



The augmented shed

Alex Labonne, Chief Technology Officer at Hermes Logistics Technologies (HLT), highlights the latest emerging tech developments promising to enhance efficiencies within air cargo handling facilities and to their landside and airside interfaces

What are the most significant technological developments in and around the air cargo handling warehouse in the last couple of years?

We have seen a lot of companies pushing for in-warehouse automation and robotisation, which for us means stronger integration. This has pushed HLT to get better at partnering with third parties, so far designing and trialling some concepts – AR (augmented reality) glasses, Bluetooth tags, drones). What is more prominent, though, is the use of data, a software approach to automation via the use of artificial intelligence. With a veritable push for live projects, the customers have gained a better understanding of the value of their data and events. The quantification of the gains is still somewhat empirical but getting more precise by the day. Hermes is actively pushing its customers to explore their data and events through ‘datalakes’-based products conducive to AI that will bring real efficiency results in the near future.

How do you see this developing next year and beyond?

The hardware and robotisation endeavours will keep developing very slowly due to the level of investment required and Hermes will respond through its integration strategy. But the software improvements are accelerating at great pace and I foresee major predictive modelling with direct impacts on the bottom line through better cost prediction, perhaps dynamic pricing, driving creative digital products of the like of instant track and trace with predicted milestones.

What are the main customer pressures and motivations driving these changes? Is the growth in e-commerce traffic and pharma traffic leading to any significant changes to customer needs?

The customer seeks to increase efficiencies and pinpoint areas of improvement in order to compete better. E-commerce and special cargo such as pharma benefit from a better handling of relevant events, providing direct control and recovery with high level of

precision. So far, e-commerce has suffered from the lack of granularity as many cargo handling systems are too coarse in terms of the level of entities treated within their core (e.g. AWB-level view, but no detailed piece-level view). This is where the hardware investment (Bluetooth tags, RFID tagging, automatic piece location and processing detection) will come to its own; but again, it is a slower road due to the level of CAPEX required.

COVID-19 COMPLICATIONS

To what extent has COVID-19 changed the landscape – in terms of customer priorities and needs regarding technology in and around the air cargo warehouse?

COVID has had a dividing effect – for example, airlines have suffered a huge downward hit and their cargo arm has had to follow



suit in terms of digital investments. Other cargo handlers recovered quicker; some do not suffer as much. Some large networks have pushed their digital investment in a view to seize more market share; others have remained more sheepish and kept to stringent cost control.

To what extent have you been involved in airport cargo community initiatives? Has COVID significantly accelerated or decelerated any of these initiatives?

Hermes has accelerated its digital agenda with the more daring customers and the rewards will materialise in 2021. Hermes has jumped on quick wins first by providing strong track and trace capabilities and pushing its integration strategy, as well as partnering with community systems. These community systems, however, have to round up entire airports to be of value; and whilst the customer base is wide, the sale process is sometime complex and politically tortuous. Hermes and its community systems third parties or partners is facilitating the push due to its worldwide sites' software presence.

DIGITAL PRE-ARRIVAL INFO

Is the growth of digital pre-arrival information, encouraged by slot-booking and technologies and self-check-in kiosks, becoming a significant factor in the ability to digitalise the

warehouse environment?

This is where the community systems have come into their own – the main software providers in that space have invested well to provide accessibility to functions as slot booking, trucking etc. Hermes already has a self-check-in product but is also pushing to integrate to existing community systems or other self-check-in products. The digital pre-arrival information growth is encouraged by community systems, and its integration with cargo management systems.

How about the growth of so-called smart ULDs?

Smart ULDs are slowly but surely becoming a cornerstone of the digital agenda. They are “so called” perhaps in the sense that there is a hardware interface often required, again, prompting a heavier upfront investment.

To what extent are initiatives like IATA’s ONE Record significant in your plans and developments for the air cargo sector?

For Hermes, we always keep an eye on compatibility standards, and will implement IATA’s protocols and messages; but the digital changes occurring around the world spread far wider than the airline or air cargo realms, with very different and targeted events, data definitions or protocols.



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