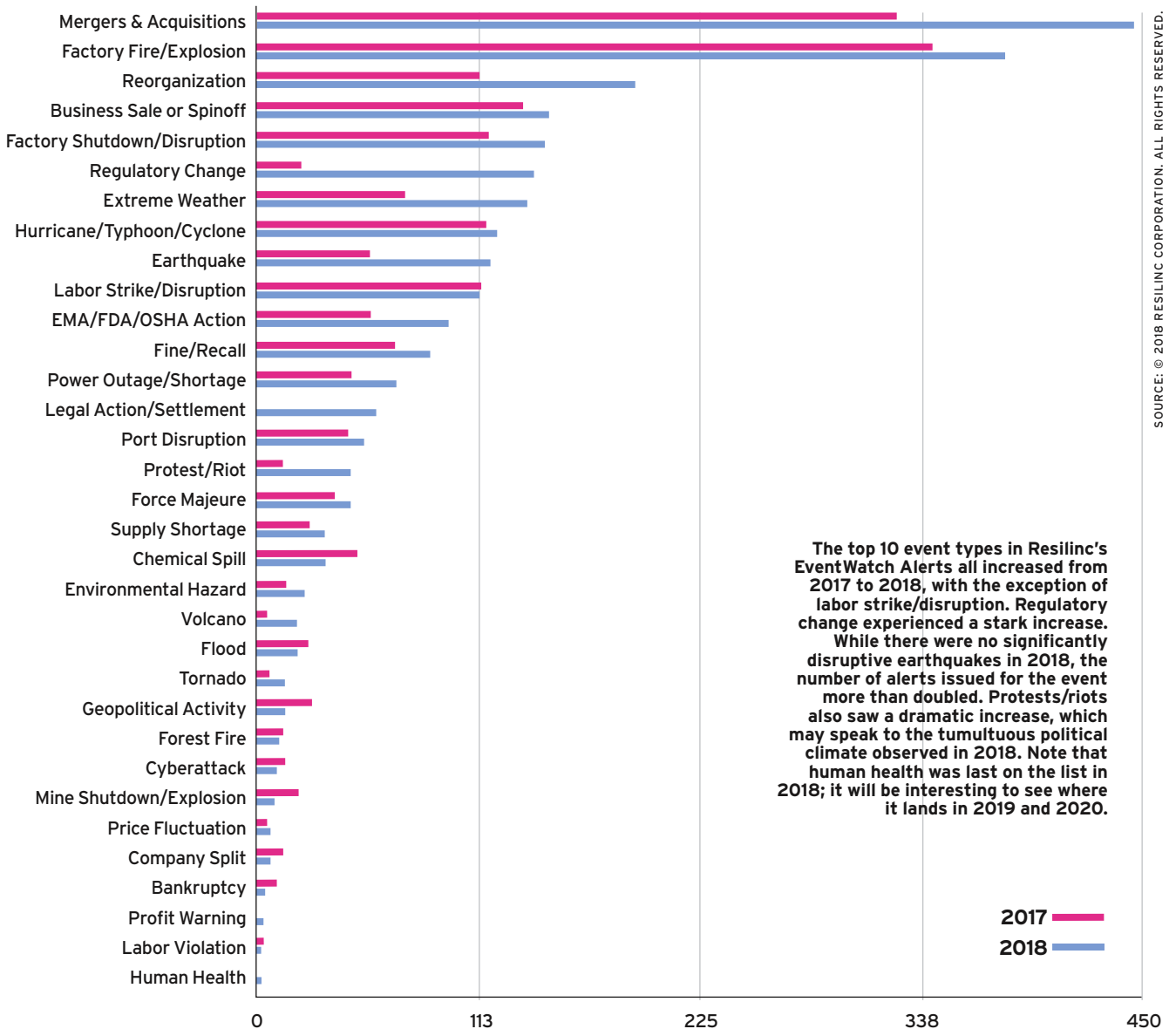
"The sooner you can push your logistics provider to block out space, the better," says Alan Baer, president of OL USA, a freight forwarder based in Westbury, New York. Third-party

logistics (3PL) companies can use their existing relationships with carriers to find capacity. "If you think you will need to supplement ocean transit with air transit, the sooner you're able to put that forward, the better," Baer adds.

A 3PL can also suggest the most economical ways to route freight quickly, to compensate for the delay caused by a disruption. Take a U.S. company that usually ships by ocean directly to the East Coast. If inventory is running low, it might get product faster by shipping to the West Coast and then transloading cargo from 40-foot ocean containers to 53-foot domestic containers for transportation by truck with team drivers.

Expedited truck transportation might increase costs, but it could be worth the one-time financial hit to get product to its destination on time.

DISRUPTIVE EVENTS 2017-2018



When a trade disruption is geography specific—as in the case of a natural disaster, labor dispute, or epidemic—seeking an alternative source elsewhere in the world is an obvious strategy. It's not always an easy strategy to implement, however. Companies in some industries, such as high tech, pharmaceuticals, medical devices, and aerospace, work so closely with their suppliers that it's hard to make a switch. In some cases, though, an existing supplier might fill orders from a different location. "Then you don't have to re-onboard your contract," says Vakil.

When switching to a new supplier is feasible, a company might employ a system such as scoutbee, which uses data on supplier capabilities and buyer needs to suggest appropriate matches.

The procurement professional would log into scoutbee and enter data about needed parts or materials, current suppliers, and any alternatives for which the purchaser was aware. "Then we use AI to identify other potential suppliers around the world that could do the same thing," Galbraith says. The procurement professional uses that short list of vendors to conduct evaluations and negotiations.

When done manually, that kind of supplier search can take from six to 18 months, depending on the product specifications. "We can do it in four to six weeks," Galbraith says.

BE PROACTIVE

When you hope to avoid supply chain disruptions, having a risk mitigation strategy already in place is the best strategy of all. Instead of scrambling for alternative suppliers, for example, a company could pull up a list of pre-vetted backup vendors and start making calls.

"The best way to do that is to identify other suppliers they can go to in a short time frame," says Galbraith. After all, by the time a disruption emerges, everyone affected by that event will be competing for product from alternative sources. "It's a matter of who gets there first, because there's only so much capacity in the world," he adds.

To be sure that backup vendors are ready to help in an emergency, you might cement those relationships by procuring from multiple sources in multiple regions, as a matter of course.

"It's important for importers to take a step back when they can and ask, 'How do I buy a little bit from four countries



SMART FACTORIES BOLSTER RESILIENCE

While sourcing from multiple suppliers is a good hedge against disruption, advanced manufacturing technologies can also keep materials, components, and products flowing to a company that needs them, says Rong Li, assistant professor of supply chain management at the Whitman School of Management, Syracuse University, New York.

Many companies today operate, or plan to operate, "smart factories"—facilities that use robotics, artificial intelligence (AI), and other digital technologies to produce goods with few employees on site. Managers can control those factories from remote locations and quickly switch out production on the lines to make different products.

If an epidemic such as COVID-19 were to keep workers quarantined at home, a smart factory could keep on producing, Li says. And in the not-too-distant future, self-driving trucks will be able to pick up products from those factories and keep them moving toward buyers.

Thanks to their flexible production lines, smart factories could also help importers quickly switch their sourcing to alternative locations. Suppose, for example, that you rely on a factory in China to ship you product A, but that factory is suddenly disabled.

"If you have a smart factory in another location where the machines were producing product B, given the flexible design associated with a smart factory, it can easily switch to producing product A," Li says.

instead of one, or go from two to four, or from one to two?" says Baer. Product from country B might cost more than product from country A, but if that strategy guarantees an uninterrupted supply, it could save money in the long run.

Sophisticated companies that have digitized their supply chains study them periodically for potential choke points. Then they perform "what-if" exercises, much like war games, to test possible responses to various disruptions. "They build what we call risk response plans," says Schlegel. "If this happens, then we will do that." When one of those disruptive scenarios actually occurs, someone pulls out the plan and everyone gets to work.

Hundreds of companies offer software that buyers can use to model their supply chains and run scenarios. It's also possible to use simpler tools, such as spreadsheets.

A company with good information about its supply chain, a strong mitigation strategy, and the ability to put its strategy into action should be well positioned to recover from any supply chain disruption.

"That's the resilient enterprise," says Schlegel. "That's the nirvana."





E-COMMERCE ENGINE TECHNOLOGY REVS UP EFFICIENCY

E-commerce has **remapped supply chains**. Across both business-to-business and business-to-consumer transactions, technology is taking on the complexity caused by this shift and driving efficiency.



Warehouse systems and processes that provide solid data and visibility into product flow can help meet the demands for e-commerce speed.

E-commerce and omnichannel selling continue to upend supply chains. “The linear supply chain no longer necessarily applies,” says Bill Loftis, senior director of integrated solutions with Transportation Insight (TI), a leading multimodal logistics provider.

“Products can be delivered from any points in the process to end customers, making it more a web than a chain,” he adds.

Across both business-to-business and business-to-consumer transactions, technology is key to leveraging the opportunity and addressing the complexity inherent in this shift. It starts with systems that provide solid data, visibility, and flexibility.

“Visibility and flexibility will become a requirement for all successful supply chains,” that can meet customers’ expectations for accurate, rapid deliveries, says Robyn Meyer, partner in enterprise solutions with TI. These needs require technology that can share information across organizational silos.

Artificial intelligence (AI) and predictive analytics also are increasingly important. To start, they can provide

value in deciding where to locate all operations. Prior to the rise of e-commerce, stores—rather than distribution or fulfillment centers—

“Visibility and flexibility will become a requirement for all successful supply chains.”

**Robyn Meyer, Partner
in Enterprise Solutions,
Transportation Insight**

typically needed proximity to customers. To meet today’s tight delivery timelines, many fulfillment centers also do. “AI can help tell where customers will be,” says Kris Bjornson, e-commerce lead with real estate firm JLL.

That’s not to say all warehouses and distribution centers will locate near major population centers, where real estate tends to be both pricey and limited. In addition to cost concerns,

the rising focus on sustainability is shifting thinking. As consumers grow comfortable with longer delivery deadlines, shippers and logistics providers have more opportunities to batch multiple orders, cutting costs and the environmental impact of transportation. It also influences the roles huge warehouses and fulfillment centers play closer to population centers.

Bjornson predicts a range of options. Smaller centers focused on last-mile deliveries likely will locate closer to population centers. Mammoth warehouses used for longer-term storage, and more apt to contain large automated storage and retrieval systems (ASRS) likely will locate in less expensive, ex-urban areas.

INSIDE THE WAREHOUSE

Within the walls of a modern warehouse or distribution center, artificial intelligence can help shippers and logistics providers determine how to efficiently pick items for orders by answering the question, “which sequence is best?” says Apurva Jain, associate professor of operations

management with the University of Washington. Artificial intelligence also can help the robots charged with picking items to identify them on the shelves and determine how to pick them, he adds.

A combination of robotic process automation (RPA refers to software that can be programmed to do basic tasks across applications), robotics, and predictive analytics can help shippers and logistics providers optimize processes like cycle time and order tracking, says Bernie Donachie, managing director and head of the supply chain practice with consulting firm Protiviti.

Moreover, these solutions tend to be customizable and relatively affordable.

Purchasing also can use RPA to enable “buyerless activity,” Donachie says. Say a manufacturer needs a certain number of widgets to make its products, and the supplier requires several weeks to get the widgets out its door. Based on the schedule and the number of widgets in stock, an RPA system can automatically push an order when a new batch is needed. Some more sophisticated systems can account for factors like

“Artificial intelligence can help tell where customers will be.”

Kris Bjornson,
E-commerce Lead, JLL

economic order quantities.

In contrast, traditional optimization tools have tended to require vast amounts of computer horsepower. “We’re going to see companies leveraging machine learning to replace traditional optimization tools,” says John Richardson, vice president, supply chain analytics with TI. Machine learning, an artificial intelligence discipline, allows computers to handle new situations via analysis, self-training, observation, and experience.

ATTRACTING WORKERS

Along with serving customers, supply chain organizations also need to attract workers to their warehouses and distribution centers—not always easy in a tight economy, Bjornson notes. Labor analytics tools and artificial intelligence

can help companies make projections about different labor markets when they’re locating distribution centers. Organizations then can better assess both where to locate their operations, and the optimal level of automation.

Technology also can help reduce the largely physical nature of some warehouse jobs, making them more attractive to many candidates, Bjornson adds. One example: robots that can help move inventory.

One technology that continues to attract attention but has yet to make significant inroads across a wide swath of supply chains is blockchain, Donachie says. The reason? For sectors like pharmaceuticals and jewelry, supply chain professionals often need to know the chain of custody. Blockchain can provide this. For many other organizations, however, that information isn’t as critical, leaving little incentive to implement it.

HOW MUCH TO RE-DO

While many shippers and logistics providers are working to implement new technology in their warehouses and distribution centers, “wholesale do-overs are expensive,” says Cyndi Fulk Lago, a principal and supply chain expert with technology consulting firm CapGemini. As a result, many organizations aim for agility first, and then focus on more expensive automating systems.

“Many clients want to start small and add on,” Lago says. That might mean starting with analytic tools that aid in warehouse design, creating spaces that allow for efficient fulfillment of both retail and e-commerce orders. For instance, Lago talked with a sporting goods retailer that is using robotics to help pick and pack orders going both to consumers and stores.

Robots can be added to the existing infrastructures of many warehouses or fulfillment centers without radically re-doing them. In contrast, many traditional systems, like ASRS, require a specific infrastructure.

One company at the forefront of



Warehouse inventory can be processed more efficiently with artificial intelligence. AI can optimize the picking sequence for e-commerce orders.

the changes occurring in distribution center and warehouse technology is Transportation Insight. TI is a non-asset-based third-party logistics (3PL) provider that works across multiple industries to help shippers manage the increasing complexity of their logistics operations. Incorporated in 2000, TI has become a leading provider of custom logistics solutions, with services that span the entire supply chain, and include domestic transportation, international logistics, and warehousing. It's based in Hickory, North Carolina.

Among the services TI provides is strategic carrier sourcing,

“The linear supply chain no longer necessarily applies. Products can be delivered from any points in the process to end customers, making it more of a web than a chain.”

Bill Loftis, Senior Director of Integrated Solutions, TI

or analyzing shippers' service requirements and preferences to match them with best-in-class carriers. Its Insight TMS™ transportation management solution provides shippers with all relevant transportation information in one place, so they can identify optimal carriers across multiple modes, create shipping documents, and tender and track shipments, among other capabilities.

In addition to the sophisticated technology suite it currently offers, TI is enhancing its business intelligence tool Insight Fusion® to meet the evolving needs of its shipper clients. Among

TOOLS STEER E-COMMERCE SUCCESS

To leverage the logistics technology available for e-commerce, Robyn Meyer, partner in enterprise solutions with TI, suggests focusing on:

- **Integrated e-commerce systems.** Some providers are beginning to offer software and portals that can integrate with major e-commerce platforms and marketplaces. Consolidating financial, inventory, and other data provides visibility across the supply chain. This streamlines the data sharing process and minimizes errors while providing a comprehensive view of the supply chain within one platform
- **Warehouse operation synchronization.** As soon as an order is placed on a shipper's store site, e-commerce software should automatically choose the warehouse that allows for the most efficient and cost-effective shipping. Inventory levels at each location and the shipping status of each order should be visible.
- **Inventory forecasting.** Once shippers gain visibility to the current inventory levels at each fulfillment center and to historical data, they can project potential stockouts. By connecting purchasing and manufacturing with sales and transportation, companies can ultimately make more accurate purchasing and production decisions.

other analysis capabilities, it enables multimodal shippers to see the shipping cost per unit of each item they're shipping, Richardson says. With this information, shippers are able to identify areas on which to focus to reduce shipping costs.

The solution also enables shippers to determine the profitability (or loss) on different items and orders. The system will be able to suggest changes that can move unprofitable orders into profitability, Loftis says.

For instance, it may recommend promoting an item that customers can add to their orders, which will help to absorb the shipping costs. It may also identify merchandise categories or order types in which free shipping is almost always going to result in a loss.

Moreover, the system is flexible and can integrate with various manifesting systems, Richardson says. It also can take

data from any source and feed it back to any source.

The multimodal intelligence offered by the Insight Fusion® platform is key, given the ease with which e-commerce shipping costs can quickly escalate. “The cost of fulfillment of direct-to-consumer orders can easily exceed 25% of sales. Yet many brick-and-mortar retailers operate at 3% net profit margins,” Loftis says. “That's not sustainable. A big emerging question is: How do we do this profitably?”

While many shippers are trying to compete with Amazon, not all shipments can ship profitably in two (or even fewer) days. “You need systems and data to tell you whether it can be shipped profitably—before it goes out the door,” Richardson says.

Often, logistics partners can provide this, letting shippers focus on what they do best.



Freight Audit & Payment since 1923

Relax. We've got you covered.



*Consulting. RFP Management.
Benchmarking & Negotiation Services.
Financial Impact & Location Studies.*

PLAN & EXECUTE

DYNAMIC MULTI-ATTRIBUTE ROUTING
& PRICING SOLUTIONS; PREMIUM
DISCOUNTS FOR LTL FREIGHT;
TMS & COMPLETE 3PL SERVICES

VERIFY & SETTLE

GLOBAL, MULTI-MODAL SOLUTION
DELIVERING ; ISO 9001:2015
& SOC CERTIFIED AUDIT &
PAYMENT SERVICES

MEASURE & ANALYZE

UNIFIED GLOBAL BI PLATFORM
& SPEND REPOSITORY FOR
COMPREHENSIVE DATA VISUALIZATIONS,
SPEND ANALYTICS & REPORT MANAGEMENT



UNITED FRESH
2020
CONVENTION & EXPO

Make Waves
JUNE 16-19, 2020 | SAN DIEGO, CA



United Fresh 2020 Convention & Expo has a destination for everyone across the supply chain.

Don't miss these show floor features:

- International Trade Zone
- FutureTEC Zone
- Supply Chain Logistics Super Session
- And more!

Be prepared to network and make new connections at:

- Tuesday's Opening Party on the USS Midway
- Wednesday's Late Night Party at the House of Blues
- Friday's United Fresh Open at Torrey Pines

REGISTER TODAY!
WWW.UNITEDFRESHSHOW.ORG

Companies set their sights on Georgia with its booming ocean ports, bustling airport, and thousands of miles of highway and railroads.

GEORGIA

Logistics Focal Point



While Georgia's mild temperatures, ocean coastline, and peanut crop—the state produces more than half of the peanuts grown in the country—tend to capture attention, the state also is a growing national and international logistics hub.

Georgia is home to 5,000 miles of railroads, 1,200 miles of interstate highways, and the Brunswick and Savannah deepwater ports, along with several inland ports. “Georgia has world-class infrastructure assets,” says Matt Markham, director of the Center of Innovation with the Georgia Department of Economic Development (DED).

The Peach State—in addition to its peanut crop, Georgia ranks third in the country in peach production—offers an extensive supply chain infrastructure that makes it a perfect location for trucking and logistics businesses, as well as those who depend on readily available warehouse space.

“Atlanta is a domestic logistics and supply chain focal point; there are many local transportation providers, logistics companies, and shippers within easy reach,” says Brian Thompson, chief commercial officer with SMC³, a provider of freight transportation technology solutions. Additionally, Hartsfield-Jackson airport allows the company's employees to travel across North America with ease.

The Port of Savannah, for instance, is the third-busiest gateway in the United States, and is growing faster than any port in America, according to the DED. And at 1,350 acres, the Garden City Terminal at the port is the largest single-terminal container port in the Western Hemisphere, and the fourth-busiest

container handling facility in the United States. It features 158 rubber-tired gantry cranes, 33 ship-to-shore cranes, and enough space to double its annual volume to 11 million twenty-foot equivalent units (TEUs).

ROOM TO GROW

A major expansion at the port, scheduled for completion in 2022, will deepen the river from 42 to 47 feet. This will accommodate today's larger cargo ships and save businesses an estimated \$174 million per year. “Savannah has the room to grow along with our customers,” says Griff Lynch, executive director with the Georgia Ports Authority (GPA).

In addition, the Savannah market features nearly 72 million square feet of industrial space, with another 6 million square feet that was under construction at the close of 2019. Even with this growth, the vacancy rate remains at 3.8%. “Savannah is one of the hottest markets in the country for commercial real estate,” Lynch says.

About 80 miles south of Savannah, the Port of Brunswick is one of the busiest auto and heavy machinery ports in the United States. More than 30 manufacturers of auto and heavy equipment move cargo through this port.

Georgia also is home to several inland ports. The Bainbridge Port, located on the Tri-Rivers

System, handles a range of bulk cargo, including nitrogen solution, gypsum, ammonium sulfate, urea, cottonseed, and cypress bark mulch. The Appalachian Regional Port (ARP), established in 2018, “brings the benefits of the maritime port some 388 miles inland,” Lynch says.

COVERING THE MODES

Shipments heading to or from the ports can travel by Georgia's two Class 1 and 24 short-line railroads, which together move nearly 200 million tons of cargo each year. Moreover, the Mason Mega Rail Terminal Project underway at the Port of Savannah will double its annual rail capacity to one million container lifts.

On the road, Georgia's 1,200 miles of highway allow shippers to reach about 80% of the country in no more than two days of driving time.

When goods need to move even more quickly, about 80% of the U.S. market is within a two-hour flight from Hartsfield-Jackson Atlanta International Airport. The facility houses 1.5 million square feet of cargo handling space. The airport's three main cargo complexes each has its own refueling and support systems, along with easy access to several highways. Adjacent to the airport is the 250-acre Georgia Free Trade Zone.

Along with its logistics infrastructure, Georgia offers a “readily available

DRIVING BUSINESS STARTS AT HOME.



Saia proudly calls Georgia home.

Get your quote today at saia.com

SAIA

LTL Freight



Atlanta Bonded Warehouse offers shippers an extra-large footprint to accelerate order fulfillment and support supply chain agility. It encompasses 15 warehouses that total 4.9 million square feet across much of the Southeast and its LTL transportation solutions cover 26 states.

skilled, talented workforce,” says Fritz Holzgrefe, president and chief operating officer with Saia LTL Freight, a national less-than-truckload (LTL) carrier based in John’s Creek, Georgia.

This is key, given the technology now expected within the logistics field. At Saia, for instance, this includes the ability to track freight and schedule thousands of employees and tractors every day. “Having those resources available in the market is important,” Holzgrefe adds.

LOGISTICS POWERHOUSE

The economic impact of the logistics industry within Georgia equals about \$60 billion, and one in 14 jobs in the state is tied to logistics, Markham says.

That number is likely to continue to grow. “The state of Georgia continues to add to and improve its logistics infrastructure,” says Evelyn Goldberg-Davis, executive vice president with JIT Warehousing & Logistics, LLC, a leader in warehousing and distribution technologies. This includes deepening the harbors at the Port of Savannah and expanding intrastate highways and roadways, allowing cost-effective and efficient logistics solutions farther outside of the Southeast corridor.

New rail ports that accommodate increased volumes make inland

Georgia a more viable option for production and distribution companies, Goldberg-Davis adds.

“Companies are relocating to Georgia to take advantage of the relatively low cost of warehouse space,” Thompson says. For instance, in February 2020, Technical Props, a film industry prop company, announced it was leaving Los Angeles for Atlanta, adding to Georgia’s growing film industry.

“We have both the infrastructure and people to make Georgia one of the biggest distribution hubs in the country,” says Hal Justice, vice president, sales and operations with Atlanta Bonded Warehouse Corporation.

KEEPING IT COOL

When spring and summer rolled around in the 1940s, the heat made handling, storing, and delivering chocolate challenging. “In 1948, a broker of Peter Paul Mounds candy had the bright idea to put an air conditioner in a warehouse,” Justice says. “In the 1940s, air conditioning was new in industrial applications.”

That was the start of Atlanta Bonded Warehouse (ABW). Over the past 70-some years, it has expanded to 15 warehouses that total 4.9 million square feet across much of the Southeast. Its

LTL transportation solutions span 26 states.

For many of its customers, ABW is the single source of distribution for the United States; for many other clients, ABW handles an oversized footprint, such as half the country. “When customers can minimize inventory locations, they are able to turn faster, reduce stock, boost fill rates, and increase control,” Justice says.

Visibility and control have become critical as more retailers impose fines if stock isn’t delivered on time and in the quantities ordered. Shippers increasingly need to ensure they have the right inventory in the right places, the right transportation resources, and the ability to fill capacity on short notice.

“The ability to provide the flexibility needed to meet these criteria has become a critical competency that all third-party logistics (3PL) providers need to have,” Justice says. ABW provides that flexibility.

In addition to operating multi-client and dedicated warehousing facilities, ABW offers freight consolidation and cross-docking programs, as well as co-packing services. Its in-house carrier, Colonial Cartage Corporation, handles load planning, dispatching, routing and delivery, and other



The Premier LTL & Truckload Bid Application

SMC³'s over-the-road solution provides streamlined transportation sourcing for both truckload and LTL, delivering a competitive edge to your overall procurement process.



Automate RFPs and save valuable resource time



Evaluate carriers on more than price alone



Optimize over-the-road transportation spend



Build strategic carrier partnerships

**NOW
INCLUDES
TRUCKLOAD**

sales@smc3.com
(770) 486-5800
www.smc3.com



sales@smc3.com | 770-486-5800 | www.smc3.com



Photo: Georgia Ports Authority /
Jeremy Polston

Cargo volumes at the ports of Georgia continue to grow. In 2019, the Georgia Ports Authority (GPA), which has major operations at the Port of Savannah, the Port of Brunswick, and the Appalachian Regional Port inland terminal, handled 4.6 million TEUs, up about 5.6% over the previous year.

services for its warehousing and freight consolidation customers.

Given its roots, it's not surprising that most of the shipments ABW handles are food, food grade, or consumer packaged goods. All its facilities are food grade. ABW even turns down some business to avoid potential safety concerns. "Food safety is becoming a bigger and bigger deal," Justice says.

Along with segregating potential allergens, even the placement of different foods within a warehouse takes thorough planning. "Some products—like garlic—have a distinct, pungent odor that can migrate to other products," Justice says. "So, we're careful about placing products."

Ensuring that its customers' many shipments get where they need to go is like a "well-choreographed dance," Justice says. ABW employees must correctly sequence thousands of stock-keeping units (SKUs) in storage to facilitate order selection.

"It requires coordination with the customer, the outbound and inbound carrier, as well as internally," he adds. "When each inbound truck arrives at the welcome center, we need to know which building and door to send it to for unloading and how urgently the inbound freight needs to be turned."

To aid in this endeavor, ABW relies on a tier 1 warehouse management system (WMS), an experienced operating team, and a mindset in which the customer comes first.

Flexibility and resourcefulness also are key. For instance, a co-packaging customer asked ABW to handle another 80 to 90 runs, starting one week later. ABW changed its schedule and added workers to get it done. "We pride ourselves on being asked to do the unreasonable and the impossible, and then doing it," Justice says.

POWERING GROWTH

"The Port of Savannah's global carrier network, superior location, and faster-to-market service record provide vital links to international markets," Lynch says. Among the port's competitive advantages are these:

- **Rail fluidity.** Containers at the Garden City Terminal at the Port of Savannah move from vessel discharge to rail in less than 24 hours, enabling the port to complete 500,000 rail moves per year. The Mason Mega Rail terminal expansion, when complete, will double the Georgia Ports Authority's on-terminal rail capacity.

- **Cargo visibility.** Because the GPA tracks intermodal containers from vessel discharge to customer pickup, customers always know their cargo's location. On-site customer service representatives facilitate cargo movement, both at the terminals and at major inland rail destinations.

- **Flexibility.** With 38 weekly containership services, GPA provides scheduling flexibility and market reach. Of the weekly container services calling

at the Port of Savannah, 10 are first-in and 10 are last-out calls. Customers can get their import cargo moving overland more quickly on the first-in calls, while the last-out calls allow exporters to layer additional time into their manufacturing and logistics processes before their cargo has to be loaded on a vessel.

Given these attributes, it's not surprising that business at the ports of Georgia continues to grow. In 2019, the GPA, which has major operations at the Port of Savannah, the Port of Brunswick, and the Appalachian Regional Port inland terminal, handled 4.6 million TEUs. That was up about 5.6% over the previous year.

Some of the GPA's work occurs farther inland. Established in 2018, the ARP handled approximately 36,000 TEUs in CY2019.

"One goal of the ARP is encouraging economic development in a tier 1 county by providing efficient, cost-effective rail access," Lynch says. "The inland port is having the desired effect." A case in point: GE Appliances is investing \$32 million to build a new logistics center about two miles from the ARP.

To build on its current success, the GPA will invest about \$3.6 billion over the next 10 years across a range of capital improvements. This includes expanding container capacity at the Garden City Terminal and developing a new container terminal

Our name is local but our service knows no boundaries



For more than 60 years, the mission of **Atlanta Bonded Warehouse** and **Colonial Cartage** has remained constant:

to provide best-in-class integrated warehousing, transportation, and co-packaging services to the food, pharmaceutical, and related CPG industries. Our goal is nothing short of total customer satisfaction.



on Hutchinson Island in the Savannah River, across from the Port of Savannah.

In addition, the fleet of ship-to-shore cranes at the Port of Savannah will increase from 30 to 42 by 2028. By 2024, the new, larger cranes, which feature a lift height of 170 feet above the dock, will allow the port to serve six 14,000-TEU vessels simultaneously.

The deepening of Savannah Harbor's inner portion is scheduled for completion in 2021. "By better accommodating today's larger, more efficient vessels, the Savannah Harbor Expansion Project will yield \$7.30 in benefits for every \$1 spent on construction," Lynch says.

The greatest challenge facing the GPA, Lynch says, is keeping up with exponential growth in demand for intermodal rail service. Between fiscal years 2017 and 2019, rail cargo at the Port of Savannah grew by more than 35%—more than twice the rate of GPA's overall growth in container trade.

To help accommodate this growth, the Mason Mega Rail Terminal will add 97,000 feet of new rail track at the Garden City Terminal, bringing it to a total of nearly 180,000 feet. It also will increase the number of working tracks from eight to 18. Together, these will double the Port of Savannah's rail lift capacity to 2 million TEUs per year. "This capability, in turn, will enable direct rail service to major Southeast and Midwestern markets—areas that offer opportunity for significant market share growth for East Coast ports," Lynch says.

VALUE IN VERSATILITY

JIT Warehousing & Logistics is well positioned to play a critical role in helping with the continued increase in shipments moving through Georgia to other parts of the country. A family-owned and operated company that's moving into its second generation of leadership, JIT manages 750,000 square feet of storage space, spread across four facilities, all located within just a few miles of the Garden City and Ocean

Lights, Camera, Action!

In 2020, filmgoers and television viewers will see the release of about 17 films and shows for AppleTV+, NBC, OWN TV, and Netflix that were produced in Georgia. While the tax incentives offered to the industry undoubtedly play a role in producers' decision to film in Georgia, so does the state's infrastructure. About one dozen stage operators offer more than 75 stages in Georgia, including two of the largest in the country, at 80,000 and 55,000 square feet, respectively, according to the Georgia Department of Economic Development.

"Having an airport with a lot of direct flights is advantageous for a film industry that brings talent from around the country," says Nikolay Osadchiy, associate professor of information systems and operations management at Emory University.

"As the production infrastructure is established, the hope is that the reliance on tax incentives for bringing new business will decrease," he adds.

Terminals at the Port of Savannah, says Goldberg-Davis.

In addition, JIT's trucking services currently operate 18 tractors for local trucking, while its brokerage division handles over-the-road transportation needs. This includes specialized trucks and trailers for over-dimensional and heavy hauls.

Among the many services JIT offers are warehousing, trucking, shipside delivery, port pickup, container dray, stripping, and cross-docking. Originally an asset-based company, JIT has recently added an owner-operator

division to its trucking division to service increased demands.

"We find value in versatility," Goldberg-Davis says. Customers can count on JIT providing the equipment they need to handle every type of commodity, including palletized general cargo, drums, lumber, paper (both rolled and baled), cotton, steel coils, bar, sheet, tubing, and machinery.

"Import and export, we can receive and ship via rail, domestic van and flatbed, and containers and break bulk," she adds.

This versatility has been a hallmark



JIT Warehousing & Logistics is ready to support the continued increase in shipments moving through Georgia to other parts of the country. The company's services include specialized trucks and trailers for over-dimensional and heavy hauls.

Thank You!

To Our 13,000 Associates

“We’re focused on operating our facilities at the highest levels of energy and water efficiencies to preserve natural resources and deliver sustainable business practices.”

- Brian Dunn, VP, Maintenance & Energy, Americold

- 2019 Achievements
- 61 Sustainability projects implemented
- 10 LED lighting retrofits
- Rainwater harvesting at 5 sites
- 133 sites awarded silver and gold certifications by the GCCA for Energy Excellence

*Learn more at
Americold.com*





Saia ships a diverse range of products, from chemicals to pumps and motors. Along with its LTL operations, Saia also provides complete transportation and logistics solutions through Saia Logistics Services and LinkEx, a full-service 3PL.

of JIT since its founding in 1998 by Ben Goldberg, father of Goldberg-Davis. Another daughter, Anna Lockwood, also serves as vice president, and her husband, Trevor Lockwood, oversees JIT's over-dimensional division, including road escort, rigging, cranes, and specialized tractors and trailers for heavy haul.

Their experience with a broad range of shipment and transportation types provides JIT's employees with the insight needed to easily troubleshoot the unexpected challenges that inevitably arise in logistics.

"Whether a shipment isn't packaged as expected or is heavier or lighter than planned—handling these challenges is no problem," Goldberg-Davis says.

Just as important, "being highly versatile has also allowed us to stay relevant though the economic ups and downs over the past 20 years, including during recessions, tariff changes, and other challenges," Goldberg-Davis says.

This stability means customers can be confident JIT will be there to help them move their shipments on time and accurately—both today and into the future. "We are here to help," she adds. "With over 30

years of experience, JIT, Just In Time, is your turn-key warehouse and logistics provider."

STREAMLINED SOLUTIONS

In 1924, Louis Saia, Sr., a produce dealer in Houma, Louisiana, decided he could make more money delivering produce than selling it. He tore the rear seats out of the family car to create Saia LTL Freight's first truck. With that, he launched his business.

Today, Saia, now based in Johns Creek, Georgia, is an LTL carrier with a network of 169 terminals providing service nationwide.

"We have grown from being a regional carrier to a national carrier," Holzgrefe says. While most shipments move on pallets, the range of products Saia ships is extremely diverse: flagpoles, paint, diapers, pumps, motors, chemicals, golf carts, and lawn mowers, to highlight a few. "The freight mix generally reflects all corners of the national economy," he adds.

Along with its LTL operations, Saia also provides complete transportation and logistics solutions through Saia Logistics Services and LinkEx, a full-service 3PL company.

"Saia's real points of differentiation

are quality and service," Holzgrefe says. In addition to employees' expertise, technology is critical to ensuring quality and service and serving customers efficiently, he adds. To that end, Saia continues to invest in several areas of technology.

For instance, Saia has partnered with a technology firm to develop industry-leading software that streamlines and accelerates pickup and delivery operations. It quickly and accurately builds routes, which reduces fuel and labor costs, while meeting customer service commitments. This efficiency means customers' shipments move quickly, safely, and cost-effectively.

At the terminal, Saia uses technology to determine how to most efficiently organize freight coming in for cross-docking. Another solution helps Saia quickly check the weight and dimensions of customers' shipments, so they can maximize use of their trailers, and provide speedier, more cost-effective shipping solutions for customers.

GREEN PARTNER

Sustainability has also long been a key goal of Saia, and it strives to be environmentally responsible in its operations. Among the initiatives it has undertaken to reduce its carbon footprint are limiting tractor speed, implementing a "no idling" policy, and recycling its used oil, hazardous waste, scrap metal, wastepaper, cardboard, and tires.

The company has aggressively invested in its fleet, reducing the average age of its tractors to less than four years. Its modern fleet includes state-of-the-art safety technology and provides enhanced fuel efficiency.

To continue to provide quality service, Saia is building a new terminal in the northern Atlanta metro area. Slated to open in early 2021, the facility will feature 80 to 100 doors and state-of-the-art logistics technology, as well as energy-efficient lighting and other building systems. "In this facility, we

Simply World Class



JIT Warehousing & Logistics is a proven leader in the warehousing and distribution industry. JIT operates throughout the United States moving various commodities including steel and metal products, machinery, wood products, palletized cargo, and more.

Our Savannah, Georgia warehousing facilities consist of over a million square feet of inside storage and an additional 10 acres of outside storage. We are located only a half mile from the Georgia Port Authority's Ocean Terminal and 3.5 miles from Garden City Terminal.

Over a quarter of a century in the import/export industry, JIT offers world class warehousing, trucking, shipside delivery, intermodal services, specialty hauling, crane services, cross docking, escort services and so much more. All Company owned equipment!

JIT is your turn key, **J**ust-**I**n-**T**ime operator.

Now offering ~~two~~ three state of the art rail logistics complexes serving Norfolk Southern and CSX to meet all your logistics needs!



866-522-2200

216 East Lathrop Ave. • PO Box 861 • Savannah, GA 31402 • 912-201-0050 • Fax: 912-201-0307 • quotes@jitwhse.com

will have ample space so that we can best serve our markets in Atlanta and elsewhere,” Holzgrefe says.

Over the past five years, Saia has grown from about \$1.1 billion to about \$1.8 billion in revenue. “We’re making a substantial investment in the Atlanta metro area because we have a high level of confidence in not only what we can provide our customers, but more broadly, we’re confident in the economic conditions of Atlanta, Georgia, and the Southeast,” Holzgrefe says.

“There are many advantages to being in Georgia,” he adds. “It is a good environment for business and there is a talented workforce, which is key when it comes to recruiting.”

INSIGHT AND EXPERTISE

As supply chain professionals know, logistics technology continues to evolve at a rapid pace. SMC³ provides the data and technology solutions to facilitate management of the entire over-the-road shipping process, from the initial rating and bidding to after-delivery analysis, helping LTL and truckload stakeholders stay abreast of these changes.

“We’ve always been dedicated to developing technology solutions that serve the entire supply chain ecosystem, and we continually work to serve the needs and solve the issues of every customer working in the modern-day logistics arena,” Thompson says.

“Because SMC³ offers a range of solutions, it’s uniquely positioned to help customers of any size across the continent, including those with diverse freight transportation requirements,” Thompson adds. Its products continue to support customers’ needs as they grow, whether they’re a shipper dealing with 10 shipments per week or a logistics service provider handling 10,000 shipments per day.

“We deliver solutions for those requiring high-powered tools to support transportation optimization and advanced modeling as well



“There’s a void in the industry for education, and it is our mission to fill that gap by providing intensive educational experiences.”

Brian Thompson
Chief Commercial Officer, SMC³

as those seeking simpler, secure solutions,” he says.

The company’s solutions support procurement, rate- and transit-time calculations, shipment execution, document retrieval, and real-time shipment visibility. The technology suite SMC³ offers connects shippers with carriers through direct API and EDI communication, as well as through custom data integrations. The goal? “Facilitating the seamless flow of information digitally,” Thompson says.

For instance, shippers look to SMC³’s over-the-road RFP solution BidSense to optimize their freight

spend and streamline transportation planning, saving both time and money. For carriers, SMC³’s truckload expertise comes in the form of its Cost Intelligence System, which provides comprehensive insight into the profitability of individual shipments and loads for both truckload and LTL providers. Carriers can obtain accurate and credible cost information by customers, freight terminals, and/or lanes.

SMC³ continues to develop new technology solutions all with an eye to a simple truth: The introduction of innovative supply chain solutions into established supply chain processes is the best way to solve complex transportation issues. With more intelligent, relevant data, shippers can make better-informed choices on optimizing their freight transportation spend, improving carrier selection, and elevating customer service.

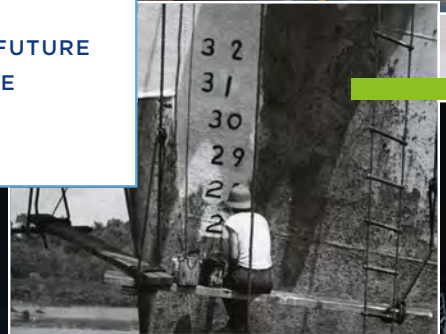
“And as data experts, SMC³ also helps shippers standardize disparate carrier data, which may originally be submitted in a range of formats,” Thompson adds.

In its support of the logistics industry, SMC³ offers educational services through semi-annual conferences and online coursework focused on LTL training. “There’s a void in the industry for education, and it is our mission to fill that gap by providing intensive, thoughtful educational experiences to teach the next generation of supply chain leaders how the industry functions,” Thompson says.

TURBOCHARGED SOLUTIONS

Before he launched Turbo Transport—a predecessor to Syfan Logistics—in 1984, Jim Syfan, chief executive officer, worked in the transportation brokerage industry for nearly a decade.

Between 1984 and 2004, Syfan diligently grew Turbo Transport into a \$100-million company with more than 150 employees. The company was sold in 2006.



GEORGIA PORTS

1945 | 2020

PRESERVING THE PAST | PURSUING THE FUTURE
ACCELERATING GLOBAL COMMERCE

GAPORTS.COM



A family business at heart, Syfan Logistics has grown into an asset-based, \$150-million company with 350 employees. The company has nearly five decades of experience hauling a range of products. Pictured (L-R): Jose Rodriguez, VP Operations; President Greg Syfan; and CEO Jim Syfan.

In 2011, the Syfans decided to tackle another challenge. They started Syfan Logistics by investing in a first-class fleet of trucks and a professional team who shared their ambition and unflagging attention to customer service.

Syfan Logistics remains a family

business at heart, even as it has grown into an asset-based, \$150-million company with 350 employees and nearly five decades of experience hauling a range of products, with a focus on food, auto, and package delivery.

“Syfan is committed 24/7 to technology and communications. We run our own fleet of trucks, and have gained the expertise to eliminate problems before they happen,” says president Greg Syfan.

At its headquarters in Gainesville, Georgia, a recent 19,000-square-foot expansion provides room to add about 50% more employees over the next two years.

Today, Syfan offers a full menu of services for its customers, including transport, expedited, and third-party logistics, power only, yard management support, freight management services, and project management.

Because Syfan employs its own in-house dispatch team, it's always on the job, working for its customers. By using advanced communications systems, Syfan keeps customers updated on the movements of their shipments.

From its start, the Syfan team gained experience meeting the demanding



PICK-UP and DELIVERY so seamless

we might as well be invisible.

It's our job to transport your cargo to its destination with zero complications – on time, every time, drama-free – and we do it well.

Syfan Logistics is an asset-based, \$150 million company with over 250 team members and four decades of experience. We are a leader in transportation logistics because of our **24/7** commitment to technology, communications, our own fleet of trucks – and the experience to eliminate problems before they happen. We haul it all, while our industry expertise is focused on food, auto and package delivery.

No surprises. Just reliable shipping and logistics. **Because when we make a promise, we deliver.**

and product-sensitive deadlines of the poultry industry in Georgia. They've also worked with some of the country's largest foodstuffs companies, delivering products ranging from seafood and confectioneries to cereal and soft drinks.

At the same time, "Syfan has taken the same focus on reliability and applied it to our work with non-food customers, including the largest package delivery companies in the world, as well as the nation's major automotive manufacturers," Greg Syfan adds.

LOGISTICS FUTURE: IT'S PEACHY

The success Georgia's logistics infrastructure has seen so far promises to continue, given the infrastructure investments the state is making. One example is its \$11-billion investment in highway improvements, Markham says. For instance, it's designing commercial-vehicle-only lanes dedicated to trucks, improving both safety and efficiency.

To start, the lanes will run between Macon, Georgia, and the southern Atlanta metro area, which is home to many distribution centers. "That stretch of Interstate 75 currently sees 16,000 trucks per day," he adds.

Similarly, Georgia's ports continue to improve and expand. For instance, the Northeast Georgia Inland Port, slated to open in 2021, will link northeast Georgia with Savannah, and will be able to handle 150,000 container lifts annually.

In early February 2020, the Georgia Ports Authority acquired 145 contiguous acres to the Port of Savannah, equal to more than one million TEUs in annual capacity. This was the largest addition of container terminal space in Savannah in more than 20 years, Lynch said in a release.

The planned Jasper Ocean Terminal, if completed, could make Savannah the nation's largest container port, says Nikolay Osadchiy, associate

professor of information systems and operations management at Emory University. The port, which is estimated to be operational in 2035, would be located in Jasper County, South Carolina, according to the Jasper Ocean Terminal Joint Venture. The endeavor is a partnership between the states of Georgia and South Carolina, a reflection of its proximity to Georgia's Garden City Terminal, which is served by the ports of both states.

As currently envisioned, the port will be located on 1,500 acres and have capacity for 7 million TEUs. Several transportation projects have been proposed to serve the terminal, including a new four-lane highway and double-track rail corridor.

"Over the past 10 years, Georgia has been annually honored as one of the best states for business in the United States," Greg Syfan says. "A significant contributing factor is its advantages in moving freight." ■



Greg Syfan, President, Jim Syfan, CEO and Steve Syfan, Executive Vice President

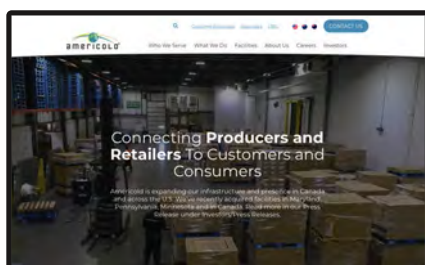


An American Tradition in Transportation

— IN GOD WE TRUST —

SyfanLogistics.com | Gainesville, GA | 855.287.8485 | 770.287.8485

Logistics | Transport | Expedited | Intermodal Service Recovery | Freight Management

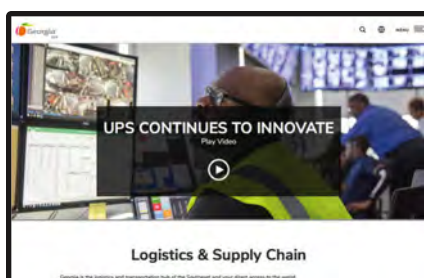
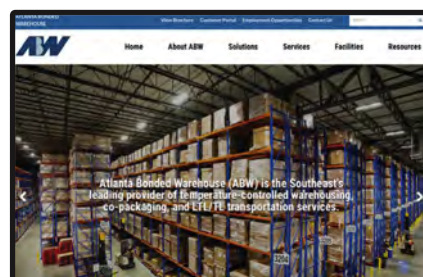


Americold • www.americold.com

Americold is the global leader in temperature-controlled warehousing and transportation for the food industry. With 182 sites in six countries, Americold provides the most comprehensive temperature-controlled warehousing, transportation, and logistics solutions in the world. Americold is committed to achieving the highest levels of quality, innovation, and customer service in the industry.

Atlanta Bonded Warehouse Corporation • www.atlantabonded.com

Atlanta Bonded Warehouse (ABW) has been providing public and contract food-grade, temperature controlled distribution services for 70 years. ABW is a leader in providing integrated asset-based logistics solutions for the food, pharmaceutical, household durables, and CPG industries. Its goal is total customer satisfaction through continuous innovation in technology and in best practices by focusing on teamwork, integrity, and accountability, all in a safe working environment.



Georgia Department of Economic Development www.georgia.org/logistics

Engineering your supply chain is easier out of Georgia, thanks to its superior geographical location and extensive cargo transportation network. The Center of Innovation is the central source for accelerating business growth in Georgia, providing collaboration with leaders in university research, business, and access to intellectual capital. The state also provides outstanding air, ocean, and rail services. If logistics is your business, you'll be in good company in Georgia. Find out more at the website.

Georgia Ports Authority • www.gaports.com

The Georgia Ports Authority (GPA), which includes the Port of Savannah, the Port of Brunswick, the Bainbridge Inland Barge Terminal, and the Columbus Inland Barge Terminal, is committed to maintaining its competitive edge through development of leading-edge technology, marketing and operations to move cargo faster. Deepwater ports in Savannah and Brunswick, together with inland barge operations in Bainbridge and Columbus, are Georgia's gateways to the world; the critical conduits through which raw materials and finished products flow to and from destinations around the globe. Find out more at www.gaports.com



JIT Warehousing and Logistics • www.jitwhse.com

JIT Warehousing and Logistics specializes in the handling of steel products and palletized cargo. Our Savannah, Ga., warehouse facilities consist of more than 100,000 square feet of covered storage, and an additional five acres of outside storage. We are located only a half-mile from the GPA Ocean Terminal, and offer crane service and direct discharge from the Port of Savannah. With more than 21 years of import/export experience, we offer warehousing, trucking, shipside delivery, port pickup, container draying, stripping, stuffing, crossdock, and a double drop trailer for your over-dimensional freight.

Simply World Class



Saia • www.saia.com

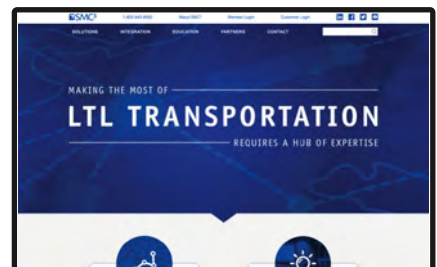
For 90 years, Saia LTL Freight has been providing customers with fast, reliable regional and interregional shipping. With 147 terminals located in 34 states, Saia LTL Freight offers a range of products and services that are backed up by a guarantee like no other in the industry. Our Customer Service 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.

SMC³ • www.smc3.com

Shipping management software for companies of all sizes. Works with all carriers and modes. Use it to compare freight rates, select carriers, track shipments and audit freight bills. Provides end-to-end supply chain visibility.

Use as a stand-alone application or integrate with your other software.

Visit our website for more information.



Syfan Logistics • www.syfanlogistics.com

Since 1984, Syfan has provided customers with a competitive advantage through superior transportation and logistics services. Syfan consistently strives to meet and exceed customer expectations of service through timely communication and quality information. Leveraging its rich experience and dedicated team, Syfan's commitment is to provide you with on-time pickup and delivery—every time.

WELCOME TO *Miami!*



November 10–12, 2020
Miami, Florida USA

» www.tl-americas.org

tl **transport**
logistic
AMERICAS

supply chain forum

IT TOOLKIT

There's No Business Like Shoe Business

THE CUSTOMER

Shoe Station is an independent shoe retailer based in Mobile, Alabama, with 21 large open-shelf shoe stores in five Southwestern states. The company wanted to synchronize and unify inventory and customer data across various in-shop, online, and operating platforms.

THE PROVIDER

Folsom, California-based Retail Pro International's point-of-sale system helped build customer-centric operations, with implementation supported by Big Hairy Dog Information Systems based in Sacramento, California. Among other initiatives, Shoe Station integrated Retail Pro with its e-commerce site using Beaverton, Oregon-based Retail Dimensions to sync inventory and shopper data between physical locations and e-commerce.

by Jennifer Baljko

About 12 years ago, G. Brent Barkin, the son of Shoe Station founder Terry S. Barkin, urged his father to start a website for the family-owned business. The senior Barkin followed his son's advice and invested some money in creating a new channel. But he had his doubts, asking, "Who's going to buy shoes from a website?"

Randy Lambert, a 26-year veteran employee of the Mobile, Alabama, retailer and now its vice president of operations, laughs remembering that story and the vision of the younger Barkin, who is now Shoe Station's president and chief executive officer.

Although e-commerce today accounts for only about 10% to 12% of Shoe Station's annual six-figure business (the private company does not disclose sales figures), it's the company's "busiest location," with millions of online customers. About 80% of its product offerings are posted on the website.

"Retail today is all about the technology you choose," Lambert says. "You can't just do what you've always done or you'll be left behind."

SIZING UP THE MARKET

Founded in 1984, Shoe Station is a traditional brick-and-mortar company, and, like many of its retail colleagues, it is doing what it can to meet customer demands.

Shoe Station, one of the largest independent shoe retailers in the United States, operates 21 stores in five states

in the Southwest—Alabama, Georgia, Florida, Louisiana, and Mississippi. The family-owned chain, with 500 employees, carries about 100 name brands of men's, women's, children's, and athletic shoes, along with accessories such as handbags, belts, wallets, socks, and T-shirts. Its self-service, open-shelf locations range from 12,000 to 30,000 square feet, and, with all the styles, colors, and sizes tallied up, Lambert counts roughly 300,000 SKUs.

Over the years, Lambert has noticed a few typical customer and supplier patterns that require technology investment.

Frequently, customers—particularly men—come to the store and ask for the same shoe they're wearing. This requires sales associates to determine the manufacturer, figure out whether the style is still made, check if it's in inventory, and if it's not, how to get it.

Another pattern happens among women. They pick and try on shoes from the self-service shelves, estimate their correct size, go home, and shop around online. "When they find out that we have the best price, they come back and order it from us or return to the store and

CASEBOOK STUDY

Shoephoria

CHALLENGE

Shoe Station wanted technology that simplified the shop assistants' jobs, reduced errors, provided inventory visibility, and allowed employees to improve customer engagement and satisfaction.

SOLUTION

Shoe Station migrated to Retail Pro 9 with the help of business partner Big Hairy Dog. The retailer also worked with Retail Dimensions to integrate the Retail Pro solution with their e-commerce site to sync inventory and shopper data between physical locations and online commerce.

RESULTS

Migrating to Retail Pro 9 and better integrating inventory and shopper data allowed Shoe Station to bolt on other solutions aimed at improving the customer experience.

- The company launched its loyalty program and captured 150,000 people for its text message list and 300,000 people for its email list.
- It rolled out a mobile POS solution, allowing sales assistants to work on the floor to better help customers and track inventory at other locations.
- Shoe Station received a 93% customer approval rating on its recently installed HappyOrNot terminals.

NEXT STEPS

Continuing with deeper integration between the loyalty program and mobile POS, examining and expanding its online fulfillment strategies, and finding more ways to engage customers.

ask if we can get the shoes from another location," says Lambert.

On the supplier side, as e-commerce has grown, manufacturers have also refined their sales and channel strategies. Besides selling on its own website, Shoe Station also sells on Google, eBay, Amazon, and other third-party e-commerce platforms.

Figuring out the various technology pieces Shoe Station needs to remain a viable competitor, a customer-friendly retailer, and a good supply chain partner currently shapes many of the company's IT initiatives.

A handful of overarching themes guide the company's tech direction: Implement the smoothest processes for sales associates and customers; synchronize, integrate, and use data to create better customer experiences; and enable sales associates to fully engage with customers without worrying about the technology they're using.

PUTTING THE IT PIECES TOGETHER

One defining IT tool Shoe Station has invested in comes from Retail Pro International, based in Folsom, California. Shoe Station has been a

Retail Pro customer since 2003 and was running most of its operations on version 8 of Retail Pro's point-of-sale solution. But, when version 9 came out, Shoe Station bumped into some challenges and considered ditching the upgrade.

"Honestly, we were shopping around for something else," Lambert recalls. "Around the time we were looking at upgrading our system, we found a flaw in what we call the 'offline mode' —the ability to continue to use at least one cash register when things have failed in the store, such as when the internet drops or the network fails."

Lambert adds that it was his initial understanding that the version 9 upgrade didn't have this offline mode functionality, which Shoe Station uses at least once every week. "We were terrified about the idea of moving to an upgraded system that didn't have this fail-safe," he says. "If one piece of the chain failed, and if we couldn't go into offline mode, then we would either manually write receipts or close our doors."

Executives from both Retail Pro and one of Retail Pro's business partners, Sacramento, California-based Big Hairy Dog Information Systems,



To gain real-time feedback from customers, Shoe Station installed HappyOrNot terminals, where customers touch smiley or sad faces to register their in-store and online experience. The information helps Shoe Station gauge the mood and pulse of customers.

assured Lambert that the functionality was there, just named differently, along with other features in version 9 that give Shoe Station a stable and reliable environment.

“In the retail ecosystem, like other sectors, everything is being pushed to the cloud,” says Kevin Connor, Retail Pro’s vice president of product management. “The idea that a system will drop for any number of reasons is something that software developers have to consider.

“There are differences in the way Retail Pro 8 and Retail Pro 9 are deployed, and how the database works,” Connor adds. “In the new solution, there’s a way to have that offline mode, it’s just not called the same thing and not thought about in the same way. We used a different set of technologies to handle that functionality.”

In 2017, Big Hairy Dog, an expert in POS implementations with a long history of working with Retail Pro, stepped in to help Shoe Station better understand the software upgrade and what else could be built on it.

“When we found out Shoe Station was looking to leave Retail Pro, we flew out to meet them and asked, ‘Do you know what you’re leaving? Do you know what you own?’” recalls Colt Riley, vice president of operations, Big Hairy Dog. Retail Pro was Shoe Station’s front- and back-end software platform, with all main operations running on it.

“We worked with Shoe Station for about six months to show them what they had and what they were gaining,” adds Riley, noting that the Retail Pro 8 was an old legacy system that would be hard to integrate with the more modern solutions Shoe Station was seeking.

With the upgrade completed, other solutions could be bolted on and bring Shoe Station closer to its goal of creating better customer experiences in stores and online.

Soon after, for instance, Shoe Station worked with its longtime partner Retail Dimensions, based in Beaverton, Oregon, to integrate Retail Pro with its e-commerce site, and better sync inventory and shopper data between physical locations and online channels.



Shoe Station carries 50,000 pairs of shoes, but when a customer can't find the exact pair they need, store associates use Retail Pro's mobile POS system to order that pair for them and ship it directly to their home.

This value-added, cross-platform functionality is essential as Shoe Station grows its online business. It helps bridge end-to-end activities—from ringing up the sale on the Magento system, transferring goods between the store or warehouse, and managing multicarrier logistics operations through ConnectShip, to sending shipping notifications to the customer, explains Kurt Beeken, co-founder and owner of Retail Dimensions.

By early 2019, Shoe Station also started its loyalty card program, using Retail Pro's AppCard solution. Driven by artificial intelligence, the personalized marketing and customer retention platform allows Shoe Station to send emails and text messages to customers. It can customize messages based on customers' shoe style and brand preferences. To date, Shoe Station reaches about 150,000 people with its text message lists, and has 300,000 people on its email list.

More recently, in 2019, Shoe Station rolled out Apple's fifth-generation iPods running on FoundryLogic's Retail Mobile Inventory as mobile POS solutions for shop assistants, an introduction made by Big Hairy Dog. The iPods and software solution allow shop assistants to see inventory across all 21 locations, work with customers away from the cash register, focus on ways to

keep the customer happy, and, hopefully, make the purchase.

“Our sales assistants love the iPods but there's still a learning curve,” Lambert says. “They are not yet using the devices for the POS. They are using them to check prices or look up inventory. That's great, too, because they can be out on the floor helping customers.”

MAKING CUSTOMERS HAPPY

Looking ahead, Shoe Station remains intent on improving the customer experience.

The near-term plan includes more fully integrating the AppCard loyalty program with the mobile POS solution, doing more fulfillment through Amazon on-site, streamlining the way customers find and buy products, and making sure customers are happy when they leave the store or website.

Lambert says Shoe Station is well on the way to hitting the mark on many of these goals. Real-time feedback on recently installed HappyOrNot terminals, where customers can touch smiley or sad faces to register their in-store and online experience, show the mood and pulse of customers.

“We get 20 to 30 comments daily per store on the terminals, with an approval rate of about 93%,” Lambert says. “We must be doing something right.” ■

IN THIS SECTION: 3PL

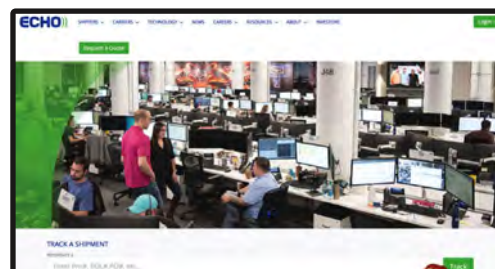


CT LOGISTICS www.ctlogistics.com

Since 1923, organizations have leveraged CT Logistics to provide global freight audit & payment and transportation management solutions. Partner with CT to design and implement customized supply chain and rate management solutions. CT's Business Intelligence platform provides global spend visibility and data analysis using SOCII and ISO 9001:2008 certified processes. Services also include: Shipment Execution, Bid Management, Shipment Planning and Execution Software, and Professional Services for consulting and advising.

ECHO GLOBAL LOGISTICS www.echo.com

Echo Global Logistics, Inc. (Nasdaq: ECHO) is a provider of technology-enabled transportation and supply chain management services. Echo maintains a proprietary, web-based technology platform that compiles and analyzes data from its network of more than 50,000 transportation providers to serve its clients' needs. Offering freight brokerage and managed transportation services across all major modes, Echo works to simplify the critical tasks involved in transportation management.



LYNDEN www.lynden.com

Over land, on the water, in the air—or in any combination—Lynden has been helping customers solve transportation problems for almost a century. Operating in such challenging areas as Alaska, Western Canada and Russia, as well as other areas around the globe, Lynden has built a reputation of superior service to diverse industries.

PENSKE LOGISTICS www.penskelogistics.com

Penske Logistics is an award-winning logistics services provider with operations in North America, South America, Europe, and Asia. Our products and services range from dedicated contract carriage and distribution center management to transportation management and fully customized solutions. No matter what your needs or industry, Penske Logistics engineers supply chain solutions that deliver business results like boosting productivity, improving service, and shrinking carbon footprints. Call us today at 1-800-529-6531 to learn more.



IN THIS SECTION:

3PL – Global Logistics

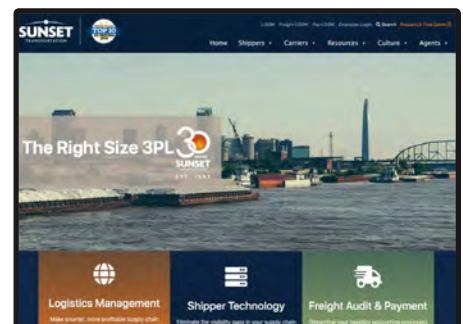
**SEKO LOGISTICS** www.sekologistics.com

SEKO prides itself on a commitment to customer service, whether it's a 2 a.m. pickup for a critical industrial part for a plant that is 4,000 miles away, or the cost savings achieved from proactive communication with your vendors overseas. SEKO offices have the knowledge and expertise to expedite or to consolidate, depending on your need. From Hong Kong to Amsterdam, SEKO knows how to serve its clients. As a non-asset-based third-party logistics provider, SEKO has the flexibility to meet your supply chain needs using a variety of modes and carriers.

SUNSET TRANSPORTATION www.sunsettrans.com

Sunset Transportation isn't just another 3PL. We are driven by the right-size fit for each business, using all levels of global and domestic supply chain resources and services. Our culture allows customers to feel like family, while offering advanced TMS solutions, reporting, and shipment reliability.

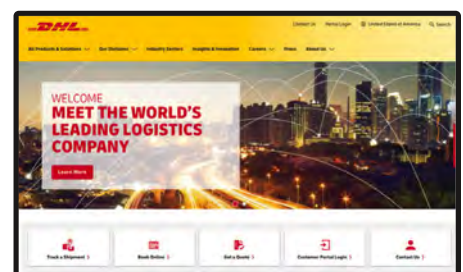
Our approach is simple: through analysis of historical shipping data, we identify opportunities for optimization, service improvement, and technology enhancements. All this is done with five promises we make to every customer, every day: savings, visibility, data-driven decisions, continuous improvement, and relationships. Sunset is the right size 3PL for your growing business.

**GLOBAL LOGISTICS****COSCO SHIPPING LINES (NORTH AMERICA) INC.** www.cosco-usa.com

China Ocean Shipping (Group) Company (COSCO), the national flag carrier of the People's Republic of China, is one of the world's premier full-service intermodal carriers. The company utilizes a vast network of ocean vessels, barges, railroads, and motor carriers to link the international shipper with the consignee. COSCON's 20 main-line services connect over 100 ports worldwide to reach more direct ports of call than any other carrier in the world, with weekly, fixed-day service to many destinations.

DHL SUPPLY CHAIN bit.ly/DHL_e-fulfillment

To find out where companies stand in their e-commerce supply chain efforts, DHL surveyed 900 supply chain decision-makers across the globe across all sectors. Download this research report to read the results and learn the biggest e-commerce challenges facing today's B2B and B2C companies. An infographic provides a visual summary of the three key takeaways from the survey, and a video shows the secrets of designing a truly integrated omni-channel supply chain that supports your business strategy.



IN THIS SECTION: Global Logistics

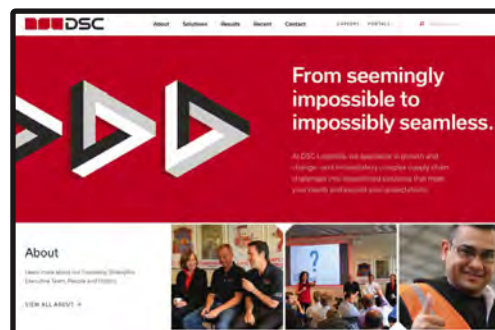


DLS WORLDWIDE dlsworldwide.rrd.com

Experience the benefits that only come from working with a major, global shipper that is also a top-ranked 3PL. We offer multiple transportation modes, an established multi-carrier network, volume-leveraged rates and service levels, along with technology-enabled systems and processes. Visit our website and contact us today to see why customers have relied on us for nearly 150 years.

DSC LOGISTICS www.dsclogistics.com

With experience, knowledge, and IT—as well as supply chain capabilities that are adaptable, versatile, and focused on changing customer needs—DSC Logistics helps companies reach their business goals. DSC provides supply chain analysis and design, strategic solutions-based consulting, systems integration, process improvement, and management of logistics operations such as warehousing, transportation, packaging, and fulfillment. In today's business environment, filled with rapid and unpredictable change, DSC manages change and information in the supply chain by using a strategy called sense-and-respond and by being ready for anything!



EVERGREEN SHIPPING AGENCY (AMERICA) CORP. www.evergreen-shipping.us

Evergreen Shipping Agency (America) Corp. is the North America general agent for Evergreen Line, one of the world's leading ocean carriers. Serving U.S. importers and exporters since 1974, Evergreen Shipping Agency (America) Corp. offers one of the largest intermodal networks in the United States, including worldwide ocean shipping and inland transportation services. Together with its principals, EGA continues to offer unmatched international transportation service.

HUB GROUP www.hubgroup.com

Hub's extensive service network—built over many years—enables it to provide innovative transportation solutions that are versatile, flexible, and designed to deliver maximum efficiency. With this advantage, Hub Group is able to collaborate with customers daily to help them meet their transportation challenges. With intermodal, highway, and logistics transportation offerings, the Hub Network is your single source—coast to coast, border to border. Visit the website to learn what Hub can do for you.

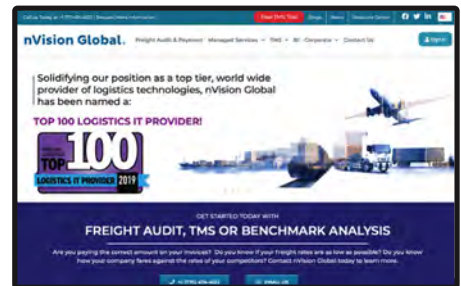


IN THIS SECTION:
Global Logistics**MARYLAND PORT ADMINISTRATION** www.marylandports.com

Located in the nation's third-largest consumer group, the Port of Baltimore has an impressive array of distribution locations, with more on the way. As an import destination from China, the most cost-effective and quickest way to tap this affluent market is by bringing your cargo direct to Baltimore, where you will be greeted with world-class efficiency and customer service. Find out more at www.marylandports.com.

nVISION GLOBAL www.nvisionglobal.com

nVision Global is an industry leader in providing configurable logistics services and solutions for customers around the world, enabling them to optimize their supply chain and gain access to critical data. We offer a full suite of logistics services and solutions that allow for end to end shipment and supply chain management and visibility. Our solutions include a global, multi-modal TMS application, international freight audit and payment, loss & damage/overcharge/service failure claims management, as well as industry leading logistics analysis solutions. We process and pay freight invoices from more than 190 countries, in more than 40 currencies.

**PHARR BRIDGE** www.pharrbridge.com

The Pharr-Reynosa International Bridge serves as one of the most important ports of entry for the U.S.-Mexico border. It handles both commercial and passenger-operated vehicles and crosses about 175,000 vehicles monthly. The Pharr International Bridge is also the only commercial bridge crossing in Hidalgo County, and is the number two bridge in the country for crossing of fruits and vegetables. The Pharr International Bridge connects US Hwy. 281/I-69W to the City of Reynosa, Tamaulipas, the fastest growing city in Mexico.

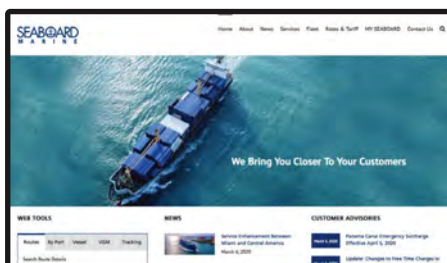
PILOT FREIGHT SERVICES www.pilotdelivers.com

Pilot Freight Services, Inc. is a full-service transportation and logistics provider with over 75 locations throughout North America, as well as stations in Amsterdam, Toronto, Vancouver, Mexico City, and A Coruña, Spain. The company's freight forwarding services encompass every mode of transportation, including air, ground and ocean, serving all corners of the globe. Pilot's logistics programs offer a complete line of expedited and time-definite services, international shipping solutions, product warehousing and inventory management. In addition, Pilot's online shipment navigator, CoPilot, makes online shipping fast, convenient and secure. Learn more about Pilot Freight Services at www.PilotDelivers.com.



IN THIS SECTION:

Ports

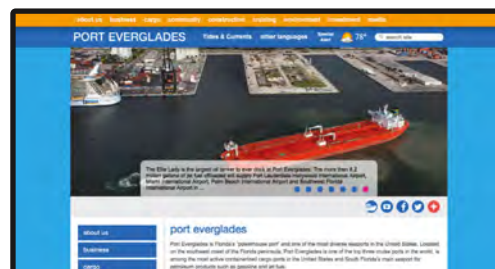


SEABOARD MARINE www.seaboardmarine.com

Established in 1983, Seaboard Marine, a wholly owned subsidiary of Seaboard Corporation, is a premier ocean transportation company providing direct, regular service between North America, the Caribbean Basin, Central, and South America. With a fleet of over 25 vessels serving nearly 40 ports, Seaboard Marine is a trade leader in the Western Hemisphere. Seaboard Marine provides service to more than 30 countries with each office and location contributing towards its success as a promoter of trade throughout the Western Hemisphere.

PORT EVERGLADES www.porteverglades.net

Nobody moves cargo in and out faster than Port Everglades. The port is part of a thriving global transportation network that counts among its attributes a favorable location less than one mile from the Atlantic Shipping Lane, direct access to multimodal inland links through Florida's interstate and highway systems, and an FEC rail hub within two miles. Across the street is Fort Lauderdale Airport, one of the fastest-growing airports in the nation. Visit the website for more details.

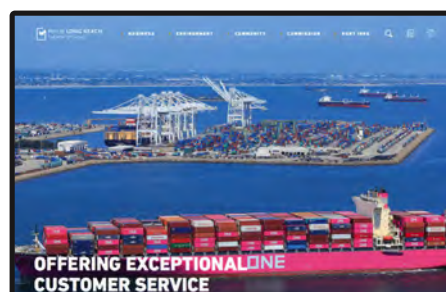


PORT OF HALIFAX www.portofhalifax.ca

Halifax is perfectly positioned to provide international shippers with rapid access to the eastern and central markets of Canada and the United States. It is one of the few ports on the East Coast of North America capable of handling fully laden post-Panamax vessels. Halifax is a multi-purpose port capable of handling every configuration of cargo, including container, ro/ro, bulk, breakbulk, and special project, heavy lift. The diversity of the port is accommodated through our two container terminals, an automobile handling facility, and two common-user multi-purpose facilities.

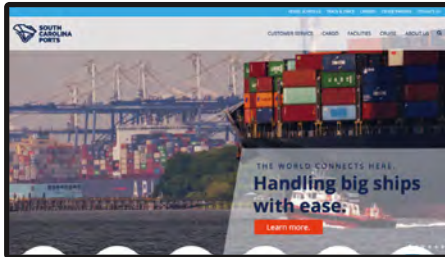
PORT OF LONG BEACH www.polb.com

The Port of Long Beach is one of the world's busiest seaports, a leading gateway for trade between the United States and Asia. During the next 10 to 15 years, the Port of Long Beach plans to create at least four container terminals of more than 300 acres each, and to build at least one other large terminal. The new terminals will have dockside rail facilities, which allow cargo to be transferred directly between ships and trains. Such transfers speed deliveries between Long Beach and markets nationwide. For more information on the advantages and services offered by the Port of Long Beach, visit www.polb.com.



IN THIS SECTION:

Ports – Trucking

**SOUTH CAROLINA PORTS AUTHORITY** www.port-of-charleston.com

In a world where speed to market, seamless processes, and flexibility are essential, South Carolina's ports deliver. Home to the Southeast's deepwater port, the South Carolina Ports Authority is the industry leader in productive operations, big ship handling, efficient market reach, and environmental responsibility.

RETAIL LOGISTICS**NORTH CAROLINA STATE PORT AUTHORITY** <https://ncports.com>

North Carolina Ports offers two excellent port locations, Wilmington and Morehead City, both with unique benefits. The Port of Wilmington has three neo-Panamax cranes and four post-Panamax container cranes. The Port of Morehead City is just four miles from the Atlantic Ocean. Both offer extensive warehousing and open storage and both provide easy access to interstate highways and major railroads. A customer-focused approach also means shippers receive excellent port communication and customized service.

**TRUCKING****OLD DOMINION FREIGHT LINE** www.odfl.com

Old Dominion Freight Line is a less-than-truckload carrier providing complete nationwide service within the continental United States. Through its four product groups, OD-Domestic, OD-Expedited, OD-Global, and OD-Technology, the company offers an array of innovative products and services to, from, and between North America, Central America, South America, and the Far East. The company also offers a broad range of expedited and logistical services in both domestic and global markets.

SAIA LTL FREIGHT www.saia.com

For 90 years, Saia LTL Freight has been providing customers with fast, reliable regional and interregional shipping. With 147 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.



Supply Chain Insights

THE LATEST FREE WHITEPAPERS, VIDEOS, PODCASTS, AND MORE...

webinar

DATA, DATA, DATA: HOW DO I HARNESS IT?

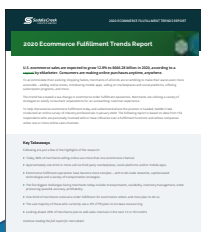
Offered by Transfix

bit.ly/TransfixNov2019Wbnr

Most shippers understand the importance of their supply chain data, but many still struggle to interpret the information and take action. If shippers harness their data properly, they can optimize their business for reliable capacity and lower operational costs. This free webinar explores how shippers can benchmark the data they already have, the pitfalls to avoid, and actions to take in 2020.



whitepapers



DOWNLOAD

sclogistics.com/eFulfillmentWP

2020 E-Commerce Fulfillment Trends

Offered by Saddle Creek

Most e-commerce merchants sell their products through multiple online sales channels to meet consumer demands, according to Saddle Creek's new survey. This in-depth report outlines the most pressing fulfillment challenges as well as top-of-mind issues, including network configuration, technology solutions, delivery options, and fulfillment outsourcing.



DOWNLOAD

bit.ly/YaleO22020SCI

Top 10 Metrics for Warehouse Operations

Offered by Yale

What does it take to operate a best-in-class warehouse? Whether you're measuring on-time shipments, warehouse capacity, or order-picking accuracy, warehouse professionals should aim high. Take a look at the top metrics and best-in-class scores most reported by warehouse professionals, according to the Warehousing Education and Research Council.



DOWNLOAD

bit.ly/tracking-tech

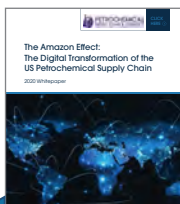
Should You Adopt the Latest Technology for Tracking License Plate Numbers?

Offered by KnarrTek

Many profitable distribution organizations use license plate number (LPN) container-tracking technology to track all materials that flow through their supply chains, but some manufacturers still use obsolete systems. This free whitepaper discusses how switching to LPN tracking can cut costs and improve efficiency.

Supply Chain Insights

whitepapers



DOWNLOAD

bit.ly/PetroSupplyChain

The Amazon Effect: The Digital Transformation of the U.S. Petrochemical Supply Chain

Offered by Petrochemical Supply Chain & Logistics, Reuters Events

What does the Amazon Effect mean for the petrochemical industry? Three supply chain executives discuss how they handle supply chain digitization, including the technologies that U.S. petrochemical companies should consider and how blockchain and robotics can enhance their operations. This whitepaper also outlines the industry's current level of technology adoption and the barriers that often delay this transition.

7 LOGISTICS TRENDS THAT WILL RADICALLY CHANGE THE MANUFACTURING INDUSTRY IN 2020

DOWNLOAD

bit.ly/logistics-trends

Logistics Trends that Will Radically Change the Manufacturing Industry

Offered by Logistyx

Manufacturing has long been a linear process, but is this model ideal for today's dynamic economy? E-commerce platforms and direct-to-consumer channels are rapidly transforming manufacturers into direct-to-consumer suppliers. This whitepaper reveals the seven logistics trends that will have a profound impact on the industry and how manufacturers can win with flexibility and the ultimate customer experience.



DOWNLOAD

bit.ly/LTL-savings

Unlocking Less-than-Truckload Savings in the Southeast

Offered by GLT Logistics

Florida offers compelling advantages for shippers, carriers, freight forwarders, and third-party logistics providers, making it one of the most heated and challenging less-than-truckload (LTL) markets in the United States. This free e-book offers insight and strategies for managing the complexities of moving LTL freight in the Southeast.

podcast

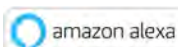


Katie MacDonald

How Are Freight Agents Using Technology and Data to Drive Growth?

GUEST: Katie MacDonald, Vice President of Agent Development, Landstar

Freight agents rely on technology to operate their supply chains every day—but how can they extract that data and use it to drive growth? Katie MacDonald explains how using the right technology to focus on the right data can keep your loads moving and your business growing.



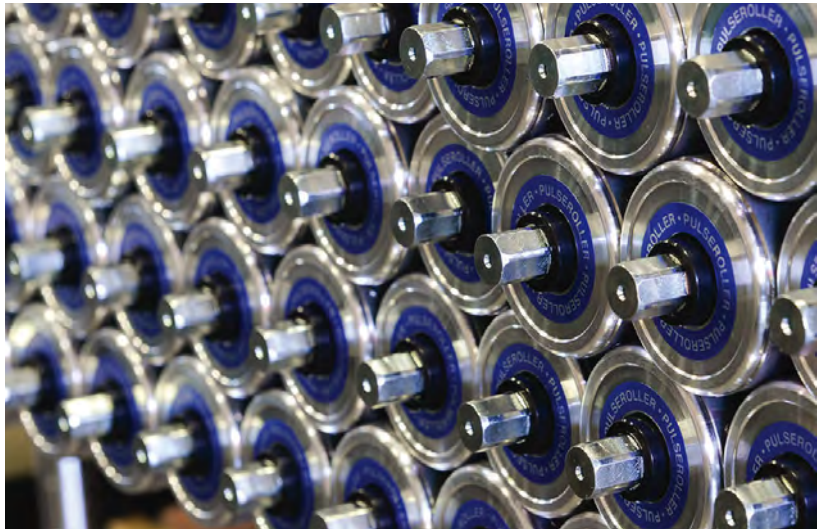
[IN FOCUS]

SPOTLIGHT

Materials Handling Innovations

> Senergy Motor Drive Rollers (MDRs):

Senergy MDRs from PULSEROLLER can move materials at different speeds—designed for both lower-speed, heavy-duty applications such as pallet handling and high-speed carton or tote handling. The rollers can reach speeds up to 1,000 feet per minute, with a starting torque up to 215 in/lb. They're also quieter than a typical conversation.



> E-Z Reach Portable Container Tilters:

These hydraulic units from Southworth Products tilt wire or plastic baskets, totes, and other large containers toward the user (up to 85 degrees) with the push of a button. The improved accessibility to materials increases worker productivity and reduces the risk of back injury. Equipped with front rollers and rear swivel casters, the tilters are easily pushed from one location to another for sharing between work cells.

> **TiltSort-Bot AMR High-Speed Sortation System:** The new TiltSort-Bot parcel and item sortation autonomous mobile robot system from Conveyco Technologies employs bots to get materials to order chutes via the shortest path. The TiltSort-Bot moves at up to 10 feet per second. Equipped with a tilt tray top, each bot completes its task and returns to the induction station for its next pick. Each chute position can be configured to handle one or two sortation locations.



> BG Sorter Compact CB Sortation System:

The smart, high-capacity sortation system from BEUMER has a tight curve radius, which means it can be used in small spaces. The compact cross-belt loop sorter enables high-speed sortation while reducing per item handling costs. Offering a wide selection of tray widths and pitches, the system can handle items of various sizes and lengths.



> TAB Wrapper Tornado:

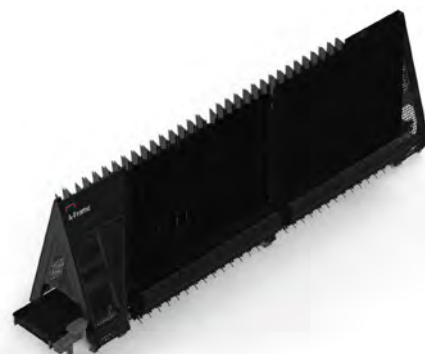
The portable orbital wrapping machine from TAB Industries can be moved safely around the warehouse without requiring a lift truck. By moving the machine to the product, materials handling managers can minimize the risk of damage to products in process. The solution wraps plastic film 360 degrees around a pallet and its load to secure the load to the pallet and create a sturdy, unitized load without banding, boxing, or strapping.



> Activated Roller Belt (ARB) Large Parcel Singulator:

This system from MHS transforms a bulk flow of packages into a single-file stream to feed automated sortation systems. Capable of handling up to 12,000 parcels per hour, the ARB Singulator uses a series of roller belts that operate at progressively increasing speeds, with more than 99% singulation accuracy. MHS uses computer vision to measure incoming flow, modulate conveying speeds, and cull side-by-side packages.

> **A-Frame:** This automated picking solution from Inther Group makes quick work of complex orders. It collects up to five products per second per ejector and offers stock management updates. A sensor calculates the height and number of items in the column while intelligent ejectors ensure products are processed quickly and safely.



> **Flexytote:** Scallog's Flexytote robot transfers multiple bins in warehouses, providing an alternative to conveyor/trolley workflow systems. It automates multi-bin transfer and bin/box loading and unloading operations in warehouses. The robot accelerates the picking of multiple orders while eliminating unnecessary movement and handling.

[IN FOCUS]

INBRIEF

New Services and Solutions

>PRODUCTS

> The new Impact-A-Track LED is designed to protect door tracks against forklifts, pallet jacks, and other equipment in high-traffic warehouse areas. The low-profile communication system from **APS Resource** is constructed with ultra-high molecular weight polyethylene and features red and green LED lights to communicate restraint status.

> Short-range wireless identification solutions designer **Confidex** released its new TireTag, which is designed to be embedded inside a tire before the vulcanization process and tracks it throughout its life cycle. The tag's small size and omni-directional antenna design make it suitable for both warehouse and yard management applications.

> Cold chain shippers can now monitor shipments



> Shippers moving cargo between the UK and India will have a direct link to and from the north of England starting in October 2020 when **Virgin Atlantic Cargo** launches its new Manchester-Delhi services. The air carrier plans to operate three A330-200 flights every Monday, Thursday, and Saturday.

with a tracker that provides connectivity through emerging technologies such as Category M (Cat-M) and Narrow Band Internet of Things (NB-IoT). **Emerson's** GO Real-Time Tracker based on 4G/Cat-M technology can monitor in-transit conditions, such as temperature, location, light, and humidity

for up to 20 days of continuous operation. The unit includes 2G connectivity as a backup and will also accommodate emerging 5G networks.

> **Mezzanine Safeti-Gates'** Dock-Lift safety gate received a patent for its crossing-guard operation,

which ensures safety in lifts used in tight spaces. The gates pivot up and off to the side instead of swinging away, which allows them to fit lifts in areas close to the building or loading dock.

> Electric forklift users can further boost energy efficiency with new lithium-ion power solutions from **Mitsubishi Caterpillar Forklift America**, which manufactures forklifts under the Jungheinrich brand. The lithium-ion battery solutions and integrated batteries support more than 40 electric forklifts, reducing maintenance and offering long life cycles for greater uptime and productivity.



> **Topper Industrial's** two-position transfer cart enables easier loading of materials. By moving materials with powered rollers, the automated transfer cart increases load capacities and improves cycle time.

>SERVICES

> Sellers on **Walmart's** platform can now access the retailer's supply chain capabilities—from storing, picking, packing, and shipping to reverse logistics and customer service—through its new Walmart Fulfillment Services (WFS). Participating sellers pay a low storage and fulfillment fee and can access Walmart's fulfillment options, including two-day shipping, and in the future, next-day delivery.

> Confectionery, snack, and other food suppliers, both refrigerated and dry, can benefit from a time-defined temperature-controlled distribution service from **Weber Logistics**, which established pool distribution hub operations in Kent and Vancouver, Washington. Delivering the food products to retail distribution centers throughout the Pacific Northwest, the new operation consolidates products with similar temperature requirements.

> Sensitive-freight shippers, such as farmers, fresh food suppliers, and retailers, can now take advantage of tailored service from Arrive Fresh, **Arrive Logistics'** new division focused on serving perishable shipments. Arrive Fresh moves produce, meat, fish, seafood, dairy, and flower freight by leveraging a centralized team that identifies optimal carriers.



> Logistics provider **Gebrüder Weiss** now offers land transport to all regions of Russia, securing this cargo service with its new and exclusive partner JDE (Zheldor Ekspeditsiya). The general freight carrier JDE's 244 locations in Russia augment Gebrüder Weiss' international network, providing access to markets in Central and Southeastern Europe, as well as Central Asia and the United States.

> **Ryder System** expanded its peer-to-peer truck sharing platform, COOP by Ryder, to the Dallas-Fort Worth market to meet the growing demand for commercial vehicle sharing. COOP lets commercial vehicle owners generate revenue by renting idle trucks and trailers to a network of vetted shippers. In addition to Dallas-Fort Worth, the platform is also available throughout Georgia and Florida.

> **Pilot Freight Services** added warehouse capacity in El Paso, Texas and increased its Foreign Trade Zone (FTZ) capacity. Pilot's El Paso FTZ offers U.S.-based

companies the option to defer, reduce, or even eliminate customs duties on its products admitted to the zone. Located close to the Zaragoza Bridge, the FTZ allows for shorter transit times to the Mexico border.

>TECHNOLOGY

> Shippers can now customize weather alerts in **Baron's** Threat Net monitoring and forecasting tools. Users select a weather parameter to monitor and choose the condition or forecast criteria to trigger an alert. When conditions are met, alerts are delivered via text and email,

or onscreen to a desktop or tablet.

> **Evergreen Line** launched GreenX, an integrated container logistics solution platform. GreenX offers spot rates with secured space, letting shippers book space with prioritized equipment supplied by the carrier. The digital portal, powered by neutral freight technology supplier BlueX Trade, also enables shippers to make payments and submit verified gross mass and bill of lading instructions online.

> **Averitt Express** unveiled a transportation management system (TMS) called *Averitt*

Connect designed for small and mid-sized shippers. The transportation and logistics services provider partnered with MyCarrierTMS to provide customers access to a centralized, browser-based platform to manage LTL shipping at no charge.

> **SMC's** cloud-based BidSense, which allows LTL shippers to lock in over-the-road contract rates and manage bid events automatically, is now offering these capabilities to truckload users. The new truckload functionality streamlines truckload freight transportation procurement, allowing shippers and 3PLs to bid out freight to a wide range of carriers.

> **One Network Enterprises**, a provider of multi-party business networks for autonomous supply chain management, released the latest version of its Global Logistics Gateway, designed to help organizations digitize transportation processes. Shippers can publish



> **Infinity Intermodal** (formerly Infinity Transportation Logistics LLC) increased the size of its refrigerated intermodal container fleet and also added a new lane to/from Minnesota, with more lanes planned in 2020. Infinity Intermodal offers Pacific Northwest shippers access to nearly two-thirds of U.S. consumers, providing temperature-controlled, full truckload, door-to-door domestic intermodal service.

demand, while allowing transportation providers, digital freight matching companies, and other freight marketplaces to post available capacity and rates. The service then selects the best available capacity.

> LTL shippers can digitize the paper bill of lading process with a new solution from **Roadrunner Freight**, a business unit of Roadrunner Transportation Systems. The new technology, which utilizes advanced API connectivity, enables customers to electronically submit shipping documents and improve the quality of data.

> The **New York Shipping Exchange** (NYSHEX), which aims to increase ocean reliability through digital contracting, launched an enhancement allowing shippers to utilize the NYSE framework and technology to secure,

monitor, and enforce ocean contracts signed outside of the exchange.

>TRANSPORTATION

> Airfreight transportation provider **LATAM Cargo** launched two routes for cargo originating in the United States, increasing capacity from North America to Central and South America. The new Miami-Panama-Bogota and Miami-Cali routes are operated by B767-300F aircraft twice per week to support demand for general cargo, electronics, pharma, and dangerous goods.



> Produce and floral shippers can now monitor the humidity of their shipments with **DeltaTrak's** FlashLink In-Transit BLE TH

(Temperature & Humidity) Logger. Also offering temperature and location monitoring, the logger employs wireless technology and smart phone functionality to provide trip data.



> **ID Label's** Eco Tote Renew, an eco-friendly, linerless version of its

tote labeling solution, is a label holder that applies permanently to reusable warehouse containers. Its coated surface makes it easy to apply and remove barcode tracking labels, eliminating the need to scrape off old labels or stack multiple labels on top of each other.



> The **cargo-partner** iLogistics Center next to Prague Airport was certified for storing and handling organic products in accordance with the EU Eco-regulation by the inspection body ABCERT. The facility provides optimal storage conditions for milk, meat, baked goods, beverages, fruits, and vegetables in primary packaging as well as other goods requiring temperature-controlled storage.

> Port Manatee-based **World Direct Shipping** added a third vessel to its weekly services across the Gulf of Mexico. New ports of call include Tuxpan, the closest commercial port to Mexico City, and Tampico in the state of Tamaulipas.

> **OOCL, COSCO Shipping Lines, Ocean Network Express, and Yang Ming** launched a new East Mediterranean-America Service. The weekly service bolsters the ocean carriers' Trans-Atlantic coverage.

> Perishable cargo shippers can now avail of **ZIM's** seasonal Egypt-Black Sea Express reefer service. The weekly, fixed-day service provides a direct link from Alexandria to Novorossiysk NUTEP terminal with a four-day transit time.

> Airfreight shippers can expect increased connections with the launch of the expanded Trans-Atlantic joint venture from **Air France-KLM Cargo, Delta Air Lines Cargo, and Virgin Atlantic Cargo**. The new partnership enables the airlines to offer a combined network of up to 341 peak daily Trans-Atlantic services.



ULINE

SHIPPING SUPPLY SPECIALISTS

PACK IT, SHIP IT

**ORDER BY 6 PM FOR
SAME DAY SHIPPING**

COMPLETE CATALOG 1-800-295-5510 uline.com

CALENDAR



**MAY
13-15,
2020**

FORT LAUDERDALE, FL

Chief Procurement Officer Summit

cpo-summit.com

Senior procurement executives, suppliers, and providers share innovative ideas, learn about key challenges and relevant market developments, and gain first-hand insight from successful leaders.

CONFERENCES

**APR 1-2, 2020
ATLANTA, GA**

Industrial Pack 2020

industrialpackexpo.com

See the latest industrial packaging products, meet key industry figures, and explore packaging trends in sustainability, legislation, safety and security, new materials and products, and more.

**APR 26-29, 2020
BOSTON, MA
ISM 2020**

ism2020.org

Supply chain and procurement professionals attend breakout sessions, take in morning keynotes, and meet with suppliers at the Institute for Supply Management conference, which infuses interaction and idea generation into new, hackathon-style workshops.

**MAY 3-6, 2020
PROVIDENCE, RI
WERC 2020**

wercconference.org

The Warehousing Education and Research Council helps logistics professionals stay on top of industry developments and build business relationships. Instead of traditional trade-show booths, attendees can ask questions in an interactive, casual group setting.

**MAY 5, 2020
LOS ANGELES, CA**

94th Annual World Trade Week Southern California Kickoff

worldtradeweek.com

World Trade Week promotes the positive aspects of international trade through educational programs and events. Kick off the week-long celebration with a morning of thought leadership and networking.

These events were scheduled to proceed as of press time.



94TH ANNUAL WORLD TRADE WEEK
KICKOFF BREAKFAST

SOUTHERN CALIFORNIA: FUELING INNOVATION AND ECONOMIC GROWTH

TUESDAY, MAY 5 | INTERCONTINENTAL LOS ANGELES DOWNTOWN

KEYNOTE SPEAKER



KIMBERLY REED
PRESIDENT AND CHAIRMAN
EXPORT-IMPORT BANK OF THE
UNITED STATES

Join more than 800 executives and members of the diplomatic corps. as we commence the month-long celebration of global trade in Southern California with a morning of thought leadership and networking.

CORPORATE TABLES AVAILABLE!

Opportunities now available to sponsor scholarships for high school and university students preparing for a profession in international trade.




For more information, contact Jasmin Sakai-Gonzalez, 213.580.7569 or jgonzalez@lachamber.com. | WORLDTRADEWEEK.COM



30+ Educational Sessions

**Learn from Shippers of
Leading Brands**

**Best Practices in Marketing,
Communications, Sales**

**Expand Your Network in
Transportation & Logistics**

**Comprehensive Expo of
Valuable Solutions**

LOGISTICS MARKETING & SALES CONFERENCE

EDUCATIONAL TOPICS INCLUDE:

Emerging Trends / Benchmarking
Digital Strategies / SEO / Social
Artificial Intelligence
Lead / Demand Generation
Sales Training / Pipeline Growth
Automation / CRM
Customer Experience (CX)
Omnichannel Marketing
Brand Loyalty
Driver Strategy

JUNE 7-10, 2020
Sheraton Music City Hotel
Nashville, TN



**Get Info & Register
at TMSAtoday.org**

RESOURCE CENTER

03.20

INBOUND LOGISTICS WORKS FOR YOU!

3PLs

Atlanta Bonded Warehouse pg. 38, 79
atlantabonded.com 678-322-3120

CT Logistics pg. 71
ctlogistics.com 216-267-2000 x2190

DLS Worldwide pg. 29
dls-ww.com 888-757-0291

DSC Logistics pg. 7
dsclogistics.com 847-635-4952

Echo Global Logistics Cover 4
echo.com 800-354-7993

JIT Warehousing & Logistics pg. 83
jitlogistics.com 866-522-2200

LFS pg. 36
lfs-inc.com 305-909-7870

Lynden pg. 13
lynden.com 888-596-3361

Penske Logistics pg. 17
gopenske.com 844-868-0818

Pilot Freight Services pg. 25
pilotdelivers.com 800-HI-PILOT

SEKO Logistics pg. 27, 34
sekologistics.com 630-919-4800

Syfan Logistics pg. 86
syfanlogistics.com 855-287-8485

Air/Ground Expedited

DHL pg. 26
logistics.dhl 888-606-3298

Cold Storage

Americold pg. 81
americold.com 678-441-6824

Events

TMSA pg. 109
TMSAtoday.org 952-466-6270 x208

Transport Logistic Americas pg. 90
tl-americas.org +49 89 949 20428

**United Fresh 2020
Convention & Expo** pg. 72
unitedfreshshow.org 202-303-3400

World Trade Week pg. 108
worldtradeweek.com 213-580-7569

Freight Payment Services

nVision Global pg. 3
nvisionglobal.com 770-474-4122

Intermodal

Hub Group pg. 9, 35
hubgroup.com 800-377-5833

Logistics IT

SMC³ pg. 77
smc3.com 800-845-8090

Ocean

COSCO pg. 31
cosco-usa.com 866-830-2550

Evergreen Line pg. 11
evergreen-line.com 201-761-3000

Seaboard Marine pg. 15
seaboardmarine.com 305-863-4444

Packaging

Absolute Packaging & Supply pg. 19
thisbagisnotatoy.com 973-278-0202

ULINE pg. 107
uline.com 800-295-5510

For a specific
response, contact
these advertisers
directly. Please tell
them you saw their ad in
Inbound Logistics.

For faster service,
go online:
inboundlogistics.com/rfp

Use our Resource Center and let the information you need find you.

Ports

Georgia Ports Authority **pg. 85**
gaports.com 800-342-8012

Maryland Port Administration **pg. 56**
marylandports.com 800-638-7519

North Carolina Ports **pg. 33**
ncports.com 855-211-1313

Port of Long Beach **pg. 37**
polb.com 562-283-7000

Port Everglades **pg. 49**
porteverglades.net 800-421-0188

South Carolina Ports **pg. 51**
scspa.com 843-723-8651

Real Estate Logistics/ Site Selection

Pharr International Bridge **Cover 3**
pharrbridge.com 956-402-4660

Trucking

Old Dominion Freight Line **pg. 5**
odfl.com 800-432-6335

Saia **Cover 2, pg. 75**
saia.com 800-765-7242

INDEX

ADVERTISER	PAGE	ADVERTISER	PAGE
Absolute Packaging & Supply	19	Old Dominion Freight Line	5
Americold	81	Penske Logistics	17
Atlanta Bonded Warehouse	38, 79	Pharr International Bridge	Cover 3
COSCO	31	Pilot Freight Services	25
CT Logistics	71	Port Everglades	49
DHL	26	Port of Long Beach	37
DLS Worldwide	29	Saia	Cover 2, 75
DSC Logistics	7	Seaboard Marine	15
Echo Global Logistics	Cover 4	SEKO Logistics	27, 34
Evergreen Line	11	SMC ³	77
Georgia Ports Authority	85	South Carolina Ports	51
Hub Group	9, 35	Syfan Logistics	86
JIT Warehousing & Logistics	83	TMSA	109
LFS	36	Transport Logistic Americas	90
Lynden	13	ULINE	107
Maryland Port Administration	56	United Fresh 2020 Convention & Expo	72
North Carolina Ports	33	World Trade Week	108
nVision Global	3		

For a specific response, contact these advertisers directly. Please tell them you saw their ad in *Inbound Logistics*.

For faster service, go online: inboundlogistics.com/rfp

Unfortunate-looking but still-fresh fruits and vegetables are making a supply chain comeback. Long shunned by grocery stores and ending up as food waste, so-called ugly produce is finding its niche through the efforts of some enterprising companies.

UPCYCLING BEARS FRUIT

PERFECTLY FRESH

Imperfect Foods offers an alternative to grocery stores by delivering to consumers food items that may be cosmetically challenged, a bit off spec, or with slightly outdated packaging.

NO SMALL POTATOES

Spudsy salvaged more than 100,000 ugly sweet potatoes in 2019 and is aiming to save one million imperfect spuds by 2021. The budding company produces sweet potato puffs from spuds that would otherwise be left in fields to rot.

AWESOME SAUCE

D'vash Organics rescues the misshapen produce that farms usually throw out. The company makes sweeteners, sauces, marinades, and dressings from these abandoned fruits and vegetables.

HIT REFRESH

Misfits Market works directly with smaller growers that don't have an outlet or secondary market for ugly produce. The company delivers the fresh produce directly to end consumers' doorsteps, offering them up to 40% off grocery store prices.

A'PEELING

Barnana partners with banana farms in Latin America to upcycle bananas rejected for export for having scuffs, being too ripe or not the perfect size. The company turns them into snacks, including banana bites, plantain chips, and banana brittle.



Investing Big... ...For Faster Trade



Your port with over 25 years of experience and efficiency

- #1 Produce crossing in the U.S.
- 3rd largest gateway on the Texas-Mexico border
- 7th fastest growing port in the U.S.
- Trending growth: 6% imports / 5% exports
- Top imports: TVs, Auto Parts, Avocados
- Top exports: Gas, Auto Parts, Monitors
- Crossing over \$35 billion in global trade
- Infrastructure improvements for a safer, faster and efficient crossing
- Reduction in wait time
- Fast lane for empty trucks
- Implementation of Unified Cargo Process
- 40% capacity increase



Your Connection. Your Business. Your Bridge.

(956) 402-4660 pharrbridge.com



VOTE FOR ECHO

AND THE LOGISTICS LEAGUE SUPERHEROES

AS YOUR #1 TOP 3PL FOUR YEARS IN A ROW



Logistics is complicated. Who to vote for is simple.

Last year you voted us #1 for the third year in a row because every day our team members use their passion and industry expertise to solve problems and simplify your transportation management. Armed with our advanced technology and extensive network, they work hard to be your superheroes. **Vote today for your Uncomplicators. Visit WWW.ECHO.COM/VOTE2020**

ECHO.COM 800.354.7993

Managed Transportation • Truckload • Partial Truckload • LTL • Intermodal • Expedited • International Air & Ocean

© 2020 Echo Global Logistics. All rights reserved.

ECHO))
Transportation Simplified™

15 EST. 2005
YEARS