

## Building for Automation

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As warehouse automation heats up, experts weigh in on what design-build firms need to know.

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New cold storage facilities should be constructed with future automation in mind. What design-build firms need to consider in building for automation. See the article on page 12. (Photo courtesy of Primus Builders, Inc.)

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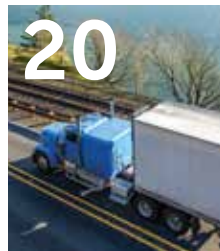
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Climate change policy in the spotlight.  
*By Lowell Randel*



### Building for Automation

As warehouse automation heats up, experts weigh in on what design-build firms need to know.  
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### Inflating Freight

Increases in fuel, driver wages, equipment and insurance are driving up costs.  
*By Karen E. Thuermer*



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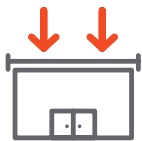
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### Goals for a Renewed CEBA

**A**S CHAIRMAN OF THE CONTROLLED ENVIRONMENT BUILDING ASSOCIATION, MY GOALS TO MAXIMIZE THE VALUE OF CEBA MEMBERSHIP ARE THREEFOLD. STRENGTHEN THE CEBA GOVERNANCE STRUCTURE AND ALIGN WITH TRADE association best practices. Formalize a strong GCCA collaboration, support and services agreement for CEBA. And finally, grow CEBA's value proposition, membership and programs.

First, we've set in motion updated governance, which provides a stronger foundation from which to execute a growth agenda. New bylaws for CEBA were adopted at the 2021 CEBA Board meeting, which put CEBA in a much better position to align with trade association best practices. In addition, the bylaws were updated to formally recognize CEBA's focus on serving all global temperature-controlled building opportunities inclusive of, but not limited to, the 3PL cold storage industry.

Second, we've strengthened CEBA's Committee Infrastructure and aligned Committee leadership with Board Officers and Directors. In addition, CEBA is in the process of establishing an International Committee and Past Chairman's Council.

I'm pleased to announce we've signed the first formal services agreement between CEBA and GCCA. GCCA will manage CEBA's staff resources, overall fiscal management and program execution on behalf of the members. I'd like to express my and CEBA's sincere gratitude to GCCA's Matt Ott and the IARW Board of Directors for their collaboration and support of CEBA's mission and programs.

As part of GCCA's commitment to CEBA, GCCA announced earlier this year that Brian Lynch, Executive Vice President of Business Development for GCCA has been appointed to serve in the Executive Director capacity for CEBA. This appointment represents a significant commitment from GCCA to support CEBA's future growth.

Third, and most important, we are also making progress on growing CEBA's programs, membership and value proposition with the CEBA Professional Training and Certificate Program. Building on the great work of the CEBA Job Analysis Task Force, the Education & Training Committee and Business Development and Marketing Committee will support the development of a curriculum, testing vehicles and business/marketing plans for the Controlled Environment Building Professional (CEBP) program with a goal of launching the program in the first quarter of 2023.

The Business Development and Marketing Committee updated CEBA's popular Built by the Best program by creating new categories including one category for projects over \$35 million and one category for \$35 million and under. It is an amazing way to highlight the great work CEBA members do for customers across all channels.

We look forward to seeing you at this year's CEBA Conference and Expo from November 7-10. The Executive Committee has also been hard at work adding more networking opportunities, peer-to-peer breakout sessions and continues to build on popular program highlights like Construction Café, Built by the Best finalist presentations and the CEBA Golf Classic.

Lastly, I'm thrilled to report that CEBA's membership count has grown 15% in 2022. CEBA's best leads come from member referrals of members, so continue to please talk up the value of your CEBA membership.

Again, it's an honor to serve as CEBA Chairman, alongside industry leaders like Sam, Scott and Vince on the Executive Committee. Please don't hesitate to reach out to me or Brian Lynch at [blynch@gcca.org](mailto:blynch@gcca.org) on how to get more involved in CEBA. 🤝



MARKO DZELETOVICH  
CEBA CHAIRMAN

### COLDFACTS

COLD FACTS magazine is published every other month by the **Global Cold Chain Alliance (GCCA)**, an organization that unites partners to be innovative leaders in the temperature-controlled products industry. The GCCA Core Partners are:

The **International Association of Refrigerated Warehouses (IARW)**, which promotes excellence in the global temperature-controlled warehouse and logistics industry.

The **World Food Logistics Organization (WFLO)**, which delivers education and research to the industry and empowers economic development by strengthening the global cold chain.

The **International Refrigerated Transportation Association (IRTA)**, which cultivates, fosters and develops commercial and trade relations between all those engaged in the transportation and logistics of temperature-controlled commodities.

The **Controlled Environment Building Association (CEBA)** represents the design and construction industry specializing in temperature-controlled facilities that prioritize product safety best practices. We are the source for best practices of building and maintaining the thermal envelope.

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# GREEN AGENDA

*Climate change policy in the spotlight.*

By Lowell Randel

President Biden has made addressing climate change a signature priority for his administration. Since his election, climate change policies have been at the forefront of agency actions, Congressional deliberations and, most recently, before the Supreme Court. One of Biden’s early actions was for the United States to rejoin the Paris Agreement.

He then created the first-ever National Climate Task Force, with more than 25 Cabinet-level leaders from across agencies working together to advance ambitious goals including:

- Reducing U.S. greenhouse gas emissions 50% to 52% below 2005 levels in 2030
- Reaching 100% carbon pollution-free electricity by 2035
- Achieving a net-zero emissions economy by 2050
- Delivering 40% of the benefits from federal investments in climate and clean energy to disadvantaged communities

On July 20, President Biden reiterated his position that climate change is a clear and present danger to the United States. He also

announced his latest set of executive actions to address climate by “turning the climate crisis into an opportunity, by creating good-paying jobs in clean energy and lowering costs for families.” The actions are intended to protect communities from climate impacts, including extreme heat conditions, and expand offshore wind opportunities and jobs in the United States.

### **Protect Communities from Extreme Heat and Dangerous Climate Impacts**

The Federal Emergency Management Agency is announcing \$2.3 billion in funding for its Building Resilient Infrastructure and Communities (BRIC) program for Fiscal

Year 2022. It is the largest BRIC investment in history, and boosted by the president’s Bipartisan Infrastructure Law.

This funding will help communities increase resilience to heat waves, drought, wildfires, flood, hurricanes and other hazards by preparing before disaster strikes. BRIC is among hundreds of federal programs that the Biden-Harris administration is transforming to support the Justice40 Initiative and prioritize delivering benefits to disadvantaged communities.

### **Lower Cooling Costs for Communities Suffering from Extreme Heat**

Today, the Department of Health and Human Services is issuing guidance that for the first time expands how the Low Income Home Energy Assistance Program (LIHEAP) can promote the delivery of efficient air conditioning equipment, community cooling centers and more.

In April, the Biden-Harris administration released \$385 million through LIHEAP to help families with their household energy costs, including summer cooling. It was part of a record \$8 billion that the administration has provided, boosted by the president’s Bipartisan Infrastructure Law.





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## Expand Offshore Wind Opportunities and Jobs

The Department of the Interior is proposing the first Wind Energy Areas in the Gulf of Mexico, a historic step toward expanding offshore wind opportunities to another region of the United States. These areas cover 700,000 acres and have the potential to power over three million homes.

President Biden is also directing the secretary of the interior to advance wind energy development in the waters off the mid- and southern Atlantic Coast and Florida's Gulf Coast. This alleviates uncertainty cast by the prior administration. These actions follow the president's launch of a new federal-state Offshore Wind Implementation Partnership that brought together governors to deliver more clean, affordable energy and new jobs.

President Biden also indicated he is considering the declaration of a national climate emergency. Such a declaration would unlock a series of powers that could enable the administration to take additional executive actions to address climate change.

In addition, Democratic leaders in the Senate announced on July 27 that they have reached agreement on a budget reconciliation package that would raise an estimated \$739 billion. The revenue will fund climate and health initiatives as well as reduce the budget deficit.

While the legislation would amount to the biggest tax hike in years, it is a much smaller package than previously proposed under Biden's Build Back Better initiative. The legislation, called the Inflation Reduction Act, would invest \$369 billion in domestic energy production and manufacturing activities with the goal of reducing U.S. carbon emissions by approximately 40% by 2030. An additional \$64 billion is allocated to extend Affordable Care Act coverage for another three years. The proposal results in an estimated \$300 billion deficit reduction through the following revenue provisions:

- 15% corporate minimum tax – raising \$313 billion over 10 years
- Prescription drug pricing reform – raising \$288 billion
- Increased funding for Internal Revenue Service tax enforcement – raising \$124 billion
- Closing the carried interest “loophole” – raising \$14 billion

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It is worth noting that the Supreme Court's ruling should not have any impact on EPA's implementation of the AIM Act, as Congress explicitly provided the agency with authority to regulate the production and consumption of hydrofluorocarbons (HFCs).

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While the Biden administration has been actively pushing for aggressive climate policies, some previous climate actions have been challenged in the courts, including the *West Virginia vs. EPA*. On June 30, the Supreme Court issued a major ruling that will effectively curtail some of the executive branch's power to regulate greenhouse gases and could have broader implications on future agency actions. By a vote of 6-3, the court agreed with Republican-led states and coal companies that the U.S. Court of Appeals for the District of Columbia Circuit was wrong when it interpreted the Clean Air Act to give the Environmental Protection Agency (EPA) expansive power over carbon emissions. The decision was written by Chief Justice John Roberts who was joined by the five other “conservative” justices.

The case dealt with two regulations adopted during the Obama administration under the auspices of the Clean Power Plan (CPP). The policies were meant to combat climate change by reducing carbon emissions from power plants by shifting electricity production to natural gas plants or using renewable energy such as wind. The CPP set individual goals for each state to cut power-plant emissions by 2030. The policies were put on hold in 2016 due to legal challenges.

Chief Justice Robert cites the “major-questions doctrine” in his ruling, which is a judicially created approach to statutory interpretation in challenges to agency authority. When “major questions” are raised, the court must determine whether Congress explicitly intended to authorize the executive branch to adopt the policy being evaluated. Legal scholars believe that this adoption of the “major-questions doctrine” could have much

broader effects than just EPA and impact other major policymaking efforts by the federal government.

The court's decision saying that agency efforts to curb emissions from power plants is a “major question” that Congress did not give EPA the authority to handle has led to a debate over other regulations that may or may not fall under the same label. The court didn't clarify what might trigger the major questions doctrine, but legal analysts suggest several initiatives could be vulnerable to challenges.

The regulations that could be subject to the court's interpretation of a “major questions” issue could range from EPA's rules to boost car emissions standards, new climate accounting proposals from the Securities and Exchange Commission and new Federal Energy Regulatory Commission initiatives. It is worth noting that the Supreme Court's ruling should not have any impact on EPA's implementation of the AIM Act, as Congress explicitly provided the agency with authority to regulate the production and consumption of hydrofluorocarbons (HFCs).

It is expected that both the Biden administration and the Democratic-controlled Congress will continue to elevate climate policies in the future. And the implications of the Supreme Court's ruling will also likely be tested again in the future. ☞

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# BUILDING FOR AUTOMATION

As warehouse automation heats up, experts weigh in on what design-build firms need to know.

**S**carcity of land and labor, as well as rising energy costs, have historically driven warehouse automation in the cold chain. Today, automation is also being propelled by a powerful, new engine — the consumer.





Left: High-density pallet shuttle ASRS facility that uses fixed-position vertical lifts and aisle carriers and row carriers on each level for high volume/high velocity facility with high throughput capabilities. (Photo courtesy of Primus Builders, Inc.)

Above: A gantry layer picker solution (for building mixed-SKU pallets) and an ASRS for unit-load storage. (Photo courtesy of Twinlode.)

E-commerce represents about 20% of global retail sales today, a number most experts expect to top 30% by the end of this decade. Its rise, coupled with ongoing retail sector transformation, is changing consumer expectations. E-commerce is also pressing centralized warehouses to accommodate smaller orders, at the case and sometimes even at the piece level.

“People want everything now. The speed to market has to be now,” observes Randy Jennings, Vice President of Primus Solutions Group, the automation design division of Primus Builders. Third-party logistics public refrigerated warehouse operations are the part of the supply chain that has to “be able to flex and ebb and flow,” he says.

Today, a retail distributor may break down a pallet load of product and send it to 20 or more stores, Jennings explains, or they may receive several pallets and send product to more than 100 stores. But for slower moving products, they may receive only a couple of layers and send product to a handful of stores.

Richard Kooistra, President, Automated Solutions with Twinlode Automation, also notes that e-commerce has caused material flow patterns to change as order sizes have declined. “That whole paradigm is changing now,” he observes, adding that the trend toward decreased order sizes adds complexity to warehouse operations. “If I can go

full pallet in and full pallet out, that’s fairly straightforward. If I go full pallet in and then have to go case out, there’s a lot of different steps and procedures that I need to be able to go through in order to do that.”

### Technology Brings Solutions and Complexity

Technology and automation options like automated storage retrieval systems (ASRS) and stacker cranes are making it possible to solve several important challenges. They use scarce space more efficiently with a vertical building configuration. These arrangements require a much smaller piece of land and have the added advantage of a smaller roofline, which minimizes heat loss.

These highly technical operations also have dramatically different personnel requirements. They need fewer laborers and more tech-savvy workers. Attracting these workers in the first place, however, may require cold storage operators to educate candidates about the opportunity, suggests Kooistra. “It’s not a sexy industry, where people coming out of university are saying, ‘Oh, I want to work in the cold chain, I want to work in supply chain,’” he says.

In addition to that, operational and personnel considerations may be working at cross-purposes. For example, many cold chain operations are driven away from city centers

According to the Material Handling Institute of America, automated storage retrieval systems (ASRS) are “a combination of equipment and controls that handle, store and retrieve materials as needed with precision, accuracy and speed under a defined degree of automation.” They are available in several configurations, some with the capability to store loads of 1,000 pounds or more and reach 100 feet or more high. Others are designed for lighter weights or to carry totes, trays or small parts and pieces, while others rotate vertically or facilitate inventory retrieval in an ultra-high density use case.

**Stacker cranes** can accommodate freezers rising as high as 145 feet. These systems operate with extreme precision using sensors to retrieve pallets or layers. A stacker crane may travel down an aisle 350 feet deep, then up to the proper level to retrieve a pallet. They operate in total darkness, behind the freezer wall, in areas where there are no humans and no forklifts.





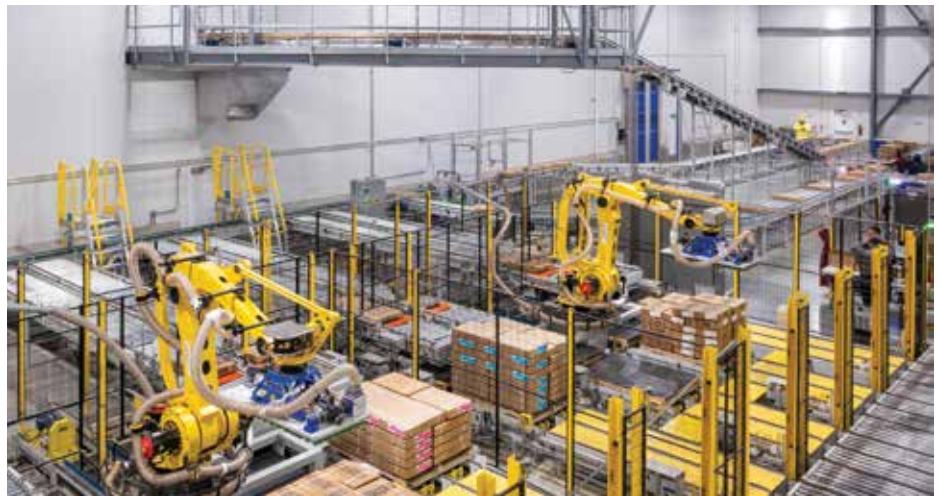
ASRS high-bay rack-supported 132-foot-tall building with ASRS stacker cranes servicing three-deep load positions and pick faces. The white wall separates the two different temperature zones in the building. (Photo courtesy of Primus Builders, Inc.)

— and away from areas where young people prefer to live — by the price and availability of even small parcels of land. And in addition by building codes that put taller small-footprint facilities at a disadvantage.

Nonetheless, “these jobs are less physical and more desirable,” notes Operations and Automation Advisor Bob Whitmore of DLN Integrated Systems, a solutions provider with experience across a variety of distribution systems, particularly in the food and beverage industry. “We need to be prepared for a future state in which very few people may be willing to work various shifts in sub-zero temperatures while doing heavy manual labor.”

Twinlode is currently partnering with a design-build firm on a project that bridges the divide between manual and automated processes. Though the project aims to automate only a portion of an existing facility, it will require a substantial investment by the large cold storage provider client. The cold storage firm is looking to automate its manual process for the transfer of product from a blast freezer to a regular freezer. The project focuses on process elements that are consuming excess time and labor resources.

“There’s just that little piece, but we have to redesign a part of the building envelope to implement the solution,” observes Kooistra.



Conveyor output from production facility for in-process case handling after blast freeze operations, transported to palletize six-axis robot cells in advance of transportation into ASRS. (Photo courtesy of Primus Builders, Inc.)

### Steps to Shovels in the Ground

When a warehouse owner is ready to make a decision about automation, Jennings says they are often ready to see shovels in the ground immediately. The automation provider typically is not ready for another six months with all the details needed to break ground.

For example, architects, engineers and design-build contractors need to know:

- Locations for all the point loadings of steel legs in the ASRS rack system for proper floor loading design
- How much weight the concrete floor will bear at specific points and where every point makes contact on the concrete floor



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Automated order-filling area in the shipping area of ASRS facility. Shown is the robotics order filling operations for automatic case picking and order filling, stretch wrapping and shipping. (Photo courtesy of Primus Builders, Inc.)

- Characteristics of the fire protection system, where the water source is and how the piping is run inside the ASRS rack system
- Exactly how many dock doors are needed and where they should be located for efficient operation
- How deep, tall, long and wide the final structure will be, key to support a zoning variance

“We need to know those exacting positions and points to make the most efficient facility that we can for our customers and their long-term operations,” Jennings says. “If you don’t know that information, you start to guess, or you assume. And we all know that’s never a formula for success.”

Whitmore echoes these thoughts, adding that automation choices also may affect building specifications such as rack (including rack-supported structure), floor

flatness, column spacing, electrical service and the RF system.

He also cautions that installation of automation within a weather-tight building may move the project up an entire construction season. “Automation equipment should be delivered to a nearly finished site that is clean, dry and secure,” Whitmore says.

### Designing an Automated Warehouse System

“The main objective is to avoid shoe-horning an automated design into a building design,” says Whitmore. “Design automation first and design a structure around the system. I strongly suggest introducing a good pre-construction team early during system design to increase the success of the site selection and construction process and reduce rework.”

Jennings agrees. “As you approach this, one of the things that’s most critical is to get

the people involved early on in the decision-making process of what you’re doing in the overall function and flow of the facility.”

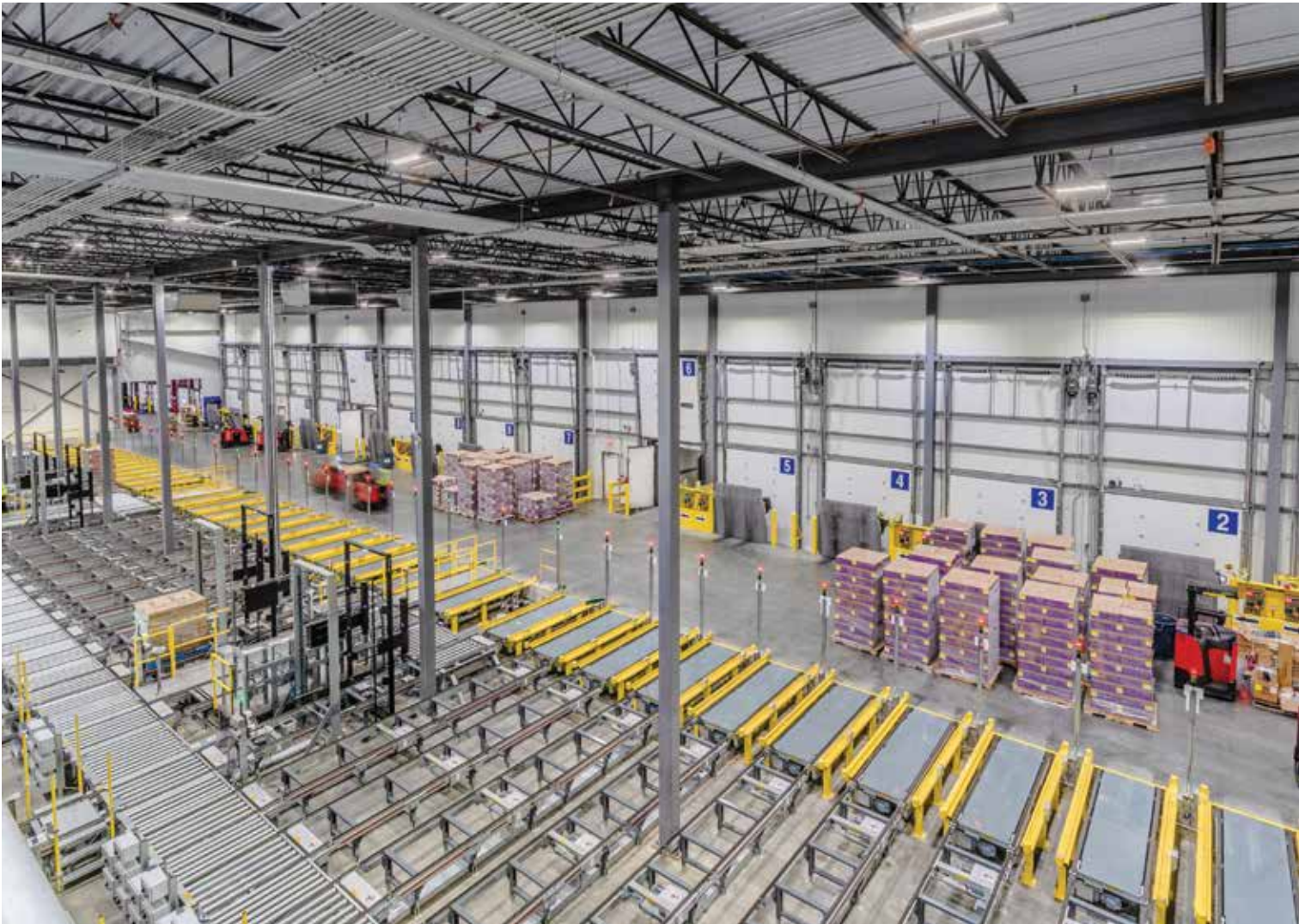
Jennings offers a step-by-step framework for automated warehouse system design.

Step one, advises Jennings, should always be to collect and analyze data. He advises looking at up to a year of historical order data to see seasonality and peaks and valleys in the operation. The item master is also a typical part of data analysis.

From there, Jennings says a functional flow of what the facility is supposed to do can be created.

“You create what’s called a material flow diagram so that you can provide the information to all the different engineering staffs for how you need to configure the facility, and then you start to look at the different designs and options,” advises Jennings. At this point, throughput calculations that leverage inter-





Receiving and shipping dock area of ASRS facility with capacity for high-volume/high-velocity operations with multiple lanes for receiving inbound loads and outbound shipping lanes. (Photo courtesy of Primus Builders, Inc.)

nationally recognized standards are helpful to eliminate options that simply do not meet the need.

Once decisions have been made about designs and options, the systems architecture can be determined. Integration with the enterprise resource planning (ERP) system becomes a consideration at this point. The ERP also must interface to a warehouse management system (WMS). The WMS interfaces to a warehouse control system (WCS) at the programmable logic controller (PLC) level to ensure that every motor in every sensor can be controlled.

“When you put that together, different solutions bring a different value and have a different cost,” says Jennings. “Also, you may

put together a solution that may take you 24 to 30 months to implement as opposed to one that you can get done in 18 months that will get you a better return sooner.”

#### **A Role for All in Automation**

Although there is strong consensus for a better and faster return on automation investments by larger cold storage firms, Whitmore makes the case that all firms have work to do.

“There is a lot of truth to the fact that higher-volume distribution centers can generate a larger return, sooner than their smaller counterparts ... This may paint a picture that the future of automation of small or medium-size facilities is bleak, but I believe that there are other opportunities for smaller facilities,” Whitmore argues.

A good place for smaller firms to start, says Whitmore, is with a smaller automation solution that integrates with traditional methods. “A hybrid operation can lessen the service disruption risk of a very large and complex system, while forcing the development and discipline within the operation as well as development of an effective WMS or WCS system.”

“A gamble that I think organizations are making when they pass on automation in the near term, is the risk that WMS/WCS system development and warehouse best practices are not being developed because of the decision,” cautions Whitmore. “The technical roadmaps should continue to be developed to be prepared for the time when automation may be a requirement for survival.”





ASRS stacker crane inside an 85-foot-tall free-standing building. ASRS stacker crane stores pallets for later use and delivers pallets to pick faces for case picking order filling. (Photo courtesy of Primus Builders, Inc.)

Whitmore says, if you're ever going to automate, you need to be thinking about it today.

"Whether or not you have an approved project, warehouse technical roadmaps should be inclusive of the visibility and control that automation will require in the future," Whitmore notes. "Best practices around routing, workload creation, workload, and production status, etc. need to be in place when the time comes. New buildings should be constructed with future automation in mind."

"Every organization needs to invest in readiness for automation regardless of the near-term capital plan," concludes Whitmore. 🌐

**Gina Veazey** is a writer and editor based in Rehoboth Beach, Delaware, who specializes in health care and other topics.

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# INFLATING FREIGHT

*Increases in fuel, driver wages, equipment and insurance are driving up costs.*

By Karen E. Thuermer

Last year was one bad year. And 2022 is presenting additional layers of disruption to freight markets with China's COVID-related lockdowns; Russia's invasion of Ukraine; exceptional increases in fuel prices; heightened competition for talent; and inflation and recession worries that are hitting companies and multiple geographies at different locations at different times.

Although the impact of the pandemic may be waning, companies are not yet back to normal as many had hoped. Like a number of industries, trucking, including refrigerated transportation, is seeing tremendous cost increases.

## **Multiplying Issues**

Inflation is a key culprit. Many factors are pushing up costs: the high price of fuel, labor,

capacity constraints and problems with ports.

"Increased costs are effecting the supply chain on many levels," says Todd Lanter, Director, Transportation Network Integration, Lineage Logistics. "Fuel, specifically, has an immediate impact on transportation costs that permeates the entire supply chain."

The largest expense for refrigerated trucking is driver wages, fuel and equipment

— not to mention liability insurance. "In all those cases, costs are up significantly," says Bob Costello, Chief Economist and Senior Vice President, International Trade Policy & Cross-Border Operations, American Trucking Associations (ATA).

The current inflation rate of around 8% in North America is particularly impacting transportation costs.

"We have never done business in such a high inflation environment in the past 20 years," says Lamiaa Mohamed, P.Log, Director of Transportation and Logistics at Canada-based Congebec. "Some customers are acknowledging that fuel consumption is most of their transport budget."

According to ATA, the cost of diesel fuel has come down recently but is still up roughly 50% from a year earlier.



“Fuel spend is always a big one for transport companies,” says Don Durm, Vice President, Customer Solutions, PLM Fleet.

Pandemic and post-pandemic stresses are also impacting costs particularly with demand for new delivery channels, such as home delivery and e-commerce.

“E-commerce establishments, that are paying premium prices, will at times use refrigerated fleets to ship dry goods due to [equipment] shortages,” explains Mohamed. “This negatively affects the availability of refrigerated fleets when they are needed for frozen goods.”

Meanwhile, supply chain disruptions continue to plague surface cold chain transport.

Durm notes material and component delays with transport assets can result in extended build times of more than 12 months. Further, costs can vary significantly from time of ordering to actual delivery due to commodity prices at the time of manufacturing. And this is before factoring in increased fuel costs.

Consequently, he notes, cold chain transport companies must not only anticipate and forecast business needs and costs beyond the current fiscal year; they must be flexible about additional costs that might impact their profit and loss.

“The sticker shock for both the vendor and the customer is present when a company puts an order in for a quoted price, then 14 months later are presented with a 10% to 15% increase to build the same refrigerated transport asset,” Durm says. “No one is happy.”

Manufacturers are also making the hard choice of turning down a new customer acquisition because their manufacturing lines are filled for the year on their commitments to build for current customers. “Bottomline, if you don’t already have a relationship, you are not getting on the list,” Durm says.

With this stress on extended build times, cold chain transport assets time in service may be extended beyond the current business strategy. “This will add additional expense due to increased maintenance and down time that will also need to be accounted for in distribution,” Durm adds.

Then there are costs associated with the trucking fleet itself and the lifecycle of managing that fleet. Today, equipment costs are much higher.

“Recently, used truck prices were increasing at an 80% year-over-year pace,” Costello

reports. “That has come down recently but prices are still historically high.”

New truck and trailer prices are also up significantly. “The most difficult aspect of new trucks and trailers is availability, which is limited due to the nagging chip shortage,” Costello says.

Mohamed agrees. “Ordering new trucks and trailers requires more time in order to enable carriers to upgrade their fleets as fast as desired,” she points out.

Chip and labor shortages, adds Durm, have also increased waiting times for service to respond to breakdowns and repairs.

“Liability insurance also continues to increase as the industry witnesses runaway jury awards even in cases where the driver wasn’t faulted in the accident,” comments Costello.

In this environment, owner operators have only two options “They will either be forced to sign on with larger carriers that continue to underpay them or leave the industry as a whole, thus negatively affecting us,” Mohamed says. “Lots of small businesses – carriers and/

or customers – are deeply suffering and not able to survive these times. Either demographic can’t pay their invoices on time, leading them to declare bankruptcy to cut their losses.”

### Labor Woes

Driver shortages have been a critical issue, pre- and post-pandemic. The ATA estimates that in 2021, the truck driver shortage in the United States hit a historic high of just over 80,000 drivers and could surpass 160,000 by 2030.

“It’s an issue of supply and demand,” says Lanter. “The job market is tight. People are looking around. Companies are trying to hire more to keep things going and balance the necessity of being on site and flexible with work from home.”

ATA estimates that driver wages are increasing at a 10% to 11% rate year-over-year. This also means truck driver wages are keeping up with or surpassing inflation.



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But many drivers are aging. ATA reports the average age is 49. On top of that, the industry is not attracting younger people.

“Some carriers are offering very generous onboarding offers to entice drivers to join,” comments Mohamed. “The cost of getting an A1 License as well is at an all-time high of around \$15,000, which does not encourage drivers to invest in starting their venture.”

One of the issues is a driver must be 21 to obtain a commercial driver’s license for Interstate driving. “By that time, they might have already obtained a profession,” Durm says.

### Additional Factors

Other factors related to increased transportation costs are delays and traffic congestion. This includes container backlogs and seaport congestion.

“The pandemic has caused imbalances in ocean lanes,” Lanter says. “Seaports are still working through a lot of that with container availability, appointments both for picking up loaded containers and/or returning empties. There’s always been room for improvement, but as volumes over the pandemic shot up, the inefficiencies were exacerbated.”

The shortage of containers has been a problem that has contributed to higher costs.

“Companies are paying for [truckers to make] round trips to secure containers,” Mohamed says. “It’s getting out of hand and leaving some shelves empty and customers unsatisfied in many cases.”

Vendors also are charging excessive fines for shipments that arrive late, which is hurting the market as well.

To help, Costello suggests that truck transportation buyers turn drivers around at their facilities as quickly as possible. “This will help with productivity and ultimately limit the impact of cost increases,” he says.

And let’s not forget the overriding issues of rising interest rates and the volatile stock market, which is causing businesses to rethink growth plans.

But the most long-term impact of inflation on transportation could be on infrastructure projects across the United States. “Inflation is driving up costs so much that state and local officials are planning to, or considering, postponing infrastructure projects, scaling back others and reprioritizing their immediate needs,” Durm says.

## The View From Down Under

With inflation at over 6%, Australia is experiencing the same economic stresses as other countries around the world. That stress is being felt across many industries, including food manufacturers, retail and food service and logistics operators across all platforms. Accordingly, operating costs have skyrocketed.

Chris Cartwright, Director of Business Development – Asia Pacific, Lineage Logistics, notes there has never been a more challenging time to operate a logistics business.

For one, his company now must pay Grade 4 drivers Grade 7 wages to attract and retain staff. “In an ultra-competitive environment, even retaining drivers on these conditions is no guarantee,” he says.

Inventory also is at an all-time low. Bottlenecks in the global supply chain have significantly impacted the manufacturing sector, especially supply and activity through Australia’s ports and distribution networks. “Customers are not able to get raw materials or finished goods in and out of the country,” he says.

This, coupled with the inflationary headwinds and labor scarcity, has created a gridlock and inefficiencies in operations and translated to poor results and increasing pressure on operators. “Congestion around our domestic supply chain has forced customers to take a conservative view on production and sales,” Cartwright says.

Australia has always been an expensive market in which to operate. Its large geographical spread and relatively small population with limited migration have always made businesses acutely aware of any headwinds or ripples across the global supply chains that may cause chaos on the local front.

“This has actually built a resilient mindset that has helped in the current circumstances,” Cartwright says. “Finding alternative methods for global distribution, such as air freight or increasing value-added services to keep products on the shelf, are examples of the responsiveness and resourcefulness of our market.”

Environmental issues and sustainability are also becoming critical to transportation.

“Increasing fuel prices makes the argument for exploring alternative energy options, be that compressed gas, electric or battery powered,” Lanter says. “It is always worth a review, but also brings costs more into focus. Our industry is worried about sustainability, period. It is not a new topic.”

### Final Words

One factor is for certain: these are unprecedented times.

“The sooner the supply chain gets back to normal the better it will be for everyone,” Costello points out.

Multiple issues continue to compound situations with no obvious solutions. “This is where collaboration and partnerships will be very strong factors to help pass through this storm,” Mohamed concludes.

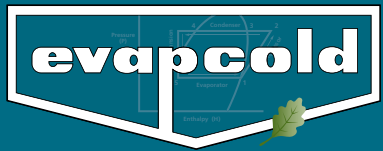
Technology is also an answer. “By utilizing technology, companies can provide real-time visibility of assets and know how to redirect them,” Durm says.

In short, the cold chain will remain strong. “The fact is, people must eat,” says Durm. “It may be that what and where they eat may change. And, in hard times, they may even eat more. We are really trying to navigate the ‘next normal’ into the future to build supply chain resilience.”

**KAREN E. THUERMER** is a freelance writer based in Alexandria, Virginia, who specializes in economic and logistics issues.

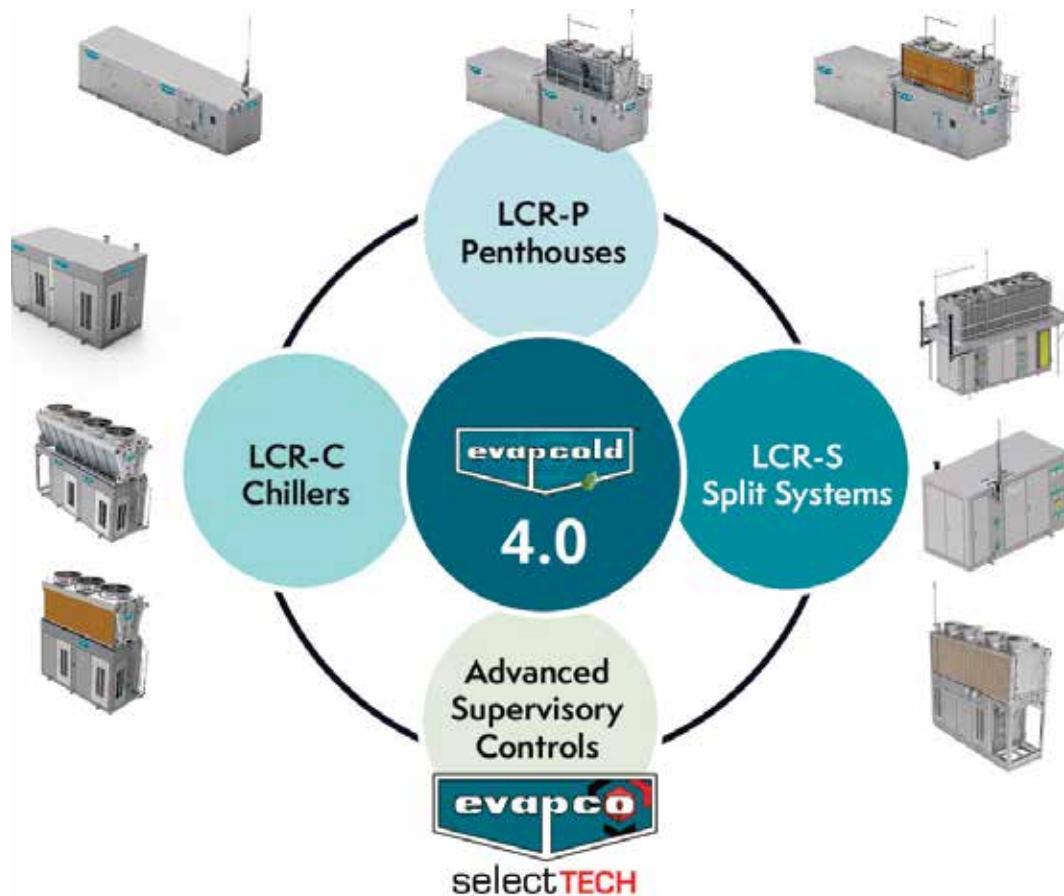
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The 131st IARW-WFLO Convention will be held in person at the Omni La Costa in San Diego, California, from October 8-12, 2022. IARW-WFLO Convention is the event for hundreds of executives of temperature-controlled warehousing and logistics companies and industry suppliers eager to advance the cold chain.

The educational program is designed for senior-level warehousing and logistics executives looking for solutions to key business challenges and opportunities.

Prominent social activities, receptions, and the Supplier Showcase give industry suppliers unparalleled access to build relationships with warehousing and logistics leaders.

#### **GENERAL SESSIONS**

Convention programming focuses on the trends, innovations, and business challenges most impacting the cold chain industry.

#### **Keynote Presentation – Human Capital [R]evolution**

*Peter Sheahan, Founder & CEO of Karrikins Group, Best-Selling Author and Global Business Leader*

Beyond supply chain, the major constraints to post-pandemic growth are labor shortages and the war for talent. The good news – this may be new for the United States, but it is not new for other parts of the world. There is a proven playbook for alleviating this problem in the short term, and solving it for the long term.

The hidden gift of this crisis is a unique window of opportunity to make long-needed changes to the way we attract, engage, and retain the human capital we need to do business. Now more than ever, you have permission to take a new approach and a willingness to accept progress over perfection.

#### **Keynote Presentation – Politics, Today and Tomorrow** *Ron Brownstein, Political Journalist and Analyst*

Join Ron Brownstein as he explores the state of each political party today. Blending history, a sophisticated analysis of polls and voting trends, and insider assessments of both parties' brands, he explores what is next for America's major political parties. Finally, he combines this assessment of the electoral environment with an analysis of the current presidential term, the challenges that face upcoming elections, and what legitimate





Left: Keynote speaker Ron Brownstein will address the state of America's political system.



Right: Peter Sheahan will deliver a keynote presentation on labor shortages.

policy choices exist for resolving hotly debated issues.

**State of the Associations**

Hear from IARW Chairman Manuel Kabana and IRTA Chairman Todd Lanter regarding the upcoming positioning of IARW & IRTA as GCCA. Get a sneak preview of the new WFLO Strategic Plan from WFLO Chairman Daniel Kaplan, and Marko Dzeletovich, CEBA Chairman, will provide updates on initiatives underway to continue to provide value to the controlled environment building industry.

**GCCA Don Schlimme Future Leader Award – Candidate Presentations/ Award Recipient**

The Don Schlimme Future Leader Award, presented at the Convention, recognizes outstanding young professionals in the North American cold storage industry. The candidates must have worked in the industry at least three years and have demonstrated excellence in their work and potential to excel further. Each candidate will present at Convention as well as engage in one-on-one interviews with the judges. The award recipient will be named during the final General Session of the Convention and go on to compete with other international award recipients for the GCCA NextGen Award.

**Panel Discussion – ESG: The Impact of a Collaborative Cold Chain**

A deep dive into why investors, customers and consumers have come to believe that ESG factors really matter; examples of effective cold chain collaboration around ESG metrics; and related industry challenges and opportunities.

**Tech Talks**

Industry thought leaders will deliver informative presentations on innovations in the cold storage industry. The IARW Education team works with Tech Talk presenters to create a high-level industry perspective on how their solutions, tools and/or technology can help support their customers' businesses, and how they see the industry evolving.

**FOCUS SESSIONS**

This year attendees can choose three of the six focus sessions offered during the convention. These smaller, more focused educational offers cover topics including:

- GCCA Global Advocacy Update
- Improving Food Loss and Food Waste in the Cold Chain
- Updated IARW Terms and Conditions – What's Changed?
- Outlook for Port Operations
- Trends in Warehouse Legal Liability Insurance
- The Rising Temperature of Talent: A Cold Chain Perspective

**131st IARW-WFLO Convention Supplier Showcase & Exhibitor List**

- Advance Storage Products
- American Energy Partners
- Automha Americas Automation Corp
- Avaska
- Baltimore Aircoil Company
- CMC Design-Build, Inc.
- Cold Jet
- Coldbox
- Dambach Lagersysteme USA, Inc.
- Datex Corporation
- Enchanted Rock, LLC
- Evapco Inc.
- FCL Builders
- Frazier Industrial Company
- GAF
- Gleeson Constructors & Engineers, L.L.C.
- Green Span Profiles
- Kingspan Insulated Panels
- Logix Refrigeration Controls
- M&M Carnot
- Maves International Software
- Performance Structural Concrete Solutions
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- Rack Builders Inc.
- Ramp Systems, Inc.
- Rytec Doors
- SSI Schaefer
- Stellar
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- Twintec / Kalman Floors
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- WFLO Scientific Advisory Council

List current as of September 27, 2022.

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### Shipping Activity Improving Nearly Across the Board: Air, Sea & Land Trends



Notes: Annual air-portal cargo volumes based on preliminary 2021 estimates, sea, rail and truck freight comparing quarterly totals.

Sources: Marcus & Millichap Research Services; Department of Transportation; Federal Aviation Administration; The Northwest Seaport Alliance; Port Authorities for Los Angeles, Long Beach, Houston, New York, New Jersey, Oakland, Savannah, Virginia, and South Carolina.

#### RAIL & TRUCK METRO'S HIGHLIGHTS

- San Diego (Otay Mesa): North American transborder freight continues to grow, benefiting industrial properties along key transit lines, Otay

#### CARGO AIRPORT HIGHLIGHTS

- Memphis: Air cargo demand globally reached pre-COVID-19 levels earlier this year, despite labor shortages and higher fuel costs, Memphis

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### COLD CHAIN CAFÉ

The Cold Chain Café creates an exchange of ideas and discussion on critical issues facing the industry. Participants choose from a list of different topics, join the table at which the issue is being discussed and spend 20 minutes sharing ideas. Participants then switch tables to discuss ideas.

These roundtable conversations provide attendees a chance to share ideas, ask questions and solve problems with their peers in a small group setting. The moderator will guide the participants through questions they have submitted in advance, diving into the subjects that matter most to attendees and the industry.

### PEER TO PEER

Peer-to-Peer Roundtable discussions are meant to be an interactive, fast-paced exchange of ideas and best practices on topics that are important to you. Attendees will be grouped into one of the following categories to promote robust conversations with their peers.

- Warehouse/3PL Owners & CEOs
- Warehouse/3PL Operations
- Warehouse/3PL HR & Talent
- Controlled Environment Design/Build
- Suppliers/Associates

### NETWORKING

Prominent social activities and the supplier showcase all give attendees and industry suppliers unparalleled access to build partnerships with key decision makers. Other networking opportunities include an opening night reception, a golf tournament, a themed party, an after-hours party as well as coffee breaks, breakfasts and group activities.

### SUPPLIER SHOWCASE

The Supplier Showcase provides an exclusive opportunity for companies that are looking for a sponsorship that provides a physical location at the event where customers and prospective clients can be hosted. All coffee and refreshment breaks will take place in the Showcase, providing ample time for sponsors to engage with attendees as they enjoy a cup of coffee while discussing business needs.

Sponsors may also utilize their space in the Supplier Showcase throughout the event for one-on-one meetings. Attendees will have the opportunity to talk to product/service suppliers.

See a current list of Showcase exhibitors in the side bar on page 25.

Visit <https://www.gcca.org/events/about-convention> to learn more about the 131st IARW-WFLO Convention! 📍



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# COLD CHAIN DEVELOPMENT

## NEWS ABOUT WFLO INTERNATIONAL PROJECTS

This column features news about key projects of the World Food Logistics Organization (WFLO), a GCCA Core Partner, and its work with members, aid organizations and international development partners to help emerging economies and lower-income countries meet the challenges that arise when growing a safe and efficient global cold chain.

### NEW PROJECTS

#### **Egypt Cold Chain Feasibility Study, 2022**

*Partnered with LixCap and local consultancies*

In August 2022, WFLO was awarded a contract to conduct a technical and commercial feasibility assessment of a cold chain project in Egypt. The project sponsors are jointly considering an investment to establish a third-party temperature-controlled logistics services provider in the country. The project sponsors intend to develop a cold storage network of modern TCL infrastructure across Egypt to address the poor quality of services, aging infrastructure and lack of capacity in the current market. This is WFLO's sixth new contract of 2022.

### ACTIVE PROJECTS

#### **Bangladesh Trade Facilitation (BTF) Project, 2020 – 2025**

*Partnered with Venture37 and LixCap*

As the project partners prepare for year three, WFLO is planning several industry strengthening and training exercises for public and private cold chain operators to improve existing cold storage facilities and systems, update policy and standard operating procedures and build cold chain capacity. Additional travel to the country is planned in 2022 to meet with local chambers and associations and interview individuals on cold chain activities and membership interest.

#### **Cambodia Market Systems Program, 2022 – 2023**

*Partnered with LixCap and Khmer Cold Chain Company (KCCC)*

WFLO is advising on the construction and startup of the Khmer Cold Chain Company facility at the LM17 port on the Mekong River in Phnom Penh, Cambodia. Team Leader and International Cold Storage Design Build Expert Richard Dowdell is reviewing facility specifications and offering guidance on best practices. The team is also recommending a variety of GCCA training to support the technical operations of the new facility.

#### **Dominican Republic TraSa Project, 2021 – 2025**

*Partnered with International Executive Service Corps (IESC)*

WFLO has carried out two regional study tours for the TraSa project. The first was a tour to the Miami Dade International Airport and Port of Miami, Florida, United States, followed by visits with cold storage facilities and government agencies in Laredo, Texas, United States. This tour was attended by customs officials from the Dominican Republic. The second tour took place in Veracruz, Mexico, where Dominican port inspectors met with cold storage warehouse operators and port authorities to discuss best practices for inspections to prevent breakdowns in the cold chain. Both study tours were greatly supported by GCCA members in the area.

#### **Egypt Rural Agribusiness Strengthening (ERAS) Project, 2019 – 2024**

*Partnered with Abt Associates Inc.*

Following Dr. Elhadi Yahia's successful trip to Egypt to provide mango postharvest advice and training to consultants and technical personnel, another trip will take place in September. This time he will be working with the pomegranate value chain.

When asked about his experience in Egypt, Dr. Elhadi said, "About 80% of all farms Egypt are small, as it is the case in most developing countries. Fruit farms and farmers in Upper Egypt, especially in the Governorates of Aswan and Luxor, are very small; mostly less than 2 hectares on average. This makes it difficult for such farmers to access markets and to receive technical and other types of support ... In addition to the much-needed technical support, support is also urgently needed for these farmers to cooperate in such a mechanism that allows them to access the markets without the total dependence on intermediaries as is currently the case. The project is working very hard toward these objectives, and excellent advances have been achieved."



*Lado Kirvalidze of the USAID APG project in Georgia on a site visit to a cold store at the wholesale market. There has been significant investment in cold stores to improve the cold chain in Georgia. Traditionally, fruits and vegetables at the wholesale market are not handled in a proper cold chain, so to have cold store at the market is a step in the right direction.*

#### **Georgia Agriculture Project, 2018 – 2023**

*Partnered with Cultivating New Frontiers in Agriculture*

WFLO Consultant Richard Tracy traveled to Georgia to support the cold chain industry for the Georgia Agriculture Project, thereby stimulating sustainable growth of the cold chain sector in Georgia. While in country, Tracy met with other trade associations, current members, equipment suppliers and retail shops to understand their needs and prepare for a Cold Chain Expo in the country in November.



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**Ghana Cold Chain Network,  
2022 – 2023**

*Partnered with LixCap, Sory @ Law, West African Coastal and Marine Engineering Services (WACAMS), and Maverick Research and Consultant*

The project has identified locations for development, recommendations for design build with respect to the country context and environmental impact and financing opportunities. In September, three webinars will be hosted to share the investment opportunities with GCCA's global membership and other interested parties.

**Southeast Asia Emerging Markets  
Program (EMP), 2019 – 2022**

WFLO has identified educational opportunities for stakeholders in the region, such as one-on-one consultations, virtual and in-person training, Cold Chain Connections, and/or a regional study tour. WFLO is planning to implement one or more of these events before the end of 2022. 🌐



*Dr. Elhadi Yahia provided training to smallholder Egyptian farmers in Upper Egypt on proper postharvest handling of mango during his trip to the country in June 2022.*

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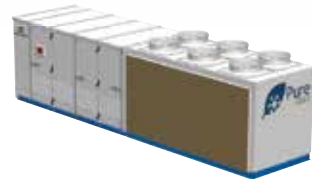
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# COLD CHAIN FEDERATION CORNER

## NEWS FROM THE UNITED KINGDOM

In April 2022, the GCCA and the United Kingdom's Cold Chain Federation announced a partnership agreement signalling a renewed commitment to building knowledge, networking opportunities and insights across borders. Here, Cold Chain Federation Chief Executive Shane Brennan continues his new series for COLD FACTS exploring hot topics for our industry in the United Kingdom and beyond.

### The Future of U.K. Cold Stores

This is a time of rapid change in U.K. cold storage: capacity has grown 10% in the past year, we have moved beyond the disruption of Covid restrictions, and we continue to adjust as post-Brexit trade flows evolve. But looking to the years ahead, the greatest driver of change in our industry will be the journey towards net zero.

The U.K. government has set in law a target for the national economy to reach net zero emissions by 2050, and regulation is becoming increasingly stringent. Added to the regulatory obligations, soaring energy prices have made the commercial case for energy efficient cold stores increasingly powerful too.

The U.K. cold storage industry's journey towards net zero is well underway. The Climate Change Agreement for cold storage has seen the sector beating its collective targets over the past decade. With this agreement between the U.K. government and cold storage operators, administered by the Cold Chain Federation, operators receive tax savings in return for meeting energy efficiency targets.

However, there is still a long way to go, and, in many facilities, the simpler changes have now been made. This means that significant investments in equipment or systems, or new construction or refurbishment works may be required to continue progress towards net zero. But our "Cold Store of 2050" report, published earlier in 2022, shows how wise investments could pay dividends in their own right.

The report explores how businesses can benefit from a more energy-efficient facility while at the same time harnessing commercial opportunities presented by the imminent

By incorporating on-site renewable energy generation or battery storage, for example, cold storage facilities can play a new role in the national net zero effort while also supporting their bottom line.

transition of the U.K.'s energy system. By incorporating on-site renewable energy generation or battery storage, for example, cold storage facilities can play a new role in the national net zero effort while also supporting their bottom line.

Cold storage sites are usually well suited to renewable energy generation thanks to their size, design and typical location. Solar panels, wind turbines and combined heat and power systems will become much more widespread in U.K. cold store construction in the coming decades.

As technologies advance, we can also expect the design and construction of U.K. cold stores to support approaches using waste heat to power district heating and air-cooling systems. Also expect demand side response, where cold stores can store energy by overcooling by a couple of degrees then switching off for a longer period of time. These cold stores of the future could also be constructed to act as virtual batteries or support physical batteries.

For these exciting visions to come to fruition, we will need a series of actions from the U.K. government. These include amends to the planning system to encourage, rather than

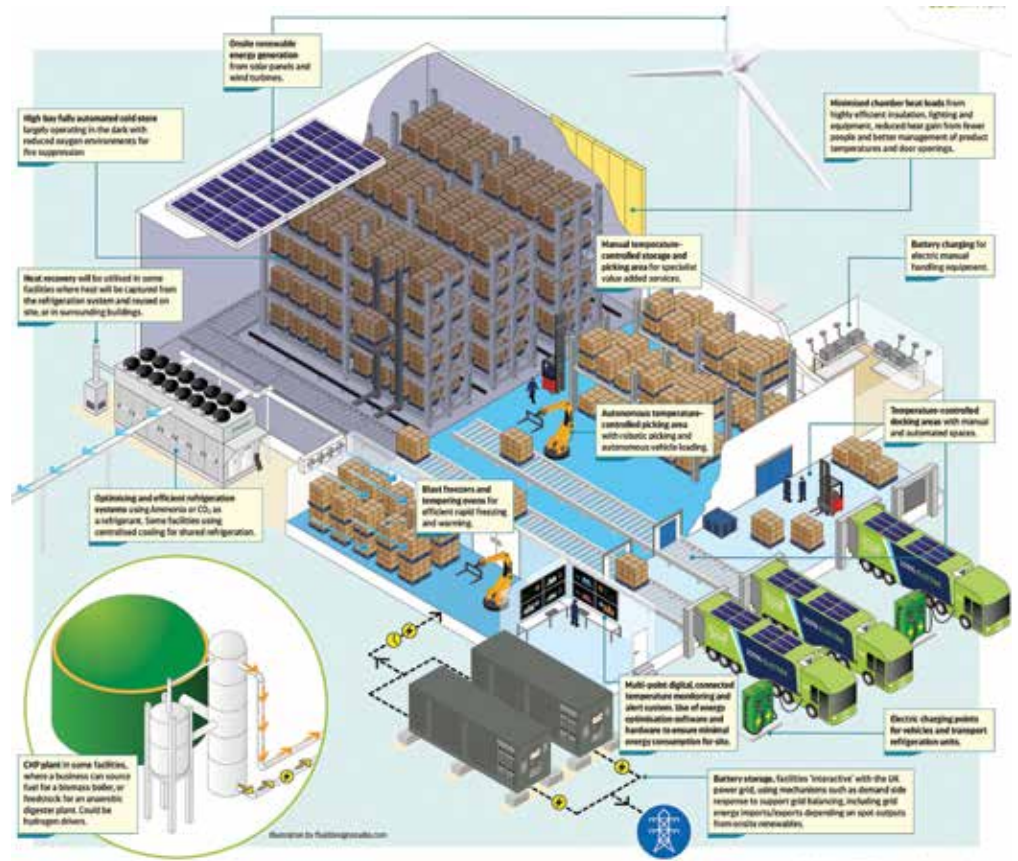


restrict, the installation of low-carbon infrastructure such as on-site energy generation at cold storage sites.

The Cold Chain Federation will be working with industry and government to bring about the changes that can open up these opportunities for the U.K.'s future cold stores.

Read the full "Cold Store of 2050" report at [www.coldchainfederation.org.uk/cold-chain-net-zero-project](http://www.coldchainfederation.org.uk/cold-chain-net-zero-project) @





Left: Cold Chain Federation Chief Executive Shane Brennan. (Photo courtesy of Cold Chain Federation.)

Right: Excerpt from 'Cold Store of 2050' report.

The Cold Store of 2050: increasing efficiency to reduce emissions and drive CB energy transformation

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SCAN ME

# COOL SOLUTIONS


## SCIENTIFIC ANSWERS TO COLD CHAIN CHALLENGES

This section highlights a cold chain question and answer submitted through the GCCA Inquiry Service to the team of experts on the WFLO Scientific Advisory Council (SAC), the roster of SAC members and abstracts on cool solutions written by SAC members. Submit your cold chain questions to the Scientific Advisory Council at [www.gcca.org/inquiry](http://www.gcca.org/inquiry).

To get instant advice from a private, online community of over 4,000 cold chain professionals, simply post your inquiry in the GCCA Online Community. All GCCA Members and their employees can access the GCCA Online Community at [community.gcca.org/home](http://community.gcca.org/home).

**Q:** After attending a cold chain training in the Dominican Republic, I had the following questions about banana storage and handling. What is the minimum temperature that a load of bananas can withstand? In your experience, with a container of bananas that is at the proper temperature, how long could the container maintain temperature without opening it?

**A:** The lowest temperature for bananas should be 13 degrees C or 55 degrees F. This is the lowest temperature bananas can withstand without facing degradation of quality. To your second question: It all depends on the temperature outside the container. However, the temperature inside the container will rise quickly, even if the outside temperature is not very high and the container is not opened due to fruit respiration. Therefore, even a closed container will not maintain temperature without proper refrigeration because of the generation of heat by the bananas.

Answer provided by Dr. Elhadi Yahia, Universidad Autónoma de Querétaro, Mexico, Postharvest Technology, Tropical Fruit & Produce Expert. 

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The WFLO Scientific Advisory Council is an eminent group of food scientists, logistics, and packaging experts from around the world. The council provides cutting-edge research and advice to members of the Global Cold Chain Alliance and its Core Partners.



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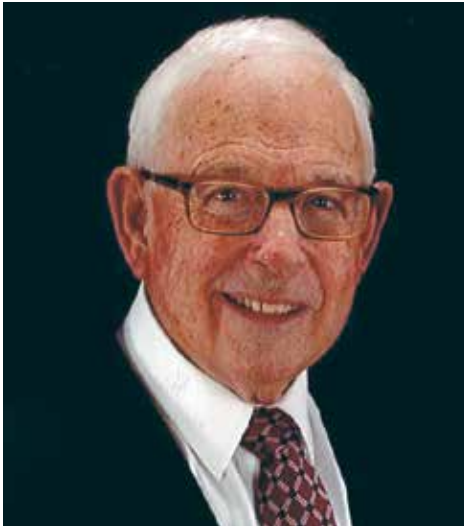
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**Have a burning cold chain question?  
Submit an inquiry to the Scientific Advisory Council  
at [www.gcca.org/inquiry](http://www.gcca.org/inquiry)**

# COOL SOLUTIONS: ABSTRACT

SCIENTIFIC ANSWERS TO COLD CHAIN CHALLENGES



**DR. CHARLES WHITE**  
Mississippi State University,  
Dairy Product Expert

While significant changes are being made in the dairy industry, there is a base of consistency that is critical. To make any type of dairy product, there are key steps that must be taken including using:

1. High quality raw milk (i.e., low microbial level, reduce possibility of pathogens, temperature control, good sensory properties, rapid and safe shipment, regulatory control features – water, bacteria and molds, etc.)
2. Raw milk/cream in-plant storage
3. Cleaned and sanitized processing equipment and lines
4. Proper operating equipment
5. Proper manufacturing of each product

6. Marketing and distribution of product
7. Protection from off-door and temperature control for all dairy products

The steps provided show the consistency required for all dairy products such as fluid milk (skim, low-fat, reduced fat and whole), ice cream, cheese, butter, cultured products (yogurt, sour cream, buttermilk) and any others.

The actual shelf life of these products is a critical value to the processor from an economic standpoint as well as from a quality and food safety point. Common causes of poor shelf life can vary based on the type of products being produced. With fluid milks, gram negative bacteria like *Pseudomonas* cause off-flavors but UV light can cause an oxidized flavor. Therefore, packaging and storage temperatures are critical. Storage conditions for cheese and butter can certainly affect the sensory properties of these

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two products. Raw milk quality cannot be overlooked. To start off with an off-flavor in the raw milk is almost a guarantee of an undesirable flavor when the consumer tastes the product.

The changes in the dairy industry are significant. Food safety-related regulatory changes involved detailed testing with rapid response to out-of-spec product. Improved techniques in lab testing have helped with response and accountability.

Products like cheese, ice cream and yogurt have seen dramatic improvement in sensory features such as flavor and body/texture. “Dairy” products are being made from plants as well as cows, sheep and goats. The processing requirements are similar.

The final decisions on these products will be made by the consumer – good idea! 🍷

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OCTOBER

### 131<sup>ST</sup> IARW-WFLO CONVENTION

8-12 OCTOBER 2022

San Diego, California, United States | Omni La Costa Resort & Spa

This annual gathering for IARW and WFLO features education, networking and business development opportunities for third-party logistics companies and warehouse operators.

**Large Company Audience:** Owners, CEOs, presidents, executive leadership teams.

**Small to Medium Company Audience:** Owners, presidents, senior executives.



### GCCA BRAZILIAN COLD CHAIN CONGRESS

20 OCTOBER 2022

Sao Paulo, Brazil

This educational event focuses exclusively on the temperature-controlled logistics industry and features opportunities and solutions for business development.

**Audience:** High-level executives in temperature-controlled warehousing or logistics.



NOVEMBER

### 42<sup>ND</sup> CEBA CONFERENCE & EXPO

7-10 NOVEMBER 2022

Amelia Island, Florida United States | Omni Amelia Island Resort

This annual meeting of CEBA members offers education, business development opportunities and networking for company executives managing the building of new cold storage facilities and cold storage builders.

**Large Company Audience:** Chief engineers, regional facility managers, regional facility maintenance leads, construction engineer managers.

**Small to Medium Company Audience:** Owners/CEOs who are building or expanding facilities, chief engineers.



### GCCA LATIN AMERICAN COLD CHAIN CONGRESS

16-17 NOVEMBER 2022

Bogota, Colombia

This meeting enables GCCA members and leaders in the temperature controlled industry to interact, learn about industry trends and expand their knowledge. The Congress also serves as a discussion forum for issues of interest to multi-regional cold chain industry leaders.

**Audience:** Senior executives in temperature-controlled warehousing or logistics.





JANUARY

## 59TH WFLO INSTITUTE WEST

8–10 JANUARY 2023

Tempe, Arizona, United States | Tempe Mission Palms Hotel at Arizona State University

This event, designed for employees with clear management potential and executives new to the industry, features more than 40 classes in warehouse management and transportation management taught by leading experts in the industry.

**Large Company Audience:** Warehouse managers, operations managers, warehouse supervisors, shift leads, workers with high potential for management, customer service managers, business development managers, transportation managers, executives new to the industry.

**Small to Medium Company Audience:** Warehouse managers, operations managers, workers with high potential for management.



## 59TH WFLO INSTITUTE EAST

29–31 JANUARY 2023

Atlanta, Georgia, United States | Georgia Tech Hotel & Conference Center

This event, designed for employees with clear management potential and executives new to the industry, features more than 40 classes in warehouse management and transportation management taught by leading experts in the industry.

**Large Company Audience:** Warehouse managers, operations managers, warehouse supervisors, shift leads, workers with high potential for management, customer service managers, business development managers, transportation managers, executives new to the industry.

**Small to Medium Company Audience:** Warehouse managers, operations managers, workers with high potential for management.



MARCH

## 26TH GCCA EUROPEAN COLD CHAIN CONFERENCE & EXPO

20–22 MARCH 2023

Barcelona, Spain | InterContinental Barcelona

Here, delegates gain a better understanding of market trends, industry challenges, business solutions, and technological innovations. The conference also provides ample networking opportunities, enabling attendees to meet and connect with professionals from throughout Europe and around the world.

**Audience:** Executives and managers from temperature-controlled, third-party logistics companies.



JUNE

## GCCA COLD CHAIN POLICY FORUM

19–21 JUNE 2023

Washington, DC | The Watergate Hotel

The GCCA Global Policy Forum is the premier policy event for businesses engaged in temperature-controlled logistics. Featuring education sessions and keynote presentations focused on rules and regulations that impact the cold chain, the Global Policy Forum is a must attend policy event for multiple regions across the world.

**Large Company Audience:** Executives with compliance and regulatory responsibility, members of safety and government affairs committees.

**Small to Medium Company Audience:** Owners, CEOs, executives with compliance and regulatory responsibility, members of safety and government affairs committees.



# MEMBER NEWS

## NEWS FROM MEMBERS OF GCCA CORE PARTNERS

**AMERICOLD** has expanded its footprint in Australia with the recent acquisition of De Bruyn Cold Storage in Tasmania. The acquisition will increase Americold APAC's pallet positions to nearly 300,000 across five states and 11 sites in Australia and seven sites in New Zealand.



**CWI LOGISTICS** announces the retirement of current company President Kevin Margeson, who, according to the company's succession plan, is to be succeeded by the current Vice President of Operations, John Hurst. Margeson began his tenure with CWI in January 2005, and will maintain an advisory role with the company for the next three years. Hurst brings more than 30 years of management and executive-level experience in the third-party logistics sector with both private and publicly traded companies.

**LINEAGE LOGISTICS** announced it intends to acquire Grupo Fuentes, an operator of transport and cold storage facilities headquartered in Murcia, Spain. Grupo Fuentes operates a fleet of over 500 vehicles and trailers, six logistics centers, a cold storage warehouse, and services supporting those facilities. It is also a founding member of Reefer Terminal, a strategic partnership to create an intermodal transportation platform combining road and rail cold-storage transport services.



**LINEAGE LOGISTICS** has acquired New Zealand cold storage business, Cold Storage Nelson Limited. The purchase further expands Lineage's presence in Asia-Pacific, offering an expanded New Zealand network and linking to a global network providing a platform for further growth in the region.

**MAERSK NA** announces plans for a new cold storage facility for Charleston, South Carolina, to serve imports and exports, opening in Q1 2023. **PRIMUS** is the builder.

The new facility will integrate cold storage solutions with ocean transit and drayage, refrigerated inland trucking, blast/quick freezing, USDA meat inspections, boxing/repacking, and other value-added services. It will be certified LEED Gold and have rooftop solar, a CO2 cascade refrigeration system, LEDs and smart lighting, low-flow water devices, rainwater recapture, electric car charging, and use a virtual power purchase agreement for clean power to offset any grid power consumption.



**PLM FLEET** has been recognized as a 2022 "Top Food Chain Technology" by "Food Chain Digest," the official magazine of Food Shippers of America. This award recognizes PLM



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# MEMBER NEWS

## NEWS FROM MEMBERS OF GCCA CORE PARTNERS

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Glenn Gress Jr., President of RLS Gress.

**RLS PARTNERS** recently announced Glenn Gress Jr. as President of RLS Gress, cold storage warehouse and transportation com-

pany in Scranton, Pennsylvania, United States. Gress is the third generation of the family in the industry – Gress’ grandfather, Edward, was a poultry distributor in the 1940s. The business evolved into a cold chain storage and transportation company with over 9 million cubic feet of cold storage and a fleet of temperature-controlled trucks operating throughout the Northeast United States.



**SIERRA SUPPLY CHAIN SERVICES** celebrated a ribbon-cutting ceremony of a new state-of-the-art facility, Sierra Cold, built by **TI COLD**. The \$65-million-dollar complex, located in Hamilton, Ontario, Canada, is a 65-foot-tall expansion consisting of early 164,000 square feet of storage space and 36,000 pallet positions bringing the facility’s grand total to 250,000 square feet and 30,000 square feet of food processing space.

**STELLAR’S** latest design-build project for Bell & Evans is a \$360 million organic-certified chicken harvesting facility featuring cutting-edge automation technology, European design finishes, numerous sustainability considerations and a process that prioritizes animal welfare. “Food Engineering” recently named it the 2022 Food Plant of the Year.

The 411,500-square-foot plant in Fredericksburg, Pennsylvania, features automation and robotics technology, including a smart vision system, a packaging area with robotic palletizing, and dock equipment configured to operate with a fleet of automated guided vehicles (AGVs). Sustainable elements that recycle 41% of daily water use, utilize waste heat and reduce the plant’s carbon emissions by more than half. 🌱



## HIGH-BAY WAREHOUSE FOR DEEP FREEZE INTRALOGISTICS AT ITS BEST

In Burley, Idaho, NewCold celebrated the grand opening of one of the largest frozen storage facilities of its kind. This impressive project includes a high bay warehouse with 90,000 pallet positions supplied by SSI SCHAEFER.

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# ASSOCIATION NEWS

## NEWS ABOUT GCCA CORE PARTNERS

**IARW** released the Q2 2022 GCCA Cold Chain Index in early September. The CCI tracks the growth rates of costs associated with cold storage using predominantly official sources of economic data. The CCI can be customized to where a warehouse facility operates, and includes the cost shares typical of a North American refrigerated warehouse. Property rent or lease was the largest share of expenses, at 45% of the total. Labor represented 34% of total expenses. Electric power accounted for 9% of total expenses. More details can be found under the Resources tab on the GCCA website.



Don't miss the chance to have your operations team participate in the #1 temperature-controlled warehousing and logistics training

program. The **WFLO** Institute program offers more than 40 classes taught by industry experts. With two great locations on opposite sides of the country, over two different dates, our experienced faculty will help your employees gain valuable skills and tools to benefit their careers and your organization. The WFLO Institute West will be held January 8-10, 2023, at the Tempe Mission Palms at Arizona State University in Tempe, Arizona, and the WFLO Institute East will be held January 29-31, 2023, at the Georgia Tech Hotel & Conference Center in Atlanta, Georgia. Registration is now open for both Institutes.



The 42nd **CEBA** Conference & Expo will take place November 7-10, 2022, at the Omni

Amelia Island Resort in Florida. This much anticipated event is the only event in the world dedicated to best practices in controlled environment facility construction, design and maintenance. Dr. Anirban Basu, Chairman & CEO of Sage Policy Group, Inc., an economic and policy consulting firm, is this year's keynote speaker. In 2014, Maryland Governor Larry Hogan appointed him Chair of the Maryland Economic Development Commission (2014-2021). Dr. Basu serves as Chairman of the Baltimore County Economic Advisory Committee, is the Chief Economist to Associated Builders and Contractors, the Chief Economist of the Maryland Bankers Association and Chief Economic Advisor to the Construction Financial Management Association. Additional information on the conference as well as links to register are posted on the CEBA website. 🌐



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# NEW MEMBERS

## NEW MEMBER COMPANIES OF GCCA CORE PARTNERS

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United States

**Centigrade Logistics**  
Englewood, New Jersey, United States

**Digistics**  
Johannesburg, South Africa

**IceCap Cold Storage**  
Council Bluffs, Iowa, United States

**NorthPoint Fresh**  
Chicago, Illinois, United States

**Triple Temp Cold Storage LLC**  
Austin, Texas, United States

### IARW ASSOCIATE MEMBERS

**American Energy Partners Inc.**  
Monterey, California, United States

**Bain Capital**  
Boston, Massachusetts, United States

**Clauger North America**  
Jacksonville, Florida, United States

**Dambach Lagersysteme USA Inc.**  
Charlotte, North Carolina, United States

**Dexion**  
Toronto, Ontario, Canada

**EVAC North America Inc.**  
Cherry Valley, Illinois, United States

**Grupo Frio Integral**  
Santo Domingo, Dominican Republic

**Isowall**  
Pretoria, South Africa

**Johns Manville**  
Fort Wayne, Indiana, United States

**Metal Roofing S.A. De C.V.**  
Zapopan, Mexico

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**Dexion**

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**Emerson Electric**

Brantford, Ontario, Canada

**EOS Distribution**

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**EVAC North America Inc.**

Cherry Valley, Illinois, United States

**Everidge**

Plymouth, Minnesota, United States

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**Great River Energy**

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**Johns Manville**

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Technologies Ltd.**  
Victoria, British Columbia, Canada

**Digistics**  
Johannesburg, South Africa

**Grupo Frio Integral**  
Santo Domingo, Dominican Republic

**IceCap Cold Storage**  
Council Bluffs, Iowa, United States

**LTI Trucking Services**  
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**NorthPoint Fresh**  
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**WFLO MEMBERS**  
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# COOL PERSON

PROFILING INFLUENTIAL PEOPLE CONNECTED TO THE COLD CHAIN INDUSTRY



## LARNA JODAMUS

Larna Jodamus, Compliance Manager, CCS Logistics, Cape Town, South Africa, is the recipient of the 2022 GCCA Africa Future Leader Award, presented during the GCCA South African Cold Chain Conference, held in early August. Finalists were judged and evaluated on their knowledge level of the industry, track record of excellence, communication skills and leadership skills.

### **CF:** Describe how you contributed to a recent company success.

**LJ:** My proudest moments at CCS Logistics centered around the role I played in instilling a culture of daily compliance. This culture set the scene for the implementation of the Food Safety System Certification 22000 (FSSC 22000) standard. As a service provider to the food manufacturing industry, obtaining this globally recognized certification is indicative of the organization's commitment to food safety.

In September 2021, the first CCS depot was audited and certified. Since then, four additional depots have been certified. CCS is the first division within the Oceana Group to obtain this certification and one of the first FSSC 22000 certified cold stores in South Africa.



To effectively infiltrate operations and push the compliance agenda, I needed to collaborate with my stakeholders as opposed to issuing instructions."

### **CF:** What is the most valuable industry skill you have developed?

**LJ:** If I had to choose one, it would be the ability to collaborate effectively with others to ensure successful implementation of change. I've learned that compliance cannot operate as a silo. To effectively infiltrate operations and push the compliance agenda, I needed to collaborate with my stakeholders as opposed to issuing instructions. Issuing a new procedure or implementing a change without obtaining buy-in from the operations teams would often be met with resistance and implementation would be unsuccessful.

I've been mentored by some great leaders during my 10-year tenure at CCS who have helped me develop this skill.

### **CF:** What is your next step in your professional to development?

**LJ:** The next step in my career revolves around two focus areas – the GCCA Food Safety and Compliance Forum, and growing as an industry leader.

As Chairperson of the GCCA Food Safety and Compliance Forum, I work with compliance managers from various cold storage facilities in South Africa. This has given me insight into industry challenges. Having this intel, coupled with a good understanding of the regulatory framework and my three-year strategic plan for the forum, my goal is to build relationships with key persons in government agencies. My intention is to establish myself in the industry

as the key contact person for all regulatory matters to facilitate industry collaboration with government agencies.

### **CF:** What is your vision for the future of the third-party temperature-controlled logistics industry?

**LJ:** I hope to see more collaboration efforts between regulatory bodies and the third-party cold storage industry. Organizations like the GCCA have taken great strides in providing platforms to allow professionals like myself to connect, discuss and share best practices with the intent of raising the level of food safety compliance in our industry. As consumer awareness around food safety increases so will legislative and customer requirements.

### **CF:** What can the industry do to recruit and retain young, talented professionals?

**LJ:** Our industry is faced with a shortage of scarce skills, and we're battling to attract skilled workers. Let's face it, working in the cold storage industry is a career path most graduates never think of. And yet there are so many career paths available within this industry from supply chain management, to finance, to engineering and more. I think that we need to invest in the development of our employees to fill those skills shortages and consider partnering with universities and trade schools to offer paid internships for scarce skills roles. ☺



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