

Year of the Disruptors

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MESSAGES FROM GCCA LEADERS

GCCA in 2023: Strengthened Partnerships and Growth Opportunities

AS I LOOK BACK ON 2022, I AM EXTREMELY PROUD OF EVERYTHING THAT OUR STAFF, OUR BOARD LEADERSHIP AND OUR MEMBERS WERE ABLE TO ACCOMPLISH OVER THE COURSE OF AN EXTREMELY BUSY YEAR OF GROWTH AND PROGRESS.

Operationally and programmatically, all our core partners were able to improve and grow member programs, events and services. The IARW-WFLO Convention in San Diego, the CEBA Conference and Expo, and regional events held across the world all saw record sponsorship and registration numbers. Our award rate and revenue for WFLO international project work were at near record numbers as we once again were able to put boots on the ground and assist with cold chain development around the globe.

As we celebrate the many successes of 2022, it is also important to note the tremendous amount of time and effort put in by our boards of directors. These volunteer leaders dedicated their time and expertise and contributed to decisions that will strengthen our ability to serve all of our members across the world moving forward.

Announced in the summer of 2022, the boards of the International Association of Refrigerated Warehouses (IARW) and International Refrigerated Transportation Association (IRTA) agreed to merge into one organization and to be called the Global Cold Chain Alliance (GCCA) effective in 2023. Operating as one organization also affords us a tremendous opportunity to showcase thought leadership and enhance cross-community engagement between two vital sectors of the global supply chain.

In addition, the board of governors for the World Food Logistics Organization (WFLO) undertook a strategic planning initiative to

better clarify the mission and focus of the foundation arm of GCCA. Through the work of a task force – comprised of members from WFLO, IARW, IRTA and CEBA – three key components of a new strategic plan emerged – research, training and cold chain development. The strategic plan will create the pathway for the foundation to be the go-to source of data/intelligence for the industry, to provide best-in-class training for the cold chain work force and to continue to develop temperature-controlled infrastructure in emerging markets.

During this planning process, it was determined that a change was needed to better align the name of the foundation and its vision for the future. The result is WFLO is now the Global Cold Chain Foundation (GCCF).

The Controlled Environment Building Association (CEBA) has made updates to their governance that will better position them to serve their members and grow their presence globally. CEBA will continue to have a strong relationship with both GCCA and GCCF and be a key partner in joint initiatives. These include advocating on behalf of the industry, educating and training future leaders and developing valuable tools and resources for the collective memberships.

While 2022 was a great year, I am extremely excited about what has yet to come in 2023 and beyond. The associations have never been stronger, and we are in a fantastic position to continue to grow the organization and the value proposition that we serve to our members in 2023 and beyond. Here's to another great year! 🍷



MATTHEW OTT, CAE, CMP
PRESIDENT AND CEO
GCCA

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 warehousing, transportation and logistics industry.



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Design by SWALLIS Design, Dallas, Texas, USA.

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FDA ISSUES FINAL RULE ON FOOD TRACEABILITY

GCCA members in the United States are encouraged to prepare for compliance.

By Lowell Randel



In November 15, 2022, the Food and Drug Administration (FDA) issued a final rule on food traceability designed to facilitate faster identification and rapid removal of potentially contaminated food from the market, resulting in fewer foodborne illnesses and/or deaths. The new rule is part of the Food Safety Modernization Act (FSMA) and implements Section 204(d) of the legislation. FDA was under a court order to complete the rulemaking by November 2022.

At the core of the rule is the Food Traceability List (FTL), which designates a series of foods that, when handled by companies across the supply chain, trigger the rules requirements.

The FTL includes fresh cut fruits and vegetables, shell eggs, nut butters, certain fresh fruits, fresh vegetables, ready-to-eat deli salads, cheeses and seafood products. FDA added the word “fresh” to certain foods, to clarify that these foods are only on the FTL in their

fresh form. If a food designated as “fresh” on the FTL is changed to a non-fresh form (e.g., through freezing or drying), then the food would no longer be on the FTL.

For example, fresh spinach is on the list, but frozen spinach would not be covered by the rule because only the fresh form of this product is listed on the FTL. Frozen cheese is also not on the FTL and therefore not covered by the final rule. However, for finfish, crusta-

ceans, and molluscan shellfish, both the fresh and frozen forms of those products are on the list and covered by the final rule.

Meat and poultry continue to be under the jurisdiction of the U.S. Department of Agriculture and are not included on the FTL. In addition, foods intended for consumption by animals are not covered by the FTL.

Facilities that manufacture, process, pack or hold food on the FTL are required to maintain records including Key Data Elements (KDEs) related to Critical Tracking Events (CTEs). Covered firms and farms, retail food establishments and restaurants will be required to provide information to the FDA within 24 hours, or some reasonable time to which the FDA agrees.

Critical Tracking Events

Below are the CTEs identified by FDA for purposes of the rule. GCCA members may be engaged in multiple CTEs, depending on what services are provided to customers that are related to FTL foods. At a minimum, many



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refrigerated warehouses will be involved in “Shipping” and “Receiving.”

Harvesting

Harvesting applies to farms and farm mixed-type facilities and means activities that are traditionally performed on farms for the purpose of removing raw agriculture commodities (RACs) from the place they are grown or raised and preparing them for use as food.

Cooling

Cooling means active temperature reduction of a RAC using hydrocooling, icing (except icing of seafood), forced air cooling, vacuum cooling or a similar process.

Initial Packing

Initial Packing means packing a RAC, other than a food obtained from a fishing vessel, for the first time.

First Land-Based Receiver

First Land-based Receiver is the person taking possession of a food for the first time on land, directly from a fishing vessel.

Shipping

Shipping is an event in a food’s supply chain in which a food is arranged for transport (e.g., by truck or ship) from one location to another location. Shipping does **not** include the sale or shipment of a food directly to a consumer or the donation of surplus food. Shipping does include sending an intracompany shipment of food from one location at a particular street address of a firm to another location at a different street address of the firm.

The rule defines shipping to mean an event in a food’s supply chain in which a food is arranged for transport (e.g., by truck or ship) from one location to another location. Records must be kept regarding both locations, i.e., the location where the shipping event began and the location where it ended (i.e., where the food was received). However, it is not necessary to have records of the route the food took, including any instances where it may have been moved from one carrier to another.

The rule requires that records be kept when a product changes physical location, regardless of whether the shipper and receiver are under the ownership or operational control

of the same company (as in an intracompany shipment). Therefore, the definition of “shipping” in the final rule specifies that it includes sending an intracompany shipment of food from one location at a particular street address of a firm to another location at a different street address of the firm; FDA has added a similar clarification to the definition of “receiving.”

Receiving

Receiving is an event in a food’s supply chain in which a food is received by someone other than a consumer after being transported (e.g., by truck or ship) from another location. Receiving includes receipt of an intracompany shipment of food from one location at a particular street address of a firm to another location of the firm at a different street address.

Transformation

Transformation is an event in a food’s supply chain that involves manufacturing/processing or changing a food (e.g., by commingling, repacking or relabeling) or its packaging or packing, when the output is a food on the FTL. Transformation does not include the initial packing of a food or activities preceding that event (e.g., harvesting, cooling).

FDA defines transformation as an event in a food’s supply chain that involves manufacturing/processing a food or changing a food (e.g., by commingling, repacking or relabeling) or its packaging or packing, when the output is a food on the FTL. Repacking an FTL food is always a transformation event under the rule, and it often (but not always) will require a new traceability lot code.

Key Data Elements

For each CTE, FDA has established a set of Key Data Elements (KDEs) that are required related to the covered food. KDEs are the key pieces of information that a company must maintain and have available for FDA upon request. For example, the Receiving KDEs are:

- Traceability lot code for the food
- Quantity and unit of measure of the food
- Product description for the food
- Location description for the immediate previous source (other than a transporter) for the food
- Location description for where the food was received

- Date you received the food
- Location description for the traceability lot code source or the traceability lot code source reference
- Reference document type and reference document number

Traceability Plan

All facilities subject to the rule must develop a traceability plan. Such plans must include the following elements:

- Description of the procedures you use to maintain the required records, including the format location of the records.
- Description of the procedures you use to identify foods on the FTL that you manufacture, process, pack or hold.
- Description of how you assign traceability lot codes to foods on the FTL, if applicable.
- Statement identifying a point of contact for questions regarding your traceability plan and records.
- You must update your traceability plan as needed to ensure that the information reflects your current practices and to ensure you are in compliance with the rule.
- You must retain your previous traceability plan for two years after you update the plan.

Compliance Date

FDA has stated that because the Food Traceability Final Rule requires entities to share information with other entities in their supply chain, the most effective and efficient way to implement the rule is to have all persons subject to the requirements come into compliance by the same date. The compliance date for all persons subject to the recordkeeping requirements is **January 20, 2026**.

GCCA members are strongly encouraged to familiarize themselves with the new rule and begin preparing for compliance. FDA is expected to provide additional guidance to industry regarding the rule, and GCCA will provide additional information to members when it becomes available. 📧

LOWELL RANDEL is Senior Vice President, Government and Legal Affairs at GCCA.

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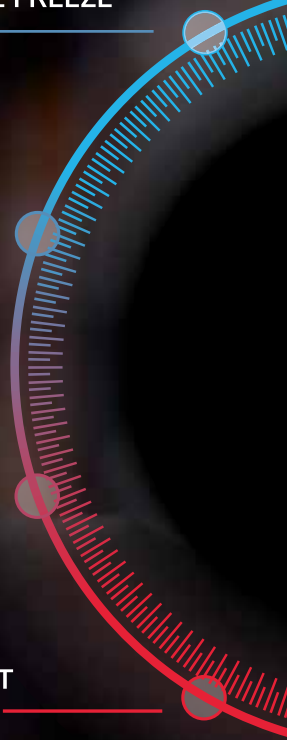
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YEAR OF THE DISRUPTORS

Supply chain dysfunction, skyrocketing costs and labor and inflation challenges fail to slow cold chain industry growth.

The cold storage industry has good news to report. The visibility and need for the cold chain is increasing significantly, as it did throughout the pandemic. The public realizes it is dependent on a global cold chain, and the world pays more attention to how food moves through the system. Consequently, the cold chain industry continues to grow domestically and globally with a nearly 35% increase from 2021 to 2022, based on GCCA member capacity.

This growth, however, is juxtaposed against a cold storage industry dealing with multiple disruptions.

“An ongoing shortage of labor, the rising cost of energy, continuing natural disasters and the threat of more regular events due to climate change, geo-political tensions and general global economic instability have brought a focus on the nation’s food supply chain and its risks and vulnerabilities,” says Graham Harvey, Global Vice President Quality, Safety and Sustainability, NewCold. “Cost and supply pressures are mounting from several fronts for all participants in the cold chain.”

And the number one disruptor depends on where in the world you operate. However, GCCA members are meeting these challenges and adapting to changing conditions with creativity and collaboration with customers and other stakeholders across the supply chain.

Disruption Snapshots

United States

In the United States, as in many parts of the world, ongoing challenges resulting from strained global supply chains is the number one disruption impacting the cold storage industry, according to Lowell Randel, Senior Vice President, Government and Legal Affairs, GCCA.

Another significant disruptor in the U.S. cold chain industry is access to consistent and reliable labor. “Shortages of truck drivers along with warehouse talent continue to be critical,” says Randel. “Added to that, in the United States the most pressing labor issue of the moment is uncertainty over whether rail workers will strike or not. Plus, ongoing challenges with port labor on the U.S. West Coast might be mirrored in East Coast ports in the future.”

A third disruptor is the impact of skyrocketing costs and inflation, says Randel.

“Labor and energy are the top two expenditures for the cold storage industry and these expenditures, along with the cost of materials, equipment, energy, containers, chassis, pallets – all the things that make the supply chain go – are rising steeply,” Randel notes. “In many cases, equipment and materials are also harder to find and acquire.” He adds that new equipment, particularly energy equipment, has increasingly long lead times bringing uncertainty and difficulty to planning and operations.

Australia

Labor pricing and availability is a key disruptor to the Australian cold storage industry, says Harvey.

“More than 80% of businesses are reported as suffering from skilled labor shortages and the cold chain is no exception,” Harvey points out. “Attracting and retaining key talent is a problem in the skilled areas, and an acute shortage exists now. Australia’s extended restrictions on immigration and seasonal workers over the two years of COVID lockdowns have dramatically slowed a key source of labor.”

As in the United States, it is not just in warehousing that labor shortages are emerging. “There is a significant shortage of truck drivers across Australia’s transport industry. In specialist areas such as certified tradespeople, it is extremely difficult to recruit and retain talent,” Harvey says. “For many operators, the hours for a longhaul truck driver or seven-day coverage for shift work at warehouses make these positions less attractive compared to other industries. Pay rates of specialist personnel are increasing at alarming rates.”

Harvey says Australia has also seen a significant increase in electricity costs in the past couple of years. “This is due to a number of factors including global conflicts

impacting global commodity pricing as well as local factors of reduction of thermal power generation and unplanned outages at multiple power generators.”

For transport companies operating in the cold chain, the cost of fuel is a major component not only for the vehicle, but also for the refrigeration unit. “Although Australia is a producer of oil, the parity pricing of this commodity in Australia is seeing a significant cost increase in vehicle fuel costs as well as increased volatility in pricing,” Harvey explains.

Another key disruptor in the Australian market is the effect of supply chain imbalances and the flow of containers through ports. “This has not recovered since COVID and is impacting import and export of goods as well as import of spare parts, key ingredients, and packaging for frozen food production,” Harvey notes. “Empty containers to fill for export have also been in a tight supply.”

Harvey adds the returnable pallet market in Australia has also been disrupted over the past year as inventory imbalances have resulted in a national shortage. This impacts not only producers, but also warehouses requiring pallets for picking and outbound distribution.

The ongoing tension in the Ukraine is another major factor causing disruption to the cold supply chain, says Harvey. “All indications are that it is not expected to ease in the short term, and this will continue to hold commodity prices elevated for some time. Even when the conflict does end, the lessons learned for the reliance on a single or major source of energy or other commodity will continue to reshape future global supply chains and commodity sourcing.”

Brazil

One of the most critical and potentially disruptive factors for the cold storage industry in Brazil is electricity. In general, it is a regulated



but volatile market, dependent on investments, incentives and climate variations, which have a major impact on price and supply, according to Andre Angola, Head of Engineering, Maintenance and Facilities at SuperFrio Logistica Frigorificada.

Angola explains that in Brazil, the market for buying and selling energy through the CCEE (Electric Energy Chamber of Commerce) has increasingly allowed demand and supply to promote win-win relationships between those who produce and those who consume.

Public and private investments have transformed the electricity market, notes Angola. “They have a direct effect on the generation matrix, increasingly from sustainable sources, which today represents almost 85% of the Brazilian energy matrix with demand growth of around 3% per year, according to estimates from the Ministry of Mines and Energy,” he says.

Angola notes another important point of impact is the use of electricity by the government as an object of social policies, incentive/fostering and inflationary control in the country.

“Within the operational area, there is a need to improve the quality of supply to some regions of Brazil, especially in the north and northeast,” Angola points out. “In these regions there are supply interruptions and voltage instability impacting the operation of storage units, increasing maintenance costs, increasing the risk of loss of customer inventory and

consequently affecting business results.”

Angola says another important disruption to the cold chain in Brazil is the lack of technical knowledge and trained professionals in the industry.” In general, the facilities have little embedded technology as a result of the high cost of equipment imports and installations are currently built with technology from the last century,” explains Angola. “This scenario causes ruptures to occur linked to structural problems that could be avoided in the project phase or in the conservation of assets.”

Angola notes it is important to highlight that the lack of technical knowledge is not only related to the engineering, but also to warehouse operations. “The complexity of operational demands requires specific knowledge of refrigerated logistics, often not found in the workforce available in some regions of the country.”

Asia, Middle East and Europe

“Over the last two to three years, our industry has become increasingly resilient, or perhaps less surprised and faster reacting, to disruptors,” says Richard Winnall, Chief Operating Officer, International, Americold. “Every day we are living through material disruptions to our industry, some of which play out very quickly – such as cyberattacks or weather events – and others that play out in slow motion – such as competition for talent or

spikes in energy prices.”

Winnall notes the primary disruptor across the regions he leads is competition for talent.

“I do not think many would argue that government stimulus spending through and after COVID-19 disruptions has driven goods and services demand, and with that, wage demand. Our employees have never had more options to find a new job and, perhaps, better remuneration or conditions,” Winnall points out. “However, there are also many people weighing their work life balance and leaving full-time employment to devote themselves more to their families or other interests.”

Winnall says in employee conversations and the exit interview process across Asia Pacific and Europe, family caring responsibilities have become the largest reason for workplace absenteeism and a major reason for leaving a job.

“As industry operators start to experience higher employee turnover, they need to immediately respond with higher recruitment volumes and training,” asserts Winnall. “If not already geared to do this with high competency and speed, you will see real service issues and productivity issues across the business as the experienced talent moves to the competition or other industries.”

Winnall says criminal cyberattacks are also a constant threat to the industry. “However, there is a lot we can do to protect ourselves. This effort requires ever increasing and justified investments into our systems and must include employee training, breach testing and then more training.” Winnall says he suspects the industry will never stop running from this threat.

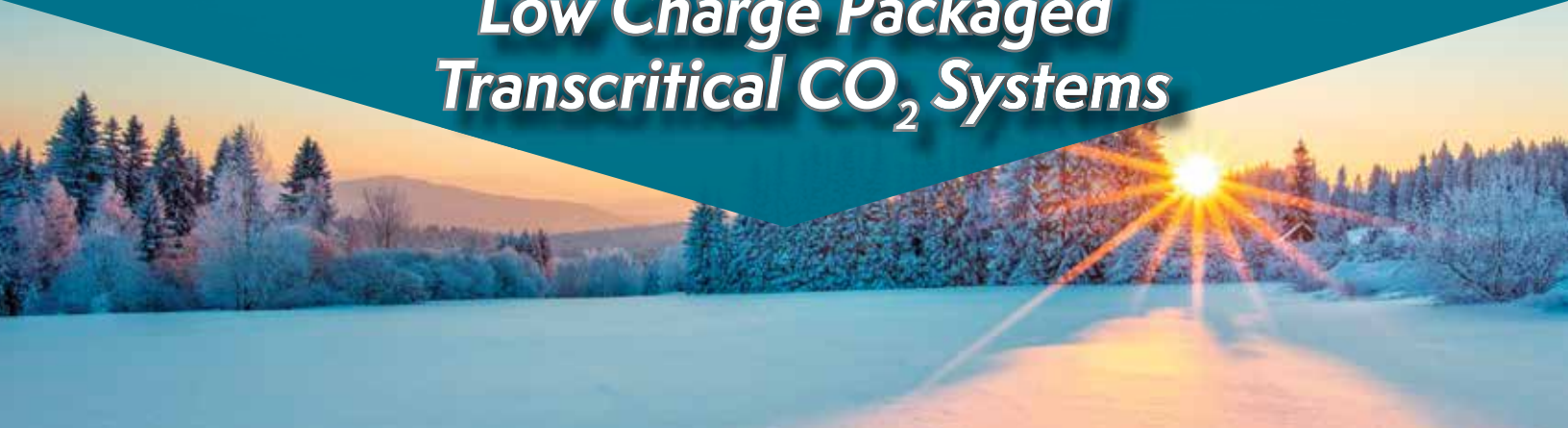
“Weather events that impact the supply chain can have major consequences for our business and our customers,” acknowledges Winnall. “Perhaps weather events can be reduced in the future by our whole industry coming to the carbon reduction agenda with real commitment and integrity. Americold, like many others in the industry, has taken our largest ever steps in the last 24 months towards a carbon-neutral future model.”

United Kingdom

“The United Kingdom has navigated a series of crises over the course of the past three years, each of which has disrupted the cold storage industry,” notes Shane Brennan, Chief Executive of the U.K.’s Cold Chain Federa-



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tion. “While we have largely moved on from the volatility linked to the pandemic, there are three primary disruptors which continue to have a significant impact on the U.K. cold chain industry: soaring energy costs; a challenging recruitment environment; and changes to regulations and trade flows between Great Britain, Northern Ireland and the European Union following the U.K.’s exit from the European Union.”

Brennan says the extreme increase in energy costs is part of the global crisis and could not, realistically, have been completely avoided. “However, had government policy focused on energy resilience and renewables over the past decade rather than an overreliance on imported fossil fuels, our national exposure to this type of global energy shock could have been reduced,” Brennan observes. “The U.K. government and businesses alike must make these shifts now, and the cold storage operators that have been investing in renewable generation and improving the energy efficiency of their operations are going to be better off in both the immediate and longer term.”

The severe people shortage across the U.K. logistics industry in 2021 has eased to a degree, but the recruitment of drivers and warehouse operatives remains challenging, admits Brennan.

“A complex mix of factors led to this people crisis including the impacts of the COVID pandemic, a change to the U.K.’s self-employment tax rules that altered the relationship with agencies and strong competition from other sectors,” Brennan suggests. “However, the problem was exacerbated by a long-term trend towards an ageing U.K. logistics workforce. There are lessons for our industry to learn about putting greater focus on recruitment and retention, and investing in technologies that will help to improve resilience for the future.”

“As for the disruption caused by post-Brexit changes to regulations and trade flows, the food supply chain has needed to follow new processes as a result of the agreements made between U.K. and EU leaders and adapt to their impacts on trading relationships,” Brennan notes. “This is a specific inflationary and depressionary factor for the U.K. food industry, and cold chain operators are having to find new solutions to provide affordable and non-disrupted supply chains.”

“The war in Ukraine, and Brexit and COVID-related supply chain shortages have been once-in-a-lifetime events all squeezed into the last three years!”

RICHARD WINNALL, *Americold*

Regulatory Disruption and Advocacy

The necessity for the cold chain continues to be very strong. That is good news. But the strong demand for cold chain services in turn demands a functional supply chain with the labor, equipment and materials to make it all run. This places more emphasis than ever on the importance of advocacy efforts to mitigate disruptions, points out Randel.

He notes in the United States, agencies such as the Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA) and the Food and Drug Administration (FDA) are preparing to take significant regulatory actions that will have a direct impact on the supply chain.

“The EPA is advancing regulations for its Risk Management Program, and many companies using ammonia as a primary refrigerant will have added burdens down the line from EPA and OSHA,” Randel explains. “Now law, the AIM Act directs the EPA to implement an 85% phasedown of the production and consumption of hydrofluorocarbons by 2035, pressuring industries using synthetic refrigerant to move to some alternative in the future.”

Randel advises food regulatory changes are also imminent as the FDA foods traceability rule was finalized in November 2022. “Food safety is among those changes, and many products are on the FDA’s food traceability list.”

In Australia, the government has introduced the Climate Change Bill 2022. The bill legislates the nation’s commitment to reduce greenhouse gas emissions by 43% below 2005 levels by 2030, and net zero by 2050.

“The impact of this will be significant for the Australian cold chain due to the high input energy usage and will require technological innovation and investment,” explains Harvey. “There is no doubt reporting on climate

related activities will increase. As requirements are introduced in other countries, it will rapidly flow to Australian companies.”

Disruption Mitigation

The Refrigerated Warehouse and Transport Association (RWTA) recently joined the National Food Supply Chain Alliance (NFSCA), which represents all facets of Australia’s food supply chain.

Harvey notes the Alliance and RWTA executives recently met with Ministers in Canberra. Discussion revolved around the creation of a supply chain strategy in Australia ensuring food security and meaning government and industry will have oversight for major disruptors facing the food supply chain.

“We believe that government and industry must work together to fully understand the complexities of the supply chain and how specific events might impact the various linkages,” explains Harvey. “This approach incorporates the entire ‘living’ food supply chain ecosystem, from paddock to plate, encompassing production, processing, distribution, retail, consumption and disposal. From the perspective of both government and industry, research has shown there are many social and economic benefits from a more efficient, more sustainable and self-sufficient national supply chain.”

Harvey says this government-industry strategy will provide more stability to food-related businesses, boost innovation and technology, enhance the nation’s food processing capacity, create jobs and, most importantly, provide the community with the confidence it needs in the nation’s food security.

In Brazil, Angola says efforts have been made to invest in increasing the supply of electricity ensured through long-term contracts with both public and private investors in the electricity sector.

“In addition, another important compo-

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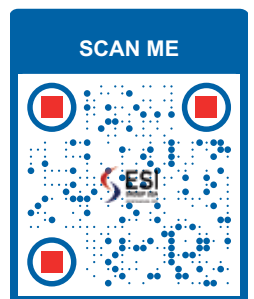


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ment for the sustainability of operations, and which is present in industry efforts, is the promotion of electricity generation from renewable sources, with emphasis on solar and wind energy,” adds Angola. He says this renews the commitment of organizations with ESG (Environmental, Social and Governance) practices and culture. “Investments in smart and sustainable buildings should be guidelines to mitigate the short, medium and long-term negative effects.”

Winnall says he imagines every company in the industry is working to become a better employer, have stronger cybersecurity controls or better communication protocol with customers in times of disruption.

“It is obviously a source of competitive advantage in our industry, but we also compete for these precious resources across many industries,” Winnall acknowledges. “There is no one play book for a company to mitigate these disruptions, but there is a lot of research, service companies and consultants ready to support your company if you do not already have the internal competency, experience and track record to deal with your specific challenges.”

“The mitigations that have been put in place to cushion the harsh impacts of sky-high energy costs are very significant, both those enacted by the U.K. government and the measures taken by cold chain operators,” Brennan explains. “Government is supporting businesses through its Energy Bill Relief Scheme until Spring 2023, while cold chain operators have been improving energy efficiency wherever possible and there has been heavy investment in solar power generation on cold store sites.”

In terms of the challenges of recruitment and retention, Brennan says cold chain businesses have been working to ensure they provide an attractive proposition through improvements to facilities, employee packages and career progression opportunities. “Across the U.K. logistics sector more widely, the collaborative Generation Logistics campaign was launched this year to help attract, identify and develop a new and diverse generation of talent to fill vacancies and help future-proof the sector.”

Brennan adds the U.K. cold chain has become more familiar with post-Brexit systems and has found new ways to work such as increased digitization and greater dialogue

with Customs. “The cold chain – and the United Kingdom as a whole – continues to navigate this period of transition while the United Kingdom and the EU settle into a new relationship and as we look to global trading opportunities.”

Disruption Tomorrow

Harvey has no doubt disruptions will continue to arise in the future in the cold chain in Australia.

“The effects of the pandemic-led global supply chain disruption will take months to normalize and it is very unlikely to return to pre-pandemic levels of cost and efficiency any time soon,” Harvey contends. “The impacts of global conflicts will always threaten stability, and the tensions in Southeast Asia, particularly with China, are always present. The impact of any conflict there or elsewhere could be catastrophic for the Australian industry in terms of trade, material supply and cost.”

A future challenge for the industry in general are the new demands for services and the demands of consumers, says Angola. “E-commerce, food delivery and same day delivery will require greater energy consumption and a new modality of technological improvement in refrigerated logistics centers.”

“I really see the geopolitical landscape evolving and perhaps a trend back towards trade protectionism,” says Winnall. In the last few years, he is seeing countries protecting their natural resources or putting in place trade barriers to support national agendas. He says this is forcing adjustments in trade flows, sourcing and service offerings.

“This is already impacting the cold storage industry with sudden shifts in demand at port located facilities, blast freezing demand or storage demand,” Winnall points out. “The war in Ukraine, and Brexit and COVID-related supply chain shortages have been once-in-a-lifetime events all squeezed into the last three years!”

Winnall adds he thinks the industry needs to be prepared for further shifts and readiness around change to international trade.

“There is a likelihood of a continuation of the current period of uncertainty for the U.K. cold chain,” Brennan says. “The war in Ukraine is unpredictable, the impact on Ukraine production of wheat and oils in particular.”

He points out the inflationary effects of

the current cost and price squeeze mean that European farmers are going to produce less in 2023, which will have an impact on volumes moving through the cold chain and increase prices on the shelf. And, he adds, there is no expectation of a swift resolution to the energy crisis, and the global economic environment is challenging.

“However, there are also reasons to be positive,” says Brennan. “Despite the crises and challenges, the past three years have also seen a substantial increase in U.K. cold storage capacity, with new developments making great use of innovations, technologies and energy efficiency measures.”

He adds the U.K. cold storage industry is making good progress on the journey towards net zero, beating the energy efficiency targets set in the cold storage Climate Change Agreement to secure important tax savings.

“And there is not only an increased recognition among politicians and the media of the importance of our industry, but also a new appreciation of the hard work, innovation and expertise that kept our food supply chain running through the pandemic,” Brennan says.

“There are certainly many disadvantages related to these disruptions – company profits are hard to protect as we face supply chain, people or process failures in the industry,” says Winnall. “But certainly, one advantage to our industry is that our customers are building new strategies around a future of more frequent or expected disruptions, which in many cases brings new supply chain paths, higher storage inventories or stronger third party logistics operators to support them. All of this leading to overall stronger demand and investment needs into new or different capacity in our industry.”

“Although I anticipate we will continue to see disruptions from labor uncertainties, high inflation and a strained supply chain continue into next year, the resilience and growth of the cold storage industry and increased public awareness of the supply chain gives me optimism,” says Randel. “The agility to anticipate and respond to disruptions – good or bad – continues to be essential to future success.”

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TWO BEST-IN-CLASS BUILDERS

Griffco Design/Build and Coldbox
named winners of the 2022
CEBA Built by the Best Award.

By Keith Loria

In 2022, things were a little different in choosing the Controlled Environment Building Association's 2022 Built by the Best Award, which regularly honors the company which has constructed the year's most innovative and complex temperature-controlled facility.

This year, two winners were selected, with a winner chosen for a project under \$35 million and another in the category for a project over \$35 million.

The two winners were announced at the CEBA Conference last November, with Coldbox taking home the honor for the under \$35 million project and Griffco Design/Build winning for the over \$35 million project.



The 150-foot, -10-degree ASRS, included 41,000 pallet positions. (Photo courtesy of Griffco Design/Build.)

GRIFFCO DESIGN/BUILD

For its winning entry, Griffco Design/Build was selected to complete Phase 1 of Americold Logistics' Gateway project in Atlanta, Georgia. It encompassed the demolition of a 440,000-square-foot existing cold storage building and the construction of a new, 200,000-square foot automated freezer facility.

"Griffco was fortunate to have been selected for a very similar ASRS project for Americold before Gateway became a topic of conversation," says Scott Griffin, CEO of Griffco. "We completed Americold's flagship ASRS freezer facility in Rochelle, Illinois, in 2018." Griffin says the project was very successful, which ultimately led to Griffco being the design/build partner on Americold's Gateway Phase I project shortly thereafter.

Complicated Parameters

"Phase I of Americold's Gateway project was an extremely complex project because of the leading-edge material handling design of the facility, the construction process with two prime contractors working directly for Americold, the demolition of the existing cold storage building and challenges due to the COVID-19 pandemic," Griffin continues.

Parameters for the new Gateway facility included a 150-foot, -10-degree ASRS, -10 degree low-bay freezer; 35-degree truck and rail dock; and a two-story office building. The ASRS included 41,000 pallet positions, while the low-bay freezer included 6,000, totaling 47,000 pallet positions. The material handling systems were designed and integrated by

Bastian Systems.

Demolition began in January 2020 and the project was complete in May 2021, although there were myriad challenges along the way.

“More than half of this project was done during the COVID-19 pandemic, which caused many issues, including staffing issues and supply chain challenges,” Griffin says. “The Griffco team collaborated with Americold to implement strong COVID-19 safety protocols on-site and were very lucky that we never had to shut down the job.”

The soil conditions of the site were not capable of supporting the weight of the 150-foot freezer, so the Griffco team made significant ground improvements, including a combination of geo piers and rigid inclusions.

Once the ground improvements were completed, the ASRS mat slab was installed and included a 12-inch stone load transfer platform, six-inch concrete mud-slab, six inches of 60 psi and 100 psi extruded floor insulation, and a 21-inch fiber reinforced concrete slab.

In addition to the ASRS Crane System, Swisslog provided a pallet shuttle pack and hold subsystem. Other technologies utilized included Körber/Riantics’ fully automated gantry-style layer-picking system, which allows Americold to create custom pallets for customers without people having to work in the -10-degree freezer and a TGW goods-to-person case picking system.

According to Doug Karmel, Vice President of Global Construction and Development at Americold Logistics, “The subsystems were connected by an Electrified Floor Track System (EFTS) by Eisenmann, which efficiently moves product from one location to another and then to the dock for shipping.”

The facility also includes palletization and depalletization areas, allowing the pallet transportation process to run smoothly.

Environmental Considerations

When it came to sustainable efforts, after demolishing most of the existing Gateway campus, Americold and Griffco recycled a significant amount of concrete slabs, walls, and paving into crushed concrete and stone that was used for the building pad and base for paving of Gateway Phase I.

From the freezers to the refrigeration system, the facility was designed with energy efficiency in mind. Americold’s Gateway freezer facility also includes an ALTA Expert refrigeration system, which is entirely air-



The subsystems were connected by an Electrified Floor Track System by Eisenmann, which moves product between locations and then to the shipping dock. (Photo courtesy of Griffco Design/Build.)



Americold Logistics’ Gateway project encompassed the demolition of a 440,000-square-foot existing cold storage building and the construction of a new, 200,000-square foot automated freezer facility. (Photo courtesy of Griffco Design/Build.)

cooled, using no water at all. Additionally, because the ASRS freezer is fully automated and does not require people inside, lights are rarely utilized, which also conserves energy.

Collaborative Efforts

It was a team effort all the way, which has been the cornerstone of Griffco Design/Build since its beginnings.

“Our core values as a company are competence, teamwork, integrity, commitment and partnership,” Griffin says. “Our team, along with the Americold and Bastian teams, fol-

lowed these principles every step of the way. We worked as a team internally, partnered with our client and remained committed to executing the project with our high-quality standards despite the trials through COVID-19 and supply chain issues.”

Griffin adds, “We delivered our most complex project in our 15 years of incorporation on time and within budget, even through a global pandemic. We are proud to have been selected as Americold’s design/build partner on this project and look forward to partnering with them again in the future.”

2022 Built by the Best Award-Winning Supplier Profiles

These are the companies integral to the success of the Griffco Design/Build winning project.

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www.cold4u.com

ALTA Refrigeration is a full service design/build constructor of Industrial Refrigeration Systems. For over 30 years, ALTA's reputation for energy conservation, low maintenance costs, unique problem solving, and long term value is verified by the repeat business earned from numerous GCCA members and other major companies. In-house designed computer control energy savings systems includes over 27 years experience and hundreds of installations. Low temperature pipe and vessel insulation techniques installed by company trained insulators are recognized and preferred by repeat customers. Our reliable 24-hour service department and well-stocked parts departments are important to your business. Licensed in over 22 states, ALTA is positioned to help companies realize a larger return on investment by reducing operating costs. Take the time to verify our reference list and increase your bottom line.

American Thermal System, Inc.

www.ats-construction.com

American Thermal Systems, Inc. is a professional construction company specializing in insulated panels, cold storage doors, and design/build for cold storage facilities and food processing facilities. We were established in 1992 by the present Chairman and President Jimmy Rogers. Our management team brings over 45 years of experience to the industry and understands the unique challenges of building facilities to our customer's specifications and strict government regulations.

AutoMak Assembly, Inc.

www.cladboyusa.com

Working in partnership with manufacturers and contractors, AutoMak is dedicated to delivering handling and installation solutions for metal insulated panels. We offer proven vacuum lifting equipment to delivery installation efficiency with practical health and safety benefits. We provide full contract rental and sales service covering the whole of the United States and Canada with complete technical support as well as after sales support, servicing, testing and certification. Operating from a modern distribution centre and with a large dedicated rental fleet we are able to respond to customer requests and orders quickly. Our network of technical advisors provide full on the job product training and support services.

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- Med / High-Temp Refrigeration Screws from 30 - 90 HP
- Open Drive Screw Compressors (Ammonia)
- Compact A/C Screw Compressors from 50 - 300 HP

SCROLL COMPRESSORS

- Med / High-Temp Scroll Compressors from 7 - 15 HP
- R410A A/C Scroll Compressors from 15 - 40 HP

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Chemours

www.opteon.com/en

Chemours is a manufacturer of Opteon™ XP and XL brand refrigerants (www.opteon.com/en). Formerly Dupont – Freon™ refrigerants.

Cold Storage Construction Services Inc.

www.coldstorageus.com

Cold Storage Construction is an insulating contractor that designs and builds many types of buildings and facilities. Our long-term area of specialization is in the design and construction of meat processing and food storage plants. We furnish and install the insulated panels and cold storage doors. Another of our construction areas is in the installation of insulated architectural panels.

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www.Danfoss.us

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www.dupont.com/building.html

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www.greenspanprofiles.com

Green Span Profiles manufactures a diverse line of seven different insulated wall panel profiles available in 2, 2.5, 3, 4, 5 and 6 inch thicknesses. Available steel gauges are 26, 24 and 22-gauge. A standing seam roof profile is available as well as a mineral wool cored profile. Our products serve the cold storage, commercial/industrial and architectural market segments. Along with our manufactured products, Green Span Profiles offers a collection of services including technical support, engineering, and drafting. Green Span panels are formed by a continuously poured-in-place, manufacturing process which binds interior and exterior steel facings to a polyisocyanurate, insulating foam core. With exceptional insulating properties, superior spanning capability, accelerated installation times, cost-effective pricing, recycled content, plus a rigid feel and streamlined appearance the applications are limitless. All of our panels are rigorously tested and are FM 4880 and 4881 approved.

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COLDBOX

When Confederation Freezers saw business boom, it acted quickly to hire Coldbox to expand and alter its current facility by 109,000 square feet in an effort to meet the rising demand of customers.

Coldbox's progressive design-build approach with Confederation Freezers was a partnership rather than a competitive bid scenario, which allowed the company to focus on the business's future growth needs collectively.

"Our initial meetings with Confederation Freezers were very collaborative," says Paul D'Agostino, Chief Operations Officer for Coldbox. "Before discussing the project needs, it was about understanding if there were parallels between our two organizations and if we fit well together to work on a complex addition."

The design process for the project started in January 2019, demolition commenced March 2019, construction began July 2019 and the facility was substantially performing by January 2021.

Challenges Aboard

"With the project's challenges, the only way to stick to a timeline was through the team's collaborative efforts," D'Agostino says. "We utilized pull scheduling to best sequence our construction activities and create a culture of accountability on the project."

The biggest challenge to overcome was creating the building addition without disrupting the operations of the existing facility, as Confederation Freezers needed to maintain full operation and service during the construction.

To deal with this, Coldbox took a progressive design-build approach to ensure that construction could happen even while Confederation Freezers' workers were working, so nothing was interrupted.

"There was no lost time due to construction activities," D'Agostino says.

Other challenges included dealing with multiple roofs and floor elevations resulting from previous additions to the facility. In addition, the facility was constructed with two significant neighboring constraints, a residential neighborhood to the east and a regional airport to the north.

Essential Provider

Plus, early in the construction phase, the COVID pandemic mandated a forced shutdown of all construction in Canada.

"By appealing to the provincial authorities, Coldbox was granted essential service status and deemed critical to the continuance of the country's cold chain," D'Agostino says. "This allowed construction to continue if strict protocols were upheld."

The protocols included masks for all staff and trades, a minimum distancing of six feet between all workers, continuous cleaning of all surfaces, and installation of temporary washing stations.

During this time, many authorities having jurisdiction had reduced hours or completely closed, causing additional challenges. Despite all these hurdles, the project was delivered according to schedule.

"There are always challenges in any construction project," D'Agostino says. "Our team communicated the overall project goals to the broad team of sub-contractors and suppliers, ensuring all stakeholders were aligned and moving forward in the same direction."

Engine Room Complexities

Still, the main project complexity was the existing engine room, located in the middle of the footprint of the building addition, which was to be decommissioned and demolished.

"To keep the timelines within the client's needs, we had to construct the parameter of the facility around the existing engine room while building the new engine room and relocating the refrigeration distribution," D'Agostino says. "The existing facility was built over a series of additions that made the relocation of the refrigeration piping an



The vertical member of each SIN beam has an undulating profile allowing the structural integrity of the beam to be maintained using less steel. (Photo courtesy of Coldbox.)

additional challenge, as there were limited options for distribution.”

Comprised of two cold rooms, the project included one space operating as a freezer/cooler swing space, where the temperature could be set anywhere from 39°F to -13°F, depending on demand. This room was adjacent to a freezer continuously operating at 0°F. Depending on the need of the swing room, the freezer could be sharing a wall with a space that was sometimes colder than 0, and sometimes warmer. This complexity required the installation of a customized frost ribbon insulation detail on both sides of the swing space to ensure temperatures were maintained.

Innovation Abounds

There were three main innovative aspects that Coldbox incorporated into the design, which were widely considered for the CEBA award.

First, a seamless fiber-reinforced concrete reduced the slab thickness by 66%, decreasing costs and installation time. This also made a better floor application for the facility’s intended use, reducing the projected operating expense spend on material handling maintenance.

“Structural members were designed as corrugated,” D’Agostino says. “We partnered with a local structure steel manufacturer with a patent on these structural members. By utilizing this design, we reduced the overall



The existing facility with the new facility construction underway. The engine room is isolated (in the middle of the photo) following demolition. (Photo courtesy of Coldbox.)



The cold dock floor system included insulation that increased the R-value, reducing the refrigeration load. (Photo courtesy of Coldbox.)

weight of the facility, which reduced costs. It also gave us better control over access to these materials on site and to coordinate directly with the manufacturer.”

The third was the use of a semi-automated pallet runner system. Since Confederation Freezers manages a wide variety of client needs in terms of product size, this pallet runner system allowed Coldbox to create the density and flexibility that Confederation Freezers needed.

Saavy Sustainability Solutions

When it came to sustainability measures, an important desire of the client, Coldbox had savvy solutions.

“The main components of our sustainability efforts were centered around the ammonia refrigeration application and LED lighting throughout the facility,” D’Agostino says. “The reduction of steel and concrete through the seamless fiber-reinforced floor and the corrugated SIN beams also contributed to our overall sustainability efforts via the reduction of materials used.”

Thanks to the innovative design, Confederation Freezers now has a semi-automated pallet runner high-density racking system, making it the most profit-efficient addition possible.



In the background, progress is shown of an expedited zone that was needed while floors were still being established (in the foreground) and racking installed. (Photo courtesy of Coldbox.)

“The two biggest accomplishments in my perspective are the client is happy that the finished product supports their growth needs, which was their goal at the project’s onset,” D’Agostino says. “And our team was galvanized to overcome many challenges faced on the project, from expediting a portion of the facility for use to ongoing after-hours work for utility tie-ins and the unfamiliar challenges that the COVID pandemic posed throughout the project timeline.”

With the finished facility, Coldbox was able to increase Confederation Freezers’ storage capacity by 50%, which helped the company meet up with the demand.

“Coldbox, Confederation Freezers and all of the CEBA members who worked on the project created a warehouse we can all be proud of,” D’Agostino says. “We look forward to continuing to grow and nurture our relationships with new and existing partners in the cold storage industry.”

2022 Built by the Best Award-Winning Supplier Profiles

These are the companies integral to the success of the Coldbox winning project.

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Freshness is cumulative. Perishable distribution is a complex process with many hand-off points. Any break in the cold chain can have an adverse impact on product quality. Emerson Cargo Solutions provides end to end monitoring services to help safeguard the world's food supply, reduce energy consumption, and protect the environment. Our solutions offer a one-stop-shop for cold chain monitoring, providing components you can leverage to monitor all perishable supply chain segments.

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Shadco LLC manufactures Column Bearing Thermal Isolation Blocks for use in cold storage and food processing building construction. Our thermal blocks are constructed of high density, closed-cell polyurethane. With a variety of available densities and compression strengths, we manufacture our blocks to match the specific size, density, and anchor bolt requirements for every project. Blocks are

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FLYING PERISHABLES

Best practices in transporting air cargo are critical for the best product.

By Karen E. Thuermer

In a business that is built around product quality, the cost of logistics failure is high, and shipping standards and best practices for transporting perishable via air cargo are crucial. In the early days of shipping perishables by air, little attention was given to handling practices or quality control. Product would sit on a hot tarmac for hours and cool warehouses nearby did not exist. Even today, the shipping of perishables via air can be uneven.

“Failures along the cold chain are, at times, due to improper documentation, labeling or poor packaging, and can be catastrophic for small businesses,” say officials at the International Air Transport Association (IATA).

To solve the problem, best practices are critical to ensure stability in shipment and handling. Consequently, IATA has been working alongside aviation industry stakeholders and regulators to create the Center

of Excellence for Independent Validators (CEIV) and in 2019 launched CEIV Fresh. The program helps the cargo industry meet requirements using IATA’s Perishable Cargo Regulations (PCR), which combines professional regulatory and operational input from industry and government experts.

Increasing numbers of companies have worked to become CEIV Fresh certified. The certification gives shippers assurance that

CEIV Fresh certified companies are operating to the highest quality and standards in the transport of perishable products.

But certification is not easy to obtain. A host of requirements must be met to be certified and recertification is required every 36 months. This involves refresher training and re-checks to ensure compliance is continually fulfilled.

Recent Adjustments

Throughout 2022, IATA, with airlines, industry and regulators, has reviewed, developed and adjusted specific regulations and guidelines for the preparation, acceptance and handling of perishables.

“Better tracking, collaboration and sustainability throughout the supply chain, along with technological improvements in packaging solutions for perishable and healthcare cargo, are some of the key elements that have been addressed for 2023,” IATA says.

For example, IATA added new definitions for aircraft unit load device (ULD) from the IATA ULD regulations and also added fresh-

Left: Korean Air's mission is to provide optimal transport solutions to customers with speed and accuracy. (Photo courtesy of Korean Air Cargo.)

Right: Programs, such as those through Lufthansa Cargo, ensure that fish arrive fresh at their destination. (Photo courtesy of Lufthansa Cargo.)



water products such as mollusks and shellfish to the type of perishables covered.

The result is a new PCR manual available from IATA in January 2023. The manual is endorsed by the IATA Live Animals and Perishables Board and underpinned by the expertise of major airlines and scientific data supplied by research institutions.

IATA also is offering perishable shipping training that provides professionals with detailed insight into both the handling of perishable cargo and the practical knowledge of the most up-to-date regulations.

Air Cargo Carriers Apply

Many air cargo operators are applying or reapplying for IATA's CEIV Fresh certification. In October 2022, Avianca Cargo announced that it had become the first airline in the Americas to obtain that certification. The airline was awarded the certificate at its facilities at Miami International Airport in Miami, Florida, United States.

Miami and Bogota, Colombia, are the airline's first certified stations, and Medellin, Colombia, and Quito, Ecuador, will also be CEIV Fresh certified by the end of 2022.

Commenting on the certification, Gabriel Oliva, CEO of Avianca Cargo, wrote in a Tweet: "Avianca Cargo achieved the certification through risk and quality management, highly trained personnel for handling perishable goods, active collaboration, transparent communication, and a standardized approach to the transportation of perishable goods."

Of note, almost 70% of all goods shipped via air freight between Latin America and North America consist of perishable products. "Without the cooperation and collaboration of companies in the cold chain, and without harmonized global guidelines and standards followed by all, the risks of something going wrong are quite high," says Peter Cerda, Regional Vice President for the Americas for IATA.

"Without the cooperation and collaboration of companies in the cold chain, and without harmonized global guidelines and standards followed by all, the risks of something going wrong are quite high."

PETER CERDA, IATA

For Avianca, Latin America represents more than 50% of its transported cargo. This includes flowers from Colombia and Ecuador and other perishables such as fruit, fish, and meat products from Chile, Peru, Argentina, and all Latin America to the United States, Europe and the rest of the world.

Continuing Developments

Airports and airlines continue to address and upgrade their proper perishables handling and transporting procedures. For example, Hong Kong Air Cargo Terminals Limited (Hactl), a major terminal operator at Hong Kong International Airport with many years of experience in handling perishables, had put in place a number of resources and procedures long before becoming CEIV Fresh certified.

"We found that the key to perishables handling is minimizing the dwell time between the arrival of aircraft and handing out to customers," said Wilson Kwong, Chief Executive at Hactl. "We achieve this through dedicated and accredited procedures, priority handling,

temperature-controlled storage and working areas and dedicated loading bays."

Also at Hong Kong International Airport is COOLPORT operated by Asia Airfreight Terminal (AAT). AAT officially opened COOLPORT in July 2022. It is CEIV Fresh certified. This first on-airport cold chain facility provides a complete temperature-controlled environment at the airport, and complements a similar facility operated by AAT's parent company, SATS Ltd., in Singapore.

"At AAT, we regularly review our services to see how we can better meet market needs," says Kuah Boon Kiam, CEO, AAT. "We believe COOLPORT will provide new value-added services and revenue opportunities for our customers, and further strengthen Hong Kong's position as an efficient, secure and reliable hub for temperature-sensitive products in the region."

COOLPORT offers a dedicated temperature-controlled zone, covering the entire cargo handling process, including acceptance and delivery, build-up and breakdown,



Lufthansa Cargo employees make quality checks to ensure freshness. (Photo courtesy of Lufthansa Cargo.)

security screening and storage. New features include one-of-a-kind temperature-controlled truck docks with dock shelters that prevent potential disruptions to the cold chain during acceptance or delivery. Also, the x-ray screening machine is located inside COOLPORT, which has CCTV surveillance. This allows cargo to be screened while at the correct ambient temperature.

In addition, multi-tiered temperature zones down to -28°C are supported by real-time temperature and humidity monitoring systems. And cargo storage is facilitated by an innovative palletized ULD system, which ensures speedy and easy movement of cargo. COOLPORT is designed to interface directly with the airside to facilitate seamless cargo flow.

COOLPORT is expected to increase AAT's handling capacity for such cargo by 50%, which will further uphold the status of Hong Kong International Airport as the world's hub for perishables and pharmaceuticals.

In the United States, Hartsfield-Jackson Atlanta International Airport is undergoing improvements centered around the building of a modern air cargo terminal that is expected to include systems for charging

rechargeable refrigerated containers and various temperature-controlled brick-and-mortar facilities. The airport has already implemented an AI-supported cargo community system. Members of the system get priority cargo delivery.

Lufthansa Cargo ensures that perishable cargo, such as fruit and vegetables, flowers or fish, arrive at their destination as fresh as possible. This is the result of best practices that include fast transport, selection of the best transport routes to ensure a long shelf life, optimized transport chains utilizing expert support, the use of temperature-controlled storage and transport. This includes direct flights plus perishables-to-door service with refrigerated trucks. Perishables are stored in predominantly temperature-controlled environments, including the unique Perishable Center, at Lufthansa's hub in Frankfurt.

The Perishable Center is Europe's most advanced air cargo handling center for perishable goods. There, more than 120,000 tons of fresh produce is sorted, picked, packed and stored in an area more than 9,000 square meters. The Perishable Center operates 24/7, 365 days a year and offers 20 different climate zones adapted to the needs of product

groups. The temperatures are continuously monitored and computer-controlled between -25°C and $+25^{\circ}\text{C}$.

Korean Air has accumulated extensive experience providing temperature control for a wide variety of items including perishables such as salmon, lobster, king crab, South American-grown flowers, Korean strawberries, and U.S. cherries. It offers three levels of service under its Specialized-FRESH program.

"Korean Air's mission is to provide optimal transport solutions to customers with speed and accuracy," says Jae Dong Eum, Senior Vice President and Head of Cargo Business Division at Korean Air. To protect the value of the products, Korean Air maintains the proper temperature level in the aircraft. Priority handling over general cargo is also given throughout the entire shipping process.

"In the case of fresh goods, we believe the speedy delivery of goods while maintaining the required storage temperature from the country of origin to destination is most important," Eum says. "Accordingly, Korean Air offers specialized services, expanding our fresh cargo storage facilities and continuously working with relevant parties to create synergy and improve efficiencies. However, consid-



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The selection of the best transport routes ensures a long shelf life. (Photo courtesy of Lufthansa Cargo.)

ering that a cold chain is a supply chain that cannot work if any part of the chain breaks, it is most important to monitor and manage the entire cold chain supply chain from production to sales.”

Each service is optimal for perishables that need to be maintained at an appropriate temperature. Products such as ice cream, frozen meat and desserts are commonly shipped using FRESH 1. Here temperature-controlled containers keep perishable shipments fresh from origin to destination. The temperature control range is between -20° and 20°C, and the set temperature can last up to 72 hours. Temperature within the container can only be set lower than its ambient temperature. Perishable shipments are ready for delivery within three hours after arrival.

FRESH 2 is optimal for perishables that require storage in refrigerator/freezer and can be used for products including aquatic products (lobster, salmon, etc.), fruits (strawberries, mangoes, blueberries, etc.), and flowers.

FRESH 3 is used for perishables that require storage in a room temperature setting. Products such as various vegetables and seafood (king crab, shrimp, etc.) are commonly shipped using this service.

“We have strengthened our cooperation with global professional forwarders and container companies and continue to share information and jointly monitor the safe transport of cargo from the time of shipment,” Eum says. “We will continue to strengthen our cold chain services by establishing a strong, integrated system with related industries based on our extensive global network.”

Ethiad Cargo recently launched a new cool chain facility at Abu Dhabi Airport that further expands its cool chain storage capacity and capabilities. The facility makes it possible for Ethiad Cargo to handle an average of 50,000 tonnes, doubling its cool chain storage capacity at its hub.

The new 3,000-square-meter facility comprises the latest technology and features, including RFS loading docks with levelers, high-speed roll-up shutters, insulation and floor work for faster and more efficient loading with stricter temperature controls, increased storage space, and additional build-up and breakdown zones. The facility also features new x-ray screening for police and customs inspections within a fully temperature-controlled environment and new dedicated thermal covers.

Ethiad offers a FreshForward product, which is designed to simplify the process of moving fresh fruits, vegetables, dairy, fish, meat and flowers. It was the first carrier in the Middle East – and second globally – to be awarded the IATA CEIV Fresh certificate, which it obtained in 2019.

Among other services, American Airlines Cargo (AACargo) offers a cooling service called AA Cool Perishables that is exclusive to Miami International Airport, one of the largest air gateways for perishables in the United States. AA Cool Perishables provides pre-cooling and confirmed cooler space for fresh shipments on-site. The program provides two pre-coolers, container handling systems and a simplified schedule of charges.

On top of the temperature-controlled containers and refrigeration facilities, AA Cargo actively monitors flight times and temperatures throughout its network, making sure these sensitive shipments get delivered fresh off the plane. ☺

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

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GCCA ANNOUNCES 26TH EUROPEAN COLD CHAIN CONFERENCE

200 decision-makers in the temperature-controlled logistics sector are expected to attend the 26th GCCA European Cold Chain Conference. It is scheduled to take place 20-22 March 2022 in Barcelona, Spain. Learning, networking, exhibits and more await attendees.

By Julie Hanson

The Global Cold Chain Alliance (GCCA) will host the 26th European Cold Chain Conference from March 20-22, 2023, in Barcelona, Spain.

The European Cold Chain Conference is a unique platform where professionals of various segments of cold chain logistics from across Europe and other regions come together to learn about trends and new developments and share and promote best practices.

This year, the conference will be held in conjunction with the GCCA Global Strategic Board Meetings, bringing together nearly 100 cold chain decision-makers from around the globe. Overall, 200 decision-makers from

third-party temperature-controlled warehousing and all-mean transportation operators; design and construction companies; and equipment, technology and service providers are expected to participate in this event.

Rated by attendees as a highly valuable experience, the conference is designed by 3PLs for 3PLs to provide delegates with a better understanding of the market in various countries, upcoming trends, business challenges and opportunities, while showcasing techno-

logical innovations with its adjacent expo.

Attendees will also benefit from multiple opportunities to connect or reconnect with colleagues and friends in a cordial atmosphere. In 2022, no less than 15 countries were represented.

Plenary Sessions

The conference's keynote speakers are carefully selected as business leaders who will shed a different light on industry issues and inspire attendees to think outside the box. With the support of the European Logistics Council, GCCA has built a program that addresses the most topical business challenges. The plenary sessions are designed to be transformative and innovative.



European Warehouse Forum

The GCCA European Warehouse Forum is a unique set-up for cold chain logistics operator members to hear about various market updates and typical sector issues at the country level. Participants will get unique insights from industry peers and can exchange views on current challenges and the future of the sector. This function is organized before the opening of the conference, on Monday 20 March, in the afternoon. The European Warehouse Forum is open to all GCCA operator members, regardless of their participation in the conference.

Learning Opportunities

The conference education program will offer parallel sessions focusing on industry innovations, business cases or technological development. Delivered in a workshop format, these sessions are designed to nurture idea sharing and widen perspectives. Topics addressed may include energy management and alternatives, refrigeration technologies, decarbonation, building performance, transport efficiency, cold chain transparency, market analysis and more.

Cold Chain Café

Rated as one of the most impactful features of the education program, the Cold Chain Café is an open forum where attendees can participate in roundtable discussions with their peers on specific topics. It is a unique way of sharing views and triggering new ideas, while strengthening relationships. At the end of the session, groups will share the outcome of their table conversation.

Recognizing NextGen Talent

GCCA has a longstanding commitment to developing talent in the cold chain industry, which needs a constant influx of young people to represent the next generation of cold chain leaders.

To promote talent development, the GCCA European Future Leader Award Competition recognizes outstanding young European cold chain industry professionals who show potential for future career advancement. The recipient of the European Award will automatically qualify for the Global NextGen Future Leader Competition during which she/he will compete against other regional winners. The European competition consists of an application review, interviews with a jury of professionals and a presentation at the conference. GCCA encourages its member companies to enroll talent, 35 years and younger, in the competition. More details about eligibility criteria and procedures can be found at <https://www.gcca.org/about/europe-future-leader-award>.

The recipient of the 2022 GCCA European Cold Chain Future Leader Award was Corrin Hill, Transport Manager, Lineage Logistics, United Kingdom.



Cold Chain Exhibits

Partnering and working with leading companies in the cold chain industry is essential in providing a complete range of solutions and services to customers. The conference expo will feature the latest technologies, solutions, products and services from some of the most renowned companies in the cold chain industry. The following product categories and services are showcased in the expo:

- Automation
- Battery and Power Systems
- Clothing
- Construction, Doors
- Energy Efficiency Solutions
- Fire Prevention
- Flooring
- Insulated Panels
- Lighting
- Material Handling
- Racking/Materials Handling
- Refrigeration Equipment
- Roofing
- WMS/TMS Solutions



Facility Visits

Immediately following the educational program on Wednesday, 23 March, a visit will be organized to industrial facilities showcasing innovations in operations, automation, sustainable initiatives and other areas of specific interest to attendees. Registration for this program is required.

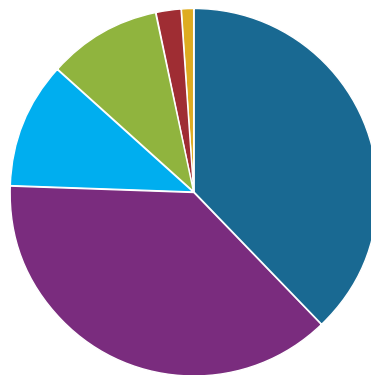
Networking and More

The conference offers participants numerous occasions to connect with international colleagues and strengthen existing relationships. Networking functions include group activities, networking breaks, lunches and dinners. Throughout the event, attendees will have additional opportunities to mingle with peers during the Cold Chain Café, expo time and a happy hour.

Sponsoring and Exhibiting

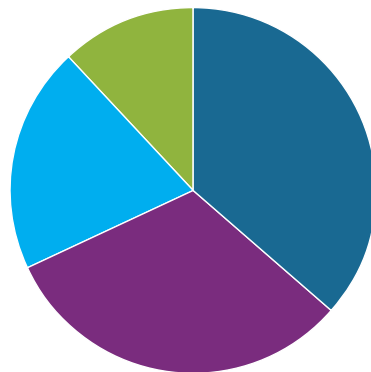
The European Cold Chain Conference is a supplier's best venue for reaching temperature-controlled warehousing and logistics executives throughout Europe and beyond. Vendors can increase their brand and visibility at the event through sponsorship that has been designed to spotlight their company throughout the entire program and exclusively at specific event functions. Exhibiting at the event is a great add-on to showcase the power and benefits of products, technology or services.

2022 ATTENDEE DEMOGRAPHICS



- 34% Warehouse
- 34% Supplier
- 10% Transportation
- 9% Trade Associations
- 2% Press
- 1% Construction

ATTENDEE DEMOGRAPHICS BY TITLE



- 37% Director or Manager
- 32% Executive: CEO, President, Owner
- 20% Other
- 12% Executive Team: Senior VP, VP, C-Suite

Location

The conference will be held at the InterContinental Barcelona. For more information on the conference visit www.gcca.org/european-coldchainconference..

For any general, sponsorship or exhibiting inquiries, please contact

Julie Hanson, Director of Europe at GCCA

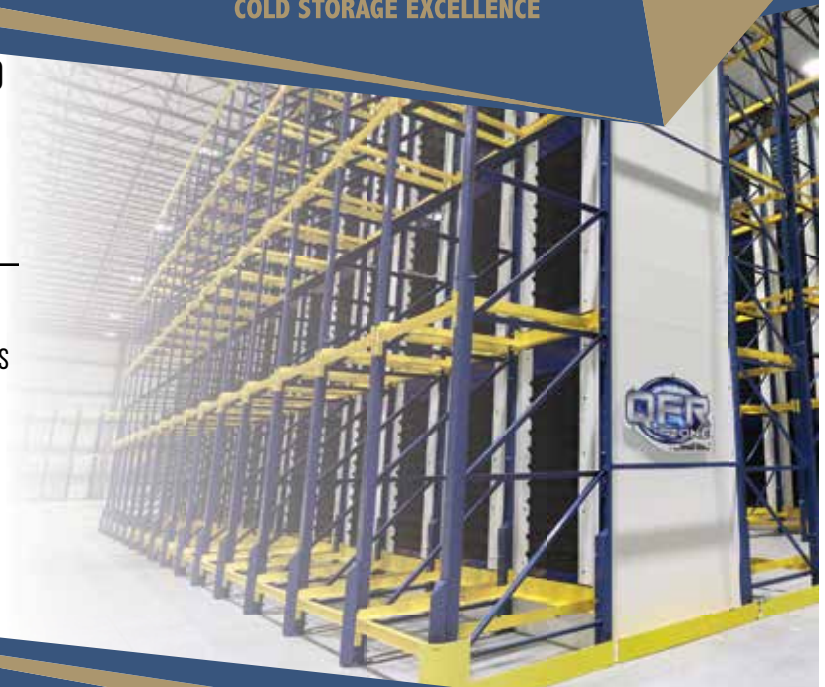
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COLD CHAIN DEVELOPMENT

NEWS ABOUT GCCF INTERNATIONAL PROJECTS

This column features news about key projects of the Global Cold Chain Federation (GCCF), 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.

ACTIVE PROJECTS

Bangladesh Trade Facilitation (BTF) Project, 2020 – 2025

Partnered with Venture37 and LixCap

In 2023, GCCF has planned several industry strengthening and training exercises for public and private cold chain stakeholders to improve existing cold storage facilities and systems, update policy and standard operating procedures and build capacity.

Cambodia Market Systems Program, 2022 – 2023

Partnered with LixCap and Khmer Cold Chain Company (KCCC)

GCCF 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. The team is identifying trainings to support start-up operations of the new facility.

Dominican Republic TraSa Project, 2021 – 2025

Partnered with International Executive Service Corps (IESC)

In 2023, GCCF will support additional cold chain training and capacity building activities in the Dominican Republic. Participants will attend the Latin American Institute and participate in regional study tours.

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

Partnered with Abt Associates Inc.

Dr. Elhadi Yahia will return to Egypt at least two times in 2023 to provide training and technical assistance on best practices for postharvest handling for pomegranates and mangoes.



Top: Attendees at the 131st GCCA-GCCF Convention toured the San Diego Refrigerated Services facility at San Diego Port, California, which handles Dole bananas. Participants on the tour represented Australia, Brazil, Canada, Ghana, Mexico, Morocco and the United States.

Bottom: From left to right, Emmett Stinson (LixCap), Owusu Akoto (FreezeLink) and Mohamed Saad El Jai (LixCap) visiting the San Diego Refrigerated Services facility at the San Diego Port.

Georgia Agriculture Project, 2018 – 2023

Partnered with Cultivating New Frontiers in Agriculture

GCCF continues to plan for the regional Cold Chain Seminar that will take place in Tbilisi at the end of November 2022, with participants traveling from Baku, Azerbaijan to attend. USAID would like to replicate this event in Baku the following year.

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. The team is finalizing the feasibility study and designs with hopes to close the project in February 2023 and begin construction. ☎

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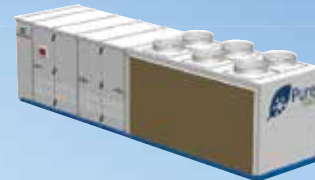
Low Charge Ammonia Packaged Chillers

- 40 to 400 Tons at 5 to 50F Outlet fluid



Low Charge Ammonia Condensing Units

- 30 to 100 Tons at -20F to 45F SST



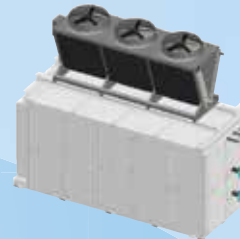
Packaged Cascade Ammonia/CO₂ Systems

- 40 to 200 Tons at -20 to -60F pumped CO₂



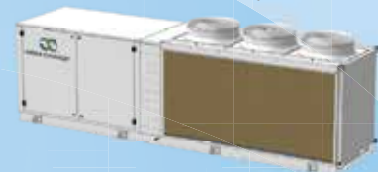
Transcritical CO₂ Industrial Chillers

- 50 to 500 tons at -40F to 40F outlet fluid



Transcritical CO₂ Condensing Units

- 10 to 85 Tons at -40 to +40F SST



Transcritical CO₂ Industrial Racks

- 50 to 400 Tons at +40 to -50F SST or +50F to -40F fluid temperature



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M&M CARNOT

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.



Cold Chains Cope

We should all be proud of how the food and pharmaceutical supply chains have shown great resilience.

We have navigated crisis after crisis over the past three years. Some of these crises have been brought on by global events, others more localized. The U.K. cold chain has kept supplies flowing throughout the cliff edges of Brexit, the lockdowns and chaotic reopenings resulting from COVID and the knock-on impacts of both on recruitment and retention.

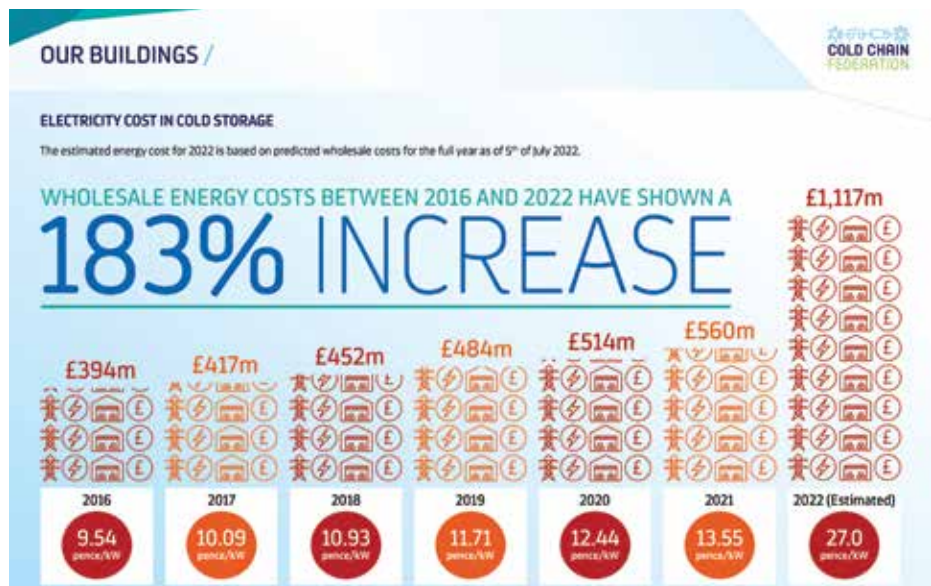
These issues have all been urgent, complicated and stressful. However, it is the current energy crisis that poses the biggest threat to our national food security. It is creating a critical situation that is shared by many of our European neighbors.

In the United Kingdom, the government has recognized this urgent peril and created the energy bill subsidy scheme, a lifeline for thousands of businesses across the food chain. I am sure this intervention prevented the supply chain collapses we would otherwise have seen this winter. However, facing rampant inflation and acute public spending deficits, our government is under immense pressure to limit spending. As a result, the scheme is due to be scaled down dramatically at the end of March 2023.

We are working with colleagues across the U.K. food sector to show why the scheme must continue. Our first argument is that cold stores alongside farm, manufacturing and retail facilities are critical infrastructure upon which the nation depends and which we cannot allow to fail.

We must also show how high energy prices are at the root of rampant food price inflation that is hitting our most vulnerable consumers hardest.

And we must explain that failure to act in the short term will exacerbate a problem



whereby European farmers and manufacturers respond to punitive input prices by producing less. The consequences of cutbacks in production today will be shortages, higher prices and less choice for U.K. and European consumers next winter and for years to come.

For the cold chain in particular, the need for energy crisis support will be no less intense once we get through the U.K. winter. Producing, storing and distributing fresh and frozen foods at consistent, reliably low temperatures is always an energy intensive process, and it works hardest in the summer.

While the immediate priority is to cope with the challenges of each day and secure a continuation of energy bill relief, we must also recognize that the current energy situation marks the start of a new era for how the cold chain uses, stores and generates the energy it needs. High and volatile energy prices are the market reality for the foreseeable future, and we must respond accordingly – not only to adapt to this new reality but also because it is not in the government's interest to support an

industry that is not taking action to help itself.

The U.K. cold chain is responding not least by improving the insulation of buildings and promoting better awareness of energy efficiency across the workforce. Our industry is making investments that will enable operators to generate and store more energy for themselves. The industry has been investing particularly heavily in on-site solar power generation over the past 12 months. The best actions to insulate from the effects of high energy prices are the same as those we must take to play our part in achieving the net zero transition in line with our government's target for a Net Zero U.K. Economy by 2050.

The old management saying is "do not waste a crisis." If we can convince the U.K. and European governments to continue to play their part, then we can emerge from this stressful period with a more resilient, cost effective supply chain that is better prepared for the opportunities and threats of today and for generations to come. ☺

This section highlights a cold chain question and answer submitted through the GCCA Inquiry Service to the team of experts on the GCCF 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.

Q: What is the average pallet size we should use to maximize our racking?


A: There are two aspects to this. First, the sizes of the pallets themselves. Second is the pallet height (the height of the products stacked onto the pallet + height of the pallet itself). Both can vary significantly by supplier and by product. Both are choices made by the supplier.

Pallet size would depend upon their operation and their customers' operation and the method and equipment that will be used to transport the loaded pallets from one site to another. If they are a major customer of their supplier, both might even be negotiable.

I would advise the company to make an overview of pallet sizes and pallet heights, along with the expected number of pallets of each size that require storage. The size chosen should be suitable for both the facilities and for the equipment that will be used to move them, how they will be stored, rack sizes and capacities, ability to maneuver in the facility, and capacity of the pallets (how much weight can it hold). This will give a first impression of how racks can be designed. Of course, low pallets can be stacked in high locations, but not reversely, so it is not advisable to exactly match location heights with the average storage needs.

The most commonly used pallet size in the United States is 48x40, and especially in the food industry. About 75% percent of companies say they use 48x40, but they likely also use other sizes. Statistics indicate that about 30% of manufactured pallets are 48x40, so "market share" of 48x40 pallets is likely to be around that number.

The height of a pallet depends on 1. strength and shape of the boxes; 2. typical purchase quantities; 3. transportation mode; and 4. warehousing equipment restrictions, among other factors.

Answer provided by Dr. Subramaniam Sathivel, Louisiana State University, Frozen Food Quality Expert and Dr. Kees Jan Roodbergen, University of Groningen, Logistics and Operations Management 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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Louisiana State University,
Frozen Food Quality Expert



Dr. Elhadi Yahia

Universidad Autónoma de
Querétaro, Mexico, Postharvest
Technology of Perishable Foods
Expert

SAC Emeritus

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Joseph Sebranek, Iowa State University, Meat Products Expert

Daryl B. Lund, University of Wisconsin, Food Science Expert

Joseph Slavin, Jos. Slavin & Associates, Fish Products Expert

W. F. (Will) Stoecker, University of Illinois, Refrigeration Engineering Expert

**Have a burning cold chain question?
Submit an inquiry to the Scientific Advisory Council
at www.gcca.org/inquiry**

2023 GCCA Education, Training & Networking Events

Make 2023 the year to get back together to expand your knowledge and grow your organization to improve the cold chain industry.

JANUARY

59TH GCCF 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 GCCF 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.



MAY

GCCF INSTITUTE AUSTRALIA

TBD MAY 2023

Melbourne, Australia

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.



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.



JULY

GCCF INSTITUTE LATIN AMERICA

17–19 JULY 2023

Mexico City, Mexico | Hilton Mexico City Reforma

This event, designed for employees with clear management potential and executives new to the industry, features extensive 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.



AUGUST

GCCA SOUTH AFRICAN COLD CHAIN CONFERENCE

2–4 AUGUST 2023

Cape Town, South Africa

This event is South Africa's one and only venue bringing together cold store operators, controlled-environment builders, equipment suppliers and service providers to discuss opportunities and innovations of this essential sector. The conference provides leadership experience, knowledge, and exclusive networking with decision makers from across South Africa and beyond, in a relaxed yet professional atmosphere.

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



SEPTEMBER

132ND GCCA CONVENTION

24–27 SEPTEMBER 2023

Scottsdale, AZ | The Westin Kierland Resort & Spa

This annual gathering for GCCA and GCCF 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.



OCTOBER

GCCA BRAZILIAN COLD CHAIN CONGRESS

TBD OCTOBER 2023

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

43RD CEBA CONFERENCE & EXPO

TBD NOVEMBER 2023

Location to Be Announced Soon

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

TBD NOVEMBER 2023

Mexico City, Mexico

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.





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COLD CHAIN CONFERENCE**
20-22 MARCH 2023
BARCELONA, SPAIN

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Supply Chain Leaders to

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MEMBER NEWS

NEWS FROM MEMBERS OF GCCA CORE PARTNERS

AMERICOLD and Feed the Children worked together with the Mayor of Atlanta, Georgia, to distribute 8,000 ready-to-eat meal kits to students throughout the month of December when many families faced challenges with no access to free, reduced school meals during the holiday break.



ARCADIA COLD STORAGE & LOGISTICS has invested \$70 million to establish operations in Dorchester County, South Carolina. The new operation will support high-volume throughput handling services including a variety of value-added services, full pallet handling, case picking and transportation management. The company will utilize the Port of Charleston to support both import and export trade.



INTERSTATE WAREHOUSING/TIPPMANN GROUP broke ground on Phase I of a 273,000-square-foot freezer facility with 30,000 pallet positions in Kingman, Arizona, United States. The building is being designed with a 55-foot ceiling, 43 dock doors and a modern, two-story office complex. The design and build construction is being handled by **TIPPMANN CONSTRUCTION**.



J.B. HUNT TRANSPORT, INC., Convoy and Uber Freight announced the formation of the Scheduling Standards Consortium (SSC), which aims to solve transportation scheduling challenges by establishing the freight industry's first formal set of appointment scheduling application programming interface (API) standards. The SSC's objectives are to define an API standard for sharing scheduling information, implement those standardized interfaces

to enable integrations in existing systems, and advocate for the standard across the industry. The companies say the standard will bring more cohesion and resiliency to the movement of goods, making it easier to book and manage appointments, optimize processes for drivers, shippers and receivers, and drive operational efficiencies for the industry at large.



KÖRBER has been recognized by Food Logistics as 2022 Top Software & Technology Provider. The award honors software and technology providers that ensure a safe, efficient and reliable global cold food and beverage supply chain.



LINEAGE LOGISTICS ranked fifth for on-site solar adoption and 22nd overall for total solar



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.

The demand for deep-freeze products continues to grow. As volumes increase, requirements placed upon deep-freeze logistics are getting more complex. SSI SCHAEFER offers flexible, modular, and scalable solutions that optimize storage, picking processes, and profitability within cold storage facilities.

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GCCA STANDS WITH YOU. THE TIME TO ACT IS NOW.

Never before has our industry faced such uncertainty and vulnerability from America's policy makers, both in the White House and in both chambers of Congress. **The current Administration and Congress present new challenges and opportunities that we will need to face as an industry, together.**

The Biden Administration and Democratic controlled Congress could implement burdensome regulations and increase oversight over our industry in a number of ways. This includes:



OSHA COVID-19 STANDARDS

- Enacting a national emergency temporary standard for industry
- Sets the stage for permanent regulation on infectious disease control in the workplace



CLIMATE CHANGE

- Pursuing aggressive policies to address climate change, through both executive action and legislation
- Rejoining the Paris Climate Agreement, eliminating greenhouse gas emissions, and implementing the Green New Deal



TAXES

- Rolling back the Trump tax cuts
- Increasing the corporate tax rate from 21% to 28%, phasing out deductions for pass-through entities
- Raising the top marginal income-tax rate from 37% to 39.6%
- Less money in the pockets of businesses means less jobs available for hardworking employees



LABOR

- Strengthening worker organizing, collective bargaining and unions through executive action and legislation such as the PRO Act
- Labor initiatives, like 'micro-unit' organizations and joint employer policies could quickly be reinstated



ADDITIONAL REGULATIONS

- Revisiting EPA's Risk Management Program (RMP) regulation and making additional requirements
- Changes to Process Safety Management

A Democrat controlled White House and Congress will only mean more rules, regulations and burdensome policies.

THERE IS SOMETHING YOU CAN DO.

To learn more about how you can contribute contact Lowell Randel (lrandel@gcca.org) or visit advocacy.gcca.org.
Visit ADVOCACY.GCCA.ORG for more information.

MEMBER NEWS

NEWS FROM MEMBERS OF GCCA CORE PARTNERS

adoption in the United States, according to the Solar Energy Industries Association's (SEIA) Solar Means Business 2022 report.

LINEAGE LOGISTICS opened its fully automated Cool Port II cold storage facility in the Port of Rotterdam, Netherlands. The fully automated deep-freeze high bay warehouse has 60,000 pallet locations and three automated truck unloading systems. The new Cool Port II facility next to Cool Port I gives customers the option of tri-modal connections by sea, rail and road.

LINEAGE LOGISTICS recently received approval for plans to construct a \$80 million, 250,000-square-foot cold storage facility in Laredo, Texas, United States. Laredo is a significant port of crossing for produce between Mexico and the United States. The facility is scheduled to be completed in 2023.



MAERSK-owned company, Performance Team, will operate a \$100 million cold storage facility under construction in to facilitate the movement of refrigerated goods through the Port of Wilmington, Delaware, United States.

RL COLD will continue to own the facility while Performance Team will oversee day-to-day operations. The \$100 million facility broke ground in April 2022 and is expected to open in August 2023.



INDUSTRIAL announced that Co-Founder and CTO John Crawford has been named as a 2022 Environment+Energy Leader 50 Honoree. Crawford developed the Ndustrial Optimization framework, which enables smarter energy decisions in real time. The annual Environment+Energy Leader 50 recognizes environment and energy leaders who create new solutions to achieve greater industrial environment and energy management.

RLS LOGISTICS, through its affiliate RLS Partners celebrates the completion of its newest full-service refrigerated warehouse operation.



TI COLD worked with long-term partners, RLS Complete, to design and build the facility that was developed with a focus on energy efficiency, advanced warehouse management and value-add services to refrigerated food providers. The 83,000-square-foot facility will contain 18,000 pallet positions with the support of a mobile racking system that allows the facility to hold 40-45% more pallet positions than the standard double deep racking. The facility will also use an environmentally friendly refrigeration system that consumes less electricity than traditional ammonia-based systems, reinforcing the company's sustainability initiatives. 🌱

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ASSOCIATION NEWS

NEWS ABOUT GCCA CORE PARTNERS

On January 1, 2023, the International Association of Refrigerated Warehouses (IARW) and the International Refrigerated Transportation Association (IRTA) officially became the Global Cold Chain Alliance (GCCA). Success of the global supply chain depends on transportation and warehousing working closely together. And the IRTA and IARW Boards felt that coming together affords the organizations a tremendous opportunity to showcase thought leadership and enhance cross-community engagement between two vital sectors of the global supply chain. Working together, as one organization, with one Board of Directors, the Warehouse and Transportation members will more easily and efficiently develop and implement collaborative solutions to problems facing the cold chain community as a whole.

As of January 1, 2023, the World Food Logistics Organization (WFLO) officially changed its name to the Global Cold Chain Foundation (GCCF). This name change coincides with the foundation creating its own strategic plan focused on providing research, training and project work for the cold chain industry around the world. A new logo for the foundation was also unveiled for the organization.



On December 20, the future leader award recipients from around the world competed virtually for the 2022 GCCA Global NextGen Award. This award recognizes outstanding future leaders in the cold storage industry. This year's list of individuals competing for the 2022 GCCA Global NextGen Award included:

- Corrin Hill, Transport Manager, Lineage Logistics, United Kingdom (2022 GCCA Europe Future Leader Award Recipient)
- Larna Jodamus, Compliance Manager, CCS Logistics, South Africa (2022 GCCA Africa Future Leader Award Recipient)
- Malvin Fabal, Industrial Engineer/Logistics and Frozen Warehouse Supervisor, Rannik, Dominican Republic (2022 GCCA Latin America Future Leader Award Recipient);
- Kulsoom Khan, Energy Efficiency Manager, Congebec Inc., Canada (2022 GCCA North America Future Leader Award Recipient/Don Schlimme Award);
- Mark Jackson, Distribution Center Manager, Linfox, Australia (2022 RWTA Future Leader Award Recipient)

This virtual event allows GCCA to showcase our industry's top young talent to our global membership.



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ASSOCIATION NEWS

NEWS ABOUT GCCA CORE PARTNERS

Congratulations to Larna Jodamus of CCS Logistics in South Africa for being named the 2022 Global NextGen Award recipient.



Griffco Design/Build, Inc. and Coldbox are the recipients of the 2022 **CEBA** Built by the Best Award. The announcement was made in front of a record 400 attendees during the closing General Session of the CEBA Annual Conference and Expo held in November. CEBA members are true experts in building the cold chain and to recognize their tremendous expertise, the CEBA Built by the Best Award was launched in 2016. The award acknowledges project teams moving the industry forward in the design and construction of controlled environment facilities. See the article on page 20.



Americold Logistics' Gateway project built by Griffco Design/Build, Inc. (Photo courtesy of Griffco Design/Build.)



Confederation Freezers' expansion built by Coldbox. (Photo courtesy of Coldbox.)

On December 8-9, the World Trade Organization (WTO) held its Annual Symposium of the WTO Agriculture and Commodities Division (AGCD) in the form of an Agri-Food Business Day. **GCCA's** Lowell Randel represented the association as a panelist on a roundtable discussion entitled "The Environmental Sustainability of Global Value Chains." Randel joined government and industry col-

leagues in discussing supply chain issues and the importance of sustainability. The session explored the interlinkage between international agricultural trade and environmental sustainability, and the trade policy reforms that can contribute to improved environmental outcomes. A recording of the panel session can be found here:

www.youtube.com/watch?v=skRjEbJANZc @

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GATE4EU
Boom, Belgium

MRBraz & Associates, PLLC
Azle, Texas, United States

GCCF MEMBERS

Arlington Food Assistance Center
Arlington, Virginia, United States


First Fruits Farm
Freeland, Maryland, United States

Georgian Cold Storage and Logistics Association
Tbilisi, Georgia

Greater Pittsburgh Community
Duquesne, Pennsylvania, United States

Westside Food Bank
Santa Monica, California, United States

CEBA MEMBERS

Acorn Thermal Services, LLC
Canton, Georgia, United States 

160 facilities
have already made a commitment
to improving the cold chain



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NEW MEMBERS

NEW MEMBER COMPANIES OF GCCA CORE PARTNERS

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FOOD SAFETY IS ALWAYS IMPORTANT ... BUT EVEN MORE SO IN A PANDEMIC.

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IMPROVE YOUR OPERATIONS:

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PAT HUGHES

Patrick “Pat” Hughes has been involved in numerous cold chain development projects across the globe supporting the Global Cold Chain Foundation (GCCF), formerly the World Food Logistics Organization. GCCA recently recognized Hughes as a Cold Chain Champion.

CF: What was your response to your nomination as a Cold Chain Champion for your “quick thinking, ability to problem solve and positive presence around the world?”

PH: My initial response was, “Who are they talking about?!” It’s quite an honor that someone thought to write those kind words. I’ve worked in the industry and with GCCA for many years. It’s nice to take a second and look back on that time and think about all the amazing people I’ve had a chance to work with and get to know around the globe.

CF: How were you introduced to the refrigerated storage/transportation industry?

PH: My wife’s family business was Richmond Cold Storage, established in 1907 (later to become Lineage Logistics). I joined the company in the ‘90s on the operations side and began managing cold warehouses. Soon after, I immersed myself in quality management systems, and over the years, I have become an ardent student of quality management as a critical management device within the integrated cold chain, and beyond



Seeing these dynamic shifts in an entire industry, and seeing how it can positively affect families and small societies generationaly, is just amazing!”

CF: You are known for your abilities to address cold chain gaps in agricultural development projects and communicating them effectively to project stakeholders. For you, what is the most rewarding part of working in this industry?

PH: Most rewarding is the opportunity to help small business owners and potential managers achieve opportunities and profits far beyond their initial dreams. I have been blessed many times to work with men and women who own micro-enterprises and actually turn them into much larger, profitable enterprises that not only are able to protect food and maintain value but also continue on to conduct export operations! Seeing these dynamic shifts in an entire industry, and seeing how it can positively affect families and small societies generationaly, is just amazing!

CF: In recent years you visited the University of Balkh in northern Afghanistan to present cold chain management as a potential vocation to engineering students completing their degrees. What have been your greatest professional accomplishments?

PH: My work in Afghanistan spans more than a decade and working with students at Balkh and other universities in Afghanistan and other countries ranks at the very top of the opportunities I’ve had over the years. Teaching young, enthusiastic students the

complexities of the cold chain industry at a high level, about which they knew very little if anything, is really exciting. Then watching them become passionate about the industry is something I cherish.

CF: What is your advice to companies and professionals who would like to contribute to the international growth of the cold chain industry?

PH: Getting involved in GCCA is a tremendous help for both companies and individuals. For international growth, becoming involved in the emerging and developing parts of the world and helping in the development of the industry is one of the best ways your management and executives can QUICKLY learn the ins and outs of the industry abroad. Reading columns like this provides a reasonable picture, however, until you touch it and see it, it is almost impossible to fully grasp and comprehend the vast differences that exist in our industry in developing areas of the world.

For companies and investors interested in the cold chain industry, there is a tremendous global need for more cold chain infrastructure. However, I advise investors not to take shortcuts in the design, construction or management of the new business. Hiring industry professionals with loads of experience is, I think, critical to the success of the startup. ☎



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Kalman Floor Company is an institution, one of the leading specialist concrete flooring contractors in the USA, with a 105 year history, exemplary track record and enviable reputation for innovation, quality construction and outstanding customer service. A family business (3rd generation), the innovation and values of the company have benefited customers in all US states. Kalman was the first company in the USA to install shrinkage compensating floor slabs setting the standards for others to aspire to.