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Editor's NOTES

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The 'holy grail' of end-to-end visibility

As cross-border e-commerce volumes continue to grow on a global basis and become an ever-increasing proportion of flown air freight, the sector is continuing to adapt to attract, and accommodate the needs of, customers from that business. Some of the most interesting discussions at this year's ACHL conference centred around this topic, as highlighted in the ACHL Conference Report (pages 22-40).

As DB Schenker's Asok Kumar notes, the airport-to-airport portion "is standard", but for "what happens at the front and the back you need different systems – different kinds of scanning and labelling, down to a level which is more the integrators' type of business".

Some air freight carriers and logistics companies have been exploring a 'hybrid' model to provide an end-to-end air logistics solution for the thousands of e-retailers around the world, many of them SMEs, who would like to compete with the big players.

MSC Air Cargo's Jannie Davel noted that on the inbound delivery side, "the cost explodes when you come to LTL delivery" and most companies don't have the economies of scale to make final-mile deliveries work at an affordable cost to end users. Getting a really efficient, integrated solution for the whole air logistics journey, with full visibility, is also still a real challenge – although data-sharing initiatives like IATA's One Record

offer hope of significant improvements. But the challenges are even greater when it requires visibility across multiple transport modes – "the holy grail", as Kumar described it.

Whereas the big e-commerce players can help overcome some of these issues by pre-labelling on the origin side, the wider air freight sector has not managed to achieve this, because the technology was not yet there to support it, Davel notes.

In many ways, that's what the big e-commerce players have become – really efficient logistics systems. Amazon manages it primarily by feeding national distribution centres via surface transport, whereas Alibaba's logistics arm Cainiao is attempting to build a global distribution network that can deliver to customers from China within 72 hours, which in most cases involves air freight.

It's now got that down to 5 days in some European target markets, in part by creating regional air freight hubs, such as at Liège Airport, as highlighted in the Europe Report (pages 6-14).

To achieve that 5-day target has required it to get the cargo handling of its main air capacity providers under its own control, albeit operated via a third-party (WFS in Liège). And the recent partnership between Saudia Cargo, Cainiao and WFS (page 59) highlights the potential of this collaborative model to deliver a new level of air logistics capability to e-commerce customers.

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Finding a new equilibrium

As demand has eased this year and bellyhold capacity has returned to Europe's airports, the market has returned towards some kind of new normality that resembles pre-Covid times but has changed in various ways, reports *Megan Ramsay*

During the heights of the Covid pandemic, Europe's specialist cargo airports hosted dozens of extra charters and regular freighter operations each week, accompanied in many cases by staffing,

capacity, and other resource challenges. As demand has eased and passenger bellyhold capacity has returned to Europe's airports, the market has returned towards some kind of new normality and stability that resembles pre-Covid times but has moved on in various ways.

For example, even without any

significant passenger airline business, Belgium's Liège Airport (LGG) has seen some extraordinary highs and lows in the past few years, including becoming the preferred European hub for various freighter operators and e-commerce logistics specialists, but it has faced some major challenges too.



logistics hub' there with an investment of around €100 million. The first 33,000sqm warehouse began operating in November 2021. One section (12,000sqm) is an air freight centre run by WFS, while the remaining 18,000sqm is a sorting centre managed by Cainiao. The Chinese company has three to four aircraft per day operating into LGG on its behalf, along with around 60 trucks per day, and it intends to triple the size of its facilities and ramp up flights and trucking movements substantially in a phased development programme at LGG.

However, Cainiao's hub at LGG is not without controversy. The rise in geopolitical tensions between China and democratic nations has raised concerns among European intelligence services that legislation in China forcing Chinese companies to share data with Chinese authorities and intelligence services could provide a capacity to use valuable logistics and supply chain data for non-commercial purposes – although Cainiao has stressed that it complies with the EU's GDPR data protection regulations.

E-commerce accounts for only 8% of Liège's total cargo throughput, the airport says. A larger share – 22% – comprises perishables and flowers, while the

gateway also handles over 7,000 horses every year at its Horse Inn facility.

Liège has lost the 15 weekly freighters that AirBridgeCargo used to operate there before the Russia-Ukraine conflict. And FedEx moved much of its LGG-based operation to Paris-Charles de Gaulle Airport at a similar same time, further impacting volumes at Liege.

Brun says that at the moment, LGG's "biggest advantage" – its specialism in freighter operations – "is our biggest weakness. Heathrow and other European airports are growing thanks to the return of belly capacity; we are suffering from that." Another factor is a modal shift back from air to sea as disruptions to maritime logistics have eased.

"The only solution is to find new customers and get new forwarders on board to generate and fill capacity," says Brun. "When we welcome a new airline, we try to organise a package including GSA, forwarders, etc., and introduce services. We have done this, for example, for MSC. Other new carriers include Silkway, LatAm and Air Canada Cargo, as well as (on a charter basis, for equine transport) Emirates. But we have a lack of belly space."

Liège welcomed just 166,898 passengers in 2022 – an increase of 118% compared

Handling a "tsunami" of growth in volumes during Covid wasn't easy. Frédéric Brun, head of commercial for cargo and logistics, explains: "We had to handle 20-30% more freight with 15-20% less staff. Charters were landing one after another, and it was hectic. But it was a learning curve, and the dust is settling."

Liège has increased its staff levels by 40% since Covid hit. Brun is among the new recruits, joining the airport from a freight forwarding background – which the airport expects will assist the strategy of attracting forwarders, not just airlines, in order to grow.

For example, Cainiao Smart Logistics (Alibaba's logistics arm) has made Liège its main European 'eHub', having signed a deal in 2018 to build a 'smart



Night flights of B747-400Fs at LGG will be phased out by 2030

to 2021, but still negligible in terms of the amount of bellyhold space for freight.

Cargo focus continues

Despite any risk inherent in such an imbalance, Liège's focus remains on cargo, and the gateway is confident that this will pay off. Its new permit, obtained at the end of January following an appeal, will allow the airport to grow from 27,000 to 55,000 flight movements a year by 2040, for aircraft weighing more than 34 tonnes. That's an increase compared with the 50,000 movements initially offered, which the airport and its partners successfully argued would be too restrictive.

The permit also sets maximum noise levels for aircraft taking off at night that will gradually be reduced, meaning the noisiest aircraft, like the B747-400, will be totally prohibited from taking off at night by 2030. "But these will be retiring anyway," Brun says, noting that restrictions like this are "pushing airlines to renew their fleet, and carriers are moving towards 767s".

Although not ideal, and will require some adjustments to LGG's 2020-2040 growth and plans, the airport has accepted these new limits, noting that the compromise "demonstrates the Walloon Government's belief in the vital role played by the airport".

Construction of a 225,000sqm second-line warehouse will begin in January 2024, with the first phase set for completion by the end of that year and the project slated to finish by the third quarter of 2025. The facility aims to enable consolidation, deconsolidation and efficient delivery for customers, and is part of LGG's multimodal strategy – which includes a new rail link and proximity to the inland port just 15km away.

In terms of first-line investments, the airport will develop 16 stands and a 24,000sqm warehouse by 2026. A further step, between 2026 and 2028, will see the development of MRO facilities and the addition of a second fire brigade, among other projects. The third phase will be another 24,000sqm warehouse.

In addition, Brun says: "We are launching an association for the



Holger Ketz
Kuehne+Nagel



Steffen Böttger
Mitteldeutsche Flughafen



Jonas van Stekelenburg
Maastricht Aachen Airport



Joost van Doesburg
Amsterdam Airport Schiphol



Edouard Mathieu
Paris-CDG



David Craig
East Midlands Airport

community to say what they want the airport to develop. Over the next six months, we will work on truck slot booking and new truck parking. We're assembling the puzzle. We're also investing in digital tools," he went on, highlighting a new track-and-trace system that all stakeholders – including Customs and other authorities – can access.

All of this work is intended to support a doubling of the airport's capacity to 2.5 million tonnes by 2040. According to Brun, several factors will drive that growth. Firstly, e-commerce consumption, which rocketed with Covid, is still increasing, and perishables "are one of our main drivers," and also continue to grow.

"So, we have redeveloped and refined our Africa business, going back to our roots," Brun notes. "Perishables have grown by 8% this year. We handle 700 tonnes a day, mainly (70%) from Africa and the rest from Latin America (Bogota, Quito, Sao Paulo)."

Liège has signed an MoU with São Paulo Guarulhos Airport, which is establishing itself as a hub for Latin America. Historically, exports from across

the region either used to be fed straight to Miami for onward flights to their final destination, or a flight would 'hop' from one Latin American airport to another, collecting shipments along the way.

Another shift the airport believes will benefit Liège is the transfer of some production from Asia to Europe, with the automotive industry particularly significant in this context. And currently, many flights carrying cut flowers are using Liège instead of Amsterdam Airport Schiphol – even though many of the flowers then have to be trucked to Dutch auctions.

Slot restrictions reversal

Like other airports, Schiphol saw a substantial increase in freighters during Covid – not just due to an increase in demand, but because the pandemic freed up scarce slots for freighters that were otherwise normally full. Joost van Doesburg, head of cargo at Schiphol, says: "4.5% of our slots are freighter slots, but many more cargo airlines want to come to Amsterdam. Before the pandemic we had to say no. But when passenger flights

disappeared, a huge number of slots became available for freighters.”

In the first quarter of 2022, Schiphol still had plenty of slots for freighters, but the return of passenger flights means the airport once again lacks sufficient freighter slots. The Dutch government’s plans to cut slots at Schiphol from winter 2024 in a bid to reduce noise pollution have been suspended for now; but many airlines flying both freighter and passenger aircraft there are swapping their slots from freighter flights to more lucrative passenger flights.

“We’ll see a drop in freight volumes because we will have fewer freighters,” van Doesburg acknowledges. “We’re creating a protection mechanism to ensure at least 2.5% of our slots will remain freighter slots. We’re working with the government on this. Belly capacity is ok for pharma and 90% of high-tech goods, but not for flowers.”

Holger Ketz, global head of air logistics network and carrier management at Kuehne+Nagel (KN), says air freight is



Plans to cut slots at Schiphol from winter 2024 have been suspended – for now

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like water: “It always finds its way, and we do not depend necessarily depend on individual airports,” he notes. “Restrictions at airports will affect us, but there are alternatives and secondary

Leipzig stays positive despite market challenges

Freight volumes at Leipzig/Halle (LEJ) declined to 1.51 million tonnes in 2022, about 5% below the figure for 2021. But volume this year in the 10 months to October 2023 stood at around 1.15 million tonnes; for comparison, LEJ’s throughput at year-end 2019 was just over 1.2 million tonnes.

Among the challenges has been the disappearance of AirBridgeCargo flights from the timetable as a result of Russia’s attack on Ukraine, highlights Steffen Böttger, VP of sales for cargo and logistics at LEJ’s operator, Mitteldeutsche Flughafen. But at the same time, “Antonov Airlines has moved its remaining fleet from Kyiv to Leipzig/Halle, so that as many as five Antonov 124 planes can be seen here.” The aircraft operate on behalf of NATO and on commercial services.

LEJ is also DHL’s largest global air hub, and therefore one of the most important handling sites for e-commerce traffic, and the airport intends to boost this segment further.

Other developments include: Mytheresa, an online trader in luxury fashion, launching operations right next to the airport fence; Georgi-Handling has expanded its logistics space near the airport; and Belgium’s Weerts Group is constructing a 39,000sqm logistics and air cargo building at Leipzig/Halle.

While the airport is feeling the effects of the economic slowdown, “all these developments make us optimistic as we face the future”, Böttger says. ■



Like Liège, Maastricht is benefiting from the changes at Schiphol

airports,” although these may involve longer trucking legs rather than being located close to customers’ production sites, as KN usually prefers.

Schiphol recently purchased a 40% stake in Maastricht Aachen Airport (MAA) and is working on a collaboration where Maastricht will be an alternative to Schiphol rather than a competitor. Both Schiphol and the Province of Limburg (Maastricht’s other shareholder) are set to invest tens of millions of euros in electrification, aircraft stands and warehouse renovations, for example.

Downturn challenges

Maastricht is finding the current economic environment challenging though. Jonas van Stekelenburg, MAA’s interim CEO, notes: “When there’s a slump in prices or activity in air freight, such as during a recession, it’s difficult for an airport like Maastricht. It’s easier to maintain freight at a larger hub like Schiphol or Frankfurt, because it’s easier to fill the return leg with other cargo at a bigger hub.

“Our long-term carriers (Royal Jordanian Cargo, Emirates SkyCargo and Turkish Cargo) have all stayed, but others have not.”

“
When there’s a slump in prices or activity in air freight, it’s easier to maintain freight at a larger hub, because it’s easier to fill the return leg with other cargo

”
Jonas van Stekelenburg

During the summer, Maastricht closed for almost two months in order to renovate and extend (by 250 metres) its only runway. While there were no flights at this time, the airport did handle up to eight times more trucked flown freight than usual as shippers opted to put their freight through Customs in the Netherlands, and then repack and distribute it to northern and western Europe. “This type of business maintained lots of our activities, but it was still tough,” van Stekelenburg says.

Cargolux is returning to Maastricht, so things are picking up, even if volumes are lower than they were during Covid. And

like Liège, Maastricht is benefiting from the changes at Schiphol, with the added advantage that the two Dutch airports use the same Customs reporting system.

Van Doesburg believes the restrictions on freighters at Amsterdam – if eventually implemented – could be replicated at other European airports, which would mean more truck movements. And although the amount of belly capacity at Schiphol is increasing as airlines opt for larger aircraft, space on freighters may become more expensive, increasing the focus on high-value goods.

Bellyhold is back

Across the border in Germany, Max Philipp Conrady, VP for cargo development at Frankfurt airport operator Fraport, says the ratio of belly capacity to freighters is almost back to normal. “In 2019, we had 60% cargo-only, and 40% belly; by June or July 2021, we had 95% freighters. Now, month by month, belly capacity is growing and we have 64% freighters.”

However, belly capacity is not suitable for all types of cargo. A balance between belly and freighter capacity is needed, different for every airport, and that can be tricky to get right.

Ketz observes: “25% of the freighter capacity in the industry now is about to retire, and there’s also a trend among certain airlines to choose narrowbody aircraft, which are not suitable for larger amounts of air freight. Plus, you need freighter capacity for oversize cargo, for example.”

KN has signed a long-term agreement with Atlas for two B747Fs, which Ketz describes as “a very useful machine” because of its nose-loading capability. KN has numerous customers who depend on that option – although Boeing has concluded that there is insufficient demand to justify the development of a nose-door version of the B777F.

E-commerce growth

But the biggest growth area KN is seeing is in e-commerce; so too is Frankfurt airport, like many of its counterparts elsewhere in Europe.

Conrady says: “At the moment, e-commerce is one of the streams with the largest growth potential. It may result in a shift from traditional consolidated B2B shipments towards more B2C business.” Frankfurt Airport is currently working with its cargo community and Customs authorities to further improve e-commerce handling there.

This sort of initiative is vital to prevent bottlenecks during handling at airports.

“The focus should be on trying to get handlers to a different level in terms of digitalisation,” says Ketz. “Air freight handling is still very manual; if you

compare processes now to how they were 25 years ago, there aren’t many differences. Airport infrastructure is part of it, but the bottlenecks and processing time are influenced by the handlers.”

For this reason, KN has entered into a strategic partnership with SATS (which owns Worldwide Flight Services) to optimise ground handling operations across Asia, Europe and North America.

In Germany, meanwhile, a joint venture will see Swissport and Dusseldorf Airport running cargo operations together. The venture was completed on 1 November with the switch to cargo management



system Cargospot.

According to Swissport's global cargo chair Dirk Goovaerts, bottlenecks are barely an issue any more as airports have invested in ensuring seamless interaction between stakeholders. Truck slot management systems are just one example of this.

"If an airport wants to attract more players, they have to be seamless," he notes. "So, it's important for us to talk to other stakeholders like airlines, forwarders, trucking companies, Customs – and the airports."

Concerning the difference between

freighter and belly cargo, Goovaerts considers: "From a tonnage point of view, it doesn't matter – but the logistical steps are different. Freighters are usually parked behind the warehouse, for instance, and from aircraft bellies you have different transport needs.

"Handling belly cargo is not as efficient as handling only freight. It can be more efficient to operate during the night – but belly capacity is usually available during the day, of course."

Cargo quality emphasis

Although some airports that concentrate

primarily on their passenger operations seem to have already largely forgotten the crucial role freight played during the pandemic, others continue to see the value freight contributes, despite strong environmental, space and investment pressures.

At Schiphol, Dnata's new €200 million cargo facility is due to open in 2024, and the Cargonaut system that will be the cargo community system for both Schiphol and Maastricht is being refurbished in preparation for IATA's One Record initiative. Schiphol is also introducing a truck slot booking system to reduce wait times and improve security so as to attract more high-value cargo. Indeed, the threatened limits on flights has pushed Schiphol to be selective in terms of the cargo it wants to attract, and to focus on becoming a high-quality provider – including encouraging higher quality standards on cargo handlers.

Van Doesburg says: "We're adapting our strategy to what is important for the Dutch economy. That means high-value, high-tech and luxury goods, as well as pharma and healthcare. 10% of all pharma in Europe comes via Amsterdam."

Leipzig/Halle Airport, meanwhile, will invest several hundred million euros in the expansion of its apron areas during the next few years, particularly in the area around the DHL hub, as well as constructing logistics property.

Europe's third-largest cargo airport, it is also seeking to make its operations CO₂-neutral by 2030 though initiatives such as switching its vehicle and machine fleets to alternative drive systems and purchasing only green energy.

Digitalisation prioritised

Digitalisation is another priority, and Leipzig is involved in the 'DTAC – Digital Testfeld Air Cargo' project, which is supported by the German Federal Ministry of Transport and Digital Infrastructure.

Frankfurt is also looking to increase speed, reliability and efficiency through close collaboration with its cargo community and the use of digital tools. The airport is also working

Paris maintains freighter uplift

Passenger traffic at Paris CDG has almost recovered to pre-Covid levels, but the French airport has managed to maintain "an increase in terms of connectivity when it comes to full-freighter flights", says the airport's Edouard Mathieu.

"Airlines like Air France Cargo, Qatar, CMA CGM Air Cargo, or Emirates SkyCargo have increased our general cargo freighter flights by more than 70% between 2019 and what we expect by the end of 2023," Mathieu highlights. "This is tremendously important because it's not a Covid-driven increase.

"We have been able to attract some new airlines. The launch of CMA CGM Air Cargo was a boost. They have five freighters based at Paris-CDG, plus they are about to welcome two B777Fs in 2024 as well as four A350s by the end of 2026 or early 2027."

CDG also now has two Chinese cargo airline connections for the first time since 2012: Air China Cargo with eight flights per week, and Central Airlines offering six per week.

The extra capacity is drawing cargo to CDG. For instance: "We've seen exports

to southeast Asia in terms of trucking to other European hubs decrease by at least 50% in the past six months because of the increased capacity here at Paris-CDG," Mathieu says, adding that e-commerce shipments are increasingly being flown direct to Paris rather than trucked from other airports.

In partnership with Paris-Vatry Airport, CDG is developing a scheme to use Vatry for night flights (CDG has been unable to accommodate extra night flights since 2003), to provide round-the-clock air cargo service for the Paris region.

On the express side, FedEx has increased its flights compared to 2019 by 30% and is a key partner at CDG, as is DHL – which built a new hub there two years ago and is adding flights such as a rotation to the US west coast, launched in late September.

"We also just launched a new warehouse for Kuehne+Nagel (KN), which will enable KN to double its pharma traffic through Paris-CDG," Mathieu says. The facility includes 4,500sqm of dedicated cold rooms and temperature-controlled zones, and can handle up to 300 air freight pallets a week. ■



Freighter flights at Paris CDG have remained elevated compared to pre-Covid

“We’re adapting our strategy to what is important for the Dutch economy. That means high-value, high-tech and luxury goods, pharma and healthcare”

Joost van Doesburg

on infrastructure projects like the construction of Terminal 3, a new apron at CargoCity South and new cargo stands.

There will be more cargo facilities along with the new terminal, Conrady says, adding: “We are waiting for a building permit for a larger DHL warehouse in CargoCity South. And in the upcoming year, additional plots of land will be made available.”


And sustainability is becoming ever more important. By the end of 2024 the first infrastructure for truck charging at CargoCity South will be ready, for instance.

Conrady expects economic growth to continue, bringing increased need for air cargo transport. “Globalisation, trade efforts, globally operating industries and regions that specialise in fabricating

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Tonnages this year at LEJ are higher than pre-Covid

certain types of goods and interact with each other: there's no sign of this stopping any time in the future," he says.

Goovaerts notes: "Some stakeholders in the industry who are close to shippers

are saying they expect to see uplift in the second half of 2024. Hopefully, we will get back to the traditional cargo pattern where the last quarter of the year is very strong. It's all to do with consumer

confidence and spending.

"If that old pattern is gone forever, then we hope demand will spread out more equally and, overall, it would work out the same – if less 'peaky' – on an annual basis. That would help make air freight more efficient and avoid massive over-utilisation of facilities and resources at the end of the year and under-utilisation at other times."

But Edouard Mathieu, chief development officer at Paris-Charles de Gaulle Airport, believes cargo is heading towards further difficult times. "Yields are not favouring cargo at this stage – and the number of freighter aircraft to be launched in the next three to five years is enormous, even with the fleet renewals (newer aircraft replacing older, noisier ones). How will the market absorb that?" he questions.

A global economic slowdown, inflation, the Chinese economy not doing as well as expected, the conflicts in Ukraine and Israel, and fuel prices are all factors in today's uncertain economic environment.

Nonetheless, Mathieu says: "One of the few positive aspects of Covid was that it revealed the importance of cargo for a major hub. No overseas flight is viable if there is no cargo onboard. The awareness of cargo that was raised or catalysed by Covid is still here, to an extent." ■

Brexit forces changes to British air freight market

Swissport has noticed some structural changes recently in Britain's air freight market. "We see volume growth related to Brexit," says Dirk Goovaerts. "In the past, some goods landed on the European mainland and were trucked over the Channel, but now we see more flights coming straight to the UK," he explains.

The UK's largest dedicated air cargo hub – and the UK's only inland Freeport – is East Midlands Airport (EMA), which handles around 440,000 tonnes a year and saw volumes in 2020 rise 13% over the previous year.

"This led to an increase in direct connectivity into Europe and intercontinental connections to North America which, while some volume

growth may fall back, is not expected to reduce. In fact, further increases in European and intercontinental connections are anticipated," says EMA head of aviation David Craig.

EMA is the main UK hub of integrators DHL, UPS and FedEx, which have all made the airport part of their US-UK-Europe network. The gateway also has a healthy charter business and capacity to grow this segment. Rock-it Global recently brought all of Madonna's staging through EMA for the UK part of her tour.

"With other airports prioritising passenger flights, we were able to provide the certainty and flexibility they were looking for and demonstrate that we are a viable alternative to London's congested, slot-constrained airports," Craig notes. ■

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Pharma air cargo volumes far exceed pre-Covid levels

Temperature-controlled shipments have been stable this year in an overall declining air freight market, and tonnages are well up on 2019 traffic levels

Analysis this year of air freight's temperature-controlled pharma market by WorldACD Market Data reveals that the Pharma/Temp category as a whole – which accounts for around 4.1% of total worldwide flown air cargo and includes pharma and other temperature-controlled non-perishables products – has remained more or less stable compared with last year in the first nine months of 2023, whereas the air freight market as a whole

declined by 6%, and general cargo fell by 11%. And compared with the equivalent period in the last pre-Covid year, 2019, Pharma/Temp tonnages in the first three quarters of this year were up by 11%.

In-depth analysis earlier this year by WorldACD focusing on the first quarter (Q1) of 2023 also highlighted significant differences between demand for active versus passive temperature control. At a time when Pharma/Temp tonnages as a whole were up by 0.7%, year on year (YoY), shipments requiring active temperature control grew by

4.5%, whereas shipments using passive temperature control grew just 0.3%. Active cooling represents 10.6% of total Pharma/Temp volume, up from 10.3% last year.

The analysis also reveals that the top four origin countries for shipments using active cooling account for 56% of worldwide volumes: USA, Germany, Switzerland and Italy. And several of the top 10 origin countries for shipments using active cooling grew, YoY, by more than 10%, in Q1: France (+113%), Belgium (+65%), Italy (+17%), Germany (+14%), Netherlands (+14%). Among the top 10, there were declines ex-USA (-9%), Austria (-8%) and ex-India (-5%).

Among the top destination countries for active cooling, the four largest – USA, China, Brazil and Japan – account for 54% of worldwide volume. And within the top 10, shipment volumes in Q1 grew by more than 10%, YoY, to Taiwan (+81%), USA (+44%), and Japan (+13%). There were double-digit YoY declines to China, Australia, South Korea, Brazil, and Belgium, although those latter figures most likely reflect an inflation of demand during 2022 related to the Covid pandemic, rather than structural declines this year.

Region to region, the two largest regional markets (Europe to North America and Europe to Asia Pacific) account for 55% of worldwide volume in active cooling, with double-digit YoY growth on Europe to North America (+45%), North America to MESA (+22%) and Europe to MESA (+15%).

Analysing specific origin and destination markets also reveals significant growth in certain parts of the passive Pharma/Temp market, which still makes up almost 90% of Pharma/Temp shipments. For example, there was double-digit percentage growth from top origin markets including Italy (+45%), Ireland (+16%), India (+13%), the Netherlands (+13%) and Switzerland (+12%). And Passive Pharma/Temp shipments continued to rise to key Asia Pacific destination markets such as Taiwan (+34%), China (+20%), South Korea (+13%) and Australia (+8%), plus also to Brazil (+6%). ■



Rising pharma requirements and tech developments keep operators on their toes

Air cargo stakeholders are using new packaging, tracking and monitoring capabilities to meet the ever-more stringent requirements of customers, regulators, and emerging medicines that are highly sensitive to temperature deviations, reports Ian Putzger

Faced with new demands from customers in the healthcare and pharma sector as well as new developments in temperature control technology, operators are beefing up their service levels and offerings.

For example, Emirates SkyCargo in May unveiled two new services under its rebranded 'Life Sciences and Healthcare' product range that had been developed in consultation with customers. Emirates Vital, a 'white glove' service where every

shipment is monitored by a control tower team, targets shipments for clinical trials, human organs and tissues, and cell and gene therapy (CGT). Connection times for shipments at the carrier's Dubai hub are less than four hours, with dedicated vans moving the cargo across the airport ramp to connecting flights.

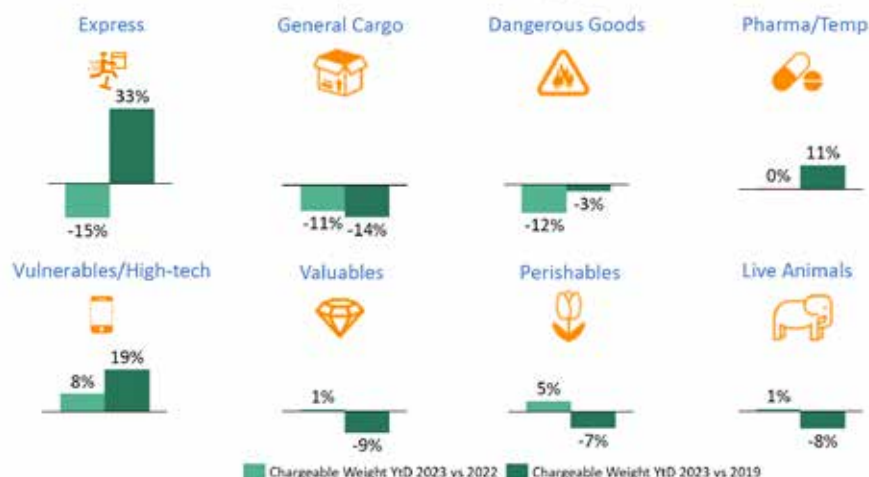
Emirates Medical Devices covers equipment for the diagnosis, prevention, treatment and monitoring of diseases, such as ventilators, test kits, x-ray machines and magnetic resonance imaging scanners.

The new demands are also reflected on the logistics provider side. For example, UPS in November acquired MNX Global Logistics, a time-critical service provider with a long track record in the movement of urgent healthcare products like live organs, blood samples and CGT.

CGT growth

Besides producing higher yields, CGT is also one of the fastest-growing segments in the healthcare logistics field, generating increasing attention. "There's more focus around this," remarks Barry

Express, Pharma and High-tech strongly up versus Pre-Covid



Source: WorldACD

Pharma tonnages in the first three quarters of this year were up by 11% compared with the equivalent period in 2019

Shields, cargo operations manager at cargo handler Dnata. While shipments are often small, this segment requires specific handling and the management and storage of active containers, he notes.

For industry collaboration association Pharma.Aero, the CGT segment's special requirements have raised questions about the regulatory framework and how ready the industry is to handle it. It has developed a project to establish if the supply chain is ready for CGT, reports Pharma.Aero chair Trevor Caswell, of Edmonton International Airport.

"With the new type of therapies coming, ATMP or cell and gene, we see in the US in particular a real boost towards clinical trials" enabled by "a simplified and fast mechanism in place since the pandemic", he notes.

New packaging solutions

Meanwhile, packaging and ULD providers have been in overdrive to develop new solutions, and collaboration is playing a significant role in many ventures. Va-Q-tec, which last year introduced two containers for cryogenic shipments at temperatures of -70 and -150 degrees Celsius, has formed a partnership with Sartorius, a supplier of technologies that help translate scientific discoveries into effective patient care. The pair want to combine their technologies to create a safer and more sustainable

temperature-controlled transport system for active pharmaceutical ingredients and bulk drug substances (BDS), to be used in international air freight as well as for intra-company shipments. BDS are extremely temperature-sensitive. By deploying new single-use solutions from Sartorius and advanced insulation and phase-change material, this will remove the need for dry ice and lower carbon emissions during transport, the partners claim.

Va-Q-tec is also aligning itself more closely with active ULD provider Envirotainer after the latter's parent obtained agreement to take majority ownership of va-Q-tec. Together the pair will offer a broader portfolio of active and passive temperature control solutions once fully aligned, expected by the second half of 2024.

Self-sustaining container

Swiss WorldCargo (SWC) in April started using a self-sustaining air freight container provided by Swiss Airtainer. The unit, which is equipped with real-time tracking and monitoring technology, uses solar energy to feed the battery, eliminating the need for an external power source, making it ideal for transporting medicines to remote locations where cold chain infrastructure can be limited.

Its manufacturer claims the container is made of sustainable and eco-friendly

materials and weighs 250 kilos less than competing models, helping meet the growing interest in sustainable solutions.

Lorenzo Stoll, SWC's head of cargo, says "the self-sustaining air freight container is a game changer for the industry".

SWC in October also signed a master lease agreement with Sonoco ThermoSafe for the latter's Pegasus ULD temperature-controlled bulk shipping container. Made with composite materials, this unit is lighter and more damage-resistant than metal containers, also featuring a fully integrated telemetry system to provide real-time, cloud-based data.

SWC's pharma and healthcare vertical industry representative, Susanne Wellauer, notes: "Our customers are increasingly interested in new, innovative solutions in regard to containers, e.g. real-time tracking, lighter and more-sustainable options." She says technology, sustainability, and collaboration in the pharma supply chain between airlines, handlers and forwarders are key, "to keep the high quality of air cargo operations and move the industry forward as a whole".

In the summer, Swiss unveiled its revamped product line-up, a modular structure that allows customers to combine branded services with transport solutions and add-ons, such as real-time visibility, home delivery service, and a green choice. Pharma clients can choose active or passive solutions to go with the airline's Pharma & Healthcare product and add 'Green Choice' and 'Active Tracking Devices' options.

Sustainability pressures

Sustainability is now high on the radar of the industry and its customers. Caswell notes: "Every project we do has a sustainable aspect." Pharma. Aero has embarked on a 'Green Air Pharma Logistics' project to define the key attributes of a green pharma lane, spearheaded by Changi Airport and Brussels Airport. This aims to help pharmaceutical manufacturers and forwarders integrate sustainability considerations into their freight procurement and lane assessment processes, and to support the development

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Serialisation traceability allows importers in Argentina to store incoming pharmaceuticals at Montevideo's LACC

of environmentally friendly products.

Caswell says the biotech and pharma industry belongs to one of the most carbon-intensive industry sectors, contributing 6% to annual global CO₂ emissions. And new regulations towards sustainability, such as rules on packaging and packaging waste across the European Union, are impacting logistics.

"This will drive innovations in packaging as well, where the impact of

re-usable packaging will be significant on the logistics side," he says

Etihad Cargo, which recently doubled its cool chain capacity at its Abu Dhabi base, has been working with several packaging suppliers that are developing containers that incorporate new technologies, including phase-change materials that release and absorb energy to provide cooling. In addition, these containers are equipped with dynamic

tracking capabilities.

Not surprisingly, operators are looking to artificial intelligence to elevate efficiency and meet emerging requirements. Etihad Cargo is applying it to generate three-dimensional ULD-level load plans, using cargo dimensions and volume data to anticipate how cargo will be assembled and loaded onto an aircraft.

On-airport action

Meanwhile, the seemingly inexorable growth of pharma traffic, coupled with the elevated yields it produces, keeps fuelling facility expansion at airports among air freight stakeholders including carriers, handlers and forwarders.

In October, Kuehne+Nagel (KN) opened an air logistics hub at Paris Charles de Gaulle airport that includes 4,500 sqm of cold rooms and temperature-controlled zones. The healthcare area, which is GDP and CEIV-compliant, also focuses on R&D and personalised medicine, supported by QuickSTAT, a KN company with expertise in personalised supply chain planning. KN says the hub, "located at one of Europe's best-connected airports, reinforces KN's leading position in air logistics and strong ambition on our healthcare focus".

On-airport pharma production is also on the cards at Edmonton. "We're talking with companies that are looking at manufacturing within our Airport City Sustainability Campus," reports Caswell. Pharma production in the region has shown explosive growth, which has led to plans to develop a pharma ecosystem located at the airport as part of Edmonton's 2,000-acre, International Cargo Hub (ICH) strategy. The pharma and cool chain sectors are major drivers in this development, he says.

While this is in the early planning stage, development of a new airside cool chain facility with a footprint of 1,000 sq ft (90 sqm) is expected to kick off in 2024. There are also plans for a larger landside cool chain development at Airport City in the years ahead.

Concentrating distribution

Meanwhile, with the market continuing

to develop in South America, a third dedicated pharma facility went up this year at Latin America Cargo City (LACC), in the free trade zone of Montevideo's Carrasco airport. Large pharma companies are increasingly looking to cut transport to individual markets and bundle traffic through regional hubs that can perform enhanced distribution activities, notes LACC sales manager Hans Guiscardo. This has also drawn packaging providers and other suppliers to the pharma sector to LACC.

The latest step to bolster distribution in the region has been the incorporation of serialisation traceability, which allows importers in Argentina to store incoming pharmaceuticals at LACC while they await their import licences, which typically takes about 3-4 weeks.

Montevideo's longhaul services have not seen significant expansion this year, apart from increased passenger frequencies on some sectors, but this has not affected LACC's role as a distribution hub for the region. Guiscardo notes that today a higher portion of LACC's pharma flows arrive through Montevideo's port, as pharma shippers have shifted some of their traffic to ocean carriers.

Technology focus

Elsewhere, Dnata has been investing across a number of regions, including a 61,000 sqm facility with pharma handling capabilities at Amsterdam Schiphol. The handler is also increasing the pharma facility footprint at its Dubai base, and has broken ground on a 20,000 sqm terminal in Erbil, in northern Iraq.

Technology is another major focus for the handling company. In Brussels, Dnata is involved in a project using RFID, which is part of a community approach.

"We're looking – not just for this product alone – at point-to-point monitoring and technology that can give us data through digital transformation and end-to-end visibility," Shields says, adding that this can also strengthen the value of air freight to shippers at a time when there is a shift of some traffic to ocean transport.

"A lot of airlines and forwarders are

starting to build control towers around the world to monitor shipments. We're ready for that. We are visible, and we want to be transparent," he stresses. "We keep moving forward with our digital transformation."

For Swiss WorldCargo, technology is also a big focus going forward.

"New developments will take the form of internet of things devices, big data and advanced data analytics, artificial intelligence, but also automation in cargo handling, cybersecurity measures, as well as digital documents in the form of electronic air waybills," comments Wellauer.

Caswell is looking at airborne

operations beyond Edmonton's perimeter. More than 18 months and over 1,800 flights into the operation of commercial drones from the airport to a fixed outside location, the drone programme at Edmonton is looking to move into its second phase, which will see flights to a medical centre further afield that has key diagnostics capabilities.

This new phase, which kicks off in early 2024, aims to move beyond line-of-sight operations, and one of its goals is to deliver proof of the commercial viability. Once this is established, the concept can be applied to other airports, Caswell says. ■

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ACHL 2023 Conference, Athens

ACHL Conference Report: The Changing World of Air Logistics

Although air freight has evolved significantly in the last few years, the fundamental shipper-forwarder-airline model mostly remains valid – at least for now, according to stakeholders at the 14th annual Air Cargo Handling & Logistics Conference in Athens. Will Waters reports

Air logistics has evolved significantly in the last few years in response to new technology, disruption, and pressures from e-commerce customers, plus the Covid pandemic. But the

fundamental shipper-forwarder-airline model mostly remains valid for most markets – at least for now – according to a range of stakeholders taking part in a panel discussion on ‘The global changing face of air logistics’ at this year’s Air Cargo Handling & Logistics (ACHL) Conference in Athens.

This panel debate was one of a number of discussion sessions within the 14th annual ACHL conference – covering a diverse range of topics from digitalisation and new technology, people development, sustainability, changing customer needs, e-commerce, quality and compliance – alongside a series of Innovation Showcase

presentations highlighting leading-edge initiatives and developments.

Lars Droog, director for global logistics strategy and corporate sustainability at air freight customer Cytek Biosciences, said the requirements of customers had not fundamentally changed since the pandemic, noting: “We still want reliable services.” Notable shifts in the last few years include additional freighter services to and from cargo-specialist airports including those controlled by forwarders, and a more serious focus on sustainability, with shippers now committed to reporting and reducing emissions.

Asok Kumar, EVP and global head of air freight at DB Schenker, said during Covid, DB Schenker operated up to 62 flights a week, equivalent to 17% or 18% of its total air freight volumes. “Now we’re down to 26 flights a week,” although that is “still more extensive than it was before Covid”.

He said another “interesting development” has been the shift away from ‘just in time’ supply chains to ‘just in case’ provisions, even post-Covid, because of the level of disruptions experienced during the heights of the pandemic. “A lot of our customers still need a certain amount of those contingency plans in place.”

Jannie Davel, SVP for air cargo at shipping and logistics group MSC, said the involvement of shipping lines in air cargo was not new, with past examples including Taiwan’s Evergreen owning Eva Air, and Maersk operating air capacity for a number of years on certain lanes.

He said the reason MSC launched its own air cargo operation was “to complement our offering to our customers”, because customers during the pandemic were urgently seeking solutions. But he said 95% of air freight was still arranged via freight forwarders, “and will remain our main focus, going forward”.

Kumar noted that shipping line CMA CGM had originally intended to offer the services of its new CMA CGM Air Cargo operation mainly direct to end customers, but it realised within about a month that this was not practical and instead refocused its services on the needs of freight forwarders – the achieve the “economics of scale you need” to operate regular freighters.

E-commerce driving change

One of the main factors driving change has been the strong and continuing growth of e-commerce air freight traffic, and the need among e-commerce customers for

cargo operations at Emirates, observed that, in the last few years, the growth of e-commerce had helped build secondary cargo airports like Leipzig and Liège into important cargo hubs.

Cargo-specialist airports

But Joost van Doesburg, head of cargo at Amsterdam Airport Schiphol, said that following the end of a pandemic, most people have forgotten the importance of air cargo, and the return of passenger services meant that the importance of belly cargo had returned. And airports like Schiphol are under increasing environmental pressures, and having to

focus on becoming more efficient and higher quality – for example, taking a greater role in ensuring the quality of cargo handling services.

Kumar sees e-commerce as “a huge opportunity for growth”, noting that it is “one of the areas that continue to boom, for example, ex-China, even if the overall market is declining”.

In many respects, it is “a different kind of business”. The airport-to-airport portion “is standard”, but for “what happens at the front and the back you need different systems – different kinds of scanning and labelling, and down to a possible level which is more the integrators’ type of business.”

He continued: “We’re building capability there. And we already move

a significant amount of e-commerce today, where the e-commerce companies themselves consolidate and build the ULDs, and hand them to us. The idea now would be to add more value into that supply chain.”

But he said forwarders like DB Schenker had no intention of attempting to compete with the integrators by offering extensive B2C services.

Ambak noted an apparent shift with e-commerce from a push model from the



Lars Droog
Cytek Biosciences

greater visibility of shipments across the whole logistics chain.

Kendy Choi, senior manager for air cargo business development at Cainiao Group, logistics arm of Alibaba Group, said that new technologies on the market – for example, VR technology, enabling customers to visualise potential purchases within their homes or on their bodies, was bringing new and different purchases into the market.

Moderator Henrik Ambak, SVP for

manufacturer to markets, towards a pull model directly from the end customer. Even within the garment sector, in some cases companies were not manufacturing until they receive specific individual orders. Droog said ultimately the business starts with a pull from the customer, noting: “The only time we really push is to replenish our inventory locations around the world.”

He described recent changes and developments within air cargo as positive and exciting for customers – for example, freight forwarders or shipping lines operating freighters, and integrators or shipping lines buying freight forwarders, and the use of 3-D artificial intelligence, software technology, and robotics.

Shifting the distribution point

Meanwhile, some social media platforms are also becoming direct e-commerce marketplaces. Davel said his key question about the e-commerce model and its impact on air freight is whether companies like Temu and TikTok “are

shifting the distribution point from destination to the origin. Because by consolidating and optimising the origin, by the time they hit the ground, it doesn’t have to go to another DC.

“So, the traditional heavy air freight (model) is probably already shifting, from a buying behaviour (change).”

Stan Wraight, from consultancy SASI, asked why carriers would not want to deal direct with customers if customers ask for this direct relationship.

Davel responded: “We are not saying no; it’s just not an integrated, all-bundled service.” Davel said DHL has had forwarding and express offerings for over 20 years, but offering separate product lines. “Offering a one-stop-shop doesn’t always work in a market,” he noted.

“For us it is what the customer and the market demand; it doesn’t mean we will do bundling, but we can offer it. Our strategy is very much ‘listen to the market.’”

Wraight asked whether airlines offering an airport to door all-inclusive product was a good thing, to allow small and

medium-sized forwarders to compete”.

Kumar responded: “I’m not against it. Small and medium-sized forwarders are our competitors, but I’m not in the business of taking them out of business. We also sometimes use the airlines’ airport-to-door product – particularly when we don’t have a service in that area.”

On the question of why can’t airlines, or a carrier with its own freight forwarding operations, “do it all themselves?”, Kumar notes: “In our industry, with the margins we have, it is very difficult, except for certain niche areas, to operate an aircraft on a weekly basis, or frequently, especially in the current market, without having the economics of scale and reach to a forwarding base.”

But he stressed that it is still possible for big forwarders to work with carrier groups (like CMA CGM), “even if they own one of our major competitors; we still do a lot of business (with CMA CGM), both on the shipping side as well as on the air freight side – on the basis that that piece of business is separate



from the forwarding side, and they are not treating their forwarding arm in any biased way, or any favoritism”.

Kumar highlighted that “a lot of SME forwarders are our customers as well, who co-load with us”, and in turn their SME shipper customers, “because in the SME space, there are some customers that will only work with Mr Joe down the road. And we can then work with Mr Joe; we have a lot of co-loading out of China, or the USA.”

Hybrid model

Wraight said he believed there is “a hybrid model that would benefit everyone” by providing an end-to-end air freight solution for the more than 100,000 e-retailers around the world, many of them SMEs, who would like a logistics solution to enable them to compete with the big players.

Davel noted that on the inbound delivery side, “when you come to LTL (less-than-truckload) delivery capability, that’s where the cost explodes. To have that direct, final-mile delivery to the door,



Jannie Davel
MSC

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the economies of scale don't work. UPS and FedEx are more in that space; but it becomes quite expensive."

And getting a really efficient, integrated solution for the whole air logistics journey, with full visibility, through airport congestion, infrastructure issues, and customs "is a real challenge; it's still a way out".

Whereas some of the big e-commerce players can help overcome some of these issues by pre-labelling on the origin side, the wider air freight sector has not managed to achieve this despite some efforts in the last 20 years, because the technology was not yet there to support it, Davel noted.

Visibility across modes

An air cargo handler from India highlighted that e-commerce shipments that may currently be transported by air may in time seek more affordable, overland transport solutions – as they already have in the Indian domestic e-commerce market – requiring transparency and visibility across modes.

Kumar said this was "the holy grail", although it remains some distance away, with the various data elements captured and held within many different systems within the air logistics chain – and in many cases within companies that themselves operate dozens or even hundreds of different systems.

He highlighted that efforts to standardise air freight's processes and systems across multiple players include Cargo iQ – for standardising milestones – and data-sharing initiatives like IATA's One Record, where a number of major companies had begun or completed initial trials, including Cainiao.

One Record as a solution

Choi said Cainiao had a successful trial in May with One Record "that made the transparency and visibility possible".

Choi added: "In China, Cainiao was the first company that came up with the solution of e-waybill and has been working together with the express couriers to digitalize the logistics process. Now, we are leveraging our ecommerce

and technology gene on international level, from China to Liege - where we have all our infrastructure ready to make everything seamlessly traceable; we have everything in the dashboard available."

That capability is understood to include an end-to-end labelling system, from the point of sale to the destination airport.

Delivering e-commerce handling quality

With an emphasis on "smart logistics" infrastructure, Cainiao places a particular focus on air cargo ground handling as a competitive element in order to support quality levels and help achieve the group's target to deliver e-commerce shipments within 72 hours, worldwide. This is primarily for the business of its principal customer and owner, Alibaba Group, and its thousands of merchant customers, although Cainiao does also manage and handle shipments for certain third-party customers as well.

Several years ago, Cainiao identified the need to develop a small number of regional air cargo hubs, such as Hong Kong, Kuala Lumpur and Liège, to focus its air freight on and to manage the quality of its logistics by controlling, as much as possible, the operations. For example, in November 2021 Cainiao opened a dedicated air cargo handling facility, operated by Worldwide Flight Services (WFS), at Liège Airport, Cainiao's primary European distribution hub. The 30,000sqm warehouse includes an air freight area of around 12,000sqm for the rapid transit of export and import goods between airside and landside, and an 18,000sqm landside sorting centre that groups together parcels according to their destination in Europe.

The facility is equipped with digital logistics technologies including lightweight handheld operations terminals to digitalise the flow of goods; an automated material handling system; and RFID detectors so cargo can be identified automatically when going in and out of the warehouse. The sorting centre is equipped with two automatic sorting machines and forms the main hub of a network in Europe that includes national

sorting centres in France, Germany, Italy and Spain. Along with the construction of the Liège 'eHub', Cainiao has reportedly also been strengthening other aspects of its European logistics infrastructure, working closely with European logistics firms and developing a trucking network that covers more than 30 countries.

Choi added: "Before we had the hub, our cargo was naturally divided over several airlines; but these airlines are using several handlers, and to get that freight consolidated at the same time was impossible. By combining the different volumes to our own hub, we've managed to shorten the processing time by 8 to 12 hours while making the whole process traceable through digitalisation."

Although that 72-hour global delivery target is still some way from being achieved, Cainiao and AliExpress in late September announced that its planned "pioneering" 'Global 5 Day Delivery' international express shipping service was now available in the UK, Spain, the Netherlands, Belgium and South Korea, for parcels from China labelled with '5-Day Delivery' on AliExpress Choice, with compensation for late arrivals.

Cainiao said its Global Express Delivery product has been "pushing the boundaries in the chain by minimising unnecessary handovers, enhancing link coordination and strengthening digital operational capabilities to optimise cost and efficiency at every stage". In China, Cainiao has established an integrated network for collection, warehousing, distribution and linehaul storage, enabling merchants to save an average of 1-2 days.

In terms of overseas customs clearance, a "fast in, fast out" warehouse and customs clearance integration model "allows for immediate customs clearance and distribution upon the aircraft's landing, eliminating the need for a distribution centre". And in the final delivery stage, "the efficient customs clearance, distribution, and last-mile delivery networks established in key markets like Europe and the United States ensure that packages can be delivered in most areas the day after local collection", Cainiao said. ■



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Cargo's digital transformation

Leading air freight stakeholders discuss key elements of the industry's digital journey, including the development and implementation of 'third-generation' cargo community systems and IATA's One Record standard

Consistent with this year's conference theme, 'The Changing World of Air Logistics', the conference sessions from ACHL 2023 included a review of the key goals from last year's event – notably for companies to implement or adopt digitalisation and

digitised solutions within their processes to circa 60-70% of company activity – and identify barriers preventing these goals.

Panellists from across air cargo handling, technology and drone developments highlighted some of the many initiatives they have undertaken to push digitalisation forward. Vivien Lau, CEO of Jardine Aviation Services, said her

company had launched a transformation programme, initially involving some external consultants using Six Sigma principles, noting: "We do need to build a culture that starts with digitalised data for all the third parties. The key thing is how we build an environment to encourage staff to build digital processes."

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to get approval for IT expenses and investments, she noted.

Peter Hewett, director of global cargo, security and network operations at drone developer Dronamics, believes the motivation for companies to continue modernising and digitalising needs to be a combination of government and commercial. He said these don't necessarily need to be directly financial – for example, it may just be from efficiency improvements.

Lau said it needs to be a combination of regulation and standardisation to avoid the current situation where “airport A is doing all the automation, but customs in B is still requiring paper”.

Sean Tinney, VP for global enterprise computing solutions at Unisys, noted that standardisation was important, “but also costs going down and down; as more and more GHAs put in (digital solutions) as standard, it is going to become ubiquitous”.

Digital transformation

Air cargo's digitalisation was explored further in a session on ‘Cargo's Digital & Environmental Transformation’ in which airline, technology and airport cargo specialists discussed how there are still considerable financial and other benefits to be realised from further digitalisation – notably reducing costs, cutting companies' CO2 footprints, improving quality, achieving compliance, and increasing customer satisfaction.

Session moderator Janet Wallace, MD for cargo operations and transformation at Air Canada, described technology as “the overlooked element in environmental objectives, cost reduction, staffing concerns, marketing support for airlines in developing high-value products”, as well as in “compliance with directives to come from the UN, ICAO, and governments worldwide – re digitisation and Data Corridor mandates”.

Jan-Wilhelm Breithaupt, VP for global fulfilment management at Lufthansa Cargo, highlighted key elements of the airline's and the industry's digital journey, leading towards implementation of IATA's One Record standard. He said Lufthansa's digital transformation started 12 years ago or even longer, with the introduction

of the e-air waybill (e-AWB), although he described it as “an uphill battle for years to convince all parties in the supply chain” to implement that.

“In 2018, we came to the conclusion that the critical mass already has been reached at Lufthansa, and we decided we wanted to completely decouple the documentation and the information flow from the physical handling – similar to the passenger business, when the whole check-in went off airport,” Breithaupt noted. “And this is also our vision for cargo: to have the documentation off airport. So, we need a fully digitised documentation acceptance with all documents.

“And if you're able to have a digital flow, you can start with all these technology things like robot process automation, AI, and accelerate the process significantly – and also be compatible to the e-commerce provider who has a huge amount of data.”

Data overload

He continued: “And this is the next problem: the (amount of) data which will be transported in the future is (far greater) – at least by a multiplier of 100. So if you have an e-commerce shipment, you have 10,000, 15,000 20,000 parcels, with all the information – not only one AWB with three houses (house AWBs); you have 15, 20, 30... and how to manage all these...”

The launch of the IATA-led e-freight initiative led to a decade of “good competition” with other forward-facing carriers that culminated in 2022 with Lufthansa Cargo becoming “the first carrier in the world having 100% e-AWB, based on the IATA statistics on a global scale on every station”.

But there are a lot of other essential air freight documents that also needed digitalisation including “the dangerous goods declaration, consignment security declaration, house manifests – these are already possible in a digital way, but there are dozens of other documents. So, we had to push forward the usage of these other documents, to think about other documents to be digitised and that we want to further push forward”. Lufthansa Cargo created a pre-check centre in Bangalore,

with “almost every shipment pre-checked there – but only to a certain extent, because there are still some documents missing. So, we cannot have a full documentation process offsite airport.”

Breithaupt added “the only solution we see at the moment is One Record. We have to completely overcome the old messaging system – developed by our grandparents 50 years ago, based on textual transmission of data. And on that level, we only have messages for the house AWB, the AWB, the DG declaration, and the consignment security declaration.”

To go forward from that challenge required “a lot of other work in IATA working groups for years to jointly agree on certain messaging standards”.

Chinese whispers

But the second problem with the old linear messaging system is “Chinese whispers”, where some digital data being exchanged between the various parties is lost if they are using different versions of the messaging technology. “If I'm working with FWB standard 19, Cargo-IMP, and I send it to a ground handling agent with an old system that is version 13, information is missing. And especially the free text sending comments; maybe the UN numbers. And this is unacceptable in the digital world,” Breithaupt said.

“So, we need something different so we can always retrieve the original data from the party who produced the data – immediately, when we need the data. And last but not least, certificates. To send a certificate would be easy, to make a scan and then send the scan. But to transmit a PDF with our messaging system is impossible – or IoT data, or maybe a video of a damaged cargo piece, or some photos. This is the reason IATA had an idea three or four years ago to introduce One Record, which is more or less based on internet technology. And this when we started to also investigate that topic, together with other leading carriers and forwarders.”

Breithaupt said that because participants can access the data centrally via URLs, “the master data remains in the owner system. So, any anytime you want to retrieve the data again, you get the



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Amar More, Kale Logistics

original data. So, the risks that that data is lacking is more or less zero. You have an open, decentral organisation.”

He said participation was “basically free”, although “of course there will be service providers to help those parties not able to build their own system or own server. And it’s relatively easy to jump in; once you are compatible to that system you can connect to more or less anymore.”

Piece-level data

One major advantage is the ability to share or access piece-level data, which has been a problem for air freight until now “because the piece level has to be defined by the shipper; and IATA was not able to define piece level from a carrier’s perspective”. But under the One Record process, that lack of definition or standard “doesn’t matter, because it’s just a link. The only rule that has to be followed is that this link is in accordance with the rules of the internet,” and it must be unique on the server of the customer. But it can be any kind of URL that the

customer wants to create.

“So, piece level - and below that,” Breithaupt notes. “And this is important for e-commerce; parcel level? No problem: Another link, you follow the link with a piece and then it can have however many parcels you want: 1,000; 5,000; 10,000 parcels below that, all clearly directed with a link and individual parcel number defined by (the customer).”

Breithaupt said One Record, and Lufthansa Cargo’s implementation of it, was more or less ready. “Of course, there is still some work to do, but basically, it’s working. And LC introduced a One Record server which is open source and open for anyone to get over a digital test feed. It’s up and running since June. And in a couple of months, we connect this server with our production system. And at the end of the year, we will be ready to connect to transport management platforms almost directly, or also to CHAMP; but the good thing is that you also can have direct connections and interchange data between the partners.”

Air Canada’s Janet Wallace said One Record “can enhance security, transparency, and provide a permanent record of transactions. But airlines cannot collect this alone; in order for us to transition from paper to electronic formats, we need to work together.”

So, she asked, how can airlines participate in the community to move forward with digitization efforts?

Amar More, co-founder and CEO of cargo IT and community system specialist Kale Logistics, said a community system “is essentially an electronic platform that facilitates digital interactions between all the different stakeholders of the supply chain. It’s not just the airline with the forwarders and customs, but importers, exporters, freight forwarders, brokers, truckers, carriers, terminal operators, chambers of commerce, the government”.

Third-generation cargo community systems

More, who is also a domain co-ordinator specialising in cross-border management for the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT), said cargo community systems “have moved (forward) a few generations in last four or five years. The first set of common community systems were essentially either simple airport portals or point-to-point EDIs for air waybills, house air waybills, moving data between the airline and forwarders, and maybe between customs and forwarders.

“Then there was a second generation of cargo community systems, especially addressing gate condition issues, or having a better truck dock management,” he noted. “Now is the time for the third generation of cargo community systems. And that is really becoming a single window from an airport perspective (for) anybody who is coming to the airport with cargo, instead of using multiple platforms, multiple systems.”

He said the digitalisation of air cargo processes promised to unlock billions in savings and efficiency improvements, as well as speeding up processes and improving sustainability. For example, “the cargo handling efficiency at an

airport is measured in tonnes per square metre. The global average is 8 to 10 tonnes per square metre (annually). And if you implement digital platforms at the airport, this number can go to as high as 22 tonnes per square metre. That's not a 10% improvement or a 50% improvement, it is 250%."

Big benefits

Benefits include reduced truck congestion, greater efficiency of drivers and vehicles, lower emissions, faster and more accurate processing of paperwork, and advance information to cargo handlers so that they can plan their resources more effectively. That's in addition to a single point of data exchange with government agencies, including those responsible for cargo security.

But the improvements also include greater "transparency or visibility for exporters and importers of where exactly their shipment is, because if the exporters or importers don't have that visibility, they end up stacking more inventory in their demand chains or supply chains, and that increases product costs and makes them uncompetitive".

Kales "sees cargo community systems being built all over the world, whether it is the United States, Europe or Middle East, Asia Pacific, and we are working with close to 46 airports. And what we see for the future is these different communities becoming linked to what we call digital corridors. And we at United Nations are setting standards for these digital corridors – and how we connect different communities together globally".

More said cargo community platforms "are not something that sprung from nowhere, it is a recommendation from the United Nations – a path for trade facilitation that is removing barriers to trade. The first thing is paperless customs – most customs are automated globally; they have their own system. The second step is having a regulatory single window – customs, plant quarantine, animal quarantine, drug regulators, etc., all linked to one common platform. Most governments have this regulatory single window."

UN recommendations

More continued: "The third phase that is prescribed in the United Nations recommendation 33 is the port and airport community systems, where you move from regulators to the private sector, and get all these different stakeholders connected onto a common platform. Imagine a community like Dubai or Mumbai where you have 2000 customers and 600 trucking companies, 100 airlines, all on a common platform, it becomes a natural infrastructure for a marketplace.

"So, a truck coming to an airport with cargo that doesn't have anything to go back, you can market its capacity. Or an airline that's going light from that airport, they can market their capacity. And that's the fourth layer – which is an e-logistics platform, a marketplace. And the fifth layer is a regional single window, like an EU single window or a North American single window or an ASEAN single window, where multiple countries will link their communities together. So that's the context. These are different drivers for growth."

More concludes: "The World Trade Organization's trade facilitation agreement is signed by 150-plus countries, which means that airports and ports have to implement these kinds of systems. The World Bank is pushing and funding this kind of single window system globally. On the maritime side, there is a regulation by the International Maritime Organization that mandates all ports have a port Community System by the next year, year and a half. And I think we need that on the air cargo side as well."

One Record vs Single Window

Stan Wraight from air freight consultancy SASI asked why IATA and airlines were developing their own data-sharing model, One Record, whereas most other trade and customs and government bodies appeared to be focusing on Single Window concepts.

LC's Breithaupt said airlines need a solution that will cover their entire network of 300 or 400 stations, and cannot rely on a series of community systems around the world all developing at the same speed as leading carriers.

"I don't believe that in a network of 300 stations, I'll be able to connect to cargo community systems that would be as advanced as Lufthansa Cargo in terms of digitalisation," he noted. "And the second thing is, what is the alternative?"

Breithaupt continued: "I would say that already 10% to 20% of our business is e-commerce. How shall we cope with the new business of e-commerce with the old messaging system? To give you an example, we tried to find an easy way: I said every parcel is a house AWB. However, that means that one AWB has 15,000 house AWBs. Our iCargo system would crash completely; it would take three hours to transmit one single shipment by sending one AWB and then 15,000 house AWBs. It is completely outdated."

Maritime overlap

He added: "Also, in the maritime industry, I'm in contact with the DCSA – Digital Container Shipping Association. They are working on an electronic bill of lading, and they have also started to look at One Record. So, I believe there will be also an initiative in the sea freight industry in the coming years."

Asked about synergies between One Record and CCSS, Kale's Amar More said the conversations so far "are not so active between these initiatives". But speaking on behalf of Kale, he noted: "If there is a One Record solution that we can connect to that, let's say, retrieves the status of the shipment or data that already exists in the One Record infrastructure, that should be supported by the community system, and vice versa. The One Record infrastructure can also draw data from the local community platforms. But this is a conversation that needs to carry on as things crystallise."

LC's Breithaupt commented: "We're already going that direction. We founded the 'Digital Test Field Air Cargo' in Germany, and especially in Frankfurt, and the partners are working very closely together – Fraport, CHI, and other partners around the community. So, the race is on. And One Record is an open-source standard, so anyone can participate." ■

How to identify, encourage and develop diverse talent

Leading specialists discuss strategies to counter the high attrition rates within many air cargo handling companies, and nurture the next generation of professionals

Dirk Goovaerts
Swissport

Key themes and discussions within ACHL 2023 included how to identify, encourage and develop diverse talent.

Following an observation by an industry personnel specialist about very high attrition rates within many air cargo handling companies, Swissport's Dirk Goovaerts, CEO for continental Europe, ME & Africa, and global cargo chair, acknowledged that this was also the case in his organisation, which employs around 60,000 people. He estimated the cost of losing each employee was also very high – costing around €4000 per person in Europe or the US.

Measures to combat high attrition have included emphasising the values and the importance of the business and its work, he and others noted. "With the help of our employees, we have simplified our values," creating a positive list of values in partnership with staff, Goovaerts told the ACHL discussion panel.

Values identified include "showing that we care", and "doing the right

thing". He said other cultural aspects of a business were important, including that they are "the right employer, that they deal well with diversity, and prove that they do".

But rewards are also important, something that is a challenge in the low-margin air cargo handling business. Blue-colour employees could potentially earn as much in a pizza restaurant in what could be a less difficult and more flexible job, Goovaerts and others noted.

Opportunities for growth

Other important factors included "to have the right leaders", to provide opportunities to give people a good work-life balance, and to provide "opportunities for growth: what will they be doing in 3 to 5 years?" he said.

One advantage of being in a big organisation is that it can give people an opportunity to move around the organisation. But identifying the talents of an individual is important, which needs a structured approach, Goovaerts said.

Celine Hourcade, founder and managing director of air cargo consultancy Change Horizon, highlighted

that a mentor is different from a trainer, and it is about the mentee identifying their needs and getting a mentor to help them to grow. Coaching, training and mentoring are different things, she noted.

Wilson Kwong, CEO of air cargo handler Hactl, noted that he started his career as a check-in agent, observing that all he had was a locker area, a restroom, and from time to time he would meet with his supervisor.

He noted: "People stay because of pay, the working environment, how easy it is to get to work, and whether they like their boss – usually their direct boss."

"We have to put ourselves in the shoes of the cargo warehouse person. Some of them want to be supervisors or CEOs. That is the job of the supervisors and managers to understand the development needs of the people."

"We tell them that they will be developing opportunities for those that want them and deserve them – it is a two-way street."

Supporting supervisors

Moderator Chris Notter asked whether enough time and effort goes into training

and supporting supervisors. Goovaerts responded: “I think that is a challenge because of the limited resources.”

But connections between senior managers and the warehouse floor are important. “Every time I go onto the workfloor, I pick up lots of things,” Goovaerts noted. “For example, are the toilets good enough for me to use? Or the kitchen?”

He continued: “How will it feel if I only see my work rota one week in advance? It’s very difficult for them to plan.

“We have changed that and they now have a 30-day work rota visibility. And there have been no negatives about that, only positives – happier people.”

Attracting young talent

And in a linked theme and conference session, panellists discussed attracting young talent and enhancing the appeal and incentives to attract and retain the next generation of air cargo industry professionals – noting that to effectively attract young talent, organisations

need to adapt their strategies and offer compelling incentives that resonate with the aspirations and expectations of the younger workforce.

The panel consisted of, and was moderated by, relatively young executives from different parts of the air logistics sector, most of whom noted that they had ended up in air freight by accident.

Tal Leemor, VP of marketing and partnerships at GSE tracking technology company Hoopo, highlighted the importance of putting the focus on flexibility and the adaptability of roles. “So, it is very important to see if we can change the models of work times and shifts,” she noted. “Of course, for operations positions, it is not possible to work remotely. But for Generation Z, growth and development is something that keeps coming up.”

Development opportunities

Leemor stressed that it is important to “brand the role as a career, and not just a short-term job, and to offer growth

and development opportunities – which gets them more engaged and gives them the tools to be more effective and progress in the organisation. Also, people are interested in many things, so it’s important to give people opportunities to work in different departments. This gives them different perspectives and opportunities for growth.”

Sara Van Gelder, director of products at data-sharing specialist Nallian, agreed that these things were important for operations staff as well as management staff. “And give them modern technology to use – make sure they can use a smartphone or a tablet.”

But Van Gelder said the first challenge was how to even attract people to the business. “We need to talk the language and use the communication methods and channels of young people,” noting that her sister’s employer gives its employees the opportunity to do things like a TikTok channel takeover. “People get job offers via TikTok. Other people are doing this, so we should.”

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Wilson Kwong, Hactl

Purpose, beliefs and values

She noted that “Generation Z wants to have a job with purpose, and that aligns with their beliefs and values.”

All of the panel members noted that they had joined the air cargo sector by chance, in many cases introduced via a family member or close personal connection. Van Gelder noted: “If I was not emotionally attached to this industry, I am not sure I would be here” – a reference to the sector’s relative lack of appeal compared with many other sectors, for example its relatively low levels of digitalisation and its intrinsic environmental challenges.

Christian Leffler, project manager at air freight consultancy BeCon, also highlighted the importance of digitalisation, as well as validation of individuals. “Everybody wants to feel seen and heard,” he noted. “If someone has a problem, we have to listen to them and take them seriously. Talk to people on the shopfloor. Have these people involved in

innovation projects.”

He highlighted a project he was involved with in North America, “where young people had a lot of impact and involvement because they are the people that are going to implement it”.

Small gestures

Kristin Beck, management advisor for BeCon agreed that “feeling seen and heard is also important for people on the shopfloor”. But she also said change and transition management on the shopfloor was important – and small gestures like buying staff “items from the bakery and taking it to the ground floor”, or arranging “a coffee meeting or a barbecue, or just asking people how they are. Small gestures.”

She also highlighted the importance of properly managing new processes, which includes managing the fears of employees. “If we don’t do that, we are likely to lose out on people that we struggle to attract.”

Leffler noted that when he was doing

his masters degree, he went on an external trip, visiting an airline terminal, “but no one mentioned cargo”. He suggested giving students opportunities to work during their semester breaks within cargo businesses.

Panel moderator Abedin Dula, account executive at air cargo container specialist VRR, agreed that giving people exposure to the air freight business was important.

Leemor added: “I think we should strengthen the bonds between the industry and universities – for example develop partnerships and help create courses. If there is a university that is interesting, try to do a project with them, so they know about us.”

Van Gelder highlighted an initiative launched at Brussels Airport, the Young Air Freight Network, that “reached out to students and invited them to a social evening and networking event”. She said some of the colleges near Brussels Airport have launched air cargo courses.

Van Gelder, whose father also works in the air cargo sector, observed that most people “are not going to find us by accident”, with reliance on that limiting the pool of potential talent.

Respect and responsibility

She said it was important to give people respect and responsibility earlier in their careers. “I think we can get the stamp of being a junior for a long time. But I think we can contribute to certain topics from very early.”

She said the same is true for rewards, encouraging companies to pay people “for their value, not according to their age”.

Both Van Gelder and Leemor had similar messages about the need for companies to find young people within their organisation to help promote the business to other young people.

“Look at your team and select a good young representative and ask them to take half a day to talk to people that are not yet in this industry,” said Van Gelder.

Leemor noted: “Go back and look at projects that will make these changes – for example, find a young person, or find a change that can make the organisation more attractive to younger talent.” ■

Kai Domscheit
CHI Deutschland
Cargo Handling

Air freight quality standards rated 8 out of 10

Companies are relatively satisfied with the industry's existing measurement programmes such as Cargo iQ, although there are concerns about how some measures are implemented on the ground

This year's discussions and debates within ACHL 2023 included a review of air freight industry quality and compliance standards and programmes, in which air freight executives on the panel agreed that companies are relatively satisfied with the industry's existing quality measurement standards and programmes such as Cargo iQ, although some operators have concerns about how certain measures are implemented on the ground.

Kai Domscheit, CEO at CHI

Deutschland Cargo Handling said there appeared to be different definitions or understandings, for example, of the physical handover point for the industry's Latest Acceptance Time (LAT) measure, providing an excuse for companies to manipulate the extent to which they were achieving certain key KPIs. For example, airlines or cargo handlers that claim to be meeting a KPI to deal with arriving trucks within 15 minutes were sometimes achieving this by telling truck drivers to circle round and come back later – with truck drivers left waiting up to 18 hours before being served, Domscheit claimed.

Lothar Moehle, executive director for Cargo iQ, said that Cargo iQ had a clear definition of the physical handover point for LAT, the moment when the cargo physically enters the cargo handler's facility – although that point could be redefined if the forwarder and airline or handler mutually agreed.

One delegate that reported similar experiences questioned whether the standards were set by people who didn't fully appreciate the realities on the ground, although Moehle disputed this, arguing that he had a long industry background and the organisation's



Lothar Moehle, Cargo iQ

members and their subject matter experts together defined the standards and their implementation.

Moehle said the issue highlighted by Domscheit was not a problem with the standard, but it may be the way they are implemented by some players, or a lack of communication between parties about issues that arise.

Henrik Ambak, SVP of cargo operations at Emirates and chair of Cargo iQ's board, urged Domscheit to join Cargo iQ and contribute to its work. Domscheit said he was already involved with a hub performance initiative at Frankfurt in order to help improve practices and efficiencies.

Kendy Choi, senior manager for air cargo business development at Cainiao Group, said Cainiao had already been taking initiatives in the same direction, noting that the company's cargo handling facility at LGG is managed with a 'smart

park management system' including a truck-booking system. If there is a delay in the loading of a truck, "we know that the truck was there. We have that timestamp and we have to handle the driver in 15 minutes." The company also has a target to deal with and get all trucks off the premises within 90 minutes.

Domscheit said if everyone operated their cargo handling facility like Cainiao – which had invested significantly in technology, to make their facility work efficiently – there would be far fewer problems.

A question was raised about whether Cargo iQ is measuring old milestones, now that technology is available measuring real-time data. But Moehle insisted that Cargo iQ and its milestones had been designed to work in a digital, modern technology environment.

Brendan Sullivan, global head of cargo at IATA, noted that "with the technology that is becoming available, there is less

and less time (for companies) to hide (poor practice)". He believed other checkpoints could be added now that new technology was available to facilitate that.

Multiple airline audits

The panel discussed whether it was really necessary for a ground handling agent to have dozens or even hundreds of different airline audits each year – and if various companies are certified to a certain recognised level, whether every single airline needs to drop by and audit them as well. Several panellists agreed that if the cargo handler met certain clearly defined industry standards, it should not be necessary to check every element already covered by that audit.

One panellist said, however, that some of these audits focused very much on paper evidence, often failing to fully take account of whether these targets were being met on the ground. It was suggested that this was one reason why certain carriers felt the need to continue to do their own independent audits.

Quality measurement rating

Asked to rate how well the industry's quality measurement standards were performing, most panellists were relatively positive. Sullivan rated the programmes "very highly, at 8 or 9 out of 10", although he wanted feedback to be fed into the programmes "to get that 8 or 9 into a 10".

James Wyatt, general manager of air cargo consultancy aeroconcept, said he would give programmes "an 8 in terms of the standards that are out there", for example, the Cargo Handling Manual. "I think the challenge is the adoption and the execution," he added.

Domscheit said: "I would say from the airline perspective it is somewhere between 7 and 10," noting that he believed the standards were created with good intentions – but what happens inside the laws needs to be fine-tuned and the definitions needed some work on.

Moehle rated the Cargo iQ system as "8 to 8.5. Why not 10? Because there is always room for improvement. And if I rated it at 10, I would be out of a job!" ■



Chris Notter, Host

Innovation Showcases

ACHL 2023's Innovation Showcase presentations highlight leading-edge initiatives and developments within airport cargo logistics operations

The 14th annual Air Cargo Handling & Logistics (ACHL) Conference in Athens began with a series of 'Innovation Showcase' presentations highlighting leading-edge initiatives

and developments within airport cargo logistics operations.

Consistent with this year's conference theme, 'The Changing World of Air Logistics', ULD Care's Bob Rogers unveiled the industry association's E-UCR app – developed and fine-tuned

over the last year to digitalise and track the movement and location of unit load devices, particularly those moving outside of the airport "reservation" to the control and facilities of freight forwarders.

The need for such a system was identified more than a decade ago, but efforts back then to include non-airline players in the ULD transfer process were hindered by the still widespread use of legacy IT systems and associated EDI systems not suited to participation by non-airline parties. But in the last few years, the rapidly changing availability of technology triggered this new attempt to create an app-based, paperless ULD control receipt (UCR) system.

One aim is to bring back into use the estimated 8% of airline ULD fleets that are currently out of circulation at off-airport locations at any one time, and bring greater accountability for their location, status and condition. The e-UCR app has been initially tested by KLM Ground Services and is currently being tested operationally by Emirates for three months, first in Dubai and then in other locations, with Eva Air also set to begin testing operations.

Transforming the landscape

Hans van Schaik, sales director for SACO Airport Equipment, outlined how the airport equipment specialist had partnered with intralogistics and parcel-handling automation specialist Alstef Group to develop a one-stop-shop offering end-to-end automation of air cargo handling processes. The aim is to fully exploit within air cargo the various technologies already available outside of the airport cargo environment, including augmented reality, automated guided vehicles, IOT sensors, robotics, artificial intelligence, and machine learning.

Using the extensive various technologies already available, the intention is not to offer a standard solution, but to talk with customers about their specific needs and solutions, van Schaik explained.

Jin Li, CEO of iTran, outlined how his



Jin Li, iTran

organisation's software has significantly improved the efficiency of various air cargo handling and warehousing processes – for example, improving driver dispatch efficiency from less than 22% to 36%.

'Quantum annealing'

Caroline Woodland and Sharon Huang from Unisys described new innovative solutions to optimise logistics operations and businesses. Using powerful technologies such as 'quantum annealing' it will next month launch a ULD optimisation solution capable of reducing ULD build-planning time from hours to seconds. The product is currently being pilot tested by MASkargo.

Yuval Baruch, CEO of Hermes Logistics Technologies, unveiled the Hermes Learning Management System (LMS),

a "first of its kind" online "self-service" training tool designed to make learning about air cargo processes and Hermes' cargo management system (CMS) "simple, intuitive, and effective". Baruch said the industry's current main training method, a train-the-trainer approach, was inadequate and led to knowledge limits, inadequate support for the training process to continue, leading to "constant loss of knowledge", decreases in service quality, reduced use and effectiveness of the company's systems, and subsequently higher staff frustration and turnover.

In contrast, the LMS approach, developed over 1.5 years, was more cost-effective and flexible, self-paced, and allowed role-defined training. It ensures Hermes users "can undertake regular training and maintain a consistent level

of knowledge, enabling them to take full advantage of the functionalities and operational benefits of the Hermes CMS", Baruch said, leading to "more-knowledgeable staff, faster and improved onboarding, and more efficient software implementations." As well as raising standards, it also allows greater ability to standardise airlines' and cargo handlers' quality and operations, Baruch noted.

Next up, Vitaly Smilianets and Tristan Koch from Awery Aviation Software outlined the development of the aviation software company's CargoBooking digital sales channel from a 'white label' digital booking solution used by individual GSAs to market and distribute their capacity, to a free-to-use online marketplace. The latter has been launched initially in South Africa, and around 20% of South Africa's air cargo capacity is now available on the platform, Koch said. This marketplace model will be rolled out in other markets, for example in Europe.

Means, method, and motivation

Last, but not least, Unilode's Bas Vermeer outlined the journey to improve visibility of ULD movements through digitalisation, and various lessons on the way. He said what needs to come together, using a tennis analogy, is the means (racquet), method (training) and motivation. He says the digitalisation part is "just the means"; and while that needs to be excellent – for example, leading IOT technology – that is of limited use unless it can be integrated in the GHA process and there is sufficient motivation among all stakeholders to participate.

"That is why we have been redesigning our approach," he said. "I think the most important thing is the motivation. There are many reasons the airline wants to have better visibility" – for example, get more use from its assets.

Vermeer concluded: "Digital visibility is the means to give value creation, and the key to a successful implementation is to make that (value creation) visible." That involves a 'stick and carrot' approach, emphasising accountability, a focus on value, logistical improvements, and digital services. ■

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Made to measure

Cargo IQ's executive director Lothar Moehle sees a strong future for the quality improvement initiative despite new technologies that make tracking and monitoring cargo movements easier, with the organisation set to focus more intensely on certain key milestones along the cargo journey – and on the interface between ramp and cargo handling, reports Will Waters

Discussions at this year's ACHL conference event (see pages 22-40) indicated that air cargo industry stakeholders are generally quite happy with the current air cargo industry quality

measurement standards and improvement programmes, although they highlighted the challenge of applying standards consistently – and successfully making any changes necessary to bring quality improvements.

An example outlined by Kai Domscheit from CHI Deutschland Cargo Handling

initially suggested that there may still be different definitions or understandings of certain industry standards or processes, such as the latest acceptance time (LAT) measure, providing an opportunity for companies to potentially manipulate the extent to which they were achieving certain key KPIs.

But Lothar Moehle, executive director for air freight quality measurement and standards organisation Cargo iQ, argued that there is a clear definition of the physical handover point for LAT – the moment when the cargo physically enters the cargo handler's facility – although that point could be redefined if the forwarder and airline or handler mutually agreed.

And in a subsequent interview with CAAS, Moehle notes that “having these standards and applying the standards are ‘two different pairs of shoes’. He (Domscheit) has his experience – because either he or his team or other people were not applying the standard. But then no one takes any action. And that's the point of quality management: if you identify that something goes wrong, you have to find measures to prevent that for the future.”

But the issue of applying standards consistently is important. Indeed, at the time of her appointment earlier this year, Cargo iQ's incoming new chair, Kirsten Straus, highlighted as a key focus for the organisation's work that “the Cargo iQ

membership must hold itself and each other accountable to deliver on the agreed standards in a consistent and complete manner”, committing to putting forward “a new tiered and structured approach to our members around continuous improvement, to strengthen and meet our service delivery promise to the end-customer”.

Moehle stresses that Cargo iQ measures “the promise given against the actual”, allowing participants to have their own specific individual promises to their customers, rather than some universal target of delivering goods within x hours. But if the airline promises “to have the delivery at destination by Friday for 13:00 hours, that's the promise we're measuring against.”

What Kirsten Straus highlighted is “some work in recent months; we are going to develop a standard scorecard” in order to improve the operations of members by concentrating on a small number of KPIs, “to be measured by all our members on a regular basis – let's say, monthly. And then have regular meetings

to compare notes – as we do already, in our initiative Q-Rally, where we have our technical experts setting themselves some challenges of collaborating on finding the root causes for service failures, and so on. And with a scorecard system, we want to involve more the senior level representatives of our members.”

NFD milestone focus

Confirming which KPIs to focus on is “part of the work in progress”. But the end of the transport chain, Cargo iQ's so-called NFD milestone, “is very important for us: the point when the airline or the ground handler at destination informs (the forwarder) that the shipment is ready to be customs cleared – and whatever other measures are required – and then collected.”

The expectation is that by involving more members' senior level managers “they can put more pressure on. And if everyone is looking at the same issues and at the end of the transport chain, this concentrated effort should drive the quality forward.”

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This quality drive is needed “because we haven’t reached 100% yet”. Members are currently achieving an average of perhaps 85%, meaning that 85% of the time, that particular member is reaching the promised KPI – for example the NFD – with some achieving 90-something percent and others in the high 70s.

“The work on quality improvement never stops,” notes Moehle. “Will we ever reach it (100%)? Maybe not, but as long as we see continuous improvement...” Moehle says a realistic aim may be 97-98% on the KPI identified, although “but even in the integrator world, that is not (currently) achievable”.

By concentrating efforts on fewer agreed key KPIs, and reviewing the scorecard at regular intervals “we aim to achieve improvements fairly quickly. That’s the concept of this membership engagement.”

Moehle says all of the so-called milestones in Cargo iQ’s road maps are important – for example, for operations teams “and where the airline can measure the performance of their ground handling agent; where the forwarder can measure their export operation; and so on,” notes Moehle. “The NFD milestone is just the sand in the line where all the activities should have been concluded. And where the airline cannot do any more than saying: we are here with the shipment.”

And if the NFD has been achieved, it also follows that nothing major has gone

“
***You sometimes hear that
 One Record will make the
 CDMP portal obsolete. I
 don’t see that happening –
 because One Record does
 not have that intelligence
 programmed into it***
 ”

Lothar Moehle

off target along the way.

“That’s the point,” agrees Moehle. “I promised my customer the shipment would be there at that time. And it does not matter whether I had a late departure or not. And if I do it on a regular basis, the shipper is most likely not even bothered about all the previous milestones in the future.”

That’s unless it is something like a temperature-sensitive shipment where the intermediary steps are more crucial.

Moehle says NFD has always been a crucial step in members’ ‘master operating plans’, although initially “many airlines would not even be able to send an NFD message, never mind adjusting their operation towards that important milestone. Even today, some airlines in the industry,

not necessary Cargo iQ airlines, are still not able to send an NFD message.”

Those are still mostly sent using traditional cargo messaging systems like Cargo-IMP or Cargo-XML. Moehle stresses that Cargo iQ is “technology agnostic. We don’t mind how British Airways is exchanging messages with KN; but we have standardised the message content. For example, you have to say 11 pieces were sent, 11 pieces have been received...”

One Record: implications

But some Cargo iQ members have already begun using IATA One Record to exchange information, with that currently at a trial level, and this is expected to open new possibilities for Cargo iQ and its members.

“It is important for the future,” he notes. “The entire industry is set up to exchange data – particularly with the various customs authorities around the world, which keep adding new requirements – for example, the EU’s ICS2; or three or four years ago, it was the Chinese customs authorities. I think in that respect, the industry is up to date,” Moehle says.

“But regulators will come up with more data requirements in the future. And that should then be easily made possible by One Record, to exchange this information without having to go through an approval process – and the whole Cargo-IMP

scenario where you have a proposal and you have discussions, and then it has to be accepted; and the whole process to change one message takes a year or so.”

He continues: “API technology nowadays, it’s so easy to adopt for the requirements our industry has that it should be fairly quick implementation in future when changes are required.”

As digitalisation progresses and more and more companies have digital capabilities of a higher level, “this is definitely complementing the Cargo iQ organisation and members – where we plan for a shipment and then validate that the actual movement is according to the plan. And then we can have reports, for data analytics, transparency, and visibility in between. All that will continue, but our CDMP (Cargo Data Management Platform) provider probably will make more use of the One Record cloud in future to exchange messages among each other.”

He continues: “The intelligence of planning roadmaps, providing that visibility with road map updates and

extra status; next and future statuses of activities; all that intelligence resides with the CDMP or inside the CDMP. That will most likely continue also in the future like that. You sometimes hear that One Record will make the CDMP portal obsolete. I don’t see that happening – because One Record does not have that intelligence programmed into it.”

Greater granularity

But will different kind of milestones be needed, as technology and visibility progresses, or does that just add accuracy or granularity or detail to what Cargo iQ and its members are able to measure?

Moehle responds: “That’s driven by our members, not necessarily by the technology available. I see more potential granularity in the future. Because we want to improve, and if you don’t measure it, you cannot improve. Following that simple logic, there will be probably more milestones in the future, especially on the interface between ramp and ground handling.”

Rather than technology making Cargo

Without focusing on quality management, stakeholders such as forwarders, ground handlers, airlines, will lose out in the long run, because shippers will no longer accept shoddy service

Lothar Moehle

iQ increasingly obsolete, Moehle sees the importance of Cargo iQ growing. “Because without focusing on quality management, quality improvement, and so on, the stakeholders such as forwarders, ground handlers, airlines, will



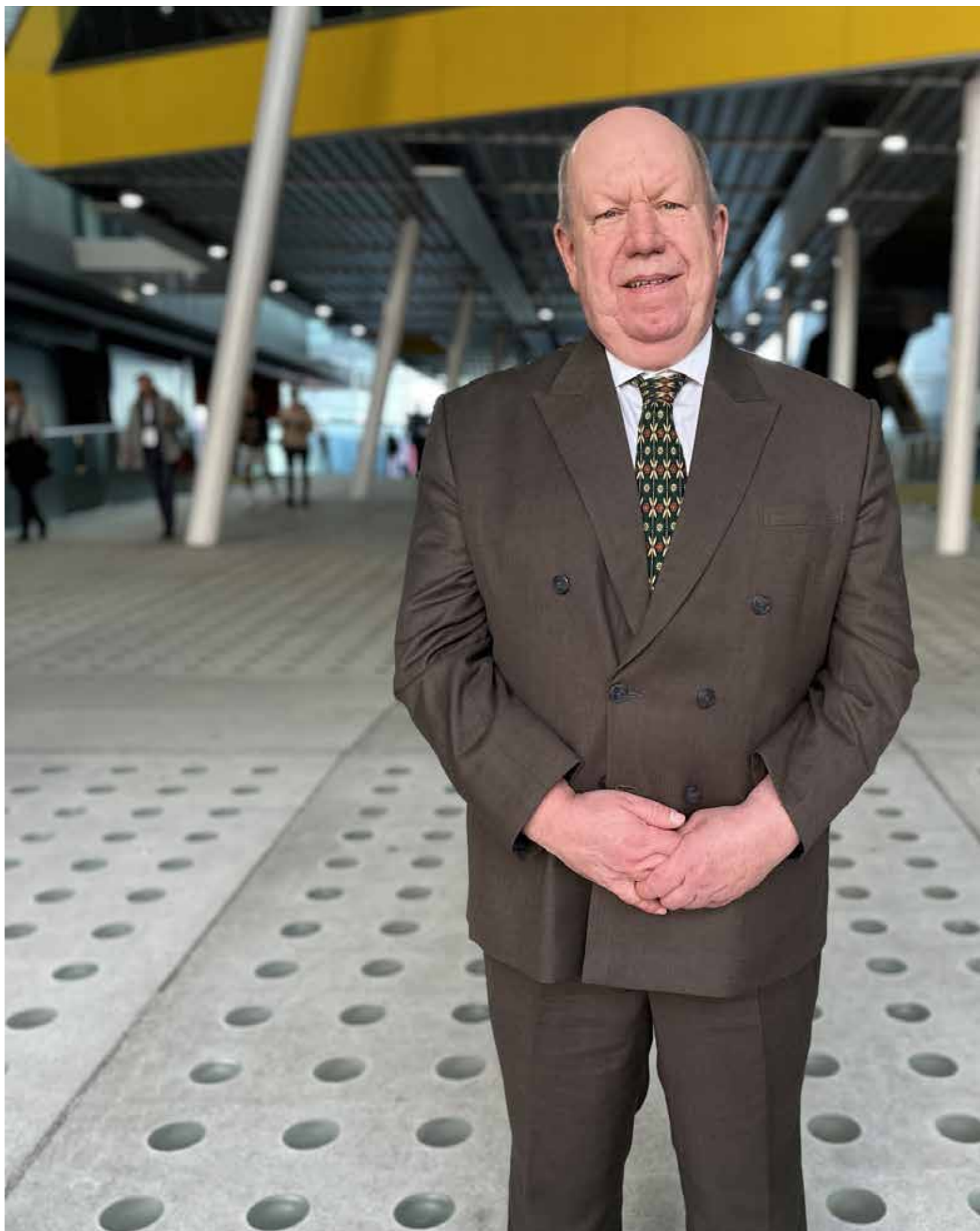
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lose out in the long run, because shippers will no longer accept shoddy service. Maybe for a very, very cheap price... but they expect also good quality for attractive prices. And in such, Cargo iQ has a firm place in the industry.”

He expects Cargo iQ as an organisation will adapt to market changes and has “no doubt Cargo iQ will also be there in 25 years”.

E-commerce growth and requirements

The growth of e-commerce and the requirements of e-commerce customers could be one change to adapt to, although Moehle notes: “A typical cargo shipment with an air waybill – whether it’s unified in one container or one bottle of very expensive whisky – the processes are the same: it has to be handed over to someone to deliver it on the other side. And in such, there is no big difference whether the cargo moved within our environment is textiles or e-commerce items. It has to be booked on an aircraft; it has to be export customs cleared; it has to be loaded on an aircraft; the aircraft has to arrive; inbound customs clearance... that will continue,” he notes.

Piece-level monitoring

Which leads us on to where Cargo iQ and the air freight sector is with ‘piece level’ monitoring.

Moehle responds: “We have taken that as a challenge, some time back. But we were asked by our members to put that on the back burner. Other priorities took over (for members) such as ICS2. And to a certain extent new technology has made it much easier today. For example, for pharma shipments, a lot of shippers put a tracker already into that carton and the visibility is much easier to track nowadays.”

So, is it likely that the evolution of that kind of technology is going to end up happening quicker than a piece-level solution within Cargo iQ?

Moehle notes: “A shipper might have a different understanding of piece level than we as the forwarder or airline. In our world, you can nowadays already put a

“
A shipper might have a different understanding of piece level than we as the forwarder or airline

”
Lothar Moehle

barcoded or QR coded label which has an RFID tag in the label on each and every carton, crate, or whatever is being loaded. They are easily printable. And by simply putting a label on these cartons, you have already piece-level control. So, with technology developing further, piece level becomes much easier than it was five to 10 years ago.”

And some freight forwarding members are doing that with their shipments, independently of the Cargo iQ process. “That came out of the requirements for pharma,” notes Moehle. “For example, my old employer, Schenker, is doing that.”

And whether or not it gets a process within Cargo iQ isn’t currently the most pressing priority, according to the association’s members and their shipper customers. “Is it important? Yes. Is it the top priority? Other things, such as ICS2 and so on have taken front seat in the priority list. ICS2 is still not done; it’s a massive undertaking for many in the industry.”

It’s not that Cargo iQ itself has needed to tackle ICS2 directly. “In our master operating plan specification, we left room for customs clearance, pre-load advice to be sent; but we have not gone down to the technical level to actually monitor the messages,” Moehle explains.

“So (ICS2), that’s really work which is on the shoulders of the forwarders and the airlines. But because they have to do that urgently, they have less resources available to work on piece level and other things.”

In the meantime, the scorecard project to drive up quality will be the main big focus at the moment, and the organisation’s other projects will continue. ■



CCA's berry research trial traced the export journey of raspberries from a farm in Cape Town, South Africa

CCA trials showcase best practice for perishables handling

Cool Chain Association study of the transport of raspberries and cut flowers from South Africa to Europe identified cooling, storage and packaging enhancements to better maintain the quality of perishable produce

In the fast-paced world of perishables air cargo shipments, quality control can take a backseat, especially when compared to the meticulous procedures and best practices in place for pharmaceutical products. Recognising this gap, the Cool Chain Association's (CCA) technical committee conducted two research trials – one involving raspberries and another focusing on cut flowers – in collaboration with the Perishable Products Export Control Board (PPECB) that is situated in South Africa. These trials aimed to identify areas where the industry could enhance the cool chain to better maintain the quality of perishable produce.



Raspberry research: Enhancing berry quality

The raspberry research trial traced the export journey of raspberries from a farm in Cape Town, South Africa, where some 85% of raspberries are produced for the export market, to the United Kingdom. Waste is a big issue in the transport of raspberries, with approximately 30% of all berry exports from South Africa to the market found to have quality defects.

Key recommendations from the trial included that the cut-to-cool time, taken to bring the berries down to a temperature of around 5°C, should be reduced to within 60 minutes of harvest to better maintain berry quality during storage.

Additionally, the trial suggested a lower

air temperature of 0°C, as opposed to the current 2°C, for blast cooling.

Flower trial: Extending vase life

The cut flower pilot research trial involved monitoring cut flower exports from South Africa to Europe. In the trial, it was observed that despite cut flowers arriving in an acceptable condition, the average temperatures experienced during the transport of these shipments exceeded the recommended threshold of 5°C.

This deviation from the recommended temperature will have a noticeable impact on the vase life of the flowers, meaning they did not last as long once they reached their destination.

To avoid this, more measures need to be taken to maintain specific temperature conditions during the entire value chain of cut flowers to ensure their quality and longevity upon arrival.

Key findings and best practice video

The CCA's trials uncovered simple, instantly implementable solutions to improve the shelf life of perishable goods. The findings have been disseminated through an accessible best practices video, addressing critical aspects such as cartons and packaging quality, temperature control, and labelling.

The best practices video advises stakeholders to ensure the quality of produce by paying close attention to cartons and packaging. For fresh fruits and vegetables, it's crucial to have ventilation holes evenly distributed throughout the packaging. These holes should always be visible to allow for consistent cooling of the product.

As highlighted by the trials, maintaining the right temperature is also essential. To achieve this, specialised boxes and packing materials like gel packs, thermal blankets, and dry ice can be employed. It's imperative to select the appropriate materials to ensure the product remains at the desired temperature.

Labels should also be employed to specify the type of perishable product and the recommended storage temperature. These labels should be

readily recognisable by cold storage personnel and ground handlers, guaranteeing that the product is stored at the optimum temperature.

Outlook for perishables handling

As we approach the end of 2023, the CCA anticipates the implementation of new cold chain technologies, monitoring systems, and packaging materials. In particular, companies are expected to invest in more sustainable practices, aligning with consumer demands and regulatory requirements.

Shippers will likely face increased pressure to adhere to stricter packaging, thermal protection, and labelling requirements. This focus on reducing waste and enhancing customer satisfaction will play a pivotal role in shaping the next phase of the perishables supply chain.

During 2024, the CCA will continue with research trials on both air and sea freight trade lanes to identify pain points and make recommendations to reduce product loss and waste.

Following the success of its perishables trials, the CCA will partner with member Lamprecht Pharma Logistics to launch a new trial in the fourth quarter of 2023 to track the most critical parts of the pharmaceutical supply chain, identifying pain points to further optimise performance. ■

About the Cool Chain Association

The Cool Chain Association is a non-profit organisation bringing together all parts of the temperature-sensitive supply chain, to reduce wastage and improve the quality, efficiency, and value of the temperature-sensitive supply chain by facilitating and enabling vertical and horizontal collaboration, education, and innovation among members and stakeholders ■

‘Classic seasonality’ to return to air freight in 2024

As the rate decline that started earlier this year has calmed down in recent months to what seems to be a new market baseline, 2024 could be ‘an opportunity for shippers to catch their breath’ after the volatility of the past few years, believes rates benchmarking and intelligence specialist Xeneta



Niall van de Wouw

Next year could see a return of “classic seasonality” to the air freight market after the “rollercoaster ride” of the last few years, according to Oslo-based air and ocean freight rate benchmarking and intelligence platform Xeneta, in its Air Freight Outlook 2024 report.

Niall van de Wouw, Xeneta’s chief airfreight officer, said 2024 “could be an opportunity for shippers to catch their breath after the volatility of the past few years. The rapid rate decline which started earlier this year has calmed down in recent months. It seems to be the market has a new baseline, from which I expect classic seasonality patterns to emerge.”

The industry saw the cost of transporting goods by air skyrocket during Covid-19 before plummeting

back down again during 2023, although they are still 32% up on pre-pandemic levels. Xeneta noted that “as with all rollercoasters, a wobbly feeling will remain for a good while after the ride has stopped and air freight continues to be a hugely challenging market”, emphasising the importance of understanding supply chain data at both a global and regional level.

The Outlook 2024 report highlights “muted consumer spending as a key factor for the year ahead”, noting that “demand for air freight in 2023 remains down by -8% compared to pre-pandemic and is only predicted to grow by 1-2% in 2024. At the same time, supply is expected grow by 2-4% in 2024.”

Van de Wouw said: “The key indicators are not great from a demand point of view. It’s muted and there’s a lot of uncertainty in the world. People and

companies are a bit more conscious how they are spending their money and we will likely not see demand pick up in any meaningful way in 2024.

“Yes, we will see a return of classic seasonality, but it will be muted seasonality.”

Xeneta data reveals an increasing trend for longer-term contracts, but Van de Wouw believes this presents a risk for freight forwarders in 2024. “There is fierce competition and I understand why freight forwarders want 12 months contracts to secure volumes and shippers want to lock in for a longer period to reduce their workload,” he said.

“The problem is freight forwarders are selling long term contracts but buying the majority of volume from carriers on the short term spot market. If the rates go up, there is a serious issue.

“We saw it recently out of Vietnam where 70% of volume is bought on

Air cargo rate drops as ocean schedule reliability improves

Air spot rate and ocean reliability on Northeast Asia to Europe corridor
(Rate in USD per kg; reliability in percentage)

Source: Xeneta and Sea Intelligence

the spot market. Rates suddenly went crazy prior to Golden Week and freight forwarders told shippers they could not honor the contracted service. This could happen on any market and is a real risk

for next year unless freight forwarders and airlines can find common ground on long term rates.”

The Outlook 2024 report also highlights the continued recovery of capacity putting

downward pressure on rates as a key theme for 2024, along with environmental sustainability and improving schedule reliability in ocean freight shipping.

Van de Wouw said: “At Xeneta, I have learned how incredibly important it is for the air freight industry to look towards the ocean. 97% of global containerized goods are transported by the ocean. Given the volumes involved, if the ocean industry messes things up, even to a small degree, then there is always money to be made in the air.

“Reliability in ocean is improving, but it only takes one ‘black swan’ event for the situation to change and rates to increase rapidly. No one has a crystal ball, but you only have to look at the drought in the Panama Canal, threat of volcanic eruptions in Iceland and conflict in the Middle East to understand how delicate and sensitive to world events the air freight industry is. If we do get a black swan event in 2024 then strap yourselves in for another ride on the rollercoaster.” ■



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Lufthansa Cargo starts construction of new Frankfurt hub

German carrier is investing almost €500 million in the major project, which is scheduled to be completed by 2030 and will cover an area of more than 70,000 sqm

Lufthansa Cargo is pressing ahead with modernising its Frankfurt Airport main hub, with construction work beginning on a new, 40-metre-tall high-bay warehouse, including an automated transport system, and the first building modules, in the Cargo City North area at Frankfurt Airport.

Part of the German carrier's LCCevolution project, Lufthansa Cargo is investing a total of almost €500 million in the major project, which is scheduled to be completed by 2030 and will cover an area of more than 70,000 sqm. In addition to the new building, the existing buildings and warehouses of the Lufthansa Cargo Center are to be upgraded and

modernised or replaced by new buildings. The first parts of the automated transport system and the construction of the first two building modules are expected to be completed between 2023 and 2027.

Ashwin Bhat, CEO of Lufthansa Cargo, said the carrier's Frankfurt main central hub "plays a decisive role in the operational success of Lufthansa Cargo", with a throughput share of around 80% of Lufthansa Cargo's global cargo volume. Lufthansa Cargo said the modernisation and new buildings will improve turnaround times and increase efficiency. "For our customers, this means faster handling speeds, easier transport processes and an improvement in service quality," Bhat added.

Dietmar Focke, Chief Operations

Officer at Lufthansa Cargo, said: "A particular challenge of this project is the implementation of a complex construction project while the regular operation of the hub must be guaranteed 24/7, and the gradual improvement of the hub as the new elements are put into function."

The implementation and detailed planning of the central construction measures for the next eight years will be carried out together with construction partner Ed. Züblin, with the mechanical engineering company Bleichert Automation a key partner in the construction of the high-bay warehouse. Furthermore, planning of the logistics systems for the large-scale project is being carried out with the expertise and support of io-consultants. ■



Dronamics and Qatar Airways Cargo sign world's first cargo drone interline agreement

In mid-November, Dronamics also signed a Letter of Intent with express and logistics specialist Aramex to explore joint deployment opportunities

Dronamics, the first cargo drone airline with a licence to operate in Europe, and Qatar Airways Cargo (QR Cargo), the world's largest international air cargo carrier, have signed the first interline agreement between an international airline and a cargo drone airline.

Through the agreement, Dronamics will be able to offer cargo services from any of its droneports, initially in Greece, to the wider QR Cargo network, and QR will be able to access remote locations that Dronamics serves, such as the Greek islands, on the Dronamics cargo drone network.

Dronamics customers will be able to make a single booking to transport goods from a Dronamics droneport to

any destination that the interline joint network covers, and vice versa. It said "the potential for the flow of goods, from pharma to food, from e-commerce, mail and parcels to spare parts, is significant, enabling rapid and reliable shipments to and from locations not sufficiently covered by air freight".

Svilen Rangelov, co-founder and CEO of Dronamics, said "the vast global reach of Qatar Airways Cargo and their world-leading capacity and service give us the perfect platform to massively expand air cargo accessibility to countless more communities worldwide, enabling same-day delivery for everyone, everywhere".

Elisabeth Oudkerk, SVP cargo sales and network planning at Qatar Airways Cargo, commented: "As a part of our 'Vision 2027' 5-year strategy, we are

committed to remaining at the forefront of our industry by embracing new disruptive technology. It is also within our DNA to support young ambitious companies like Dronamics and we are looking forward to seeing what the future holds for this exciting business. It is a significant milestone in the advancement of autonomous cargo drone transportation and we are proud to be the first international airline to offer this service."

Dronamics is expected to begin commercial operations in Greece early next year, focusing on establishing a same-day service connecting Athens with the industrial north area of the country, as well as the islands in the south. Earlier this year, Dronamics became the first cargo drone airline to obtain IATA & ICAO designator codes, granting it "recognition on par with other international airlines, and the ability to issue air waybills to enable seamless bookings with its airline partners". It said this interline agreement "is a crucial next step in Dronamics' plan to establish a cargo drone airline network with worldwide reach".

Dronamics currently has two full-scale Black Swan aircraft able to carry up to 350 kg (770 lb) at a distance of up to 2,500 km. Until the aircraft and its technology receive full type certification, in the European Union it is limited to flying over water or, under specific agreement, over unpopulated land areas.

In mid-November, Dronamics and express and logistics specialist Aramex signed a Letter of Intent to explore joint deployment opportunities, to enable same-day middle-mile and long-range express parcel deliveries – in the United Arab Emirates initially, followed by other key markets including South Africa and Australia. Dronamics said its remotely-piloted Black Swan aircraft was "well-suited to express deliveries" and "requires only 400 metres to land and take off, a viable solution for reaching remote and underserved areas, where traditional airport infrastructure is missing or underdeveloped". ■

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Construction begins on new Brucargo Central warehousing facilities



DSV, Nippon Express, EV Cargo, Deny Cargo and Hazgo will be moving into the new buildings at the heart of Brussels Airport by 2025

Construction has begun on new second-line warehousing facilities at Brussels Airport's Brucargo Central area, with DSV, Nippon Express, EV Cargo, Deny Cargo and Hazgo set to move into the new buildings by 2025.

All five of the partners are already active at Brussels Airport but wish to expand their activities even further at the European air cargo hub, where €70 million is being invested in the second line redevelopment of this 83,500 sqm area in the heart of the airport's cargo activities. The redevelopment of 'Brucargo Central' was launched a little over a year ago, and following the demolition of eight obsolete old buildings in this area, mostly unoccupied for several years, and work on the layout of the roads and construction, the first piles were laid, officially marking the start of construction.

Three new state-of-the-art warehouses,

with a consolidated warehouse area of 34,200 sqm with adjacent offices and staff car park, will be built by 2025. The project will be realised in line with the sustainable development strategy of Brussels Airport aiming for Net Zero Carbon, with a BREEAM-Excellent certification, optimising the use of the area with a 30% increase in storage capacity and a 20% increase of green zones, the airport said.

Electric charging infrastructure for vehicles will be installed, and the redevelopment also creates more space and efficiency for pedestrians and bicycles, "as well as a pleasant working environment", the airport noted.

DSV Air & Sea Belgium said it had "decided to invest in the future" and strengthen its presence at Brucargo, moving into a 12,000 sqm 'state of the art building' in 2025, after expanding its operations at Brucargo over the last couple of years, with a focus on healthcare solutions, general cargo and specialised perishables transport.

The airport said Nippon Express's move to a 10,000 sqm building at Brucargo Central signified the company's intent to further bolster growth, focus on the healthcare segment, and actively contribute to Brucargo's healthcare ecosystem.

BRU said Deny Cargo's commitment to specific focus segments such as perishable goods, live animals and hazardous materials "fits perfectly into Brussels Airport's strategy". The new facilities will allow Deny Cargo to increase its warehousing area to 2,500 sqm, including DGR and cool storage area.

Hazgo's move to a new 2,000 sqm facility prepares the company for future growth, will reduce its carbon footprint, and provide an even better service for companies who need specialised expertise in handling dangerous goods, including pharma and life sciences.

And BRU said EV Cargo's move to Brucargo Central confirmed "its solid growth plans". ■

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CCS-UK trials e-collection note



Electronic air cargo collection note is set to ‘revolutionise’ cargo collections from airlines’ cargo ground handlers in the UK, improving security and efficiency, according to the UK electronic air cargo community operator

A new, electronic air cargo collection note is set to revolutionise cargo collections from airlines’ cargo ground handlers in the UK, improving security and efficiency, according to the UK electronic air cargo community operator CCS-UK.

Designed by CCS-UK as the latest enhancement to its Advance Information System (AIS) – which enables freight agents and transport companies working on their behalf to pre-advise handling agents of loads being delivered or to be picked up – the ‘e-collection note’ replaces the traditional paper version that has been in use for decades. The old paper-based system requires freight forwarding agents to produce a hard-copy collection note, which their own driver or transport contractor then presents to the handling agent in order to obtain release of the cargo.

Not only are current processes time-consuming, but there can be a risk of fraudulent activity, CCS-UK highlighted.

The new, electronic version is downloaded as a QR code by the forwarder, direct to the driver’s pre-registered smartphone. This is scanned when the driver arrives at the handling agent to collect the cargo, which initiates a check against the shipment collection advice along with validation of driver and vehicle details.

If there is any discrepancy, the handler will not release the goods; however, in the event of a legitimate cause for the discrepancy – such as last-minute change of driver or vehicle – the process enables freight forwarders to amend the collection advice, avoiding the need for the driver to return to base.

Logistics service provider Geodis and cargo handler Dnata are currently trialling the new system at London Heathrow. Geodis UK MD Chris Packwood commented: “All our collections and deliveries to the airline transit sheds are already managed through the AIS system, so this latest development is a natural progression for us. It will significantly reduce the risk of fraudulent collections that has always existed with paper collection notes.

“Once we have fully tested and validated

the process and systems, it would make a great deal of sense for widespread adoption of the e-collection note to take place by the entire air cargo community. This would strengthen security, improve efficiency and drive much-needed modernisation of processes at UK airports.”

Tania Boyes, corporate assurance director for Dnata UK, commented: “We are very proud that Dnata has been involved in the development of the AIS system from the start. The e-collection note is another big step forward in helping the industry to improve efficiency and reduce the potential for erroneous or fraudulent collections.”

The e-collection note is a further enhancement of the CCS-UK AIS module, which enables handlers to better allocate their resources and schedule workflows. By pre-allocating truck door slots, they can reduce truck queues and waiting times during peak periods. Freight agents can also use the AIS ‘Air waybill watch’ feature to track specific air waybills and receive updates on the shipment status, enabling them to better plan vehicle movements. ■

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A key component is a dedicated area in the air cargo station of the Cainiao Liege eHub in Belgium



Saudia Cargo, Cainiao, and WFS strengthen strategic e-commerce logistics collaboration

Expanded partnership includes establishing a dedicated area within the Chinese forwarding specialist's European regional hub in Liege, to optimise logistics processes by streamlining operations – and ‘to create a business model for future e-commerce logistics gateways at global airports’

Saudia Cargo, Cainiao and Worldwide Flight Services (WFS) have agreed to “reinforce and increase” their collaboration in response to the global growth of online shopping and the need for efficient and innovative e-commerce logistics solutions, citing a shared “determination to optimise the efficiency of global logistics operations”.

The three major air freight carrier, forwarder and cargo handling players, respectively, said the collaboration “strengthens their existing relationship, focusing on optimising logistics processes by streamlining operations and adopting logistics innovations – to create a business model for future e-commerce logistics gateways at global airports”.

A key component of this collaboration is the establishment of a dedicated area

in the air cargo station of the Cainiao Liege eHub in Belgium, the Chinese e-commerce logistics company's European regional hub, which consists of a 12,000sqm airside-connected air freight handling centre – operated by WFS, in close collaboration with Cainiao – connected to a 18,000sqm sorting centre managed by Cainiao, the logistics arm of Chinese e-commerce specialist Alibaba Group.

This initiative is driven by the escalating demand for high-quality logistics operations in the cross-border e-commerce sector, particularly in the Middle East and European markets. Having in recent years already substantially developed its own cross-border logistics infrastructure, earlier this year Cainiao unveiled its international ‘Global 5-Day Delivery’ express shipping service, in collaboration with AliExpress, with that service now available in the UK, Spain, the Netherlands, Belgium, and South Korea.

Saudia Cargo and Cainiao already boast “a robust collaboration”, with a history that spans several years, and the latest agreement “reinforces this longstanding relationship by giving precedence to specific Saudia Cargo freighter flights originating from Hong Kong and bound for Riyadh and Liege”. The move is designed “to address the burgeoning logistics demands in these key regions”,



From left: Marwan Niazi (VP Commercial, Saudia Cargo); Thomas Yu (Sr. Director, Global Hub Operations and Product Development, Cainiao Group); Eric Xu (VP of Cainiao Group); Eng. Loay Mashabi (Managing Director, Saudia Cargo); John Batten (CEO EMEA, WFS/SATS); Teddy Zebitz (CEO, Saudia Cargo); Mohanned Badri (VP Operations, Saudia Cargo); Assaad Sfeir (Key Account Director, Group Commercial, WFS/SATS).]

and “further amplifying” the efficiency of e-commerce deliveries.

Saudia Cargo said a contract extension to WFS/SATS for handling over 50,000 tonnes annually on flights connecting Liege and Riyadh “underscores Saudia Cargo’s commitment to operational excellence and reliable logistics services”.

The parties said WFS/SATS’ “investment in subleasing part of the Cainiao facility in Liege emphasizes its focus on innovation and efficiency, creating a dedicated area for speedy and real-time information processing. WFS/SATS’s embrace of innovative technology solutions, including AGVs, advanced PDAs, digital dashboard and live tracking systems, support a new generation of cargo management systems using IoT technologies to drive efficient and sustainable e-commerce handling.”

John Batten, CEO for Europe, Middle East, Africa and Asia (EMEA) at WFS, commented: “E-commerce is extremely important to WFS/SATS, our customers, our industry, and, of course, consumers, but up to now, it has been processed within a traditional air cargo handling environment. With the growth projections for e-commerce,

the industry response must be more dynamic and tailored, and this is what WFS/SATS aims to deliver in Liege working alongside Saudia Cargo and Cainiao. This three-party collaboration leverages operational excellence skills and requirements from the airline, cargo handler, and e-commerce logistics perspectives, and will exemplify our commitment to innovation, speed, and real-time information for the future of the e-commerce logistics ecosystem.”

Inaugurating on 1 March 2024, the strategic collaboration between Saudia Cargo, Cainiao, and WFS/SATS aims “to make a transformative leap in global logistics and to set a new benchmark which propels cross-border logistics into a new era, driven by efficiency and innovation”, the companies said.

Teddy Zebitz, CEO of Saudia Cargo, remarked: “Our collaboration with Cainiao and WFS/SATS represents a natural evolution of our strong collaborations. Our collaboration ensures a seamless flow of e-commerce materials from Hong Kong to Liege. With high frequency flights on our Hong Kong, to Liege via Riyadh route, we have a significant capacity exclusively dedicated

to Cainiao. Utilising a meticulous process involving pre-built ULDs, we facilitate an uninterrupted supply chain, supporting Cainiao in achieving their key performance indicators.

“This collaboration significantly strengthens our e-commerce operations, positioning us as a trusted industry provider. We anticipate expanding our e-commerce network in Asia and Europe to meet evolving industry demands and customer logistics needs.”

Eric Xu, vice president of Cainiao Group, commented: “Cainiao is committed to transforming the logistics industry through continuous innovation to enable a seamless e-commerce experience, and we are delighted to find close partners like Saudi Cargo and WFS/SATS on this path. Through continuously equipping our Liege eHub with cutting-edge technology solutions, we managed to boost the efficiency of logistics operations while improving customer experience through greater transparency and traceability. We are confident that this win-win collaboration will further reinforce Cainiao’s position as the world’s leading cross-border e-commerce logistics provider by offering the valued customers of us three companies with enhanced experience.” ■

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