



Kale Logistics  
Technology that Transforms



# ClearView

*A Kale Thought Leadership Summit for Air Cargo*

18-19 October, 2024 | Istanbul, Turkey

## Key Excerpts from the Summit







Dear Industry Colleagues,

It gives me great pleasure to present to you the report on “CLEAR VIEW - A Kale Thought Leadership Summit for Air Cargo” that took place at Grand Hyatt Hotel, Turkey, Istanbul on 18th and 19th October 2024. We were thrilled to have hosted the summit in the beautiful city of Istanbul, a city known for its legendary food, its strong coffee and energetic people. It was a distinguished gathering of CXOs from global Airports, Air Cargo Ground Handling, leading Airlines, renowned consultants and representatives from international trade bodies like IPCSA and Customs.

CLEAR VIEW is not just a summit but is now transforming into the voice of the industry and this year’s gathering we have CXOs from more than 8 countries representing the Air Cargo industry and in fact, in this fifth edition at Istanbul we have been globetrotting. We have been to Dubai, Bangkok, Athens, Cape Town and most recently we concluded CLEAR VIEW Americas in Cancun.

In its fifth edition, this summit continued its tradition of creating a unique platform for knowledge-sharing and collaboration, with each session tailored to drive value and impact. Participants were encouraged to voice their ideas freely, ensuring every perspective mattered in shaping the future of the Air Cargo industry.

The summit had five power-packed and focused discussions, which yielded some very meaningful insights into the present and future Air Cargo industry trends. The summit sessions were meticulously designed to cater to Cargo Ground Handling Agents (GHAs), Airlines, and their ecosystem, addressing critical themes that are shaping the future of the Air Cargo industry. Over the course of two days, the event fostered meaningful discussions aimed at uncovering real-world solutions through collaboration and innovation.

Day 1, October 18, 2024, commenced with a welcome reception and opening remarks, setting the stage for the day’s engaging sessions. Discussions began with Strategic Partnerships in Air Cargo, emphasizing the importance of enhancing stakeholder collaboration to navigate the industry’s challenges. This was followed by a session on Digital Readiness and Innovation, highlighting the transformative potential of technology. The day concluded with insights into the e-Commerce Boom, focusing on adapting air cargo operations to accommodate rapid growth in the sector.

Day 2, October 19, 2024, began with a recap of the previous day’s key takeaways, paving the way for deeper exploration into pressing industry topics. The first session of the day, Sustainability in Action for Air Cargo, explored how boardroom strategies could translate into actionable changes on the runway. The summit concluded with a forward-looking discussion on Generative AI, examining its potential to revolutionize the future of Air Cargo operations.

This gathering of air cargo thought leaders was not merely about exchanging ideas but driving meaningful conversations that lead to actionable outcomes. The focus was on collaboration, innovation, and sustainability, ensuring the industry remains prepared to navigate current challenges and capitalise on future opportunities.

Thank you for your esteemed participation and valuable insights, which have greatly enriched the discussions.

Best Regards,

**Rajni Patwardhan,**  
Head of Marketing,  
Kale Logistics Solutions





## Keynote Address

Good morning. There is no speech here, you know obviously everybody said what are their expectations are from a summit like this, and you can see it is slightly different from the other ones that you people have possibly attended or all of us have attended so let me start with the question and everybody needs to answer. What attendees find most boring in any conference? Lengthy speeches, lot of keynote presentations, too many rules, not starting on time, discussing same problem every year without solution etc.

There are three things which are different in the CLEAR VIEW summit, first this is by invitation only, two it's a small and diverse group of people coming from all boxes of the industry and three the most important one if we discuss something it must lead to some action.

Every discussion here should lead to action. Even if it's as simple as identifying a gap - like missing knowledge on e-commerce - our team will compile it into a white paper and share it. If a bigger opportunity arises, like a proof of concept or applying new technology, we'll document and showcase that too.

The goal is to move from debate to Call for Action - to identify 1-2 tangible takeaways per session and act on them. It's a small step, but it's a start.

This is our fifth edition, and every gathering has been unique. I encourage you to speak up, interrupt if needed, and share your perspectives. Your input matters - it's what drives meaningful outcomes.

Thank you, and let's dive into an engaging and productive day ahead!

**Vineet Malhotra,**  
Co-Founder & Director,  
Kale Logistics Solutions





**CLAUDIA WEIDENBUSCH**

Managing Director / CEO,  
Cargogate Munich Airport

Enhancing stakeholder collaboration, we all know the stakeholders in the supply chain, it's not just airport side but also there are shippers, regulators associations and many more. What's our common goal? It should be win-win situation for all the party. Everybody needs to make money. We need smooth processes, resources that are required are of course data software and technology.

How can we work together and enhance our collaboration? First possibility of operations. Joint ventures two legal entities come together and go to the market with one target for certain period. This is the very flexible form of collaboration as it can be terminated at any time. Next one is merger where two companies into legal economic entity and it may lead to reduce competition. We can push to collaboration based on our needs, but smooth and smart processes are mandatory. We need shared access in data, information and technology.

**SWOT Analysis of Stakeholder collaboration in Air Cargo:**

### Strengths:

- Reducing interfaces and increasing efficiency and transparency by sharing data.
- Real-time data availability improves response times, planning, forecasting, and cost efficiency.

### Weaknesses:

- Dependence on specific partners and risks tied to technology failures.
- Challenges with data protection, legal compliance, and data quality.

### Opportunities:

- Optimized supply chain processes and better demand forecasting.
- Cost reductions through shorter storage times and more agile supply chains.
- Earlier risk detection.

### Threats:

- Loss of control over data shared with third parties.
- Competitive disadvantages due to confidentiality breaches.
- Data security risks and varying technology requirements.

When we combine the strengths and the opportunities, the real time availability leads to optimization of supply chain processes. The interface reductions lead to more agile supply chains. Increased, predictable, better demand forecast. And cost efficiency leads to cost reduction through optimised storage times.

Data utilisation, interface reduction and more transparency are strengths that can minimise possible threats. Cost efficiency can lead to a competitive advantage. Instead of a loss. Data quality must be improved to optimize supply chain processes and to reduce storage times.

Where do we have to work on, so Weaknesses do not become more threats? Use technology to reduce errors, in order to minimize cyber-attacks, data theft and manipulation. And to reduce dependency on third parties to minimize loss of control over data. Compliance must be considered globally to minimize improper use of data.

Our target should be to implement the seamless use of data. From my perspective, there are two possibilities from bottom up, from small to big or top down, from big to small. For example, Cargo Community systems, one is Kale itself. Project to implement cargo community systems should be launched by the airport authorities and the data availability for all local supply chain stakeholders should be given. So, we'll start in the same local area. It should become a countrywide extent develop and in the last step it should be international. The division will be connecting a significant number of airports with the same cargo community system and get access to the data.

Second possibility is the top-down solution. Define a record that is standard for data sharing and creates a single record view of the shipment. Vision is the end-to-end digital logistics and transport supply chain with a transparent data exchange.

It's absolutely important to get a common access to data, we have to achieve this in the near future. Otherwise, the future is gone. We need to implement paperless processes. We need to collect data digitally and create win-win scenarios for all the involved parties. And you need to share required sources and information.

And why we do this? Because for example, I think in the main European market it's the same situation. We have a lack of staff and so we must go on with digitalisation and robotics. Otherwise, we will not survive with our small industry.

So, let's work together to connect the world. Thinking should be on solutions and not problems. That's my side on the collaboration on the enhancing of collaboration. It is only the main aspect now and not just the joint ventures, mergers and the share deals.



**You should not lose control on data but why is controlling data so important? And especially with third party?**

**Claudia Weidenbusch:** Everyone values competitive advantage, but shippers hesitate to share data, fearing others might benefit more. This mindset is flawed. Shippers control what data to share and can start with essential information declaration. However, there's no network to enable sharing, so the focus must shift from airports to a global cargo community system.

**Uwe Liebschner:** A cargo community system starts with building a community, not IT discussions. Stakeholders must address concerns collectively, which is a lengthy process. While multi-year discussions aren't appealing, they are essential for achieving neutrality, transparency, and consensus among all involved.



**As things stand today in your own businesses, is it about collaboration or confrontation? Which side are we tilting currently? Is everybody kind of against each other or everybody's anyway collaborating now?**

**Renjith Crown:** Discussions often stay surface-level, but ground realities differ. Collaboration faces challenges, especially as regions vary in approach. Europe may be process-oriented, but data transmission still lags.

**Pedro Gracia:** Airports compete due to their strategic importance, yet collaboration is sporadic. Cargo community systems remain slow to implement globally, with exceptions like India. Despite evident benefits, progress stagnates, much like 10 years ago.

**Uwe Liebschner:** Maritime community systems began 50 years ago, offering lessons. Air cargo needs better data integration and actionable event triggers, not centralized bodies like IATA. Harmonisation debates slow progress. Instead, systems should adapt to available data, fostering local solutions over standardization debates.

**Serkan Eren:** If we need to get into the community airports like the Istanbul Great Airport, we are also talking together and we try to implement how we can make it together. We have a lot of barriers. Shippers don't want share data, forwarders don't want to open due to privacy for themselves, so they always try to get to data management themselves. So how we can create a community without self-interest? That's the biggest case.



**The e-freight programme was launched in 1973 then; you moved away from that. Now you have the ONE Record. Is this just for the sake of having it or are there people who essentially use this?**

**Pedro Gracia:** We have all the time talking about collaboration and change management, if you don't cover all the different players, we are not covered and respected and it is very, very difficult because then it's not that you don't want is that you cannot. In the last 15 years, I've seen the airlines just catching up now recently I see the Forwarders catching up that maybe this is a small group in respect of 10%, or 15% and other.

The level of adoption is minimum. In many cases, because they don't have this technology to do it, and in other cases that I'm operating than the technology only works when it is the airport impose it.

**Vineet Malhotra:** If you take the ACI list of airports is about 1000 plus. If you see cargo volume About 300 of them, which would do more than 30,000 tons per annum. There are fifty of them who've signed up with us Post COVID.

We did this project with the Bangalore International Airport, which does about 400,000 tons of cargo and before they did this, they instituted KPMG to do the study, and one of the elements which came out was a cargo community platform. It's validated by the airport and the first thing that they get, and airports don't get it otherwise, whether they're landowners or their running operations, is this comprehensive integrated data.

How they use that data, slice and dice it to increase their footprint or where the cargo comes from. Airport villages are good for nothing if you don't have the data and then you apply the data to make sure that the business is also coming back.





**PEDRO GRACIA**EMEA CIO and Global Cargo Operations,  
WFS

When I was invited to speak about innovation and digital readiness, I felt the temptation to simply share my vision. But upon reflection, I realized the purpose was to spark debate on industry trends and technology. That's exactly what I aim to do today—highlight changes I see in our industry and raise questions that provoke discussion, rather than just presenting my perspective. Many of these points echo earlier remarks, but I'll add my observations to fuel a productive dialogue.

To start, let's address some long-standing challenges in the industry. Lack of standardization, interoperability between systems, and manual processes often lead to inefficiencies and errors. Data is still manually entered into systems multiple times—perhaps as many as five times across the industry's chain—resulting in fragmented data and limited visibility across the supply chain. The growing demand for real-time information further highlights these gaps, particularly in areas like compliance with regulatory and security requirements, such as ICS2 Meeting these demands without a robust digital platform is nearly impossible.

Moving to what I consider emerging challenges, one prominent issue is cybersecurity. As a strategic industry, we are frequently targeted by hackers. I've experienced this firsthand during a severe incident in one of large airport in Europe. Cybersecurity is a continuous and essential investment. While boards of directors generally understand the necessity of such investments, the low margins typical of our industry often make sustaining this effort challenging, leaving vulnerabilities exposed.

Another trend is the evolving role of airports in cargo management. Airports are increasingly active players, promoting cargo management systems and defining standards. The discussion around these standards is critical as we move towards integrated systems like cargo corridors, where interoperability becomes paramount. The ongoing debate involves whether standards will be driven by IATA or by individual airports. Historically, technology industries have shown that standards ultimately converge into a single, universally accepted protocol. This will likely be the case for IT transportation protocols in air cargo.

The example of some airports imposing cargo management systems demonstrates a concerning trend. If airports dictate such systems, ground handlers lose their ability to differentiate themselves, reducing competition to pricing alone. This commoditisation undermines the industry's ability to focus on quality and specialisation.

A significant internal debate within the industry is whether to position as a commodity or a boutique service provider. The "boutique" approach focuses on high-value segments like Pharma, where quality can command a premium. Conversely, the commodity approach emphasizes volume at lower prices. This choice reflects broader shifts in overlapping services. For instance, trucking companies are moving into house-oriented handling, while forwarders leverage digital tools to expand their roles. This overlap challenges traditional segmentation and forces companies to re-evaluate their strategies. The shift from transactional to data-sharing models also signals a fundamental transformation. Traditional point-to-point transactions are giving way to network-based data-sharing frameworks, such as IATA's One Record initiative. This approach emphasizes the importance of data integration and interoperability across the supply chain, moving beyond transactional processes to foster greater efficiency and transparency.

Sustainability has become a non-negotiable priority. It's no longer a "nice-to-have" but a critical business imperative. Minimising fuel consumption, optimising routes, and reducing carbon emissions are essential goals. Achieving these requires leveraging advanced technologies like AI and IoT, which help optimise operations and monitor environmental impact. Companies that fail to adapt will struggle to remain competitive.

Technology disruptions, particularly in AI, are reshaping the industry. Predictive AI, used for forecasting cargo volumes and optimising schedules, has matured. Now, generative AI is emerging, offering transformative potential across operations. Computer vision is already being utilised in warehouses for tracking ULDs and volumetrics. Natural Language Processing (NLP) and Intelligent Document Processing (IDP) further streamline processes, automating tasks like shipment tracking and data entry. These advancements reduce inefficiencies and free up resources for strategic initiatives.

One Record represents a paradigm shift in how data flows across the industry. Unlike traditional transactional messages, it creates a network where data remains at its source but is accessible when needed. This approach ensures security, scalability, and richness of information, setting a new benchmark for industry standards. However, its implementation remains complex and requires significant coordination among stakeholders.

Emerging technologies like augmented reality (AR) and IoT are gaining traction. AR enhances warehouse operations by providing instant access to process documentation and facilitating training. IoT devices, particularly sensors, improve visibility into factors like temperature and humidity, critical for handling sensitive cargo like pharmaceuticals. These innovations are increasingly standard in modern warehouses and are expanding into back-office functions like e-billing and clearance.

Ultimately, the industry faces critical questions about adapting to these changes. Will technology adoption define the leaders and laggards? How will companies balance innovation with financial constraints? These are not just technological challenges but strategic decisions that will shape the future of air cargo.

Finally, the industry faces a choice: operate as a commodity focused on volume and low prices or become a boutique provider delivering specialized, high-quality services. Overlapping services blur traditional roles, while new technologies promise transformational change. The path forward is clear - we must innovate, collaborate, and adopt strategies that optimise both costs and revenues. The question remains: are we ready to harness these opportunities and redefine our industry for the future?







## Why aren't people adopting new technologies in the air cargo industry?

**Pedro Gracia:** The fact that it is low benefit industry. The fact that nobody sees a value in quality. But if they see the value in data quality, they are ready to pay for quality and it's not always happening. Let's say it needs external agents to drive than internal buying, then it is a question of survival. If you don't do it, then you are not going just to be in the field. Standardisation, particularly in APIs, can reduce development complexity and costs. A uniform approach would streamline integration, but achieving industry-wide consensus remains a challenge.

**Martin Schulze:** To be fair to the industry, 10 years ago and today is quite different. So there has been a lot of investments and I mean from small ones to the big ones as we replace twenty-year legacy systems with new. Its potential to automate routine tasks can significantly boost productivity. Tools embedded in standard software are already making processes easier without heavy investment. This organic adoption could pave the way for broader AI integration.

**Yuri Busaan:** The industry's cost-centric mindset contrasts with models like Amazon's, where handling costs are treated to an end. For air cargo players, the challenge lies in shifting this perspective while maintaining competitiveness.

**Dr. Emre Serpen:** The key to adoption lies in tailored messaging. Executives need to see how technology increases productivity and revenue, while operational staff need assurances that it will make their jobs easier. Poor change management and misaligned communication hinder progress.

**Dominik Misskampf:** Implementing technology is particularly challenging in smaller operations where volumes don't justify the investment. Business cases vary greatly, making a one-size-fits-all approach impractical.



## Can you share one area of digitisation within your company or the ecosystem that you believe has been truly transformational? It doesn't need to be about the detailed impact, but something you've witnessed that stands out as a game-changer.

**Ahmet Izer:** For me, I would love to say AWB data, but that's not there yet. However, tracking and digitalisation have improved. I've been in the air cargo market, promoting digital solutions since 2006. Back then, it wasn't happening, but now everyone is on board.

**Bálint Balasi:** From the customer's perspective, it's clear that we have a new registrar framework.

The Union Customs Code mandates all communication between economic operators and authorities to be electronic, using data protection processing techniques.

**Emma Murray:** From my perspective as a PR agency, low-code systems have revolutionized our ability to design tools. Ten years ago, it was just starting, but now it's a game changer, making graphic design and other tools accessible to my entire team.

**Renjith Crown:** We're upgrading our systems for more flexibility, especially in cybersecurity. There's a challenge with data quality, as manual input still leads to errors. AI can help, but it's still evolving.

**Claudia Weidenbusch:** We're working on robotics because staff costs are around 70%, and we can't hire enough people. Robotics can help, but I agree we need to address cost-cutting, as lowering rates can lead to higher rental costs. It's a cycle, and we can't compete solely on rates, but it's still a reality.



## What role should airports play in cargo community systems?

**Pedro Gracia:** Airports should move away from traditional models where they only lease space. Instead airports should advocate and play an integral role in the logistics chain. This would mean airports actively driving community systems, encouraging smoother data sharing, and creating incentives for collaboration across supply chain partners.

**Dr. Emre Serpen:** The need for airports to act as data hubs, centralizing information to support collaborative operations across logistics stakeholders. This approach could attract high-value cargo and improve the efficiency of airport operations. Using data insights to predict demand, improve capacity planning, and reduce operational bottlenecks was seen as crucial for the future of cargo handling.



## Do we really have business case for each of those technologies?

**Dominik Misskampf:** I believe this is an individual calculation, and it's still quite expensive. A viable business case likely requires a warehouse with significant volume. For smaller stations it even harder to implement new technologies.

**Pedro Gracia:** My cost structure, 65% is people. The only way to improve margin is if I go through the root cause of why I need so many people. Some of those technologies combined with collaboration, they have given me room to improve.



**DOMINIK MISSKAMPF**

Managing Director,  
CHI Deutschland Cargo Handling GmbH

2.3 billion people are shopping once a week online this is equivalent to one third of the global population and to my perception this is very huge and very impressive number and gives an indication about the importance or significance of e-commerce not only for cargo generally for our daily life. Talking about 1/3 of the population, I thought, this number is already so huge. But there are 2/3 rds Not yet on the market. So, the potential actually is even higher than what we have today.

80% of cross-border e-commerce transported by air cargo. By that number we answer the question that air cargo is very important to e-commerce. In 2022, 20% of the air cargo share is e-commerce. And we have an increasing trend up to 30% or one-third by 2027. And to make this number more feasible, e-commerce cargo volumes equal to 70 freighters per day ex-China only. To give us an idea about volumes, that we are talking about.

if we talk about the Global e-commerce sales, you see that China is indeed half of the global sales. E-commerce sales followed by the United States and Europe. And if we then have a look at the cargo streams. We have a lot of cargo within the Pacific region. Within Europe and we have almost Chicago streams from Asia Pacific to North America and from Asia Pacific to Europe. If you look at the other numbers, they are actually very little, right. I mean, talking about 2%, 5%, 4% so. E-commerce is characterized by coming from China to the world.

### **What is e-commerce actually? What are the characteristics?**

While a general cargo shipment pallet has an average weight of 500 Kg, e-commerce shipment has 1.2 kg. We're talking about shipments per main deck ULD they have usually 8 shipments on a pallet in general cargo but 2750 shipment per ULD for e-commerce.

For general Cargo, we have, as we all know from the traditional process, we have the extensive declaration procedure. While we have a simplified declaration process in Europe, is the €150 exemption. So, everything below follows the simplified procedure.

General Cargo is usually B2B business, while e-commerce is B2C business. The seasonal peaks for general cargo, we know like the Easter, Chinese New Year and the Christmas cause business surge. And this also follows for e-commerce. But there are some more single events which are even more heavily impact as I would say. Talking about 11/11, Black Friday or for instance, new launch of an iPhone. So those days are like hell for us in logistics. And talking about speed or delivery time, ONB to Customer, we have usually two to four days for general cargo. which is 1-2 days in e-commerce. So, it's faster. You have more turnover.

We work on Master Air Waybills in in general cargo and but in ecommerce is not clear, not standardise. For sure you have Master Air Waybills, and you have House Air Waybills too. But at every station every custom says you need to break it off. You can use it on over pack, is mostly equal to Master Air Waybills but that's not on standard.

The key factor for seamless custom clearance is that we have a good data quality. Which is crucial because at the next step we need a high degree of automation. Because I cannot handle 2072 thousand 750 shipments per ULD, which is 100,000 shipments per freighter, by manual data capture. You need a good IT system which requires good data. As the amount of shipment is that high, Customs need to have the manpower to work on that. And I think some airports lacking staff when e-commerce wave is coming in or now it's they cannot recruit and qualify that many people as fast as e-commerce is coming in. And in Europe, we have discussed about the custom standards. So of course we have one European regulation, but every country interprets those regulations differently, which means in some countries it's easier to clear than in other countries.

I never expected that the customs process is steering the cargo flows globally, right. I think that's something new experience in the industry. And coming to another challenge, it's about the capacity constraints. So, we have seen the huge numbers of e-commerce, the Global e-commerce logistics values increasing 23% CAGR statistics from Rotare say Flights on the key trade lanes are already full, so if we have a look on the on the load factors, we are almost at 90% which is very high.

And those planes were very full flying as often they can. So, the block hours are almost at 15 hours per day, which is also very high, which are records in history, so, which means the capacity we have is actually used as much as we can.

On the other hand, please have this 23% growth rate in mind, deliveries of new air freighters will only grow by 4.4% and we go from. 482 to 503 Freighters in the global market. Which means if we have capacity constraint already, it might get even worse. That's what at least the numbers tell us.

To share my key takeaways is that e-commerce At least mid-term, e-commerce will be one of the main growth drivers for the Air Cargo industry. e-commerce requirements challenge traditional logistics processes. And that's what I mean in the beginning, shaking up our industry positively because we need to work, we need to get better. We need to optimise. We need to adapt to that business, to that cargo characteristics we have seen. And that the capacity constraints are the main obstacles for the growth in the future.



## **01** → Do you think the air cargo industry is capable for e-commerce?

**Dominik Misskampff:** We have poll result that says most of the people say the industry is ready, but improvements would help, I think pretty clear statement where we are. So I would say we are able to, but we need to get better if we have decided that it's has a very high significance and importance for our industry, for the for the upcoming years.

**Pedro Gracia:** Challenges in managing e-commerce logistics arise from systems that can't integrate parcel-level tracking with cargo operations, like ULD management. Customs clearance is particularly complex, needing precise parcel identification. Advanced IT systems are essential to overcome these issues.

**Uwe Liebschner:** Compliance in data handling is critical. Inconsistent or non-compliant data jeopardizes secure trade, which is vital for industry sustainability.

**Serkan Eren:** E-commerce, largely B2C, requires consumer-level transparency to meet regulations like TSA and ICS 2. Non-compliance risks halting operations, so integrating accurate data is essential.

**Bálint Balasi:** The EU's removal of the €22 VAT threshold aimed to reduce fraud and balance B2B and B2C consignments but didn't significantly affect volumes. Low-quality goods remain a concern, and product safety is now a priority. Platforms must provide accurate data directly to customs instead of relying on intermediaries.

## **02** → Which part within the Air Cargo Supply Chain is the most critical for e-commerce?

**Dominik Misskampff:** Customs clearance is clearly the most challenging part, as reflected in the poll. I'm surprised last mile is mentioned since providers like DHL are well-equipped for that, with robust physical and digital infrastructure. It's more about volume, not a supply chain challenge.

**Dr. Emre Serpen:** Airlines and airports are taking baby steps towards broader digital engagement. Airlines like Saudi Air and Air Canada are exploring roles beyond airport-to-airport operations, including last-mile distribution. Companies like Smart Cargo specialize in this space. Airports are also shifting, looking beyond rent to revenue sharing in ground handling. For example, handlers might take 20% of €100 for distribution from the airport, sparking interest in creating integrated facilities for revenue sharing. Suppliers like DHL are open to partnerships, providing equipment and solutions for integrated setups, coupled with revenue sharing. This marks a significant step forward for airports.

**Dominik Misskampff:** Airlines extending their services makes sense, as CHI demonstrates by offering handling and other services to become a full-service provider. But for airports, it's too far off. Their role is more about facilitating infrastructure. If an airport wants to specialise in e-commerce, it must strategically develop facilities, attract players, and build a community platform. This includes collaborating with customs and ensuring a financial model that includes revenue sharing. But I don't see airports becoming direct players.







**SUNEET GUPTA**  
Sr. Vice President - Cargo,  
Kale Logistics Solutions.

E-commerce is rapidly growing in air cargo, with estimates suggesting that by 2027, one in three parcels will be e-commerce shipments. Currently, about 170 billion parcels are handled, highlighting its critical role in air cargo's growth. Key challenges include cargo capacity (airlines, airports, runways, and warehouses), operational processes (data quality and streamlining workflows), stakeholder collaboration, manpower training, sustainability (with buyer preferences leaning toward eco-friendly options), and technology adoption (both proven and emerging). To address these, participants were divided into three groups to deliberate on sustainability and technology, processes and collaboration, and capacity and manpower solutions.

**Uwe Liebschner:** Let us highlight the critical role of customs in managing border processes and collaboration and emphasise its dependence on external legislation. Customs acts as an executive body, enforcing rules set by other entities like the Directorate General of Trade in the EU, making it challenging to address systemic inefficiencies. While customs is seen as the "border champion," it faces significant hurdles, including manpower shortages and coordination with other border agencies. There is a need to harmonise processes, such as creating a standardised blacklist to streamline controls across regions, which currently varies between and within countries, even in the EU.

Technology and digitalisation are vital tools for improving customs and supply chain efficiency. We must be leveraging existing simplifications, like pre-clearance processes, and improving data quality to optimise operations. Challenges arise from inconsistent data submission practices, especially in e-commerce, where consignors often provide information late, complicating risk management and operational readiness at airports. Addressing these issues requires collaborative efforts, better motivation for data sharing, and exploring innovative solutions to handle high trade volumes effectively.

We would also like to point out the need for global collaboration, particularly with countries like China, to ensure smoother data flows and improved processes for high-volume e-commerce trade.

Despite China's dominance in exports, engagement with partners to facilitate better preparedness and faster customs processing remains limited. Encouraging proactive participation from global stakeholders could enhance efficiency and benefit all parties involved. Ultimately, the focus must remain on leveraging technology, optimising resources, and fostering collaboration to overcome existing challenges and create more seamless supply chain operations.

**Ahmet Izer:** We had basically technology and sustainability, which probably involves a lot of partying. You have spoken, so I'm just going to keep it short here. We identified three challenges. The first one was customs filing data quality and tax implications. The second one was basically optimising trucking. And the third one was how to increase capacity without increasing footprint. Well, first, this is how can be addressed. I think customs filing data quality and trade tax implications, we went with an ACS solution straightly. Basically if you can see the information filed on the other side probably then addresses what needs to be done in Chinese side partly. Then it probably will solve some of these challenges not all of them.

And wish list I think this comes back to the trade lanes that means a community system. And proper optimisation, probably predictability, etc. Only thing probably that you're not addressing is the last part of the technology thought they could address with some additional technology. Trade lanes so that's ACS, basically truck slot management that optimises trucks and docking and loads and basically better technology.

**Emma Murray:** We would like to highlight key challenges, including night flight restrictions, trade limitations, and manpower issues, particularly attracting and retaining talent in the industry. And we would like to spotlight on leveraging technology, such as AI, to reduce repetitive tasks and create engaging, higher-value jobs to make the logistics industry more appealing. Additionally, the industry's failure to effectively promote its achievements, such as the innovative responses during COVID-19, is to be noted as a barrier to attracting new talent. Improved storytelling about successes could inspire the next generation to join and drive the industry forward.

Another critical point is the lack of a unified voice in addressing regulatory challenges and engaging with legislators. While organisations like IATA and FIATA exist, there is a need for a cohesive task force to represent the industry's collective interests effectively. Unified advocacy could help address regulatory hurdles and ensure the adoption of the right technologies to tackle shared challenges. By fostering positivity, showcasing achievements, and consolidating efforts, the industry can attract talent, improve collaboration, and better navigate future obstacles.





**MARTIN SCHULZE**  
CEO,  
BlueBox Systems

Well, if you look at transportation as a whole, aviation accounts for a little over 10% of the 25% of CO<sub>2</sub> emissions from the sector. That translates to about 2% to 2.5% of total CO<sub>2</sub> emissions globally. However, when you consider the additional impact from clouds formed by aircraft, aviation's contribution could be closer to 4%.

It's interesting to note that even though aviation only contributes about 3% to carbon emissions, it gets disproportionate attention in discussions about climate change. It captures about 50% of the public's attention. It's quite a charged topic, especially in Germany. The term "Fühl dich schuldig" translates to feeling ashamed to fly because of its environmental impact.

I've felt that too. It's surprising how one flight can dwarf other efforts to reduce your carbon footprint, like buying an energy-efficient refrigerator. It's all about perspective. Despite its relatively small impact overall, the emotional resonance drives the conversation. The unequal distribution of who flies also plays a big role - mostly affluent people can afford to travel by air. Celebrities like Taylor Swift and their massive carbon footprints because they use private planes. There's a correlation between income levels and flying frequency. Wealthier individuals and nations tend to fly more. And while the airline industry has made strides, like doubling fuel efficiency over the past 30 years, the overall emissions picture hasn't changed much.

Though the airline industry has made considerable advancements such as doubling fuel efficiency over the past three decades. These strides are not enough to offset the overall emissions landscape, primarily due to what experts refer to as the rebound effect. This phenomenon occurs when improvements in efficiency are met with an explosion in the number of flights, which has quadrupled in that same timeframe. It's akin to purchasing a highly efficient refrigerator only to find yourself using more energy because you've replaced it with a bigger model or added a second one.

The rebound effect affects both cargo and passenger air travel significantly. On the cargo front, companies such as DP World and DHL are stepping up to the challenge by setting ambitious CO<sub>2</sub>

reduction targets aimed for the years 2030 and 2050 is an encouraging development in the logistics field. As a substantial portion of emission stems from airline operations, the pressing question lingers: how do we effectively tackle the issue of reducing air freight emissions while balancing the demands of our increasingly connected world?

McKinsey has laid it out perfectly when discussing net zero goals in a report. If we take a close look at our current CO<sub>2</sub> emissions, which is our starting point, we should be asking ourselves: what can we do to improve this? Now, the first three areas I'd highlight include optimisation efforts. Personally, we can squeeze out about a 15% improvement from this. Then, we move on to electrification, which I think is crucial. We already know how that can apply to things like trucks in the near future.

We might achieve about 40% - 50% of our targets with existing technologies. The concerning part is that beyond that, there's still 50% - 60% for which we just don't have answers yet - no clear solutions or technologies that can help us out. And let's not forget, with logistics especially in air cargo growing so rapidly, this problem could become even more significant. Whatever disruptions we need in our industry whether through new technology or external pressures like regulatory changes we've got to start pushing for those innovations. Because at the end of the day, the greenhouse effect that's just basic physics, and it's real.

Electrification, is here, and it's a game-changer. When you look at the optimization, we're talking about efficiencies ranging from 15% to 220%. This is a big deal for logistics in general. However, our challenge is that the FIFID is much larger than we anticipated. It's essential to keep that in mind as we move forward. It's fascinating how eco-friendly options are emerging, especially with SAF being produced from used fats, but there are still quite a few hurdles to overcome. Even if it seems like a small contribution now, it's a start. However, the numbers are a bit concerning - only 1% of the fuel needs are met from this source. And then on top of that, synthetic fuels are even pricier. It feels like we're dealing with a challenging learning curve ahead.

While we may see some efficiency gains over time, there will definitely be energy losses in the process, especially when converting green electricity into fuel. It makes the production costs a tough pill to swallow. And with the production capacity issues, it sounds like we have a long way to go to reach those ambitious targets by 2030.







### What are some of the main factors contributing to aviation's disproportionate impact on public perception of carbon emissions compared to its actual contributions to global CO<sub>2</sub> levels?

**Emma Murray:** Interestingly, 2% of energy use translates to about 7% of passenger transport and 8% of global trade volume. By the look of it, there's certainly a recognition in Europe that we need to ramp things up. Companies like DHL are stepping up, making you wonder about the future of collaboration with other companies in this space. Airlines are feeling the heat, and it seems like we're seeing more traffic shifts and a real emphasis on combining efforts, especially when you compare it to road transport.

People are already starting to prefer companies that align with their values, and if they don't, they'll definitely feel the repercussions. At the end of the day, it's all about what the consumers want. If they're not willing to support unsustainable options, things are going to change.

**Vineet Malhotra:** My guys were telling me that about 40% of UAE exports come from sea. It's interesting because Jabal Ali is a significant hub for that. But there's a bit of a hiccup with how the containers are loaded. When they arrive, they come in together, which can cause some real issues. For instance, if you have a 20-tonne container that comes in all at once, it can start to topple over. It's like a chain reaction, right? Just imagine the mess that creates.



### What strategies can the logistics industry implement to tackle the challenges of large-scale cargo transportation, especially regarding the feasibility of using long trains for transporting significant volumes?

**Youri Busaan:** The first thing to do is to get rid of the mismatch between e-commerce and all the efforts. Most of the phases in e-commerce is really a punishment. It's coming from the warehouse, you know, next door. That's why they can do a one-day delivery, of course. The part that it's flying is only to replenish. You know the various warehouses, and that's why they can do it on a regular basis. So again, for our industry to say, e-commerce equals. Effort, no, it's only part of the solution. And that's where everybody always gets the batting from.

**Martin Schulze:** That's a very interesting perspective. What you said is actually against it. Company or cross-border someone chose, for example, a manual order from Amazon, it writes \$2.00 per day if you want it in 15 days. And it is \$5 if you want it in seven days, or \$10 if you want it tomorrow. Besides, we can put something like a sustainability meter; if you choose this, it is more sustainable. But then, if it's going to be more sustainable, someone will choose 10 days, and they're not going to choose a position and get it.



### How do you prioritize sustainability over cost-effectiveness in your decision-making processes?

**Dr Emre Serpen:** In terms of sustainability, what about profitability? Which companies are truly facilitating improvements in productivity and efficiency? The goal is always to do more with less. This consistency suggests that sustainability should inherently be productive.

There are two important aspects to consider. First, while productivity is key, examining the types of energy sources being used is crucial. For example, instead of relying on carbon-based fuels we should explore alternative energy sources, even if they may be expensive.

The second aspect involves behaviours and investments. By broadening the equation for productivity to include energy sources and behaviours, we must ask ourselves: Are we effectively integrating these new components into our approach?

**Martin Schulze:** In the air, you only have SAF as an alternative. However, you have that if you look, for example, at the rail, and if you do the calculation, then it's something totally different if you have a rail in France where it's 90% nuclear or in Poland, where it's 90% coal firing. The energy mix is taken into account for air, which is currently not available.





**UWE LIEBSCHNER**  
Customs Lead,  
IPCSA

We had discussed many insights about artificial intelligence, particularly in the context of innovation. I can offer my personal opinions on potential pitfalls from the perspective of a consumer or someone on the outside looking in.

When considering the topic of "Shaping the Future of Air Cargo with AI," several key areas stand out. First, there's the issue of activity efficiency. With increasing demand for performance, we face cost challenges; our budgets are being stretched as we strive to meet these higher expectations. We should also explore the potential for collaboration within operational systems and how AI could play a role in this context for the air cargo industry. There's the advanced cargo information aspect-how can AI assist us here?

Moreover, AI can significantly help automate processes while maintaining quality levels. Risk management is another critical area. There are high expectations regarding safety and security. For instance, customs authorities, not just in the EU but globally, are incorporating AI into their future strategies.

These are all points worth discussing as we move forward in our exploration of AI's role in air cargo. To improve control on activities, it's essential to consider volume and other factors. While I can't provide a detailed outline of how this would look, it definitely involves collecting extensive data. For instance, the UAE customs administration has developed a comprehensive catalogue of images related to their findings, such as those of substances like cocaine, as well as various other items like crocodiles.

This catalogue includes images and assessments, and each customs officer can refer to it when needed. They initially started with this physical catalogue and have since transitioned to an electronic system, making it easier for customs officers at borders to access this information. However, I believe we should take this a step further. The idea of integrating AI into customs control activities could enhance their effectiveness. AI could provide more information, linking images to

declarations and potentially identifying terrorist threats, thereby supporting and improving control efforts.

Addressing a significant issue, the maritime sector faces serious challenges regarding illicit trade and drug smuggling, which is a persistent problem. AI could assist in identifying suspicious consignments related to illegal activities.

When considering the advantages of AI, we must evaluate precisely what solutions we're looking for. Are we thinking about a help desk support bot, or are we aiming for more comprehensive applications? The decision is up to us, but many compelling reasons exist to embrace AI, especially in the current context of increasing volumes and e-commerce demands.

Resource availability is another critical factor. For example, in maritime ports that cannot be physically expanded, innovations like automation and AI can help speed up processes and improve efficiency. With growing regulatory standards to meet, AI can help identify and align the necessary information effectively.

Compiling and maintaining high-quality data is essential for successful AI integration. Both pros and cons exist, and while some may argue against AI, there's still plenty of optimism about its capabilities.

A constant theme worth discussing is the reliability and security of the systems supporting AI. We need to consider what happens during a technical failure; can our systems continue to operate effectively without AI assistance?

Investments in AI are also critical as they often require a redesign of existing processes. Overall, while the path forward may have challenges, the potential benefits of AI in enhancing customs control activities are significant and worth pursuing.







### **In what ways can AI contribute to risk management and security measures in customs control activities, particularly in identifying potential threats or illegal trade?**

**Pedro Gracia:** I already mentioned our plan in response. Firstly, we have to be careful when we talk about AI. It is something very specific. If you ask ChatGPT what it entails, you will find topics like computer vision, natural language processing, robotics, RPA (Robotic Process Automation), and machine learning. Additionally, if you prefer, we can discuss the evolution of OCR (Optical Character Recognition).

The term LLM (Large Language Model) refers to the system running behind it, as it synthesizes human language. However, we should clarify that products associated with AI are classic products. For instance, systems like cargo management platforms or cargo community systems can utilize AI components.

Today, we are discussing products that incorporate AI components. For example, in our security software, we have a client that continuously scans network traffic and applies AI to identify patterns and anomalies by using router data. Sometimes, I get the impression that people think AI is a standalone product, but it is actually a component that you can integrate to enhance an existing product. So, in response to your question, in the realm of computer vision, acceptance metrics for models. We are currently conducting a proof of concept for ULD tracking as well.

**Olga Vikaine:** This is a unique opportunity that can be applied in various situations. For instance, it can be beneficial for data analysts. Additionally, it can be useful for reading spending reports. If there is anything else to consider, it can also be addressed.



### **What are the key factors to consider when integrating AI into existing processes, and how can we ensure the reliability and security of the systems that support AI functionalities?**

**Dominik Miszkampf:** There are some concerns regarding the decision to proceed with this light. We believe it's better not to have it so we can avoid any obligations that come with it. If necessary, we can present our points to the others one by one. I'm really excited to learn about other use cases as well.

**Suneet Gupta:** Blockchain was once considered a groundbreaking technology, and many people thought it was suitable for every application. However, technology should be used where it makes the most sense. Overusing it can lead to unnecessary complexity, which not only burdens users but also increases costs. The question becomes: who will bear these costs? It's best to implement AI in practical scenarios where it has already shown effectiveness. Numerous cases have been trialled and tested, while some are still being explored.

For instance, consider chatbots and virtual assistant applications; they are excellent use cases for AI. Additionally, we are utilising AI to optimise truck bookings. AI analyses various factors, such as the number of trucks arriving, the type of cargo they are carrying, and the truck sizes. It employs a machine learning layer that automatically adjusts scheduling slots.

Moreover, when transporting perishable goods, we use temperature sensors. In cases where there's a potential breach of Service Level Agreements (SLAs), AI can predict these issues and send notifications. Many of these applications are already in place or are undergoing testing.

I'm confident that, just as with blockchain discussed yesterday, the thoughtful integration of AI will yield significant benefits in various sectors.



### **Can you clarify the governance aspect of the system? Specifically, what are we going to allow, and how will we allow connections if we are using AI to make the process easier, more effective, and faster?**

**Sahil Deshpande:** First, ACS needs to be adopted by the people who purchase services for those for whom it is designed. Once that is accomplished, we can open up to most parties involved. I completely agree with you on that point. However, my personal view on AI may differ from what others think.

For me, artificial intelligence is a tool that simplifies my life. It streamlines processes, like automation in freight forwarding, as you just described. Instead of manually handling each segment, AI can manage tasks more efficiently.

In such cases, there should be minimal human intervention for redundant processes. For example, when a freight forwarder creates a job in the system, AI can automatically search for the best deal based on certain regulations. It could also identify the best handler and request a slot booking. The handler's system would then receive this request, and upon acceptance, everything would proceed smoothly without manual effort.

**Claudia Weidenbusch:** For the future, I believe we need more individuals who can work on concepts, transform ideas into viable products, or develop digital solutions. The next generation is well-trained in building AI, which could be our only option moving forward. However, this is a concern for me. There's a significant difference between robotics and human resources.



**CLEAR VIEW 2024** brought together experts and stakeholders to explore the future of supply chain, air cargo, and e-commerce, focusing on collaboration, innovation, and sustainability. The discussions highlighted the challenges and opportunities shaping these industries, offering strategic insights into navigating the evolving landscape.

Collaboration emerged as a key driver of success across the supply chain, involving shippers, regulators, airports, and other stakeholders. Effective collaboration hinges on shared data, streamlined processes, and embracing technological solutions. Strategies such as joint ventures and mergers were highlighted as pathways to achieving greater flexibility and reducing competition. However, these approaches come with risks, including dependency on partners, legal complexities, and technology-related vulnerabilities.

In the air cargo sector, persistent inefficiencies caused by manual processes, lack of standardisation, and fragmented data were a central concern. The increasing demand for real-time information only adds to the pressure. Airports are stepping into more active roles, implementing cargo management systems and driving standardisation to support the sector's evolution. While these changes encourage innovation, they also raise concerns about competition and the ability to differentiate services effectively.

Sustainability was a recurring theme throughout the discussions, emphasized as a priority rather than an option. Technological advancements, such as Artificial Intelligence (AI) and Internet of Things (IoT), are being leveraged to improve efficiency, reduce waste, and lower emissions. AI models, combined with IoT sensors, are enabling better decision-making and visibility across operations. Industry initiatives are also focusing on creating integrated data systems and frameworks to improve interoperability and replace traditional transactional approaches.

Despite these advancements, the industry faces a critical decision: whether to operate as a high-volume, cost-efficient commodity provider or to focus on specialised, high-quality services. Balancing this decision with financial and operational constraints poses a significant challenge, especially as the need for rapid innovation grows.

E-commerce has become a key growth engine for air cargo, reshaping logistics with its unique demands. It requires faster delivery times, lighter shipments, and simplified customs processes compared to general cargo. However, the sheer volume of e-commerce shipments creates its own set of challenges, such as maintaining data quality, automating processes, and addressing regional differences in customs standards. Capacity constraints and workforce shortages add to the complexity, making it essential for the industry to adapt and innovate to meet the demands of this growing sector. Environmental concerns were another focus, particularly the aviation industry's contribution to emissions.

Although relatively small compared to other sectors, the scrutiny it faces is substantial. Discussions highlighted the "rebound effect," where improvements in fuel efficiency make flying more accessible, leading to increased demand and offsetting environmental benefits. Industry leaders emphasized the need for collective action, leveraging advanced technologies to reduce emissions and align operational strategies with sustainability goals.

AI was recognized as a transformative force for the air cargo industry, with applications in automating processes, improving shipment tracking, and enhancing security. Examples of AI-driven innovations in customs operations demonstrated how technology can streamline inspections, improve threat detection, and reduce reliance on manual processes. However, the integration of AI comes with its own challenges, including the need for high-quality data, system reliability, and substantial investment. Risk management was emphasized as a critical factor for successful implementation.

The summit underscored the importance of balancing technological progress with practical constraints. Participants stressed the need to align innovation with operational realities, ensuring that solutions address both efficiency and sustainability while remaining cost-effective. Achieving this balance requires the industry to prioritize:

- Data integration and interoperability to enable seamless collaboration.
- Sustainability-focused strategies to reduce environmental impact.
- Collaborative frameworks to establish global standards and best practices.

### Key Takeaways from CLEAR VIEW 2024:

- Collaboration enhances efficiency but requires careful management of dependency and data security risks.
- Air cargo must strike a balance between high-volume, cost-driven operations and quality-focused services.
- E-commerce continues to reshape logistics, necessitating tailored solutions and automation.
- Sustainability is a shared responsibility, with technology playing a critical role in reducing emissions.
- AI offers transformative potential, but successful implementation depends on addressing challenges like data quality and system reliability.

CLEAR VIEW 2024 emphasized that the future of global supply chains, air cargo, and e-commerce lies in embracing collaboration, innovation, and adaptability. By aligning these priorities with evolving demands and sustainability goals, the industry is poised to redefine its role and secure long-term growth and competitiveness.





# Delegates



**AHMET IZER**  
COO & co-founder,  
TroyNet



**BÁLINT BALASI**  
Department for Tax and Customs Administration,  
Ministry of Finance, Hungary



**CLAUDIA WEIDENBUSCH**  
Managing Director/ CEO,  
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**RENJITH CROWN**  
General Manager - Cargo,  
Air Arabia



**SAHIL DESHPANDE**  
Business Development Head-Europe,  
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**SERDAR NOGAY**  
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**DR. EMRE SERPEN**  
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**SERKAN EREN**  
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**MARTIN SCHULZE**  
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**VINEET MALHOTRA**  
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**YOURI BUSAAN**  
Director,  
Groupe ADP



**OLGA VIKAINE**  
Head of eCustoms Division,  
National Customs Board,  
State Revenue Service of Latvia



**PEDRO GRACIA**  
EMEA CIO and Global Cargo Operations,  
WFS



**RAJNI PATWARDHAN**  
Head of Marketing,  
Kale Logistics Solutions







## Glimpses



## Testimonials



Thank you all for being here. This discussion was invigorating, and I appreciate the diverse perspectives focused on a common goal. It's clear that you all need a voice, and we can explore ways to provide that, perhaps through a neutral platform. If everyone is on board, let's pursue this idea and invite others to participate. The topics we discussed, particularly the positivity, are essential steps forward. We must take action, so let's get started. That's my key takeaway.

- Emma Murray

Founder and CEO, Meantime Communications



Great conversation! It was a pleasure meeting everyone. Special thanks to you, Dominic, for your in-depth perceptiveness. I appreciate the insightful discussions and feel equipped with valuable industry insights to take away

- Dr. Emre Serpen

Co-founder and Chief Executive, TroyNet



EU Customs faces currently numerous challenges, first of all the huge increase in the volume of trade with countries outside the EU, especially the growth in e-commerce, but also a significant number of EU restrictions/prohibitions/market protection measures that must be checked during customs clearance of goods. Especially the growth of e-commerce highlights the need for effective solutions. The quality of data provided at customs clearance is critical, as the actors of the supply chain often share incorrect data. The conference contributed successfully to the understanding and tackling of these challenges from the perspective of goods transported by air.

- Balasi Balint

Department for Tax and Customs Administration, Ministry of Finance, Hungary



Thank you to our new friends! I could connect with a few people on the first day, and as the days progressed, I knew all. It was a good time to exchange ideas and broaden our perspectives.

- Uwe Liebschner

Customs Lead, IPCSA



