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$450MM Capital Raised to Provide Industry-Leading Temperature-Controlled Logistics

Cold chain marketplace startup Celcius raises USD 500,000 in seed funding

Shypple raises €25.5 Million, acquires ‘Milestone’ to lead perishable market.

Cold Chain Infrastructure: The Bridge between Agriculture and Food Processing

In conversation with Andreas Seitz, CEO, DoKaSch Temperature Solutions GmbH

Effect of COVID Pandemic: Booming Demand for Cold Store Warehouses:

Carel adopts disconnection guidelines

In conversation with Rohan Bellikatti, Country Head- New Business Development-India and Srilanka, Lamilux India
Danfoss inaugurates Green Refrigerants Testing Centre at India Campus

Chennai, India | Sept. 2021 | Danfoss Industries Pvt. Ltd has launched an all-new center of excellence for green refrigerants at its state-of-the-art facility in Chennai, to encourage the sustainable development and use of low-GWP refrigerants. Mr. Dan Jørgensen, Minister for Climate, Energy and Utilities, Denmark inaugurated the facility in the presence of H. E. Freddy Svane, Ambassador of Denmark to India, Mr. Ravichandran Purushothaman, President – Danfoss India and the business delegation accompanying the Minister. This is a major green milestone in Danfoss’s journey to provide Sustainable Cooling for all and will surely help in the green transformation of India’s Cold Chain sector.

Visiting Danfoss India campus along with distinguished business delegates, Danish minister Dan Jørgensen said, “Danfoss has established itself as a frontrunner in supporting the UN Sustainable Development Goals and fighting against global warming & climate change, globally. The launch of this new Green Refrigerant Center by Danfoss will help accelerate India’s transition towards green refrigeration. Danfoss journey in India is a bright example of how Danish technologies can help bring about more energy efficiency and sustainability in Indian industries.” The Minister’s visit to India is part of the Green Strategic Partnership between Denmark and India, where both nations will exchange learnings, technology, and best practices to create a sustainable tomorrow.

The preservation of products in a temperature-sensitive manner

Sept. 2021 | Tessol, a Mumbai-based cleantech venture was found in 2013. Today, it has emerged as a national leader in the industry and offers “next-generation cold chain storage and logistics solutions” in India. For a domestic market choking due to the constraints of a poorly developed temperature-controlled supply chain, Tessol came in the nick of time. The company guarantees the preservation of products in a temperature-sensitive manner with the added assurance of last-mile delivery. Tessol has a proven success story in the field of last-mile distribution. Their capability has been a motivation for the business to up the game of their services. Their tailored and customised solutions to every single cold chain supply-demand sets the startup apart in the field. Cold chain supply had, for the longest time, been an underdeveloped technology. Several years ago. There was a time when Businesses, pharma and food and beverage exporters have hesitated to expand their services due to the lack of a cold chain service provider who can handle the sensitivity of temperatures. Tessol has emerged into a parched and desperate scenario with the promise of reliability, domain expertise and customisation. It prides itself in being “the organised player in India who provides end to end cold chain logistics solutions”. 
ColdHubs: Solar Powered Cold Storage Innovation Takes Over Nigerian Markets

In a tropical country like Nigeria, temperatures are often on the higher side of the scale. The shelf life of the farm products is limited to mere days after the harvest. It means there are only a handful of days in which to sell the entire produce profitably. The alternative of whatever remains going wasted stares at the hard-working farmers. It also decreases the profit marginally and often pushes them into debt cycles. The ColdHubs, a Nigerian start-up, came up with an innovative facility that allows farmers to keep their produce fresh for longer periods in temperature-controlled conditions in the local markets near them. These cold hubs operate on solar power which makes them economically affordable and sustainable in the long run. In a nation such as Nigeria, solar energy is the most abundant and accessible of harvestable natural energy resources. “ColdHubs is a “plug and play” modular, solar-powered walk-in cold room, for 24/7 off-grid storage and preservation of perishable foods. It adequately addresses the problem of post-harvest losses in fruits, vegetables and other perishable food. Installed in major food production and consumption centres, it allows farmers to place their produce in clean plastic crates in stacks inside the cold room. This extends the freshness of fruits, vegetables and other perishable food from 2 days to about 21 days. The solar-powered walk-in cold room is made of 120mm insulating cold room panels to maintain temperature. Energy from solar panels mounted on the roof-tops of the cold rooms is stored in high capacity batteries and fed into inverters which in turn runs the refrigerating unit.” The cold hubs, simplistically named after their purpose, helps traders in the market make more money. Double hubs, such as the one opened in May 2021 at the Mile 12 International Market in Lagos State, can store upto 6 tons of food a day. These hubs help make the Nigerian food industry more profitable and create a better environment by putting an end to losses due to spoilage, usually encountered by traders in the market. The cold hubs get into contractual deals with local markets to set up cold rooms. The relationship is more of a partnership that will yield positive results for both parties. Coldhubs offers farmers a flexible pay-as-you-store subscription model. They pay a daily flat fee for each crate of food they store and can utilize the facilities in the markets to ensure higher quality and better earnings for their produce. Mr Nnaemeka C. Ikegwuonu, CEO and founder of ColdHubs is a farmer, innovator, and leading social entrepreneur.
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Aug. 2021 | Storage DFI Retail Group, a leading pan-Asian retailer launched its new flagship outlet, CS Fresh Gold, at Paragon, Singapore on 26 August 2021. As a part of the SG$40 million mega-move, DFI aims to revamp 48 Cold Storage outlets across Singapore by the end of 2022.

Highlighting the heritage of the Cold Storage industry, the all-new flagship markets itself as “Foodie Starts with Fresh”, which clearly wants to make space in customers’ everyday grocery carts. To proliferate their promise to meet shoppers’ everyday needs, the company also unveiled a brand video to showcase their overhaul.

Besides, aiming to delight the customers with a unique retail experience, the flagship promises to adhere to Cold Storage’s sustainability norms; wooden fixtures in the store were recycled from old palettes and repurposed into the store design. “The opening of CS Fresh Gold at Paragon follows the success of CS Fresh in Great World City”.

Additionally, Dairy Farm Group rebranded itself to DFI Retail Group earlier this month, identifying itself as a company that prioritizes customers’ needs over theirs.
Phononic Introduces First-of-its-kind Sustainable and Intelligent Actively-Cooled Tote

Sept. 2021 | Phononic, a global sustainable cooling and heating service provider, announced that it will soon be launching its comprehensive solution for active, portable cooling and freezing of perishable goods; an Actively-Cooled Tote.

Ultra light-weight and portable, the product will be available in refrigerator and freezer versions with ultra-low, non-toxic and non-inflammable GWP refrigerants. It is equipped with a wireless contact charging facility and consumes the least amount of power possible. The new Tote is regarded to be a comprehensive solution that will allow for labour savings as well as strong ROI across the entire Cold Chain Fulfillment Ecosystem.

Across industries, our solid-state solutions are delivering cold chain performance and sustainability that compressor-based systems or other thermoelectric approaches simply cannot match,” said Dana Krug, Phononic SVP, Cold Chain Fulfillment. “Our Phononic tote technology and platform for grocery retail not only provides for the highest quality of perishable foods, but it also avoids the use of toxic, high GWP-refrigerants that warm the earth. That kind of positive environmental impact will be critical for climate control as this sector scales globally – and we know that our customers are focused on it.”

The Cool Logistics Global Conference will Take Place Online

Sept. 2021 | Cool Logistics is the world’s leading global community network, B2B events and knowledge hub for perishables trade, logistics, refrigerated shipping and cold chain professionals. Its community of global professionals is active in cold supply chain operations and infrastructure, perishables trade, shipping, transport, logistics and technology. People across the industry come together to discuss and debate the big issues of the day. The Cool Logistics team has been running events all over the globe since 2009, across Africa, the Americas, Asia and Europe. It is the 13th consecutive year in which the event is being organised. This year the annual flagship Cool Logistics Global meeting takes place online in October, hosted once again by the Port of Rotterdam.

The 13th Cool Logistics Global is being organised with the motto “Looking Back and Building Forward”. In a period which saw industries and businesses being handicapped by a worldwide pandemic, the Cool Logistics Global has been marked only international event in the entire year for the perishables trade, cold chain and reefer shipping community. The event has been organised to encourage networking among peers and colleagues, allow for innovations to be exhibited and conduct conferences on the latest developments around the world. Cool Logistics invites people to join the team and global community of decision-makers, experts, explorers and innovators. With a stellar line-up of speakers, the three-day online event is intended to bring together the international cold chain logistics community.
IQF OctoFrost Turns Vegetable Processing into an Experience, Launches 3D Animation Demonstration

Aug. 2021 | Swedish IQF machinery manufacturer OctoFrost has recently released a 3D animation to allow potential customers get a lucid look of the OctoFrost IQF Vegetable Processing Line. According to the marketing coordinator of OctoFrost, the animation lets the potential clients feel the ease of using OctoFrost line, which is a one-stop solution for vegetable processors across the globe. As per their client review, ‘The design and ease of sanitation make fast product changes possible’ and we feel this animation shows the properties that make our line so convenient. The sophisticated and technical aspects of the IQF Vegetable Processing Line are presented, showcasing properties of each piece of machinery; the flotation Washer with aerial blower, OctoFrost IF Blancher, Flash Chiller, and IQF Vegetable Freezer.

Working together with industry experts and graphic designers, OctoFrost achieved a complete visual representation that shows how food products are processed at each stage of the washing, blanching, chilling, and freezing processes. “The OctoFrost vegetable Processing line is brimming with energy-efficient and next-gen features, guaranteeing premium product quality adhering to the greatest hygiene and food safety standards in the industry.

Shypple raises € 25.5 Million, acquires ‘Milestone’ to lead perishable market.

Aug. 2021 | Rotterdam-based digital freight forwarding platform Shypple has raised €25.5 Million this year to acquire ocean freight forwarder Milestone. With this accretion, Shypple is said to be the “first digital freight forwarding service” in the Perishable Market.

The recent acquisition of the Milestone does not only strengthen Shypple’s foothold in the already lucrative Asian Market but will also mark an emboldened presence in European and Central Market. “We are giving a huge boost to the digitalisation of our services by combining our knowledge of perishable transport with the digital capabilities of Shypple,” said Milestone co-founders and CEOs Co van Es and Juri Falandt. “As a result, our customers immediately benefit from the visibility, consistency, and reliability that will enable them to confidently optimise their global trading operations. This is hugely important in an intercontinental market where efficiency and access to the latest freight information are essential.”
What are your best-known solutions/products/services?
Glass reinforced plastics (GRP) are playing to their strengths in a wide range of industrial applications – and with their versatile qualities are increasingly replacing conventional materials such as aluminium or steel. LAMILUX’s GRP lightweight qualities are used primarily as the inner and outer cover layers of the side walls, roofs and floors of caravans and shelter homes, Portable Offices, Mobile Hospitals, Reefer Trucks and many more. LAMILUX is a German family run business that has been producing Glass reinforced plastics for almost 70 years. Inspiring customers with innovative, sophisticated products and creative solutions, is the focus of company to support their customers’ success.

With Johanna Strunz and Dr Alexander Strunz, the fourth generation joined the management team alongside their parents Dr Heinrich Strunz and Dr Dorothee Strunz. Due to its technologically outstanding, continuous manufacturing process, large production capacities and broad product range, the medium-sized company is the leading producer in Europe and, since 2021, recognized as one of the world market leaders in its sector. LAMILUX supplies customers around the globe in the segments of commercial vehicles, reefers and dry freight trucks, motor homes and caravans, cold storage, construction industry and numerous other industrial segments.

LAMILUX Composites – Hygienic High-Tech materials in the cold chain
LAMILUX GRP is a preferred material choice for food transport, cooling and food processing industry because of its outstanding mechanical properties, very high lightweight potential, and excellent cleanability. LAMILUX X-treme, for example, combines low weight per unit area with highest strength, rendering it the ideal material for lightweight sandwich elements. With its very good UV and weather resistance and resistance to hailstorms, it is widely used as lining for truck sidewalls and roofs.

Thus the cold Rooms, storage areas and last mile delivery play a very vital role in this cycle. This has opened the doors for many logistic companies to own more of reefer containers and last mile vehicles which are more efficient way of transporting goods. Based on the product type, the market has been segmented as fruits and vegetables, meat and fish, dairy products and healthcare products in today’s scenario.
Also for the interior in reefer trucks as well as wall claddings in food and cooling industry, LAMILUX GRP is often the preferred choice when it comes to cleanability, hygiene, and impact resistance. For further safety in between the cleaning cycles, LAMILUX AntiBac is equipped with an antibacterial surface, certified to DIN EN ISO 22196 and JIS Z 2801.

**Worldwide service and fast distribution**
With Sales Partners all around the globe and fast international distribution, LAMILUX is the industry leader when it comes to delivery reliability. This is where the many years of experience in the worldwide dispatch of goods and the logistical know-how of the customer-oriented sales team of LAMILUX Composites come into play. In addition, the large production capacities ensure extremely timely material production. Thanks to intelligently distributed branches in numerous countries around the world, the professionals at LAMILUX Composites are always available to our customers, almost independent of time zones.

**Which industry sectors are your customers in, and which ones are growing fastest?**
We supply customers around the globe in a wide range of sectors, such as the automotive and recreational vehicle industries, refrigerated store room and cell construction, the construction industry and many other industrial sectors involved in glass or carbon-fibre-reinforced sheets or-rolls. Due to our technologically advanced, continuous manufacturing process, our large manufacturing capacities and our wide product range, we, as a medium-sized company, are the leading European producer and also a leading GRP supplier for the Indian Market.

As a German producer of quality products, we at LAMILUX India have already implemented automotive standards and offer you engineering support in the further processing of composites and on application recommendations. Thanks to the numerous possible uses for fibre-reinforced composites, LAMILUX works with numerous well-known international and domestic companies across India and global.

**What are your most recent product innovations?**
In order to transport the long-awaited COVID-19 vaccines in a safe, hygienic and refrigerated manner from production to the vaccination centres and store them properly there, special transport vehicles and containers are required. Impacts, impurities and, above all, temperature fluctuations must be avoided. Flat and face sheets made of glass fibre-reinforced plastics (GRP) are assisting with this. The construction material LAMILUX X-treme GRP is used, among other things, as a face sheet skin for the internal and external walls of vaccine transport containers. This results in a surface that is extremely robust, even at temperatures of minus 80°C, easy to clean, corrosion-free and very light.

An additional option is the AntiBac function, which can be applied optionally if required by customers to the glass fibre-reinforced plastic. Integrated nano-silver particles disinfect the surface, whereby multi-resistant germs die within just a few hours. The re-formation of critical germs is prevented.

Additional areas of application for LAMILUX X-treme AntiBac
This innovative composite material is already being used as a structural face sheet for refrigerated truck bodies, refrigerated warehouses and processing facilities in the food sector as well as in operating theatres in hospitals. This can reduce downtime throughout the food and cold chain.

"Apart from this now a days people want to go Green in consumption of vegetables and fruits which has been a bigger challenge for the Producers to store the same at the required temperature so that the food wastage could be minimal and the end user gets fresh and healthy stuffs.."
Trust and of course existing relationships with our customers. Could you please share your views on Cold Chain sector for our readers?

LAMILUX India has been offering solutions for customers in the Indian market like sandwich panel construction for truck bodies and many other applications since 2008-09. Having played an integral role in helping to develop the country’s cold chain in close association with the National Centre for Cold Chain Development (NCCD), LAMILUX remains committed to the Indian market with renewed thrust on market expansion and deeper penetration. The Indian cold chain sector is expected to grow at 14% CAGR during 2021-2023. And the major drivers to this sector are the Growth in Organised Retail Food, Growth in Processed Food & Health care sectors which are key areas where we can expect growth. Apart from this now a days people want to go Green in consumption of vegetables and fruits which has been a bigger challenge for the Producers to store the same at the required temperature so that the food wastage could be minimal and the end user gets fresh and healthy stuffs. Thus the cold Rooms, storage areas and last mile delivery play a very vital role in this cycle. This has opened the doors for many logistic companies to own more of reefer containers and last mile vehicles which are more efficient way of transporting goods. Based on the product type, the market has been segmented as fruits and vegetables, meat and fish, dairy products and healthcare products in today’s scenario. Yes, I do know that the un-organized segment is much much higher than the organized segment but we should all strive hard to make changes in your approach and adapt to the required changes helping Indian Cold chain sector to be more organized and systematic. By this we can only Gain as a country. As the saying goes “The value of an idea lies in using of it”, So Be the change and take the first step!

In order to transport the long-awaited COVID-19 vaccines in a safe, hygienic and refrigerated manner from production to the vaccination centres and store them properly there, special transport vehicles and containers are required. Impacts, impurities and, above all, temperature fluctuations must be avoided. Flat and face sheets made of glass fibre-reinforced plastics (GRP) are assisting with this.
Sept. 2021 | FESCO Acquires 300 New Reefers, Enlarges its Fleet to a total of 2800 units

FESCO is one of the leading public transportation and logistics companies in Russia with operations in ports, rail, integrated logistics and shipping business. The majority of FESCO’s operations are located in the Russian Far East and the Group benefits from growing trade volumes between Russia and Asian countries. It leads the industry in the Russian Far East via international sea container lines to/from Asian countries, domestic sea container lines and by rail. FESCO is also the leading port container operator in the Far East region. It has a fleet of 18 vessels, mostly deployed through its sea service lines. FESCO controls the Commercial Port of Vladivostok, which has a throughput capacity of 5 million tons of general cargo and oil products, 150,000 vehicles and over 600,000 TEU of containers. As part of the implementation of a strategy aimed at updating the container fleet of its subsidiary Dalreftrans FESCO Transportation Group (“FESCO”, the “Group”) has acquired another 300 new forty-foot refrigerated containers of increased capacity. They will be delivered in Q1 2022. In 2021 FESCO has already purchased 300 refrigerated containers.

As a result of the new transaction, the fleet of Dalreftrans, which in the Group is responsible for transportation of cargo calling for temperature regime, will exceed 2800 units or about 4900 TEU. Containers are equipped with a modern Carrier PrimeLINE refrigerator unit with the latest generation Carrier Micro-Link 5 controller, which provides twenty-four-hour monitoring of operation and maintains temperature regime. The PrimeLINE unit is a container refrigeration unit designed for world-class performance and claims energy efficiency, capacity, lifecycle cost like no other product on market. It has proven and exceptional efficiency results from its digital modulation (unloading), which minimizes energy usage, and its vapour injection system and in turn delivers a higher cooling capacity. It is also meant to significantly decrease life-cycle costs by reducing energy use and maintenance costs. “One of the main advantages of new refrigerated containers is their equipment with GPS/GSM means, with the help of which one can track location, as well as transmit information about the temperature of cargo online”, read an official press statement from the group.

Sept. 2021 | Pharmaceutical and healthcare distributor Trans-Bridge Freight Services has taken delivery of its first Carrier Transicold Vector® HE 19 MT (multi-temperature) unit as per reports from Carrier Transicold, heralding the start of a more sustainable future for the company’s temperature-controlled trailer fleet in the UK. The Vector HE 19 MT unit features Carrier Transicold’s E-Drive™ all-electric technology, combined with a new multi-speed engine design that considerably reduces fuel consumption. The system’s fully hermetic scroll compressor and economiser also mean the Vector HE 19 unit delivers a significant increase in refrigeration capacity during pull-down while reducing the chance of refrigerant and CO2 escape.

Carrier Transicold is a part of Carrier Global Corporation, the leading global provider of healthy, safe and sustainable building and cold chain solutions. It has helped improve the transport and shipping of temperature-controlled cargoes with a complete line of equipment and services for refrigerated transport and cold chain visibility.
Sept. 2021 | Sitics Logistic Solutions Pvt. Ltd. has acquired the Delhi-based third-party logistics start-up Udgam Logistics in a deal mediated by BackWater Capital Advisors LLP in the past week. It is the second start-up acquisition by the emerging leader in the logistics industry after it acquired Quifers, a promising logistics tech startup. Udgam Logistics Pvt Ltd is a start-up engaged in providing logistics and supply chain solutions to customers in the food, near-food, pharmaceutical and retail industries. Udgam came into existence in June 2016 and started its first operation in April 2017. Udgam was started by two industry professionals. Mr Rahul Mathur and Mr Shailendra Singh. Growth as an organisation has been the motto of both Sitics and Udgam logistics. The similarities in vision have played a major role in enabling the takeover. "Udgam’s merger with Sitics would enable it to emerge as an integrated player with wide reach, offering unique and innovative solutions in the logistics domain especially concerning temperature-controlled supply chains. Sitics presence and expertise in logistics tech, e-commerce, warehousing, C&F operations spanning across South-East Asia, Europe, Australia, and the US unfold many opportunities to develop this vertical with cutting edge and tech-driven solutions resulting in superior service and quality to the customers, both nationally and at a global level. The combined strength of both organizations will go a long way to provide profound value to clients in the Pharmaceutical, QSR, Agriculture, Dairy, F&V. and Marine sectors," said Rahul Mathur, Founder, and Director of Udgam Logistics.

**Sitics logistics was founded in 2002 by A.M.Sikander and Haridas.T.**

The company was registered in 2007 with a vision of providing services with the highest ethical values to customers and employees. It soon evolved into a full-fledged logistics organization as the founders were providing services to a few corporates including MNC’s and saw the huge potential of Logistics as a service, as there was a dearth of quality services being offered. From being a small organization it quickly grew into a mid-size company as new customers were added. Today Sitics offers a full-service bouquet of 3 PL and has become one of the largest logistics companies in India offering the entire supply chain solutions. Sitics has also Scaled up services first in South India and later Pan-India as well. Sitics then went on to establish a subsidiary in Malaysia and found a JV partner for Thailand. With the acquisition of Udgam, Sitics has made its way into the $25 million worth US Logistics market as well. In continuing with our vision of building capabilities across the logistics value chain, this acquisition will help Sitics target a new segment and provide tremendous value to their clients.
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COLD CHAIN INFRASTRUCTURE: THE BRIDGE BETWEEN AGRICULTURE AND FOOD PROCESSING

India is largely an agrarian based economy with almost 60% of the population dependent on this sector for its primary source of livelihood. Our food and grocery market is the world’s sixth largest and the country is among the 15 leading exporters of agricultural products in the world. The Gross Value added by agriculture, forestry, and fishing was estimated at Rs. 19.48 lakh crore (US$ 276.37 billion) in FY20. Despite the high levels of food production, India ranks 94th among 107 countries as per the 2020 Global Hunger Index. Today, we face a food loss problem that amounts to about 40% of all the overall food produced every year. With hunger and malnourishment on the rise globally, urgent action is required to bring down the unacceptable levels of food loss and waste.

Why the gap and how do we address it?
Several schemes and policies by the government are aimed at strengthening post-harvest management, however, the challenge of reducing food loss and waste requires action throughout the supply chain, right from the producer to the consumer. It is to be noted that food loss and wastage happens at all levels in the value chain from harvesting, processing, packaging, and transporting to finally consumption. This is predominantly because most, if not all, agricultural produce is perishable and would require refrigeration throughout the value chain from farm to fork. The need of the hour now is to create a sustainable and efficient cold chain ecosystem to reduce the amount of food loss in the entire value chain thereby helping India feed its population of 1.3 billion and conserve valuable resources, like water and energy, at the same time.
The current cold chain food storage facilities are also only concentrated in a handful of states, leaving most states in underserved. There is a massive potential for growth of cold storage facilities to serve such a large agrarian market such as India. Opportunities currently exist in Tier-1 cities in India like Chennai and Bangalore for organized cold storage of not just agricultural produce, but also dairy and fisheries produce, given that these cities are the largest consumers of food in general. But an ineffective and inefficient cold chain, which includes food service refrigeration, wouldn’t serve the purpose of reducing food loss either. The current available refrigeration systems in India’s cold chain infrastructure need a large technological bolster. These are predominantly manually controlled and monitored and do not correct themselves automatically when there are changes in outside air temperature. A lack of self-actuating refrigeration systems amounts to massive losses of produce stored. Another example of ineffective refrigeration system are the ice cream and Ice-making machines that require manual interventions which lead to long lead times. Since ice cream is a perishable dairy product, ineffective cooling can result is wasting an entire batch of milk used in the ice cream making process. Need for Environmentally Friendly Digital Cooling Systems Synthetic refrigerants like CFC (Chloro Fluro Carbon) and HCFC (Hydrochlorofluorocarbons) are still very prevalent in the Indian refrigeration and cold chain ecosystem. Massive leaps in R&D are currently being sought to make refrigeration and storage of food efficient and effective, to reduce food loss while being environmentally friendly, to meet global climate goals. Therefore, addressing these two broad issues of using intelligent technologies to counter waste and the use of natural refrigerants to counter climate change need to quickly be adopted in the Indian cold chain ecosystem.
India’s rapidly rising population has led to an increase in the requirement of all resources, including energy and water. This underscores the need for efficient production and distribution of food. Reduction in food loss thanks to enhanced refrigeration systems across the cold chain ecosystem, has a myriad of benefits right from feeding the massive population and conserving resources required for cultivation, as well as being environmentally friendly. With India’s rise to global prominence in the world of agricultural produce, consumption, and exports, advanced refrigeration systems stand to play a pivotal role.

Food Quality: The Smart Way
Danfoss offers a wide range of mechanical, electronic controls and compressors that meet the challenging demands of the entire supply chain. Danfoss India provides completely digital refrigeration systems that sense changes in temperature and load both inside and outside the cold storage to ensure minimal use of energy and loss of food. The solution offered to Pagro Foods Ltd. by Danfoss is a prime example of the intelligent cooling systems comprising of smart-sensing technologies that are available in the company’s portfolio. A supplier of frozen vegetables in the southeast Asia region, the company uses highly efficient individual quick freezers (IQF) that help in minimizing food loss and maximizing profits for the farmers. While systems such as IQF are currently used in the food processing industries, these can be scaled to cater to the food service industries, like ice cream production and cold storage as well. These technologies have a trickledown effect on the consumer as well without reduction in final goods, since historically the cost of food loss was borne by the end consumer. The use of natural refrigerants like R290 Propane, R600a Isobutane, R1270 Propylene play a crucial role in helping with the climate directives of the country while being as efficient, if not better than CFCs and HCFCs.
Maersk Container Industry (MCI) announce another significant milestone in their 30-year history

Aug. 2021 | Maersk Container Industry (MCI) is proud to announce another significant milestone in their 30-year history as a key supplier to the global maritime shipping and intermodal industries. Maersk Container Industry produces Star Cool unit no. 400,000 Tinglev, Denmark – In July 2021, Star Cool unit number 400,000 was produced, marking a historic landmark since the first Star Cool unit was produced back in 2005 – the very first series of Star Cool units produced for the open market. In the 16 years since then, Star Cool reefers have been in service with many of the global and regional carriers and leasing companies around the world with more than 50% owned and operated outside of the Maersk group. Since our inception, Star Cool has been the reefer industry’s leading innovator. The company has introduced many products and features that continue to separate us from the competition. These innovations include taking the lead in the field of energy performance, developing an industry-leading, reliable and cost-effective CA system, proving the durability and economic advantage of their integrated reefers, offering a pragmatic refrigerant solution that reduces the Global Warming Potential (GWP) by 56%, and developing the first OEM connectivity system. ‘Sekstant’.

$450MM Capital raised to provide Industry-Leading Temperature-Controlled Logistics

Sept. 2021 | Emergent Cold Latin America (Emergent LatAm) announced the launch of a new company with a $450MM capital raise to provide food and beverage customers access to the region’s highest quality cold storage facilities and meet the growing need for integrated end-to-end logistics solutions within the market. The company’s major investors are Lineage Logistics, Stonepeak Partners LP, an investment firm specializing in infrastructure and real assets, and, D1 Capital Partners, an investment fund. Based out of Brazil and founded by Neal Rider and David Palfenier, Emergent LatM plans to invest more than $450 million in greenfield projects and acquisitions in Latin America over the next couple of years. As the major investor in Emergent LatAm, Lineage will provide the company with key support services related to commercial, project development, and technology functions. Additionally, Lineage will advise on operational best practices to accelerate Emergent LatAm’s path to creating a leading continental operator. “Lineage is thrilled to support the development of sophisticated cold chain infrastructure in Latin America with an anchor investment in Emergent LatAm.” said Adam Forste, co-founder and co-executive chairman of Lineage Logistics.
The Electric Truck Ranges of Renault Trucks won the Technical Excellence Awards in the UK

Sept. 2021 | Launched in 1986, the Motor Transport Awards have been running continuously ever since – marking 35 years in 2021. The Awards have been presented in the prestigious Great Room of the Grosvenor House Hotel. The Motor Transport Awards are judged by more than 50 senior industry figures, and it is a fact that the awards are made by knowledgeable industry peers. The Technical excellence Awards are presented to those companies that “demonstrate high levels of efficiency, reliability, availability, safety and first-time annual test pass rates. Innovation is also essential – this could involve reducing fuel consumption, being more efficient or using technology creatively to solve a specific technical fleet problem. This award is open to a third party or own account operators running 11 or more commercial vehicles and vehicle or product manufacturers which have developed technical solutions to meet their customers’ operational needs.” “During the 35th edition of The Motor Transport Awards 2021, held in London on September 2nd, the Renault Trucks Z.E. range won the “Technical Excellence Award”. Selected by an independent judging panel of senior industry figures, the award recognises the vehicle manufacturer that has demonstrated the best technical solutions to meet their customers’ operational needs”, said an official press release from Renault Trucks.

PANDEMIC PUSHES GOVERNMENT-OWNED THAI POST TO VENTURE INTO COLD CHAIN LOGISTICS

Sept. 2021 | The Bangkok Post, the official mouthpiece of the Thai government reported the formation of an alliance between longtime rivals Thai Post, the JWD Group and the Flash Express to develop the nation’s cold chain logistics market. The need for more cold chain storage and supply arose as vaccination against the Coronavirus became an urgent necessity. The vaccines have to be preserved in controlled atmospheres lest they became ineffectual. The venture, named Fuze Post, is set to kick off on the first of September 2021. “FUZE POST has been created by drawing on the strengths of Thailand Post, JWD, and Flash Express to take cold chain delivery to a higher level. Thailand Post specializes in door-to-door delivery with the help of its nationwide network and several years of experience, especially in terms of a combined workforce of more than 20,000 postmen who know every area in the country and are familiar with local communities. This can be a perfect combination with JWD’s industry expertise in temperature-controlled transportation and Flash Express’s digital management technology that meets the needs of customers. As a result, FUZE POST is well-positioned to become a strong cold chain express service provider,” said the Thailand Post’s president.
Reefer container freight rates to outpace dry cargo rates in 2022

Aug. 2021 | Drewry’s Global Reefer Container Freight Rate Index is a weighted average of rates across the top 15 reefer intensive deep-sea trade routes. It went up 32% over the year to 2Q21 and by the end of 3Q21 these gains are expected to reach as much as 50%. According to hellenicshippingnews.com, the key driver of reefer freight rate inflation has been capacity related, as perishables shippers have competed with higher paying dry freight BCOs for scarce containership slots, despite ample reefer plug capacity provision. The contraction in overall seaborne perishables trade in 2020 was much milder than for dry cargo.

The trade was particularly impacted by a locked down hospitality sector which reduced demand for deciduous fruit, fresh vegetables and frozen potatoes. Further rate increase expected, but at a slower rate. Drewry’s composite World Container Index (WCI) increased marginally by 0.4% or US$41 to US$9,371.30 per 40ft container, according to the latest report on 5 August, remaining 370% higher than a year ago.

AUSTRALIAN FOOD COLD CHAIN COUNCIL URGES MORE TRANSPARENCY AND BETTER TRAINING

July 2021

In Australia, an industry-wide training program has been released, aimed at improving the credentials of those responsible for the integrity and safety of Australia’s chilled and frozen food supply. While launched in February this year, the code was given its first public outing at Hort Connections 2021 in Brisbane in June. The program, the Cold Chain Professional Development Series, is in response to cold chain losses from temperature abuse which have been identified by recent national studies sponsored by the Commonwealth Government. The code has been developed by the Australian Food Cold Chain Council (AFCCC). The first of five Cold Food Codes has been released, with the first online training program of its kind for those who work at the many levels in the cold chain, in transport, distribution centres, loading docks, food industries and retail outlets. Presenting the code at Hort Connections 2021, AFCCC chairman Mark Mitchell said the code recognised the importance of cold chain practitioners who need the necessary tools and training to help keep food resources safe with minimal food loss and waste.
"Pharmaceutical temperature-controlled logistics is quite a complex and demanding task in the transport and logistics sector. There is no room for inaccuracy with the high-value and sensitive goods to be transported. Especially in the global air cargo sector with many different players and environments in the supply chains, maintaining accurate temperatures and cold chains is a major challenge.."
What are your best-known solutions/products/services?
Pharmaceutical temperature-controlled logistics is quite a complex and demanding task in the transport and logistics sector. There is no room for inaccuracy with the high-value and sensitive goods to be transported. Especially in the global air cargo sector with many different players and environments in the supply chains, maintaining accurate temperatures and cold chains is a major challenge. DoKaSch Temperature Solutions solves these problems with its extreme reliable, temperature-controlled packaging solutions “Opticooler”. Electrically powered and fully air conditioned, the active containers can cool as well as heat without using dry ice or other coolants.

Since the Opticooler only requires a power socket to be charged, it can be used almost unlimited. Huge batteries allow a continuous and autonomously operation of the container when grid power is not available, e.g. during ground or air movements. They keep the desired temperature level, e.g. between 2° and 8° Celsius at any given time. In turn, changing climatic conditions during a transport can be accommodated easily, so they ensure with extremely high reliability that throughout all climate zones the cargo stays safe and undamaged. Furthermore, they can easily be used as temporary storage facilities when the necessary cool infrastructure is lacking. This makes them the ideal solution for the safe transport of highly sensitive and valuable pharmaceutical products which need to be always protected from temperature deviations.

What are your best-known solutions/products/services?

What are your most recent product innovations?
As of right now, we are focusing on our proven active temperature-controlled Opticooler containers. Nevertheless, we are of course constantly testing and improving our product during regular maintenance processes, so that the Opticooler is constantly evolving. However, battery-powered active containers are currently the most modern and efficient solutions on the market, which is why our main focus and expertise lies in this sector. In addition, we are currently working on a tracking solution for real-time visibility of the containers.

What are the major trends and developments affecting your category and your customers, and how are you responding?
We can currently identify three major trends in pharmaceutical logistics. Firstly, global prosperity is growing and with it the demand for more and also more expensive therapies against diabetes, cancer, etc. Since there is often just one manufacturing site for a specific – and often temperature sensitive – pharmaceutical, the need for reliable transport and packaging solutions to distribute them all over the world is growing accordingly. Globalization in its entire has also fully reached the producing pharmaceutical industry, and factories also for high-end medicines and API (Active Pharmaceutical

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Ingredients) were established in other parts of the world like India and Korea. The pharmaceutical logistics challenges have developed accordingly. However, pharmaceutical logistics always focuses on safety throughout the entire supply chain. Another trend is the composition of the medicines themselves. Biopharmaceuticals are one of the growing business areas of the pharmaceutical industry. Most of these pharmaceuticals are temperature-sensitive and must therefore be stored and transported constantly at a certain temperature to maintain their effect. Usually this is a temperature range between two and eight degrees where the DoKaSch-Opticooler is designed precisely for these ranges and is therefore ideal for transporting these sensitive goods.

**What's your strategy for succeeding in the current climate?**
The Covid-19 pandemic was strongly affecting the global supply chains. In the ocean freight sector, for example, ports were closed, which in turn led to supply shortages and rising container prices. The air freight sector also faced and still faces the challenge of a severe lack of capacities due to the heavily suspended intercontinental passenger business and the resulting lack of lower-deck cargo capacity. To meet demand better and more flexibly, DoKaSch is expanding its global presence and will soon open several depots for its Opticoolers at key export locations for vaccines and pharmaceutical products. Furthermore, the company is continuously expanding its network through agreements with major airlines. Due to the better, global availability of the Opticooler, DoKaSch cannot only react faster to requests, but also avoid empty container positioning flights. This not only has a positive impact on customers’ costs, but also saves CO2 emissions. Flexibility and short time reaction are also key in uncertain times, and we place great emphasis on this in our team and our processes.

**Can you tell us about any of recent customer contracts and how you helped the customer meet their challenges?**
The pandemic has clearly shown the importance and the value of air cargo for the supply with lifesaving medicines. A highly capable and reliable cool chain service is therefore crucial for, pharma producers. DoKaSch Temperature Solutions supports its customers with reliable temperature-controlled packing solutions and its expertise in the cold chain area. This enables them to provide the best possible service for temperature-sensitive goods. Thus, DoKaSch has increased its container stock to guarantee a high availability of the containers and also to be able to serve ad hoc charters. This was a particular advantage during the peak phase of the pandemic and still is.

**What's the latest news from your company?**
DoKaSch Temperature Solutions is expanding its global presence. Most recently DoKaSch has opened a new service station in India at the GMR Hyderabad Air Cargo terminal. With the new location in India, DoKaSch strengthens its network in the region and globally. Furthermore, DoKasch is about to open several depots for its Opticoolers at key export locations for vaccines and pharmaceutical products, mainly in Asia. Furthermore, the temperature-controlled packaging provider in promising talks with several major carriers in order to expands its global network.
CHENNAI, INDIA | Aug. 2021– In the first half of 2021, Danfoss sales grew to EUR 3.3 billion – a growth of 18% in local currency. Danfoss saw extensive growth in all regions, despite some parts of the world are still affected by the COVID-19 pandemic. The company continued significant investments in innovation (R&D), amounting to 4.7% of sales. At the same time, Danfoss delivered a 45% increase in operating profits with EBITA of EUR 449 million – an operating profit that even outperformed the strong level of the first half of 2019, pre-COVID. Net profit was up 74%, amounting to EUR 286 million. “I am very proud to present the best half-year results ever. We reported record level topline, profitability and cash flow. At a time when the effects of climate change are increasing, as per the recently published IPCC climate change report, Danfoss is taking the lead in the transformation towards a carbon neutral future. Our unmatched innovation and R&D capabilities and our ready-to-use energy-efficient, low emission and electrification solutions are enabling the green transition,” said Kim Fausing, President & CEO – Danfoss.

“With these strong results, we are ready for the second half of the year. It’s exciting to close the Eaton Hydraulics acquisition and welcome our 10,000 new colleagues. We have just begun our journey together – two talented and highly competent teams joining forces to become an even stronger technology partner for our customers and distributors,” said Kim Fausing.

Danfoss in India region has recorded an extremely strong sales growth in H1 2021, driven by increasing demand for its products and service. Expanding sales footprint, increasing channels, robust recovery in Tier II & III cities, coupled with innovative applications and localization is fueling this momentum. The demand for energy efficiency, energy storage and electrification portfolio, is leading our sales. Danfoss India is quite bullish on crossing INR 2,000 crores turnover by the end of the year with capex cycle pickup in core Industry and PLI schemes launched by the Govt of India. This growth is supported by its strong employee base across the country, which has crossed 2000+ this year.

Lineage Logistics announced the acquisition of Hanson Logistics

Aug. 2021 | Novi, MI – Lineage Logistics, LLC, a large, innovative temperature-controlled industrial REIT and logistics solutions provider, announced it has acquired Hanson Logistics (“Hanson”), one of the most respected cold storage organizations in the Midwest. Hanson currently ranks as the twelfth largest temperature-controlled warehousing and logistics provider in North America, according to the International Association of Refrigerated Warehousing (IARW). Founded in 1954, Hanson’s network includes seven distribution facilities spanning over 46 million cubic feet of capacity across Michigan and Indiana, which are strategically located to reach over 60% of the U.S. population. Their integrated business segments in warehousing and transportation solutions along with Hanson’s frozen food consolidation program, Velocities, provides customers with a full suite of services at every step of the supply chain. “Hanson Logistics is another great example of a family-owned business that has served its customers with excellence for generations. Now, they’re joining the Lineage family of companies to help accelerate their growth and customers’ reach,” said Greg Lehmkuhl, President and CEO of Lineage. “Their dedicated, customer-focused team also represents an awesome cultural alignment with our own, and we are thrilled to welcome them to the One Lineage family.”
Cold chain marketplace startup Celcius raises USD 500,000 in seed funding

Aug. 2021 | Cold chain marketplace startup Celcius raises USD 500,000 in seed funding round from Mumbai Angels Network, along with Huddle, Lumis Partners, and investors from Malaysia, Nigeria, and the US.

The fresh capital will be used to expand the platform’s footprint across India while also enhancing its offerings and making it a one-stop-shop for all cold chain requirements.

Mumbai: Celcius, a cold chain marketplace startup, has raised USD 500,000 in a seed funding round with Mumbai Angels Network, a premium startup investment platform for early-stage venture investments, along with Huddle, Lumis Partners, and other investors from Nigeria, Malaysia, and the US. This includes the amount Celcius had raised in a seed funding round in May.

The Mumbai-based startup will be utilizing the freshly infused capital to increase its reach across different cities as well as remote areas in the country aside from expanding its team and setting up headquarters in other cities to provide better localized cold chain solutions. Celcius also aims to expand its offerings by including a Transport Management System (TMS) and Warehouse Management System (WMS), thereby making the company a one-stop solution for all cold chain requirements.

AHRI (Air-Conditioning, Heating, and Refrigeration Institute) certifies Blue Star’s new air cooled and water cooled chiller test facilities

Aug. 2021 | Air conditioning and commercial refrigeration major, Blue Star Limited announced that the Company’s new air cooled chiller test facility and water cooled chiller test facility, have both been certified by AHRI in accordance with their 550/590 and 551/591 standards. These new state-of-the-art chiller testing facilities established at the Company’s R&D centre at Wada, India, have the capability to test air cooled chillers of up to 440 TR in capacity and water cooled chillers of up to 712 TR in capacity respectively, and can simulate the widest range of operating conditions encountered in chiller applications. These test facilities fully comply with industry standards and are designed to test products as per both Indian and International standards. Besides, these facilities are also designed keeping in mind the important aspects of sustainability and energy-efficiency.
CAREL ADOPTS DISCONNECTION GUIDELINES

Brugine (PD), 3 September 2021 - Carel has always paid the utmost attention to the well-being of its employees. In this context, the company has now officially introduced disconnection guidelines to improve the quality of work and ensure a better work-life balance for the Group’s employees. The guidelines have been developed to encourage a healthier balance between work and personal time and to promote efficiency and effectiveness in collaboration between colleagues, avoiding an “always on” approach and “customised” rules for each department.

Rules for disconnection
The guidelines include limits on when emails can be sent to colleagues, to prevent them from being sent outside of office hours. Specifically, emails can no longer be sent between 6 p.m. and 8 p.m. Likewise, the use of chat groups and instant messaging must be limited between those times, unless necessary due to different time zones of colleagues in different parts of the world. During holidays and when on leave, it will also be forbidden to call or write to colleagues to request them to work immediately and, in general, it will not be possible to ask for someone to work on public holidays or weekends. The guidelines also provide some suggestions on optimizing the time spent at work and, specifically, the time devoted to meetings, with the limit set at no more than 5 hours a day. Recommended time slots for meetings have also been introduced: from 9.30 a.m. to 12 noon and from 2.30 to 5 p.m. The standard duration of meetings has also been changed: no longer 30 or 60 minutes, but rather 25 or 50, so as to always allow a break between meetings. Furthermore, to avoid taking up time for too many people when not necessary, it is recommended to carefully choose who should take part in meetings, limited to those who will contribute or have decision-making power on the topics being discussed. To optimise meeting times, the subject of the meeting must be shared in advance with the participants, together with the type of meeting (informative, consultative, decision-making), the agenda and any decisions that need to be made. Finally, more attention will be paid to those who want to devote some time to individual work and do not want to be disturbed: employees can in these cases simply set their calendar to “not available”.

“We firmly believe that for our people, time is the most precious resource we have in the company, and as such, we need to defend it in the best possible way. This is why we are confident that these simple disconnection guidelines will allow our colleagues and employees to improve the quality of their work-life balance and consequently not only their performance at work, but above all their own physical and mental health”, commented Carlo Vanin, Carel Chief HR & Organization Officer.
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In March of 2020 when WHO officially announced the start of the COVID-19 pandemic, the world was taken off-guard with no plan in site. This is where the cold chain industry rose to the worldwide challenge in handling sudden changes in market demand to manage the burden of food distribution, spoilage and accessibility. An effective cold chain not only prevents food from rapidly diminishing in value, but in extreme emergencies also provides the needed infrastructure to preserve, store and keep the food supply flowing across the globe.

During the current pandemic, developers and refrigeration contractors who focus on cold chain industry concur in the growing demand and interest in cold store warehouses where the business driver is to build, invest, buy or acquire in this sector, despite its exorbitant cost of construction to that of conventional warehouses. Supply and demand including investment and development has always been very tight in this industry, however during the pandemic, overnight demand for cold stores at both new construction as well as massive retrofitted existing age-old facilities are said to have grown by up to 40%. Increasing demand for cold storages at the last-mile stage of distribution - that is, near where people live, seemed already happening before the pandemic, but accelerated when lockdown orders shut restaurants and food service operations. Therefore, instead of building general cold store at remote locations (often termed as ‘Invisible Industry’) before the pandemic, many cold store warehouses are now being built in population growth centers where food products can readily be refrigerated and stored under the same roof.

This trend in the global cold store construction market has also been fueled by the shift in consumer eating habits from dining out and grocery purchases to eating from their

"An effective cold chain not only prevents food from rapidly diminishing in value, but in extreme emergencies also provides the needed infrastructure to preserve, store and keep the food supply flowing across the globe."
refrigerator’s frozen or fresh perishable and ready to serve food in their own homes. And then there’s the growing number of consumers motivated to avoid crowds, who have turned to on-line or e-commerce grocery shopping for faster accessibility to perishable food.

Building a CEBA-approved (formerly known as the International Association for Cold Storage Construction) cold store space can cost up to $150 per square foot depending on specialized construction elements, system feed, regulatory issues, project management and sustainability considerations. In addition, this type of refrigeration need has led to the demand in skilled and knowledgeable professionals who can design/build/operate the build-to-order facilities.

Technological advancement is also playing a major role in how these new facilities are being built to improve the efficiency of food supply storage and its distribution. Examples include IoT sensors that monitor food temperature and communicate the data to cloud-based analytics dashboards. Artificial Intelligence (AI) is then used to correlate data from various sources such as power cost, weather, distribution logistics, cooling capacity and schedules to provide the optimum storage and distribution infrastructures. There’s also the advancement in tracking and warehousing, tighter temperature control to improve shelf life, and performance tweaks to reduce operating costs that are impacting the operational aspects of the refrigeration systems in the cold storage market. Safety regulations and manufacturer’s quality standards are also impacting this movement where cold storage facility developers are maximizing their output with the use of robotics, PLC systems, intelligent controls, real time monitoring, rapid motorized doors, thermal insulation energy, automated material handling and high-speed conveyor systems. There’s also been a demand in energy efficient systems operating with low cost inorganic refrigerants like natural hydrocarbon-based refrigerants such as NH3 and CO2 due to their zero GWP & ODP. Last but not least OSHA’s PSM and EPA’s RMP also has an impact by their requirements of using low ammonia charge packaged pre-engineered refrigeration system where less field piping are needed and where ammonia can be contained in the MER (Mechanical Equipment Room).
While reviewing the public cold store facilities – pre-pandemic – for 52 countries IARW International Association of Refrigerated Warehouses (IARW) reported that with an annual global food production rate of 6.5 billion tons, ~600 million cubic meters of refrigerated warehouse space (~refrigerated storage of 150 million ton food products) has been constructed. For the same period the global population is said to need over 7000 million cubic meters of temperature controlled warehouse (TCW) space (~refrigerated storage of 1750 million ton of food products), in order to be prepared for any unforeseen global catastrophic event such as drought, water shortage or another pandemic that may cause restrictions on global food growth, modern packaging and its distribution method. It is hoped that the COVID-19 pandemic will be curtailed in the near future and the growth of cold store facilities will continue until supply meets demand thereby leading to faster and more efficient food distribution and storage leaving a positive impact on neighborhoods and boosting local economies.

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