



A worker at Boxwheel Trailer Leasing, one of Sleek Technologies' customers, works on a refrigerated container truck. (Boxwheel Trailer Leasing photo.)

## Baby, it's warm outside: Cold Chain Works to Keep Its Cool in these Overheated Times

By John Jeter

Oleg Yanchyk likes his ice cream. "Strawberry, of course," he says. But when the supply chain gets overheated and churns too slowly, the sweet stuff can get goeey.

"Yeah, man, it happens. I

a refrigerator unit loses its cool; drivers—or, more likely, in these days of driver shortages, a lack of them—don't have the expertise to handle low-temp loads, the know-how that isn't required on dry-van or flatbed

customers. That's about standard industrywide, he says.

That sector, C-suiters say, is looking at a pace of growth hardly below zero. In terms of just ice cream—and Yanchyk is among Americans who each consume an average of 23 gallons of ice cream a year—

are rising around 13%.)

And that's just ice cream.

### It's about Flexibility

At Americold Logistics, Mathew Moore sees several drivers for growth, especially in a rumbling appetite for cold storage.

Consumers are flexing increasing influence in the food chain, so "having a flexible cold storage network that can adapt to changes in demand will be necessary," says Moore, who is Vice President, Global Market Strategy at the temperature-controlled warehousing and transportation company.

In addition, he says that consumers' rising hunger for healthy, fresh foods "requires a more nimble and efficient cold chain to ensure products move quickly and remain at the right temperatures."

Finally, he says, new and improved infrastructure will be required to handle that demand.

Maersk, for one, sees that.

A Hapag-Lloyd reefer container gets a life. (Hapag-Lloyd photo.)

sales of the dessert and frozen novelties (think fudgesicles—yuuuum!) jumped 24% from March through May 2021 over the same period in 2019, according to the International Dairy Foods Association.

The association, citing a Fortune Business Insights report, says the global ice cream market is expected to top \$92 billion in 2027, up from nearly \$71 billion—that is, in "less than a decade due to the world's craving for ice cream." (That doesn't count inflation. In February, The Globe and Mail quoted Ashley Chapman, vice president of the eponymous Canadian ice cream maker, as saying costs

medicine and biospecimens, he says.

## Check Out Cold Chain's Cool New Technology

Alas, the bygone days of the milkman. Remember walking up to those deliveries of fresh milk in glass bottles? Well, times have changed, and so has the transport of perishable cargoes, from milk to microwavable meals and from fresh veggies to vaccines.

Envirotainer most recently introduced two technological innovations, including Releye RAP and RLP containers, with more capacity and improved temperature controls, according to the Fredrik Linnér, Chief Business Development Officer. The company, which specializes in pharmaceuticals, develops and manufactures reefers.

The RAP format can accommodate five European-sized and four U.S.-sized pallets with temperatures as low as minus 256 degrees Fahrenheit and can operate autonomously for 170 hours without recharging, he says.

Another Envirotainer focus, which Linnér calls "ultra-low cold chain," features the company's new dry-ice platform, CryoSure. Capable of maintaining minus 94-degree temps for three weeks, the new product meets the growing demand for cell and gene therapies, personalized

Hapag-Lloyd, meanwhile, launched a reefer container tracking tool in 2020: its Hapag-Lloyd LIVE, offering LIVE Basic and LIVE Plus. The former monitors all perishable goods that demand temperature controls for such items as pharmaceuticals, dairy, frozen fish, chocolate and the like. LIVE Plus monitors all commodities requiring cold treatment.

"New and enhanced digital solutions play a major role, especially since the beginning of the pandemic," says Sarah Schlueter, Senior Director Niche Products at the maritime company whose specialties include refrigerated transport.

Greg Tuthill, COO at SeaCube Containers, echoes her comments, noting that telematics and internet-of-things technologies are additionally "having a significant and positive impact."

He adds, "Controlled atmosphere technology is also advancing, allowing reefer shippers to source from areas with much longer transit times and also affording longer product preservation as a result of fresh fruits and vegetable ripening cycles to be delayed." —John Jeter.



mean, you'd be surprised, but it happens quite a bit," says Yanchyk, CIO and Co-Founder of Sleek Technologies, which provides AI and other solutions that connect shippers with truckers.

He names just a few scenarios that can create a cold chain meltdown: a truck breaks down;

haul; and, lest we forget, the global supply chain's chronic congestion.

Melted products, of course, are "outside the norm, but that's something that's part of our service offering," he says of Sleek, which counts reefer transport as roughly 30% of its business with shipping

**Freighter full of salmon**

With seven Qatar Airways passenger flights and six B777 freighter services each week, the Oslo-Doha route is well served, and the airline's cargo capacity well stocked. Of that freight, 95% of all perishable seafood (PES) on board Qatar Airways flights out of Scandinavia, is salmon.

Iceland and Faroe Island (Denmark) also see some seafood traffic which includes live king crabs, trout, and other seafood. However, the bulk of the salmon business originates in Norway. At 1.3 million tonnes of salmon exported in 2021 (the country's best year to date), and a segment value of EUR 8.57 billion/USD 9.28 billion, Norway is by far the world's number one salmon exporter.

"Salmon is a particularly delicate cargo commodity as it requires skilled, hygienic handling in temperature-controlled conditions and, above all, reliable, fast connections to its final destination," says Rob Veltman, Vice President Cargo Europe at Qatar Airways. "Qatar Airways Cargo not only offers a global network of over 150 stations, we also reacted quickly to support Norwegian seafood exporters when the pandemic led to a dramatic decrease in available belly capacity."

By introducing passenger freighters to the Norwegian seafood market, including Harstad-Narvik Airport in Evenes and Bodo Airport in Northern Norway, Qatar Airways Cargo significantly increased its capacity to the Norwegian market in 2021 when it was needed the most.

"Our Operations team went above and beyond to meet the needs of our customers, resulting in record breaking uplift of more than 68,944 kg on a single lower deck 777 passenger flight," Veltman says.

Consequently, Qatar Airways Cargo transported more than 46,000 tonnes of Norwegian seafood last year, the highest result yet.

"The airline transports more than 125 tonnes of seafood from Oslo every single day," he adds. "Norwegian salmon is a delicacy that is enjoyed worldwide, and Qatar Airways Cargo ensures that it reaches restaurants and supermarkets around the world in the same fresh state that it was originally sent in."

Qatar Airways Cargo,

together with its Norwegian GSA partner, ECS Group subsidiary, NordicGSA, are air cargo experts when it comes to seafood logistics. They were awarded DB Schenker's prestigious Seafood Airline Award for three consecutive years: 2018, 2019, and 2020.

"The DB Schenker Seafood Airline Award is the only award where seafood farmers are the ones judging the various airlines in terms of how they handle perishables, the service offered, their quality and proactiveness, among other factors," explains Carl Christian Skage, Managing Director of NordicGSA in Norway. "Our priorities are ensuring commodity-specific service, temperature-control, and above all, an awareness for sustainability, which is a decisive factor, particularly within Scandinavia. That is why we have a program in place whereby all carbon emissions generated by our operations here in Norway, including the trucking to our hub, is compensated by Norway's largest BIO-carbon capture initiative, Trefadder, which plants trees on our behalf."

Qatar Airways Cargo offers close to 850 tonnes of cargo capacity each week from Norway, transporting Norwegian salmon via Doha's state-of-the-art perishable center, to destinations across Asia: Seoul/South Korea (ICN), Bangkok/Thailand (BKK), Shanghai/China (PVG), Osaka/Japan (KIX), Narita/Japan (NRT), Hong Kong (HKG), Guangzhou/China (CAN); and the Middle East: Dubai/UAE (DXB), Doha/Qatar (DOH), and Riyadh/Saudi Arabia (RUH).



Shipments of salmon are loaded onto a Qatar Airways Cargo aircraft. (Qatar Airways Cargo photo.)

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The Danish-based carrier announced in early June a new 167,812 square-foot space with 24/7 monitoring and backup power supplies for refrigerated and frozen storage, among other amenities in the Dayton, NJ. facility, according to a press release. Expected to open in October, the site, just two hours from Elizabeth, NJ, will handle fish, poultry, beef,

From exotic fruit to freshly caught fish, Hapag-Lloyd's reefer containers deliver temperature-sensitive goods from all over the world to supermarket shelves. (Hapag-Lloyd photo)

fruits and vegetables.

**Capacity Issues**

Nevertheless, capacity, as 18 >>



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>> 17 in all other sectors throughout the supply chain, continues to pose chilling challenges.

Sarah Schlueter, Senior Director Niche Products at Hapag-Lloyd, says the company is seeing a definite equipment shortage. That's partly due to reefer containers' competition with laden dry containers on the refrigerated units' return from Asia.

"Although we have ordered a large quantity of box capacity, including refrigerated containers, over the past two years," she says, "we expect the shortage of reefer equipment to continue for the time being."

That brings up a problem peculiar to cold chain: a refrigerated container doesn't have to be plugged in; the box can haul whatever it can carry—and, again, dry goods pull from reefer capacity.

Yanchyk, for instance, mentions a Sleek customer



that makes milk runs from Minnesota to Chicago. On the return trip, the carrier's trucks haul paper for another Sleek shipper. Simply: milk, cold, paper, n/a.

And as Schlueter points out, the backhaul conundrum contributes that much more to ongoing transport snarls. As Yanchyk explains, "All of a sudden, it was hard to find any trucks for a lot of shippers—if a refrigerated truck can load my furniture, yeah, I'll take it."

Now summer's here, enjoy your patio furniture all you

want, but as Kevin Daly suggests, the season only swaps problems.

"As the summer months approach and importers switch from dry containers to reefers, this will further complicate many of the daily port challenges being felt each day," says Daly, COO at East Coast Warehouse & Distribution.

That is, terminal and warehouse space, plug-in capacity and downstream supply chains will face renewed bottlenecks, "with no immediate alternative,"

Envirotainer's Relay RAP and RLP containers are designed to meet the strictest requirements in pharmaceutical air freight. (Envirotainer photo.)

he says. Likewise, he expects reefer capacity, combined with a lack of temperature-controlled warehousing, "to continue to present challenges at least for the balance of the year."

Still, Greg Tuthill sees a robust 2022. At the same time, though, "equipment positioning as a result of congestion and dislocation may create equipment availability headwinds," says the Chief Commercial Officer at SeaCube Containers.

### Shortages/Solutions

In a word: shortages, shortages everywhere, especially labor—from port personnel to truck drivers to workers in manufacturing plants.

And let's not forget shortages in pretty much everything else, including the stuff that goes into making stuff. Those progressively popular "superfood" burgers? Well, those include flour, quinoa, organic spices, almonds and the like.

"Many of our customers use dry ingredients and

their supply chain plans to meet changing requirements, so he stresses the importance of a broadened network.

"It's invaluable to have supply chain partners who can accommodate those changes, without having to change suppliers," he says. "This makes the supply chain management process simpler and more efficient for all involved."

supply chain considerations, particularly in cold chain, are even more complex.

"Times like this call for collaboration between pharmaceutical companies, cold chain suppliers, airlines and forwarders," he says.

Back to food and that all-important last mile in cold chain: grocery stores.

The National Grocers



Fredrik Linnér agrees. Envirotainer, where Linnér serves as Chief Business Development Officer, says that while the company has shipped the likes of a "billionaire's birthday cakes and fries for fast-food chains, for a long time, we've had one focus: ensuring lifesaving, temperature-sensitive pharmaceuticals and biomedicines."

Along with decreased air

Envirotainer's CryoSure platform delivers temps at minus 94 degrees F, to meet the growing demand for cell and gene therapies. (Envirotainer photo.)

Association is seeing a "perfect storm" of all of the issues C-suiters bring up here, according to Jim Dudlicek, the NGAs Director, Communications and External Affairs.

Call 'em ice cubes: refrigerated containers have to stack up against dry laden containers, too. (SeaCube photo.)

Those—not to mention soaring fuel costs—simply add to the stresses on independent grocers and wholesalers with historically thin margins, he says.

And those are the folks who deal daily with cranky customers struggling with inflation.

So how does one handle all this pressure?

Says Yanchyk, "That's why I eat ice cream, you know, it's all the stress."

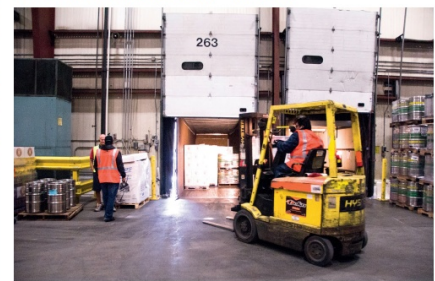



packaging in the production of their temperature-controlled finished products," says Brian Dove, Marketing Director at VersaCold Logistics Services. "So when they can't receive raw materials, they can't make the finished product, which creates shortages and delays that affect the supply chain.

The solution? Companies' bigger networks can mean bigger net worths.

As Dove puts it, VersaCold's customers are having to adjust


It's a pretty cool job for workers in an East Coast Warehouse facility. (East Coast Warehouse & Distribution photo.)





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